



To: Richmond City Council
From: Councillor Linda Barnes
Chair, Community Safety Committee
Re: **Pesticide Use Management in Richmond**
Date: April 19th, 2004
File: 10-6125-01

The Community Safety Committee, at its meeting held on Wednesday, April 14th, 2004, considered the attached report, and recommends as follows:

Committee Recommendation

- (1) *That a community-wide policy approach be adopted to address concerns pertaining to pesticide use which:*
 - (a) *ensures responsible corporate pesticide management*
 - (b) *in partnership with the community, facilitates information sharing and the adoption of preferable practices that reduce pesticide risk; and,*
 - (c) *encourages stronger management by senior governments to better protect human health and the environment.*
- (2) *That the proposed Pesticide Risk Reduction Policy (attached to the report dated March 29th, 2004, from the Manager, Emergency & Environmental Programs), be referred to the City's Advisory Committee on the Environment (ACE) and Agricultural Advisory Committee, Richmond Health Services, and other stakeholder groups for input.*
- (3) *That staff report to the Community Safety Committee in October, 2004, with results of the input from the stakeholders referred to in Part (2) above, for discussion.*

Councillor Linda Barnes, Chair
Community Safety Committee

Attach.

VARIANCE

Please note that staff recommended the following for Part (3):

- (4) That staff report on a finalized policy and detailed implementation strategy for Council's consideration in October, 2004.

Staff Report

Origin

There has been increasing public concern in communities across Canada over the use of pesticides and their potential impacts on human health and the environment. In response, staff have been investigating options for addressing issues pertaining to pesticide usage in Richmond. In addition, the City of Richmond Council received correspondence from community groups encouraging the City to develop strategies to reduce pesticide use (Attachment 1). Pesticide management has also been identified as an issue of concern in the City's Agricultural Viability Strategy and by the City's Advisory Committee on the Environment.

This report evaluates potential options and recommends the adoption of a policy approach for addressing concerns pertaining to pesticide usage throughout the Richmond community.

Background

Pesticide Use

There are more than 7,000 pesticides registered in Canada. Agricultural use is the highest, accounting for 91% of total Canadian sales. While domestic use accounts for much less of total Canadian sales (approximately 5%), studies have found that pesticides can be applied in urban areas at significantly higher concentrations than that applied on agricultural land. Approximately 2/3 of GVRD households with lawns and/or gardens use pesticides. Weed & Feed-type products and moss killers are the most common (33% and 29% of total use respectively). Concern exists that this type of product encourages the wide application of the pesticide ingredient onto spaces that do not require it.

Pesticide

"A product, an organism or a substance that is used to control, destroy, attract or repel a pest."

(Pest Control Act, 2002).

Public Concerns

According to the Vancouver Coastal Health Authority, public concerns about pesticides include:

- the potential adverse impacts on human health and in particular on children
- a lack of confidence in assessment methods used to determine pesticide toxicity
- a lack of knowledge of potential toxic effects from inert ingredients and impurities
- the potential dispersion of pesticide residues through the air and water
- the possibility of involuntary exposure (e.g., touching treated vegetation in public areas, neighbouring lawns, shared private areas and rights of way, confusion about symbols on pesticide-use warning signs)
- the potential adverse impacts on non-target organisms, including birds, wildlife, and pets.

Human Health Effects

The potential health effects of pesticides depend on the type of pesticide. Some may irritate the skin or eyes. Others, such as the organophosphates and carbamates, affect the nervous system. Some pesticides may be carcinogens while others may affect the hormone or endocrine system.

(EPA: <http://www.epa.gov/pesticides/health>)

Research suggests that children and young wildlife are at higher risk of being adversely affected by pesticides because their behaviours more easily expose them to pesticides, and their underdevelopment results in higher sensitivity.

Socio-Economic Considerations

Pesticides offer socio-economic benefits including being a known method for:

- protecting human health from disease-carrying organisms (e.g., controlling mosquitos to reduce risks from West Nile virus)
- protecting economic investments (e.g., agricultural crops, golf courses, playing fields, residential homes and gardens, etc.) with minimal labour requirements
- maintaining servicing (e.g., keeping railways clear of vegetation, prolonging life of BC Hydro poles, etc.)
- achieving desired aesthetic quality.

However, pesticides also raise socio-economic concerns including the development of increased pesticide dependence as a result of enhanced development of pesticide resistance, the creation of larger outbreaks of formerly suppressed pests and the elimination of natural enemies of pests.

Pesticide Management: Federal and Provincial Role

The Federal Government is responsible for determining whether a pesticide can be used in Canada. The Provincial Government is responsible for managing pesticide usage, including regulating the sale, transportation, storage, preparation, application and disposal of pesticides in British Columbia.

Federal government management of the safety and accessibility of pesticides is identified as the most pressing issue in the 2003 Commissioner of the Environment and Sustainable Development report. Key concerns identified are that the Federal Government:

- has made slow progress in re-evaluating older, widely used pesticides against current human health and environmental standards. All of the pesticides that have been re-evaluated to-date have either been removed from the market or had restrictions placed on their use. Many pesticides requiring re-evaluation remain on the market;
- needs to strengthen its evaluation process for new pesticides
- needs to strengthen its process for ensuring that new, safer products are available
- has inadequate information on user compliance, pesticide use, and the impacts of pesticides on human health and the environment.

Substitution Policy

In Sweden, more toxic products are removed from use as new less toxic products become developed and approved.

This policy provides an economic incentive to continually develop less toxic substances. No such policy exists in Canada.

It is also unclear what implications will result from recent changes to Provincial legislation. In general, legislative changes have resulted in a shift towards the use of integrated pesticide management plans for “high risk” pesticides and reduced permitting requirements. Concern has been expressed that the lack of standards and objectives associated with the development of plans, and the reduced number of pesticides requiring approval and/or oversight by the

Provincial Government will result in inadequate mechanisms to ensure that pesticides are being used properly, that alternative strategies have been used to their fullest extent possible and that pesticides are used only as a last resort. It is also unclear what implications there will be for local community consultation and notification.

Pesticide Management: Municipal Role

Through the Community Charter, BC municipalities have the authority to manage the use of pesticides on non-federally owned land. Presently, most municipalities adhere to an integrated pesticide management approach to guide their own corporate use and many have by-laws stipulating requirements for notification of pesticide applications to public areas and grounds of multi-family dwellings.

The Supreme Court decision upholding the City of Hudson Pesticide bylaw to restrict “cosmetic” (non-essential use) has generated increased momentum in municipalities across Canada to also begin evaluating options for restricting cosmetic pesticide use within their jurisdictions. Under the Community Charter, BC municipalities have the authority to enact bylaws restricting use if prior approval is granted by the Province. Overall, action taken by Canadian municipalities is quite varied and has included development of corporate policies, comprehensive integrated pesticide management plans and corporate procedures, education programs and implementation of restrictive bylaws targeting cosmetic pesticide use (Attachment 2).

Richmond Context

Pesticides are applied throughout the Richmond community for a variety of uses, including for agricultural purposes, golf course care, railway clearing, protection of BC Hydro poles, as well as for residential home and garden care. Pesticides are also used by the City in the management of City parks and infrastructure for aesthetic and maintenance requirements and in our management of rodents and mosquitos for both health purposes (i.e., West Nile virus management) and for nuisance control. In 1992 the City adopted an integrated pest management (IPM) approach for guiding corporate pest control. Basic principles guiding Richmond’s IMP approach include:

- Tolerate certain levels of pests
- Look for improving cultural practices as the number one defence against pests
- Select pest tolerant or pest resistant plants
- Install stamped concrete instead of paver bricks on sidewalks and plazas
- Practice sound mechanical operations like pruning or mowing that may contribute to control
- Use biological controls such as parasitic wasps or ladybugs when available
- Do not use pesticides where the public or the environment might be more sensitive
- Use pesticides sparingly. A pesticide is only one tool and will only be used as a last resort. If a pesticide is necessary, Richmond uses the least toxic chemical at the lowest rate that does the job and an application method that is the safest for the applicator as well as the public and environment.

The City also enforces our Public Health Protection Bylaw 6989 which stipulates notification requirements for pesticide applications to public areas and grounds of multi-family dwellings.

The Richmond Health Board enforces these requirements on behalf of the City. The City also undertakes some education initiatives to promote the use of preventative and alternative control strategies for managing pests through community workshops and event displays.

In 2003, City staff undertook an informal survey to gain preliminary input into the level of concern with respect to pesticide use within the Richmond community. Of a total of 115 respondents, 90% were somewhat or very concerned about pesticide use in Richmond. Participants identified education as the most effective strategy for addressing concerns of local pesticide use.

Analysis

Assessment of Pesticide Risk

Unfortunately, the actual risks posed by pesticides once they have been applied and introduced into the environment are largely unknown. This uncertainty results largely from:

- limitations in product assessment
- limitations in post-pesticide use monitoring and effects assessment
- difficulty in establishing direct cause and effect relations given the many confounding factors affecting human and environmental health.

It is well-recognized, however, that not all pesticides are the same, and that risks posed depend upon the nature of the specific pesticide product (e.g., toxicity, persistence, degree of mobility, ability to accumulate, etc.) and where and how it is applied.

Pesticides in the Environment

- *pesticide fate varies – some pesticides break down quickly while others persist for longer periods; some pesticides transform into other contaminants or bio-accumulate in animal and/or human tissue*
- *pesticides can travel long distances - 80% of pollutants detected in the Arctic have likely originated from countries outside of Canada*

Recommended Risk-Based Policy Approach

Decision-making around pesticide usage is extremely complicated given the high uncertainty that exists regarding pesticide necessity, actual risks posed and efficacy of alternatives. However, in consideration of the potential seriousness of impacts and the need for stronger management, staff recommend that City of Richmond seek to reduce overall community reliance and minimize risks posed by local pesticide use.

In taking action, staff recommend that Richmond Council adopt a community-wide policy approach which aims to protect local community and environmental health by *minimizing risks* posed by local pesticide use rather than prohibiting use. This recommendation is based on the guiding principles that an effective approach should be:

- **Comprehensive and Equitable - involving all responsible parties** (e.g., the City, other governmental agencies, agricultural community, industry and other business, residents, etc.)
- **Strategic – focus on risk reduction** and not just on use prohibition (e.g., acknowledges that not all pesticides are the same, that application practices are an equally important consideration and that significant benefits can likely be realized by moderate adjustments made by many)

- **Collaborative and Foster Community Empowerment** – works to identify strategies in **partnership** with the Richmond community and seeks to build long-term community capacity which facilitates the use of preferred practice in a way that respects and considers the multiple dimensions of Richmond community well-being today and in the future (e.g., health, fiscal responsibility, business prosperity, agricultural viability, ecological preservation, civic beautification, etc.)
- **Promote Responsible Governance** - pesticide management is not predominately a local responsibility; **senior governments need to be accountable** for the effective delivery of their management functions, including adequate product testing, encouraging the development of improved products and practices, pesticide use monitoring, environmental effects monitoring, raising community awareness, etc.

In this respect, it is staff's assessment that the City of Richmond's role should be to:

- ensure responsible corporate pesticide management by clearly identifying corporate practices, seeking to continually reduce risks and formally monitoring and reporting on corporate use
- working with community partners to facilitate information sharing and the adoption of preferable practices that reduce pesticide risk
- encouraging stronger management by senior governments to better ensure that human and environmental health is adequately protected.

A proposed working draft policy is provided in Attachment 3. The objectives and expected benefits of the policy are:

- greater clarity on City position with respect to local pesticide use management
- identified strategic action for the City
- improved local practices, community-wide
- increased corporate accountability and transparency
- improved pesticide regulation and management by senior government
- better exchange of information and improved understanding of pesticide issues and options for alternative practices within the Richmond community
- reduced pesticide risk locally.

A key characteristic of the policy is that it would be reviewed on an bi-annual basis or as new knowledge or experience is gained. This element will enable the City to re-evaluate its options, including the implementation of restrictive use bylaws, to ensure that action taken locally remains strategic and effective.

If Council is supportive of the proposed policy approach, staff propose that further consultation be undertaken with the City's advisory committees (Advisory Committee on the Environment, Agricultural Advisory Committee), the Richmond Health Department and other key business and community stakeholder groups on the working draft policy. Staff would then report back to Council with a recommended policy and further detailed strategic action.

Options

There are a number of other options available to Council in addressing public concerns regarding pesticide use including no additional action, strengthened corporate practices only and/or

implementing restrictive bylaws. The potential advantages and disadvantages of alternative action by Council, including no change to existing involvement, the implementation of a restrictive bylaw and the recommended policy approach are identified below:

Alternative Strategy	Advantages/Disadvantages
1. Status Quo – No Additional City Effort	Least financial cost. No further risk reduction (no reduction in public health, environmental or potential long-term economic cost as a result of increasing pesticide dependence).
2. Improved Corporate Risk Reduction	Demonstration of corporate leadership. Unlikely to result in meaningful risk reduction over the long-term since corporate use represents a small proportion of total community use.
3. Pesticide Use Policy – Community – Wide Risk Minimization (<i>recommended</i>)	Promotes collective effort including corporate responsibility, industry responsibility, consumer responsibility and effective governance. Phased approach enables incremental decision-making to ensure cost-effectiveness. While the approach is comprehensive, it is not anticipated to be labour intensive or necessitate additional funds above existing base operating budgets at this stage. Emphasis will be placed on developing partnerships and seeking cost-effective strategic approaches. Any identified measures requiring additional corporate funds will be brought forward to Council for their consideration prior to their implementation.
4. Cosmetic Use Restrictive Bylaw	May result in partial risk reduction; however efforts will not necessarily be directed towards those areas most likely to yield the greatest benefit in Richmond (e.g., uses which generate most risk – the highest uses, most toxic uses, least poorly applied - or where alternatives are most feasible etc.). Would be more effective if administered regionally. Does not address all users equitably. Unknown feasibility with respect to challenges in enforcement including difficulty in establishing an offence. Likely would require additional levels of service for bylaw enforcement. Does not promote strengthened management at the federal and provincial level or facilitate informed decision-making by the community.

Financial Impacts

The recommended community-wide policy approach can be pursued within existing departmental budgets. The corporate pesticide use review, improved reporting and initial community engagement and outreach will be managed within existing budgets.

Future cost implications may result depending on the opportunities identified through the corporate review and community discussions, and the pace by which the City decides to pursue risk reduction initiatives. While reducing reliance on pesticide is anticipated to result in long-term cost savings, initial investment may be required to support development and implementation of new ways of doing business.

However, pesticide risk reduction opportunities will be explored in context of ensuring long-term financial sustainability for the City and all measures with cost implications will be provided to Council for their review and decision prior to any implementation. Partnership opportunities, such as encouraging the GVRD to undertake regional educational initiatives and working with the BC Landscape Nursery Association and Master Gardener's Association will be a key area of emphasis. Staff will also continue to monitor and evaluate the effectiveness of restrictive bylaws.

Conclusion

There is heightening concern over potential risks of pesticides to public health and the environment. Many municipalities across Canada have taken action to reduce associated risks, including the use of bylaws prohibiting the use of cosmetic pesticides. However, rather than focussing solely on cosmetic use which addresses only a portion of the risk, this report recommends that the City of Richmond adopt a more comprehensive approach which encourages collaborative action across all responsible parties (all levels of government, agricultural community, industry, and residential users). It is recommended that the City adopt a policy approach and work collaboratively with the community to develop "made-in Richmond" strategies to reduce pesticide risks throughout the community in a manner that respects and integrates public health, economic and environmental interests.



Margot Daykin, M.R.M
Assistant Manager - Environmental Programs (4130)
MD:md

Attachment 1: Correspondence Received by Richmond Council

University Women's Club of Richmond



June 11, 2003

Mayor and Council,
City of Richmond
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Dear Mayor Brodie and Members of Council:

The University Women's Club of Richmond is an organization of more than 55 women university graduates in Richmond, B.C. It is affiliated with the Canadian Federation of University Women (CFUW) a national, voluntary, non-partisan, non-profit, self-funded, bilingual organization of over 10,000 women university graduates founded in 1919 and affiliated with the International Federation of University Women. CFUW members are active in public affairs, working to raise the social, economic and legal status of women and girls as well as trying to improve education and the environment, and encouraging peace, justice and human rights.

At the Annual General Meeting August 15-18, 2002, in Richmond, CFUW passed the resolution entitled: Non-Essential (Cosmetic) Pesticides: Registration and Education. Please see attachment.

In light of this resolution, our club would like to learn more about the policies of the City of Richmond concerning the cosmetic use of pesticides, encourage more comprehensive regulation, and support the education of Richmond residents in this matter.

The University Women's Club of Richmond commends the City of Richmond on developing an Integrated Pest Management program and also on its triennial State of the Environment Report. We encourage you to continue to seek opportunities for reducing pesticide use with respect to non-health related use. We would like to see the State of the Environment Report contain a more detailed explanation of pesticide use and its effects on Richmond.

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PO Box 88006 5300 No. 3 Rd.
Richmond, BC V6X 3T6

University Women's Club of Richmond

We encourage the City of Richmond to review the existing federal and provincial regulations regarding pesticide use to see if these guidelines meet Richmond's needs. We also encourage the City to work collaboratively with the G.V.R.D. to develop strategies and regulations that would reduce pesticide use throughout the Lower Mainland.

We believe that the City of Richmond could provide a model of non-cosmetic use of pesticides that can eventually be adopted within its urban and rural areas. The University Women's Club of Richmond would be willing to participate in any education programs the City may provide for its residents.

We have also sent letters to our MPs and MLAs. Please reflect upon our suggestions and respond to us with information and your plan of action in this area.

Sincerely,

Jean Garnett
President

Attachment

PO Box 88006 5300 No. 3 Rd.
Richmond, BC V6X 3T6

Attachment 3: Action Taken by Other Canadian Municipalities

Local Government	Action
<i>B.C. Municipalities</i>	
Capital Regional District	The CRD has created an educational brochure on pesticide alternatives and are developing a model pest management policy for consideration by municipalities in the district.
City of Burnaby	In October 2003 Burnaby City Council approved a two-phase strategy to reduce the use of cosmetic herbicides on private lands. Phase 1 consists of an education program . Phase 2 will determine the need for additional measures, such as a by-law, to further reduce the use of cosmetic herbicides on private properties.
City of New Westminister	In March 2004, New Westminister City Council passed a motion to prepare a by-law to restrict the use of cosmetic, non-essential pesticides. Councillors also indicated they will approach the Greater Vancouver Regional District Board about a region-wide regulation to limit potentially harmful pesticides.
District of North Vancouver	In February 2000 the District of North Vancouver adopted an Integrated Pest Management (IPM) Policy that recognizes the need to reduce or eliminate the use of pesticides on District owned property. The Parks Department has not used pesticides since 2000. The District of North Vancouver joined with the other two North Shore Municipalities and North Shore Recycling Program to establish the " Pesticide Reduction Education Program " in 2003.
City of Port Moody	Pesticides have not been used on Port Moody municipal lawns or gardens since 1988. A three-year long education program is in progress to encourage Port Moody residents to reduce pesticide use. Port Moody's Pesticide Use Control Bylaw , which restricts the use of cosmetic pesticides in the city, takes effect January 1, 2006.
City of Vancouver	In January 2004, City of Vancouver council approved a bylaw restricting the use of pesticides for cosmetic use on all private and public lands. The ban comes into effect in January 2006. The ban will be preceded by an education program.
District of West Vancouver	In West Vancouver pesticides are not used in parks and open space areas, including playfields. Pesticides are used at 2 golf courses and the city nursery. West Vancouver joined with the other two North Shore Municipalities and North Shore Recycling Program to establish the " Pesticide Reduction Education Program " in 2003.
City of Victoria	The City of Victoria has released a draft IPM policy and procedure for use on municipal property.
<i>Other Canadian Municipalities</i>	
City of Calgary	In 1998, the city developed an IPM plan, which includes educating and encouraging private land owners, school boards and others to incorporate IPM practices in their operations.
City of Ottawa	In 2002, Ottawa initiated an education program to raise awareness about potential health risks associated with cosmetic use of pesticides and to provide information about alternatives to pesticide use. Ottawa has eliminated the use of cosmetic pesticides on city property.
City of Toronto	In May 2003, the City of Toronto introduced a bylaw to restrict the use of non-essential pesticides on outdoor public and private property. The bylaw will come into effect in April 2004 beginning with an education phase. Enforcement will start in September 2005.
Township of Hudson	In 1991, the city passed a bylaw prohibiting the use of pesticides within the city except for specified purposes in prescribed locations. In 2001, the Supreme Court of Canada upheld charges against two landscaping companies laid in 1992 by the city for using pesticides in violation of the bylaw. The ruling stated that the city did have the right to restrict the use of pesticides within its boundaries under the "general welfare" provision of certain provincial legislation and that the bylaw was authorized.
Regional District of Halifax	In 2000 Halifax passed a pesticide bylaw which phased in the restriction of cosmetic pesticide use. Pesticide use on municipal properties was immediately banned. Restricted cosmetic use of pesticides on all residential was implemented in 2003. The bylaw was preceded by an education program on alternatives to pesticide use.



City of Richmond

Policy Manual

Page 1 of 3

Adopted by Council

Amended:

POLICY

File Ref:

PESTICIDE USE

POLICY:

It is Council policy that:

in recognition that long-term impacts of pesticide use on human health and the environment are largely unknown, the City of Richmond supports and encourages pesticide risk reduction in the City by:

1. Reviewing corporate practices pertaining to pesticide use and management on an annual basis to seek opportunities to continually minimize risks posed by corporate pesticide use and reduce corporate dependence on pesticides.
2. Reporting corporate pesticide use in the City’s State of Environment reporting program.
3. Working collaboratively with the Richmond community to facilitate pesticide risk reduction throughout the City to greatest extent possible with an emphasis on building awareness and understanding and facilitating the use of alternative low risk effective practices.
4. Working with other levels of government to collaborate with industry and encourage stronger collective pesticide management, including but not limited to strengthened pesticide approval systems, improved monitoring and effects assessment, and coordinated education programs.
5. Reviewing this policy on an bi-annual basis or as new knowledge is gained to ensure it remains current and effective.

This policy is based on the following sustainability principles:

1. Precautionary Principle
 - given that high uncertainty exists in whether pesticide use is safe, precautionary action should be taken to minimize risks
 - an emphasis on risks recognizes that not all pesticides are the same and enables focus to be directed towards strategic action that results in the greatest benefit
2. User Responsibility
 - pesticide risk reduction should be pursued in an inclusive approach, promoting collective action to ensure that all responsible parties are contributing fairly to the solution
 - as a user of pesticides, the City should review its corporate practices to seek continual improvement and demonstrate accountability by reporting its use to the community



3. Decision-Making that Respects all Interests, Today and Tomorrow

- pesticide risk reduction should be pursued in a manner that fosters shared stewardship and that respects the complete suite of social, environmental and economic objectives of the Richmond community, including but not limited to human health protection, environmental preservation, agricultural viability, sustainable economic development and financial sustainability.
- pesticide risk reduction should be pursued in a manner that considers the interests of all members of the community today and in the future.

4. Effective Governance

- pesticide risk reduction should be pursued in a manner that fosters a coordinated approach and ensures that all involved parties (various levels of government, industry and other users) are meeting their respective responsibilities.

5. Community Empowerment

- pesticide risk reduction should be pursued in a manner that builds long-term community capacity and makes it easier to adopt and follow sustainable practices.

This policy will be implemented interdepartmentally in the following manner:

Major Action	Lead Coordinating Department
<p>1. Corporate Use Review</p> <ul style="list-style-type: none"> • manage data system for recording and reporting corporate use • identify opportunities for risk reduction • report options to Council 	Parks
<p>2. State of Environment Reporting</p> <ul style="list-style-type: none"> • incorporate corporate pesticide use trend information in future State of Environment reports 	Policy and Planning
<p>3. Working with the Community</p> <ul style="list-style-type: none"> • enhance education on alternative practices in partnership with the Richmond community and other agencies in a manner which builds upon already existing initiatives 	

