



City of Richmond

Report to Committee

To: Parks, Recreation and Cultural Services Committee **Date:** April 8, 2011
From: Dave Semple
 General Manager, Parks and Recreation **File:**
Re: **Pesticide Management Update**

Staff Recommendation

1. That the staff report entitled "Pesticide Management Update" dated April 8, 2011 from the General Manager, Parks and Recreation, be received.

Dave Semple
 General Manager, Parks and Recreation
 604.233.3350

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ROUTED TO:		CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Sustainability/Environmental Sustainability Budgets		Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
REVIEWED BY TAG	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	REVIEWED BY CAO YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

Staff Report

Origin

For the past decade Parks staff have been reducing the use of pesticides for cosmetic purposes in the maintenance of the City's parks, open green space and urban forest. This evolution of Parks maintenance towards a sustainable approach has come about through public pressure, education of staff, and by initiating an Integrated Pest Management approach that has focused on alternatives to pesticide use and through using traditional pesticides only as a last resort.

Since adoption by Council of the full Enhanced Pesticide Management Program (EPMP) and the Pesticide Use Control (PUC) Bylaw No. 8514 in 2009, Parks staff (with the assistance of Environmental Sustainability staff) have experienced challenges in ensuring past service levels and expected maintenance standards are met. This report provides Council with an update of how the EPMP program and the PUC Bylaw have been implemented and supported by Parks staff since its adoption in 2009. The framework of the EPMP and PUC Bylaw, and the future direction of the new Integrated Pest Management Plan, supports the following Council Term Goal:

Council Term Goal No. 7: Sustainability and the Environment- demonstrate leadership in and significant advancement of the City's agenda for sustainability through the development and implementation of a comprehensive strategy that among other objectives includes incorporating sustainability into our City policies and bylaws.

Analysis

Since the adoption of the PUC Bylaw in 2009 which eliminated the use of traditional cosmetic pesticides, Parks staff has had to adapt to new maintenance programs and methods of pesticide management. This new approach has required pilot trials for new generation, non-traditional pesticide products and equipment, and approaching Integrated Pest Management with alternate resources, while trying to meet our historical maintenance standards and service levels. Some of those challenges include:

- This paradigm shift in landscape and garden design presents challenges for weed-related maintenance.
- With assistance (and in conjunction with) Environmental Sustainability staff, training programs have been implemented and attended by staff and industry contractors in order to learn new methods and think strategically about better methods for sustainable horticulture.
- Exempted pesticides (those that are allowed to be used under the PUC Bylaw) are less effective and more costly than previously used (and now banned) pesticides.
- There are fewer products on the market that can be used for pest management in the landscape.
- Staff has been using corn gluten on sports fields as a pre- emergent broadleaf herbicide. Staff has modified old spraying equipment to be able to apply corn gluten to the sports fields.
- Two new steam weed machines have been purchased. Parks require two more to meet existing demand.

- Staff has been using mechanical control methods to control the spread of new invasive weeds and have found that traditional pesticides still need to be used as a non-cosmetic application (e.g. giant hogweed and common reed).
- There is increased dependency on labour intensive weed control.
- Labour intensive shrub beds and gardens need to be eliminated or downsized where appropriate.

The movement towards an environmental and sustainable approach to maintaining the City's parks, sports fields, urban forest and other public areas is the way of our future and staff welcome this new approach, while adjusting to the challenges ahead. Parks has seen an increase of public requests to improve the weeding programs since the PUC was adopted. Staff is confident that over time, through adjusting design and maintenance methods, that we will return to historical service levels.

According to recent scientific literature, a 25% increase in costs can be anticipated when the pest management methods in a landscape change from the use of traditional pesticides to cosmetic (i.e. exempted) pesticides (as is the case with the City of Richmond's adoption of the PUC Bylaw No. 8514)¹. A Global News article on Saturday February 19, 2011 stated that when a similar PUC bylaw was adopted in the City of Edmonton, the municipality's weed control budget doubled, from \$7.2 million to \$14.1 million. Although City of Richmond Parks staff has been working towards pesticide reduction over the past decade, we have not seen a financial impact anywhere close to the 25% increase anticipated by other municipal organizations.

Financial Impact

A total of \$145,000 is required for this project. \$120,000 is required to maintain the City's parks under the PUC Bylaw which covers the labour, new equipment, new product and redesign of selected gardens and shrub beds as necessary. Parks also require two more steam weed machines (\$15,000) and a sprayer for corn gluten (\$10,000), for a total of \$145,000 financial impact for 2011. The request will be submitted for consideration as a one time additional level from the City's 2010 Surplus.

Conclusion

In 2009 Council adopted the Pesticide Use Control By-law No. 8514. At this time, Parks staff had already been working towards pesticide reduction and the use of traditional pesticide only as a last resort. Due to this, staff were well positioned to change to using only non-traditional exempted pesticides. To achieve the goal of maintaining the City's parks, green spaces and urban forest to the standards expected by residents, Parks require an additional 3.4% of the Parks Operations budget. Staff are in support of this environmentally sustainable change in cosmetic landscape management and look forward to working in a cleaner healthier environment in the future.



Ted G. deCrom
Acting Manager, Parks Operation

¹ Kempenaar et al., 2007. *Trade off between costs and environmental effects of weed control on pavements*. Crop Protection, Vol. 26, pp 430-435.