



# Environment

2017-2020 Business Plan  
& 2017 Budget

# Foreword

Mississauga City Council approved **Our Future Mississauga**, the Strategic Plan to achieve our vision over the next 40 years. The strategic vision identified five pillars for change, Move, Belong, Connect, Prosper and Green. The City consulted extensively with residents, staff and stakeholders in developing the Strategic Plan.

The City continues to engage with stakeholders about its programs and services through the City's website, social media, satisfaction surveys and more. This helps ensure citizens have input on the decisions that affect them.

The 2017-2020 Business Plan and 2017 Budget detail how and where the City plans to allocate resources to the programs and services that people rely on every day, while providing good value for taxpayers and supporting the Strategic Plan.

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## Executive Summary of Environment

**Mission:** To drive environmental excellence by providing leadership that empowers and engages people in environmental action and implementation of environmental best practices.

### Services we provide:

The Environment service area drives environmental excellence in Mississauga by providing:

- Climate change risk assessment and planning
- Environmental awareness and outreach, both in the community and internally with City staff
- Corporate waste management
- Environmental leadership
- Environmental metrics and reporting

### Interesting facts about this service:

- Leading City's response to climate change
- Environmental displays and activities at 70 community events across the City
- Introduced Mississauga Green Facebook page
- Manages the City's environmental employee engagement program (Green Leaders)
- Improved waste diversion at the Civic Centre from 42 per cent to 66 per cent in two years

### Highlights of the Business Plan include:

- Developing a City of Mississauga Climate Change Plan in 2017/18, with implementation commencing in 2018
- The environmental outreach program will focus on climate change in 2017 and continue to increase awareness and outreach in the community and internally
- An Earth Market in every ward by the end of 2018 followed by a larger annual Earth Market in 2019/20
- City-wide Green Leaders program developed by 2018 with expanded scope in 2019/20
- Six additional community gardens created by the end of 2018 followed by a broader urban agriculture program
- A Corporate-wide, standardized, cost-effective waste program that achieves an overall 75 per cent diversion rate for City facilities

Net Investment (000's)	2017	2018	2019	2020
Operating	1,438	1,476	1,415	1,429
Capital	250	200	0	0
Full Time Equivalents	10.3	10.3	9.3	9.3

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## Core Services

### Vision, Mission, Goals of Service and Service Delivery Model

#### Vision

To make Mississauga a **world-class green city** where people choose to live, work and play.

#### Mission

To drive **environmental excellence** by providing **leadership** that empowers and engages people in **environmental action** and implementation of environmental **best practices**.

#### Goals of Service

Outreach: to empower and engage employees and the community in environmental action, implementation of environmental best practices, and to raise awareness of the City's environmental priorities and initiatives.

Waste: to deliver a standardized, cost-effective Corporate waste program that achieves an overall 75 per cent diversion rate.

Climate Change: to reduce greenhouse gas emissions, position the city competitively in the transition to a low carbon economy and reduce climate change risks, liabilities and costs to the City and its residents.

#### Service Delivery Model



## Achieving our Goals

Outreach (2016)	Waste (2015)	Climate Change (2016)
<p>COMMUNITY</p> <ul style="list-style-type: none"> <li>• Environmental displays and activities at 70 community events</li> <li>• 1,800 Twitter followers</li> <li>• Hosted three Earth Markets</li> <li>• Established eight new community gardens through environmental community grant</li> <li>• Community gardens engaged 4,400 residents in 2015</li> <li>• 44 projects recognized at community recognition event</li> </ul> <p>CITY STAFF</p> <ul style="list-style-type: none"> <li>• Second annual Green Fest with 250 participants</li> <li>• 50 per cent of employees have a Green Leader</li> <li>• Green Leader actions saved \$22,000 in energy costs in 2015</li> <li>• Green Leaders diverted 18 tonnes of used library books from landfill in 2015</li> <li>• 90 per cent of City facilities with Green Leaders received "Green Facility" recognition in 2015</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced contamination of recyclables on Celebration Square by 85 per cent</li> <li>• Established Downtown Exchange District equipment standards and implemented at Square One expansion</li> <li>• Increased waste diversion rate at Hershey Centre from 10 per cent in 2015 to 49 per cent in 2016</li> <li>• 25 tonnes of confidential paper recycled through shredding program</li> <li>• Diverted 3.7 tonnes of single use batteries from landfill</li> <li>• Diverted 5.5 tonnes of organic waste at BraeBen from landfill</li> <li>• Increased participation in the community and employee 20-Minute Makeover by 30 per cent in 2016 with 2,000 registrants at over 50 locations</li> <li>• Established standards for equipment, signage and service for parks, roads and facilities</li> <li>• Established four year City-wide waste plan (including bins, communication, standards)</li> <li>• Increased number of waste audits from eight garbage audits in 2014 to 17 full waste audits in 2015</li> <li>• Delivered waste training program to 10 per cent of City staff</li> </ul>	<ul style="list-style-type: none"> <li>• Climate Change Risk Assessment of City infrastructure and services</li> <li>• Prioritized actions to minimize climate change risk, liabilities and costs to the City and its residents</li> <li>• Inventory of City actions which contribute to climate change mitigation or adaptation</li> <li>• Insurance Bureau of Canada study "<i>The Economic Impacts of the Weather Effects of Climate Change</i>" provided essential information for future climate change adaptation planning</li> </ul>

## Awards and Recognition

Environment is committed to ensuring the City of Mississauga becomes a world-class green city by providing leadership that empowers and engages people in environmental action and implementation of environmental best practices.

Over the past year, Environment and its programs have been recognized for their achievements.

Environment received *Best Contribution* recognition at the 2016 City Manager's Leadership Conference Showcase.



*April, 2016 Leadership Conference*

### Mississauga Corporate Awards:

- 2015 *Kirk French Spirit Award* awarded to Christopher Pyke, Waste Management Coordinator
- 2015 *Brenda Sakauye Environment Award* (Individual) awarded to Paul Craveiro, Green Leader, for energy conservation
- 2015 *Brenda Sakauye Environment Award* (Team) awarded to Earth Markets Team



*Kirk French Spirit Award*



*Brenda Sakauye Environment Award*

## Existing Service Levels, Trends and Efficiencies

### Outreach

The 2015 Residents Survey showed that 73 per cent of the community feels that expanding public environmental outreach is very important. The environmental outreach program is expanding to reach communities in every ward through community events and engaging residents and inspiring sustainable living choices through information provided about City environmental programs and services. The program is supported by volunteers that are trained on a range of environmental topics such as climate change, sustainable transportation, stormwater management, energy efficiency, and waste reduction. Both face-to-face and online tactics are used to reach the community and staff. Internally, the outreach program continues to expand through the growth of the Green Leaders program focussing on waste and energy related actions combined with targeted employee engagement such as lunch and learns, staff events and leadership on various committees.

### COMMUNITY

Environment uses the following online outreach tools:

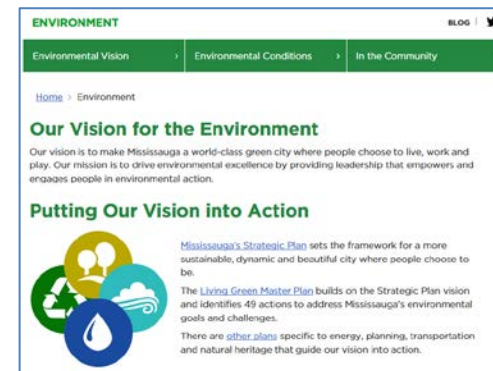
- Facebook – launched August 2016
- Twitter – in its third year and has consistently increased with over 1,800 followers



- Storify:
  - Peel municipalities outreach – “Your Home, Your Commute, Your Community, Your Health”
  - “Mitigation Monday” provides weekly energy tips on how to reduce energy consumption and live green all year long



- Webpages – Mississauga Environment webpages provide environmental conditions reporting and opportunities for the community to get involved and take action

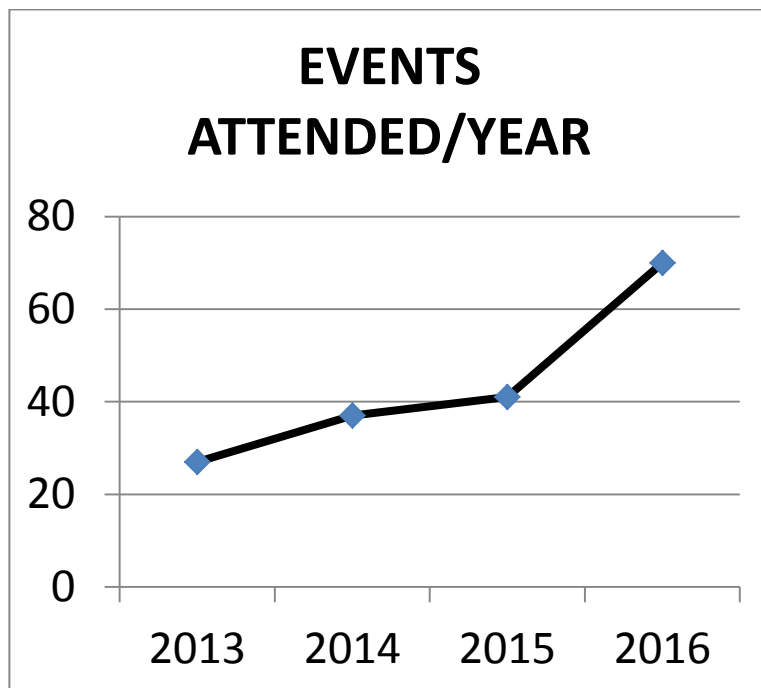




## COMMUNITY

Face-to-face interaction is a critical component for engaging people to learn about the environment and take action. In 2016, Environment provided face-to-face outreach through the following:

- Environmental displays and activities in every ward, at 70 community events, with 867,000 people in attendance



- Three Earth Markets providing a fun and interactive opportunity to learn and engage in environmental activities



- Expanded Earth Days topics and activities and updated marketing to reflect the broader scope
- Environmental Community Grant to Ecosource to establish three new community gardens per year, with a total of eight new community gardens by the end of 2016, and provide programming to teach residents of all ages about local food growing and preserving ecosystem health
- Environment leads a team of community volunteers who provided 200 volunteer hours in 2016 delivering the environmental outreach program

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## CITY STAFF

Environment's goal is to create a green culture within the City of Mississauga by:

- Empowering Green Leaders across the City who lead their team in environmental action and facility eco-recognition. The program has expanded from 40 Green Leaders in 2014 to 90 Green Leaders in 2016, representing 2,500 staff
- Bringing the environmental lens to over 40 City projects and committees
- Delivering environmental education at Corporate orientation sessions
- Greening the City Manager's Leadership Conference
- Leading the City's participation in Sweater Day
- Delivering lunch and learns across the Corporation
- Hosting second Green Fest in the Civic Centre



*August 2016 - Green Fest*

## EFFICIENCIES

Environment's outreach team creates efficiencies and savings by:

- Leveraging 60 community volunteers to deliver education and outreach in the community
- Phasing out the City's first blog and moving to Facebook to reach more people
- Leveraging a team of 90 Green Leaders to help staff take environmental action and create a green culture
- Reducing loading and unloading times for outreach materials by 50 per cent by securing a storage unit which provides easy access to vehicles
- Leveraging Ecosource's expertise, a local not-for-profit, by funding them to establish and program community gardens



*Hillside Park Community Garden*

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## Waste Management

Environment's Corporate waste management program is creating a standardized, cost-effective City waste program to reduce the amount of waste going to landfill. The waste management program establishes standards for waste equipment and signage (right equipment/right place/right time) and establishes an equipment maintenance and replacement program. In 2016, specific actions and results include:

- Putting more standardized equipment and signage in the Civic Centre which has reduced contamination of recyclables
- Increasing the diversion rate at Civic Centre, from 42 per cent in 2014 to 51 per cent in 2015, moving towards the goal of 83 per cent diversion by 2020 (higher goal than City average due to the type of facility)
- One hundred and two per cent increase in recyclable material captured on Celebration Square during Canada Day
- Achieving 37 per cent waste diversion rate in Transit Central (goal 65 per cent)
- Adding organics collection to BraeBen Golf Course
- Conducting five full waste audits to meet regulatory requirements
- Conducted 12 garbage audits in parks, plus equipment inventory and mapping
- Inventory of roadside waste equipment in four Business Improvement Areas, providing baseline data for program improvement
- Producing waste report cards for the Civic Precinct and 950 Burnhamthorpe
- Implementing a new waste program on the 9th floor of 201 City Centre Drive with new bins, signage, training and a monthly newsletter with results and tips



*Waste Bins at 201 City Centre Drive, 9<sup>th</sup> Floor*

### EFFICIENCIES

The waste management program has not only diverted more waste from landfill, it has also resulted in efficiencies and savings by:

- Leveraging Green Leaders to assist with implementation of the waste program. Green Leaders task list includes six mandatory waste reduction actions
- Utilizing students to conduct 20 garbage audits (litter, equipment, signage, bulk waste) which provides data for continuous improvement of the waste management program

## Climate Change

Climate change is one of the most pressing issues municipalities are facing today and is a critical issue internationally, federally and provincially. The Federal and Provincial governments have new action plans and legislation which require municipalities to address climate change. Funding is becoming available for municipalities to implement climate change actions.

Cities have a large role in climate change mitigation and adaptation. Seventy per cent of global greenhouse gas (GHG) emissions come from cities and 50 per cent of the global population live in cities.

Mississauga has already experienced a one degree average temperature increase over the last 60 years. More extreme weather events are predicted for the future with more intense rainfall and wind; and increased ice storms, precipitation and heat events.

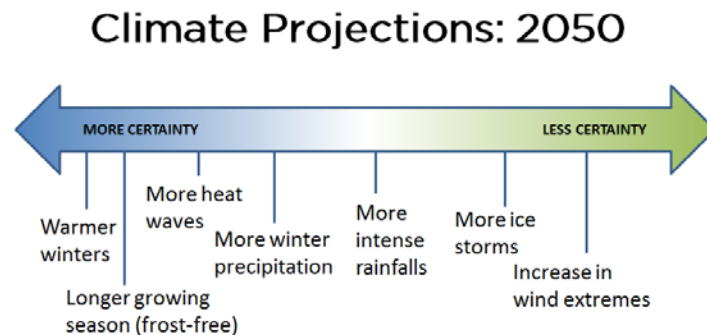
Mississauga has experienced three extreme weather events over the past seven years which has resulted in substantial costs to the City. Financial impacts due to climate change will continue to increase. The recent Insurance Bureau of Canada study found the increased impact of a severe ice storm in the City of Mississauga due to climate change will be \$200 million in 2040.

More than 180 Canadian municipalities have a climate change plan or community energy plan. Environment will develop a Mississauga Climate Change Plan in 2017/18.

Environment is participating in ICLEI - Local Governments for Sustainability's *Train-the-Trainers* program for engaging stakeholders on climate change. This will assist with engagement during the development of the Climate Change Plan.

Environment is also monitoring and reporting on GHG emissions:

- Corporate – The City's power consumption has been increasing in order to keep up with growing service demands, but GHG emissions have been off-set by factors such as the Province's closing of the coal-fired power plants and the City's installation of Light Emitting Diode (LED) street lights. The City's GHG emissions have remained relatively constant since 2012
- Community – There was a 28 per cent reduction in community GHG emissions from 2006 to 2012



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# The 2017-2020 Business Plan Outlook

## Planning for the Future

Climate change is a key priority for Environment over the next four years. A City of Mississauga Climate Change Plan will be developed in 2017/18.



*Spring 2014  
Downtown Mississauga*

Climate change will be the theme for education and outreach in 2017 in order to assist with the development of the plan. Moving forward, environmental outreach will help advance climate change actions and continue to increase outreach with displays, online engagement, Earth Markets and Green Leaders.

The waste program will align with the Climate Change Plan and continue to work towards zero-waste through the development of standards and metrics for program improvement and efficiencies.

A Mississauga Climate Change Plan is required now for a number of reasons:

- To accelerate the reduction of greenhouse gas emissions in Mississauga and position the city competitively in the transition to a low carbon economy
- To reduce climate change risks, liabilities, and costs to the City and its residents
- To increase resilience to future changes in our climate
- To leverage Federal and Provincial climate change funding
- To respond to Federal and Provincial climate change action plans
- To determine whether to join the Compact of Mayors
- To respond to other levels of government, organizations and the public about the City's position, plans and role to address climate change
- To consolidate City climate change actions and reporting



*June 28, 2010  
Cooksville Creek*



The Mississauga Climate Change Plan will be a plan for both the Corporation of the City of Mississauga and the community. It will look at the time horizon of 2018-2030 to align with Federal and Provincial greenhouse gas reduction targets.

Implementation of the plan will achieve the following goals:

Mitigation:

- Reduce Corporate and community GHG emissions and position the city competitively in the transition to a low carbon economy

Adaptation:

- Improve the City's ability to plan for and deal with future climate change impacts; and make the city more resilient to future extreme weather events



*July 8, 2013 North Service Road*



*December 2013 Ice Storm*

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## Maintaining Our Infrastructure

Actions identified in the Climate Change Plan will:

- Help adapt and reduce impacts of climate change
- Increase the City's ability to recover from climate change events (resiliency)



*July 2013 - Wind Storm*

Ten-year Corporate-wide waste equipment plan will:

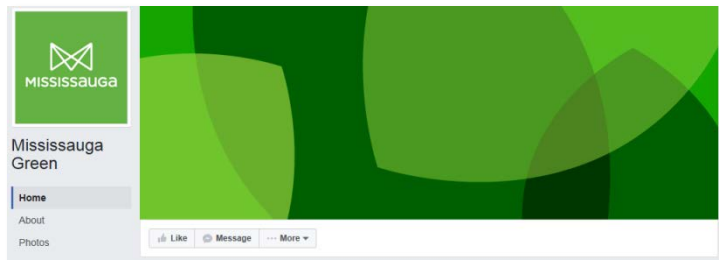
- Support implementation of standards for waste equipment and signage (the right equipment, in the right place and the right time)
- Improve equipment maintenance and replacement program



*Hershey Centre*

## Optimizing the Use of Technology

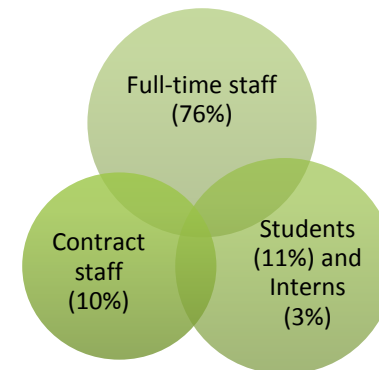
- Online engagement tools will be utilized during the development of the Climate Change Plan
- The Climate Change Plan will be web-based and have reporting functionality
- Environment has its own online and social media channels: Twitter, Facebook, Storify, webpages



- Utilizing mobile access to Wi-Fi during events in remote locations
- Using People Power Challenge app to motivate staff behaviour
- Environment staff utilizing mobile technologies
- Obtaining data from radio frequency identification on all Region of Peel provided waste equipment to monitor individual facility performance and identify opportunities for continuous improvement

## Managing Our Human Resources

- The Environment Division has a combination of full-time and contract staff, students and university interns



- Environment continues to invest in its staff in order to keep skills and expertise current and be prepared for the future
- Environment trains and manages a growing number of Green Leaders across the City who champion environmental action in the workplace



*2015 Green Leaders*



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## Linkages to the City's Strategic Plan

### move - developing a transit oriented city

Environment's outreach program promotes the use of public transit and active modes of transportation.

### belong - ensuring youth, older adults and new immigrants thrive

Environment provides an Environmental Community Grant to support the creation and programming of community gardens which provides community spaces where neighbours of all ages and diverse cultures connect.

Environment hosts Earth Markets which are tailored to Mississauga's diverse communities.

Environment delivers environmental outreach at many multicultural festivals and events.

### connect - completing our neighbourhoods

Environment is leading the City towards environmental sustainability and mitigating the impacts of climate change.

Through the Climate Change Plan, community energy planning will contribute not only to climate change mitigation, but also a holistic approach to complete neighbourhoods to ensure they are energy efficient and sustainable.

Actions identified in the Climate Change Plan will help the city adapt and reduce impacts of climate change on infrastructure.

The environmental outreach program helps residents appreciate the natural environment and engage in active transportation.

Community gardens help improve neighbourhood security.

### prosper - cultivating creative and innovative businesses

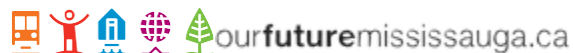
Environment is positioning the City of Mississauga to be competitive in the transition to a low carbon economy and resilient to climate change.

### green - living green

Environment promotes a green culture through community outreach and the Green Leader program, the City's employee environmental awareness program.

Environment coordinates implementation of the Corporate zero-waste program.

Environment is developing a Mississauga Climate Change Plan which will help transition Mississauga towards a net-zero carbon city.



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## Engaging Our Customers

Environment engages the community and staff, and collaborates with partners to achieve the City's environmental goals.

### COMMUNITY

The environmental outreach program is delivered by:

- Environment staff and community volunteers at community events using displays and engagement activities
- Active social media – Twitter, Facebook, Storify
- Utilizing the Freedom Pass Green Challenge campaign to engage youth
- Delivering neighbourhood Earth Markets
- Supporting community gardens
- Coordinating Earth Days activities
- Hosting annual community appreciation event to recognize and profile community projects/groups
- Collaborating with Business Improvement Areas to provide appropriate waste equipment and signage



*Mississauga Block Party, 2016*

Environment works with the Environmental Action Committee (advisory committee of Council) to:

- Champion environmental action
- Advise and comment on environmental issues and policies
- Provide a forum for the public to share information

### CITY STAFF

The Green Leaders program is an internal environmental awareness program that engages staff to take environmental action. The program aims to achieve environmental sustainability in the workplace by providing information and incentives to staff.



*20-Minute Makeover, 2016  
Communications Division*

Environment chairs the Environmental Stewardship Committee (team of directors) and the Environmental Network Team (staff) to ensure implementation of the Living Green Master Plan and advance the City's environmental priorities.

## Proposed Operating & Capital Budgets

This part of the Business Plan sets out the financial resources required to deliver the proposed 2017-2020 Business Plan. Information is provided by major expenditure and revenue category as well as by program. The costs to maintain existing service levels and operationalize prior decisions are identified separately from proposed changes.

The prior year budget for 2016 was \$1.2 million and the proposed budget for 2017 is \$1.4 million.

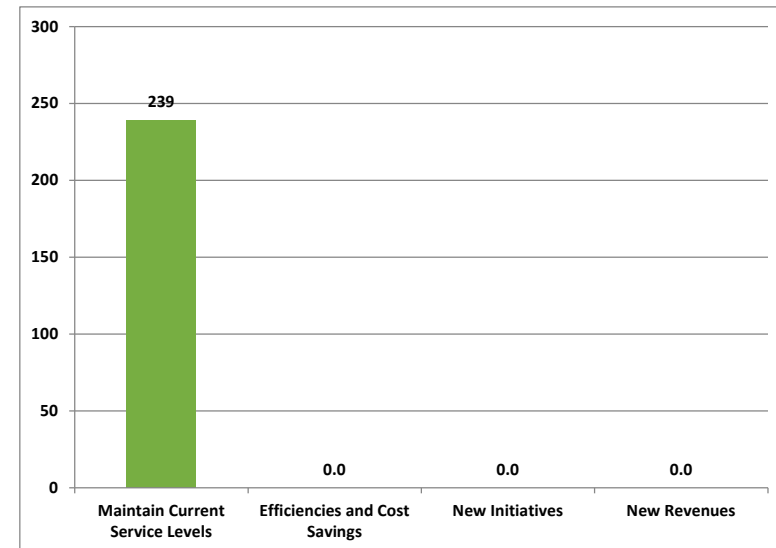
### Total Changes to Maintain Current Service Levels

The cost of maintaining current service levels for Environment is an increase of \$239,000 in 2017.

Highlights of the proposed budget changes are:

- Continuing to build a reserve for conducting environmental plans and strategies with an increase of \$150,000 to fund development of the Climate Change Plan
- Additional \$10,000 for waste audits
- Labour cost increase of \$39,000 which reflects annualization of previously approved 1.6 full time equivalent (FTE) for outreach and 1.0 contract FTE for waste management
- Labour cost increase of \$29,000 for inflation

**Proposed Changes to 2017 Net Operating Budget by Category (000's)**



## Operating

The following table identifies the budgeted and forecasted operating expenditures and revenues for 2017-2020, the 2016 Budget as well as 2015 Actuals by program within the service area.

### Proposed Budget by Program

Description	2015 Actuals (\$000's)	2016 Budget (\$000's)	2017 Proposed Budget (\$000's)	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)
<b>Expenditures to Deliver Current Services</b>						
Environmental Management	943	1,294	1,438	1,406	1,345	1,359
<b>Total Expenditures</b>	<b>943</b>	<b>1,294</b>	<b>1,438</b>	<b>1,406</b>	<b>1,345</b>	<b>1,359</b>
<b>Revenues</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Transfers From Reserves and Reserve Funds	0	(95)	0	0	0	0
New Initiatives and New Revenues			0	70	70	70
<b>Proposed Net Budget Including New Initiatives &amp;</b>	<b>943</b>	<b>1,199</b>	<b>1,438</b>	<b>1,476</b>	<b>1,415</b>	<b>1,429</b>
Expenditures Budget - Changes by Year			11%	(2%)	(4%)	1%
Proposed Net Budget - Changes by Year			20%	3%	(4%)	1%

Note: Numbers may not balance due to rounding.

## Summary of Proposed Budget

The following table provides proposed budget changes further defined into more specific separated categories. It identifies changes in labour, operating costs and revenues to maintain existing service levels, efficiencies and cost savings, the cost increases arising from prior year decisions, special levies and new initiatives.

Description	2016 Approved Budget (\$000's)	Maintain Current Service Levels	Efficiencies and Cost Savings	Annualized Prior Years Budget Decisions	Operating Impact of New Capital Projects	Proposed New Initiatives And Revenues	Special Purpose Levies	2017 Proposed Budget (\$000's)	\$ Change Over 2016	% Change Over 2016
Labour and Benefits	906	29	0	39	0	0	0	974	68	7%
Operational Costs	388	70	0	0	0	0	0	458	70	18%
Facility, IT and Support Costs	0	7	0	0	0	0	0	7	7	0%
<b>Total Gross Expenditures</b>	<b>1,294</b>	<b>106</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,438</b>	<b>144</b>	<b>11%</b>
<b>Total Revenues</b>	<b>(95)</b>	<b>95</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>95</b>	<b>(100%)</b>
<b>Total Net Expenditure</b>	<b>1,199</b>	<b>201</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,438</b>	<b>239</b>	<b>20%</b>

## Summary of Proposed 2017 Budget and 2018-2020 Forecast

Description	2016 Budget (\$000's)	2017 Proposed Budget (\$000's)	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)
Labour and Benefits	906	974	942	931	944
Operational Costs	388	458	528	478	478
Facility, IT and Support Costs	0	7	7	7	7
<b>Total Gross Expenditures</b>	<b>1,294</b>	<b>1,438</b>	<b>1,476</b>	<b>1,415</b>	<b>1,429</b>
<b>Total Revenues</b>	<b>(95)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Net Expenditure</b>	<b>1,199</b>	<b>1,438</b>	<b>1,476</b>	<b>1,415</b>	<b>1,429</b>

Note: Numbers may not balance due to rounding.

## Proposed Budget Changes Excluding New Initiatives and New Revenues

The following table provides detailed highlights of budget changes by major cost and revenue category. It identifies the net changes to maintain existing service levels, efficiencies and cost savings, and cost increases arising from prior year decisions.

Description	2016 Budget (\$000's)	2017 Proposed Budget (\$000's)	Change (\$000's)	Details (\$000's)
<b>Labour and Benefits</b>	<b>906</b>	<b>974</b>	<b>68</b>	\$39K from annualization of 2016 Outreach Assistant (1.6 FTE) and Waste Management Assistant (1.0 Contract), both starting April 1, 2016. \$29K from labour inflationary increase.
Administration and Support Costs	0	7	7	
Advertising & Promotions	55	55	0	
Communication Costs	3	3	0	
Contractor & Professional Services	121	41	(80)	\$10K for waste audit \$5K for shredding services (\$95K) for climate change work.
Finance Other	75	75	0	
Materials, Supplies & Other Services	15	15	0	
Occupancy & City Costs	28	28	0	
Staff Development	36	36	0	
Transfers To Reserves and Reserve Funds	50	200	150	Contribution to reserve to fund development of the Climate Change Plan.
Transportation Costs	5	5	0	
<b>Subtotal - Other Operating</b>	<b>388</b>	<b>464</b>	<b>77</b>	
Transfers From Reserves and Reserve Funds	(95)	0	95	Completion of initial climate change work in 2016 and funding is no longer required for 2017.
<b>Subtotal - Revenues</b>	<b>(95)</b>	<b>0</b>	<b>95</b>	
<b>Total</b>	<b>1,199</b>	<b>1,438</b>	<b>239</b>	

Note: Numbers may not balance due to rounding.

## Proposed New Initiatives and New Revenues

This table presents the costs by budget request (BR#) for proposed new initiatives. Detailed descriptions of each budget request can be found on the pages following the table.

Description	BR #	2017 FTE Impact	2017 Proposed Budget (\$000's)	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)	2017 to 2020 FTE Impact	2017 to 2020 Capital (\$000's)
<b>New Initiative</b>								
Climate Change Plan and Implementation	2538	0	0	70	70	70	0.0	450
<b>Total New Initiative</b>		<b>0</b>	<b>0</b>	<b>70</b>	<b>70</b>	<b>70</b>	<b>0.0</b>	<b>450</b>
<b>Total New Initiatives and New Revenues</b>		<b>0</b>	<b>0</b>	<b>70</b>	<b>70</b>	<b>70</b>	<b>0.0</b>	<b>450</b>

Note: Numbers may not balance due to rounding.

\$70,000 is the operating cost of implementing the Climate Change Plan starting in 2018.

**Proposed Initiative**

Climate Change Plan and Implementation

**Department**

Community Services Department

**Service Area**

Environment

**Required Annual Operating Investment**

Impacts (\$000s)	2017	2018	2019	2020
Gross Expenditures	0.0	70.0	70.0	70.0
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	70.0	70.0	70.0
* Net Change in \$		70.0	0.0	0.0
FTEs	0.0	0.0	0.0	0.0

*\*In each year, all values are cumulative, not incremental.*

**Required Capital Investment**

Total Capital (\$000s)	2016 & Prior	2017	2018	2019	2020 & Beyond
Expenditures	0.0	250.0	200.0	0.0	0.0

**Why Staff Recommend this Initiative**

A Mississauga climate change plan will consolidate climate change action and reporting; and leverage available funding. The plan will accelerate the reduction of GHG emissions and increase resilience to climate change which will reduce risks, liabilities, and costs to the City and community. Implementing climate change actions will allow the City to respond and engage with other organizations, other levels of government and the public. Presently, the City is lagging on the climate change issue.



### **Details of Service Change**

The City currently has no plan or strategy with respect to climate change. Staff are recommending the City develop a climate change action plan.

The proposed climate change plan will focus on both mitigation and adaptation actions. The plan will be in online/website form with reporting capabilities built in.

The plan will have two high level goals:

- 1) Mitigation: Reduce greenhouse gas emissions in the city
- 2) Adaptation: Increase city resilience and adaptive capacity (the capacity to deal with and the ability to respond to future climate events)

A comprehensive engagement strategy will be executed to educate, outreach to, and gather feedback from Council, internal staff, and the community. A number of studies will be done that will provide information to inform the actions in the final plan.

\$450,000 (capital) is requested in 2017-18 to complete preliminary studies and create the plan. \$70,000 (operating) is requested for ongoing implementation, monitoring and reporting.

### **Service Impact**

Because of the recent activity at the federal and provincial levels, and the fact that many other municipalities have plans in place, the initiative is timely.

The climate change plan will likely look at the time horizon of 2018-2030. The plan will do two things:

- 1) Consolidate existing climate change actions and reporting
- 2) Propose new actions that the city should be doing to address climate change

By implementing the plan, benefits to the City and the community will include:

- Reduction of corporate and community greenhouse gas emissions
- Improving the City's ability to plan for and deal with future climate change impacts
- Making the city more resilient to future extreme weather events

The participation of all City departments will be required in the development of the plan and in the implementation of actions. The actions may have future budget implications in addition to the operating funds being requested. The actions in the plan will influence activities in the community, and will engage partners, including other municipalities and conservation authorities, to collaborate with the City on climate change actions.

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## Human Resources

### Proposed Full Time Equivalent Staffing Distribution by Program

Program	2016	2017	2018	2019	2020
Environmental Management	10.3	10.3	10.3	9.3	9.3
<b>Total Service Distribution</b>	<b>10.3</b>	<b>10.3</b>	<b>10.3</b>	<b>9.3</b>	<b>9.3</b>

Note: Numbers may not balance due to rounding.

#### Environment Division:

- Established in 2012 with four FTEs
- Grown to nine FTEs, four summer students and one university intern
- Multi-generational, culturally diverse group of professionals



*Environment Division, 2016*

#### Specialists in:

- Environmental Sustainability
- Education
- Employee Engagement
- Community Outreach
- Public Relations
- Customer Service
- Social Media
- Waste Management
- Climate Change
- Energy Management
- Sustainability Reporting
- Urban and Regional Planning
- Project Management
- Contract Management
- Regulatory/Environmental Compliance
- Lean (seven white belts)

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## Capital

This section summarizes the forecast 10 year capital requirements for this service. The following table presents the forecast by major program. The next table summarizes the sources of financing for the capital forecast.

### Proposed 2017-2026 Capital Budget by Program

Program Expenditures	2017 Proposed Budget (\$000's)	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)	2021-2026 Forecast (\$000's)	Total 2017-2026 (\$000's)
Environmental Study	250	200	0	0	900	1,350
<b>Total</b>	<b>250</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>900</b>	<b>1,350</b>

Note: Numbers may not balance due to rounding. Numbers are gross.

### 2017-2026 Capital Forecast Highlights include the following:

\$450,000 in 2017/18 to:

- Complete preliminary studies (\$250,000)
- Conduct public engagement (\$100,000)
- Develop the Climate Change Plan (\$100,000)

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### Proposed 2017-2026 Capital Budget by Funding Source

The following table provides the funding sources used to fund the capital portion for each year of the proposed 2017-2020 Business Plan and 2017 Budget and the consolidated forecast for 2021-2026.

Funding	2017 Proposed Budget (\$000's)	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)	2021-2026 Forecast (\$000's)	Total 2017-2026 (\$000's)
Other	250	200	0	0	900	1,350
<b>Total</b>	<b>250</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>900</b>	<b>1,350</b>

### Proposed 2017 Capital Budget Detail

The following table provides a detailed listing of proposed capital projects for 2017.

Project Number	Project Name	Gross Cost (\$000's)	Recovery (\$000's)	Net Cost (\$000's)	Funding Source
CMEV05311	Climate Change Study	250	0	250	Reserve for General Contingency
<b>Total</b>		<b>250</b>	<b>0</b>	<b>250</b>	

### Proposed 2018-2020 Capital Budget by Sub-Program

The following table provides a listing of capital forecast by sub-program for 2018-2020.

Sub-Program	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)
<b>Environmental Study</b>			
ENVIR Studies	200	0	0
<b>Subtotal</b>	<b>200</b>	<b>0</b>	<b>0</b>
<b>Total Expenditures</b>	<b>200</b>	<b>0</b>	<b>0</b>

Note: Numbers may not balance due to rounding. Numbers are net.

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## Performance Measures

A Balanced Scorecard identifies and measures four key areas of an organization's performances: Financial, Customers, Employees, and Business processes. By paying attention to all four areas, an organization can retain balance in its performance and ensure that it is moving towards the attainment of its goals.

### Financial Measures

*Cost of Environmental Community Grant Per Capita* is the amount of money provided per capita for the creation, programming and maintenance of community gardens.

*Number of Community Gardens Funded by Environmental Community Grant* is the total number of community gardens created using funding from the Environmental Community Grant. The goal is to have at least one community garden in every ward with 15 new gardens by 2018.

### Customer Measures

*Environmental Outreach* is the number of people who have attended events where there has been environmental outreach presence; plus the number of times Environment's content has been viewed on various online and social media locations.

This measure demonstrates the level of environmental outreach being delivered in the community by Environment and the opportunity to deliver key environmental messages and engage directly with large numbers of the community.

The calculation changed in 2015 to include more online tactics.

There is a big increase projected in 2017/18 with the Climate Change Plan engagement and an Ontario 150 Earth Market.

*Face-to-Face Engagement* is the number of people that Environment staff and volunteers directly interacted with at community events. Interactions may take the form of conversations or participation in display activities such as the trivia wheel, button making, and waste sorting.

In 2016, face-to-face engagement more than doubled as a result of additional Environment staff which allowed greater opportunity to attend more events and host three Earth Markets.

*Online Engagement* is the number of "interactions" as a result of Environment online and social media tactics (including Twitter, Facebook, Storify, blog, Environment website and Residents Survey).

*Employees that have a Green Leader* is the number of City of Mississauga employees who have access in their workplace to a Green Leader. Green Leaders are a team of staff volunteers, led by Environment, who champion environmental awareness and action. This measure demonstrated Environment's ability to reach out to and affect behaviour change amongst all City employees.

### Employee Measures

*Staff who Completed Employee Engagement Survey* is the percentage of Environment staff who completed the survey. The survey is conducted every three years. This metric demonstrates Environment staff's commitment to the City's engagement and improvement process.

*Employee Overall Satisfaction* is the overall satisfaction score for Environment from the Employee Engagement Survey. The 2015 Environment Division score is consistent with the City's score.

*Square Footage of Office Space per Environment Employee* is the amount of office space used by each Environment employee. This measure demonstrates Environment's commitment to continued innovation, efficiency and savings by creating a more efficient work area and taking advantage of alternative work arrangements. Since 2013, Environment has continued to occupy the same amount of office space despite an increase in staff, and has reduced space per employee by half.

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## **Business Process Measures**

*Living Green Master Plan Actions Implemented* is the percentage of actions in the Living Green Master Plan that are complete or on-track. This measure demonstrates Environment's influence and collaboration in ensuring actions are taken towards environmental sustainability.

*Waste Diversion Rate at Civic Centre* is the percentage of waste generated at the Civic Centre that is diverted from landfill. This measure demonstrates the effectiveness of waste management techniques such as focused education, sustainable procurement, improved programs and employee/patron engagement. The Civic Centre has the potential to have a much higher diversion rate than other City facilities.

*Corporate Greenhouse Gas Emissions* is the amount of GHGs in tonnes of equivalent carbon dioxide that is produced from the City's Corporate emission sources. This is a common environmental performance measure municipalities use to show their contribution to global GHG emissions. The City of Mississauga's power consumption has been increasing in order to keep up with increasing service demands, but GHG emissions have been off-set by factors such as the closing of the coal-fired power plants and the installation of LED street lights. The City's GHG emissions have remained relatively constant.

## Balanced Scorecard

Measures for Environment	2013 (Actual)	2014 (Actual)	2015 (Actual)	2016 (Plan)	2017 (Plan)	2018 (Plan)	2019 (Plan)	2020 (Plan)
<b>Financial:</b>								
Cost of Environmental Community Grant Per Capita	N/A	\$0.10	\$0.10	\$0.10	\$0.11	\$0.11	\$0.11	\$0.11
Number of Community Gardens Funded by Environmental Community Grant	N/A	2	6	9	12	15	TBD	TBD
<b>Customer:</b>								
Environmental Outreach	320,000	875,000	1.2 M	2.1 M	3 M	2.5 M	2.5 M	2.5 M
Face-to-Face Engagement	N/A	3,200	5,000	12,000	14,500	12,500	13,000	13,500
Online Engagement	4,700	4,800	8,000	22,000	30,000	35,000	40,000	45,000
Employees that have a Green Leader	N/A	900	1,500	2,500	3,500	5,000	5,000	5,000
<b>Employees/Innovation:</b>								
Staff who Completed Employee Engagement Survey	N/A	N/A	100%	N/A	N/A	100%	N/A	N/A
Employee Overall Satisfaction	N/A	N/A	68%	N/A	N/A	75%	N/A	N/A
Square Footage of Office Space per Environment Employee	189	135	124	92.6	92.6	92.6	92.6	92.6
<b>Internal Business Process:</b>								
Living Green Master Plan Actions Implemented	65%	75%	85%	87%	90%	95%	100%	100%
Waste Diversion Rate at Civic Centre	41%	42%	51%	66%	72%	76%	80%	83%
Corporate Greenhouse Gas Emissions	74,643	72,654	73,072	73,000	73,000	73,000	73,000	73,000