

2006 Program Overview

Halifax Regional Municipality

Pesticide By-Law P-800 Respecting the Regulation of Pesticides, Herbicides and Insecticides

Executive Summary

Main Report

Section 1 - Introduction

Section 2 - Background

Section 3 - Program Components

Section 4 - Cost, Administration

Section 5 - Summary

December 2006



Stephen King, Manager
Sustainable Environment Management Office
Environmental Management Services



Executive Summary

By-Law P-800, Respecting the Regulation of Pesticides, Herbicides, and Insecticides (commonly known as the Pesticide By-Law) was approved by Halifax Regional Council in August 2000. The fundamental intent of the Pesticide By-Law (P-800) is to protect human health and the environment.

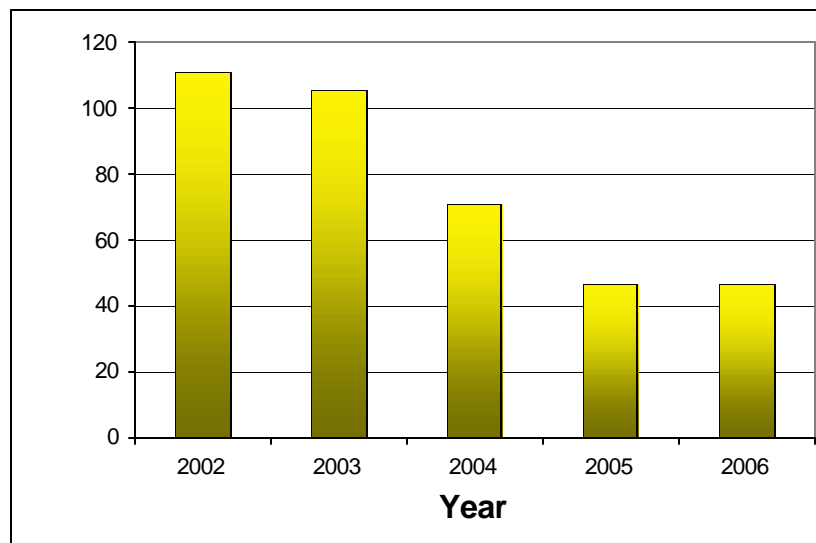
The Numbers (2006 Snapshot)

As shown in the charts below, there has been a considerable drop in the number of By-Law enforcement cases from 2002-2005 with a levelling off of the 2005 numbers in 2006.

A similar pattern has taken place from 2003-2006 with regards to the total number of permit applications received and approved.

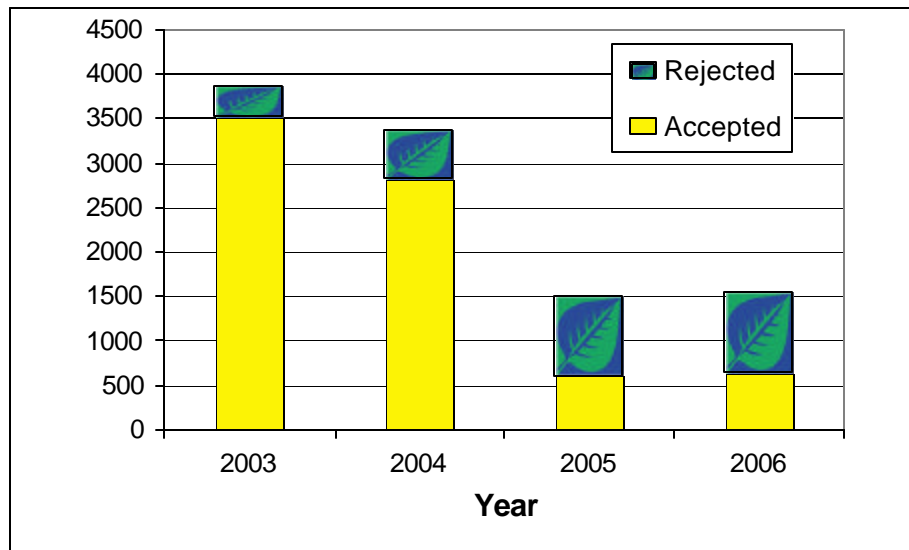
Enforcement

The number of By-Law Enforcement complaints received between April 1, 2006 and October 1, 2006 was 47. In comparison, 47 complaints were received in 2005, 71 in 2004, 106 complaints were received in 2003, 111 in 2002 and approximately 400 in 2001. (not shown on chart)



Permits

The numbers of permit applications received, as well as the approval percentages have been decreasing since 2003.



- The number of applications received this year was 1542, representing a small (2%) increase as compared to 2005. Approximately 98% of applications were for chinch bug problems and over 98% of the permit applications were submitted by companies.
- Of the 1542 applications, 628 were approved (40.7%) and 914 were rejected (59.3%).

Response Time

- The average response time for 2006 was 2.0 calendar days or just under 2 business days. Over 50% of the inspections were delivered within 1 calendar day.

Public Education and Awareness

- Since its inception in 2000, a companion comprehensive public education and awareness program to the Pesticide By-Law has been in place. This includes a series of Sustainable Landscape Maintenance Fact Sheets, brochures, TV advertisements, web site, Naturally Green Newsletter, etc.
As well, in 2006 there were six major education activities including: a mail-out in the spring of 2006, to 2005 pesticide permit applicants, education related to regular phone calls and permit inspections, presentations to students, information for retail staff and customers, development of online and print information resources, and compost topdressing trials.

Public Enquiries

- The Pesticide By-Law website received approximately 27,000 visits from January to September of 2006.
The third party contractor (EAC) for the permit / education process handled a number of public enquiries directly. Excluding administrative activities, the EAC received approximately 750 telephone calls. Approximately 70% were related to permit inspection

activities, while approximately 30% sought information on the bylaw, sustainable landscape maintenance information, and other educational initiatives.

Effectiveness

Independent surveys, public feedback and anecdotal information indicate that the By-Law is meeting its fundamental intent.

Efforts at the federal and provincial levels as referenced under Section 5 would address the public's continued concerns with the sale of restricted domestic use pesticides and greatly enhance the overall effectiveness of human health and environmental protection.

Section 1

Main Report

Introduction

The intent of this document (2006 Program Overview) is to provide the reader with a general overview of the 2006 Pesticide By-Law related activities.

It is presented in five sections:

Section 1 - Introduction

Section 2 - Background (History)

Section 3 - Program Components

- 3.1 - By-law Enforcement
- 3.2 - Communication, Education & Awareness
- 3.3 - Pesticide Permits & Data
- 3.4 - Research, Partnerships
- 3.5 - Data Management

Section 4 - Costs, Administration

- 4.1 - Operating Budget & Costs
- 4.2 - Administration

Section 5 - Summary

- 5.1 - Provincial, Federal Levels
- 5.2 - Administrative Order #23
- 5.3 - General Summary

Each section also identifies opportunities/recommendations to continue to enhance programs and service. Halifax Regional Municipality is committed to a “Healthy, Sustainable Vibrant Community” and continuous performance review and enhancement.

Section 2

Background (Brief history leading up to the By-Law)

The fundamental principles behind By-law P-800 include human health and environmental protection.

Discussions towards a municipal pesticide by-law began in earnest in 1997 when a Regional Councillor raised a question at Council on behalf of his constituents regarding regulating “toxic” products.

In 1998 a second Regional Councillor lobbied to make the regulation of pesticide-type products a municipal responsibility through the Municipal Government Act (MGA) and Halifax Regional Council forwarded the request to the Province of Nova Scotia.

In the spring of 1999 the Province granted authority to Halifax Regional Municipality (HRM) to regulate pesticide use within the municipality, with the enabling legislation specific to residential property and property owned by the Municipality.

HRM Council in the Summer of 1999 requested that an Advisory Committee be set up to provide advice to them on a pesticide related by-law. Subsequently an ad hoc Pesticide Advisory Committee, made up of industry, community, appropriate regulatory and environmental stakeholders, was established later that same year.

The Committee met on numerous occasions, with two distinct positions being established. One position sought a restriction on all pesticide use, while the other argued against the need for a by-law or restrictions. Therefore, in December of 1999, reports were forwarded to Regional Council on consensus and non-consensus items.

During the spring and summer of 2000, five supplementary reports were forwarded to Regional Council from staff, and three public hearing sessions were held during the formal reading process.

After this somewhat lengthy but very open public process, By-Law P-800, Respecting the Regulation of Pesticides, Herbicides and Insecticides, became effective August 19, 2000.

This by-law balanced the restriction of pesticide products with a notwithstanding clause which enabled pesticide use under very specific conditions and incorporated a process to notify neighbouring properties.

A general overview of the By-Law implementation stages is as follows:

Year 1 (2000/01): Ban on cosmetic use of pesticides on municipal property and commencement of public awareness programs.

Years 2 & 3 (2001/ 02): Commencing April 1, 2001, a ban on cosmetic use of pesticides on residential properties located within a 50 metre radius of:

- a property registered as being occupied by persons at risk who provide medical documentation;
- the boundary of any property containing any schools, licensed day care, playground, park, church, licensed seniors' residence, university or hospital.

Year 4 (2003): Commencing April 1, 2003, a general ban on the cosmetic use of pesticides would apply to all properties in HRM affected by the By-law.

The overview reports from 2001 to the present are available on-line at www.halifax.ca (follow the Pesticide By-Law or Naturally Green links to the Pesticide By-law web site).

Section 3

Program Components

3.1 By-Law Enforcement

Pesticide By-Law enforcement is carried out by the HRM By-Law Enforcement Section of the Halifax Regional Police Services.

Enforcement Strategy

The enforcement strategy for the pesticide by-law has been in accordance with the Regional Council approved Pesticide By-Law Enforcement Policy. This policy provided the strategic direction that:

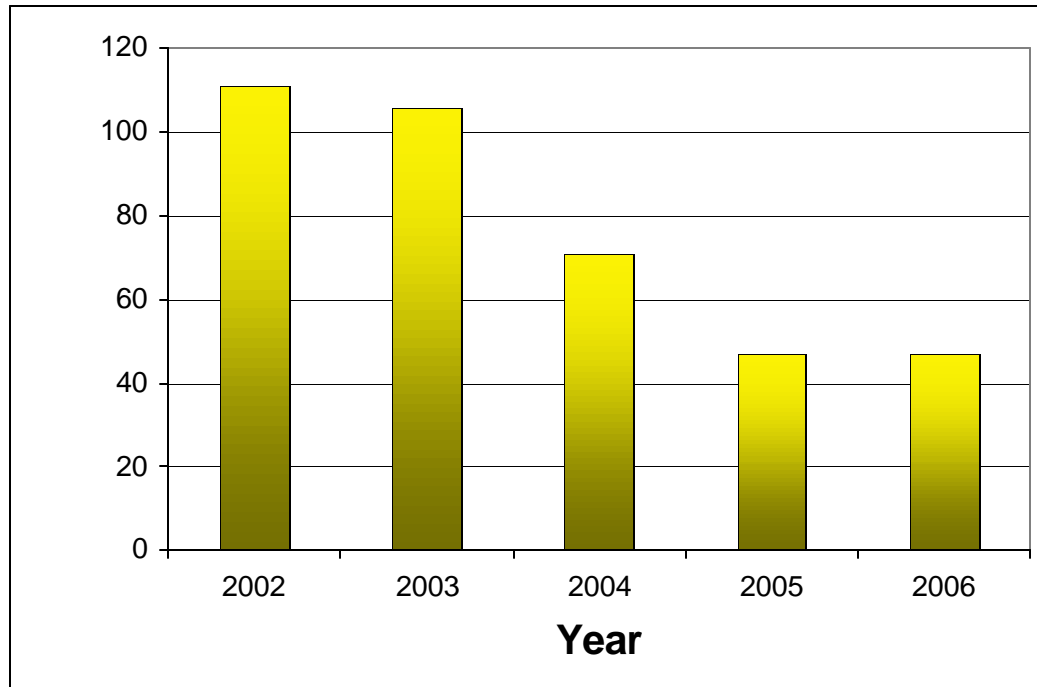
- Enforcement of the by-law will be reactive to complaints received and preventative enforcement patrols seeking violations will not be undertaken;
- Response times to complaints will depend upon location of the alleged violation and resources available. It is anticipated that given the staffing levels and the size of the municipality, staff will typically arrive after the alleged application has been applied;
- Investigation into alleged violations will rely primarily upon eyewitness testimony and physical evidence such as product containers;
- General Environment Canada weather reports will be utilized to determine alleged violations of the by-law's weather restriction. As a result micro-climate information will only be available through eye witness testimony.

For alleged violations, Council direction provided that:

- The first approach to achieving compliance with the by-law will be through attempted education, mediation and persuasion of alleged violators;
- Repeat violations will be ticketed and/or prosecuted where sufficient evidence is available to support such action.

By-Law Enforcement Operational Activity

The number of By-Law Enforcement complaints received between April 1, 2006 and October 1, 2006 was 47. In comparison, 47 complaints were received in 2005, 71 in 2004, 106 complaints were received in 2003, 111 in 2002 and approximately 400 in 2001.



All complaints were fully investigated and of the 47 complaints:

- 37 were regarding suspected use of pesticides, and
- 10 were regarding signage issues.

The case outcomes were as follows:

- in 3 cases, there was sufficient evidence to support a charge under the Pesticide By-Law.
- in the remaining cases, the investigating officer did not believe they had sufficient evidence to support a charge. These case files have been closed.

Response to complaints

- 85% of complaints were responded to within three business days. An officer was assigned to follow up on the complaint, taking statements from the complainant, property owner and, if applicable, the pesticide applicator.

3.2 Communication, Education & Awareness Programs

The overall Communications Strategy on the Pesticide By-Law and the accompanying Public Awareness and Education Programs on Sustainable Gardening and Landscape Maintenance alternatives to pesticides is of paramount importance and key to the success of the corporate pesticide use reduction initiatives.

The Pesticide By-Law is not a stand-alone initiative. It is an integral component of a much larger corporate umbrella addressing issues of environmental sustainability.

HRM is working towards a “Sustainable Community” that uses its resources wisely, reduces waste, promotes sustainable practices and provides quality services to its residents. This is

consistent with the corporate theme of a “healthy, sustainable, vibrant community”. The Pesticide By-Law therefore has been promoted with this theme and direction in mind.

Through continuous monitoring of calls and information requests, staff was able to prioritize public information and education needs and address them accordingly.

Major Components of the 2006 Public Education and Awareness Initiatives Include:

Examples

- Reprinting of Fact Sheet Series (7 different)
- Articles in 2 editions of the Naturally Green Newsletter that is delivered to all households in HRM
- Spring, summer, and fall TV commercials on Naturally Green
- Focused information mail-out to all 2005 Pesticide Permit recipients on sustainable alternatives to pesticides
- Several newspaper articles and stories
- Naturally Green and Sustainable Practices website
- HRM Corporate Call Centre
- Ecology Action Centre Pesticide By-Law website and brochure
- Compost Topsoil Use Guidelines with Landscape Nova Scotia
- Retailers’ Workshop

Public Displays, Home Show, Expositions, etc.

Examples include:

- NS Homebuilders Home Show - Halifax Forum - March 2006
- Kent Stores – Mic Mac Mall and Bayers Lake locations – May 2006
- Various smaller scale community events throughout the year

Telephone Enquiries

The HRM Corporate Call Centre acts as a first point of contact, providing names and instructions on accessing information and, if required, initiates an LIS service request for more detailed pesticide related enquiries. The call centre received 255 pesticide by-law related phone calls in 2006. Most were handled at first point of contact.

The Ecology Action Centre, the contracted vendor responsible for doing on-site permit inspections, also provides detailed information over the phone to the public on a wide range of landscaping and pesticide by-law topics. Excluding administrative activities, they fielded over 750 calls in 2006, approximately 70% related to permit activities and 30% related to information on the bylaw, sustainable landscape maintenance information, and other educational initiatives.

Face to Face Enquiries

Besides receiving 1542 pesticide applications from residents, the various HRM Customer Service Centres were available to respond to general public enquiries about the Pesticide By-Law. The Ecology Action Centre also played a key role in providing on-site information regarding sustainable landscape practices and the pesticide application process. Information was provided not only to individual applicants, but also to any neighbours present during the on-site visit.

The Ecology Action Centre also prepared presentations for an elementary school class, office “Lunch and Learns”, and the Nova Scotia Museum of Natural History “Nature Week”. Other presentations and information packages have been provided to businesses, municipalities and residents on request. Information packages were also hand delivered to a wide range of garden centres and retailers that carry pesticides.

HRM Website Resources on Pesticide By-Law and Sustainable Management Practices

Along with its regular programs and information, HRM has also accessed a number of excellent resources and information on sustainable maintenance practices, and has made electronic links to them from the web site so the general public can have access to them directly as well. The Pesticide By-Law website received nearly 27,000 visits from January to September 2006.

Education and Awareness Partnerships

In order to maximize resources and directly reach as many people as possible, a number of internal/external partnerships and a somewhat social marketing approach has been utilized over the past several years in order to get to the community grass roots, figuratively and literally.

Public awareness and educational efforts have included external partners such as the Canadian Wildlife Federation, Dalhousie University, Nova Scotia Agricultural College, Landscape Nova Scotia, Clean Nova Scotia, Ecology Action Centre, and garden centres and retailers in the region and internal partners including the Halifax Regional Library, HRM Environmental Initiatives Committee, various internal HRM units such as: Marketing, Design and Print Services, HRM Customer Service Centres and HRM Corporate Call Centre. There are other external and internal partners as well.

Over the past few years, these partnerships helped leverage other funding, training and communication opportunities providing excellent value for HRM taxpayers.

Public Education and Awareness Opportunities

The companion public education program to the Pesticide By-Law of “Sustainable Gardening and Landscape Maintenance Practices” has gone well since its inception with the By-Law in 2000.

External partnerships with qualified groups and associations have provided excellent value and success.

Other educational opportunities for future consideration where budgets permit include:

Issue	Potential Remedy
<p>Some residents and industry have expressed concerns regarding residents who purchase pesticide products from local retailers. The pesticide by-law restricts the use of restricted products; however, the sale of such products falls under provincial and federal jurisdiction.</p> <p>Additionally, many retailers would like to remove restricted pesticide products from their shelves, but are concerned that they will lose revenue (through customers shopping at competitors' stores) if they do so.</p>	<p>Continue to request action from Health Canada to put in place approved health and environmental protection changes to the Pest Control Products Act regarding pesticide sales.</p> <p>Include retail outlets in overall communications strategies.</p> <p>Raise awareness of this issue with the provincial government and encourage the province to adopt legislation restricting the pesticide products sold in retail outlets.</p>
<p>“Lunch and Learn” and school presentations were very well received.</p>	<p>Increase the number of “Lunch and Learn” and school presentations conducted by using existing EAC and other community networks to approach interested offices and schools.</p>
<p>Retailers would like continued education on the pesticide bylaw, sustainable gardening and permitted/restricted products.</p>	<p>Develop additional television advertisements (Naturally Green Theme) on the pesticide bylaw to raise awareness about the pesticide bylaw to the general public.</p> <p>The bylaw programs have always included some educational initiatives for retailers; however, these initiatives should be expanded. As retailers launch their garden centre orientation sessions in late winter and early spring, the contract to run the pesticide bylaw programs should be awarded in late February/early March to ensure that these initiatives can take place.</p>
<p>Residents contact EAC for information regarding enforcement procedures, EAC directs them to enforcement programs, but residents later report frustrations that charges could not be laid because it is currently difficult to prove that illegal pesticides are used. Landscape and lawn care companies have expressed similar concerns, and support for better enforcement mechanisms.</p>	<p>Continue education with enforcement officers</p> <p>Improve communications within the enforcement system. For example, those who call in pesticide bylaw related complaints should be informed of the result.</p>

3.3 Pesticide Permit Application/ Assessment/ Education

Background

In accordance with Section 6 of the Pesticide By-law, under the notwithstanding clause 6(2), a pesticide application may be carried out within a prohibited area if it is to control or destroy plants or insects if such plants or insects constitute a danger for human beings or to control or destroy insects which have infested a property.

The Pesticide Permit Application system was established in 2001 to assist with the administration of these notwithstanding clauses. On May 1, 2001 Regional Council approved the assigning of on-site pesticide permit application approval/ rejection capability for permit inspectors. This helped streamline the process. Further, Regional Council also approved on January 9, 2001, an amendment to Administrative Order #15 (Respecting Licence, Permit and Processing fees) that there be no fee for a Pesticide Application Permit. Staff believe this helped prevent a cost deterrent to properly apply for a permit.

Pesticide Permit Application Process

An application for a pesticide permit can be made in one of the following ways:

- 1) The landscaping company can apply online for their customer via the HRM website.
- 2) If the homeowner plans to apply the pesticide themselves, the homeowner can apply for a permit online via the HRM website.
- 3) A homeowner can download and print an application form for the HRM website.
- 4) A homeowner can obtain a permit form from one of the HRM Customer Service Centres.

In all case, information is reviewed by the Customer Service Centres to ensure it is pertinent and complete, and is then added to a database and sent to the third party inspectors for an on-site assessment of the pest problem. Residents receive a copy of the permit on-site. Should the inspectors give their approval, the resident or their landscape/pest control company may apply the pesticide.

As part of the companion education program, educational materials are provided to the resident on sustainable landscape methods and alternatives whether or not the application has been approved.

On-Site Pesticide Permit Application Assessment

On-site inspections were conducted by the Ecology Action Centre (EAC). This year was the third season in which the EAC carried out this work under the contract.

Who is the EAC ?

The Ecology Action Centre (EAC) is a non-profit organization that has been providing information to the public regarding environmental issues for over 35 years. The EAC has over 1000 members, 250 volunteers, 30 staff, and seven active issue committees and is supported by the Managing Director, Office Manager, Outreach Coordinator and board of directors. EAC

was the successful bidder in response to a request for proposals respecting the Halifax Regional Municipality (HRM) Property Pesticide Application Assessment Program and Related Public Education and Awareness Program. The EAC has been a supporter of the pesticide bylaw since its inception and shares the fundamental objectives of human health and environmental protection.

The applications are received by the EAC near the end of each day, at which time schedules of the following day's site visits are arranged. All applications are sorted into geographic areas and an inspector is assigned to that area for the day.

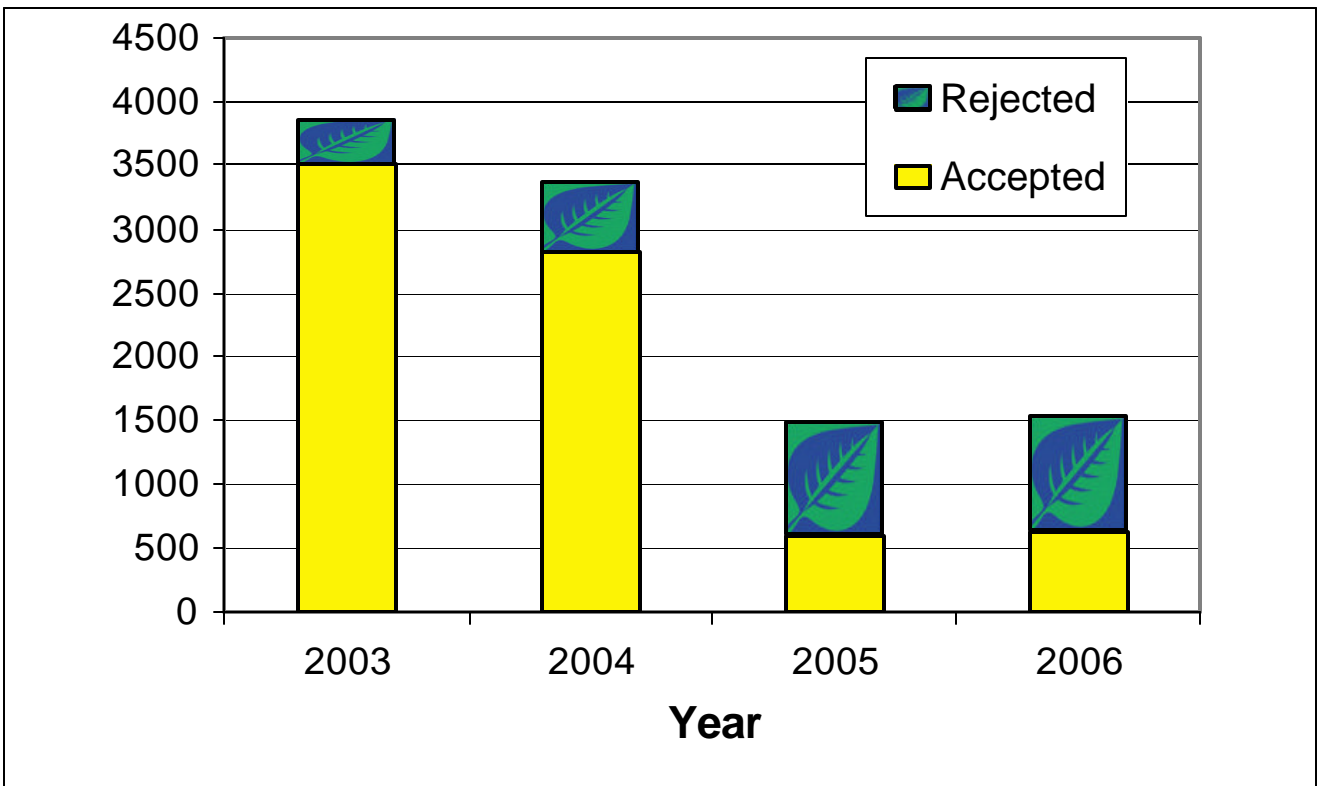
Pesticide Permit Inspection Programs

The Ecology Action Centre (EAC) was contracted to deliver permit inspections on average within 2 business days. The average response time for 2006 was 2.0 calendar days or approximately 1.8 business days. Over 50% of the inspections were delivered within 1 calendar day.

This year 1542 permit applications were received, representing an increase of approximately 2% as compared with 2005 figures. Approximately 98% of applications were for chinch bug problems. Sod webworms (16 applications), leather-jackets (3 applications), and grubs (1 application) were the other more frequently cited problems. Approximately 98.5 % of applications were submitted by companies on behalf of their clients.

Permit decisions from 2003-2006 are as follows:

Permit Decisions	2006	Percent	2005	Percent	2004	Percent	2003	Percent
Approved	628	40.7%	595	40%	2765	82%	3505	91%
Rejected	914	59.3%	896	60%	550	16.5%	358	9%
Other	0	0%	0	0%	50	1.5%	0	0%
Totals	1542	100%	1501	100%	3365	100%	3863	100%



2006 (Two Specific) Permit Issues

There were two specific permit related issues in 2006.

Permit Approvals

One involved a series of complaints with most, if not all, of the calls relating back to the same pesticide application company. Calls received were from the company directly, its customers and/or a combination of its customers and elected officials. All of the calls related to the permit approval process.

Remedy

Each and every call was fully followed up and remedies included alternative products, re-inspections, and where conditions changed/warranted issuing of a permit.

Lawn Bowling Greens

The By-Law extends to residential use and property of the Municipality. Therefore municipally owned outdoor natural turf lawn bowling greens are included.

Lawn bowling greens are highly manicured and maintained (mowed 3-4 times weekly) recreational turf areas. High maintenance practices including extensive mowing, fertilizing,

watering, etc. can create physiological situations making the turf much more susceptible to disease, i.e. fungal problems.

The By-Law does not include fungal infestation under the notwithstanding clauses and the lawn bowling green maintainers had applied for a permit to spray fungicides on the greens in 2006.

Remedy

Therefore, the EAC was requested to work closely with the HRM Parks and Ground staff and with Lawn Bowling Clubs to seek out effective alternatives.

This included contacting local and regional golf green managers who were having success with alternative organic products and maintenance practices. Turf researchers were also contacted.

An alternate product (compost tea) was to be applied on the Bowling Greens in the late fall arranged by HRM Parks Grounds and its overall effectiveness will be monitored.

Companion Education and Awareness Programs

On-Site Education Programs

One of the goals of the supporting educational programs of the By-Law programs has been to assist residents in transition to alternative methods for managing pest problems. Efforts are made to make one on one contact with the homeowner. Last year the Pesticide Management Regulatory Agency (PMRA), a branch of Health Canada, granted permission to demonstrate the use of household liquid dish soap (2% solution in water) to residents who have chinch bug problems. Only homeowners are allowed to use household liquid dish soaps on chinch bugs. Companies must use registered products, thus this does not provide a product that companies could sell as part of their products or services.

Only one registered product (active ingredient), Carbaryl, was available for use on chinch bugs in 2006. The PMRA, for health and safety reasons, has been removing some pesticides from the market (e.g. Diazinon, chlorpyrifos) and has made recommendations for future products removals. One such group of chemicals is carbamates, which includes Carbaryl. No timelines have been set for its removal and no alternative products are known to be in development as replacements. The HRM is working with partners and the federal government to determine the potential for registering a soap-based or other similar product that could then be used by both residents and companies.

Response to soaps

The experience so far is that, when the EAC meets a resident on-site and has the opportunity to work with them, the majority of residents are pleased to have an alternative they can pursue which is considered safer than the traditional pesticides for chinch bugs. Residents with chinch bug problems, that may have warranted a permit previously, are instead attempting to use a less toxic method before considering pesticides, restricted or regulated in HRM.

Use of soaps may not be as successful in all cases due to a lack of technical expertise among residents and differences in their use of soap solutions. Ideally, it would be much better to have a registered insecticidal soap product available to companies. This would provide a better product, a role for companies, and improved outcomes for residents. This is a strategic initiative described later in this report.

Other components

The Ecology Action Centre also carried out the companion public education and awareness program on sustainable alternatives to pesticides.

This was the third year for a mail-out to pesticide permit recipients from the previous year, providing helpful tips and approaches to minimize re-occurrence of pest problems. It was the second year to let residents know that household soaps could be used as part of their approach to chinch bug problems. The letter maintained support for the local lawn care industry and directed residents to solicit their expertise in addressing pest problems. The letter also included a survey with questions regarding the use of pesticide permits last year, their experience using soap, and sustainable landscape maintenance practices that have been implemented on properties in the past year. Approximately 70 residents returned survey responses (approximately 5% of those surveyed), which is a relatively good response rate given there were no self-addressed, postage-paid envelopes provided.

Inspections form an integral part of the education programs since they provide opportunities to discuss pest problems directly with the residents. Education efforts during inspections focused on residents using liquid soap solutions as part of their approach to chinch bug problems, and sustainable landscape maintenance practices that could be implemented immediately and over the long term. We wanted to ensure that as many residents as possible had the information they needed and the opportunity to try, where applicable, soap solutions before pursuing a permit through the programs. Additionally, residents were given print materials on sustainable lawn maintenance, signage and notification requirements, and the health effects of pesticides.

Presentations for an elementary school class, an office “Lunch and Learn”, and for the NS Museum of Natural History “Nature Week” were carried out. Other presentations and information packages were provided to businesses and residents on request.

Retailer Information/Education

Information packages were delivered to retailers of pesticides and lawn or garden maintenance products in HRM. Retailers were offered staff presentations and ideas for staff training and product placement. Presentations to the upper and middle management of two major retailers was also done. Additionally, the EAC was present in two retail outlets on May 20, answering customer questions about sustainable lawn maintenance and permitted/restricted products. The EAC wrote an op/ed piece, which appeared in the July 25, 2006 edition of the Chronicle Herald. The piece, entitled “Why are some stores still selling banned pesticides?”, discussed the role of retailers in supporting the pesticide By-Law.

An HRM / EAC jointly sponsored workshop for retailers in HRM was held on October 24th. The meeting was very well attended, attracting more than fifty individuals from retail outlets, government agencies, and non governmental organizations (i.e. Landscape Nova Scotia, Real Alternatives to Toxins in the Environment) The aim of this workshop was to engage in a collaborative exercise that encourages garden centre retailers to learn more about the by-law, discuss voluntary removal of restricted products and alternative marketing strategies to support this initiative. The feedback of ideas from retailers identified a need for an increase in store level education for both staff and customers, a desire for provincial support of the bylaw, and to continue with workshops and lectures on the bylaw and alternative landscaping practices and products.

New Brochure

This past spring the EAC developed a brochure, entitled “Turning Over A Leaf”. The brochure outlines the intent of the bylaw, lists permitted and restricted pesticides, and gives sustainable maintenance tips. There is also a poster version of this document, suitable for posting in retail outlets. The brochure was given to bylaw enforcement officers, HRM Customer Service Centres, and the HRM Welcome Wagon for them to give to residents. Additionally, the EAC distributed the brochure to permit applicants, retailers, and garden centres. Several thousand copies were distributed in 2006.

Top Dressing Trials

The EAC conducted compost topdressing trials on 17 properties this summer. The properties used in the trials were ones that had experienced chinch bug problems in past summers. Each property was aerated, over seeded, and top dressed with compost. Properties were monitored throughout the summer. In general, the participating properties were a deeper green than neighbouring properties. Residents were happy with the results and one resident in particular noted that he had no problems with chinch bug this summer. Details of the topdressing trials, with photos, are available on the EAC website.

Pesticide Permit Administration/ Process Opportunities

As indicated in 3.2 Communication, Awareness and Education, external partnerships with qualified third parties has provided excellent value and success. HRM has been mainstreaming the By-Law, including consideration of longer term (i.e. 3-5 years) third party contract for pesticide permit application assessment programs and related public education. Should further action on pesticide related issues be taken at the provincial or federal level, the pesticide permitting system may no longer be needed and the focus would shift to education and research activities.

Some additional opportunities identified by EAC for consideration include:

Issue	Potential Remedy
<p>There has been a positive trend in the reduction of permit applications. However, many residents fail to make changes in order to prevent pest problems from reoccurring, but in some cases, are still granted a permit year after year.</p> <p>Some residents have been expressing concern regarding permits granted near schools, wells and other sources of water, and near residents with specific health concerns. Permits are assessed and approved within the current language of the bylaw.</p>	<p>Explore mechanisms to ensure that residents employ better practices that help prevent dependence on pesticides.</p> <p>Continue to improve the property review process. Ensure consistency with federal and provincial guidelines, legislation and policies. Federal implementation of the new Pest Control Products Act and recommended changes to the Pest Management Regulatory Agency would help greatly.</p>

3.4 Research, Partnerships

Several partnerships and sustainable practices research has been undertaken since 2000 and these are chronicled in the previous Program Overviews. They have provided excellent value and success.

Partnerships and Research Opportunities for 2006 and beyond include:

Topsoil Availability/ Sustainability Partnership

Sufficient and proper topsoil is a fundamental component of sustainable gardening and landscape maintenance. The best defence against pests is healthy plants and soil.

Regional Council has raised the issues around insufficient and/ or poor quality topsoil at new home construction sites resulting in pest and maintenance problems for the homeowners shortly thereafter.

Regional Council therefore asked staff to look at ways where HRM could influence better topsoil practices at new home construction sites.

Staff provided Regional Council with an Information Report in 2005 outlining a three-phased approach:

1. Soils Project with Landscape Nova Scotia
This partnership opportunity involving a number of key partners and stakeholders will provide much needed education and awareness on the importance of topsoil, and establish a new paradigm that addresses sustainable long term solutions.
2. Link to Regional Planning
Look at topsoil within the context of environmental sustainability.

3. Future Legislative Opportunities

Create/amend municipal by-laws if necessary.

Action on this issue to date are as follows:

1. There is a proposed plan for a 2007 advertising campaign centred around topsoil sustainability
2. Environmental sustainability is a key guiding principle of the Regional Plan
3. From a legislative perspective, this matter is being reviewed within the context of Topsoil and Lot Grading By-law harmonization being led by the Community Development Department of HRM. This includes topsoil considerations in any new harmonized By-Law.

Further Research Opportunities

Depending upon resource availability, future third party applied science research on such things as the link between compost topdressing and chinch bug control or on the efficacy of soap on chinch bug may be beneficial.

Strategic Activities - EAC Partnership – Added Value

EAC has initiated several strategic activities, beyond the contract requirements, that will greatly enhance By-Law programs including: a move to register insecticidal soaps for chinch bug control in Canada, developing the Sustainable Properties Showcase, and conducting topdressing trials (the two latter initiatives are detailed in the education section above).

Commercial insecticidal soap products have already been registered for use on chinch bug in the U.S., EAC has researched the process for an insecticidal soap product to be registered for use on chinch bug and has spoken to manufacturers in Canada about the possibilities for registration of their products. The main barrier to the registration of these products appears to be a lack of access to efficacy data. Correspondence with the PMRA suggests that in the meantime homeowners may use household soaps, but not commercial insecticidal soaps, as a physical control for chinch bugs.

3.5 Data Management

Permit Application Database

Currently an electronic database is maintained and administered by HRM Customer Service Centres. Once entered into the database, the application is assigned an identification number and forwarded to the Ecology Action Centre for the on-site assessment. During inspection the application is either approved or rejected. Once the inspection is complete, the Ecology Action Centre (EAC) provides a paper copy back to the Customer Service Centres for data input.

Section 4

Costs, Administration

4.1 Operating Budget and Costs

Maximizing Resources

Since the inception of By-Law P-800 in 2000, several internal and external partnerships have been developed that not only help keep costs down, but also help provide for an enhanced pesticide use reduction program and related public education and awareness campaign on sustainable landscape maintenance.

Internally, we have utilized centralized corporate resources such as the Call Centre, HRM Customer Service Centres, By-Law Enforcement, in-house marketing and communication staff and positioned the pesticide use reduction initiatives under the “Naturally Green” corporate umbrella. This has allowed further partnering and cost sharing through joint newsletters, promotion and advertising.

Externally, HRM has partnered with the Ecology Action Centre, Landscape Nova Scotia, Clean Nova Scotia, various community groups, the Nova Scotia Agricultural College, Halifax Regional Libraries and others, in delivering a comprehensive public education and awareness program on sustainable gardening and landscape maintenance. Original estimate (2000) to annually administrate the Pesticide By-Law was \$308,000.

Effective internal and external partnerships has allowed staff to keep the annual operating costs substantially below the original estimate yet still deliver responsive programs and services. The budget has remained relatively consistent since the inception of the Pesticide By-Law, including the 2006 budget. To date, since the By-Law’s inception in 2000, savings of over half a million dollars have been realized from the original estimates. Effective community and industry partnerships and stewardship have been key to this success.

2006 Approximate Costs

• Contracted Permit Process and Companion Public Education Program -	\$ 98,000
• By-Law Enforcement, Administration, etc. * (carried out by centralized HRM Services) –	\$ 75,000
• Workshops, Reprinting Brochures, etc.	\$ 5,000
Total -	\$ 178,000

** The Full Time Equivalents (FTE's) were transferred several years ago to the Centralized Services Group.*

As HRM continues to mainstream the By-Law and its related services and programs, consideration will be given to extending the terms of third party contract where it is deemed to be more cost and operationally effective for HRM.

4.2 Administration / Policy Direction

The Sustainable Environment Management Office of Environmental Management Services is responsible overall for the strategies management and policy direction of the Pesticide By-Law and related public education and awareness programs on sustainable practices.

Section 5

Summary

5.1 Provincial & Federal Levels

The registration, classification, and sales of pesticide products are federal responsibilities, with the Province of Nova Scotia responsible for vendor and applicator licenses, monitoring and data collection.

The new federal Pest Control Products Act was approved by Parliament in December 2002; however, the implementation and administrative policies only came into effect in June 2006. The federal agency responsible for the pesticide re-evaluations, re-reviews, re-classifications, public education and awareness is the Pest Management Regulatory Agency (PMRA), a division of Health Canada

At the provincial level, the Nova Scotia Department of the Environment and Labour administers the provincial pesticide applicators and vendors certification program. Business operators (vendors) are required to certify annually and report year-end sales records by pest. Pesticide applicators are required to renew their pesticide application certificates every five years. There are approximately 150 registered vendors' province wide and about 2,000 certified applicators province wide, according to the Provincial Department of the Environment and Labour.

Provincial and Federal Legislative Opportunities

At the federal level, there is an excellent opportunity for the federal government and its provincial partners to work on harmonizing the domestic pesticide product classification system to remedy issues at point of sale, particularly with regard to the sale of cosmetic pesticides in regions where cosmetic pesticide are restricted from use. For example, restricted pesticides could be put behind the counter, could require a special license for their use, or could be removed from shelves completely.

At the provincial level, staff see potential opportunities for the provincial department of the Environment and Labour to enact legislation, similar to the Pesticide Code enacted in Quebec, which provides province wide consistency and enhanced human health and environmental protection by restricting cosmetic pesticide use and sales across the province.

Letters to the Provincial and Federal Governments

In 2006, letters were sent through the Mayor's Office to the Federal Minister of Health regarding pesticide sales and the Pest Control Products Act (PCPA) and to the Provincial Minister of Environment and Labour regarding changes to the Environment Act to regulate the sale of domestic class pesticides.

In the response from the Honourable Tony Clement, Minister of Health, the Minister advised that a federal/provincial/territorial (FPT) initiative to harmonize domestic pesticide classification systems is underway. Its goal is a more controlled use of products available to the general public for personal use in and around their homes.

A FPT working group is currently working towards a Fall 2006 consultation process on a new framework for domestic product classification in Canada. This would provide nationwide consistency and a remedy for the community's concerns regarding the retailing of restricted domestic pesticides.

In the response from the Honourable Mark Parent, Minister of the Environment and Labour, the Minister advises that changes to the Environment Act are not required to enable the department to regulate the sale of domestic class pesticides. Rather, the regulation of domestic class pesticides would require changes to the Pesticide Regulations. The Minister further went on to say;

“To facilitate this type of change in the Pesticide Regulations, the Department would have to first divide all federally registered domestic class pesticides into two sub-classes based on potential health impacts and environmental risk. Implementing the regulation change would then require the Department to develop an extensive program of compliance assistance for vendors and conduct regular inspections of all retail outlets in the province who sell domestic class pesticides. The Department does not have the staff and resources to undertake a program of this nature. As a result, I do not envisage a change to the Pesticide Regulations.”

In brief, changes would only need to be made to the Regulations, not the Act, however the Nova Scotia Department of the Environment and Labour advises that they do not have the staff and resources to carry this out. This is unfortunate as these activities could greatly enhance human health and environmental protection.

5.2 Administrative Order #23

Administrative Order Number 23, Respecting Pesticides, Herbicides, and Insecticides Excluded from the Pesticide By-Law is a companion document to the Pesticide By-Law P-800 and provides a list of permitted pesticides which are excluded from the provisions of the Pesticide By-Law. It was approved by Regional Council on August 22, 2000.

The list includes such products as insecticidal soaps, BT (*Bacillus Thuringiensis*), dormant oils, lime sulphur, etc. Staff use a science based protocol (established in 2001) to amend the permitted products list.

Opportunities Regarding Administrative Order #23

Depending upon what continues to happen at the federal level regarding pesticide re-reviews and reclassifications, Administrative Order #23 may not be required in the future. In the interim it provides local remedies until desired federal policies and programs are in place.

Other Potential Options

One way to resolve difficulties with recognition of products would be an option to formally adopt the Organic Materials Review Institute (OMRI) system. The permitted products list could be linked to OMRI, a non-profit organization that reviews substances for use in organic production, processing and handling. By linking the permitted products list to OMRI, the list would remain up to date, as newer, safer products come on to the market and older ones are found to be unsuitable. Because OMRI is based in the United States, some of the products reviewed by OMRI are not available in Canada. However, the Atlantic Canadian Organic Regional Network has created a database based on OMRI and the Canadian General Standards Board (CGSB). This database lists specific products and gives detailed information on their use. This database could be a valuable resource to homeowners in the HRM.

5.3 General Summary

Overall, the programs and services of By-Law P-800, Respecting the Regulation of Pesticides, Herbicides and Insecticides and related education and awareness programs appears to be going well.

The intent of the By-Law, to protect those medically affected by pesticides and also to protect the environment, appears to be effective. The By-Law is meeting its fundamental intent.

In the bigger picture of a sustainable, healthy community, the general public, as witnessed in opinion polls, surveys and public feedback over the past 3-4 years, is embracing Regional Council's leadership and direction in pesticide reduction by practising sustainable alternatives to pesticides in the maintenance of their own properties.

Details and overviews of the various processes related to the Pesticide By-Law are discussed in the preceding sections of this report. Opportunities and options to continue to streamline and enhance service delivery of the By-Law and related functions are also presented in each appropriate section.

This also includes enhancing human health and environmental protection.

As HRM continues to mainstream the By-Law and related activities, consideration will be given to longer term third party partnerships/ contracts for the permitting process and related public education and awareness and applied science research where funding is available.

Communication, public awareness and feedback have been key factors in all of the Pesticide By-Law related activities and will continue to be.