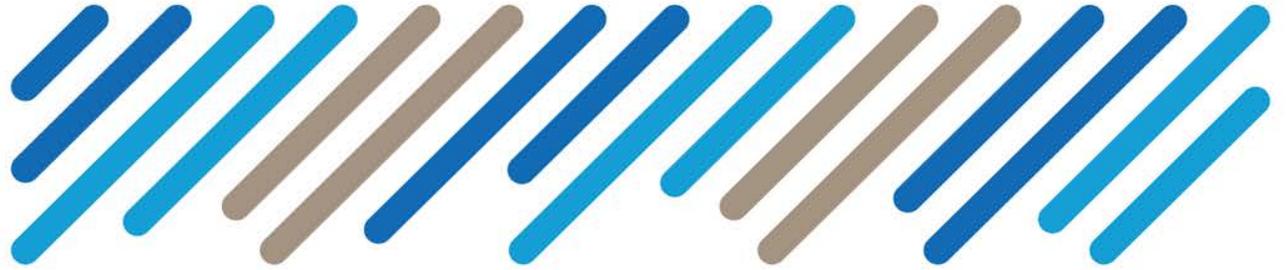


2021 Budget

Presentation to Budget Committee
November 2020

Stormwater Program



Contents

1 What we do

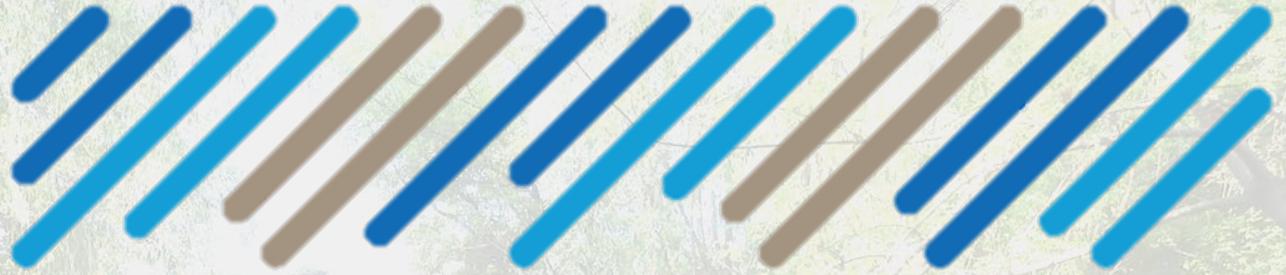
2 How we do it

3 What's driving plans

4 Proposed Plan & Budget

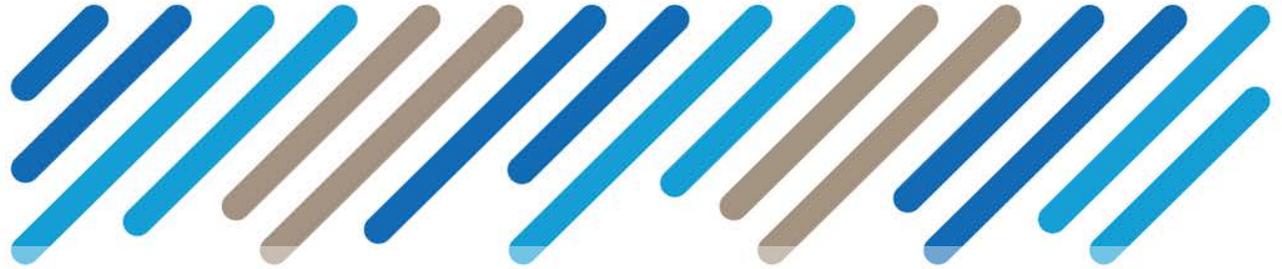
5 Summary

6 Appendix



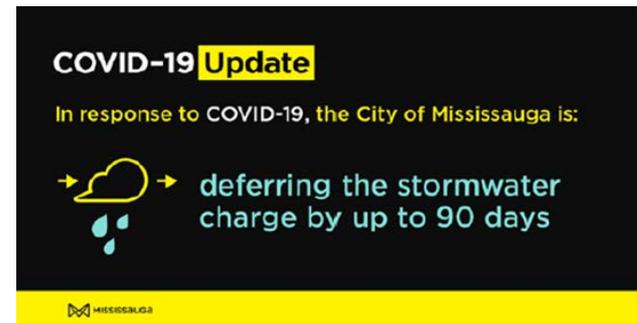
1 What we do

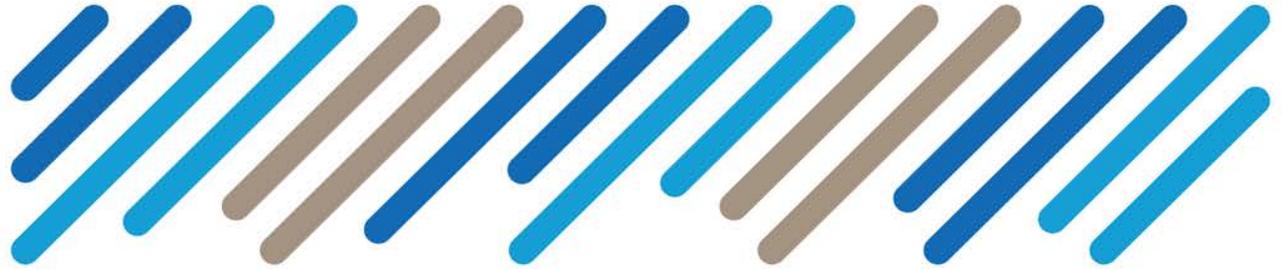
Plan, develop, construct, maintain and
renew a **stormwater system**
which **protects** property, infrastructure and
the natural environment from **erosion** and
flooding and **enhances** water quality.



Response to COVID-19

- Residents and businesses were able to defer the payment of the stormwater charge at the outset of the pandemic
- Remote work arrangements have allowed important projects and programs to continue:
 - **Virtual meetings** with consultants and approval agencies to move Capital projects forward
 - Public input and consultation material made available on the **Stormwater website**
 - Review and processing of development applications continued using **online tools**
 - In-person outreach events suspended, but Stormwater related **social media postings** resumed





Services We Provide

Inspections and maintenance of 1,900 km of sewers and 200 km of watercourses



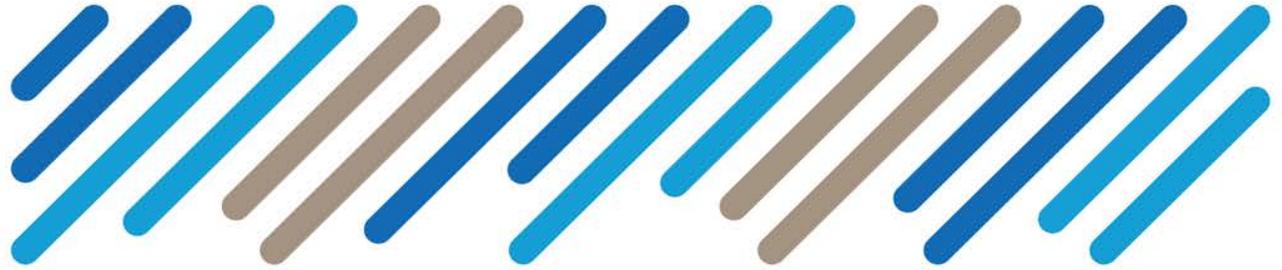
Planning, design and delivery of new stormwater infrastructure



Storm Sewer By-law enforcement



Dredging and rehabilitation of 80 stormwater management facilities



Accomplishments

Lisgar pumping station construction



Flood and erosion control on Cooksville Creek



Responded to 54 spill incidents in 2019 to enforce the Storm Sewer By-law



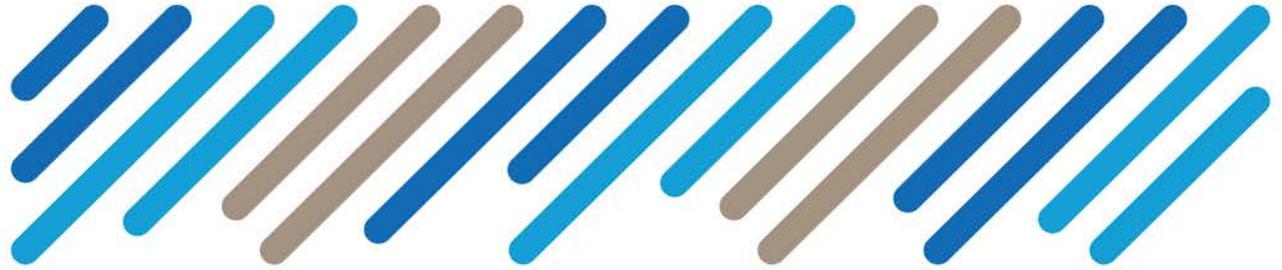
Improvements to support the development of an asset management plan and strategy

storm
water
program



2 How we do it





Organization

Stormwater

Infrastructure & Environmental Monitoring

Infrastructure Planning & Programming

Infrastructure Design & Construction

Infrastructure Maintenance & Operations

Environmental Awareness

Storm Sewer By-law Enforcement

Stormwater Charge Program

Our workforce includes:

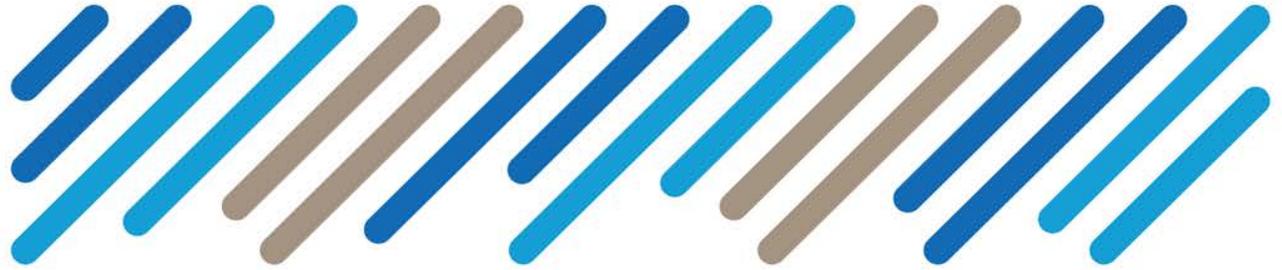
- ◆ Engineers
- ◆ Technologists
- ◆ Infrastructure specialist
- ◆ Project managers
- ◆ Storm drainage and environmental coordinators
- ◆ Environmental specialist
- ◆ Stormwater charge program coordinator

Staff affiliations include:

- ◆ APWA
- ◆ APGO
- ◆ CNAM
- ◆ IAM
- ◆ MEA
- ◆ OACETT
- ◆ OPPI
- ◆ PEO

Workforce Trends

- ◆ Engineer-in-training program implemented in 2016 and 2020
- ◆ Technologist Internship Program implemented in 2019
- ◆ Over 20 years of co-op student placements from local universities and colleges



Efficiency

Driving Efficiency

CCTV Inventory &
Record Digitization

\$11,600 annual
savings



Grouping of
Stormwater
Management Pond
Rehabilitation
Contracts

\$9,900 cost
savings

Transforming with Technology



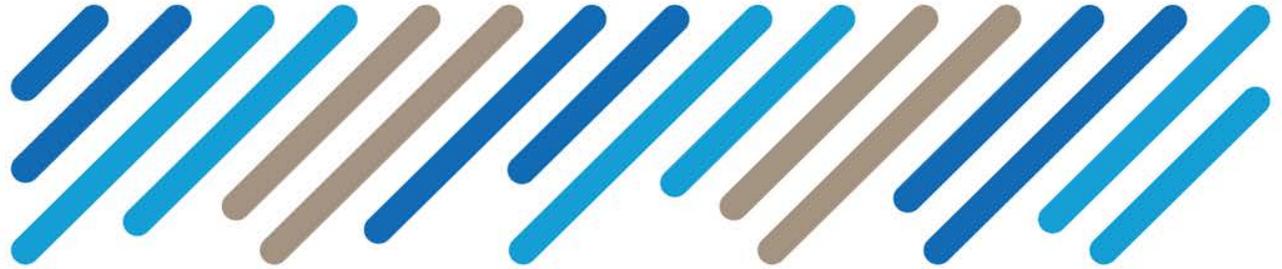
Development of an
asset management
system



Connecting with the
public through
mississauga.ca and
social media



Improving Geographic
Information System
software



How We're Doing

Performance Measurement



Requests for
Review resolved
within service level

93%



Watercourses in
fair or better
condition

79%



Overall Team
Engagement
(2018)

85%



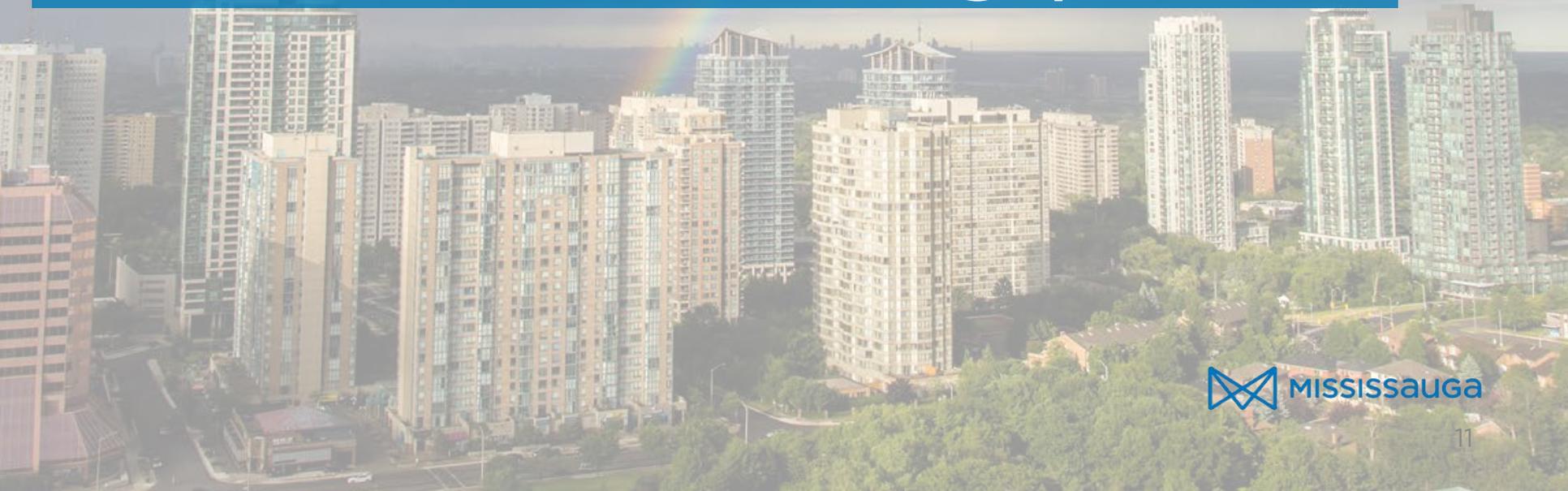
Unit cost of
catchbasin
cleaning

\$40

storm
water
program



3 What's driving plans





Citizens Guide Our Plans

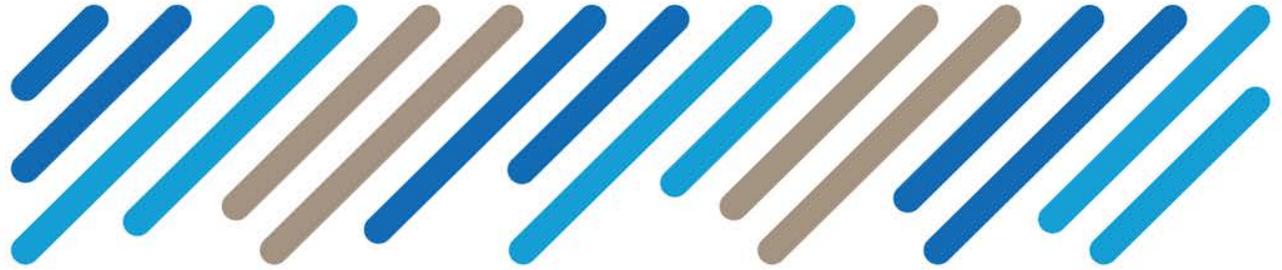
City Vision and Values

City Strategic Plan

Asset Management Plans

Master Drainage Plans

Flood Evaluation Studies



Advancing the Strategic Plan

move
developing a transit
oriented city



Provide stormwater drainage for
our roads to keep transit moving



belong
ensuring youth, older
adults and new
immigrants thrive



Outreach to diverse audiences



connect
completing our
neighbourhoods



Build and maintain sustainable
infrastructure



prosper
cultivating creative and
innovative businesses



Create a safe environment for
businesses to thrive

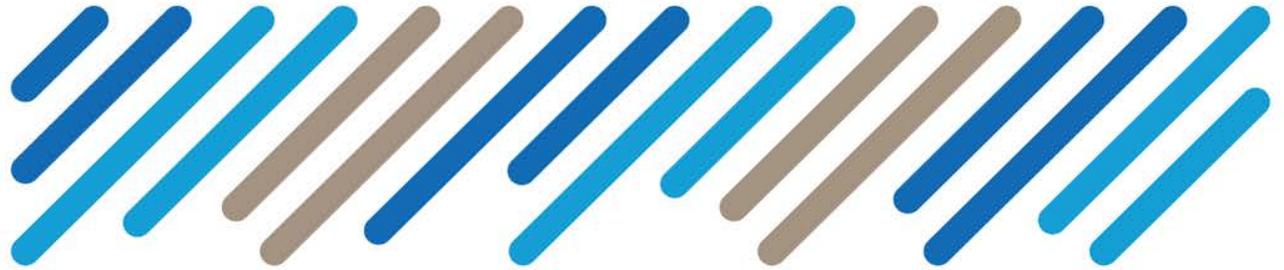


green
living green



Conserve, enhance and connect
natural environments



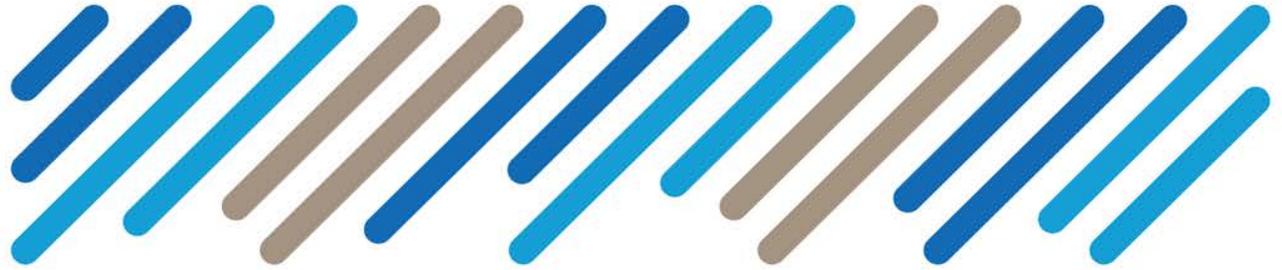


Service Area Goals

- ◆ **Establish** a sustainable service level for Stormwater:
 - Develop and maintain an integrated Asset Management Plan to better manage all stormwater infrastructure
 - Increase contribution to Pipe Renewal Reserve Fund
 - Enforce the Storm Sewer By-law
 - Effective and efficient Capital Program delivery
- ◆ **Deliver** mitigation and improvement projects:
 - Flood relief
 - Erosion control
 - Water quality enhancement



Storm sewer outfall into new Saigon Park stormwater management pond



Trends Affecting the Service

Extreme storm events



Aging stormwater infrastructure



New legislation and regulations



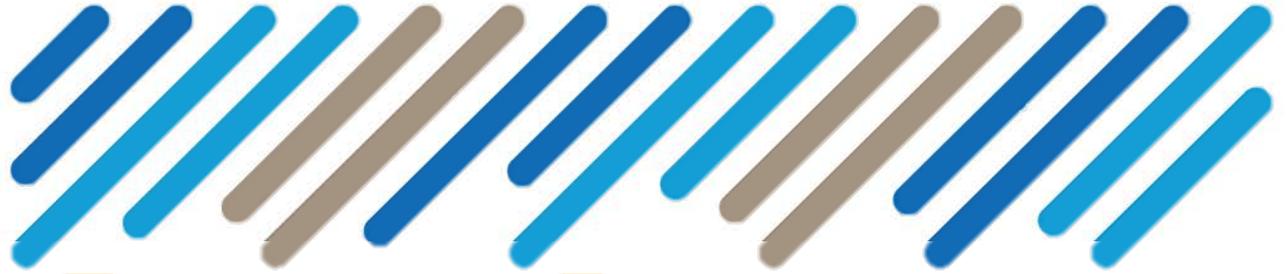
Conservation Authority requirements



City growth and development

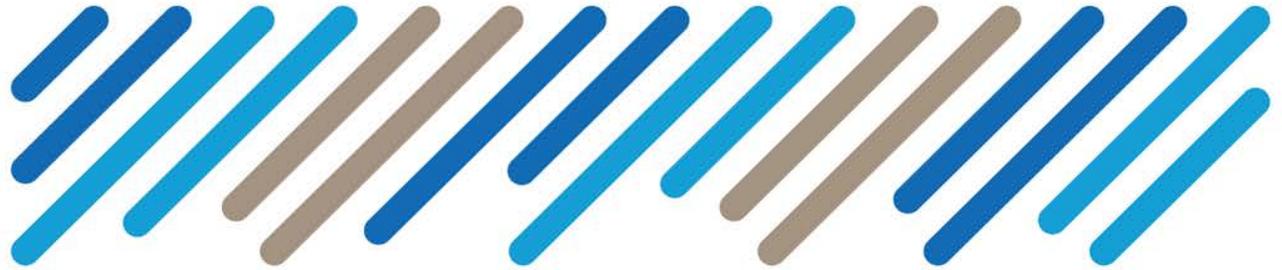


storm
water
program



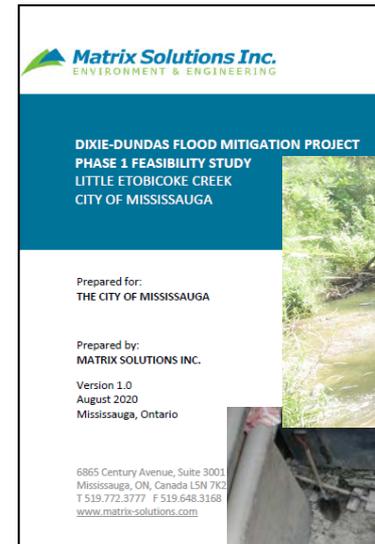
move
belong
connect
prosper
green

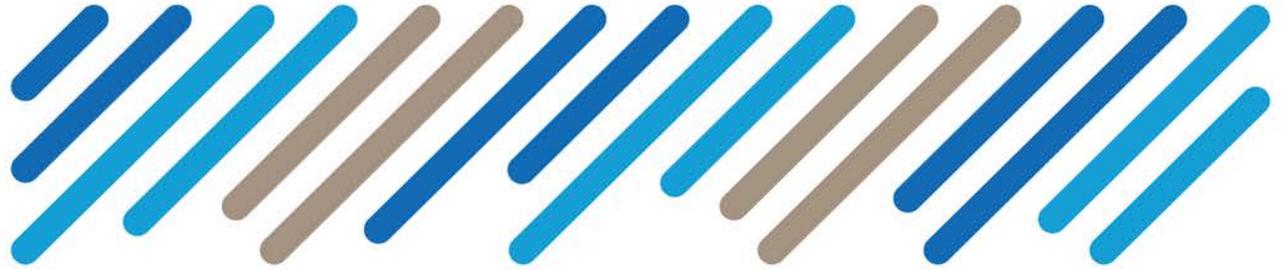
4 Proposed Plan & Budget



Highlights

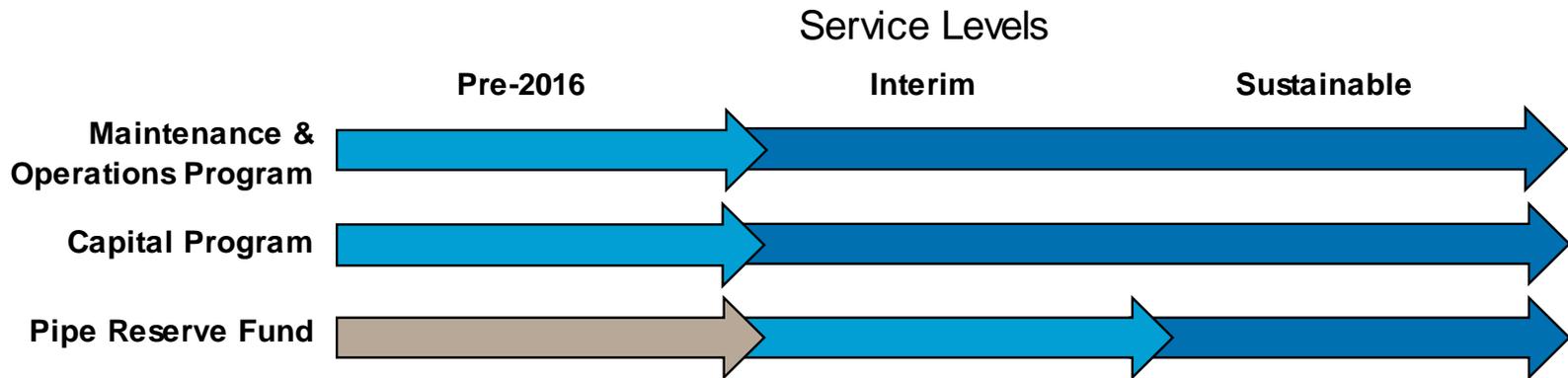
- ◆ Continued growth in the Stormwater Capital Program for state of good repair projects and construction of new infrastructure
- ◆ Increased contributions to the Pipe Reserve Fund
- ◆ Continue the development of an enhanced Asset Management Plan
- ◆ Develop the Stormwater Master Plan
- ◆ Continue to carry out flood relief, erosion control and other improvement projects
- ◆ Implement capital projects and infrastructure needs identified through planning and flood mitigation studies





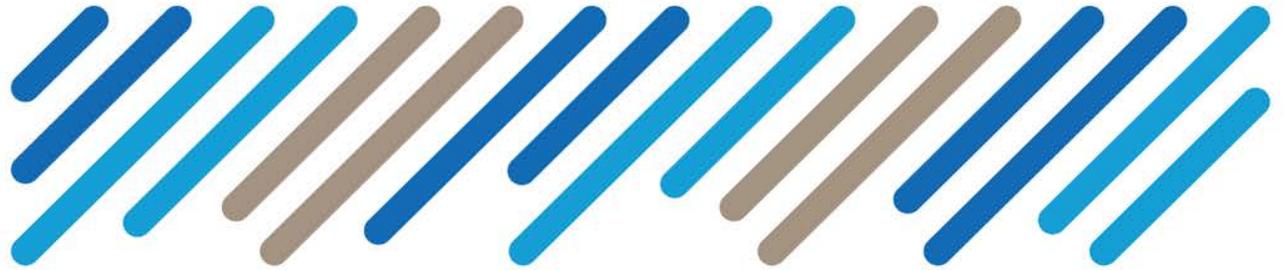
Interim to Sustainable Service Level

Annual Funding Needs



Legend

Not Funded	
Partially Funded	
100% Funded	



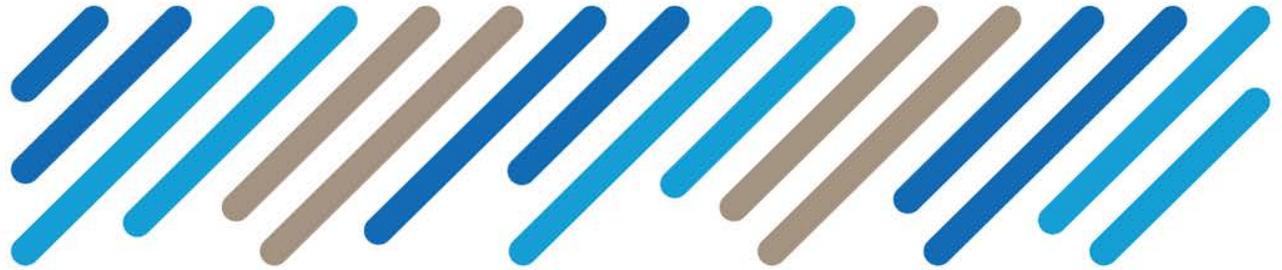
Proposed 2021 Stormwater Rate

◆ Stormwater Rate

= Amount of money per billing unit charged over a one-year period

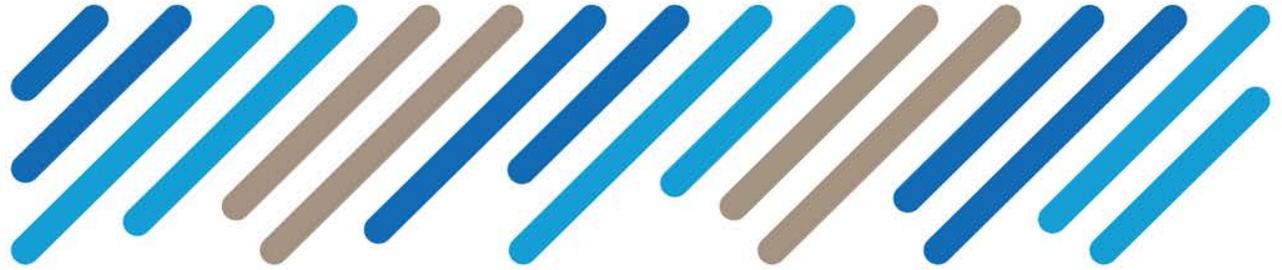


	Previous					Proposed	Forecast		
	2016	2017	2018	2019	2020	2021	2022	2023	2024
Stormwater Rate (per billing unit)	\$ 100.00	\$ 102.00	\$ 104.00	\$ 106.10	\$ 108.20	\$ 110.40	\$ 113.40	\$ 116.50	\$ 119.70
% Increase	-	2%	2%	2%	2%	2%	2.75%	2.75%	2.75%

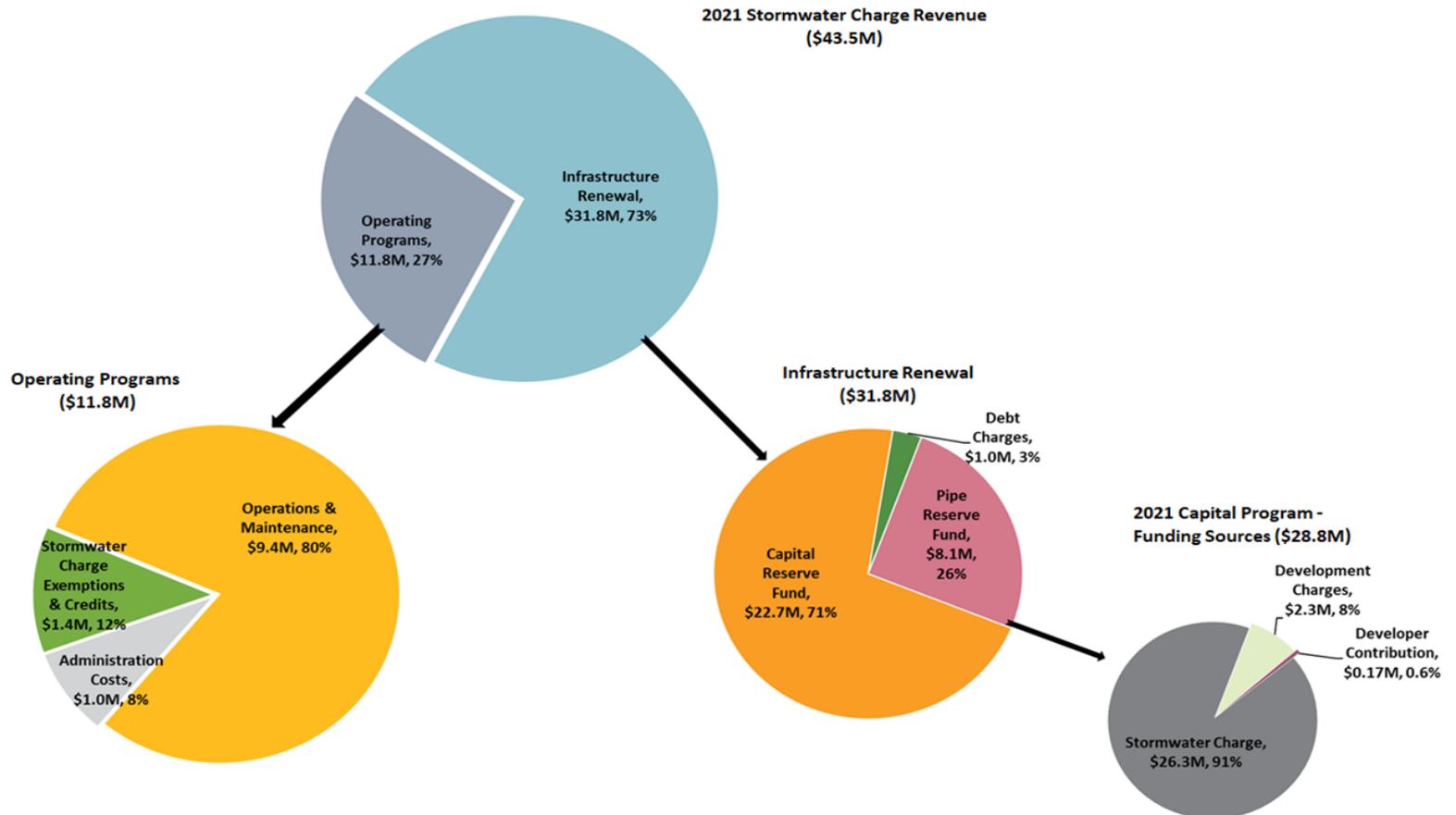


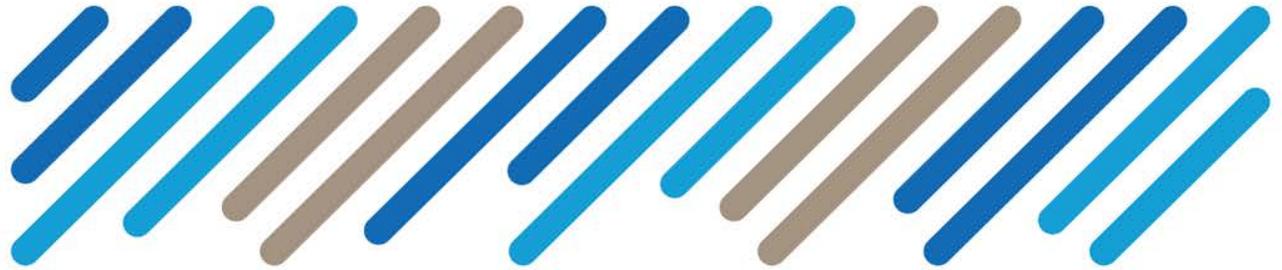
What does this mean?

Tier	Example	2020 Annual Charge	2021 Annual Charge	Approximate Amount on 2021 Quarterly Bill
Smallest	Townhouse	\$54.10	\$55.18	\$13.80
Small	Semi-detached or small detached house	\$75.74	\$77.25	\$19.31
Medium	Average-sized detached home	\$108.20	\$110.40	\$27.60
Large	Large detached home	\$129.84	\$132.44	\$33.11
Largest	Largest homes	\$183.94	\$187.62	\$46.91



Distribution of 2021 Stormwater Charge Revenue

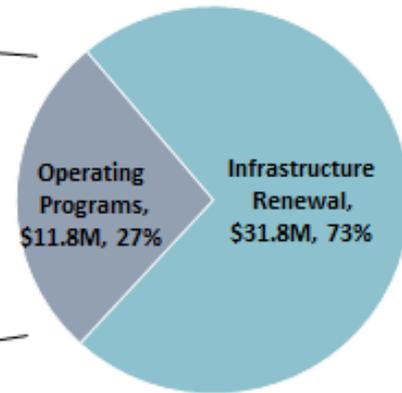
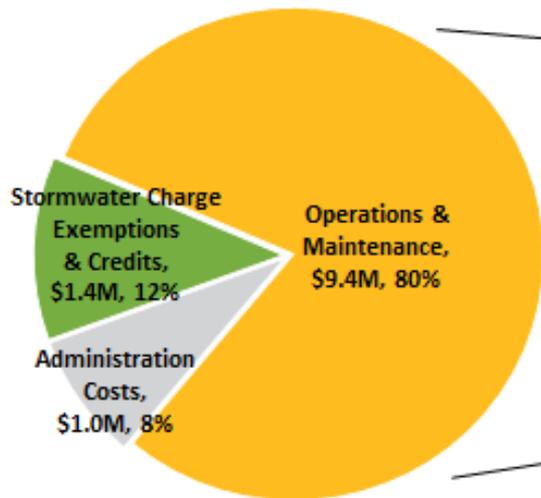


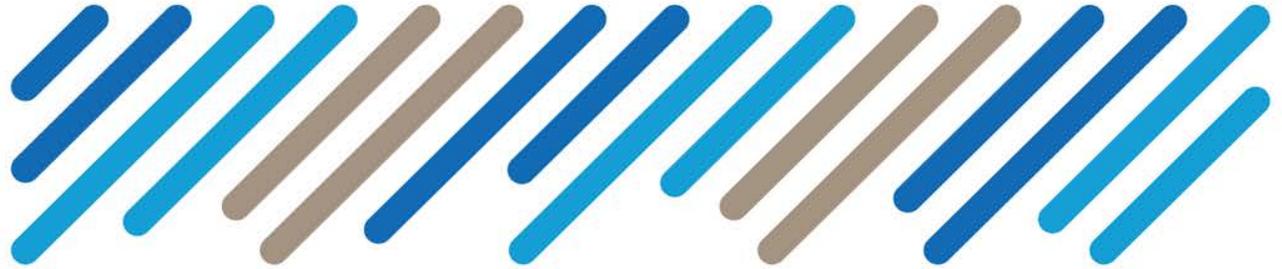


2021 Operating Program (\$11.8 Million)

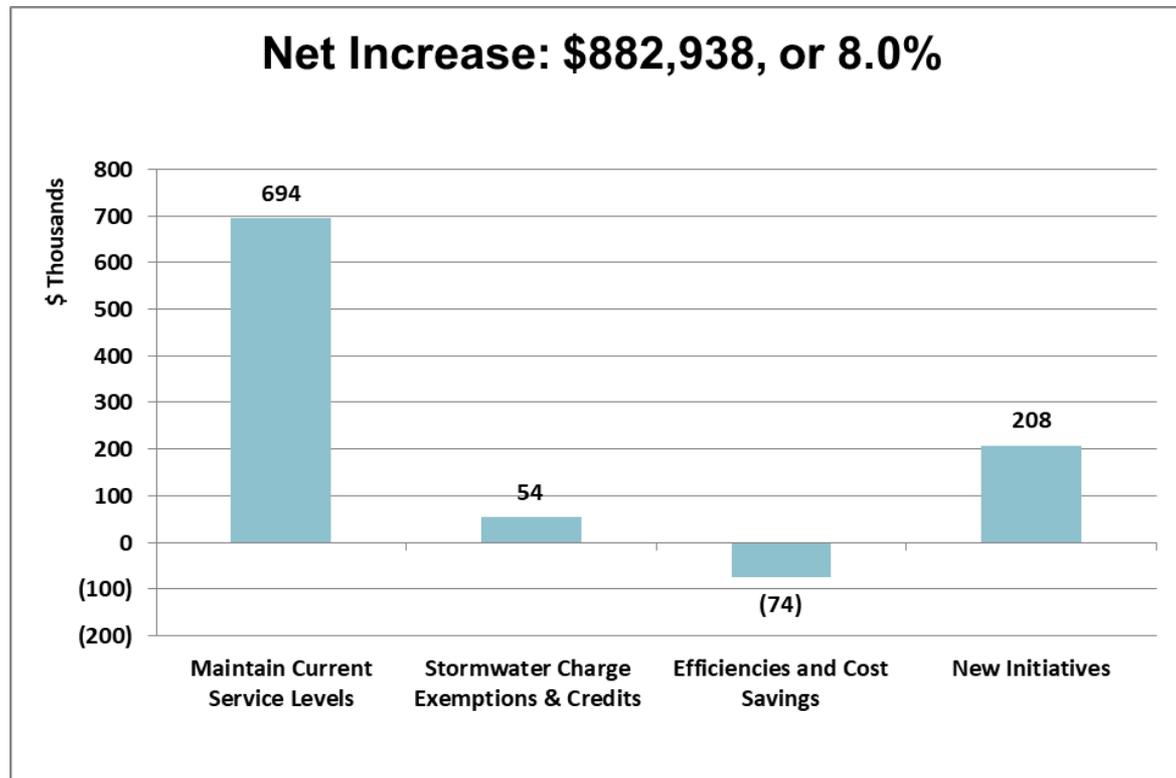
**Operating Programs
(\$11.8M)**

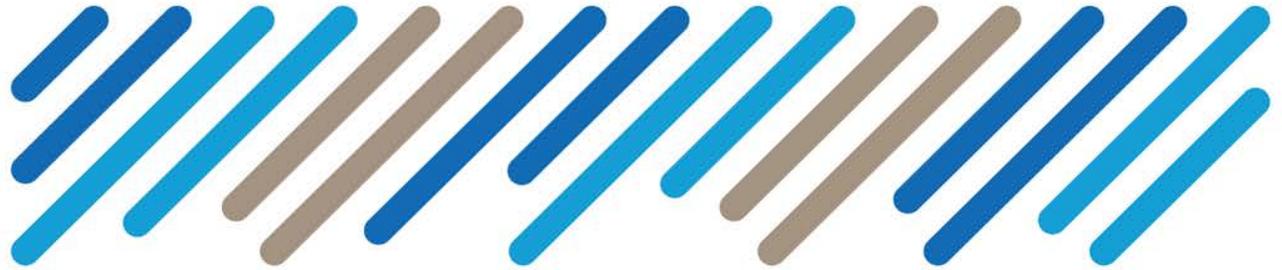
**2021 Stormwater Charge Revenue
(\$43.5M)**





2021 Operating Changes

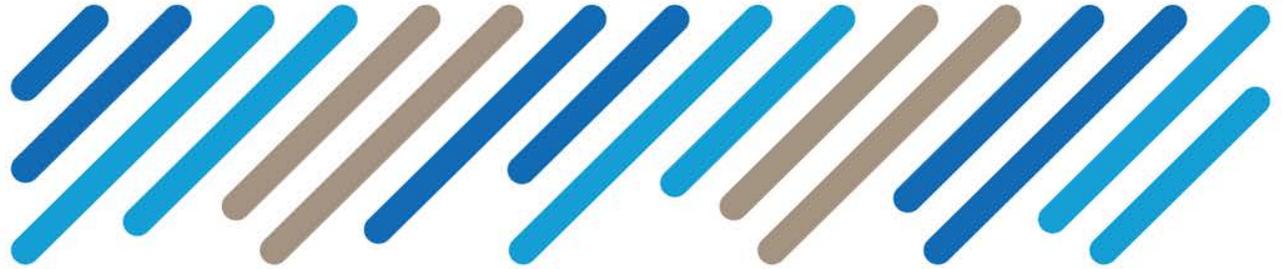




Proposed 2021-2024 Operating Budget

Description	2019 Actuals (\$000s)	2020 Budget (\$000s)	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)
Expenditures to Deliver Current Services						
Storm Operations and Maintenance	10,057	8,686	9,369	9,404	9,441	9,478
Storm Administration Costs	957	1,044	980	984	987	990
Storm Exemptions & Credits	1,316	1,367	1,421	1,459	1,499	1,541
Other Revenues	(372)	(187)	(185)	(185)	(185)	(185)
New Initiatives and New Revenues	0	0	208	434	490	499
Total Operating Programs	11,958	10,910	11,793	12,094	12,231	12,323
Capital Reserve Fund Contributions	24,110	23,796	22,688	22,548	22,628	22,793
Pipe Reserve Fund Contributions	6,100	7,100	8,100	9,100	10,100	11,100
Debt Charges	990	980	964	949	931	912
Total Infrastructure Renewal	31,200	31,876	31,752	32,596	33,659	34,805
Stormwater Program	43,158	42,786	43,546	44,691	45,890	47,128
Expenditure Budget - Changes by Year				2%	1%	1%
Proposed Net Budget - Changes by Year				3%	3%	3%

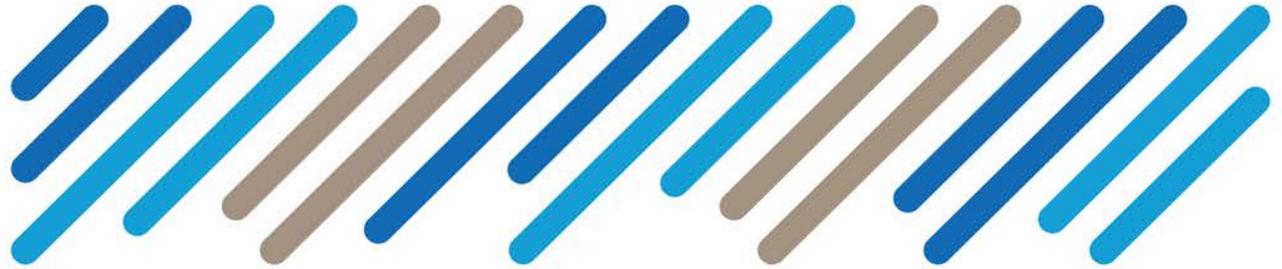
Note: Numbers may not balance due to rounding.



Proposed New Initiatives

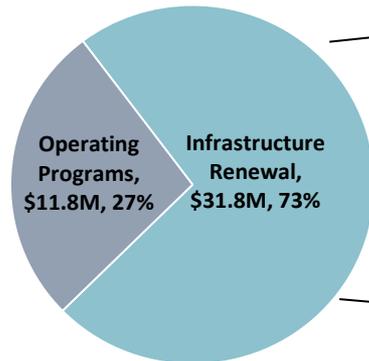
Description	BR #	2021 FTE Impact	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2021 to 2024 FTE Impact	2021 to 2024 Capital (\$000s)
New Initiative								
Stormwater Asset Management Program	8441	0.0	116	314	368	375	2.0	768
Stormwater Maintenance Contract Coordinator	8692	1.0	92	120	122	124	1.0	0
Total New Initiatives and New Revenues		1.0	208	434	490	499	3.0	768
Total New Initiatives and New Revenues		1.0	208	434	490	499	3.0	768

Note: Numbers may not balance due to rounding.

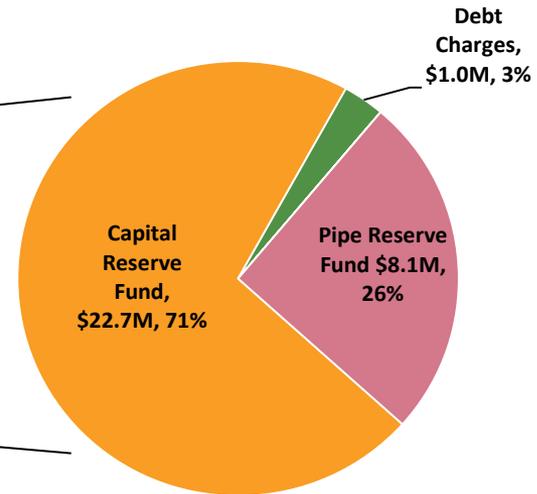


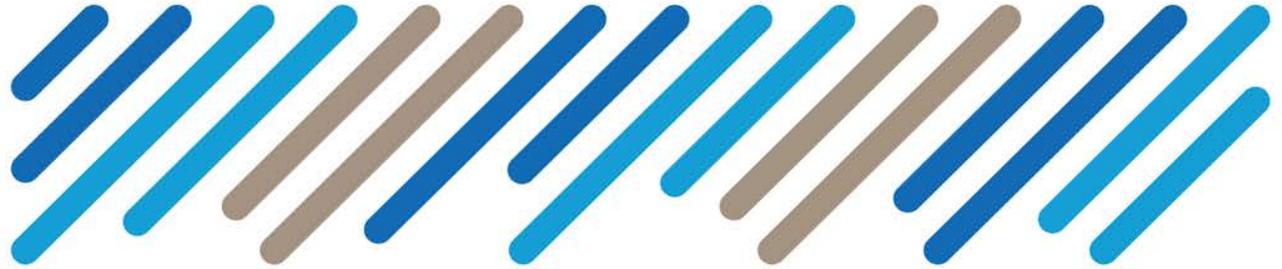
2021 Infrastructure Renewal (\$31.8 Million)

**2021 Stormwater Charge Revenue
(\$43.5M)**

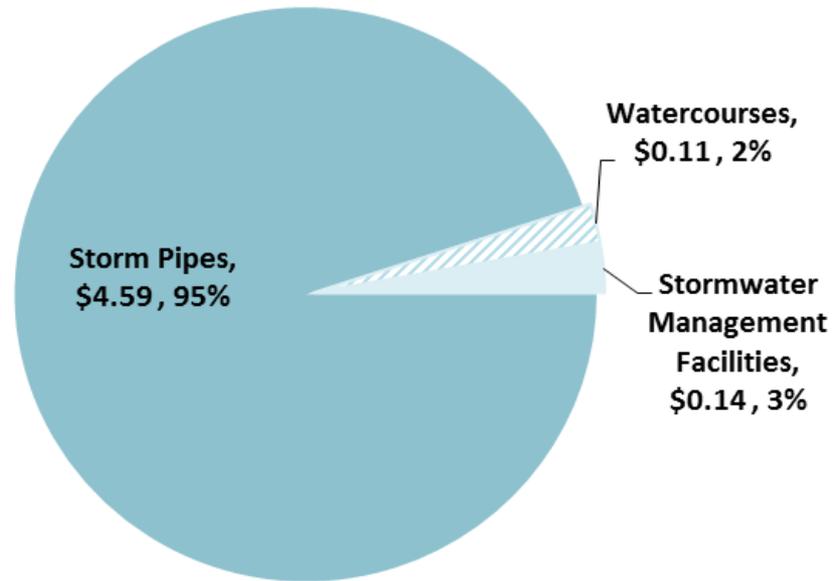


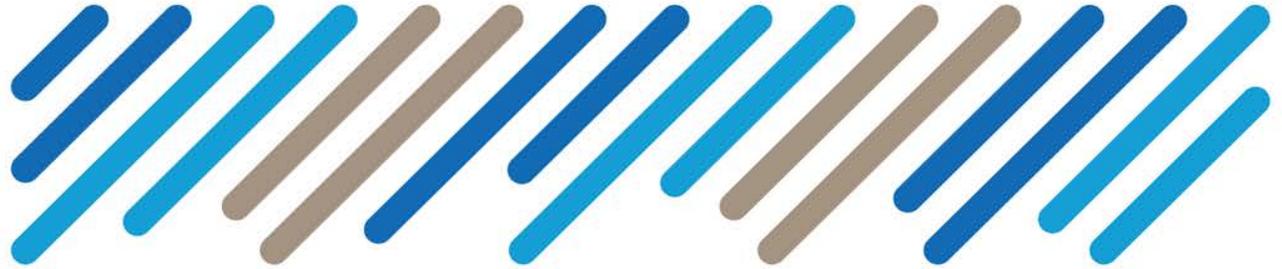
**Infrastructure Renewal
(\$31.8M)**



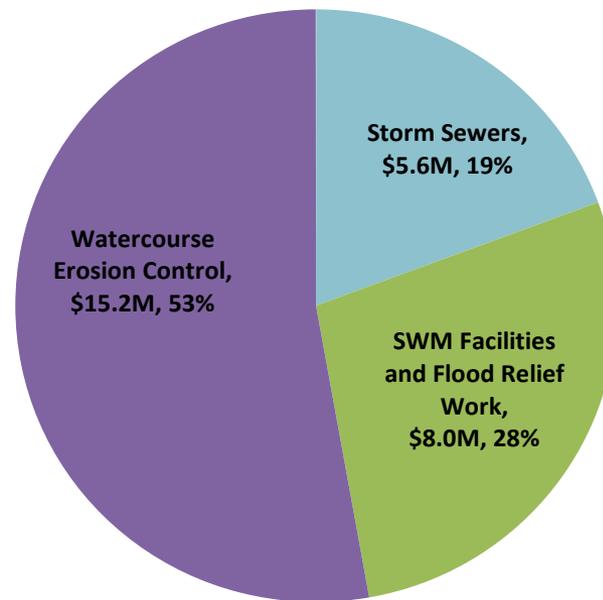


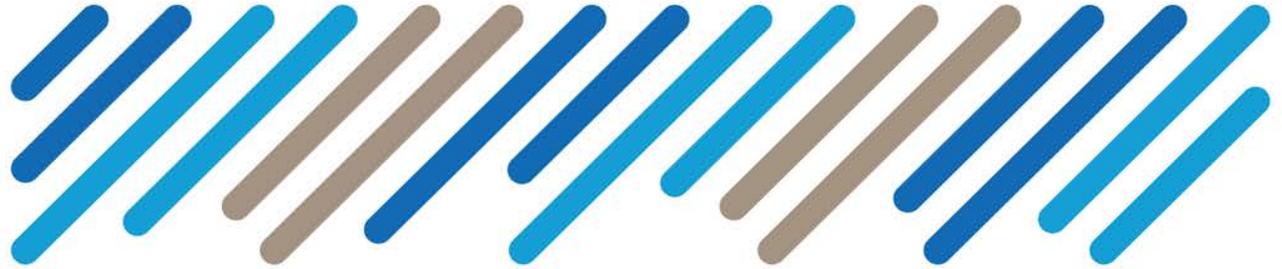
2020 Replacement Costs for Stormwater Infrastructure (\$4.83 Billion)





2021 Capital Budget by Program (\$28.8 Million)

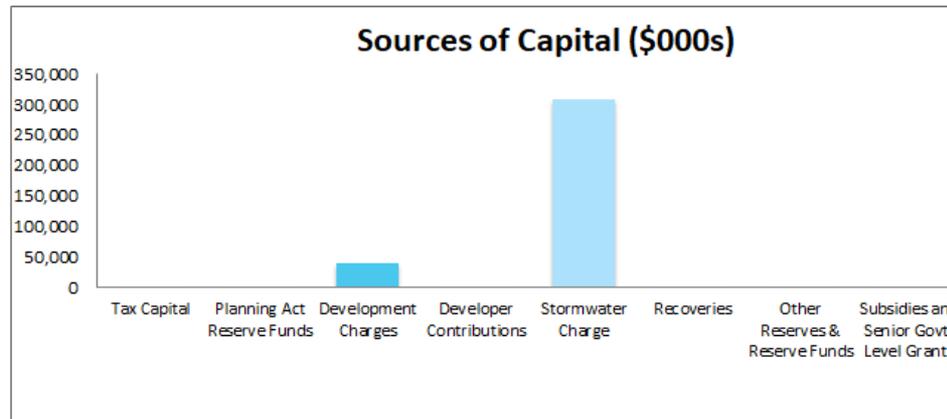


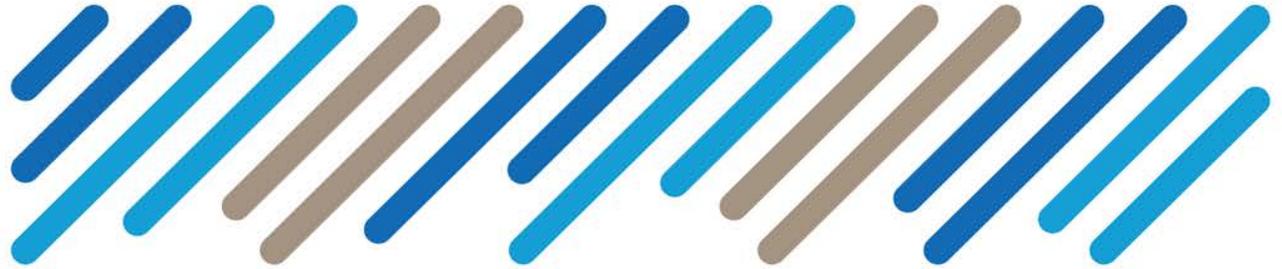


2021-2030 Capital Budget & Forecast

Program Expenditures	2021 Proposed Budget (\$000s)	2022 Forecast (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025-2030 Forecast (\$000s)	Total 2021-2030 (\$000s)
Storm Sewers	5,575	12,684	15,220	24,037	36,385	93,901
Storm Studies	0	1,000	80	700	7,304	9,084
SWM Facilities and Flood Relief Works	8,030	16,327	23,234	10,890	83,180	141,661
Watercourse Erosion Control	15,240	10,687	11,293	10,940	55,120	103,280
Total	28,845	40,698	49,827	46,567	181,989	347,926

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



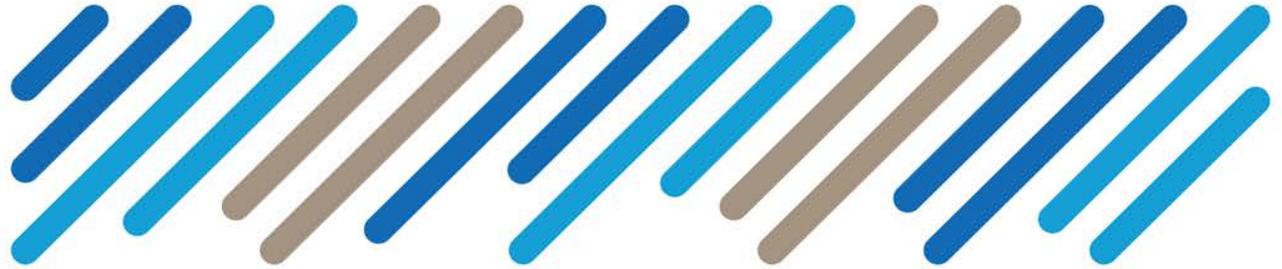


Capital Program: Completed Projects

Highlights of the projects completed in 2019 and 2020 YTD include:

- ◆ Lisgar Community Pumping Station
- ◆ Dredging and Rehabilitation of three Stormwater Ponds near Creditview Road and Derry/Old Derry Road
- ◆ Cooksville Creek Erosion Control, Rathburn Rd. to Meadows Blvd.
- ◆ Cooksville Creek Erosion Control, Mississauga Valley Blvd. to Central Pkwy.
- ◆ Levi Creek Erosion Control at Old Derry Road





Capital Program: Progress on Existing Projects

Highlights of existing projects include:

- Construction:

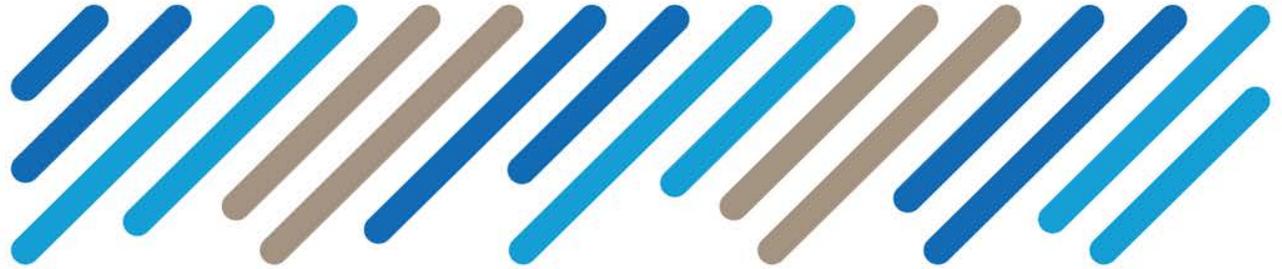
- Sandalwood Park Stormwater Management Facility
- Low Impact Development (LID) Construction at Proudfoot St. and Fowler Crt.

- Environmental Assessment (EA) & Design:

- Dixie-Dundas Flood Mitigation
- Cooksville Creek Stormwater Management Facilities

- Erosion Control Projects on Sawmill Creek, Loyalist Creek, Sheridan Creek, Mimico Creek, and Applewood Creek
- Dredging and Rehabilitation of two Stormwater Ponds

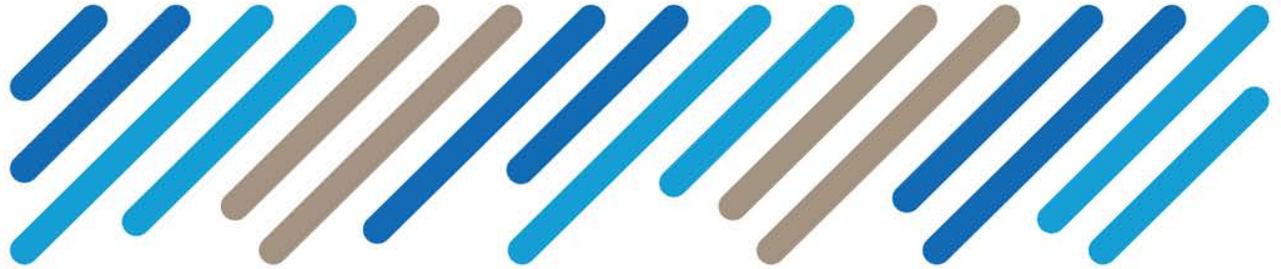




Capital Program: New Projects for 2021 and Beyond

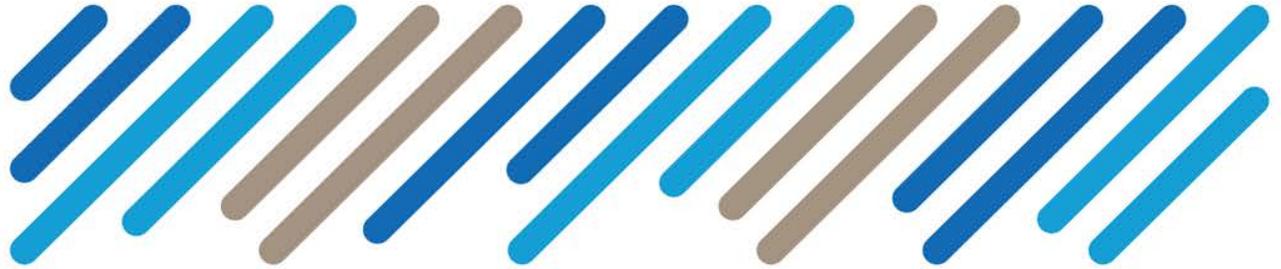
Highlights of new projects include:

- Construction of Mississauga Valley (2021-2022) and McKenzie Park (2022-2023) Stormwater Management Facilities
- Design and Construction of Hurontario LRT Storm Sewer Improvements (2022-2024)
- Storm Sewer Condition Assessment, Rehab and Renewal (2021+)
- Construction of Erosion Control Projects on the Credit River (2021), Applewood Creek (2021-2022), Loyalist Creek (2021), Mimico Creek (2021), Sawmill Creek (2022), and Sheridan Creek (2022)
- EA & Design for Erosion Control Projects on Cooksville Creek, Carolyn Creek and Wolfedale Creek (2021)
- Dredging and Rehabilitation of the Stormwater Management Pond at Winston Churchill Boulevard and Tacc Drive



New FTE Breakdown - Permanent

- ◆ 1 new permanent FTE is proposed in 2021, to be funded through Operating by the Stormwater Charge
 - Stormwater Maintenance Contract Co-ordinator
- ◆ 2 new permanent FTEs are proposed in 2022, to be funded through Operating by the Stormwater Charge
 - Storm Drainage Technologist
 - Asset Analyst/Technologist



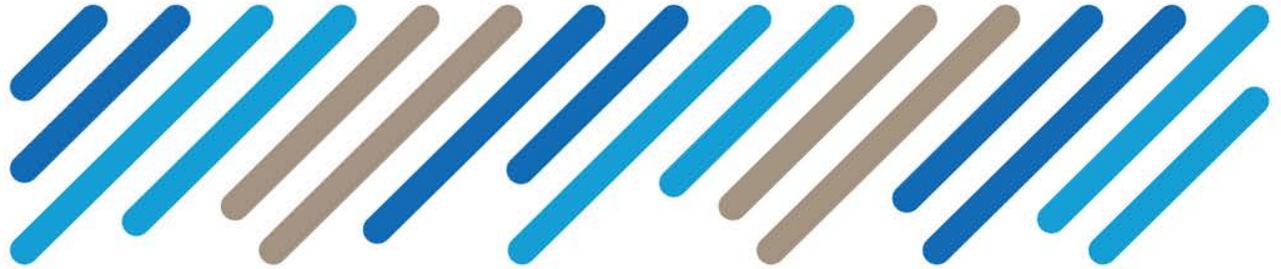
New FTE Breakdown - Contract & Part-time

- ◆ 3 new contract FTEs are proposed in 2022, to be funded by capital
 - IT Business Analyst, ending April 2023
 - GIS Specialist, ending April 2023
 - IT Project Lead, ending April 2023

storm water program

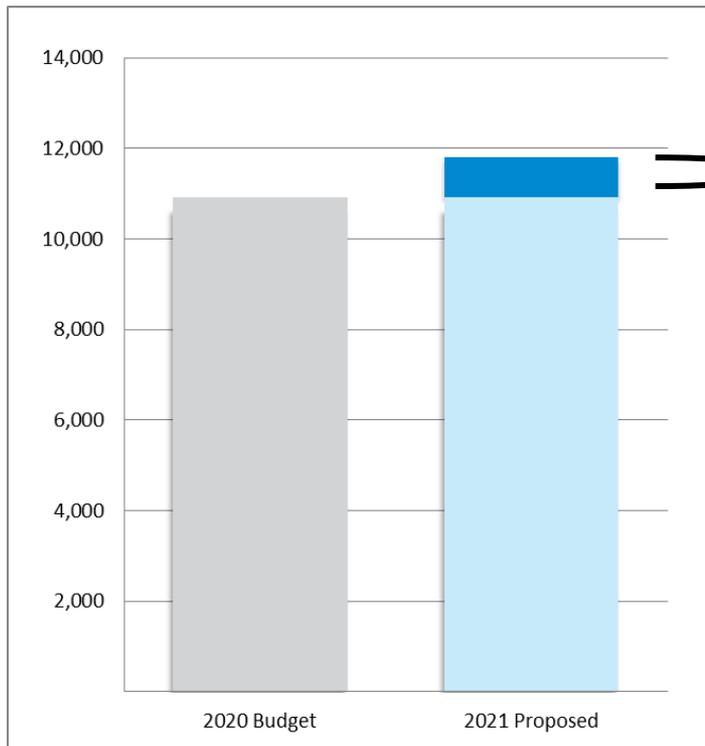


5 Summary



Net Operating Budget

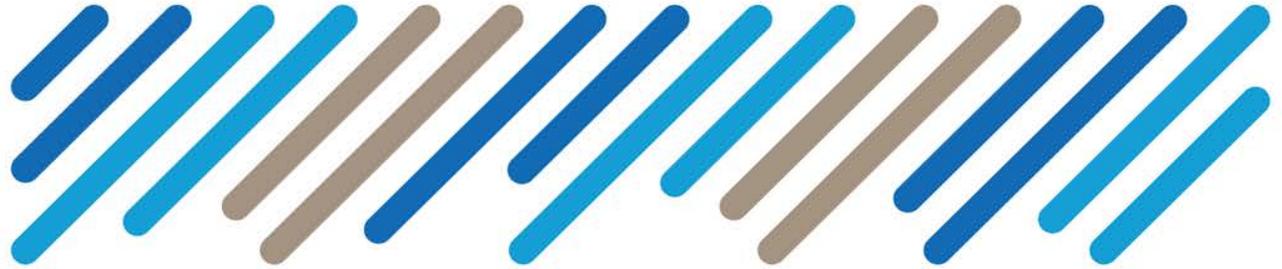
(\$000s)



Proposed
increase:
\$0.88
million
or 8%

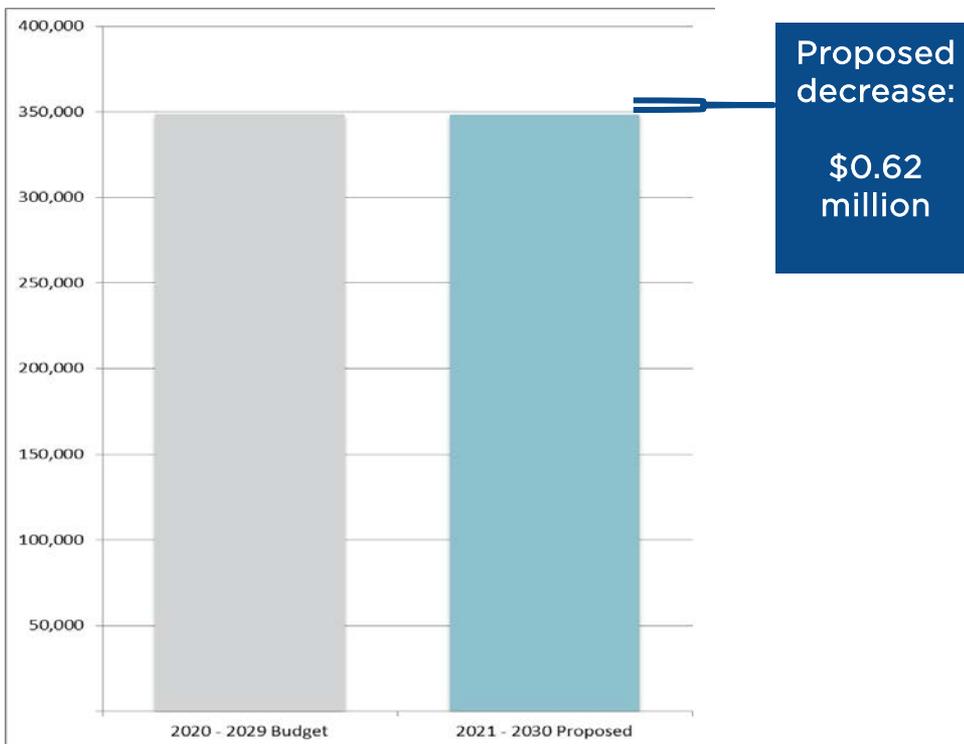
Impact

- ◆ Maintain current services and service levels:
 - ◆ Increase in Stormwater Charge Technical Exemptions and Credits
 - ◆ Increase in contractor costs
- ◆ New initiative for a Stormwater Maintenance Contract Co-ordinator



10-Year Capital Plan

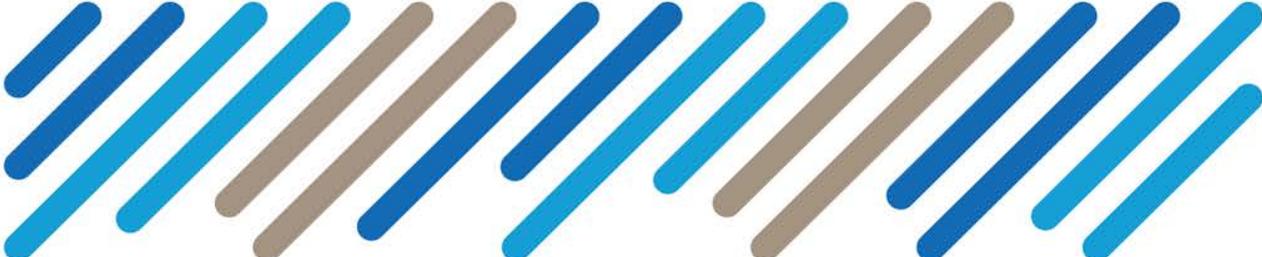
(\$000s)



Impact

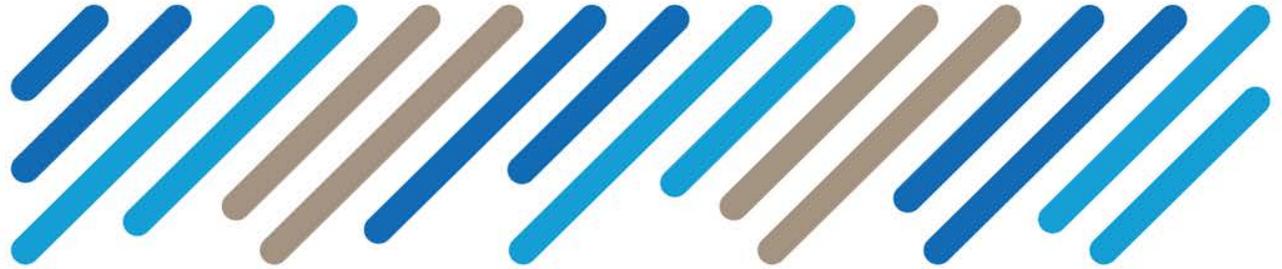
- Allows Stormwater service to align with the City's strategic goal to **Build and Maintain Infrastructure**
- Addresses present and future needs that include:
 - aging storm sewer network
 - flood relief works
 - stormwater ponds
 - watercourse erosion control

**storm
water
program**





6 Appendix



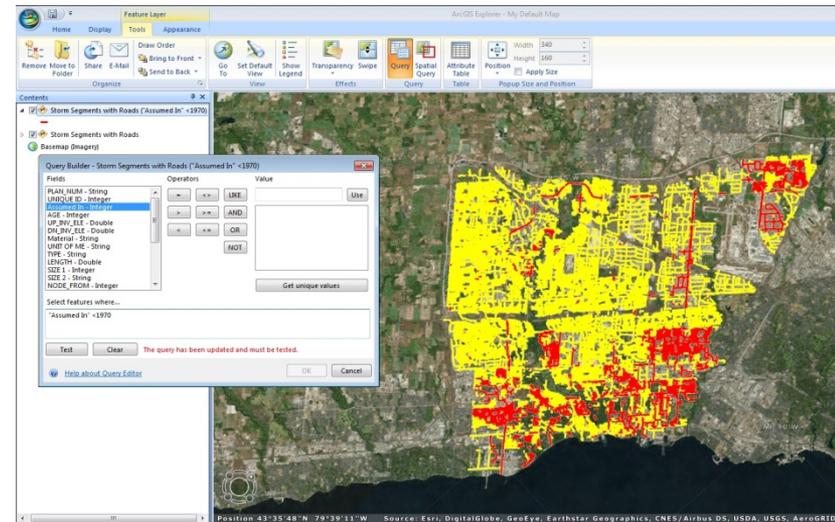
BR #8441 - Stormwater Asset Management Program

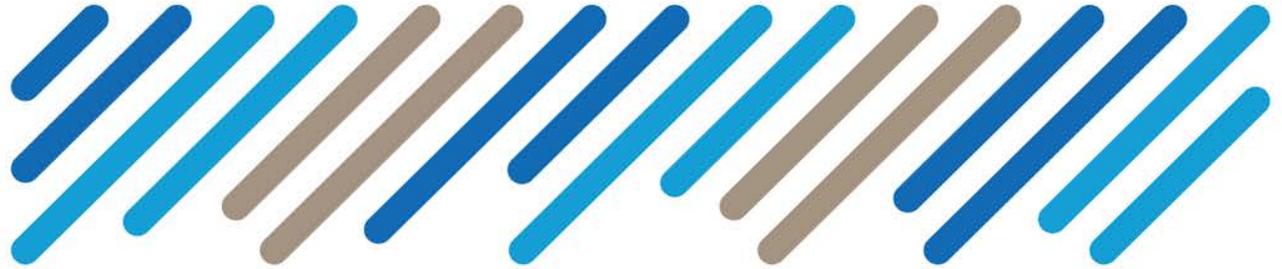
Description

The conversion of an existing contract FTE to permanent, as well as two additional permanent and three temporary contract FTEs and related asset management software are requested in order to facilitate the delivery of an Asset Management Program and to meet legislated milestones.

<u>Operating</u>	
2021 Impact	\$116,100
2021 FTE Impact	0
2022-2024 Incremental Impacts	\$258,600
2022-2024 Incremental FTEs	3
Funding Source(s):	Stormwater Charge

<u>Capital:</u>	
2021-2024 Impact	\$767,700





BR #8692 - Stormwater Maintenance Contract Co-ordinator

Description

A new Maintenance Contract Co-ordinator to oversee the Stormwater program's related contracts, including the operation and maintenance of the new Lisgar Pumping Station.

<u>Operating</u>	
2021 Impact	\$92,000
2021 FTE Impact	1
2022-2024 Incremental Impacts	\$32,100
2022-2024 Incremental FTEs	0
Funding Source(s):	Stormwater Charge
<u>Capital:</u>	
2021-2024 Impact	\$0

