

Weed Control Program

Reduction in Funding

Recommendation

That the May 28, 2021, City Operations report CO00251, be received for information.

Previous Council/Committee Action

At the December 9, 2020, City Council Meeting, the following motion was passed:

That Administration provide a report on how the reduction in funding to the weed control program will affect protocols around future weed control, in particular, the policy to use least invasive methods first.

Executive Summary

As a part of the fall 2020 Supplementary Budget Adjustment (SOBA), City Council approved an Integrated Pest Management (IPM) approach which will reduce manual and mechanical weed control through routing, inspection and control of regulated weeds on the B-level shrub bed inventory utilizing herbicides when deemed necessary, in alignment with City Policy C501A.

Commencing in 2021, this change will result in an annual ongoing savings of \$1.14 million and lead to an increase in the City's ability to control regulated weeds in shrub beds, while abiding by all Health Canada regulations which protect environmental health and public safety. This change will not address the spread and growth of non-regulated weeds.

Administration will continue to prioritize preventative methods of pest management and support long-term management of pests using a combination of techniques, including mechanical and physical treatments, biological control, habitat manipulation, and judicious application of pesticides.

The IPM Advisory Group, made up of 13 citizen members and supported by three City employee representatives, reviewed the details of the service change and noted that the shift from a complaint driven mechanical response to a routed service for IPM inspections would increase the opportunity for early detection and rapid response for weed control (chemical and mechanical) and follow up inspections for efficacy. The Group acknowledged that longer term solutions to weed management are needed by

the City, and they expressed that they look forward to contributing to development of those solutions into the future.

Report

Background

Prior to 2020, City staff visited shrub beds in neighbourhoods, along roadways and in parks (B-level shrub beds) to manually control weeds two times per year. In 2020, B-level shrub bed maintenance was suspended as a result of COVID-19 pandemic related budgetary restrictions. Due to these reduced service levels and the cosmetic herbicide restriction (adopted by Council in June of 2015), regulated and non-regulated weeds increased across shrub beds in neighbourhoods, along roadways and in parks.

Outside of routed, planned work, City staff also respond to weed related notifications, including for shrub beds, which are triaged based on location, species, weather, stage of weed growth, and regulated status. Requests for service related to dandelions and other non-regulated weeds are responded to in high profile sites only (e.g. premier sports fields, bowling greens and golf courses) which are exempt from the cosmetic herbicide restrictions. In general, dandelions are not controlled across most parks and open spaces as they are not a regulated species under the *Alberta Weed Control Act*.

In 2019, Policy C501A Integrated Pest Management (Attachment 1) was updated and approved by the City Council. This replaced the former policy which focused on reducing the amount of pesticides, including herbicides used in the City. The updated policy gives the City the ability to use the right tools at the right time, in the right place using a balanced, principles based approach that accounts for:

- Human health and safety;
- Ecosystem sustainability; and
- Efficacy against the targeted pest.

While the updated policy does not explicitly specify the use of the least invasive method first, the policy has built in accountability mechanisms to the public, the environment, and to legislative requirements. A key principle of the IPM policy is 'Sustainability' and commits the City to "long-term ecosystem sustainability by prioritizing strategies that minimize negative effects to non-target organisms and preventing the development of pesticide resistant pest populations." Another key principle of the IPM policy is efficacy which involves prioritizing pest management actions that are expected to be effective against the identified pest under site specific conditions and level of pest infestation. Administration is committed to balancing pest management activities with environmental and health and safety considerations.

Current State

As a part of the fall 2020 Supplementary Operating Budget Adjustment (SOBA), City Council approved an Integrated Pest Management (IPM) approach for weed management, which would result in an ongoing annual savings of \$1.14 million dollars. Commencing in 2021, Administration will provide full IPM practices through routing, inspection and control of regulated weeds on the B-level shrub bed inventory and utilize herbicides when deemed necessary. This will increase resource capacity and reduce manual and mechanical weed control cycles for B-level shrub beds from two to one time per season.

Benefits and Tradeoffs

The change to an IPM approach to B-level shrub beds will result in an ongoing annual savings of \$1.14 million dollars and lead to a significant increase in the City's ability to control regulated weeds in shrub beds and will not impact service levels to shrub beds in Business Improvement Areas and high profile parks (A-level shrub beds). For example, District Parks will continue to receive higher service levels (five visits per season).

Positive impacts of making this change include:

- Mitigating negative impacts on the surrounding ecosystem by preventing invasive species from outcompeting native and beneficial species, reducing ecosystem variety, or creating monoculture (single plant species) landscapes.
- Increased control would help maintain the manicured look of shrub and flower beds, preserving aesthetics.
- Controlling invasive regulated weeds would prevent encroachment into surrounding neighbourhoods, greenspaces, and residential yards.
- Prevention of infrastructure degradation and reduce the need for continuously increasing herbicide use in the future. The longer regulated weeds are not controlled, the less likely shrub beds will be able to be maintained into the future without excess cost or increased herbicide use. The main goal of IPM is to act as soon as reasonably possible to reduce all maintenance inputs for the long term.
- More efficient and effective control of regulated weed species that are not able to be controlled through mechanical means.

Impacts that may be perceived as negative may include:

- Increased herbicide use,
- Residents may notice increased chemical weed control activity in shrub beds which may lead to negative perception about the City's use of herbicides,
- Concerns regarding environmental and human health by anti-pesticide advocates.

This change will not address the spread and growth of non-regulated weeds. Shrub

beds will still appear unkempt, similar or slightly worse in appearance since the cosmetic herbicide restriction for non-regulated weeds came into effect. More resources would be required if the City wants to return to pre-herbicide cosmetic restriction service levels and aesthetics using manual and mechanical means.

These operational changes meet regulatory requirements, the City of Edmonton's Integrated Pest Management (IPM) Policy (C501A), and are in direct alignment with the cosmetic herbicide restrictions. Although these operational changes will enable Administration to focus on managing the control of regulated weeds, non-regulated weeds will continue to be an issue of concern.

A jurisdictional review of municipalities in North America (Attachment 2) revealed that several municipalities have identified IPM as a valuable tool for managing a wide range of pests. Further details are available in Attachment 2.

Attachment 3 outlines the Council directed cosmetic herbicide restriction motion additional background and legislated requirements for weed control.

Future Weed Control

Administration continues to use and/or trial a variety of innovative IPM tools and techniques across parks and open spaces including:

- Enhanced plant health care (e.g. fertilizing, overseeding and planting ground cover);
- Mulching;
- Alternative chemical control methods (e.g. horticultural vinegar, compost tea);
- Insects for biocontrol;
- Piloting goats for weed control in naturalized areas;
- High temperature steam for weed control in sidewalk cracks; and
- Volunteer programs including Partners in Parks and weed pull events.

Administration will continue to prioritize preventative methods of pest management and support long-term management of pests using a combination of techniques, including mechanical and physical treatments, biological control, habitat manipulation, and judicious application of pesticides. To ensure there is adequate capacity to effectively manage and respond to the growing concerns of non-regulated weed proliferation in Edmonton, Administration is also working on exploring additional exemptions and possible amendments to the cosmetic herbicide restrictions.

Public Engagement

Administration monitors feedback from citizens related to weeds through tracking of 311 notifications. Since the cosmetic herbicide restrictions were put in place in 2016, the number of notifications related to weeds has increased by 339% (from 46

notifications in 2016 to 202 notifications in 2020). Administration has noted this increase in concern from citizens about weeds, and considered this data when working on the 2019 update to the IPMt Policy C501A and to inform operational changes.

The IPM Advisory Group, made up of 13 citizen members and supported by three City representatives, reviewed the details of the service change for B-level shrub beds and concluded they aligned with the IPM Policy C501A. The group noted that the shift from a complaint driven mechanical response to a routed service for IPM inspections would increase the opportunity for early detection and rapid response for weed control (chemical and mechanical) and follow up inspections for efficacy. The Advisory Group acknowledged that longer term solutions to weed management are needed by the City, and they expressed that they look forward to contributing to development of those solutions into the future.

Financial Impacts

During the fall 2020 SOBA, Council approved a reduction of \$1.14 million (16.8 Full Time Equivalents (FTEs)) to the horticulture budget. To achieve these savings and with the reduced FTEs, manual shrub bed maintenance weed control will be reduced from two cycles to one while routed inspection, evaluation and control for regulated weeds which may involve herbiciding will be increased from one cycle to up to two (to control regulated weeds when required) in B-level shrub beds.

Corporate Outcomes and Performance Management

Corporate Outcome(s): Current Corporate Outcomes			
Outcome(s)	Measure(s)	Result(s)	Target(s)
Edmontonians are connected to the city in which they live, work and play	Number of weed complaints about shrub beds received through 311.	687 IPM notifications and 147 turf-based weed notifications in 2019	5% decrease in weed complaints about shrub beds for the 2021 season
Edmonton is an environmentally sustainable and resilient city.	Presence of regulated weed species in shrub beds	% decrease of the population of regulated weeds in shrub beds	5% annual decrease from 2021 to 2023.

Attachments

1. Integrated Pest Management Policy C501A
2. Integrated Pest Management Jurisdictional Scan
3. Additional Background and Legislated Requirements

Others Reviewing this Report

- M. Persson, Deputy City Manager and Chief Financial Officer, Financial and Corporate Services
- C. Owen, Deputy City Manager, Communications and Engagement
- R. Smyth, Deputy City Manager, Citizen Services
- K. Fallis-Howell, Acting City Solicitor