
CITY OF KELOWNA

MEMORANDUM

Date: May 8, 2002
File No.: 6130-13

To: City Manager

From: Parks Manager

Subject: Integrated Pest Management Program

RECOMMENDATION:

THAT City Council receive for information the May 8, 2002 report from the Parks Division on the Integrated Pest Management program.

BACKGROUND:

In April of this year City Council requested a report on our Integrated Pest Management (IPM) program. The IPM program initiated by the Parks Division in the early 1980's was one of the first such programs in Canada. Similar programs were later initiated in Vancouver (1987), Victoria (1992), Calgary (1998) and many other Canadian municipalities.

Integrated Pest Management (IPM) is defined under the British Columbia Pesticide Control Act (1997) as "a decision making process that uses a combination of techniques to suppress pests and that must include but is not limited to the following elements:

- (a) planning and managing ecosystems to prevent organisms from becoming pests;
- (b) Identifying potential pest problems;
- (c) monitoring populations of pests and beneficial organisms, pest damage and environmental conditions;
- (d) using injury thresholds in making treatment decisions;
- (e) reducing pest populations to acceptable levels using strategies that may include a combination of biological, physical, cultural, mechanical, behavioural and chemical controls;
- (f) evaluating the effectiveness of treatments."

The program instituted and managed by the Parks Division incorporates all of these aspects, with particular emphasis on good horticultural practices, preventative techniques and the reduction of chemical use. IPM is widely accepted as the most responsible and effective means of managing pests.

In 1996 the Province of British Columbia made it a requirement for municipalities in the Southern Interior Region to submit a Pest Management Plan. This plan is a component of our annual permit approval through the Province.

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Some examples of IPM initiatives in the Parks Division include:

- Tolerance thresholds were first developed in the early 1980's for various pests. Thresholds have been re-evaluated every year and have generally been increasing; i.e. higher levels of damage are now accepted before any action is deemed necessary. For some pests (e.g. leaf-roller caterpillars) no treatment is now the standard strategy.
- The Parks Division is actively investigating new alternatives such as the "Aquacide Environmental Weed Control System" which kills weeds using only steam and hot water.
- Broadcast spraying of herbicides on sports fields has not been practiced in Kelowna Parks for a number of years. The Parks Division utilizes a fully shrouded Ultra Low Volume sprayer, which allows spot treatments and no drift. Good horticultural practices (e.g. overseeding, aeration, top dressing) are relied upon as the primary means of controlling weeds in sports fields. Playgrounds are not treated with pesticides.
- Preventative strategies, such as the use of pest resistant plant materials are an increasing component of the IPM program, particularly in construction of new parks or tree planting initiatives.
- Release of biological control agents (e.g. natural predators, 80,000 ladybird beetles are released in the downtown each year) to control pests.
- Every year the inventory of pesticides in stock is re-evaluated. In recent years a number of chemicals in the pesticide inventory have been disposed of as they no longer meet the guidelines in the Parks Division's IPM plan.
- Public education is critical to on-going IPM efforts. In many cases, staff are able to avoid the application of pesticides and alleviate the concerns of residents through a process of education.

The Parks Division has not increased the use of pesticides to keep pace with the Parks inventory, which has more than doubled in recent years. The pesticides that are now being used more heavily are those that are considered to be quite safe, such as dormant oil.

The Parks Division maintains a staff of highly trained personnel who are practicing IPM and responsible pest management techniques at the leading edge of this field. Sixteen Parks employees are accredited by the Province with an IPM / Pesticide Applicators certification, but essentially only one person actually applies pesticides. This ensures pest problems are identified and reported to program delivery staff. Early detection usually results in less aggressive action. Ian Wilson (Urban Forestry Supervisor) possesses a Master's degree in Pest Management (M.P.M.) and manages the program. The City employs a full time IPM pesticide applicator with many years of experience who only uses chemicals as a last resort. Parks staff regularly attend meetings held by the Interior Environmental Pest Management Association (IEPMA) and are continually upgrading their knowledge in this area.

In addition to the above the Environment Manager supports the IPM program as it is in keeping with the City's environmental policies.

Rationale for the Use of Pesticides in an IPM Program

IPM programs strive to minimize but do not eliminate pesticide use. The rationale for the continued, responsible use of some pesticides are:

- All pesticides used by the City are approved federally and provincially and go through an exhaustive range of tests prior to their approval. The Pesticide Management Regulatory Agency (PMRA) is currently re-evaluating all active ingredients registered prior to 1995 to ensure that they meet modern safety standards, especially with regards to children. Dursban and Diazinon are two products that were recently targeted for a voluntary phase out. The Parks Division is also phasing out these products and usage in 2001 was negligible.
- As older classes of pesticides are phased-out, newer alternatives are slowly becoming registered in Canada, many of which are already registered in the United States. Most of these chemicals are more environmentally friendly and more target-specific.
- Even among Canadian municipalities that have completely “banned” the use of pesticides there are many exceptions that are still permitted, such as the use of dormant oil, soap, and Btk.
- Chemical control is still one of the most effective and economical means of pest control.
- Some pest problems may pose a public health hazard (e.g. Douglas-fir tussock moth), or could significantly impact on economic activities in this area. Failure to treat gypsy moth on southern Vancouver Island in the late 90's resulted in an American quarantine on certain products shipped out of this area. Initially the Americans requested quarantine on all products shipped from British Columbia.
- Public consultation for the proposed tussock moth spray on Knox Mountain Park in 1999 indicated public support for the responsible use of pesticides, as they were concerned with the potential impact on trees within our park. The pesticide in this case had a fancy name “nuclear polyhedrosis virus”, which was ground up tussock moth with the virus which naturally exists at various levels within the tussock moth population mixed with molasses and water. This biological insecticide is classified as a pesticide.
- Banning the use of pesticides by the Parks Division would have no significant environmental benefit as we use a minute fraction of the pesticides in a City. Having highly knowledgeable Parks staff educating the general public on an IPM program through various events such as the Mayor's Environmental Expo would be more beneficial.
- If pesticides are banned, elimination of our hanging baskets and some of our floral displays are a possibility as pests or mildews couldn't be controlled.

In conclusion, the Parks Division wholeheartedly supports efforts to minimize pesticide use. IPM is a proven effective process that includes the responsible use of pesticides as one of many tools for managing pests. The Parks Division will continue to educate the general public on IPM.

Joe Creron
Parks Manager

cc Director of Parks and Leisure Services
 Urban Forestry Supervisor
 Director of Works and Utilities
 Environmental Manager