

Environmental Action Committee

Date: February 2, 2021
Time: 9:30 AM
Location: Online Video Conference

Members

Councillor Matt Mahoney	Ward 8 (Chair)
Councillor Stephen Dasko	Ward 1 (Vice-Chair)
Councillor George Carlson	Ward 11
Brad Bass	Citizen Member
Chelsea Dalton	Citizen Member
Lea Ann Mallett	Citizen Member
Pujita Verma	Citizen Member
Carina Suleiman	UTM (University of Toronto Mississauga) Student
Nandini Menon	PEYA (Peel Environmental Youth Alliance) Student
Alice Casselman	Association for Canadian Educational Resources
Britt McKee	Ecosource
Jeff Robertson	Partners in Project Green
Melanie Kramer	Credit Valley Conservation
Andrea Rowe	Greening Sacred Spaces (Non-Voting Member)
Brad Butt	Mississauga Board of Trade (Non-Voting Member)
Sid Gendron	Sawmill Sid Inc. (Non-Voting Member)
Reanne Kassar	

Participate Virtually and/or via Telephone

Advance registration is required to attend, participate and/or make a comment in the virtual meeting. Questions for Public Question Period are required to be provided to Clerk's staff at least 24 hours in an advance of the meeting. Any materials you wish to show the Committee during your presentation must be provided as an attachment to the email. Links to cloud services will not be accepted. Comments submitted will be considered as public information and entered into public record. **Please note the Environmental Action Committee will not be streamed or video posted afterwards.**

To register, please email dayna.obaseki@mississauga.ca and for Residents without access to the internet via computer, smartphone or tablet, can register by calling Dayna Obaseki at 905-615-3200 ext. 5425 **no later than Friday, January 29, 2021 before 4:00PM**. You will be provided with directions on how to participate from Clerks' staff.

Contact

Dayna Obaseki, Legislative Coordinator, Legislative Services
905-615-3200 ext. 5425
Email dayna.obaseki@mississauga.ca

1. CALL TO ORDER

2. APPROVAL OF AGENDA

3. DECLARATION OF CONFLICT OF INTEREST

4. MINUTES OF PREVIOUS MEETING

4.1. Environmental Action Committee DRAFT Minutes – December 8, 2020

5. DEPUTATIONS

5.1. "Build Beautiful" Stormwater Master Plan (20 Minutes)

- Ron Scheckenberger, Project Manager, Wood
- Samantha Stokke, Environmental Planner, Wood
- Muneef Ahmad, Manager, Stormwater Projects, City of Mississauga

6. PUBLIC QUESTION PERIOD - 15 Minute Limit

Public Comments: Advance registration is required to participate and/or to make comments in the virtual public meeting. Any member of the public interested in speaking to an item listed on the agenda must register by calling 905-615-3200 ext. 5425 or by emailing dayna.obaseki@mississauga.ca **by Friday, January 29, 2021 before 4:00PM.**

Pursuant to Section 42 of the Council Procedure By-law 0139-2013, as amended:

Environmental Action Committee may grant permission to a member of the public to ask a question of General Committee, with the following provisions:

1. Questions shall be submitted to the Clerk at least 24 hours prior to the meeting;
2. A person is limited to two (2) questions and must pertain specific item on the current agenda and the speaker will state which item the question is related to;
3. The total public question period time is 15 minutes maximum and shall not be extended by the Chair; and
4. Any response not provided at the meeting will be provided in the format of written response.

7. CONSENT AGENDA

Please note: This category is a new addition to all advisory committee agendas. The Consent Agenda is used for those items that all Environmental Action Committee Members deem appropriate to approve or deal with together without discussion or individual motions because they are deemed routine and/or non-contentious.

8. MATTERS TO BE CONSIDERED

8.1. Update on Phasing Out Ontario's Gas-Fired Power Plants Memo

8.2. Environmental Action Committee (EAC) Work Plan

9. INFORMATION ITEMS

10. OTHER BUSINESS AND ENQUIRIES

11. DATE OF NEXT MEETING

Tuesday, March 2, 2021 at 9:30am

Online Video Conference

12. ADJOURNMENT

Environmental Action Committee

Date: December 8, 2020
Time: 9:30 AM
Location: Online Video Conference

Members	Councillor Matt Mahoney	Ward 8 (Chair)
	Councillor Stephen Dasko	Ward 1 (Vice-Chair)
	Councillor George Carlson	Ward 11
	Chelsea Dalton	Citizen Member
	Lea Ann Mallett	Citizen Member
	Pujita Verma	Citizen Member
	Carina Suleiman	UTM (University of Toronto Mississauga) Student
	Alice Casselman	Association for Canadian Educational Resources
	Andrea Rowe	Greening Sacred Spaces (Non-Voting Member)
	Brad Butt	Mississauga Board of Trade (Non-Voting Member)
Members Absent	Brad Bass	Citizen Member
	Nandini Menon	PEYA (Peel Environmental Youth Alliance) Student
	Melanie Kramer	Credit Valley Conservation
	Britt McKee	Ecosource
	Jeff Robertson	Partners in Project Green
	Sid Gendron	Sawmill Sid Inc. (Non-Voting Member)

Staff Present

Dianne Zimmerman, Manager, Environment
Lisa Urbani, Supervisor, Environment Initiatives
Reg Langen, Supervisor, Parks Operations
Andrea Westfall, Sustainable Procurement Coordinator
Teresa Chan, Climate Change Specialist
Diana Suzki-Bracewell, Supervisor, Environmental Outreach
Catherine Nguyen-Pham, Communications Coordinator
Allyson D'Ovidio, Legislative Coordinator
Dayna Obaseki, Legislative Coordinator

1. CALL TO ORDER

Councillor Mahoney, Chair called this meeting to order at 9:34AM.

2. APPROVAL OF AGENDA

Approved (L. Mallet)

3. DECLARATION OF CONFLICT OF INTEREST - Nil.**4. MINUTES OF PREVIOUS MEETING****4.1 Environmental Action Committee DRAFT Minutes – November 3, 2020**

Approved (C. Dalton)

Councillor Dasko joined the meeting at 9:40AM during Item 4.1.

5. DEPUTATIONS**5.1 Alex Xia, Secondary School Student to speak on Marker Recycling**

Alex Xia spoke on Marker Recycling as well as the associated costs and benefits. A cost analysis was provided noting the different organizations that recycle markers for either a small fee or no fee at all. The associated benefits include helping the environment and the economy. Alex Xia outlined the simple two-step process for marker recycling by placing a cardboard box in every city-owned facility to collect the markers and then sending those collected markers to Teracycle and/or Crayola Colour Cycle to be recycled.

Dianne Zimmerman, Manager, Environment noted this idea is a great initiative and could work with the Waste Management team to implement pilot project to place labelled cardboard boxes in office spaces, libraries and recreational centers to collect markers to be recycled.

DIRECTION to staff was given to connect with Alex Xia regarding initiating a Marker Recycling pilot project to reduce waste and raise awareness as well as to report back to the Environmental Action Committee with an update on the project.

RECOMMENDATION EAC-0031-2020

Moved By Councillor Carlson

That the deputation and associated presentation by Alex Xia, Secondary School Student regarding Marker Recycling be received.

Received

5.2 Jack Gibbons, Chair, Ontario Clean Air Alliance to present on Phasing-Out Ontario's Gas-Fired Power Plants (Related to Item 8.1)

Mr. Gibbons presented an overview on Ontario's growing climate crisis pertaining to Gas Plant pollution. He spoke to the process on how to phase out Ontario's gas plants by implementing and utilizing wind and solar energy, Quebec's water power and using energy efficiencies as alternative options. He noted the associated high costs of nuclear power in comparison to renewable energy. Mr. Gibbons noted organizations and municipalities that support the initiative to phase out gas-fired power plants in Ontario. Clean Air Alliance requested that the Environmental Action Committee support this initiative and recommend endorsement from City Council.

Brad Butt, Community Representative (non-voting) inquired if an economic impact study had been conducted. Mr. Gibbons responded by noting that the economic benefits associated with phasing out gas plants and how to achieve this initiative by 2023 are outlined in the Clean Air Alliance's Phasing-Out Ontario's Gas-Fired Power Plants: A Road Map report.

Members of the Committee spoke to the matter and requested that further information regarding the initiative be provided, to benchmark with other municipalities and to report back to the Committee in a timely manner.

RECOMMENDATION EAC-0032-2020

Moved By Councillor Dasko

1. That the deputation and associated presentation by Jack Gibbons, Chair, Ontario Clean Air Alliance regarding Phasing-Out Ontario's Gas-Fired Power Plants be received.
2. That staff further investigate Clean Air Alliance's request to phase-out all gas-fired electricity generation and to benchmark with other municipalities on endorsement and to report back to the Environmental Action Committee prior to General Committee.

Carried

5.3 Alice Casselman, EAC Member and Founding President of Association for Canadian Educational Resources and Catherine Soplet, Founder, Building Up Our Neighbourhoods to provide an Update on Project Crossroads (Related to Item 9.1)

Ms. Casselman and Ms. Soplet presented an update on Project Crossroads. Project Crossroads is climate justice science for trees and people that supports health and the well-being of communities with significant exposure to climate risk through action on climate change adaptation, risk reduction and Greenhouse Gas (GHG) mitigation. They spoke to their proposal to Environment Canada under the Climate Action and Awareness Fund. They noted the project's initiatives and accomplishments thus far, such as developing an application to collect and measure data. They further noted that they will be presenting to the Region of Peel and have briefly spoken at the City's Diversity and Inclusion Advisory Committee (DIAC) regarding the trifecta crisis of climate change and racism. Ms. Soplet and Ms. Casselman requested for the Committee's support and referral to City Council as well as to extend the One Million Trees Program to the public school boards and to focus on climate change, equity and inclusion.

Members of the Committee briefly spoke to the matter and applauded the project initiative.

DIRECTION to staff to review Association for Canadian Educational Resources' proposal to Environment Canada and to set up a meeting with the Natural Areas and Million Tree Program Coordinator to further investigate the request to expand the One Million Trees Program to include planting on School Board District owned properties.

RECOMMENDATION EAC-0033-2020

Moved By L. Mallett

1. That the deputation and associated presentation by Alice Casselman, Environmental Action Committee Member and Founding President of Association for Canadian Educational Resources and Catherine Sople, Founder, Building Up Our Neighbourhoods to provide an Update on Project Crossroads be received.
2. That the Environmental Action Committee are in support in principal of Association for Canadian Educational Resources Project Crossroads Initiative.

Carried

5.4 Reg Langen, Supervisor, Parks Operations to present on Electric Grass Cutting Equipment Pilot Project

Mr. Langen presented and provided an overview Electric Grass Cutting Equipment Pilot Project. The project scope involves a fully enclosed trailer that includes all battery operated cutting equipment. The benefits of the program is to reduce carbon emissions and noise, increased safety for employees, and no fuel being required, which helps align with the deliverables of the Climate Change Action Plan. The next steps are to replace the existing grass cutting equipment at the end of their lifestyles.

Members of the Committee spoke to the matter and raised the following questions and concerns:

- Inquired about the battery life, charging times and performance;
- Inquired if the existing equipment will be repurposed; and
- Inquired what is included in the trailer.

Mr. Langen responded to the questions from the Members of the Committee;

- Noted that this year due to the pandemic the operational roll-out was delayed, therefore the feedback is minimal and does not encompass the usual busy season. The battery life last approximately a day, while charging time is relatively quick. Overall, the results have been successful.
- Staff could consider repurposing the end of life diesel fueled equipment versus just recycling the equipment.
- The trailer includes assortment of batteries, trimmers, two lawn mowers and two riding lawn mowers. There is no generator in the trailer to re-charge the items, however exploring solar roofs to generate solar power to charge the equipment within in the trailer.

RECOMMENDATION EAC-0034-2020

Moved By A. Casselman

That the deputation and associated presentation by Reg Langen, Supervisor, Parks Operations regarding Electric Grass Cutting Equipment Pilot Project be received.

Received

5.5 Andrea Westfall, Sustainable Procurement Coordinator to present on the Sustainable Procurement Policy

Ms. Westfall presented and provided an overview on the Sustainable Procurement Policy. The policy went into effect in January 2018 and helps the City make more sustainable choices when it comes to purchasing products and services from external vendors. The implementation consisted of training Buyers and Contract Managers reviewing bid criteria that may consist of environmental, ethical and social factors. She noted the implementation tools and procedures, the high impact procurement opportunities, routine sustainable procurement, and stakeholder relations. Ms. Westfall spoke to the City's sustainability achievements that include initiating and adopting the Corporate Green Building Standard, purchasing fair-trade coffee, reducing excessed packaging and purchasing hybrid vehicles. The next steps include creating a diverse supplier list, initiating e-learning modules, growing routine sustainable procurement and investigating the living wage.

Members of the Committee spoke to the matter and inquired about the type feedback from the vendors and if a cost/value analysis had been conducted. Ms. Westfall responded by noting that the City has received no push back from the vendors and noted a number of vendors are producing Corporate Responsibility reports. The Sustainable Procurement Policy is a guideline that requires the City to identify the sustainability aspects for consideration within procurement processes, such as considering the value for money, environmental, ethnical and social factors. Ms. Westfall also noted that the City is not required to select the most sustainable option, only mandated to consider those options, which could lead to future collaborations with vendors to integrate more sustainability factors into their products and/services.

RECOMMENDATION EAC-0035-2020

Moved By C. Dalton

That deputation and associated presentation by Andrea Westfall, Sustainable Procurement Coordinator regarding Sustainable Procurement Policy be received.

Received

Pujita Verma, Citizen Member departed the meeting at 10:42AM during the discussion of Item 5.5.

6. PUBLIC QUESTION PERIOD - 15 Minute Limit

No member of the public registered to speak.

7. CONSENT AGENDA

Councillor Mahoney, Chair briefly spoke to this item outlining the purpose and efficiencies associated with having a Consent Agenda.

8. MATTERS TO BE CONSIDERED**8.1 Phasing-Out Ontario's Gas-Fired Power Plants Request Memo (Related to Item 5.2)**

This item was previously discussed and voted on under Item 5.2.

RECOMMENDATION EAC-0036-2020

Moved By C. Suleiman

That the Phasing-Out Ontario's Gas-Fired Power Plants Request Memo by Clean Air Alliance be received for information.

Received

8.2 Environmental Action Committee (EAC) Work Plan

Dayna Obaseki, Legislative Coordinator spoke to Environmental Action Plan section's on Reporting on Committee Progress. She noted the option to either forgo the bi-annual update this year due to COVID pandemic, the suspension of meetings and the limitations surrounding public committee engagement opportunities or make a deputation to General Committee in early 2021.

The Committee decided to forgo the semi-annual reporting and to make one deputation on the Committee's Progress prior to the summer of 2021.

RECOMMENDATION EAC-0036-2020

Moved By Councillor Dasko

That the Environmental Action Committee Work Plan be approved as discussed at the December 8, 2020 EAC meeting.

Approved

9. INFORMATION ITEMS**9.1 Association for Canadian Educational Resources (ACER) Canada Proposal to Environment Canada's Climate Action and Awareness Fund (CAAF) (Related to Item 5.3)**

This item was previously discussed and voted on under Item 5.3.

RECOMMENDATION EAC-0037-2020

Moved By L. Mallett

That the Association for Canadian Educational Resources (ACER) Canada Proposal to Environment Canada's Climate Action and Awareness Fund (CAAF) be received for information.

Received

10. OTHER BUSINESS

Chelsea Dalton, Citizen Member announced the finalized and approved University of Toronto Mississauga (UTM) Sustainability Strategic Plan, Fostering a Culture of Sustainability 2030.

11. ENQUIRIES - Nil.**12. DATE OF NEXT MEETING**

Tuesday, February 2, 2021 - 9:30am via Online Video Conference (Virtually).

Councillor Mahoney, Chair thanked all Members of the Environmental Action Committee for their participation and patience this year and through the virtual transition and wished the members a Happy Holidays!

13. ADJOURNMENT

11:00 AM (Councillor Dasko)



City of Mississauga
Stormwater Master Plan

“Build Beautiful”

Environmental Advisory Committee

February 2, 2021

Presentation Overview

1. Work Plan/Scope Overview
2. Vision Development
3. Role of Legislation
4. Mississauga Today
5. Communities & Stormwater
6. Establishing Actions
7. Next Steps

1. Work Plan / Scope Overview

SWMP Work Plan

- Task 1: Review Background Material
- Task 2: Establish/Document Legislative Framework
- Task 3: Consult with Stakeholders
- Task 4: Establish Details on Actions/Programs
- Task 5: Establish Planning & Implementation Requirements
- Task 6: Final Reporting



1. Work Plan/Scope Overview

Draft Table of Contents

1. Vision
2. Mississauga Today
3. Cities and Stormwater
4. Goals
5. Action Plan
6. Planning and Implementation
7. Conclusions / Recommendations

Appendices

- A. Legislated requirements
- B. Level of Service (AMP)

2. Vision Development

2. Stormwater Master Plan - *Vision*

Vision Development

- Developed through consultation with City staff, Stakeholders and the Public
- Strive to improve resilience, accounting for potentially new community priorities and considerations as a result of COVID-19
- Address core and emerging stormwater elements, such as green infrastructure, climate change, sustainability and attractive built form, to *Build Beautiful*



buildbeautiful
Stormwater Master Plan

2. Stormwater Master Plan - *Vision*

Consultation to date (November 2020)

- Online Survey: 111 Responses
- Social Flare: Engaged Broader Audience

Upcoming PIC (Planned March/April 2021)

- Survey findings to be shared with Public to confirm Vision
- Present draft Stormwater Master Plan Actions



2. Stormwater Master Plan - *Vision*

Survey Outcomes

Public Interest and Need for Stormwater Management



89% think stormwater is either extremely or very important for the City to manage



90% are concerned about the environmental quality of the streams and rivers located within the City

Where to Manage Stormwater in Creative Ways



Public Parks (22%)



City Facilities (20%)



Parking lots (20%)



On my street (15%)



Private businesses (13%)



On my property (8%)

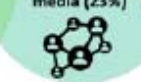
Signage along creeks (28%)



Info on City's website (24%)



Communication through social media (23%)



Decorative manhole covers (20%)



2. Stormwater Master Plan - *Vision*

Survey Outcomes

Tops areas for the City to focus on its in SWMP



During Covid-19, people looked for beauty in...



Spending time outdoors or connecting to nature(26%)



Focusing on home projects (20%)



Connecting with others virtually (14%)



Doing hobbies (12%)

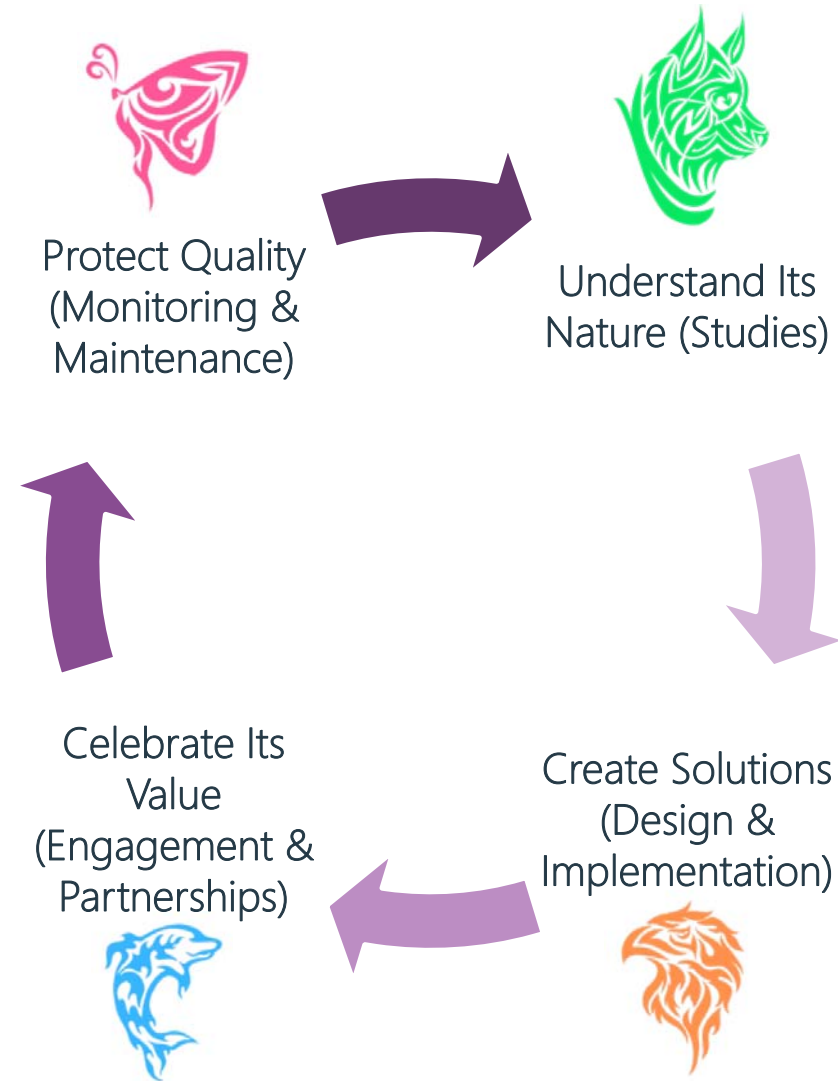


Learning a new skill (10%)

2. Stormwater Master Plan - *Vision*

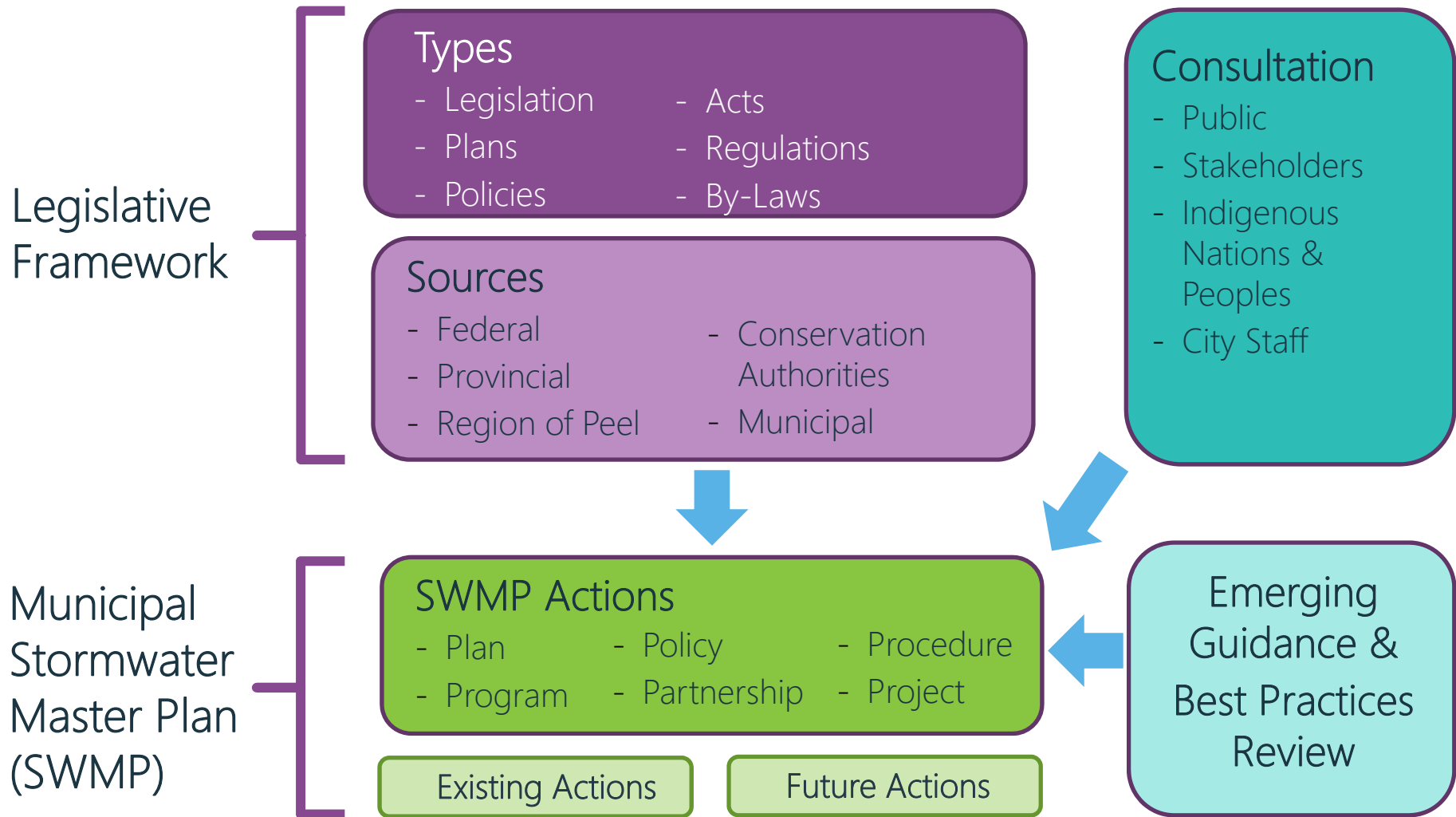
Vision Branding

- Focus on Wellbeing and regeneration
- Need to change the culture and understanding of stormwater planning
- Exploring metaphors, catchphrases and icons to create a new narrative and successful branding



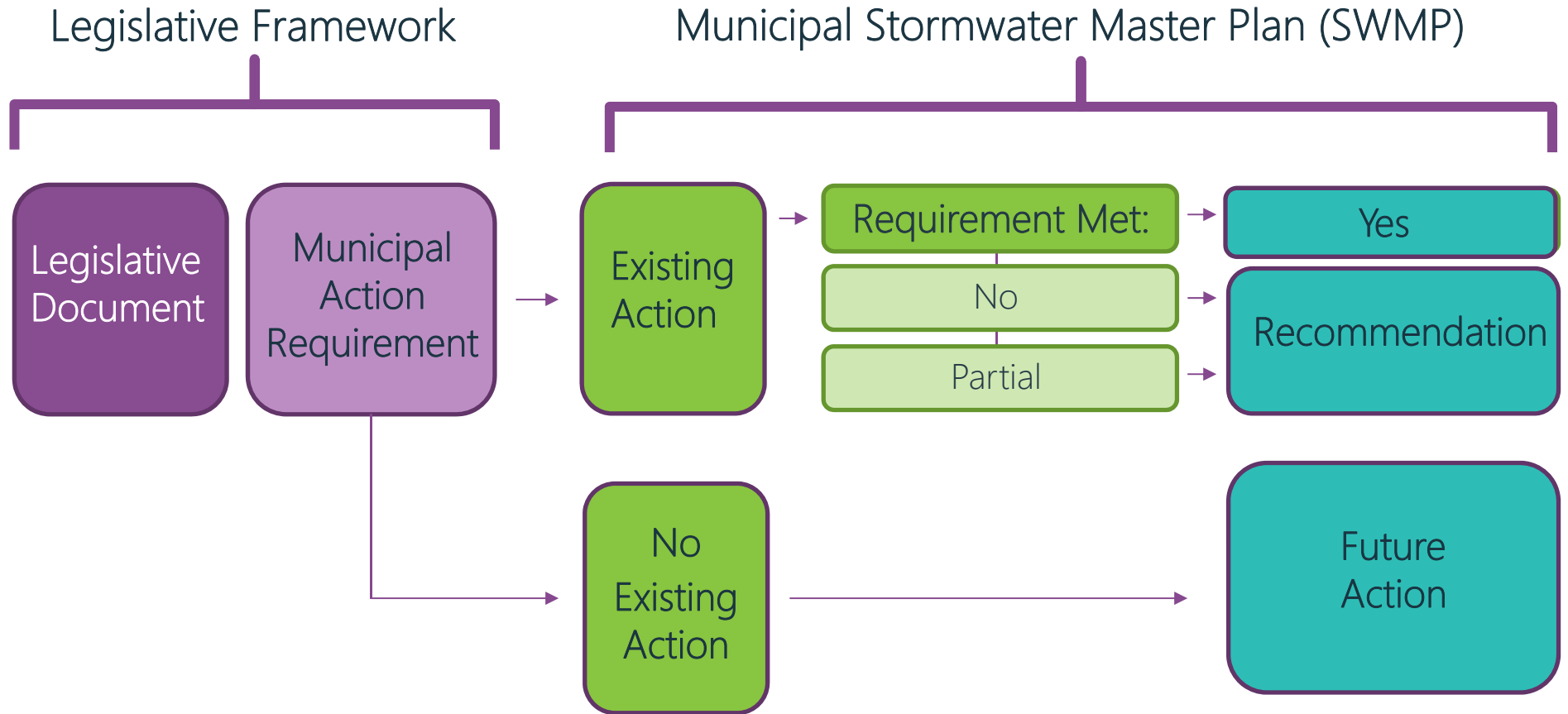
3. Role of Legislation

3.0 Role of Legislation



3.0 Role of Legislation

The “**legislative checkbox**” will ensure that Mississauga’s legislative requirements are being addressed through City actions, no gaps exist, and stakeholder needs are being met.



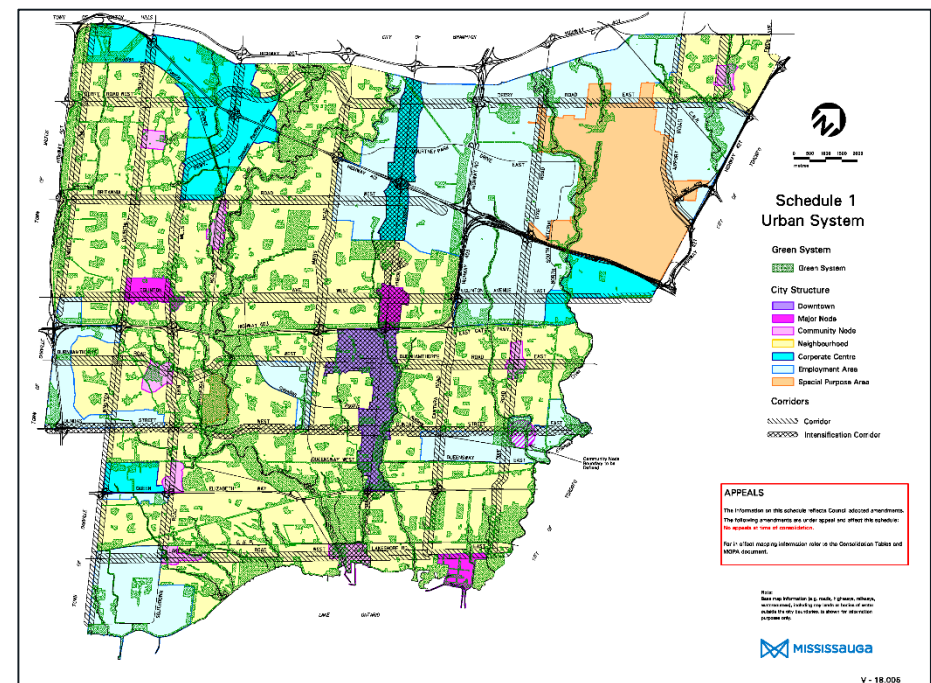
4. Mississauga Today

4. Mississauga Today

A complete and current understanding of the City's existing and future conditions, including built and natural infrastructure, is critical to understanding the City's stormwater system, and the factors which influence stormwater action/program priorities.

Accordingly, the following have been reviewed:

- Existing and Future Conditions
 - *Population*
 - *Land Use*
 - *Climate*
- Watershed and Storm Drainage Systems



5. Cities and Stormwater

5. Cities and Stormwater

Stormwater management approaches applied by other communities were reviewed to inform the development of the SWMP through a comparison of policies, programs and activities.

Local

- Town of Oakville – Stormwater Master Plan
- City of Kingston – Neighbourhood Level Drainage Assessments

National

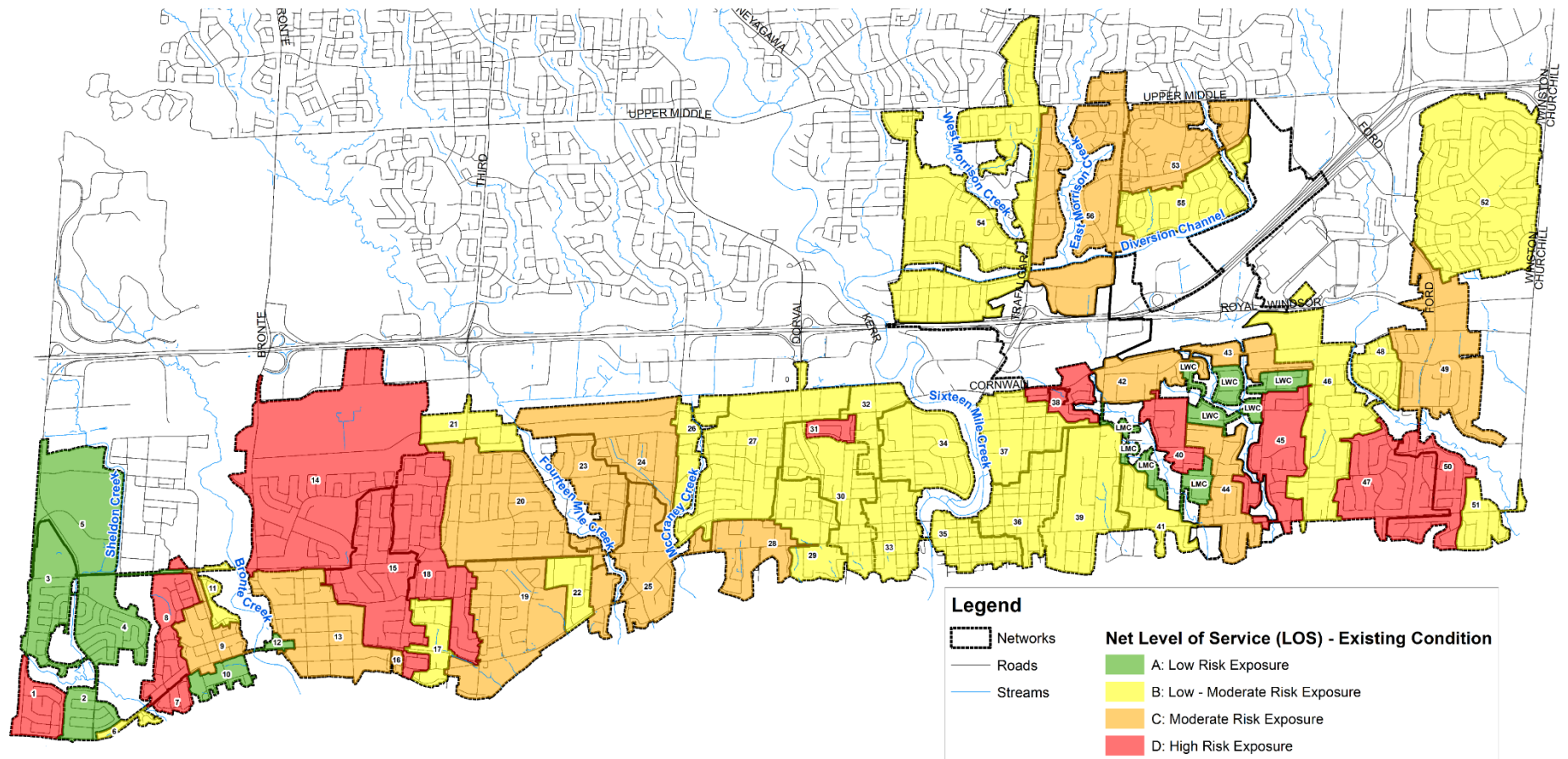
- City of Vancouver – City-wide Rainwater Management Plan
- City of Calgary – Stormwater Volume Control Target Update & Development Approvals Practices

International

- New York City Environmental Protection – Innovative & Integrated Stormwater Management
- City of Portland – Stormwater Management Manual
- City of Nashville – Stormwater Management Manual
- Seattle Public Utilities – Drainage and Wastewater Art Master Plan

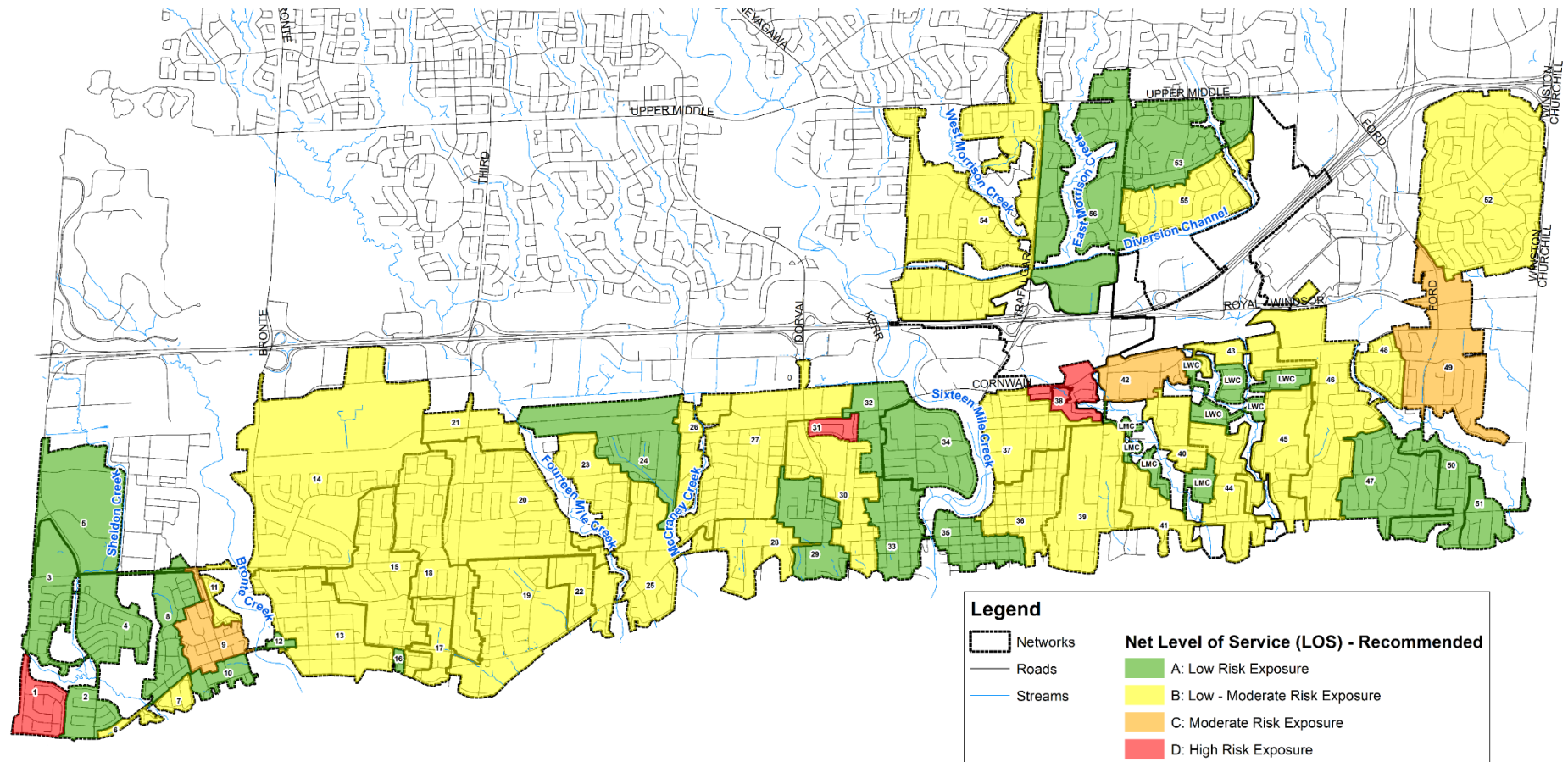
5. Cities and Stormwater – Local

Town of Oakville Stormwater Master Plan



5. Cities and Stormwater – *Local*

Town of Oakville Stormwater Master Plan



7.2 Cities and Stormwater - *National*

City of Vancouver – City-wide Rainwater Management Plan

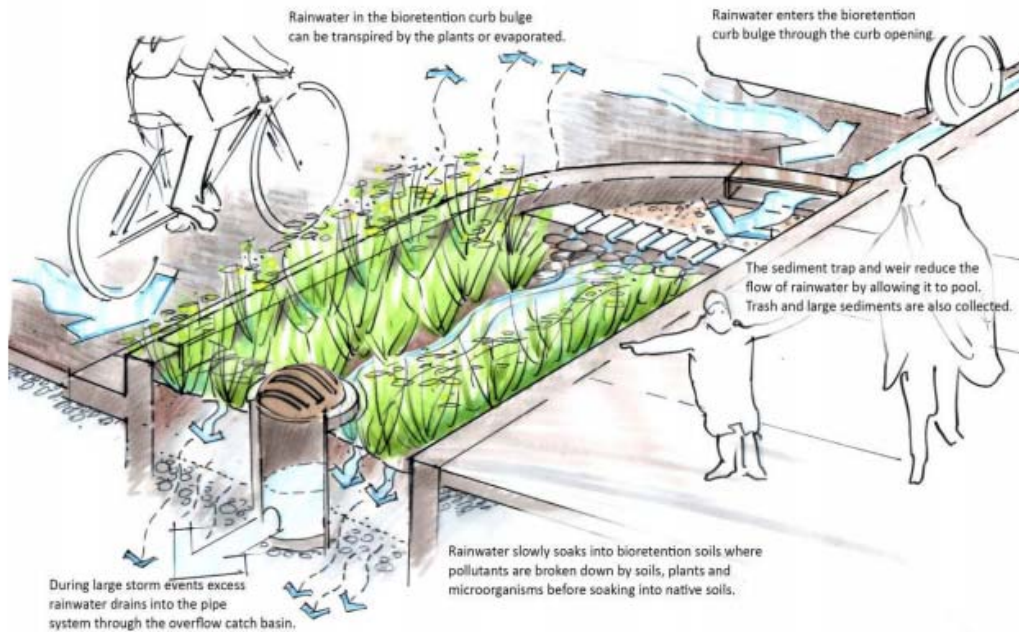


FIGURE 17: BIORETENTION

Aspirational target (no timeline):

- Manage 100% of Vancouver's impervious surfaces citywide using Green Rainwater Infrastructure (GRI)

Interim target:

- Manage 90% of average annual rainfall, to a design standard of 48 mm, to be applied to 40% of Vancouver's impervious areas by 2050

5. Cities and Stormwater – *International*



New York City Innovative & Integrated Stormwater Management (2017)

- Interviewed 34 Communities across North America and Abroad
- Provides overview of practices Communities are applying as a whole
- Identifies innovative approaches being applied by Communities on topics such as:
 - *Policies*
 - *Floatables Programs*
 - *Structural Stormwater Controls*
 - *Stormwater Monitoring*
 - *Funding*
 - *Public Outreach*
 - *Illicit Discharge and Detection Programs*



6. Establishing Actions

6. Establishing Actions

Four Theme Areas:

- A. Understand Its Nature
- B. Create Solutions
- C. Celebrate Its Value
- D. Protect Quality

Service Delivery Form:

- 1. Plan
- 2. Program
- 3. Policy
- 4. Partnership
- 5. Procedure
- 6. Project

Action Type:

- 1. Existing Actions
- 2. Future Actions



6. Establishing Actions

Process of Action Development:

- Interviews with City Staff in December 2020
- Establish Understanding of Actions
- Develop Recommendations based on:
 - *Best Practices*
 - *Legislative Requirements*
 - *City Staff Commentary*
 - *Emerging Changes*
- Consultation (Stakeholders, Public, EAC, City)
- Finalize Existing and Future Actions



6. Establishing Actions

Existing Action Templates

Action	Action X
Service Delivery	Plan/Program/Policy/Partnership/Procedure/Project
Description	City input
Rationale	City input
Department/Division/Section	City input
Partnerships	City input
FTEs	City input
Equipment	City input
Annual Budget (Capital budget, O&M, Year)	City input
Relevant Legislative/Policy/Emerging Practices link (Refer to legislative framework for detailed legislative requirements)	Wood input
Industry Best Practices	Wood input
Recommendations	Wood & City Input
a. People	Wood & City Input
b. Equipment	Wood & City Input
c. Policy	Wood & City Input
d. Program	Wood & City Input
e. Methodology	Wood & City Input
f. Other	Wood & City Input

6. Establishing Actions

Future Action – Draft Example:

Action	Groundwater Quality Management
Service Delivery	Policy
Description	<p>Improve groundwater quality management related to permanent and temporary groundwater discharges by:</p> <ul style="list-style-type: none"> - Refining Sewer Use By-law for naturally occurring parameters. - Adding groundwater discharge criteria to the Development Manual. - Adding monitoring requirements to Permits.
Rationale	<p>City allows proponents to discharge groundwater to storm sewer systems in two scenarios: temporary and permanent discharge. Discharges are managed by Development Manual, Sewer Use By-law and Permits. Groundwater quality management is required to control quality and quantity of water discharging to municipal sewer system and watercourses.</p>
a. Best Practices	<p>City of Toronto – requires system sampling port, monitoring and compliance reporting. Agreements renewed based on compliance. City of Calgary – Sewer Use By-law includes treatment requirements.</p>
b. Legislation/Policy Existing	Provincial Water Quality Objectives
c. Emerging Practices	Intensification resulting in deeper buildings encountering groundwater; increased need for groundwater management.
Suggested Department and Partnerships	N/A
Resource Needs	One (1) Full Time Employee (FTE)
Estimated Costs	TBD

6. Establishing Actions

A. Understand Its Nature (Studies)

1. Map sanitary/storm system flood risks in older neighbourhoods – Existing Action
2. *Map Groundwater (City-wide) – Future Action*
3. *Contemporary Economic Consideration Decision-Making Process – Future Action*
4. *Pursue System-wide ECA – Future Action*

B. Create Solutions (Design & Implementation)

1. *Strategic land acquisition of flood vulnerable lands (riverine) – Future Action*
2. *Implement Green Streets Decision Framework – Future Action*
3. *Open Ponds in Downtown – Future Action*
4. *Open Ditch Management Strategy – Future Action*
5. *Groundwater Quality Management – Future Action*
6. *Cooling BMPs – Future Action*

6. Establishing Actions

C. Celebrate Its Value (Engagement & Partnerships)

1. *Cost effective Artist in Residence program – Future Action*
2. Outreach – Existing Action
3. Overhaul Stormwater Charge Credit Program – Existing Action

D. Protect Quality (Monitoring & Maintenance)

1. Outfall Monitoring (Water Quality) – Existing Action
2. Pollution Prevention Plans – Existing Action
3. Asset Management: Watercourses – Existing Action
4. Asset Management: Pipes – Existing Action
5. Asset Management: SWMF's – Existing Action
6. *Culvert Assessments – Future Action*
7. Integrated Rainfall Monitoring Program (with CAs) – Existing Action

7. Next Steps

7. Next Steps

- | | |
|--|-------------------------|
| 1. Indigenous Engagement | <i>Ongoing</i> |
| 2. Stakeholder Consultation (Peel Region and CA's) | <i>Early March 2021</i> |
| 3. Public Information Centre | <i>Late March 2021</i> |
| 4. Implementation Requirements | <i>April-May 2021</i> |
| 5. Draft SWMP | <i>May 2021</i> |
| — Will be provided to EAC for commentary | |
| 6. Final SWMP | <i>June 2021</i> |
| — Present to Council | |

Memorandum



To: Environmental Action Committee

From: Dianne Zimmerman, Manager, Environment

Date: January 26, 2021

Subject: Interim GHG Cap and Phase-Out of Gas-Fired Electricity Power Generation

Memo Highlights

- According to the Independent Electricity System Operator's Annual Planning Outlook (Jan 2020), greenhouse gas (GHG) emissions from Ontario's electricity grid are expected to rise in the coming years as the Province increasingly relies on gas-fired power plants to help meet electricity demand.
- Increased reliance on gas-fired power plants to generate electricity will increase GHG emissions by more than 300% by 2025 and by more than 400% by 2040.
- This will decrease the benefits achieved from the phase-out of coal-fired power plants. For example, in 2017, GHG emissions from Ontario's electricity sector totalled 2.5 megatonnes (MT), a decrease of 93% since 2005.
- In June 2019, Council declared a climate emergency in Mississauga.
- In December 2019, Council approved the City's first comprehensive Climate Change Action Plan (CCAP). That plan sets out ambitious goals, including reducing GHG emissions 80% (compared to 1990 levels) by 2050 with the long-term goal of becoming a net-zero community.
- To ensure that municipalities, including the City of Mississauga, are able to meet their GHG reduction targets, Ontario's electricity grid must remain low carbon. This can only be achieved if the Province finds alternatives to using natural gas (e.g., solar, wind, and hydro).

A. Background

Ontario's demand for electricity is increasing. According to the Independent Electricity System Operator (IESO), demand for electricity in Ontario is projected to increase 1% per year for the next 20 years. To meet this demand, the Province purchased three gas-fired power plants¹ and is planning to re-build ten of Ontario's aging nuclear reactors. The projected costs for these initiatives is almost \$30 billion.²

¹ <https://finance.yahoo.com/news/tc-energy-completes-sale-ontario-203010266.html?guccounter=1>

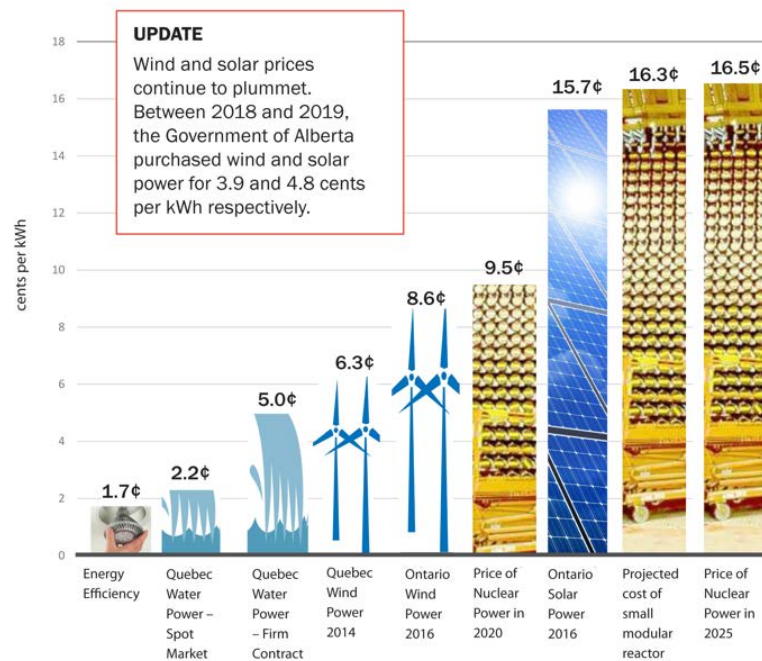
² IESO, Annual Planning Outlook, (January 2020). The three gas power plants cost \$2.8 billion and the forecasted cost of re-building the ten aging nuclear reactors is \$25.8 billion.

The Province's approach to meeting electricity demand will result in increased GHG emissions. According to the Ontario Clean Air Alliance, GHG emissions from Ontario's electricity grid fell by 93% from 2005 to 2017 due to the phase-out of Ontario's coal-fired power plants. The Province's plan to increase the use of gas-fired power plants for electricity generation is expected to increase GHG emissions by more than 300% by 2025 and by more than 400% by 2040. This will reverse more than one third of the GHG emission reductions that were achieved by phasing out Ontario's coal plants.³

On December 8, 2020, Jack Gibbons from the Ontario Clean Air Alliance presented to the Environmental Action Committee. In his presentation, Mr. Gibbons provided background information about the significant increases in GHG emissions that are expected from electricity generation in the coming years. He identified three ways that gas-fired power plants could be phased-out in Ontario:

- Focus on energy efficiency activities;
- Increase the amount of clean hydroelectric power from Quebec; and
- Increase wind and solar energy.

Mr. Gibbons also provided the following graphic, which shows the costs of various options to generate electricity (note that, according to Mr. Gibbons, the cost of natural gas is about 3¢ per kWh):



At the end of Mr. Gibbon's presentation, EAC directed staff to further investigate the Ontario Clean Air Alliance's request to phase-out all gas-fired electricity generation, to benchmark with other municipalities on endorsement, and to report back to EAC prior to General Committee.

³ Ontario Clean Air Alliance, Phasing-Out Ontario's Gas-Fired Power Plants – A Road Map (April 2020).

B. Comments

Mississauga's Climate Commitments

The City of Mississauga has set ambitious GHG reduction targets. After declaring a climate emergency in June 2019, the City approved its first comprehensive Climate Change Action Plan (CCAP) in December 2019. The CCAP provides a path forward for climate action in the City over the next ten years. It also sets a target of reducing GHGs 80% by 2050, with the long-term goal of becoming a net zero community.

The expected increase in GHG emissions from electricity generation will limit the City's ability to meet its GHG targets under the CCAP. In particular, the Province's increased reliance on natural gas will undermine any of the actions that the City takes to decrease GHGs through electrification (e.g., deep building retrofits, installing electric vehicle chargers).

It is important to note that the increased emissions from electricity generation will also impact the City's ability to meet its targets under the latest Five Year Energy Conservation Plan (2019-2023). Under that plan, the City has targeted a 1% reduction per year in energy use and GHG emissions in its facilities, over the next five years. It will be increasingly difficult to meet these annual targets as Ontario's electricity grid becomes more carbon intensive. To ensure that the City is able to meet its GHG reduction targets under this plan and the CCAP, Ontario's electricity grid must remain low carbon.

Provincial and Federal Climate Commitments

The provincial and federal governments have also made climate change commitments. In 2018, under the Made-in-Ontario Environment Plan, the Province committed to reducing GHG emissions 30% below 2005 levels by 2030, a target that aligns with the federal government's goal and the Paris Accord. Further, the federal government has announced its intention to develop a plan to achieve "a prosperous net-zero emissions future by 2050."

Increasing GHG emissions from the electricity sector will significantly restrict the ability of the provincial and federal governments to meet these commitments.

Previous Role of Municipalities in Phasing-out Coal-Fired Power Plants in Ontario

It should be noted that the City of Mississauga played a pivotal role in another energy transition: the phase-out of coal-fired power plants. As noted in the Ontario Clean Air Alliance's FAQs on Phasing Out Ontario's Gas-Fired Power Plants by 2030 Campaign, Mississauga played an important role in the phase-out of coal: "In March 2000, Mayor Hazel McCallion held a press conference outside the Lakeview Coal-Fired Power Plant in Mississauga and asked the then Premier of Ontario, Mike Harris, to shut it down. Thanks to Mayor McCallion's leadership, Lakeview was shut down." The Ontario Clean Air Alliance also notes that municipal councils played an important role in the coal

phase-out, stating that “eleven municipal councils called for a coal phase out to improve local air quality and reduce climate pollution.”

Council can play a similarly important role in calling for the Province to phase-out gas-fired power plants. In fact, a number of Ontario municipal councils have already made the following motions:

Municipality	Motion and Date
City of Kitchener	October 26, 2020 <u>Kitchener City Council unanimously called on the Government of Ontario to phase-out Ontario's gas-fired power plants by 2030 to ensure that the province can meet its 2030 climate target.</u>
Town of Halton Hills	October 26, 2020 <u>Halton Hills Town Council unanimously requested the province "to reverse its plan for increased power production at its gas-fired power plants" and instead invest in energy efficiency, wind and solar energy and to "begin negotiations with the Province of Quebec to purchase clean hydro electricity" to replace power from the Pickering Nuclear Station, which is scheduled to close in 2024.</u>
City of Hamilton	November 11, 2020 <u>The City of Hamilton unanimously passed a resolution calling on the Government of Ontario to phase-out the province's gas-fired power plants by 2030</u>
City of Burlington	November 23, 2020 <u>City of Burlington council unanimously supported a resolution regarding phasing out natural gas for electricity generation.</u>
City of St. Catharines	December 2, 2020 <u>City of St. Catharines calls for gas plant phase-out by 2030</u>
City of Guelph	December 14, 2020 <u>City of Guelph passed a motion that Ontario establish an interim cap of 2.5 Megatonnes per year on our gas plant's greenhouse gas pollution and develop a plan to phase out all gas-fired electricity generation by 2030 to ensure Ontario meets its climate targets</u>
City of Kingston	January 20, 2021 <u>City of Kingston calls for the phase-out of Ontario's natural gas-fired power plants</u>
City of Waterloo	January 18, 2021 <u>City of Waterloo requests the Government of Ontario to place a cap on greenhouse gas pollution from gas plants</u>

Staff Recommendations

With respect to Jack Gibbons' request to put a GHG emissions cap on the electricity sector of 2.5 megatonnes (MT) and to phase out gas-fired electricity generation in Ontario by 2030, staff are providing the following recommendations:

- In 2017, Ontario reached its lowest GHG emission levels from the electricity sector – emitting just 2.5 MT. The Ontario Clean Air Alliance is calling on the Province to place an interim GHG emissions cap of 2.5 MT per year from Ontario's electricity grid, which we know is achievable.⁴
- Mississauga established a precedent by calling on the Province to phase-out coal in 2000.
- It is reasonable to expect the Province to develop and implement a plan to phase-out gas-powered electricity generation by 2030 to ensure that Ontario meets its 2030 climate targets.

Draft EAC Recommendation

That the Environmental Action Committee support in principal Phasing-Out Ontario's Gas-Fired Electricity Power Generation and recommends that Jack Gibbons, Chair, Ontario Clean Air Alliance present this initiative for further discussion at an upcoming General Committee meeting.

If you have any questions, please contact me at 5736.

Dianne Zimmerman, Manager, Environment

⁴ Ontario Clean Air Alliance, Phasing-Out Ontario's Gas-Fired Power Plants – A Road Map, (April 2020).

2019-2022 Environmental Action Committee Work Plan

WORK PLAN ITEM	ACTION FOR EAC MEMBERS	TIMING	PROGRESS	
			Action Taken or Date Completed	
Climate Change	Support approval and implementation of the Climate Change Action Plan.	Ongoing	May 29, 2019	At the May 29, 2019, General Committee meeting, students from Camilla Road Senior Public School requested the City of Mississauga declare climate change an emergency. The following recommendation was issued; <i>That a motion provided by the students of Camilla Road Senior Public School regarding the City of Mississauga declaring climate change an emergency be referred to the Environmental Action Committee for further consideration. GC-0306-2019</i>
			June 11, 2019	Referred from the May 29, 2019 GC meeting, the Eco Team Students from Camilla Road Senior Public School provided an overview on the crisis surrounding climate change and requested that the City of Mississauga declare a Climate Emergency at the June 11, 2019 EAC meeting. The following recommendation was issued; <i>That the Environmental Action Committee supports Camilla Road Sr. Public School Eco Team's position that the City of Mississauga will declare a Climate Emergency and create an action plan to help achieve net zero emissions and increased renewable energy by 2050. EAC-0016-2019</i>
			June 19, 2019	At the June 19, 2019 Council, the following EAC-0016-2019 recommendation was amended and approved as; <i>Climate change is a real and urgent crisis, driven by human activity, that impacts the environment, biodiversity, human health and the economy.</i> <i>The City of Mississauga is committed to taking action on climate change, therefore the City of Mississauga declares a climate emergency and direct staff to develop and bring forward a climate change action plan to Council for approval by the end of 2019.</i> <i>That the students of Camilla Road Senior P.S. be thanked for their initiative on this matter.</i> 0149-2019
			July 9/2019	Deep dive discussion surrounding the Climate Change Action Plan with the EAC Members gaining insightful comments and feedback for consideration during the finalization of the overall plan.
			July 25/2019	The Climate Change Stakeholder Panel workshop was held, where several EAC Members participated. Comments received at this workshop were incorporated in the draft Climate Change Action Plan (CCAP). The updated CCAP will go to Council at the September 18th meeting for information. If public consultation for this draft CCAP is approved by Council at this meeting, public consultations will run from Mid-September to October.

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Climate Change	Support approval and implementation of the Climate Change Action Plan.	Ongoing	Sept. 9/2019	The Corporate Green Building Standard for New Construction and Major Renovations Building Projects takes into account the Climate Change Action Plan to reach 80% GHG Reduction by 2050.
			Sept. 19/2019	An email was sent to EAC Members to share public consultation opportunities (e.g., open houses, survey) for the draft Climate Change Action Plan. Consultation opportunities available between September 18, 2019 and October 18, 2019.
			Nov. 12/2019	<p>At the November 12, 2019 EAC meeting – A deputation and memo related to the final draft version of the Climate Change Action Plan were presented to the EAC Members and the Committee approved the following recommendation;</p> <p><i>That the Environmental Action Committee are in support of the Climate Change Action Plan and bringing it to General Committee on December 4, 2019 for endorsement. EAC-0041-2019</i></p>
			Dec. 4/2019	<p>At the December 4, 2019 General Committee meeting – The Climate Change Action Plan was unanimously supported and approved by the Members of Council.</p> <p><i>That the Climate Change Action Plan (CCAP), and its supporting vision, goals, and actions, attached as Appendix 1 to the Corporate Report dated November 22, 2019 entitled "Climate Change Action Plan" from the Commissioner of Community Services be approved, subject to the City of Mississauga's annual budget process. GC-0650-2019</i></p>
			Sept. 15/2020	City staff presented to EAC on the Climate Change Online Public Education and Engagement Tools.
			Nov. 3/2020	<p>At the November 3, 2020 EAC meeting – A deputation from Clean Air Partnership and a staff memo regarding Inter-Governmental Declaration on Clean Air and Climate Change for Clean Air Council were presented to the EAC Members and the Committee approved the following recommendation;</p> <p><i>2. That the Environmental Action Committee are in support of Clean Air Council's 2019-2023 Intergovernmental Declaration on Clean and Climate Change and recommend endorsement from General Committee on November 18, 2020. EAC-0022-2020</i></p>
			Dec. 8/2020	<p>At the December 8, 2020 EAC meeting – A deputation from Clean Air Alliance and an associated memo requesting the City to draft a letter to the Province supporting the initiative to Phase-Out Ontario's Gas-Fire Power Plants by 2030 was presented to the EAC Members and the Committee approved the following recommendation;</p> <p><i>3. That staff further investigate Clean Air Alliance's request to phase-out all gas-fired electricity generation and to benchmark with other municipalities on endorsement and to report back to the Environmental Action Committee prior to General Committee. EAC-0032-2020</i></p>
			Dec. 8/2020	At the December 8, 2020 EAC meeting – A deputation from Alice Casselman, EAC Member and Founding President of Association for Canadian Educational Resources, and Catherine Sople, Founder, Building Up Our Neighbourhoods, and a draft proposal on an initiative called Project

2019-2022 Environmental Action Committee Work Plan

Climate Change	Support approval and implementation of the Climate Change Action Plan.	Ongoing		<p>Crossroads was presented to the EAC Members and the Committee approved the following recommendation;</p> <p>2. That the Environmental Action Committee are in support in principal of Association for Canadian Educational Resources Project Crossroads Initiative.</p> <p>Staff will work offline with Association for Canadian Educational Resources to explore the potential of expanding the One Million Trees Program to include the School Board District and potentially creating a working committee with staff that focuses on climate change, equity and inclusion.</p>
VOLUNTEERING	Participate in volunteering opportunities as members of the Community Green Leaders volunteer program.	Spring 2020	Sept. 26/2019	Opportunities for EAC Members to participate in the program will be brought to the Committee in spring 2020.
		Ongoing	Oct. 8/2019	Adopt-a-Park deputation and discussion around the Members of EAC participating in a litter pick-up at a local park. Pujita Verma, EAC Citizen Member will be coordinating the details of the next volunteer event (date to be determined).
			Mar. 3/2020	<p>Pujita Verma, EAC Citizen Member coordinated the details of Adopt-A-Park Clean Up for the Members of the Committee. The Committee decided on the following;</p> <p>2. That the Environmental Action Committee selected the proposed dates of April 18, August 22, and October 17, 2020 at 10:00AM to participate in the Adopt-A-Park Clean-Up Program.</p> <p>a. That the April 18, 2020 Adopt-A-Park Clean Up be located at the R.K. McMillan Park along the banks of the Cooksville Creek from Lakeshore Road to Lake Ontario.</p> <p>b. That the locations of the August 22 and October 17, 2020 proposed Adopt-A-Park Clean-up dates be determined at a future date. EAC-0009-2020</p> <p>Due to the COVID-19 Pandemic – the April and August dates for the Adopt-A-Park Clean Ups have been postponed.</p>
			Aug. 14/2020	City staff have developed COVID protocols for safely reengaging volunteers and on August 14, 2020 conducted a trail litter clean up at R.K. McMillan Park with the Environment staff to test these protocols. Based on this, a date to conduct a litter clean-up with EAC Members will be discussed on September 15, 2020 EAC Meeting.
			Oct. 6/2020	Pujita Verma, EAC Citizen Member provided an update to EAC on the Committee's upcoming October Litter Clean Up and new health and safety protocols surrounding COVID-19. An email was sent post meeting outlining the volunteer participation; Saturday, October 17, 2020 from 10AM to 12PM at R.K. McMillian Park.
			Oct. 17/2020	EAC Members participated in Litter Clean Up at R.K. McMillian Park. Several EAC members participated in the clean-up and a total of 10 kg of waste was collected. Littered items mainly included coffee cups, balloons, confetti, beer bottles.

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Support City Action on Environment	Be prepared to comment on City-led items brought forward to EAC meetings. (E.g., strategic plans, by-laws).	At EAC meetings	Sept. 9/2019	The Corporate Green Building Standard for New Construction and Major Renovations Building Projects was presented to EAC and recommended by the Members of Environmental Action Committee to General Committee for endorsement.
			Sept. 9/2019	The Downtown Strategy was presented at EAC, where the Members provided comments and feedback. An email was sent post meeting asking for participation from the EAC Members to fill out the survey to provide more insightful feedback.
			Nov. 12/2019	The Stormwater Master Plan was presented at EAC, where the Members provided comments and feedback.
			July 7/2020	An email was sent to EAC Members requesting feedback on the Stormwater Master Plan.
			Sept. 15/2020	City staff presented to EAC an Update on District Energy in the City of Mississauga.
			Oct. 6/2020	A deputation regarding the Pedestrian Master Plan was presented at EAC, where the Members provided comments and feedback.
			Oct. 6/2020	A deputation regarding the Green Fleet and Equipment Policy was presented at EAC, where the members provided comments and feedback.
			Oct. 6/2020	City staff presented to EAC on the Home Energy Retrofit Program.
			Nov. 3/2020	A deputation regarding Energy Efficiency in Buildings and Low Carbon Energy Supply was presented at EAC, where the Members provided comments and feedback.
			Nov. 3/2020	A deputation regarding Parkland Acquisition was presented at EAC, where the Members provided comments and feedback.
			Nov. 3/2020	A deputation regarding the Downtown Movement Plan was presented at EAC, where the Members provided comments and feedback.
			Nov. 3/2020	<p>At the November 3, 2020 EAC Meeting – the Committee approved the following recommendation;</p> <p><i>That the draft Green Fleet and Equipment Policy, attached as Appendix 1, the Decision Making Framework and Electric Vehicle Charging Station Standard, attached as Appendix 2 and 3 be supported by the Environmental Action Committee and recommend endorsement by General Committee. EAC-0027-2020</i></p> <p>Subsequently, at the November 25, 2020 General Committee meeting, Council adopted the Green Fleet and Equipment Policy and Electric Vehicle Charging Station Standard as per Recommendation GC-0317-2020</p>

2019-2022 Environmental Action Committee Work Plan

			Dec. 8/2020	A deputation regarding the Electric Grass Cutting Equipment Pilot Project was presented at EAC, where the Members provided comments and feedback.
			Dec. 8/2020	A deputation regarding the Sustainable Procurement Policy was presented at EAC, where the Members provided comments and feedback.
Report on Committee Progress	Report to General Committee bi-annually on the progress of the EAC's work plan and activities. (Includes the EAC Actions Summary as an appendix)	Twice per year	Mar. 3/2020	At the March 3, 2020 EAC Meeting – the Committee approved the following recommendation; 1. <i>That Carina Suleiman and Shazerah Qureshi, Environmental Action Committee Student Members have been selected to present on the Committee's Progress and Achievements outlined in the Environmental Action Committee Work Plan to Members of Council at the June 10, 2020 General Committee.</i> 2. <i>That the Environmental Action Committee Work Plan be approved as discussed at the March 3, 2020 Environmental Action Committee meeting. EAC-0010-2020</i>
			July 22/2020	At the July 22, 2020 Virtual Council Meeting - Carina Suleiman and Shazerah Qureshi, Environmental Action Committee Student members presented (deputation) the Committee's Progress and Achievements based on the Environmental Action Committee Work Plan.
			Dec. 8/2020	Due to the COVID-19 Pandemic, this year (2020) the Committee will forego the second deputation to report on the Committee's progress outlined in the EAC Work Plan.
Additional/Other			Nov. 12/2019	At the November 12, 2019 EAC meeting – the Committee supported going paperless and approved the following recommendation; <i>That the Legislative Coordinator for the Environmental Action Committee (EAC) eliminates the distribution of paper copies of the agenda and will only provide electronic copies of the agendas for all EAC meetings starting December 10, 2019. EAC-0042-2019</i>
			Oct. 6/2020	The Citizen Satisfaction Survey was presented at EAC. Members provide comments and feedback pertaining to expanding the Environmental section to include a question on Climate Change.
			Oct. 6/2020	A verbal update on the Smart City Challenge was provided at EAC. If interested, Members can be invited to attend the industry presentations and the closing awards session.
			Dec. 8/2020	A secondary student presented to the Committee on Marker Recycling. Staff will work with the student offline to create a potential pilot project to place cardboard bins for markers to be recycled in City owned libraries and recreational facilities.
Next Steps	Upcoming suggested environmental actions and initiatives to be implemented.	Ongoing	Feb. 4/2020	At the February 4, 2020 EAC Meeting – Two external deputations presented on the decline of birds as result of unfriendly bird glazing. The Committee requested that staff contact FLAP (Fatal Light Awareness Program) Canada to gather birds of prey statistics and report back to EAC. The Committee approved the following recommendation;

2019-2022 Environmental Action Committee Work Plan

			<div>2. That staff be directed to report back to a future Environmental Action Committee meeting to investigate the feasibility of becoming a Bird City.</div> <div>3. That Animal Services staff be requested to provide a list of programs and services related to injured animals and wildlife rehabilitation to be circulated to the Environmental Action Committee and Members of Council. EAC-0002-2020</div>
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