



Integrated Pest Management Plan Revision

Stakeholder Report Back: What We Did

April 2019

IPM Project overview

The City of Calgary (The City) is revising the existing Integrated Pest Management Plan (1998), the associated Integrated Pest Management Plan (CSPS017) Council Policy and the Invasive Plant Strategic Management Plan (UE2008-31). This is a Council-directed project resulting from the Investigation section of the Council-received Update on Dandelion Control on City Property report (CPS2016-0825).

Led by Calgary Parks, this project will produce Corporate-wide policies and procedures, and include two key components:

1. Revised and updated policies (CSPS017)
2. Management procedures (an outline for implementing and monitoring The City's pest management program)

The revision will reflect federal, provincial and municipal requirements within pest management, the current state of pest management literature, best practices, and address ongoing and recent challenges in Calgary's pest management. Policy and procedures will apply to all land owned or operated by The City; however, policy statements and procedures related to education and regional collaboration may have broader applications.

Engagement overview

In alignment with City Council's [Engage Policy](#), all engagement efforts, including this project are defined as: *Purposeful dialogue between The City and citizens and stakeholders to gather meaningful information to influence decision making.*

As a result, all engagement follows the following principles:

- **Citizen-centric:** focusing on hearing the needs and voices of both directly impacted and indirectly impacted citizens
- **Accountable:** upholding the commitments that The City makes to its citizens and stakeholders by demonstrating that the results and outcomes of the engagement processes are consistent with the approved plans for engagement
- **Inclusive:** making best efforts to reach, involve, and hear from those who are impacted directly or indirectly
- **Committed:** allocating sufficient time and resources for effective engagement of citizens and stakeholders
- **Responsive:** acknowledging citizen and stakeholder concerns
- **Transparent:** providing clear and complete information around decision processes, procedures and constraints.

For more information about engagement at the City of Calgary, please visit: engage.calgary.ca



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Engagement phases

Phase one

An initial phase of engagement was conducted with internal City stakeholders in December 2017. This engagement focused on identifying the following aspects of the pest management program:

- Related City services
- Related issues and concerns
- Service gaps
- What may be needed to create the framework for providing the services

Participants included people from Calgary Parks, as well as from other business units that are City-land stewards, including Calgary Police Service, Calgary Recreation, Calgary Roads, Environmental & Safety Management, Real Estate & Development Services, Transportation Infrastructure, Transportation Planning, and Waste & Recycling Services.

Phase two

A second phase of engagement with external stakeholders was conducted in February and March 2018.

Participating external stakeholders were identified by the Calgary Parks project team. They targeted subject matter experts and those with a specific interest in aspects of pest management. Feedback was solicited from a range of stakeholders, including members of professional societies, school boards, sports/recreational groups, academia, government, advocacy groups, industry and other groups identified by the participants. Additionally, members of the general public participated in the online engagement opportunity.

Participants were notified through email correspondence about the opportunity to provide feedback through The City's Engage Portal (<https://engage.calgary.ca/>). Engagement was conducted using The City's Engage Portal in order to provide accessibility and ease of use for external stakeholders. Participants were invited to send the link to the online engagement to their contacts, providing an opportunity to engage a wider audience than the targeted participants.

Please see appendices for summaries of [what we asked](#).

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What We Heard and What We Did

The proposed Council Policy and Implementation Plan Framework were developed based on consultation with experts in the field, internal stakeholders and key external stakeholders. The Framework uses the following terminology, which are used in the following table to explain how stakeholder feedback was addressed in the Policy and Framework:

- Policy statements inform the foundation for results and strategies
- Results are key goals of a program, service, process, or initiative.
- Sub-results are supporting goals of a program, service or process that support the result.
- Strategies are actions required to meet the associated sub-result. They are not adopted as policy

Phase one – internal stakeholders

In phase one, the questions asked of each stakeholder differed based on their involvement in pest management. As such, the feedback was aggregated to represent the themes that were discussed rather than showing answers to each individual question as in phase two. The themes are described in the “What We Heard” column; the content in the “What We Did” column comes from the proposed Pest Management Policy and Implementation Plan Framework and shows how feedback was incorporated into the proposed plan. In order to protect internal stakeholders’ confidentiality, the verbatim responses for this phase of the project have not been published.

What We Heard		What We Did
The IPM policy is acknowledged for helping guide overall standards and practices for integrated pest management but stakeholders reported that there is an opportunity to	Both strategic and tactical aspects should be reviewed as some of each are out of date	A strategic approach was taken with the proposed Policy, which will drive revisions and updates to current tactical aspects of pest management.
	Few stakeholders indicated that the IPM group has an opportunity to lead pest management within The City, for example through providing subject matter expertise, providing and measuring pest management services, and being The City’s resource for pest management.	An action in the proposed Implementation Plan recognizes the need for organizational accountability in pest management.

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update its contents		
Some stakeholders shared that budget constraints have prevented the IPM program from improving in the past		An action in the proposed Implementation Plan aims to ensure an appropriate budget is in place for pest management.
Some stakeholders suggested process improvements for when they are dealing with the IPM group:	More accurate cost estimates would be helpful	An action in the proposed Implementation Plan to secure funding for program delivery.
	More communication during and after service delivery would be valuable	A sub-result in the proposed Implementation Plan is to ensure communication is developed and executed.
	More communication about changes to services would be helpful	A sub-result in the proposed Implementation Plan is to ensure communication is developed and executed.
	Stakeholders would benefit from more data or reports regarding the effectiveness of the treatments	A sub-result in the proposed Implementation Plan ensures the pest management program monitors efficacy to inform reporting and adaptive management practices.
	Overall, stakeholders acknowledged that IPM services are dependent on conditions (e.g. weather) and that this sometimes changes how work is carried out. However, stakeholders shared that the more information they have in terms of what to expect, the better.	A sub-result in the proposed Implementation Plan is to ensure communication is developed and executed.
	Stakeholders noted some opportunities for improvement for accounting processes	A result in the proposed Implementation Plan is to ensure pest management priorities, plans, and management actions are defensible and reported in a transparent manner.
	More clear information on what services are available would help stakeholders manage projects with IPM	There is a strategy within the proposed Implementation Plan to develop a working group to implement applicable aspects of the Pest Management Policy in order to ensure compliance and distribution of best practices across the Corporation.

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Phase two – external participants

Stakeholder responses to each question were analysed and the following themes emerged. The themes are described in the “What We Heard” column; The content in the “What We Did” column comes from the proposed Pest Management Policy and Implementation Plan Framework and illustrates how feedback was incorporated into the proposed plan. The verbatim responses from key external stakeholders can be found in the [What We Heard Report](#).

Question that was asked	What We Heard	What We Did
What principles and/or goals should be included in The City of Calgary’s pest management program?	Public health and safety	The first policy statement in the proposed Council Policy aims to prioritize human health in all aspects of pest management.
	Should minimize pesticide use	There is a sub-result in the proposed Pest Management Implementation Plan that requires that pesticide application is limited to essential use.
	Environmental concerns other than biodiversity	There is a result in the proposed Pest Management Implementation Plan to mitigate pest impacts on ecosystems, which includes a sub-result to ensure that vegetation and vegetation communities are healthy and resilient.
	Focus on invasive/noxious/other specific pests	There is a sub-result in the proposed Pest Management Implementation Plan to prioritize decision making which considers multiple factors for if, when and what priority pest management strategies and actions are taken with an emphasis on best available science.
How should The City engage Calgarians manage pests in their communities?	Education, outreach, and communication	There is a policy statement in the proposed Council Policy to engage citizens and stakeholders to deliver and collaborate on accessible information to secure support and positive actions for pest management. Sub-results to this policy statement in the Implementation Plan include tolerance, communication and education.
	Encourage specific management activities	There is a strategy in the proposed Pest Management Implementation Plan to reduce the establishment, spread of and susceptibility to pests through effective plant health care standards and practices (e.g., increased topsoil, watering, pruning, aeration, overseeding, mowing, mulching, fertilizing).
	Community participation	There is a sub-result in the proposed Pest Management Implementation Plan to ensure collaborative pest management initiatives are established with communities, government, industry, institutions, and non-profit organizations. There is a strategy to involve community members in implementing pest management projects and strategies.

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	Partnerships	There is a strategy in the proposed Implementation Plan to collaborate with partners to minimize gaps and coordinate knowledge networks and action for priority pest initiatives across sectors. There is another strategy to partner with existing effective pest management campaigns with a focus on influencing positive actions (e.g. Play Clean Go, Pull the Plug, Don't Let It Loose, Clean Drain Dry, Grow Me Instead, STOPPED, Clean Plants Certification Program) and develop new campaigns as needed.
Regarding pest management, what information should The City make publicly available?	Information or Fact Sheets about pesticides that have been used in public spaces	There is a strategy in the proposed Implementation Plan to develop City-wide standard protocols for compiling and analyzing pesticide use and pest management activities, and internal and public reports.
	Information on preventing pests	There is a result in the proposed Implementation Plan to ensure processes are in place to prevent the introduction and establishment of pests.
	Everything, as much info as possible	There is a result in the proposed Pest Management Implementation Plan to ensure that pest management priorities, plans, and management actions are defensible and reported in a transparent manner.
	Public information about health effects or risks	There is a sub-result in the proposed Implementation Plan to ensure that reports on the pest management program are publically available. There is another sub-result to ensure that rationale is provided for pest management decision making and actions. These two sub-results are under the Transparency and Accountability result, which states that pest management priorities, plans, and management actions are defensible and reported in a transparent manner. There is also a sub-result to ensure that there is the smallest possible degree of human health risk in pest management practices.
What priorities should The City have in pest management on public land?	Target species of high concern	There is a sub-result in the proposed Implementation Plan to prioritize decision making which considers multiple factors for if, when and what priority pest management strategies and actions are taken with an emphasis on best available science. There is also a sub-result to ensure regulatory compliance for pest management and protection of the environment or species.
	Public health and safety for all	The first policy statement in the proposed Policy prioritizes human health in all aspects of pest management.
	Environmental sustainability	There is a result in the proposed Implementation Plan for pest impacts on ecosystem health to be mitigated. This result is under the policy statement to prioritize human health and ecosystem health objectives, which states that human health and safety is prioritized in all aspects of pest management. Conservation and resilience of

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		biodiversity and healthy, functioning ecosystems are essential to human health, effective pest management, municipal service delivery, and risk reduction.
	Use of least toxic options	A sub-result in the proposed Implementation Plan states that pesticide application be limited to essential use. A strategy states The City will develop protocols to ensure that pesticides are only used for managing legislated pests, protecting City infrastructure and assets, and minimizing risk to human health and safety.
Where (e.g., everywhere, playfields, neighbourhood parks, natural areas, etc.) should The City focus its pest management efforts, and why?	Neighbourhood parks	<p>A strategy in the proposed Implementation Plan states that The City will develop a pest management prioritization process to determine where and when pest management efforts are needed and how pest management actions are carried out, which could include but is not limited to the following factors:</p> <ul style="list-style-type: none"> • Location • Invasive potential of a given species within the infested location • Severity of potential future infestations • Budget • Human resourcing • Asset condition rating and replacement cost, quality (e.g., functional quality based on purpose), susceptibility/protection requirements (e.g., heritage value) and specific maintenance standards (e.g., Natural Environment Parks, habitat types, open space types, infrastructure needs, private properties) • Customer level of service and public opinion/perception • Life stage and biology of pest • Availability of control strategies (legislative approval, efficacy, cost and product label instructions) • Seasonality (outbreak phase), etc.
	Playfields and school grounds	
	Everywhere	
	Natural areas	
What collaboration opportunities are there to advance The City's pest	Community groups, environmental associations, NGOs	<p>There is a result in the proposed Implementation Plan that the pest management program is strengthened through stakeholder collaboration and coordination on pest locations, spread, impacts, management efforts, and management effectiveness. Collaboration includes data sharing, shared best practices, regional alignment and development of shared initiatives.</p>
	Industry	
	Other levels of government	



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management program?	Schools, universities, scientific organizations	
Do you have anything more to add that was not covered in the questions above?	[The feedback for this question confirmed themes from other sections of the report]	[N/A]

Appendix A: What we asked

Internal stakeholders

Internal stakeholders were sent a survey via email in November 2017. Each stakeholder group received a survey relevant to their role in pest management. For those stakeholders where only one or two questions were asked, an email was sent with the questions, rather than requesting the completion of a survey.

Stakeholders were provided with the background rationale for the survey, which described the policy revision and Council direction. Stakeholders were given one month to complete the survey.

Objectives were used to inform the development of specific questions for each stakeholder group, which are stated in the following table:

Stakeholder groups		What the project team wanted to learn from stakeholder groups
1A	Calgary Parks – Integrated Pest Management (IPM) staff in Urban Conservation	Feedback on IPM Plan effectiveness and currency, how IPM programs could improve, IPM program history and gaps, Council direction, program tracking and reporting, training, clients serviced, lines of service, stakeholder collaboration, standard operating procedures.
1B	Calgary Parks – non-IPM staff in Urban Conservation	Obtain information about IPM programs used or contributed to, which IPM lines of service are used, collaboration with IPM.
1C	Calgary Parks – Zone-based Parks Ecologists	Obtain information about IPM programs used or contributed to, which IPM lines of service are used, services offered by IPM, collaboration with IPM, contacts and communication process, scope/cost estimates, pest management options/constraints, treatment effectiveness, impacts of activities, service delivery, and additional services needed.
2	Calgary Parks – other portfolios	Objective targeted to specific stakeholder. For example, How enhanced maintenance agreements may impact or be impacted by pest management.
2A	Calgary Parks – Urban Forestry (UF)	Clarity on what pests are of most concern to UF, processes/programs in place to manage them, how they work with IPM, possible scheduling conflicts of watering trucks and pesticide spraying.
2B	Calgary Parks – Environmental Education (EE)	Obtain information about how pests are currently integrated into educational programs, how they may be included, and audiences that may be reached.
2C	Calgary Parks – 311	Obtain clarity on the 311 Service Request types relating to pest management, possible adjustments to them, and challenges for Customer Service Representatives.

Stakeholder groups		What the project team wanted to learn from stakeholder groups
2D	Calgary Parks – Special Events	Find gaps in scheduling of special events and pest management activities, revenue loss risk due to perceived aesthetics, invasive species mitigation measures in permits.
2E	Calgary Parks – Community Strategists	Clarify Parks Community Strategist role in communicating with citizens about pest concerns and what IPM services may be used.
2F	Calgary Parks – Parks Asset Reporting & Information System/Tangible Capital Assets	How assets are affected by pests (asset condition ratings, TCA values, asset secondary specifications, mapping assets), how activities are tracked in Work Asset Management (WAM), Parks Vehicle and Equipment Tracking System (PVETS), how activities are reported via PARIS Reports, potential impacts to/from Parks Asset Management Plan and Customer Level of Service Model.
2G	Calgary Parks – Water Management	Find gaps in scheduling of irrigation flows and pesticide applications, risks to irrigation infrastructure, pest spread mitigation measures.
2H	Calgary Parks – Infrastructure	Any activities conducted by Infrastructure that may overlap with IPM activities and their levels of service, pest threats to amenities/infrastructure, potential scheduling conflicts.
2M	Calgary Parks – Playfields	IPM client role for playfields, playfield coordination possible scheduling conflicts with pest management activities, risk to playfield asset quality or loss of booking revenues, playfield user groups, playfield locations.
2N	Calgary Parks – Pathways	IPM client role of Pathways, pest management conducted without IPM's services, pest risks to pathway and trail assets, design concerns for effective pest management, possible scheduling conflicts, risk to assets, mitigation measures for spread of pests, pest transport pathways along linear asset routes.
2O	Calgary Parks – Health, Safety, Training & Environment (HSTE)	Determine how IPM training/qualifications are recorded, how many staff have these qualifications, safety talk topics related to pest management, HSTE concerns.
2P	Calgary Parks – Zone Superintendents	Determine scope of IPM services used by Zone Superintendents, issues/gaps in service provided or scheduling, communications on effectiveness of how budget was spent, pests of most concern, mitigation measures and processes contributing to pest management.
3	Other business units (BU) that steward City-lands <ul style="list-style-type: none"> Calgary Community Standards Calgary Housing Calgary Fire Department 	IPM client role of BUs that steward City-owned land, scope of IPM services used by BU, issues/gaps in service provided or scheduling, communications on effectiveness of how budget was spent, pests of most concern, mitigation measures and processes contributing to pest



Stakeholder groups		What the project team wanted to learn from stakeholder groups
	<ul style="list-style-type: none"> Calgary Parking Authority Calgary Police Service Calgary Recreation Calgary Roads Calgary Transit Facility Management Real Estate & Development Services Transportation Infrastructure Waste & Recycling Services Water Resources 	management, risks to infrastructure and/or City-owned land.
4A	<p>Other BU that do not steward City-lands (AND current IPM clients for infrastructure but not the steward of the <i>land</i> the infrastructure is on)</p> <ul style="list-style-type: none"> 4ai Supply Management 4aii Water Services 4aiii Real Estate & Development Services (REDS) 	<p><i>Supply Management</i> – IPM client role, pest management service contracts, pest control product acquisition practices.</p> <p><i>Water Services and Real Estate & Development Services</i>– IPM client role of BUs that steward City-owned land, scope of IPM services used by BU, issues/gaps in service provided or scheduling, communications on effectiveness of how budget was spent, pests of most concern, mitigation measures and processes contributing to pest management, risks to infrastructure.</p>
4B	<p>Other BU that do not steward City-lands (AND <i>not</i> current IPM clients for infrastructure on City lands stewarded by other BUs)</p> <ul style="list-style-type: none"> Calgary Emergency Management Agency (CEMA) Environmental & Safety Management (ESM) Performance Measurement, Benchmarking & Risk (Risk) Erosion & Sediment Control (ESC) Transportation Planning (TP) 	<p><i>CEMA</i> – Existing and potential emergency response plans for pest outbreaks.</p> <p><i>ESM</i> – Role in pesticide use and management, ECO Plan pest aspects, pesticide derivative contaminated sites monitoring.</p> <p><i>Risk</i> – How can IPM Plan revision benefit from portfolio services on performance measurement, benchmarking, and risk assessment.</p> <p><i>ESC</i> – Erosion control mitigations involving best practices for pest management.</p> <p><i>Transportation Planning</i> – How are pests considered in TP processes and how this is passed on to operational Transportation Infrastructure (TI).</p>



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External participants

Via an online portal, external participants were invited to answer nine questions. The questions were:

1. We would like to understand you a little better. Please select which group or groups you identify with.
 - Academic
 - Advocacy (e.g. health, conservation)
 - Civic Partner
 - Community Member
 - Government
 - Industry
 - Professional Society
 - School board
 - Sports/recreation user
 - Other (businesses, representative of other groups, etc.)
2. Please tell us more about the group or groups that you represent.
3. What principles and/or goals should be included in The City of Calgary's pest management program?
4. How should The City engage Calgarians to manage pests in their communities?
5. Regarding pest management, what information should The City make publicly available?
6. What priorities should The City have in pest management on public land?
7. Where (e.g., everywhere, playfields, neighbourhood parks, natural areas, etc.) should The City focus its pest management efforts, and why?
8. What collaboration opportunities are there to advance The City's pest management program?
9. Do you have anything more to add that was not covered in the questions above?