

# City of Kingston Report to Environment, Infrastructure & Transportation Policies Committee Report Number EITP-24-002

To: Chair and Members of the Environment, Infrastructure &

**Transportation Policies Committee** 

From: Brad Joyce, Commissioner, Infrastructure, Transportation &

**Emergency Services** 

Resource Staff: Karen Santucci, Director of Public Works & Solid Waste

Date of Meeting: February 13, 2024
Subject: Pollinator Gardens

#### **Council Strategic Plan Alignment:**

Theme: 2. Lead Environmental Stewardship and Climate Action

Goal: 2.3 Maintain the City's natural heritage and environmental assets.

## **Executive Summary**

The world's food supply depends on pollinators. Birds, bees, butterflies, beetles, and other beneficial insects and small mammals pollinate plants that:

- bring us countless fruits, vegetables, and nuts
- support half of the world's oils, fibers, and raw materials
- prevent soil erosion
- increase carbon sequestration

A pollinator garden supports and protects these important creatures by providing food and shelter. Pollinator gardens on public lands can become important educational sites for residents to learn how to plant a pollinator garden on private lands, while helping to increase pollinator habitats. These gardens can also be used to build seed stock for the municipality and community groups to allow for the development of more gardens throughout the city.

Between 2013 and today, 12 butterfly/pollinator/perennial gardens have been planted on public land throughout the city, nine of which have been planted and maintained by community groups.

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These gardens have flourished under this community planting and maintenance system. The Public Works Department has two pollinator gardens which they planted and/or maintain. There are also an additional five naturalized areas which were planted with meadow grasses within specified areas in City parks.

Development and maintenance of the community planted and managed pollinator gardens has been successful and beneficial. Community groups have taken pride in the development of these gardens and use them to educate residents on how to plant pollinator gardens on their own properties. This planning and maintenance model benefits the City as a whole but needs to be formalized. The Community Gardens Policy is currently under review both as part of an scheduled review and as part of Council's strategic priority 4.2.1 that directs staff to review the City community garden policies, and coordinating by-laws, with a view of removing barriers to urban food production. This broader community garden review will consider the recommendations of this report as to how pollinator gardens can be developed and managed and will also consider aligning procedures for gardens on City properties that are already designated as natural lands or already have a pollinator garden planted on them.

The City of Kingston could also increase the number of pollinator gardens planted and maintained by City staff by strategically replacing some annual gardens with pollinator gardens.

#### **Recommendation:**

That the Environment, Infrastructure & Transportation Policy Committee recommend to Council:

**That** Council endorse the community perennial/wildflower/pollinator garden model, which is currently being practiced, and direct staff to incorporate it into the Community Gardens Policy as part of the scheduled review; and

**That** Council approve the creation of a simplified process for allowing community groups to convert designated naturalized areas within parks to pollinator gardens and to enhance existing pollinator gardens; and

**That** Council endorse Public Works continuing to assist community groups in the ongoing development and maintenance of pollinator gardens, and Public Works supporting efforts to educate residents on planting pollinator gardens; and

**That** Council approve the community groups maintaining community perennial/wildflower/pollinator gardens in using seed stock from the garden to expand pollinator gardens on other public or private lands; and

**That** Council authorize the Director, Public Works & Solid Waste to approve any documents or agreements required to implement the pollinator garden program described in Report Number EITP-24-002 and to create, administer, manage, operate, and amend, as required, any and all policies or procedures required to give effect to the pollinator garden program; and

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**That** the Mayor and Clerk be authorized to execute any documents or agreements approved by the Director, Public Works & Solid Waste in respect of the pollinator garden program, in a form satisfactory to the Director of Legal Services.

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#### **Authorizing Signatures:**

ORIGINAL SIGNED BY COMMISSIONER

Brad Joyce, Commissioner, Infrastructure, Transportation & Emergency Services

ORIGINAL SIGNED BY CHIEF ADMINISTRATIVE OFFICER

Paige Agnew, Commissioner, Growth & Development Services

Lanie Hurdle, Chief Administrative Officer

# **Consultation with the following Members of the Corporate Management Team:**

Jennifer Campbell, Commissioner, Community Services

Neil Carbone, Commissioner, Corporate Services

Not required

David Fell, President & CEO, Utilities Kingston

Not required

Peter Huigenbos, Commissioner, Major Projects & Strategic Initiatives

Not required

Desirée Kennedy, Chief Financial Officer & City Treasurer

Not required

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# **Options/Discussion:**

Pollinators are creatures that move pollen from one plant to another, helping in the pollination process. They depend on flowering plants for their survival. In Canada, these species include bees, flies, moths, butterflies, wasps, some beetles, and many bird species. Many pollinators are now under threat due to loss of habitat, non-native plants, and pesticides. Without these species, we would lose most of our flowers, fruits, vegetables, and other essential plant life.

A pollinator garden is designed to contain plants to provide food and shelter to animals (bees, birds, butterflies, moths, wasps, bats, and small mammals) that pollinate plants to support the local ecosystem and food web. Pollinator gardens are often made up of native plants, but non-native plant pollinator gardens can still support local wildlife. Ideal pollinator gardens include the following:

- food sources such as pollen and nectar from native flowers
- nesting and overwintering sites such as bare soil, hollow stems, and leaves
- larval host plants such as milkweed

As a municipality, promoting the number of pollinator gardens within the city has a number of benefits including:

- 1. supporting and sustaining native pollinator biodiversity in Kingston
- 2. creating, enhancing, and protecting habitat in natural and urbanized areas using native plants, trees, and shrubs as much as possible
- engaging and supporting the community in taking action to help sustain Kingston's native pollinators

# Background

Over the past 15 years, several gardens have been implemented throughout the city. Although not all are pollinator gardens, they all have native species and were designed with a goal of being sustainable, having native species, and attracting bees, birds, butterflies, or other wildlife.

In 2009, Utilities Kingston planted a Water Conservation Garden on City property at 1211 John Counter Boulevard. This garden was designed with plants that are native, require little additional water, and features many pollinator species. Tours are run by Utilities Kingston throughout the year as a learning opportunity for residents.

In 2011, the Kingston Horticultural Society planted a Pollinator-Friendly Garden at the Memorial Centre under the City's Community Gardens Policy. This garden has been maintained and enhanced since this time, while being recognized in 2017 as a Pollinator Haven by the Ontario Horticultural Association.

In 2013, Council approved a Sustainable Turf Care Management Plan including the adoption of five turf naturalization areas within City parks. These areas were seeded with a blended meadow grass mixture. Since that time, these areas have been left to grow throughout the

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season with mowing occurring on a seasonal basis only. The naturalization areas have remained in the following parks since 2013:

- 1. Cloverdale Park
- 2. Edenwood Park
- 3. Lawrence Park
- 4. Meadowbrook Park
- 5. Snider Park

In 2019, a motion was made to explore wildflower verges along City of Kingston roadsides. In 2020, Council endorsed a pilot wildflower planting along Sir John A Macdonald Boulevard Report Number 20-088. The goal of this planting was to reduce mowing costs, support endangered pollinators such as bees and butterflies, gain community support for wildflower verges, and beautify the roadway. It incorporated three different planting methods to determine which method would have the best planting success. Since this planting, the area has had limited success on an ongoing basis.

In 2021, the Portsmouth District Community worked to develop a low maintenance, drought-resistant garden featuring pollinator and native Ontario plants and ground cover on Grange Street. This has been extended to a smaller garden at Portsmouth Olympic Harbour and one by the footbridge at the bottom of Mowat Avenue. Additional pollinator/butterfly/perennial gardens have been planted and maintained by community groups in other areas throughout the city.

In 2023, the City of Kingston seeded the berms at Creekford Road Soil Transfer Site. As this is the initial year of the seeding, Public Works will review the area in 2024 to determine how well it has established and if additional work is required.

In 2023, a Neighborhood Climate Action Champion in the Portsmouth District, developed and planted a pollinator garden on private property. This pollinator garden is now being used as a demonstration garden for the neighbourhood with seeds being collected to be used in the coming year for additional gardens.

Currently, Kingston has 12 perennial/wildflower/pollinator gardens on public lands throughout the city that have been planted and maintained by various groups. These gardens can be found at the following locations:

- Memorial Centre Planted and maintained by the Kingston Horticultural Association
- 2. Rotary Park Planted and maintained by the Rotary Club of Kingston
- 3. Sir John A. Macdonald Boulevard Planted and maintained by the City of Kingston
- 4. Aberdeen Park Planted and maintained by community group/residents
- 5. Portsmouth Olympic Harbour Maintained by community group/residents
- 6. Grange Street Garden Maintained by community group/residents
- 7. Mowat Avenue Footbridge Bird House Garden Maintained by community group/residents
- 8. Water Conservation Garden 1211 John Counter Boulevard Planted and maintained by Utilities Kingston

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- 9. Rodden Park Planted and maintained by community group/residents
- 10. McBurney Park Planted and maintained by community group/residents
- 11. Creekford Road Soil Transfer Site Planted and maintained by the City of Kingston
- 12. Barriefield Rock Garden Barriefield Village Association

A map of existing demonstration gardens, wildflower and naturalization areas is attached to this report as Exhibit A.

#### **Analysis**

These community-maintained perennial/wildflower/pollinator gardens have been very successful and have allowed community organizations to play a role in encouraging and educating other residents on the importance of pollinator gardens. It fosters community engagement and builds a strong sense of community. There is also the opportunity for these pollinator gardens to provide the community groups with seed stock to assist with additional plantings or enhancements to gardens throughout the city.

Over the past few months, Master Gardeners of Ontario Inc. has expressed an interest in the development of additional pollinator gardens on City property. Master Gardeners is an independent non-profit charitable organization dedicated to helping home gardeners. Members are experienced gardeners who have studied horticulture extensively and continue to upgrade their skills through technical training. With this training and continuing education, Master Gardeners meets its goals by providing expert horticultural advice to the public. By working with Master Gardeners on the planting of additional pollinator gardens on City property, City staff could utilize the knowledge and experience in planting pollinator gardens which can then be used as an educational tool for residents. Other opportunities could exist for organizations such as Rotary Club, Kingston Horticultural Society/Gardening Kingston, and others with a strong horticultural background.

To facilitate additional community-led pollinator gardens, a portion of naturalized areas established in the parks in 2013 could be used if the gardens are designed using perennials which are native species (or suitable for climate) and considered pollinators. Planting in a park area will ensure that the gardens are accessible by residents and can be used to educate residents on how to plant pollinator gardens on their own property.

As a municipality, City staff can encourage the planting of pollinator gardens by residents by providing information and educational opportunities which are currently happening at most of these community-led perennial/wildflower/pollinator gardens. There are many opportunities for municipalities to work with community groups to help further develop or enhance educational opportunities, via the City's website, social media, and signage at these gardens. Staff will also look for opportunities to work with Neighbourhood Climate Action Champions who are looking to develop pollinator gardens on City or private property.

The City of Kingston has also looked at areas where Public Works currently has annuals planted in gardens. The Horticulture Division will look to replace two of the garden beds with a pollinator garden over the next three years. These City beds will be maintained by the City of Kingston.

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As noted earlier, the roadside verge pollinator garden piloted on Sir John A. Macdonald Boulevard has had limited success. Notwithstanding, Master Gardeners would like to assist in enhancing this wildflower strip. Studies have shown that the positive benefits of roadside pollinator plantings outweigh the losses associated with vehicular traffic. There are also positive benefits associated with limited mowing in these areas. Currently, this planting is fairly small; however, if the bed can be enhanced, there are opportunities for plantings in many other areas of the city.

The Public Works Department will work with the community groups to support their pollinator gardens and ensure that appropriate signage is in place to recognize the groups and explain the importance of the pollinator gardens.

The City of Kingston does plant several gardens each year with annuals and/perennials. While the City will continue to do so, it also recognizes the need to ensure that additional pollinator gardens are provided throughout the city. As such, staff will look at the option of converting some flower beds to demonstration pollinator gardens.

#### **Public Engagement**

Consultation occurred with three community organizations/groups who are currently caring for perennial/wildflower/pollinator gardens throughout the city, and one organization who is interested in developing future gardens. These were informal conversations to understand the challenges they encounter and benefits they have seen.

Community groups have all indicated the gardens have been an educational tool for residents to learn from and expressed a desire to expand pollinator gardens throughout the community. All groups commented on the fact that the gardens have brought the community or individuals together to develop and maintain the gardens. Lastly, all groups are excited about the creatures that utilize the garden and the positive benefit they have for the pollinators. The main challenge has been ongoing maintenance of the areas especially if the champions are no longer able to care for the area. Other groups expressed concern with florals being removed or destroyed during the season and having the resources or funding to replant the destroyed areas and having access to a water source.

#### **Climate Risk Considerations**

Developing and conserving wild pollinators is important to ensure Canada's wild ecosystems, urban gardens, and agricultural production remain resilient, especially under climate change.

Pollinator gardens improve climate resiliency by enhancing stormwater management with increased infiltration compared to other pervious surfaces. They also absorb heat and thus help to reduce the heat island effect.

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#### **Existing Policy/By-Law**

Although there is currently no formal process for community planted and maintained pollinator gardens, most have a signed agreement with the City. Pollinator gardens could fall under the Community Gardens Policy, which is currently being revised and could be expanded to include policy and process specific to pollinator gardens. Additional wording in this policy could also allow for a fast-track process if gardens are being installed in one of the five City parks that has a designated naturalized area, or to enhance an existing pollinator garden maintained by the City. Public Works will work with Recreation & Leisure Services as well as Community Development and Wellbeing on the review of the Community Gardens Policy in2024. The scheduled updates to the Community Garden Policy are being expanded to incorporate work aligned to Council's strategic priority 4.2.1 that directs staff to review the City community garden policies, and coordinating by-laws, with a view of removing barriers to urban food production.

In the interim, staff are recommending that Master Gardeners move ahead with assisting with the redevelopment of the Pollinator Garden on Sir John A Macdonald Boulevard, and the reestablishment of a portion of the naturalized area at Meadowbrook Park. A legal agreement can be developed for the work being completed by Master Gardeners on City property.

#### **Financial Considerations**

This model of encouraging community planted and maintained pollinator gardens has no negative financial implications to the City. Minimal costs may be associated with assistance to the community groups, but it is expected that this cost can be managed through the existing budget of the Public Works Department. New gardens planted and maintained by the City to enhance the work done by community groups (such as transforming a current bed in Churchill Park into a pollinator garden) would be absorbed by the departmental budgets as well.

#### Contacts:

Karen Santucci, Director, Public Works & Solid Waste, 613-546-4291 extension 18566

#### Other City of Kingston Staff Consulted:

Neal Unsworth, Manager, Parks & Shorelines

Jenna Morley, Director, Legal Services & City Solicitor

Tony Gargaro, Manager, Recreation Services

Julie Salter-Keane, Manager, Climate Leadership

#### **Exhibits Attached:**

Exhibit A - Map of Existing Demonstration Gardens, Wildflower and Naturalization Areas

# Existing Demonstration Gardens, Wildflower and Naturalization Areas BUR BROOK RD W BUR BROOK RD W CREEKFORD RD MIDLAND AVE John Counter Blvd BATH RDD CONCESSION S HWY 2 KING ST W FRONT RD **Existing Demonstration Gardens and Wildflower Areas** Maintained by the City Maintained by Others on City Land Existing Naturalized Areas in parks Urban boundary