

City of Mississauga
Corporate Report



<p>Date: September 23, 2024</p> <p>To: Mayor and Members of Council</p>	<p>Originator's files:</p>
<p>From: Sam Rogers, MBA, Acting Commissioner of Transportation and Works</p>	<p>Meeting date: September 25, 2024</p>

Subject

Council Update – July and August 2024 Extreme Rainfall Events

Recommendation

1. That the report dated September 23, 2024 entitled “Council Update - July and August 2024 Extreme Rainfall Events” from the Acting Commissioner of Transportation and Works be approved.
2. That Council provide direction on the implementation of the following programs and proposed changes:
 - i. Residential compassionate flood relief Grant Program to provide a one-time grant of \$1,000 to Mississauga residential property owners who incurred damages as a result of basement flooding following the weather events on July 16, 2024, or August 17 and 18, 2024.
 - ii. Basement flooding prevention rebate program provide a rebate of up to \$6,800 to make basement flood prevention improvements more affordable.
 - iii. New and accelerated stormwater projects, as outlined in the Project-based action plan in Table 3 and Table 4.
 - iv. Enhancements to routine maintenance of stormwater infrastructure, as outlined in Table 6 and Table 7.
3. That if Council provides direction to proceed with Recommendation #2, in whole or in part as outlined above:
 - i. That Council approves the associated operating and capital budget increases for 2024 and 2025.
 - ii. That an additional 21 Full time equivalents (FTE) be approved in 2024 to support the enhancements to routine stormwater infrastructure maintenance and administration of flood relief and rebate programs.
4. That staff be directed to prepare and submit applications to the Municipal Housing Infrastructure Program – Housing-Enabling Water Systems Fund (second intake) and Housing-Enabling Core Services Stream programs to support the Dixie-Dundas Flood

Mitigation Project and Ninth Line Widening (Eglinton Avenue West to Derry Road West) Project respectively as outlined in the report entitled “Council Update - July and August 2024 Extreme Rainfall Events” dated September 23, 2024 from the Commissioner of Transportation & Works.

5. That all necessary by-laws be enacted.

Executive Summary

- On July 16, 2024 and August 17 and 18, 2024, extreme rainfall events occurred over the Greater Toronto Area including a large area of Mississauga, causing flooding related issues in the City
- A tangible action-oriented approach to accelerate planned and new undertakings in respect of flood mitigation initiatives, inspection enhancements and increased maintenance and operation activities is recommended
- An aggressive strategy to accelerate the Dixie-Dundas Flood Mitigation Project is recommended which has a projected completion date of 2028
- A Residential Compassionate Grant Program is recommended to provide a one-time grant of \$1,000 for residential property owners in Mississauga who incurred damages as a result of basement flooding following the weather events on July 16, 2024 or August 17 and 18, 2024
- A Basement Flooding Prevention Rebate Program is recommended where residents can receive a rebate of up to \$6,800 per property to install flood protection devices
- It is estimated that the recommended Residential Compassionate Flood Grant Program and a Basement Flooding Prevention Rebate Program will cost \$3 million (one time) and an estimated \$6.4 million (annually) respectively
- Additional staff resources are recommended to implement the accelerated planned and new undertakings in respect of flood mitigation initiatives, inspection enhancements and increased maintenance and operation activities, as well as to administer the financial assistance programs
- Staff will prepare and submit applications to the Municipal Housing Infrastructure Program – Housing-Enabling Water Systems Fund (second intake) in support of the Dixie-Dundas Flood Mitigation Project and the Housing-Enabling Core Services Stream in support of the Ninth Line Widening (Eglinton Avenue West to Derry Road West) Project
- Following Council Resolution 0176-2024 and the subsequent letter of September 16, 2024 sent to the Minister of Municipal Affairs and Housing from Mayor Parrish, MMAH has expressed a willingness to assess the neighbourhoods impacted by flooding in the vicinity of the Little Etobicoke Creek under its Disaster Recovery Assistance for Ontarians program

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Background

On July 16, 2024, an extreme rainfall event impacted the Greater Toronto Area, causing localized flooding. The total rainfall amount was highly variable across the City of Mississauga where this event exceeded the 100-year design storm in some areas; an event that has a one percent probability of occurring in any given year.

On July 31, 2024, Council Resolution 0148-2024 directed staff to report back in September based on the findings related to the July 16, 2024 storm event and provide commentary on immediate, short-term, mid-term and long-term actions the City should consider. The resolution also included other staff directions related to flood mitigation, financial support from higher levels of government and public education.

On August 17 and 18, 2024, the City was again impacted by intense rainfall causing localized flooding and related damages. Similar to the July 16, 2024 event, the rainfall amount was highly variable and again exceeded the 100-year design storm in areas of the City.

On September 18, 2024, a report entitled "[July and August 2024 Extreme Rainfall Events Update](#)" dated September 6, 2024 from the Commissioner of Transportation & Works was presented at General Committee.

Following a discussion of the report, staff was directed to report back to Council on September 25, 2024 with, among other matters, a recommended financial assistance program for residents, a detailed action plan to implement the recommended flood mitigation initiatives through capital plans and maintenance operations, and to identify additional budget and staff resources needed to carry out the enhanced plans and programs.

Comments

Municipal Financial Relief and Flood Protection Programs

Under Section 107 of the Municipal Act, 2001, municipalities may provide grants to persons for any purposes that Council considers to be in the interests of the municipality. Section 106 of the Municipal Act, 2001; however, prevents municipalities from providing grants to manufacturing businesses, industrial or commercial enterprises.

On September 11, 2024, Council Resolution 0176-2024 directed staff to, among other directions, report back on a program that would compensate affected residents up to \$1,000 per household for damages to homes as a result of the intense rainfall events on July 16, 2024 or August 17 and 18, 2024. Further, at the September 18, 2024 General Committee, discussions were held on the need to assist homeowners who were impacted by these intense rainfall events.

Based on a review of compassionate grants and flooding protection subsidies offered by neighbouring municipalities, staff propose that a Residential Compassionate Flood Relief Grant

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Program and a Basement Flooding Prevention Rebate Program be implemented as outlined below.

Residential Compassionate Flood Relief Grant Program

A Residential Compassionate Flood Relief Grant Program will provide a one-time grant of up to \$1,000 to help residential homeowners or tenants offset the cost of an insurance deductible or their actual expense and loss incurred as a result of in-house flooding on July 16, 2024 or August 17 and 18, 2024. The program would be based on compassionate grounds and is not considered an admission of liability on the part of the City of Mississauga.

Based on the estimated number of City's 3-1-1 Call Centre interactions and incidents received through other channels, including those via Councillors' offices, it is proposed that this grant program, funded by property taxes, be budgeted at \$3 million to allow for up to 3,000 applications. It is expected that applications for this grant program will open from December 1 2024 to May 31, 2025

Basement Flooding Prevention Rebate Program

A City-wide Basement Flooding Prevention Rebate Program, as shown in Table 1 below, will provide a rebate of up to \$6,800 for residents to make basement flood prevention improvements more affordable.

Table 1: Basement Flooding Prevention Rebate Program

Eligible Work – Residential Homes	Rebate Amount
Installation of Sump Pump	100% of the invoiced cost, up to a maximum of \$6,000
Downspout Disconnection	100% of the invoiced cost, up to a maximum of \$400
Weeping Tile (Foundation Drain) Disconnection ¹	100% of the invoiced cost, up to a maximum of \$400

¹Disconnection of the weeping tiles from the City's sewer system by severing and capping the underground sewer connection.

This program will be funded through the stormwater charge. It is projected that this program could cost upwards of approximately \$64 million, or \$6.4 million annually, over a ten-year horizon. For each incremental one percent uptake, the annual cost is approximately \$0.9 million. This is based on the following premise:

- Seven percent uptake based on the City of Toronto's Basement Flooding Protection Subsidy Program
- An average rebate amount of \$6,800
- An estimated eligible number of 135,000 residential homes (single family, semi-detached and freehold townhomes)

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Given the complexity in implementing a City-wide rebate program with multiple options, it is anticipated that this program will open by February 2025.

Next steps in the development of each program will include the preparation of policies and administrative processes, including the application requirements, terms and conditions of approval, forms and standards; as determined by the Chief Administrative Officer, in consultation with the City Solicitor. A by-law will define the eligibility and structure for each of the programs. These programs will require additional staff resources to administer as outlined in the following table.

Table 2: Staffing Resource Requirements for Financial Relief and Flood Protection Programs

Division	Action	Staffing	Staff Cost ¹
IPES	Municipal Financial Relief and Flood Protection Programs	1 Financial Analyst (E)	\$114,000
IPES	Municipal Financial Relief and Flood Protection Programs	1 Storm Drainage Technologist (E)	\$114,000
		1 Storm Drainage Technologist - Contract (E) ²	\$109,000
Total			\$337,000

¹average staff costs including benefits where applicable

²2-year contract position

Project Based Actions

A list of project-based actions with associated costs are shown in Table 3 and 4 below. The undertakings in these tables outline an aggressive strategy to accelerate planned and new undertakings in respect of flood mitigation initiatives. A description of these undertakings by Ward is briefly discussed in the tables below. However, given the heightened interest in the ongoing Dixie-Dundas Flood Mitigation Project, this initiative is discussed independently. It should be noted that for the 2024 projects (Table 3), approval of funding requests is required.

Table 3: Project Based Actions 2024

Item	Action	Ward	Timeline	Consultant Fees	Contractor Fees	Estimated Total Fees
Accelerated and New Undertakings						
1	Review Flooding Concerns in North Streetsville for Causes and Mitigation Opportunities	11	Fall 2024	\$75,000	\$25,000	\$100,000

Item	Action	Ward	Timeline	Consultant Fees	Contractor Fees	Estimated Total Fees
2	Capacity Assessment of the Trunk Storm Sewer System in the Vicinity of Harvest Drive	1	Fall 2024	\$50,000	-	\$50,000
3	Design of Storm Sewer Upgrades for Historic Malton Village	5	2024	\$250,000	-	\$250,000
4	Riverine Flooding Review	3	2024	\$500,000	-	\$500,000
Total				\$875,000	\$25,000	\$900,000

Table 4: Project Based Actions 2025 & 2026

Item	Action	Ward	Timeline	Consultant Fees	Contractor Fees	Estimated Total Fees
Accelerated and New Undertakings						
1	Accelerate the Design and Construction of the Dixie-Dundas Flood Mitigation Project	3	Ongoing - 2025	\$500,000	\$500,000	\$1,000,000
2	Design for Downspout Disconnection Pilot in Black Walnut Tr. area	10	2025	\$350,000	-	\$350,000
3	Additional Inlets along Winding Trail	3	2025	\$100,000	\$385,000	\$485,000
4	Outlet Pipe from Runningbrook Drive through Cedarbrook Park	3	2025	\$100,000	\$1,080,000	\$1,180,000
5	Construction of Storm Sewer Upgrades for Historic Malton Village	5	2025	-	\$3,750,000	\$3,750,000
6	Streetsville Area Storm Sewer Capacity Review	11	2025	\$900,000	-	\$900,000
7	Curb Cut from Hedgestone Court to Little Etobicoke Creek	3	2026	\$100,000	\$225,000	\$325,000

Item	Action	Ward	Timeline	Consultant Fees	Contractor Fees	Estimated Total Fees
8	Construction for Downspout Disconnection Pilot in Black Walnut Tr. area	10	2026	-	\$500,000	\$500,000
9	Increase CBs on Fieldgate Drive and Hedgestone Court	3	2026	\$100,000	\$875,000	\$975,000
10	Overland pathway from Taviton Court to Little Etobicoke Creek	3	2026	\$100,000	\$225,000	\$325,000
11	Increase CBs on Taviton Court & upsize sewer outlet	3	2026	\$100,000	\$1,350,000	\$1,450,000
Total				\$2,350,000	\$8,890,000	\$11,240,000

Dixie-Dundas Flood Mitigation Project

A focal point of public interest is the delivery of the Dixie-Dundas Flood Mitigation Project ("Dixie-Dundas") that, once completed, will contain flood flows within the Little Etobicoke Creek (LEC). The ten-year timeline that has been shared to-date is based on a standard practice that starts with design and approvals, followed by land acquisition, and then construction; each flowing linearly one after the other.

Staff have re-examined the project with a goal of shortening the timeline. The main elements identified below will allow staff to achieve this goal, albeit with inherent risk and increased cost given the aggressive nature of this approach. Each is described briefly below.

Fast-tracking design

The City's current consultant is responsible for the completion of the Environmental Assessment, which was finalized earlier this year, and delivering the preliminary design to 30 percent. The City will soon be going to market for a design consultant to complete the detailed design, which will allow the City to address the critical importance of fast-tracking the design when procuring the consultant, and for the City to be vigilant in ensuring that the consultant completes the design on schedule in order to secure approvals.

Partnerships

The City will be in lockstep with Toronto and Region Conservation Authority (TRCA), who has been intimately involved with Dixie-Dundas from the onset. TRCA staff will continue to provide technical support toward achieving a sound design. The City's Stormwater team and Dundas BRT team will continue to collaborate to leverage efficiencies. This may include the prioritization

of project-elements related to Dixie-Dundas such as the Dundas Street bridge and associated infrastructure.

Single proponent management

The Region of Peel is the asset-owner of Dixie Road and water and wastewater infrastructure. As initially planned, execution of Dixie-Dundas would entail the Region proceeding with the necessary infrastructure relocation and Dixie Road bridge upgrade as a separate and distinct project. However, the Region has agreed to have the City take control of the Regional elements as part of Dixie-Dundas. This approach will optimize construction by eliminating an entire project stream through integration. The management of the project by the City will allow for greater control over project delivery.

Advancing land acquisition

The City's project team intends to initiate the land acquisition process at the 30 percent design milestone, rather than the typical 60 percent to 90 percent stage. The traditional approach is predicated on heightened confidence in design and, in turn, associated land requirements based on a design that has substantively progressed. The updated approach must acknowledge the risk of engaging that much earlier in the design process but, given that the land acquisition process can take up to two years, it is a necessity to balance and manage that risk given the greater objective of working toward project acceleration. This means that land acquisition will begin in 2024, immediately following delivery of the 30 percent design in the coming weeks.

Streamlining utility relocation

The widening of the Dixie Road and Dundas Street bridges necessitates relocation of utilities. To support this critical need, an added cost has been identified in Table 1 both for design and construction. The design premium provides for dedicated design consultants, where necessary, for our utility partners to ensure that resourcing does not become an obstacle. On the construction side, a "frost premium" has been allocated to remove any roadblocks that may be caused by seasonal constraints. Again, while the utility relocation process would traditionally begin in latter stages of detailed design, the City will initiate this process for Dixie Road immediately following delivery of the 30 percent design.

Updated Schedule

The implementation of this updated approach has projected a completion date of 2028, a six-year timesaving from what was previously reported; albeit with added cost and risks. This updated 2028 completion date complies with the eligibility requirement for the second intake of the Housing Enabling Water Systems Fund.

Ward 1

Capacity assessment of the trunk storm sewer system in the vicinity of Harvest Drive

A capacity assessment of the trunk storm sewer system in the vicinity of Harvest Drive in the Applewood community will be undertaken. Acknowledging that the spill from LEC has contributed flow through the Applewood community, residents raised concerns that the capacity

of the trunk sewer system is inadequate. The purpose of this assessment is to verify that there is adequate capacity in the trunk sewer system as designed and constructed.

This review will be initiated later this year subject to budget approval.

Ward 3

Riverine Flooding Review

A multipronged review will be undertaken for mitigation opportunities to lessen the impact of riverine flooding of LEC, upstream of the Dixie-Dundas neighbourhood. The scope of this review will include areas including Greybrook Crescent, which has been an area of concern from the residents. Additionally, this review would look to answer whether stormwater detention ponds could be placed throughout Ward 3 and specifically in proximity to the Tyndall Seniors Home, around Tomken and Eglinton, and along the hydro corridor beside the Transitway near Eastgate, Cawthra, Tomken and Dixie stations. Finally, this review will investigate the possibility of a creek diversion near the Tyndall Seniors Home.

This undertaking will be initiated later this year subject to budget approval.

Other Initiatives

The remaining initiatives for Ward 3 pertain to the projects recommended in the Little Etobicoke Creek Flood Evaluation Study. The top two high priority recommendations and a medium priority recommendation are put forward for 2025, while four other recommendations will follow in 2026.

Ward 5

Design of storm sewer upgrades for Historic Malton Village

Design for upgrades of the storm sewer network in Historic Malton Village will focus on, but not be exclusively for, Cattrick Street and Hull Street, west of Scarboro Street. The intention is for construction of these upgrades to begin in 2025. The storm sewer outlet will be included as part of these works where opportunities to prevent blockage will be incorporated.

This project will be initiated in late 2024 subject to budget approval.

Ward 10

Downspout Disconnection Pilot in Black Walnut Trail Area

To complement flood mitigation works in Lisgar, the City will continue to pursue a downspout disconnection pilot project initiated in the Black Walnut neighbourhood. This work will pick up from the 'Discovery' phase that took place in 2023 and continue in partnership with the Region of Peel given their extensive work in this field. The design phase intends to start in 2025 with construction beginning in 2026.

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Other initiatives

Already incorporated in the work plan for 2024 is the ongoing inspection of the foundation drain collector trunk sewer system in the Lisgar area and the feasibility analysis of constructing a stormwater management facility north of the Lisgar area.

It is also noted that the design of the fourth planned stormwater pumping station is imminent to go to design. Possibilities to fast-track construction will be reviewed as the design progresses to seek potential efficiencies through working with existing service providers.

Ward 11

Review Flooding Concerns in North Streetsville for Causes and Mitigation Opportunities

To respond to local neighbourhood flooding concerns, the City will investigate causes and mitigation opportunities for Swanhurst Blvd, Ellesboro Drive and Suburban Drive as well as Joymar Drive.

This review will be initiated later this year subject to budget approval.

Streetsville Area Storm Sewer Capacity Review

Beyond a review of the local streets mentioned above, a larger review of the storm sewer network will commence in 2025 to prescribe necessary storm sewer capacity upgrades for the capital planning.

Resource Requirements - Project Based Actions

To support the advancement of the recommended list of initiatives and meet the timelines, the appropriate staffing resources are critical to carry out the work. As such, funding requirements in 2025 for contract staff (two years) to manage the increase workload are provided in the table below.

Table 5: Staffing Resource Requirements for Project Based Action Plan

Division	Action	Staffing	Staff Cost ¹
IPES	Accelerated and New Capital Projects and Initiatives	2 Storm Drainage Engineer - Contract (G) ²	\$273,000
Total			\$273,000

¹average staff costs including benefits where applicable

²2-year contract position

Operational Based Actions

While the recent severe storm events exceeded the design capacity of the City's stormwater system, staff have proposed several city-wide operational and infrastructure management actions, with associated costs, that further support maintaining an optimal and functional system as shown in Table 6. These additional or enhanced actions/programs are an increase to existing levels of service and result in resource impacts.

Table 6: Enhanced City-wide Operational Based Actions

Item	Action	Timeline	Consultant Fees	Estimated Total Fees
1	Increased Assessment of Damage/Repair Needs to Stormwater Infrastructure and Monitoring Long-term Conditions	2024	\$100,000	\$100,000
2	Priority Storm Sewer Condition Inspection of Flood Impacted areas (e.g. Applewood neighbourhood)	2024	-	Note 1
3	Enhance public communication of project delivery status and existing programs/services	2025	-	Note 1
4	As part of the City's continuous improvement, undertake a review of existing stormwater programs and services for potential gaps and levels of service efficiencies or enhancements	2025	\$50,000 (one-time)	\$50,000
5	Enhanced assessment program of major trunk sewers and enclosures (approx. 100,000 m). Increase frequency to once every 3 to 5 years from current approximate 10-year frequency	2025	-	Note 1
Cost			\$150,000	\$150,000

Note 1 No additional fees to cover these programs, but additional staff resources are required, as outlined in Table 8 below.

Enhancements to Routine Maintenance of Stormwater Infrastructure

The Works Operations and Maintenance (WOM) Division carries out routine maintenance of stormwater infrastructure both on a programmed proactive basis as well as on a reactive basis in response to Service Requests, storm events or areas of concern. The maintenance activities, current service levels and proposed service levels with associated costs are detailed in Table 7 below.

Table 7: Maintenance of Stormwater Infrastructure – Current and Proposed Service Levels

Maintenance Activity	Current Service Level	Proposed Service Level	Incremental Operating & Capital Costs ^{Note 1}
Inspection and Cleaning of Stormwater Inlets and Outlets			
City-wide	Two times a year – Spring and Fall	Monthly	\$430,000 (one-time capital cost for vehicles)
Priority inlets/outlets (Note: Priority inlet and outlet locations are identified in Appendix 1)	Before and after all rain events, in addition to the spring and fall inspections	Hull Street added as priority locations Additional priority locations to be added on an as needed basis	
CCTV Inspection and Flushing of Sewers			
City-wide	Once every 10 years	Once every 5 years	\$600,000 (annual operating) \$130,000 (one-time capital cost for vehicles)
Lisgar Foundation Drain Collector sewer system	Once every 3 years	No change	
Catchbasin Cleaning			
City-wide	Once every 3 years	No change	
Service Request	As required	No change	
Total			\$600,000 (annual operating) \$560,000 ^{Note 2} (one-time capital cost for vehicles)

Note 1 Staffing costs for enhanced service levels are detailed in Table 8.

Note 2 Pre-authorized to allow for tendering of vehicles ahead of the 2025 Capital Budget approval.

Resource Requirements – Operational Based Actions

To support the advancement of the recommended list of operational enhancements and meet the timelines, the appropriate staffing resources are critical to carry out the work. As such, funding requirements in 2025 for full-time staff to manage the increase workload are provided in the table below.

Table 8: Staffing Resource Requirements for Operational Based Actions

Division	Action	Staffing	Staff Cost ¹
IPES	Enhanced Assessment Program of Major Trunk Sewers and Enclosures	1 Storm Drainage Coordinator (F)	\$130,000
IPES	Increased Assessment of Damage/Repair Needs to Stormwater Infrastructure and Monitoring Long-term Conditions	2 Storm Drainage Technologists (E)	\$229,000
WOM	Enhanced Inlet and Outlet Inspection and Cleaning Maintenance of Priority Locations	2 Maintenance Standard Technicians (D)	\$172,000
		4 CUPE 66 Labourers 4 CUPE 66 Worksperson IV	\$712,000
WOM	Enhanced proactive maintenance CCTV Inspection and Flushing of Sewers	1 CUPE 66 Maintenance Contractor Coordinator	\$114,000
		1 CUPE 66 Inspector	\$115,000
Total			\$1,472,000

¹average staff costs including benefits where applicable

Malton Area and Hull Street Maintenance Activities

During the course of and immediately following the extreme rainfall events on July 16, 2024 and August 17 and 18, 2024, WOM staff received a total of 336 Service Requests. The majority of these calls were reports of flooding on roads and private property. To date 93% of these Service Requests have been responded to and addressed, with the remaining 7% programmed for action.

At the September 18, 2024 General Committee meeting, staff were asked to provide specific details as to what maintenance activities were completed in the Malton Area and specifically on Hull Street both before and after the two storm events. Table 9 below provides a synopsis of all maintenance activities undertaken.

Table 9: Malton Area Maintenance Activities

Date	Activity
July 2019	CCTV inspection and flushing of sewers
June 2022	Catchbasin cleaning
April 2024	Spring inspection of Scarboro St. and Hull St. outfalls
July 17 and 24, 2024	Street flushing and sweeping
July 31, 2024	Catchbasin cleaning

Date	Activity
August 1, 2024	Curbs cleared of minor debris and street flushing
August 1, 2024	Cracked catchbasin grate at 73 Hull Street replaced
August 17, 2024	Staff inspected operation of stormwater infrastructure during the weather event.
August 28, 29 and 30, 2024	CCTV inspection and sewer flushing
September 18, 2024	CCTV inspection
September 23, 2024 (week of)	Flushing of sewers based on findings of September 18, 2024 CCTV inspection
Bi-weekly / Ongoing	Road right-of-way inspections carried out by Minimum Maintenance Standard Patrol on a bi-weekly basis

Education and Other Initiatives

During the discussion that took place at General Committee on September 18th, several other items were raised that staff have added to the action plan. The predominant theme was around education and availability of information, with a few other initiatives that will further support our stormwater management program. The following table summarizes the comments/requests along with the proposed actions to address them.

Table 10: Additional Actions to Enhance Program Delivery and Information Availability

Comment/Request	Response	Action
Education/Resources Provide information about the stormwater system (and distinguish from wastewater system)	Existing resources: www.mississauga.ca/stormwater	<ul style="list-style-type: none"> • Review/update website • Host Public Information Session (Date TBC, Fall 2024)
Education/Resources Provide a fact sheet of flood mitigation measures for residents.	Existing resources: www.mississauga.ca/flood Residential Guide to Flood Prevention and Recovery Emergency Preparedness Guide	<ul style="list-style-type: none"> • Prepare Fact Sheet • Review/improve access to materials on website • Host Public Information Session (Date TBC, Fall 2024)
Education/Resources Provide a fact sheet of stormwater investments (completed and planned projects, incl. cost)	Existing resources: www.mississauga.ca/budget Mississauga Infrastructure Report	<ul style="list-style-type: none"> • Prepare Fact Sheet • Add tile to existing stormwater webpage

Comment/Request	Response	Action
<p>Education/Resources Provide additional information to support landlords and basement tenants</p>	<p>Existing resources: Mississauga Services & Programs - Registering a second unit GC Report - Sept 18 - Appendix 5</p>	<ul style="list-style-type: none"> • Host Public Information Session (Date TBC, Fall 2024)
<p>Project Websites Ensure relevant information is available and up to date</p>	<p>Existing resources: www.mississauga.ca/projects-and-strategies/</p>	<ul style="list-style-type: none"> • Review how information is made available online, increase frequency of updates, and improve how it can be easily accessed by residents
<p>Notification/Alerts Push-notification system (SMS) Additional Road Closure Warning Signs</p>	<p>Existing resources: TRCA Sign Up for Flood Messages www.cvc.ca/flood www.conservationhalton.ca/flood-status/</p>	<ul style="list-style-type: none"> • TRCA and CVC are both seeking approval from their Board of Directors to work with the City on additional alerting methods, including through SMS text messages (see additional information in following section of the report) • Investigate appropriate signage as part of road closure protocol
<p>Development Standards Review existing development standards</p>	<p>Existing resources: Storm Drainage Design Requirements Green Development Standards Update</p>	<ul style="list-style-type: none"> • Update to design requirements in-progress and targeting release in Fall 2024
<p>Emergency Management Expand Dixie-Dundas Site Specific Flood Plan to include Applewood Acres (W1)</p>	<p>Existing resources: Mississauga Emergency Plan</p>	<p>COMPLETE The Dixie-Dundas Site Specific Flood Plan has been updated to include a larger spill area from the Little Etobicoke Creek, stretching south to past the QEW. Updated spill mapping ensures enhanced identification of flood impacts, including potentially affected</p>

Comment/Request	Response	Action
		homes, assets, and roads.
Maintenance Program Make information available online regarding the City's stormwater infrastructure inspection and maintenance program(s).	Existing resources: Services and Programs , Transportation and Streets , Roads and Sidewalks Stormwater management system annual performance report	<ul style="list-style-type: none"> • Add tile to existing webpage with details of the program(s)
Coordination with Region of Peel Relationship between wastewater and stormwater systems	Existing Resources: Region of Peel Sewers and Stormwater Region of Peel Inflow & Infiltration (I&I) Program	<ul style="list-style-type: none"> • Assit Region with creation of a Tool Kit of information and resources. • Hold Public Information Session (Date TBD, Fall 2024) • Region to report back on I&I Program (Date TBD, Q1 2025)
Grant Applications Council needs to be kept up to date on all applications and outcomes.	N/A	<ul style="list-style-type: none"> • Complete 360 review on grant application process

The actions outlined above will require additional staff resources to administer as shown in the following table.

Table 11: Staffing Resource Requirements for Communications & Other Initiatives

Division	Action	Staffing	Staff Cost ¹
IPES	Enhance Public Communication of Project Delivery Status and Existing Programs/Services	1 Information Coordinator - Contract (E) ²	\$109,000
Total			\$109,000

¹average staff costs including benefits where applicable

²2-year contract position

Public Alerts

City staff are working with local conservation authorities to identify opportunities to enhance public alerting to residents during localized flooding events.

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Given the unpredictability of severe weather events, including locations and timing, both CVC and TRCA are examining the possibility of exploring additional alerting systems that could be shared and utilized by various conservation authorities throughout Ontario, as opposed to municipality-specific solutions. This would ensure consistent messaging across various municipalities during severe weather and flooding events. Discussions are ongoing on severe weather public alerting solutions province-wide.

TRCA and CVC will be presenting to their Board of Directors on September 27, 2024 and October 11, 2024 respectively. City staff will work closely with the conservation authorities to support the implementation of public alerting solutions moving forward.

In the immediate term, the most effective way that the City can support the conservation authority public alerting solutions is through encouraging residents to sign-up for the existing public notification solutions.

Public Alerting with Alectra Utilities

Alectra does not have a public alerting tool in place. Staff have been advised that SMS notifications are being explored by Alectra in the coming years. Currently, in the event of power outages, whether isolated or widespread, Alectra broadcasts this information on the outage map available on their website. The map features details of the number of impacted customers, estimated restoration time and the cause of the issue. The information is simultaneously broadcast on social media channels and updated as situations are resolved.

Disaster Recovery Assistance for Ontarians (DRAO) Program Current Status

Following the July 16, 2024 intense rainfall event, at the request of the Ministry of Municipal Affairs and Housing (MMAH), City staff provided MMAH with data and maps of flood reports received through City channels. Based on this data, MMAH determined that it would conduct a damage assessment with a Provincial Disaster Assessment Team (PDAT) in the neighbourhoods of Lisgar, Churchill Meadows (16 Mile Creek), Malton (Mimico Creek), and Erin Mills Central (Mullet Creek). These were the areas that the Ministry believed were most likely to be eligible for the Disaster Recovery Assistance for Ontarians (DRAO) program, which is a provincial program that can help residents recover costs after a natural disaster. This assessment occurred in these areas on August 27, 2024 and included interviews with residents.

Following Council Resolution 0176-2024 and the subsequent letter of September 16, 2024 sent to the Minister by Mayor Parrish, MMAH expressed a willingness to assess the neighbourhoods impacted by flooding in the vicinity of the LEC. City staff are currently organizing an itinerary for a PDAT to conduct a damage assessment in the vicinity of LEC. This assessment will inform the Minister's decision as to whether the DRAO program will be activated.

MMAH has also expressed that, while it is not viable to visit all of the waterways in Mississauga, it is willing to assess any additional areas where the City can identify riverine damage. In addition to the data received from TRCA, City staff have provided data received from CVC

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demonstrating significant riverine flooding damage throughout the majority of the CVC creek and river systems. City staff have also provided data and maps to MMAH regarding the August 17 and August 18, 2024 intense rainfall and flooding event. However, staff have been advised that if the Ministry decides to conduct an assessment for the August event, it will not do so until after the assessments for the July event have been completed.

Housing-Enabling Water Systems Fund and Housing-Enabling Core Services Stream

The Provincial government has announced it will make targeted investments in municipal infrastructure to promote and enable housing growth. This funding includes a combined investment of \$1.9 billion through the Municipal Housing Infrastructure Program (MHIP) and the Housing-Enabling Water Systems Fund. These two funding programs complement existing programs such as the Building Faster Fund and the Ontario Community Infrastructure Fund for small, rural and northern communities.

MHIP is intended to support core infrastructure projects that help enable housing for growing and developing communities.

Through the MHIP, \$275 million was transferred to the Housing-Enabling Water Systems Fund (HEWSF) to bring that fund's total investment to \$1.2 billion, and \$400 million has been allocated to the Housing-Enabling Core Servicing Stream (HECS). Staff have identified projects that are considered strong candidates for both the HEWSF and HECS grant programs and is seeking endorsement from Council to submit applications to the Province.

Housing-Enabling Water Systems Fund

The HEWSF is aimed at protecting communities by investing in the repair, rehabilitation and/or expansion of core water, wastewater, and stormwater projects to promote growth and enable housing.

Staff are recommending that the Dixie Dundas Flood Mitigation Project be submitted for the Intake #2 funding application, which has a deadline of November 1, 2024.

This project is a stormwater management/flood mitigation project, as opposed to a stormwater asset project, but as a critical project in the City's stormwater management capital plans, this project meets the majority of the eligibility criteria, including that it:

- Enables housing
- Is in the process of being designed and planned
- Has a completion date of 2028
- Being of sufficient value to fully take advantage of the available Provincial funding (i.e. 73% of total eligible costs up to \$35 million) project

House-Enabling Core Servicing Stream

The HECS funding stream is aimed at assisting municipalities build, maintain, repair and expand municipal roads, bridges and culverts to support the construction of new homes. Although not related to stormwater management, given the October 18th deadline, staff are taking this opportunity to make a recommendation to Council.

Staff have reviewed the list of the City's road and bridge capital projects that may meet the eligibility criteria and determined that one project in particular – the Ninth Line Widening Project (Eglinton Avenue West to Derry Road West) – stands out in terms of three key considerations:

- Being on-track for construction within the required timeframe
- Having a direct linkage to enabling the construction of new housing
- Being of sufficient value to fully take advantage of the available Provincial funding (i.e. 50% of total eligible costs up to \$20 million) project

Financial Impact

Based on directions and comments received at the September 18, 2024 General Committee meeting, staff were directed to report back to Council with recommended financial assistance programs for residents, a detailed action plan to implement the recommended flood mitigation initiatives through maintenance operations and capital plans, and to identify additional staff resources needed to carry out the enhanced plans and programs.

1. Residential Compassionate Grant Program – Impact to Property Tax

Description Grant Amount	Budget 2025
\$1,000 per Household	\$3,000,000

2. Stormwater Operating 2025 Budget Changes

Categories	Budget 2025	Budget 2026	Budget 2027	Budget 2028	Total
Labour & Benefit ¹	\$2,191,000	\$2,266,000	\$1,816,000	\$1,871,000	\$8,144,000
Professional Services	\$150,000	\$100,000	\$100,000	\$100,000	\$450,000
Contractors	\$600,000	\$600,000	\$600,000	\$600,000	\$2,400,000
Subsidy ²	\$6,400,000	\$6,400,000	\$6,400,000	\$6,400,000	\$25,600,000
Total	\$9,341,000	\$9,366,000	\$8,916,000	\$8,971,000	\$36,594,000

¹21 additional FTE Staffing Request

²Basement Flooding Prevention Rebate Program

3. Stormwater Capital 2024 - 2026 Budget Changes - Additional Funding for Immediate Strategy on Flood Protection Programs

PN #	Project	Budget 2024	Budget 2025	Budget 2026
24015	Dixie-Dundas Drainage Improvements		\$1,000,000	
24014	North Streetsville - Flooding Causes and Mitigation Study	\$100,000		
24016	Vicinity of Harvest Drive - Storm Sewer Capacity Assessment	\$50,000		
24019	Historic Malton Village Storm Sewer Upgrades - Design & Construction	\$250,000	\$3,750,000	
24020	Riverine Flooding Review	\$500,000		
25050	Black Walnut Trail Area Downspout Disconnection Pilot - Design & Construction		\$350,000	\$500,000
25051	Winding Trail Additional Inlets		\$485,000	
25052	Runningbrook Drive through Cedarbrook Park - Outlet Pipe		\$1,180,000	
25053	Streetsville Area Storm Sewer Capacity Assessment		\$900,000	
	Hedgestone Court to Little Etobicoke Creek - Curb Cut			\$325,000
	Fieldgate Drive and Hedgestone Court - increase CBs			\$975,000
	Taviton Court to Little Etobicoke Creek - Overland Pathway			\$325,000
	Taviton Court - Increase CBs and Upsize Sewer Outlet			\$1,450,000
25054	New Vehicles		\$560,000	
Total Capital Funding Request		\$900,000	\$8,225,000	\$3,575,000

Conclusion

Staff have taken a tangible action-oriented approach and developed a program to accelerate planned and new undertakings in respect of flood mitigation initiatives, proposed inspection enhancements and increased maintenance and operation activities. In addition, a Residential Compassionate Flood Relief Grant Program and a Basement Flooding Prevention Rebate Program have been developed to help residential homeowners or tenants offset the cost of an insurance deductible or their actual expense and loss incurred as a result of in-house flooding during the July and August, 2024 storms, and to assist residents make home flood protective improvements more affordable respectively.

The suite of initiatives and program enhancements outlined in this report highlights the City's commitment to help mitigate the impacts of extreme weather events.

Attachments

Appendix 1: Inspection and Cleaning of Stormwater Inlets and Outlets - Priority Locations



Sam Rogers, MBA, Acting Commissioner of Transportation and Works

Prepared by: Lincoln Kan, P.Eng., Manager, Environmental Services

Inspection and Cleaning of Stormwater Inlets and Outlets - Priority Locations

	WARD	LOCATION DESCRIPTION
1	1	West side of Tonolli Road at north end (Samuel Steele)
2	1	North side of Queensway midway between Dixie and Stanfield
3	1	North end of Russett Road
4	1	North side of Middlegate, approx. 500' west of Stanfield Rd.
5	1	Catchbasin south side of Middlegate approx. 500' west of Stanfield Rd.
6	1	Richey Crescent
7	1	Cawthra Road and Atwater Ave.
8	2	Speakman Drive
9	2	2640 South Sheridan Way (Factory Shoe) (2 inlets)
10	2	Rear of 2560 South Sheridan Way
11	2	Benedet Drive
12	2	Hindhead Road
13	2	Jack Darling Park
14	2	Behind 1601 Lakeshore Rd West (Old KFC)
15	3	1327 Dundas Street E Ditch Inlet at Tim Hortons
16	3	Inlet at Eastgate Parkway west of Fieldgate
17	3	3135 Universal Drive Outlet
18	4	Inlet at Central Parkway South of Bud Gregory (Behind Greenbelt Sign)
19	4	493/497 Greenpark Cres Inlet Behind Properties Access from Gate at 497
20	4	S/W Corner Rathburn Rd E and Central Parkway E Outlet
21	5	2800 Matheson Blvd E
22	5	4905 Timberlea Blvd
23	5	5900 Ambler Dr
24	5	5845 Luke Rd
25	5	1034 Pantera Dr
26	5	1555 Enterprise Rd
27	5	5040 Timberlea Blvd
28	5	5226 Timberlea Blvd
29	5	W of Tomken Rd and N of Eglinton Ave E
30	5	5420 Timberlea Blvd
31	5	6805 Invader Cres
32	5	1230 Mid-Way Blvd
33	5	1125 Derry Rd
34	5	49 Hull St (Z49e Outlet Structure #22)
35	5	7600 Torbram Rd (W Side, Weston Lumberyard)
36	5	760 Gana Crt
37	7	Queensway and Confederation Pkwy
38	7	Huron Park
39	7	156 Enfield Place Ditch Inlet Under Tennis Court
40	7	CB Inlet South Of Webb Drive West Of Confederation (Park Pathway)
41	8	King Forrest Drive
42	8	Hammond Rd
43	8	Robin Drive
44	8	Lincoln Green
45	8	Sheridan Mall
46	8	Erin Mills Pkwy at Sheridan Park
47	10	LHWP Pintail Location - Lisgar Green Park off of Osprey Blvd, adjacent to Grossbeak Drive
48	10	LHWP Osprey Marsh - Osprey Blvd Bridge at Sixteen Mile Creek, south side Britannia/Lisgar Meadowbrook trail
49	10	LHWP Sixteen Mile Creek - Sixteen-Mile Creek at Black Walnut/Derry.