



City of Hamilton
GENERAL ISSUES COMMITTEE

Meeting #: 19-024
Date: November 25, 2019
Time: 9:30 a.m.
Location: Council Chambers, Hamilton City Hall
71 Main Street West

Stephanie Paparella, Legislative Coordinator (905) 546-2424 ext. 3993

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1. APPROVAL OF AGENDA	
2. DECLARATIONS OF INTEREST	
3. APPROVAL OF MINUTES OF PREVIOUS MEETING	
4. COMMUNICATIONS	
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Discover the possibilities

Water and Wastewater/Storm

2019 Service Activity Report to

The City of Hamilton

October 2019

Authored by Cathy Livingstone

Manager, Billing

Alectra Utilities Corporation

Overview

Alectra Utilities Corporation (“Alectra Utilities”) and its predecessor Horizon Utilities Corporation (“Horizon Utilities”) has been providing water and wastewater/storm account management and billing services to the City of Hamilton (“City”) since December 2001.

Alectra Utilities also provides water billing services to the municipalities of Guelph, Markham and Vaughan.

Alectra Utilities’ mission is to be the energy ally that our customers expect us to be. We are equipped to help our communities discover the possibilities that energy conservation and new technologies can have on enhancing the quality of life for more than million customers in the communities we serve.

Through a contractual relationship that extends to December 31, 2019, Alectra Utilities provides the City with a comprehensive package of services to support all functions related to customer information and billing operations for approximately 154,000 water and wastewater/storm customers. Approximately 30,000 customers receive a stand-alone water/wastewater/storm invoice due to the customer premise being located within the City of Hamilton, but not within Alectra Utilities electric service territory.

Alectra Utilities and the City are currently negotiating contract requirements for 2020 and beyond.

In 2019, City of Hamilton customers were impacted by a number of changes as a result of Alectra Utilities’ billing system integration. Starting in March, Alectra Utilities’ invoices and My Account portal were updated. While many customers appreciated the new look and feel of the invoices and web services, some customers struggled with the changes. As a result, the Call Centre managed higher volumes of customer calls than is typical. Despite its integration activities, Alectra Utilities remains focused on delivering excellent customer service, achieving a 93% satisfaction rating in its most recent Customer Satisfaction survey.

Alectra Utilities’ suite of services for the City

- Meter reading
- Bill calculation, printing, mailing and electronic bill presentment options (paperless e-billing)
- Customer notifications
- Full customer call support, responses to inquiries and liaison between the customer and the City for escalated concerns
- Oversight and administration of City procedures and programs relating to water and wastewater/storm services such as the Leak Adjustment Policy
- Payment processing
- Account collections including the administration of payment arrangements
- Customer web access to account information including account status and consumption information
- Monthly statistical reporting

- Ad-hoc reporting upon request
- Completion of work orders
- Issuing service orders to Hamilton Water
- Transfers of water and wastewater/storm arrears to property tax roll
- Billing/invoicing/collection/management of Sewer Discharge Permits
- Billing/collection of loans provided via the City's Lead Water Service Line Replacement Loan Program

New Services and enhancements in 2019:

In addition to the operational functions provided by Alectra Utilities to the City, Alectra Utilities also strives to bring value-added expertise and partnership through the support and delivery of other initiatives.

In November 2018, the City installed a new meter on its raw water supply with billing responsibility transferred to Alectra Utilities.

As of May 1, 2019, Alectra Utilities began managing some aspects of the City's Lead Water Service Line Replacement Loan Program. This includes the billing and collection of interest-bearing loans provided to residential property owners who apply for the program. Previously, these loans were collected via the property owner's taxes. More than fifty customers are now billing their loan amount on their water bill with this number expected to increase substantially as the City increases promotion of the option to repay outstanding lead loans on the owner's water bill. There has been a favourable response to Alectra Utilities billing the loan repayments as property owners find it easier to manage a monthly loan repayment with their water bill versus annual repayments through their property taxes.

In accordance with the City Council approved water billing policy changes effective June 2018, Alectra Utilities continues to transfer residential accounts into the registered property owner's name as tenants vacate properties. Property owners benefit through opportunities to save interest and administrative costs related to tenant arrears being transferred to the tax roll as well as having the ability of identifying potential leaks at their rental property. There are currently approximately 9,000 tenant-billed water accounts; a reduction of more than 2,000 tenant accounts since June 2018 when the change was initiated.

Energy & Water Reporting and Benchmarking (EWRB) legislative regulations require property owners that have facilities greater than 100,000 square feet to report annual energy and water consumption and performance data to the Ontario Ministry of Energy. Alectra Utilities provides both electric and water consumption information to our customers for them to comply with the mandatory reporting for these large buildings. In 2019, Alectra Utilities provided EWRB information to almost 100 large customers and condominium corporations.

In 2019, Alectra Utilities continued to manage the City's Water and Wastewater Consecutive Estimated Accounts Policy. In accordance with the Policy, Alectra Utilities water billings are based on an escalating factor for estimations and include the option of service disconnection by the City as a last resort. As required by the Policy, reasonable notice of the planned service shut-off is being provided to the owners and occupants of the affected premises with a notification by registered mail. If the matter remains unresolved, a notification is posted on the premises in a conspicuous place. Alectra Utilities fulfills the City's notification requirements by ensuring that registered mail and on-site notifications are provided, as well as ensuring the related applicable service fees are charged to customers' water bills.

The City's sixth annual newsletter was provided to residential customers as a bill insert accompanying their fall water bills. The insert provides information regarding the prevention of pollutants being discharged into toilets and catch basins, the availability of the Service Line Warranties of Canada ("SLWC") program, lead awareness, frozen pipes, vacant properties, and property contact information.

In November 2019, Alectra Utilities plan to hold its first Water Billing Services Users Group. This will provide municipalities and Alectra Utilities with the opportunity to discuss best practices related to water billing, collection activities, customer service, customer communications, water rate structures, and more with the goal of delivering continuous improvements to services.

Meter Reading and Billing

The foundation of customer billing services is the receipt of accurate and timely invoices. Alectra Utilities manages its meter read schedules on a daily basis to ensure that water meter reads are available to support monthly water and wastewater/storm billing for all customer types.

Alectra Utilities and the City strive to obtain actual meter readings for billing. Where an actual reading cannot be obtained, the account is billed to an estimated reading based on the account's historical usage. **Meter read request cards** that alert customers an actual reading was not obtained are left at the property. Estimated reads are clearly identified on the customer's bill. Meter reads may be provided by calling Alectra Utilities Customer Service department, utilizing our automated Interactive Voice Response ("IVR") telephone system, sending a digital picture of their meter read via an email, or completing a form on the Alectra Utilities website. If three consecutive meter reading estimates occur, a separate notification letter and IVR outbound call are provided as additional customer communications.

Resolving estimated accounts and access issues is a daily priority and Alectra Utilities has less than 1,500 accounts where estimation of the meter read has been required more than twice.

Electronic “smart” water meters have been installed in hard-to-reach locations and are read through Alectra Utilities wireless telecommunications. Currently 618 electronically read water meters are installed.

Alectra Utilities Customer Information System (“CIS”) supports a range of fees and charges required by the City including: metered rates, various non-metered rates and fixed charges based on meter size. Complex billing scenarios such as water haulers, master/satellites, seasonal meters, compound meters and electronic read water meters are all also managed within the Customer Information System. Invoicing of the City's Wastewater Abatement Program, Private Fire Line user fees, Sewer Discharge Permit fees, back-billings and various Hamilton Water service charges are also applied through the Customer Information System.

Meter Reading and Billing Information

	2019	2018	2017	2016	2015
	Forecasted	Actual	Actual	Actual	Actual
Number of Invoices	1,841,309	1,794,337	1,503,629	963,699	982,208
Revenue	\$219.0MM	\$206.3MM	\$199.5MM	\$195.4MM	\$182.3MM
Meter Reads	1,653,028	1,624,330	1,453,956	945,125	920,415
Meter Read Success Rate	95%	95%	96%	95%	94%
New Accounts Created	3,102	2,818	1,645	2,235	1,661
“Estimated Account” Letters	11,879	13,907	15,380	10,842	12,112
Touchpad “not working” Service Orders	1,954	2,554	2,735	1,553	1,817
Service Orders to relocate remote touchpad	244	625	446	302	243
Transition to monthly billing started May/June 2017					

Reporting and controls are in place and monitored as part of our daily operations.

Customer Management

Alectra Utilities mission is to be an ally that our customers can rely on. For our Contact Centre, this is further defined by being “easy to do business with”, solutions oriented, and appreciative of our customers. Our Contact Centre’s daily goal is to meet or exceed its target of answering 75% of all in-bound calls within 30 seconds. In addition to telephone calls, Alectra Utilities’ agents respond to requests received through email, its website, social media, self-service portals and the Alectra Utilities’ after-hours voice mailbox.

All interactions with our customers promote electronic payment methods and ebilling solutions as one of our value-added services.

Alectra Utilities’ website has a section dedicated to water and wastewater/storm services and customer education including:

- Water and wastewater/storm billing explanations
- Understanding your water bill
- Water and wastewater/storm rates
- How to read a water meter
- Things you need to know before buying a home or going away
- Information regarding the City's Arrears Policy
- Information about the City's Water Leak Adjustment Policy
- Information detailing who is responsible for water and wastewater/storm charges
- Information regarding Private Fire Line Charges and Sewer Discharge Permit Charges
- Water and wastewater/storm service user fees
- Frequently asked questions
- Water saving tips

Customers can access Alectra Utilities' My Account which is a secure portal to view their bills, understand historical water consumption and utilize account management features such as the paperless billing option.

The Customer Care team are knowledgeable about the billing and payment services that Alectra Utilities provides, including particulars regarding water and wastewater/storm account management. The Contact Centre responds to queries such as:

- Notification of a change of address
- Requests to discuss payment options
 - Pre-authorized payments
 - Equal payment plans
- Queries about how rates and charges are calculated
- Payment arrangement options
- The City's Water Leak Adjustment Policy and related procedure
- Transfer of water/wastewater/storm arrears to the property tax roll
- Meter reading access issues
- Inquiries about high usage (including the provision of leak identification education) and meter accuracy inquiries

The Customer Information System provides variance reporting to ensure that bills are within a normal tolerance that supports the administration of the High Water Read Notification Program.

Residential customers are contacted by telephone before receiving a higher than normal bill to be advised that their bill has been calculated to be more than 175% greater than their norm (this notification trigger is lowered to 150% during the months of November to April). This timely notification allows customers to identify abnormally high water use, which assists with the identification of leaks and allows for corrective actions.

Timely customer communication supports positive customer relations. City bill inserts are included with invoices to advise customers of rate schedule changes or policy modifications. Additionally, special mail-outs are coordinated for the City as requested.

Calls Answered within 30 seconds:

	2019 Forecast	2018 Actual	2017 Actual	2016 Actual	2015 Actual
Incoming Calls	75%	79%	77%	82%	80%

The complexity of customer calls has increased. Our Customer Service Representatives (“CSR’s”) are having fulsome conversations with our customers to understand their inquiry while ensuring the customer is receiving the information they need during the first interaction. 85% of our customers surveyed respond that their query or request was satisfied in a single call to the Contact Centre.

Payment Options and Collections

Alectra Utilities offers a variety of payment options tailored to each customer’s unique needs. Customer payment options include:

- Automatic pre-authorized payment plans
- Equal monthly payment plans (for pre-authorized payment plan customers)
- Cheque, money order, or bank withdrawal from most financial institutions
- Telephone banking
- Internet banking
- Credit Card Payment (with a Convenience Fee)

The *Municipal Act, 2001*, allows unpaid water and wastewater fees and charges to be placed on the City of Hamilton tax roll for the property to which the public utility was supplied, irrespective of who the consumer or account holder may be or have been.

In accordance with the City's Water/Wastewater Arrears Policy and in order to assist property owners who direct water and wastewater/storm billings to a tenant, Alectra Utilities endeavors to notify property owners of tenant/account holder arrears at 30 calendar days beyond the due date. If the account remains unpaid, the water/wastewater/storm arrears will be added to the property’s tax roll when the account is 60 calendar days beyond the due date. Alectra Utilities manages the process of electronically transferring the outstanding fees and charges related to active and final billed accounts to the property tax roll.

Payment Information Options

	2019 Forecasted	2018 Actual	2017 Actual	2016 Actual	2015 Actual
Water/Wastewater accounts on Pre-Authorized Payment **	40,625	40,044	39,215	38,020	51,676
Percentage of customers on Pre-Authorized Payment	26%	26%	26%	26%	35%
Water/Wastewater on Equal Payment Plan	8,635	8,911	9,049	9,124	8,390
30 day/60 day Notification Letters sent	68,228	56,583	56,006	40,402	36,023
Number of Accounts Transferred to Tax Roll	23,680	15,875	11,681	6,221	5,796
Arrears Value	\$3,721,500	\$3,038,740	\$2,266,225	\$1,480,000	\$2,100,000

***2015 numbers include closed accounts.*

Administration and Management of City of Hamilton Programs and Special Requests

Arrears Certificates: Upon request from a solicitor, water and wastewater/storm arrears certificates are sent advising of any outstanding charges that remain at the time of closing for real estate transactions.

Service Orders: Alectra Utilities processes a variety of service orders from Hamilton Water's Customer Service and Community Outreach section related to activities such as new meter installations, meter replacements and account transfers.

High Water Read Notification Program: On behalf of the City, Alectra Utilities provides notification to account holders who experience higher than average historical water consumption. This timely notification provides customers the opportunity to identify and repair any leaks or identify usage that would affect the amount of water consumed. The notification, which includes leak detection information, is mailed out to customers if usage increases by 175% over the previous year (150% during November to April).

Water Leak Adjustment Policy: The City of Hamilton's Water Leak Adjustment Policy provides residential, not-for-profits and institutional customers who utilize City of Hamilton water services with financial assistance under certain circumstances. The Policy provides a one-time opportunity for customers to request adjustments to water/wastewater/storm charges where repair(s) of water leaks within private property occurs, excluding any water leaks in the water service pipe.

Customers may request adjustments to water and wastewater/storm charges by completing a Water Leak Adjustment Request form (available on the Alectra Utilities website) and submitting it to the Alectra Utilities Customer Service department. Any adjustments greater than \$500 require City review and approval.

Billing of Seasonal Accounts: Reads and their related work orders completed by the City are forwarded to Alectra Utilities twice per year and the information is used to reconcile seasonal accounts.

Billing of Sewer Discharge Permits: On a quarterly basis, Alectra Utilities bills sewer discharge permits with the City’s annual budget for these revenues of almost \$7.0MM. Monthly reporting of unpaid accounts is forwarded to the City for tracking purposes.

Program Management Information

	2019 Forecasted	2018 Actual	2017 Actual	2016 Actual	2015 Actual
Water/Wastewater Arrears Certificates	N/A	4,215	4,685	4,488	6,172
Service Orders Completed	17,481	13,559	12,389	13,259	8,146
High Water Notification Letters	13,351	12,340	9,844	10,403	18,843
Leak Adjustment Request Forms Received	53	41	90	106	150
Leak Adjustment Credits applied to accounts	\$34,450	\$66,930	\$55,700	\$49,700	\$55,196

Reporting

Alectra Utilities has reporting to manage the water and wastewater/storm billing activities including exception handling. A variety of statistical and summary reports are sent to the City each month to enable analysis and program oversight, including:

- Monthly billing detail report
- Adjustments detail report
- Leak Adjustments summary
- Wastewater Abatement summary
- Non-metered account listing
- Large water user billing report
- Meter read accuracy report
- Rate types and meter size
- Sewer Discharge Permit billing report
- Fire Line Services
- Summary of aging arrears and current account receivables
- Revenue report by rate class
- Trial balance for all account receivable transactions
- Adjustments by type

Looking Ahead to 2020

- Continued enhancements to Alectra Utilities’ self-serve portal

- In partnership with the City, develop Key Performance Indicators to establish incremental measurements and standards / targets
- The implementation of OEB regulation in March 2020 which further standardizes customer service for electricity customers. This includes extended time lines for bill due dates and collections activities.
- Planned transition of City of Guelph Customer Information System to Alectra Utilities' CIS platform (Q4 2020)



INFORMATION REPORT

TO:	Chair and Members General Issues Committee
COMMITTEE DATE:	November 25, 2019
SUBJECT/REPORT NO:	Alectra Utilities Water, Wastewater and Storm 2019 Service Activity Report (FCS19069) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	John Savoia (905) 546-2424 Ext. 7298
SUBMITTED BY:	Brian McMullen Director, Financial Planning, Administration and Policy Corporate Services Department
SIGNATURE:	

COUNCIL DIRECTION

Not applicable.

INFORMATION

Alectra Utilities Corporation (“Alectra Utilities”) has been providing water and wastewater / storm account management and billing services to the City of Hamilton (“City”) since December 2001 with a renewed service agreement executed in June 2014 extending terms to December 31, 2019. The budgeted cost of these services for 2019 is \$5.7 M. Costs are adjusted annually based on the terms of the service agreement, growth in customer accounts and for the City’s 50% share of any postal rate increases that may occur from time to time. Alectra Utilities and the City are currently negotiating contract requirements for 2020 and beyond.

Appendix “A” to Report FCS19069 provides a report of the service activities provided by Alectra Utilities during 2019.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report FCS19069 – Water and Wastewater / Storm – 2019 Service Activity Report to the City of Hamilton – October 2019

JS/dt

Alectra Utilities' Water Service Activity Report

November 25, 2019

Eileen Campbell, Vice President Customer Service

Our story

Alectra Utilities now serves more than one million homes and businesses in the Great Golden Horseshoe Area.

We provide water billing services to the municipalities of Guelph, Hamilton, Markham and Vaughan; serving approximately 400,000 water customers.

Our Vision and Mission

We will be Canada's leading electricity distribution and integrated energy solutions provider, creating a future where pole, businesses, and communities will benefit from energy's full potential.

We provide customers with smart and simple energy choices, while creating sustainable value for our shareholders, customers, communities and employees.



Our customer experience

Service activity highlights

	2019	2017
# of New Accounts Created	3,102	1,645
Arrears Notices	68,228	56,006
# of Arrears Transfer	23,680	11,681
Transfer Dollars	\$3,721,500	\$2,266,225
# of Touchpads Relocated	244	446
Leak Adjustments	53	90

Continuous improvement highlights

Residential Tenants Billing Change

Residential properties are now enrolled and billed in the name of the registered property owner.

Energy & Water Reporting Benchmarking (EWRB)

Building owners of buildings greater than 100,000 square feet and larger are required to report electricity and water usage

Arrears Policy

An increase to the threshold from \$75 to \$100 for tax transfers will be implemented on January 1.

Continuous improvement highlights

- Water bill loan repayments re City's Lead Water Service Line Replacement Program
- 6th Annual Hamilton Water Newsletter was provided as a bill insert to residential customers with their fall bills
- Alectra will host its first Water Billing Services User Group meeting to provide opportunities to foster relationships, build best practices and learn from each other



What's next?

8



Looking ahead

Customer Experience (CX) Strategy

Alectra Utilities has identified customer experience, specifically; greater customer satisfaction and brand loyalty, as a key initiative in its transformation roadmap.

Why CX?

- An enhanced CX will help Alectra keep pace with customer **expectations**, drive customer **loyalty** and enhance the **brand** image.
- A strong CX will also provides a competitive advantage that translates to **growth**:
 - The **top line**: higher retention, growth, and new opportunities
 - The **bottom line**: lower cost to serve, greater efficiencies

Looking ahead

- Continued enhancements to our self-service portal based on our customers' feed back.
- A new IVR system to increase efficiencies and customer service, regardless of channel
- Quarterly newsletters for our customers
- Implementation of new Customer Service Rules in March 2020
- Guelph Hydro migrates to Alectra Utilities' CC&B platform





Questions?



CITY OF HAMILTON
CORPORATE SERVICES DEPARTMENT
Financial Planning, Administration and Policy Division

TO:	Chair and Members General Issues Committee
COMMITTEE DATE:	November 25, 2019
SUBJECT/REPORT NO:	2020 Recommended Water, Wastewater and Stormwater Budget (FCS19070) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	John Savoia (905) 546-2424 Ext. 7298
SUBMITTED BY:	Mike Zegarac General Manager, Finance and Corporate Services Corporate Services Department
SIGNATURE:	

RECOMMENDATION(S)

- (a) That the metered water consumption charges for residential properties in the City of Hamilton be imposed at the following rates, effective January 1, 2020:

Monthly Water Consumption (m3)	Rate (\$/m3)
0 – 10	0.82
10 +	1.63

- (b) That the metered water consumption charge for commercial, industrial, institutional and multi-residential (bulk meter) properties in the City of Hamilton be imposed at the rate of \$1.63 per cubic metre, effective January 1, 2020;
- (c) That daily water fixed charges for all properties in the City of Hamilton be imposed at the following rates, effective January 1, 2020:

**SUBJECT: 2020 Recommended Water, Wastewater and Stormwater Budget
(FCS19070) (City Wide) - Page 2 of 32**

Meter Size	Daily Water Rate
15 mm	\$0.37
16 mm	\$0.37
20 mm	\$0.37
21 mm	\$0.37
25 mm	\$0.93
38 mm	\$1.85
50 mm	\$2.96
75 mm	\$5.92
100 mm	\$9.25
150 mm	\$18.50
200 mm	\$29.60
250 mm	\$42.55
300 mm	\$62.90

- (d) That the wastewater / storm treatment charges for residential properties in the City of Hamilton be imposed at the following rates, effective January 1, 2020:

Monthly Water Consumption (m3)	Rate (\$/m3)
0 – 10	0.88
10 +	1.75

- (e) That the wastewater / storm treatment charge for all commercial, industrial, institutional and multi-residential (bulk meter) properties in the City of Hamilton be imposed at the rate of \$1.75 per cubic metre, effective January 1, 2020;
- (f) That daily wastewater /storm fixed charges for all properties in the City of Hamilton be imposed at the following rates, effective January 1, 2020:

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

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Meter Size	Daily Wastewater / Storm Rate
15 mm	\$0.39
16 mm	\$0.39
20 mm	\$0.39
21 mm	\$0.39
25 mm	\$0.98
38 mm	\$1.95
50 mm	\$3.12
75 mm	\$6.24
100 mm	\$9.75
150 mm	\$19.50
200 mm	\$31.20
250 mm	\$44.85
300 mm	\$66.30

- (g) That the residential non-metered annual water rate be imposed at the flat rate of \$594.95 per annum, effective January 1, 2020;
- (h) That the residential non-metered annual wastewater / storm rate be imposed at the flat rate of \$638.75 per annum, effective January 1, 2020;
- (i) That the residential combined non-metered annual water and wastewater / storm rate be imposed at the flat rate of \$1,233.70 per annum, effective January 1, 2020;
- (j) That the Private Fire Line rates be imposed at the following rates, effective January 1, 2020:

Connection Size		Monthly Rate
mm	inches	
25	1.0	\$3.60
38	1.5	\$8.28
50	2.0	\$14.40
75	3.0	\$32.40
100	4.0	\$57.60
150	6.0	\$129.60
200	8.0	\$230.40
250	10.0	\$230.40
300	12.0	\$230.40

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**SUBJECT: 2020 Recommended Water, Wastewater and Stormwater Budget
(FCS19070) (City Wide) - Page 4 of 32**

- (k) That the 2020 Water, Wastewater and Storm Proposed User Fees and Charges be imposed as per Appendix “G” to Report FCS19070, effective January 1, 2020;
- (l) That charges for raw water supplied to 690 Strathearne Avenue North by the City of Hamilton be imposed at the following rates, effective January 1, 2020:
- (i) metered raw water at the rate of \$0.1223 per cubic metre;
- (ii) daily raw water fixed charges at the following rates:

Meter Size	Daily Rate
200 mm	\$31.20

- (iii) 2020 annual fee of \$18,500 for the purpose of a private raw water pipeline owned by AMLPC to convey raw water supplied by the City to 690 Strathearne Avenue North;
- (m) That the 2020 Water, Wastewater and Stormwater Rate Supported Operating Budget in the amount of \$232,601,659 be approved as per Appendix “A” to Report FCS19070;
- (n) That the long-term financing plan for the Water, Wastewater and Stormwater programs and related rate increases required to meet sustainable financing as identified in the 2020-2029 Water, Wastewater and Stormwater Rate Supported Operating Budget forecast (Appendix “A” to Report FCS19070) be approved, in principle;
- (o) That the 2020 Water, Wastewater and Stormwater Rate Supported Capital Budget and Financing Plan in the amount of \$325,981,000 be approved as per Appendices “K”, “N”, “Q” and “S” to Report FCS19070;
- (p) That the 2020-2029 Water, Wastewater and Stormwater Rate Supported Capital Budget forecast and financing plan (Appendix “I” to Report FCS19070) be approved, in principle;
- (q) That the City Solicitor be authorized and directed to prepare, for Council approval, all necessary by-laws respecting the 2020 water and wastewater / storm user fees, charges and rates set out in recommendations (a) through (l) of Report FCS19070;
- (r) That the additional 7.0 Full Time Equivalent Rate Supported Staffing be approved as per Appendix “F” to Report FCS19070;

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**SUBJECT: 2020 Recommended Water, Wastewater and Stormwater Budget
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- (s) That the General Manager, Finance and Corporate Services, be authorized to negotiate and confirm the terms and placement of all debenture issue(s), and / or private placement debenture issue(s), in either a public or private market and / or bank loan agreements and debenture issue(s) and / or variable interest rate bank loan agreements and debenture issue(s), in an amount not to exceed \$83,678,000 as attached in Appendices “K”, “N” and “Q” to Report FCS19070, which includes \$16,900,000 in Rate Supported municipal debt and \$66,778,000 in Rate Supported Development Charges municipal debt;
- (t) i) That the General Manager, Finance and Corporate Services, be authorized to engage the services of all required professionals to secure the terms and issuance of the debenture issue(s) described in subsection (s) including, but not limited to, external legal counsel, fiscal agents and Infrastructure Ontario’s Loan Program;
- ii) That the General Manager, Finance and Corporate Services, Mayor and City Clerk are each authorized and directed to enter into and / or execute, on behalf of the City of Hamilton, all agreements and necessary ancillary documents requiring their respective signatures, to secure the terms and issuance of the debenture issue(s) described in subsections (s), and (t), in a form satisfactory to the City Solicitor;
- iii) That the Mayor and City Clerk are authorized and directed to enter into and / or execute, on behalf of the City of Hamilton, all agreements and necessary ancillary documents not requiring any specific signing authority, to secure the terms and issuance of the debenture issue(s) described in subsections (s) and (t), in a form satisfactory to the City Solicitor and with content acceptable to the General Manager, Finance and Corporate Services;
- (u) That all necessary By-Law(s) be passed to authorize the debenture issue(s) negotiated, placed and secured in accordance with subsections (s) and (t).

EXECUTIVE SUMMARY

The 2020 Recommended Rate Budget is submitted for Council’s consideration. The 2020 Rate Budget balances the need to invest in environmental infrastructure upgrades and changing trends in demand for water and growth in users relative to “Places to Grow.” Over the period 2020 to 2029, water, wastewater and stormwater capital investment is forecast at \$2.49 B which represents an increase of \$0.15 B from last year’s 10-year forecast. This budget continues to focus on growing our economy, environmental stewardship, financial sustainability and effective inter-governmental relations.

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**SUBJECT: 2020 Recommended Water, Wastewater and Stormwater Budget
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The Rate Capital Budget forecasts in Report FCS19070 and its Appendices are based on the best available information from our asset management practices. The municipal asset management framework has been in the development stages for many years. The Ministry of Infrastructure filed Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure under Bill 6, *Infrastructure for Jobs and Prosperity Act* (“Act”) on December 27, 2017. Regulation 588/17 went into force on January 1, 2018 and applies to all infrastructure assets directly owned by a municipality or consolidated on the municipality’s financial statements. City staff will report to Council on the various stages in the implementation of the Regulation over the coming years.

The 2020 Operating expenditures in the 2020 Requested Budget of \$86.2 M reflect a decrease of \$9.5 M or 9.9% less than the 2019 budget.

Capital financing costs, including reserve transfers in the 2020 Requested Budget of \$146.4 M, reflect an increase of \$19.8 M over the 2019 Budget. With non-rate revenues of \$3 M, rate revenues of \$229.6 M are required to meet operating (program and capital financing) expenditures.

Table 1 summarizes the budget changes for the 2020 Requested Budget:

Table 1

Summary of the 2020 Operating Budget				
(\$ millions)	2019 Restated Budget	2020 Requested Budget	2020 Requested / 2019 Restated Change	
			\$	%
Expenditures				
Program Expenditures	\$ 95.7	\$ 86.2	(\$ 9.5)	(9.9%)
Capital/Debt / Reserve Financing	\$ 126.6	\$ 146.4	\$ 19.8	15.6%
Total Expenditures	\$ 222.3	\$ 232.6	\$ 10.3	4.7%
Revenues				
Rate Revenue	\$ 219.3	\$ 229.6	\$ 10.3	4.7%
Non-Rate Revenue	\$ 3.0	\$ 3.0	----	----
Total Revenue	\$ 222.3	\$ 232.6	\$ 10.3	4.7%
Average Residential Water / Wastewater / Storm Bill	\$ 722.90	\$ 751.80	\$ 28.90	4.00%

Note: Anomalies due to rounding.

**SUBJECT: 2020 Recommended Water, Wastewater and Stormwater Budget
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Chart 1 highlights that the proposed combined 4.00% rate increase is driven entirely by increased capital financing expenditures in 2020.

Chart 1

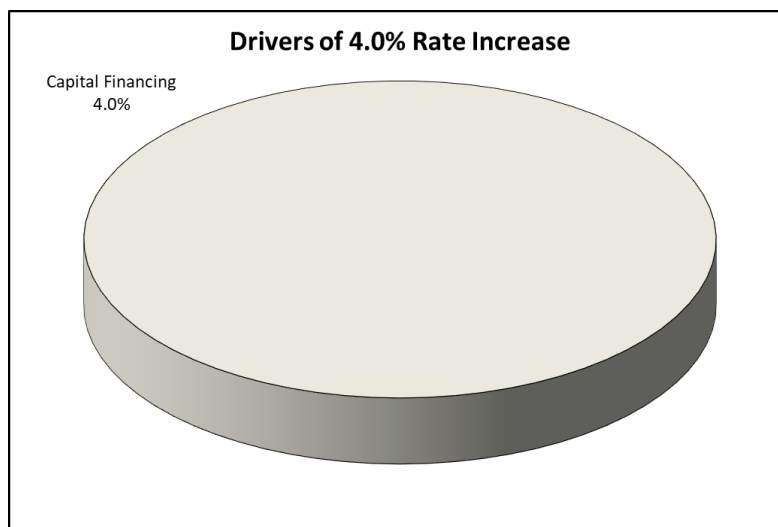


Table 2 identifies the proposed rate increase impact on the average residential customer:

Table 2
**Impact of Recommended 2020 Water and Wastewater /
Storm Rate Increases on a Typical Residential Bill**
(Based on annual water consumption of 200 m³)

2019 Residential Bill	\$722.90
2020 Residential Bill	\$751.80
Recommended Change (\$)	\$28.90
Recommended Change (%)	4.00%

The recommended 2020 Rate Supported Financial Strategy endeavours to achieve a balance between capital investment, rate of growth and rate stability. The 2020 Rate Supported Strategy links the change in demand for water with a staged approach to necessary capital investments at the Woodward Wastewater Treatment Plant (WWTP). The current strategy calls for capital funding in 2019 of approximately \$326.0 M (2019\$) and \$2.49 B (2019\$) for the 2020 – 2029 timeframe. The 2020 Strategy includes financing from the federal and provincial governments with respect to the WWTP rehabilitation and upgrades, specifically in support of the Hamilton Harbour Remedial Action Plan.

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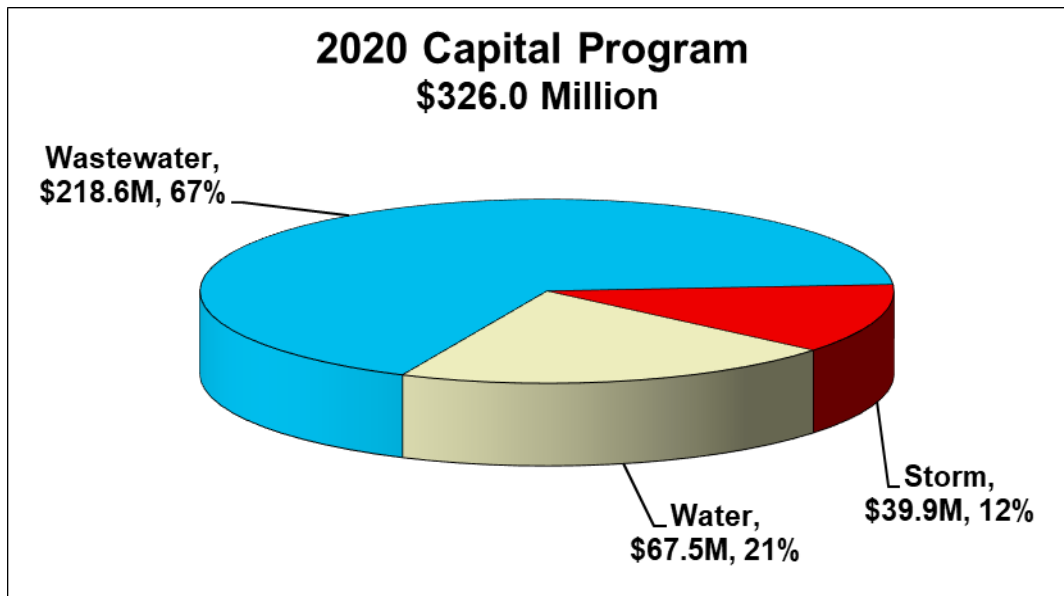
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Chart 2 provides a breakdown of the 2020 Rate Capital Program totalling \$326.0 M, by the three major program areas: Water, Wastewater and Storm.

Chart 2



Report FCS19070 identifies significant risks related to a variety of conditions which may impact ratepayers and, in combination, may place significant financial pressures on ratepayers. These risk factors detailed in later sections of Report FCS19070 include increased operating and capital investment requirements. Staff pursued a variety of measures to control the impact of the above risks to maintain a safe and reliable service at a reasonable cost.

Alternatives for Consideration – See page 30.

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: As per Recommendation (m) of Report FCS19070, approval of the 2020 Water, Wastewater and Stormwater Supported Operating Budget will support operating and capital financing expenditures of \$232,601,659 for 2020.

Staffing: The 2020 Rate Supported staffing complement reflects a requested increase of 7.0 in total FTE headcount as reflected in Appendix “F” to Report FCS19070.

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Legal: Recommendation “Q” of Report FCS19070 relates to By-laws requiring Council approval, respecting the implementation of 2020 water and wastewater user fees and charges set out in the recommendations (a) through (l) of Report FCS19070.

HISTORICAL BACKGROUND

The 2020 Rate Budget continues to support the priority of investing in infrastructure as evidenced by the 2020 to 2029 forecast investment of approximately \$2.49B in water, wastewater and stormwater capital infrastructure.

Report FCS19070 outlines the various aspects and components that the recommended 2020 Rate Supported strategy incorporates:

- Sustainable Rate Strategy
- Proposed 2020 Water and Wastewater / Storm Rates
- Operating Budget Highlights
- Capital Budget Highlights
- Water Consumption Review and Forecast

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The recommended options support the principle of a user-pay water and wastewater / storm system. The Rate Reserve Policy has guided staff’s recommended use of rate reserves as a funding source in the 2020 - 2029 financing plan.

RELEVANT CONSULTATION

Public Works – Hamilton Water Division provided operating / capital expenditure and non-rate revenue forecasts as reflected in Report FCS19070.

ANALYSIS AND RATIONALE FOR RECOMMENDATIONS

Appendix “A” to Report FCS19070 summarizes the 2020 operating budget expenditures (program and capital financing) and revenues of \$232.6 M compared to the 2019 projected actual and 2019 restated budget.

The 2020 Operating expenditures in the 2020 Requested Budget of \$86.2 M reflect a decrease of \$9.5 M or 9.9% over the 2019 budget. The operating expenditures have been reduced to align with historical actuals which has allowed for a corresponding increase in capital contributions to be spent on improving infrastructure while not increasing reliance on debt.

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The majority of costs are fixed in nature at approximately 90% of total operating costs including employee related costs, property taxes, materials and operating supplies, corporate cost allocations. The remaining costs are variable related to production volumes (heating fuel – natural gas, hydro, fluid and chemicals, biosolids contract).

As outlined in the Executive Summary section of Report FCS19070, the proposed rate impact for the average residential water, wastewater and storm annual bill would be \$28.90 (4.00%).

Water and wastewater service user fees have been reviewed in accordance with the User Service Fee and Charges Policy which requires identification of both the cost of the service and the fees / charges to recover such cost with the intent that full cost recovery is achieved. Many service fees are unchanged with full cost recovery currently being achieved with others undergoing varying fee increases to achieve full cost recovery.

The 2020 recommended water and wastewater / storm rate increases will result in an annual cost impact of approximately \$29 per typical household. The impact of the recommended rate increases on the water and wastewater / storm fixed charges as well as the water consumption and wastewater / storm treatment charges are identified in Table 3.

**Table 3
Impact of Recommended Rate Increases on
Water and Wastewater / Storm Rates**

	2019	2020	Increase
Water Fixed Charge (daily) ¹	\$0.36	\$0.37	\$0.01
Consumption Charge Block 1 (0-10 cubic metres / month)	\$0.78	\$0.82	\$0.04
Consumption Charge Block 2 (>10 cubic metres / month)	\$1.55	\$1.63	\$0.08
Wastewater / Storm Fixed Charge (daily) ¹	\$0.38	\$0.39	\$0.01
Treatment Charge Block 1 (0-10 cubic metres / month)	\$0.84	\$0.88	\$0.04
Treatment Charge Block 2 (>10 cubic metres / month)	\$1.68	\$1.75	\$0.07

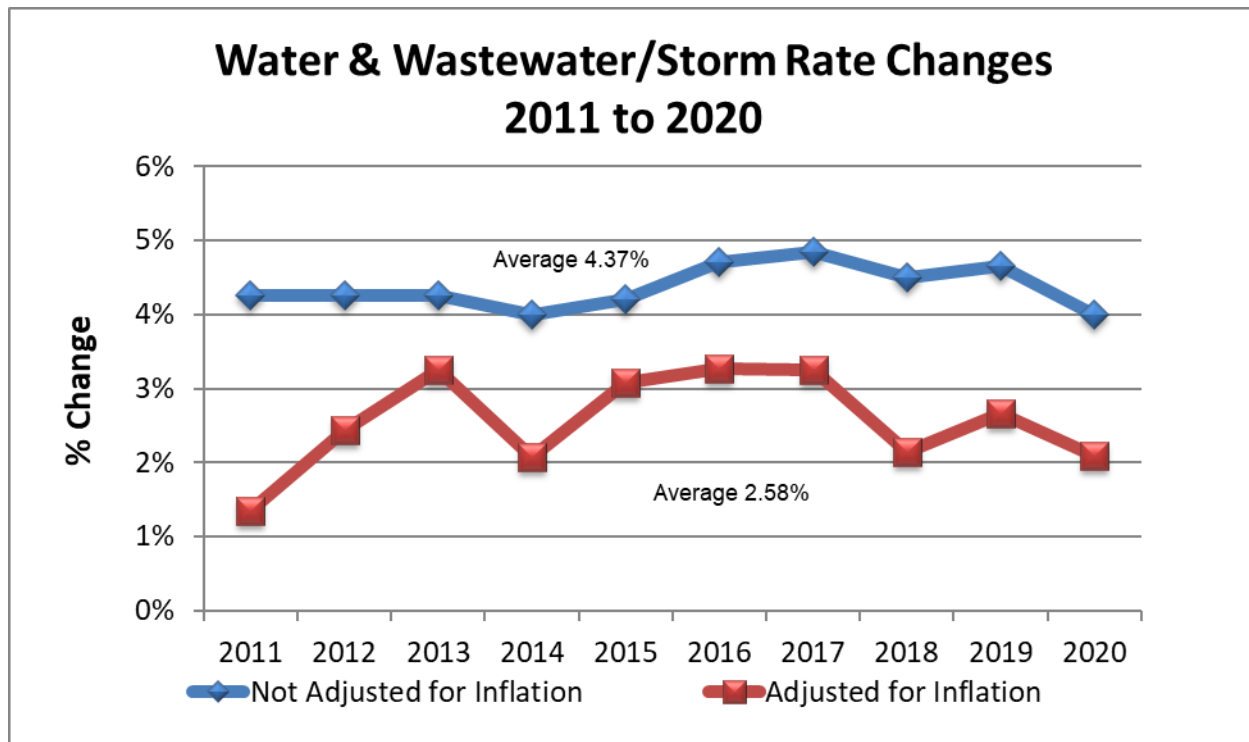
¹ Rate is for a 15-21 mm meter which most residential homes have installed.

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Trends in Water Rate Charges 2011-2020

Hamilton's overall average annual combined water and wastewater / storm rate increase is 4.37% before adjusting for inflation during the 10-year period from 2011 to 2020. Accounting for inflation results in the overall average, the annual rate increase over the same period would be 2.58%. Chart 3 shows the trend in Hamilton's combined water and wastewater / storm rates for the period 2011 to 2020.

Chart 3



Comparative Rates

In recent years, staff reported that Hamilton's water and wastewater / storm rates have remained competitive, inclusive of the fact that annual rate increases over the past decade have averaged 4.37% before adjusting for inflation.

Over the past decade, Hamilton's ability to maintain competitive water and wastewater / storm rates, given the magnitude of the rate increases approved over this same period, reflects the fact that like Hamilton, other municipalities are addressing many of the same investment requirements as previously identified.

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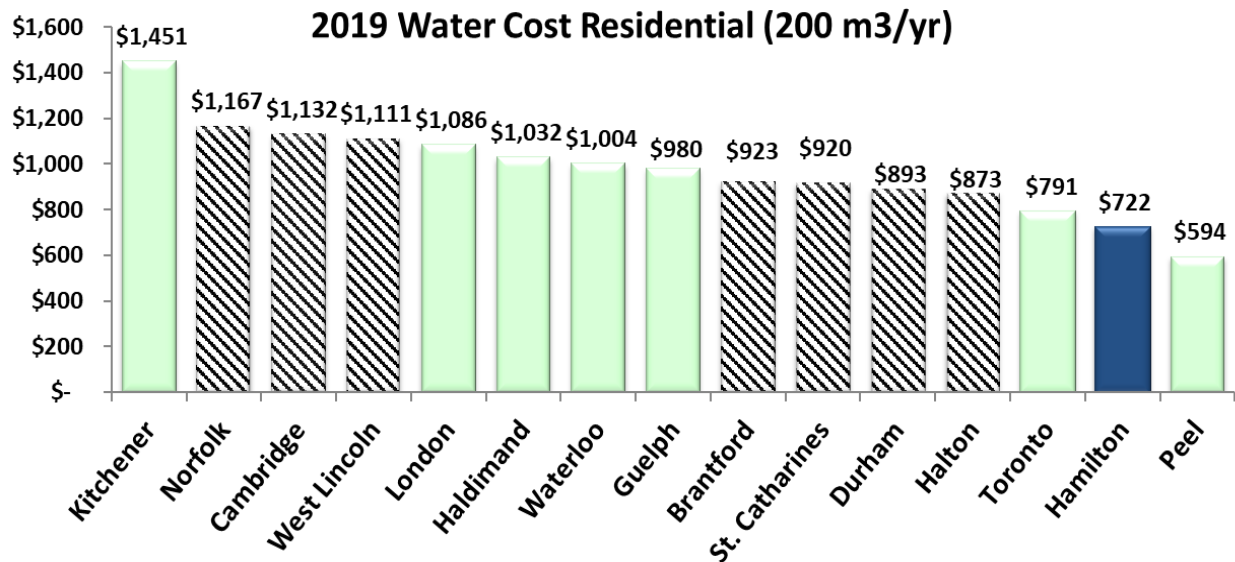
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Hamilton's residential annual water and wastewater / storm bill continues to be the second lowest within its local municipal comparator group. Though Hamilton largely funds its stormwater management program through its wastewater / storm fee, it still has been able to maintain competitive rates as reflected in Chart 4.

Chart 4



 Stormwater funded by property taxes

CONSUMPTION AND RATE-GENERATED REVENUES

Metered Water Consumption

Currently, the City of Hamilton has over 152,000 metered water accounts (see Chart 5). Residential users account for 93% of total metered accounts and approximately 48% of total water consumption. While industrial, commercial, institutional and multi-residential accounts only make up 7% of total metered accounts, Industrial Commercial Institutional (ICI) and multi-residential (multi-res) water consumption accounts for 52% of total consumption.

Revenues associated with consumption represents approximately 93% of the total budgeted Rate revenues of \$229.6 M for 2020 (see Chart 6).

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Chart 5

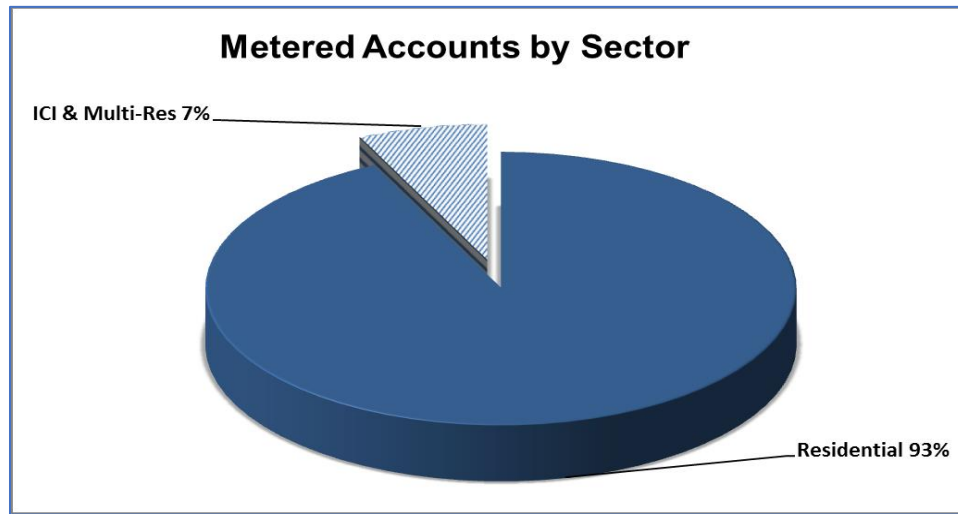
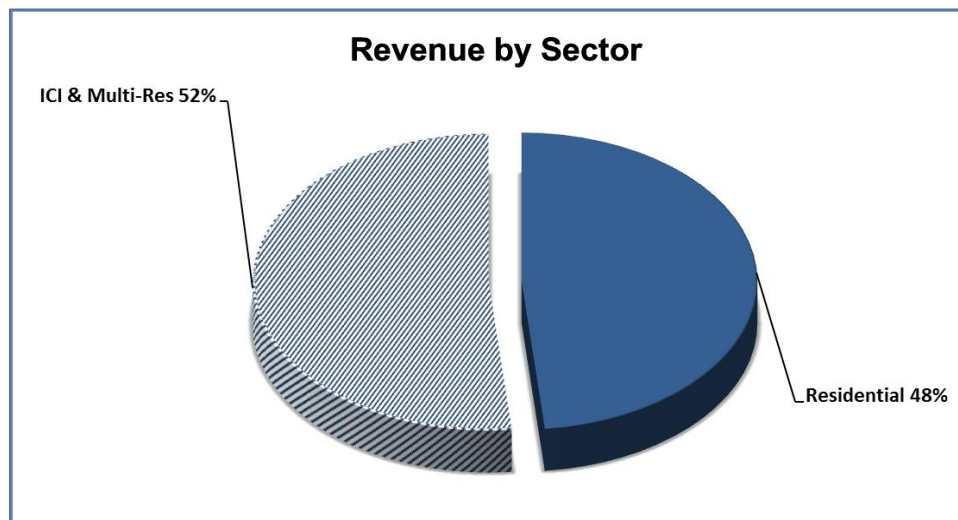


Chart 6



Total Consumption – 2020 Budget \$214.4 M

Since 2015, Hamilton's total metered annual water consumption (see Chart 7) has remained at approximately 56-59 million cubic metres. The 2019 forecast is for total consumption to be just under 58 million cubic metres. The 2020 Budget is approximately 0.3% above the consumption in the 2019 Budget and 2019 Forecast.

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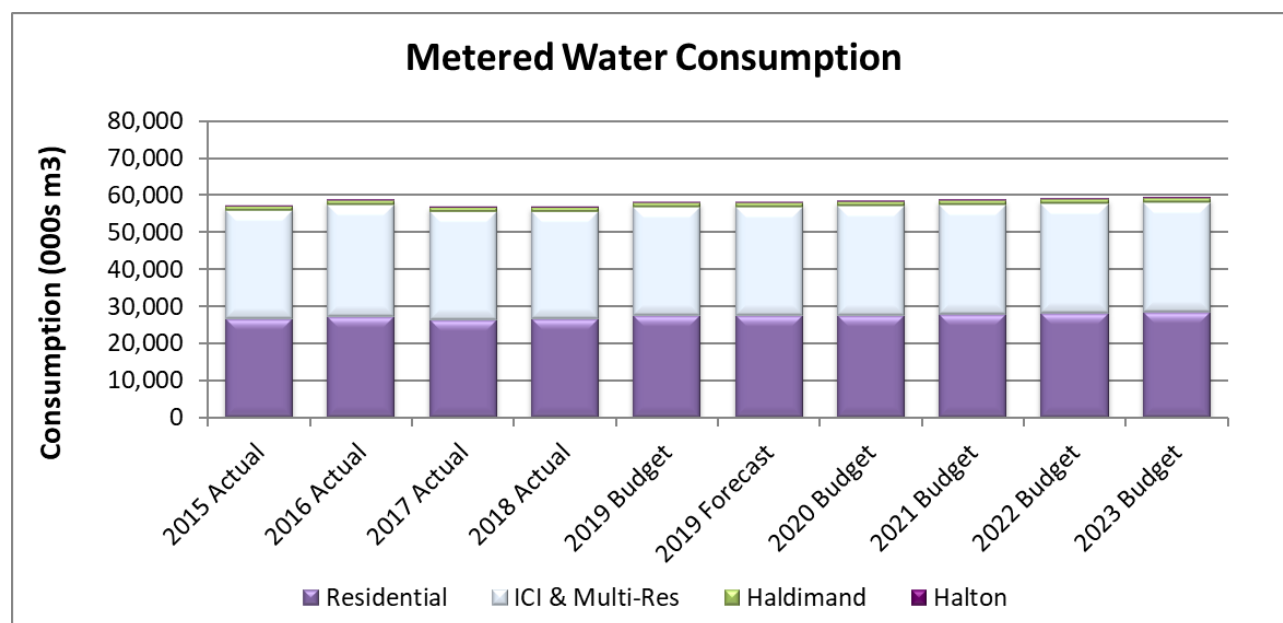
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Total water consumption over the 10-year forecast period (2020 to 2029) projects continued flat consumption demand. This relatively conservative forecast reflects the following:

- Sharp decline in consumption from 2009-10 Recession has proven to be structural in nature with no recovery in water demand
- Continued uncertainty surrounding growth / decline of consumption
- Conservation impacts:
 - residential toilet consumption = 30% of indoor consumption
 - newer high-efficiency toilets and washers

Staff will continue to monitor consumption across all sectors and take efforts to ensure that the City is maximizing its full potential with respect to metered water and wastewater / storm revenues. Similarly, staff will be monitoring changes in consumption on an ongoing basis identifying trends and related financial impacts through the Budget Variance Reports provided to Council.

Chart 7



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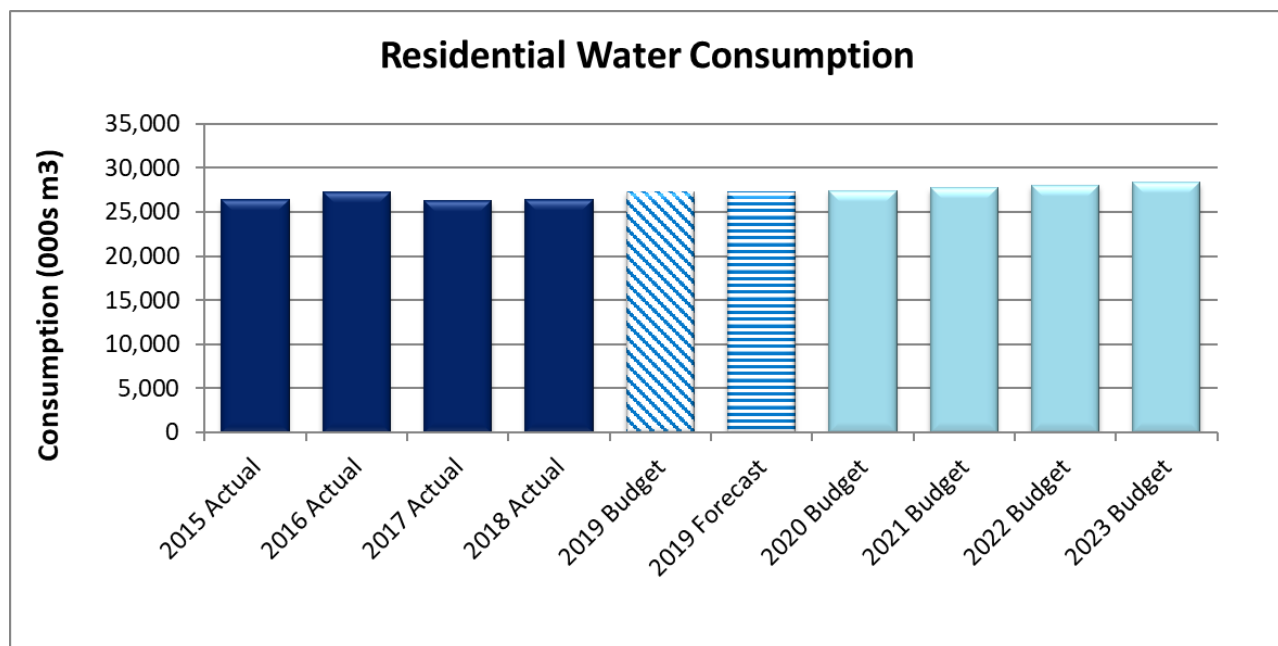
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Residential Consumption - 2020 Budget \$101.8 M

Since 2015, residential consumption (see Chart 8) has remained relatively unchanged reflecting an observation that the growth of new customers' consumption has been more than mitigated by reduced consumption of existing customers' ongoing conservation efforts associated with fixture / appliance obsolescence such as the installation of water efficient toilets and washer machines. For 2020, staff is recommending that the forecast for average residential consumption remain at 200 m³ to reflect the past several years of consumption.

It is not clear how much further average residential consumption can decline, but there exists the potential for further declines, principally due to conservation efforts and associated regulations. For example, in 2012, the Ontario Building Code changed requirements related to the installation of high-efficiency toilets (4.8L) and expanding the end uses of rainwater and other non-potable water.

Chart 8



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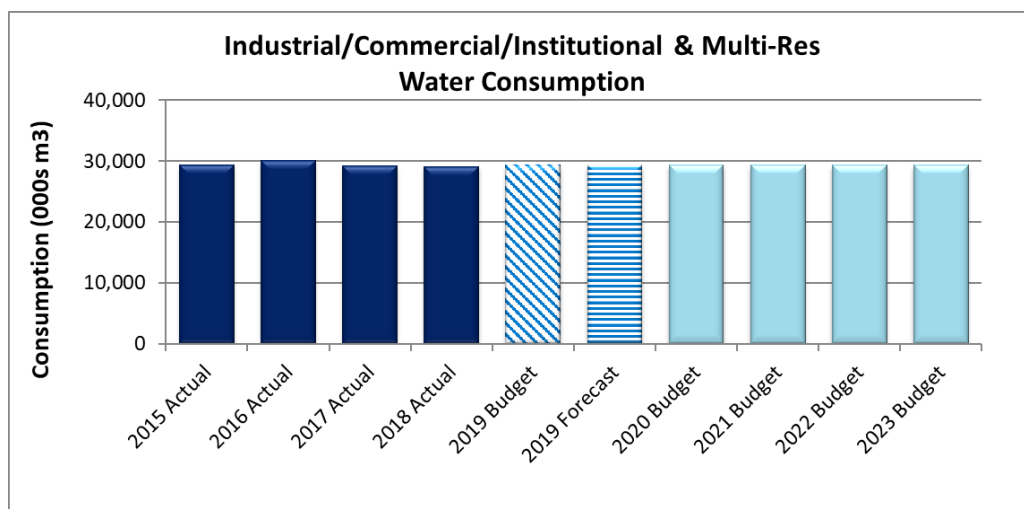
**Industrial / Commercial / Institutional and Multi-Res Consumption – 2020 Budget
\$112.6 M**

The ICI and Multi-Res sector experienced a very significant consumption decline of nearly 10 million cubic metres since the last recession period, however, consumption levels have stabilized since 2013. Despite ongoing growth particularly in the multi-residential sector, there continues to be ongoing conservation efforts that offset any demand growth associated with new customers. Many larger multi-residential customers are implementing water conservation project. For example, CityHousing Hamilton completed, this year, the installation of over 3,000 ultra-high efficiency 3.0 L toilets which will yield annual savings of over \$450 K.

In sharp contrast to many neighbouring communities, Hamilton is unique in that significant portion of consumption and, in turn, revenues come from industrial and institutional customers. The top users of the ICI / Multi-res sector representing some 40 customers account for nearly a quarter of total consumption. This reliance on a relatively small number of large water users does pose a risk to revenue stability when these customers undertake water conservation projects or experience business failure. For example, in 2018, Hamilton Specialty Bar (HSB) ceased operations and its manufacturing site liquidated. As recently as 2016, HSB represented a customer with annual consumption of approximately 300,000 cubic metres and over \$1 M in combined water and wastewater / storm revenues.

As reflected in Chart 9, water consumption demand is forecast to remain relatively flat for the ICI / Multi-res sector:

Chart 9



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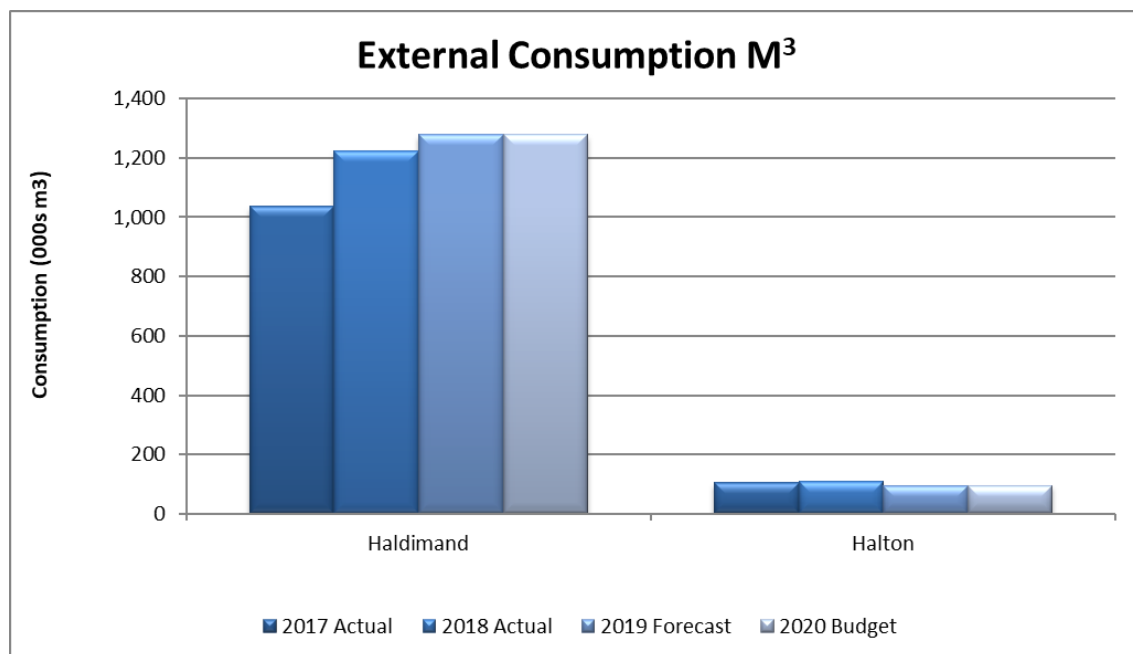
External Consumption – 2020 Budget \$2.7 M

Under long-term arrangements, Hamilton supplies Haldimand County and Halton Region potable water (see Chart 10) but does not provide wastewater / storm services to either community.

A renewed water supply agreement with Haldimand was executed in 2014 for an initial 20-year period with Hamilton supplying water to the communities of Caledonia and Cayuga. There has been some growth over the past few years with new housing developments in Caledonia.

The current water supply agreement for Halton was executed in 2011 for an initial ten-year period with Hamilton supplying water to the Aldershot and Snake Road communities. In September 2019, a renewal agreement has been executed that will conclude on November 16, 2031.

Chart 10



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OTHER REVENUE HIGHLIGHTS

Sewer Discharge Permits – 2020 Budget \$8.7 M

Surcharge Discharge Permits allow the City of Hamilton a mechanism to recover costs associated with:

- the costs of conveyance, treatment, and monitoring of sewage that exceeds By-law limits for treatable parameters (Overstrength Discharge)
- the costs of conveyance, treatment, and monitoring of sewage that was not originally purchased by the customer from the City's potable water supply (Sewer Surcharge)

Permits, General Fees and other Recoveries – 2020 Budget \$2.6 M

Service fees that may be charged with the issuance of a permit or alternatively charged on the customer's water bill. Appendix "G" to Report FCS19070 provides details of the user fees charges that are applicable for various water / wastewater related services provided on an individual basis to customers such as new meter installations, water service turn on or off, laboratory services, etc.

Private Fire Lines – 2020 Budget \$1.85 M

The Private Fire Protection Charge applies to customers that have private fire protection systems which rely upon the public water system for their water supply via an unmetered fire water service line.

2020-2029 Rate Capital Budget

Table 4 summarizes the \$2.49 B capital program and the financing requirements for the 2020 – 2029 water, wastewater and storm capital budget. Of this amount, \$1.223 M or 49% is for wastewater, \$991 M or 40% is for water and \$279 M or 11% is for the storm program. A total of \$858 M or 34% of the 10-year capital program is required in the first three years (2020 – 2022). This is predominantly due to the Woodward Wastewater Treatment Plant (WWTP) Upgrade and Biosolids Plant construction.

The capital program also includes \$661 M for growth infrastructure related to Growth Related Integrated Development Strategy (GRIDS) which will be funded from Development Charges, except for \$80 M in Development Charge (DC) exemptions which the City is legislatively required to fund from rate revenues if Council chooses to discount its DC's or recover less than 100% of growth-related capital costs. Funding of DC exemptions reduces the amount of dollar for dollar funding the City can invest in infrastructure.

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Table 4

SOURCE OF CAPITAL FINANCING 2020 to 2029 RATE PROGRAM CAPITAL BUDGET \$(000'S)						
	2020	2021	2022	2023	2024 to 2029	2020 to 2029
WATER						
Capital Program	67,495	123,358	100,025	67,841	632,483	991,202
Source of Funding						
Subsidy/Other Revenue	6,353	1,681	-	-	30	8,064
Development Charges	9,186	48,784	25,632	3,685	95,370	182,657
Reserves & Other Internal Sources	1,660	640	640	640	2,560	6,140
Contribution from Operating	50,296	52,953	56,553	63,516	512,023	735,341
External Debt	-	19,300	17,200	-	22,500	59,000
Total	67,495	123,358	100,025	67,841	632,483	991,202
WASTEWATER						
Capital Program	218,606	157,808	108,361	70,055	667,654	1,222,484
Source of Funding						
Subsidy/Other Revenue	80,036	22,092	-	-	-	102,128
Development Charges	44,227	39,739	26,612	14,681	290,818	416,077
Reserves & Other Internal Sources	24,770	12,220	-	-	-	36,990
Contribution from Operating	52,673	55,057	54,249	54,174	375,636	591,789
External Debt	16,900	28,700	27,500	1,200	1,200	75,500
Total	218,606	157,808	108,361	70,055	667,654	1,222,484
STORM SEWERS						
Capital Program	39,880	22,215	19,850	20,050	176,945	278,940
Source of Funding						
Subsidy/Other Revenue	370	473	75	75	450	1,443
Development Charges	23,195	7,360	4,000	4,000	24,060	62,615
Reserves & Other Internal Sources	630	-	-	-	-	630
Contribution from Operating	15,685	14,382	15,775	15,975	151,235	213,052
External Debt	-	-	-	-	1,200	1,200
Total	39,880	22,215	19,850	20,050	176,945	278,940
TOTAL RATE PROGRAM						
Capital Program	325,981	303,381	228,236	157,946	1,477,082	2,492,626
Source of Funding						
Subsidy/Other Revenue	86,759	24,246	75	75	480	111,635
Development Charges	76,608	95,883	56,244	22,366	410,248	661,349
Reserves & Other Internal Sources	27,060	12,860	640	640	2,560	43,760
Contribution from Operating	118,654	122,392	126,577	133,665	1,038,894	1,540,182
External Debt	16,900	48,000	44,700	1,200	24,900	135,700
Total	325,981	303,381	228,236	157,946	1,477,082	2,492,626

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Chart 11 illustrates the \$2.49 B capital program for the 2020 – 2029 water, wastewater and storm capital budget.

Chart 11

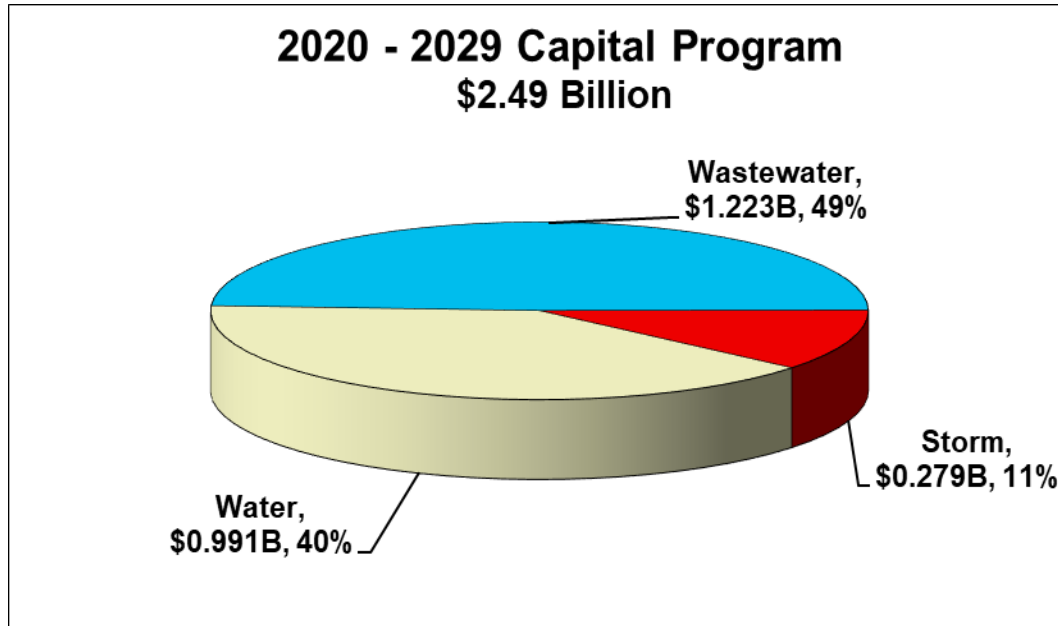


Chart 12 provides the sources of capital financing for the 2020 – 2029 forecast period. The growth-related infrastructure investment included in the 2020 – 2029 forecast to accommodate for growth is \$661 M, of which all but \$142 M will be funded from debt with the associated debt charges recovered from development charges over the next 20 years. It is assumed that DC collections of \$142 M held in reserve will be utilized to fund dollar for dollar growth capital, reducing the amount of debt required to fund growth capital.

The 2020–2029 Capital Forecast includes \$3.2 M in funding from capital work-in-progress (WIP's). Capital funding from reserves in years 2020 through 2029 totals \$40.4 M, which helps to mitigate rate supported debt financing.

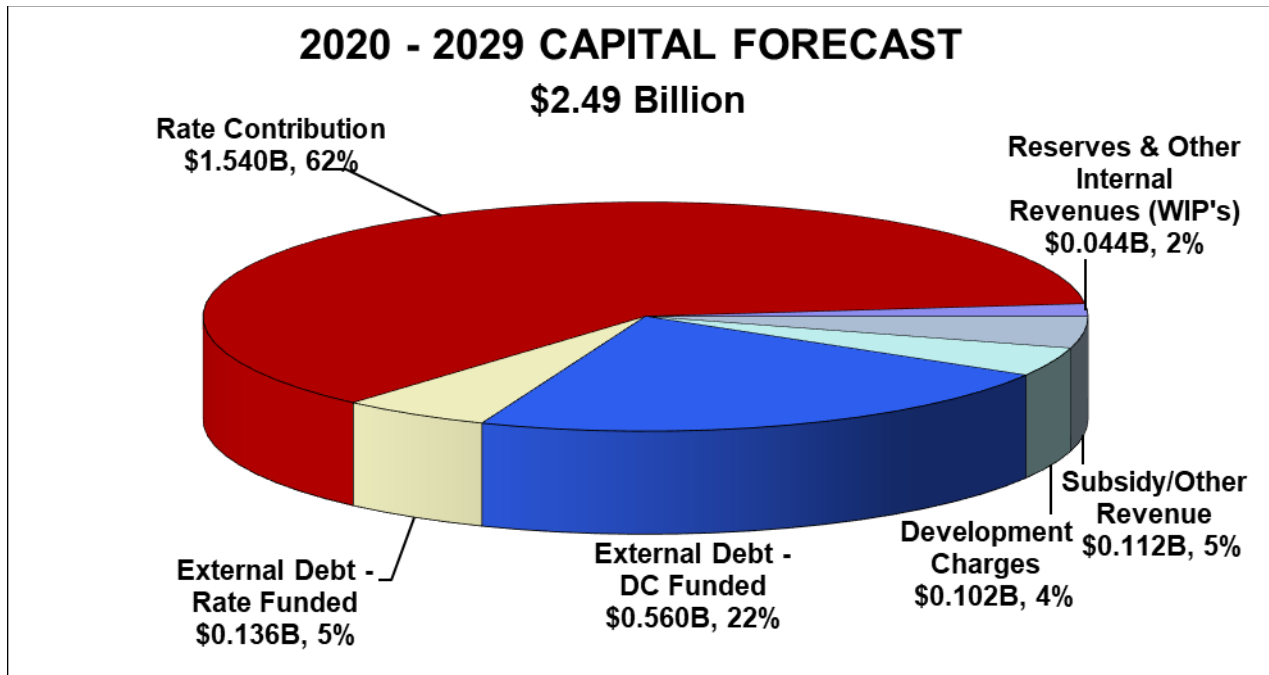
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Chart 12



Rate Reserves

Chart 13 provides the projected reserve balances for the Water, Wastewater and Storm programs. The 2020 Budget Forecast reflects utilizing \$12.12 M in reserve funds to fund the WWTP project, \$11.14M to fund the Biosolids project and \$0.64 M for the Water Program. It should be noted, the reserve forecast below does not include the Provincial Wastewater Improvement Subsidy reserve (\$100 M Provincial subsidy which is dedicated funding for the WWTP Clean Harbour project) or the Meter Replacement Reserve.

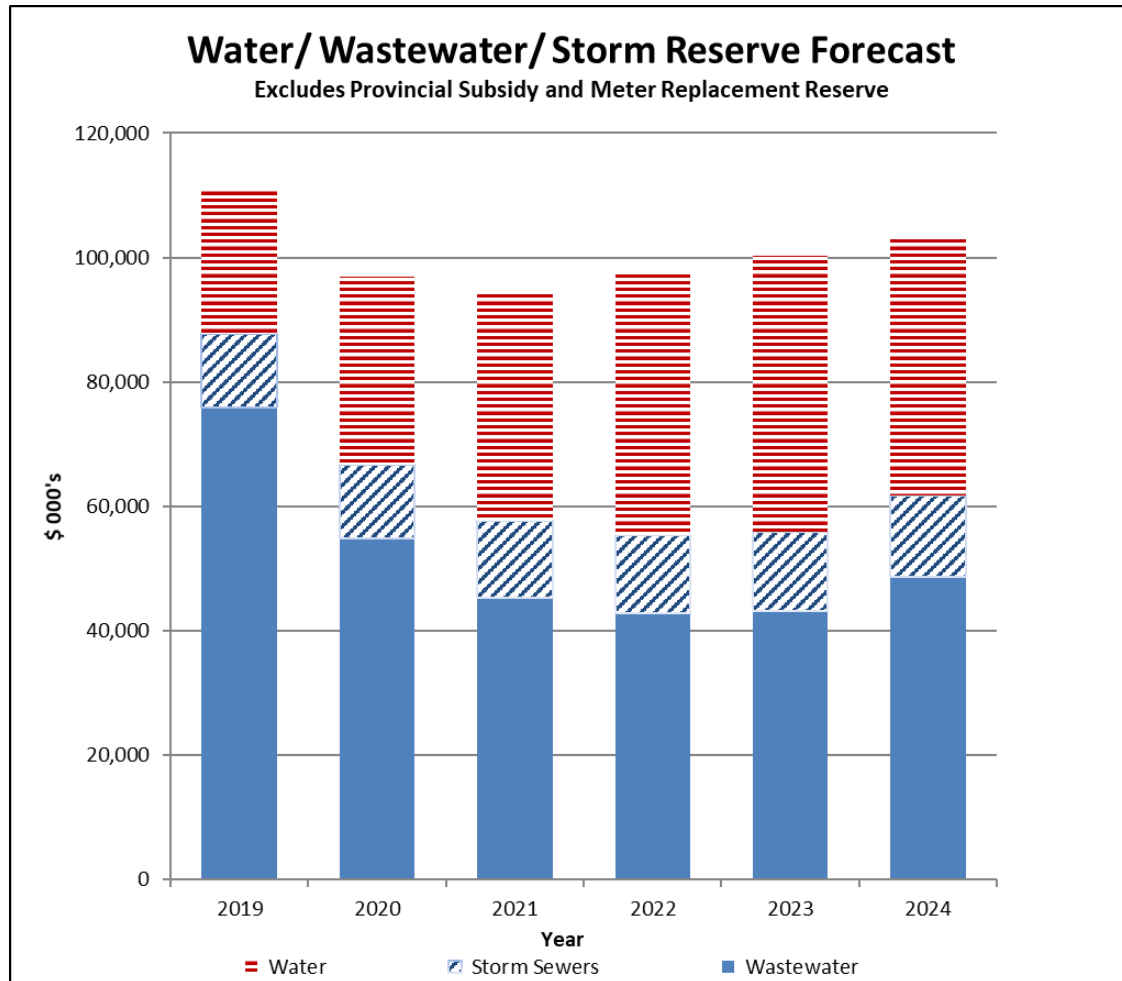
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Chart 13



Reserves are essential to assist the City in mitigating unanticipated events such as consumption fluctuations, unforeseen increase in capital costs and potentially to provide rate stability or to decrease future debt needs. The current reserve forecast indicates the combined reserve balance will decrease from \$111 M at the end of 2019, to \$94 M in 2021 and then increase over the years to \$119 M in 2029. The decrease in reserves coincides with construction of the Clean Harbour and Biosolids Projects at the WWTP plant of which the City is funding over \$60 M from the Wastewater Reserve from 2018 to 2021. All three system Reserves are within the target balances relative to the Rate Reserve Policy approved by Council in June 2016. A strategy has been identified to replenish the Reserves in anticipation of large projects in the 10-year forecast. Reserves will act as a mitigation strategy in the event of cost variances for these large projects.

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Wastewater Treatment Upgrade and Expansion Project

The implementation plan for the Upgrade and Expansion of the WWTP is consistent with the 2019 Rate Budget, in that the plant improvements are forecast using a phased approach. Phase One is for effluent quality improvements and Phase Two is for expansion of the treatment plant to accommodate growth. The full \$296 M of the total growth component related to Phase Two is in the 2020-2029 Financing Plan. Construction for Phase Two related to expansion is proposed to start in 2026 and be completed in 2028.

The total budget for the Wastewater Treatment Plant upgrade and expansion has increased by \$5.5 M in the 2020 budget forecast compared to the 2019 budget forecast, as reflected in Table 5. The total project budget increase was made up by a \$5.5 M increase in the cost of the Clean Harbour Project. The budget increase is attributable to revised cost estimates for the plant expansion as part of the 2019 DC Background study. The previous cost estimate included in the 2019 budget was based on cost forecasts done in 2012. The new forecast has been adjusted for inflation. Table 5 provides a comparison of the budgeted costs in the 2019 and 2020 Rate Budgets for the Wastewater Treatment Plant upgrade and expansion.

The WWTP expansion project implementation plan has remained unchanged when compared to the 2019 forecast. It is scheduled to begin construction in 2026 with 100% of the cost funded by development charge debt. The levels of debt supported by development charges represent a significant risk if future growth does not materialize as planned. Staff will continue to monitor growth forecasts and DC Revenues over the next four years (2020 – 2023) and adjust the plant expansion project and associated financing plan to align with growth requirements. Staff in both Corporate Services (Finance) and Public Works will closely monitor the need for plant expansion, as well as, the forecasted DC Revenue streams needed to pay for such an expansion to mitigate the risk to the ratepayer.

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Table 5

Woodward Wastewater Treatment Plant Project - Gross Capital Forecasts												
(\$ Millions)												
		pre										
	Total	2020	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020 Budget												
Phase 1 - Clean Harbour	412.0	216.8	100.6	69.4	25.2	-	-	-	-	-	-	-
Phase 2 - Expansion	296.4	1.5	1.8	1.8	2.5	2.5	3.1	3.1	94.3	92.9	92.9	-
Total WWTP	708.4	218.3	102.4	71.2	27.7	2.5	3.1	3.1	94.3	92.9	92.9	-
2019 Budget												
Phase 1 - Clean Harbour	406.5	216.8	89.2	97.1	3.4	-	-	-	-	-	-	-
Phase 2 - Expansion	296.4	1.5	1.8	1.8	2.5	2.5	3.1	3.1	94.3	92.9	92.9	-
Total WWTP	702.9	218.3	91.0	98.9	5.9	2.5	3.1	3.1	94.3	92.9	92.9	-
Increase (Decrease)												
Phase 1 - Clean Harbour	5.5	-	11.4	(27.7)	21.8	-	-	-	-	-	-	-
Phase 2 - Expansion	-	-	-	-	-	-	-	-	-	-	-	-
Total WWTP	5.5	-	11.4	(27.7)	21.8	-	-	-	-	-	-	-

Provincial / Federal Subsidy Programs

In 2010, the City received \$100 M of Provincial infrastructure funding related to the Wastewater Treatment Plant (WWTP) water quality improvement project and in 2013 a \$100 M commitment for Federal funding for the WWTP project from the Green Infrastructure Fund (GIF) with funding provided on a milestone completion basis.

The 2020–2029 Rate Capital Financing Plan incorporates both the Federal and Provincial Subsidies to fund the Clean Harbour project. Of the \$200 M of the Provincial and Federal funding, \$112.372 M has been committed as a funding source in previous years' budgets, leaving \$87.628 M in funding for the Clean Harbour project to be applied in years 2020 and 2021.

In May 2017, the City received approval for 16 projects funded under the Clean Water and Wastewater Fund (CWWF). The CWWF provided communities with vital infrastructure funding to help accelerate short term investments to support the rehabilitation and modernization of drinking water, wastewater and stormwater infrastructure, and the planning and design of future facilities and upgrades to existing systems. The federal and provincial governments provided a maximum of 50% and 25% respectively toward the total eligible costs of projects totalling \$43,890,763. The City received a total CWWF government funding allocation of \$32,918,072 with the City share amounting to \$10,972,691. The CWWF Program project substantial completion timeline was extended to March 31, 2020 from an original deadline of March 2018.

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On April 4, 2019, Infrastructure Canada announced the approval of the \$1.05 M Combined Sewer Overflow Backflow Prevention Project with 40% federal funding of \$420 K from the Disaster Mitigation and Adaptation Fund (DMAF) and the City to fund \$630 K (refer to Report FCS19038). This project to install back-flow devices at four Combined Sewer Overflow (CSO) outlets is to be completed between 2020 to 2025.

In March 2018, the federal government with the Ontario government announced the signing of a bilateral agreement that will provide more than \$11.8 B through the Investing in Canada Plan. The Investing in Canada Infrastructure Fund Program (ICIP) is a federal infrastructure program designed to create long-term economic growth, build inclusive, sustainable and resilient communities and support a low-carbon economy. There are a number of funding streams to be delivered nationally over the next decade (2018 to 2028) including \$2.3 B for Green Infrastructure for Ontario. Among the green infrastructure objectives is to ensure communities can provide safe drinking water for their citizens. The 2020–2029 Rate Capital Financing Plan makes no assumptions as to potential funding the City may receive under a future green infrastructure intake.

Addressing Climate Change

In March 2019, Council approved a declaration that “a climate emergency exists that threatens the city, region, province, nation, civilization, humanity and the natural world.”

In response, the 2020–2029 Rate Capital Financing Plan includes several projects that aim to address climate change with adaptation and mitigation measures. Over \$6 M has been identified for 2020 projects including:

- Inflow and Infiltration Studies and Flow Monitoring Program
- CSO Characterization Program
- Flooding and Drainage Master Plan Strategy
- South Street East and East Street South in Dundas Drainage Improvement
- Winona Area Drainage Improvements
- Stormwater Computer Model Enhancement
- Beach Strip Stormwater Pumping Stations
- Stoney Creek and Battlefield Creek Flood and Erosion Control
- Combined Sewer Overflow Backflow Prevention Project

Projected Water / Wastewater / Storm Debt

The 2020 Water, Wastewater and Storm Budget incorporates a significant reliance on both rate supported debt and growth-related debt supported from development charges over the 10-year forecast period. The forecasted rate supported debt financing for the 10-year period 2020–2029 has increased by \$18.6 M from the 2019 Rate Budget. The

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increase in debt is resulting from an effort to maintain Council approved minimum reserve balances, while staying within Council approved debt levels. The forecasted DC supported debt financing has decreased by approximately \$43.8 M over the same period, resulting in an overall net decrease in forecasted debt financing of \$25.2 M from the forecast in the 2019 Rate Budget. The decrease in reliance on DC supported debt is attributable to funding dollar for dollar DC growth projects from Reserve, where possible, as well as, staging of growth infrastructure. The Growth Capital is partially offset with a \$20 M contribution from DC reserves in the 2020 Rate Budget.

The 10-year capital program relies on a significant amount of debt financing with the associated debt charges funded from both rates and development charges. The rate supported debt is projected to peak at \$297 M in 2023, compared with the 2019 budget forecasted debt peak of \$307 M in 2022. The debt funded from DC's is projected to peak at \$564 M in 2028, whereas the 2019 forecast was \$708 M in 2028. The decrease in DC supported debt is due to deferral of major capital growth projects such as the Water Treatment Plant, as well as, funding dollar for dollar growth projects from DC Reserves.

Table 6 provides the ten-year debt forecast compared to the 2019 Budget forecast.

Table 6

Projected Rate & DC Supported Outstanding Debt											
(\$ Millions)											
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019 Rate Budget											
Funded from Rates	187	222	274	307	284	267	254	226	198	173	146
Funded from DC's	102	221	298	377	391	400	416	511	612	708	673
Total	289	443	572	684	675	667	670	737	810	881	819
2020 Rate Budget											
Funded from Rates	145	177	237	291	297	280	266	240	216	191	165
Funded from DC's	4	85	176	235	259	261	286	396	494	564	539
Total	149	262	413	526	557	541	553	636	710	755	704
Increase (Decrease)	(140)	(181)	(159)	(158)	(118)	(126)	(117)	(101)	(100)	(126)	(115)

Consistent with the 2019 Rate Budget and to more accurately forecast debt levels and the associated debt charges, the major multi-year Wastewater Treatment Plant projects are budgeted based on the projected cash flow of expenditures for the 2020 Rate Capital Budget, versus full commitment-based budgeting.

Chart 14 compares the total outstanding debt (Rate and DC Funded) from the 2019 Budget forecast to the 2020 Budget forecast. The graph illustrates the lower debt

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requirements when compared to the prior year budget forecast. The decrease in debt is due to deferral of major capital growth projects such as the Water Treatment Plant, as well as, funding dollar for dollar growth projects from DC Reserves. The higher debt levels in the later years can be attributed to the accelerated timeline of the Wastewater Treatment Plant expansion project which is to be 100% DC debt funded.

Chart 14

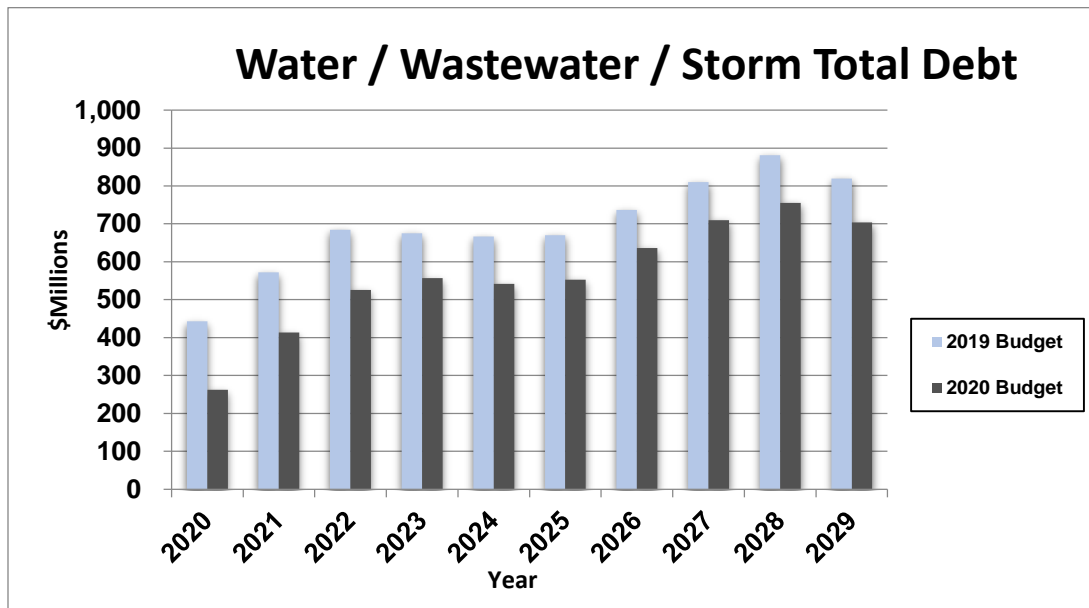


Chart 15 illustrates the projected outstanding debt for the 10-year period (2020–2029) and the funding source of the associated debt charges.

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Chart 15

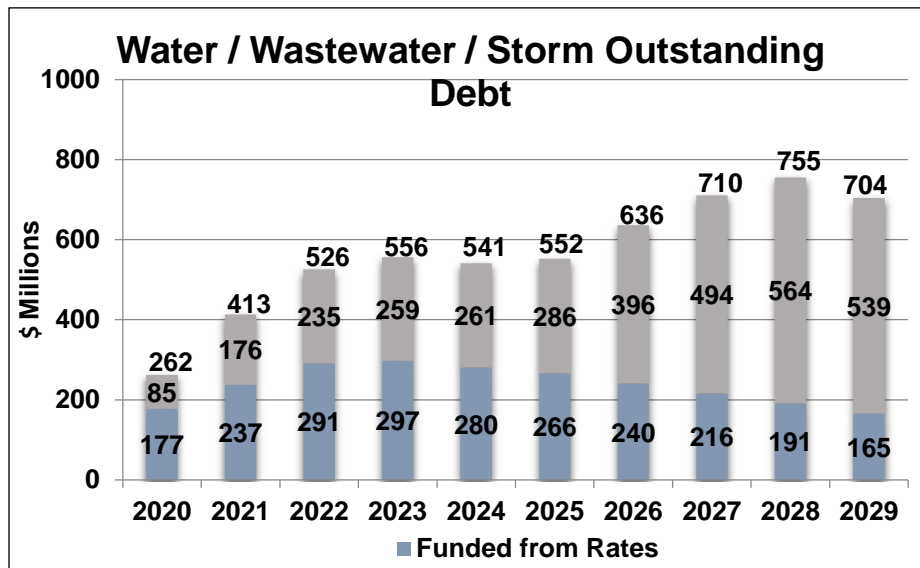
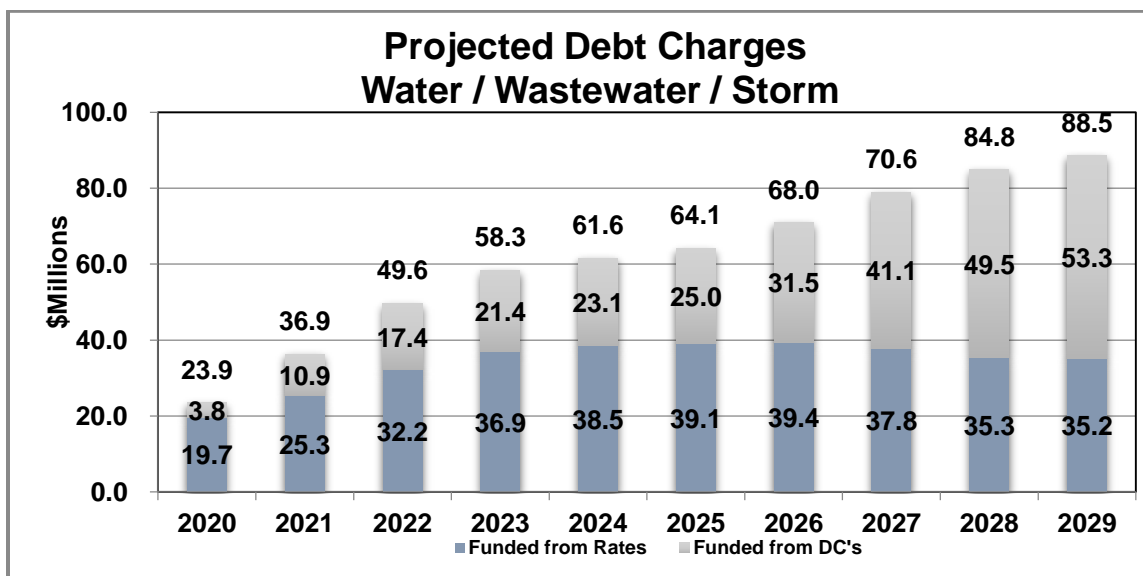


Chart 16 shows the forecasted debt charges funded by water / sewer rates and by Development Charges. In the upcoming years, staff in Corporate Services and in conjunction with staff in Public Works will monitor the forecasted DC Debt charges in comparison to DC Revenue, to mitigate potential risks to the rate payer. Much of this risk lies with the implementation plan of the WWTP expansion project, currently forecasted for construction in years 2026-2028.

Chart 16



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Impact of Capital Budget on Operating Budget

As summarized in Table 7, the 2020 Rate Budget incorporates \$146.3 M capital financing costs which is an increase of \$20.2 M from the 2019 Rate budget. The 2020 budgeted debt charges increase by \$0.3 M, while contribution to capital increased by \$20.1 M when compared to the 2019 budget. DC exemption funding decreased by \$1.0 M. The increase in contribution to capital is a result of directing the majority of rate increases to capital investment, as well as adjustments to the operating budget, freeing up capital investment capacity.

Table 7

WATER, WASTEWATER & STORM					
IMPACT OF CAPITAL ON OPERATING BUDGET					
(000's)					
	2019	2020	CHANGE		2020 - 2029
	APPROVED	PROPOSED	\$	%	FORECAST
Debt to be Issued	14,341	16,900	2,559	17.8%	135,700
Debt Charges (Net of DCs)	19,366	19,682	316	1.6%	339,367
Contribution to Capital	97,804	118,654	20,850	21.3%	1,540,182
DC Exemption Funding	9,000	8,000	(1,000)	-11.1%	80,000
Impact on Operating Budget	126,170	146,336	20,166	16.0%	1,959,549

Chart 17 highlights the impact on the operating budget from the Rate Supported Capital program. These impacts are projected to increase from \$146 M in 2020 to \$252 M in 2029. Rate supported debt charges are expected to increase from 8.5% of total revenues in 2020 to 13.7% in 2023, and then decline to 9.9% in 2029.

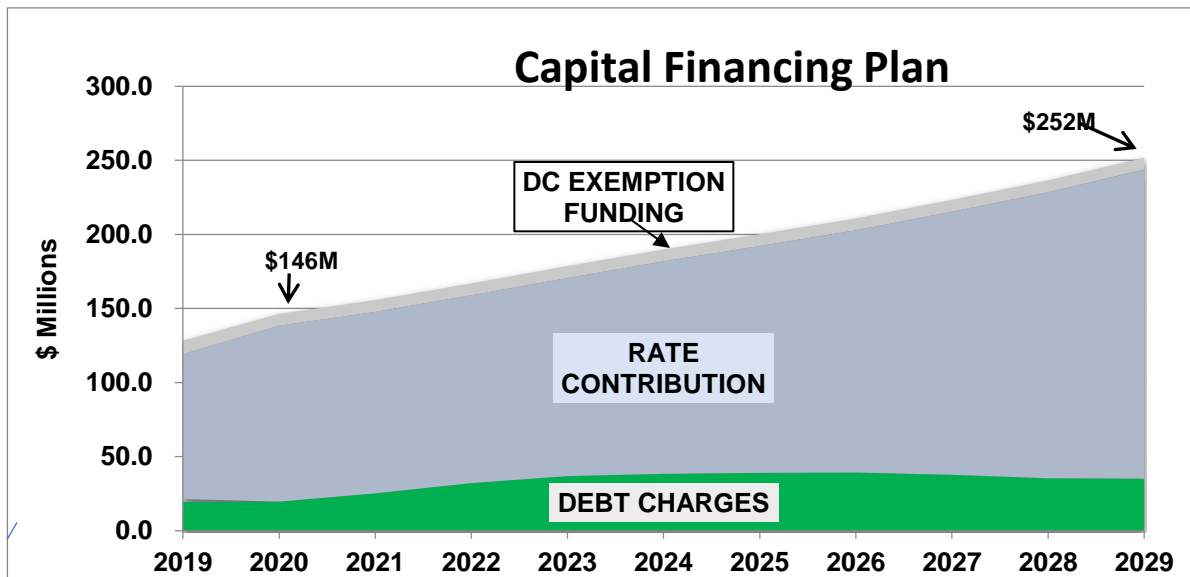
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Chart 17



Debt Management

According to Ontario Regulation 403/02, Council shall, before giving authorization for capital work that would require a long-term debt or financial obligation, have the City Treasurer calculate an updated Annual Repayment Limit (ARL) using the most recent Annual Repayment Limit determined by the Ministry. The most recent ARL, determined and sent in writing by the Ministry to the City Treasurer, is the 2019 ARL in the amount of \$266,191,448 and is based on 2017 Financial Information Returns.

Using this 2019 ARL, the City Treasurer has calculated an updated ARL of \$218,886,384, shown in Appendix "T" to Report FCS19070. The 2019 ARL was adjusted for possible debt service charges of \$45,130,619 corresponding to approximately \$468.4 M of debt which has been approved by Council in 2019 and prior years but not yet issued. Further adjustments were made for CityHousing Hamilton service charges, as well as 2019 debenture issue charges. The 2019 ARL was then further adjusted for debt service charges assumed or discharged on debt in 2017 and 2018. According to this calculation, the updated ARL of \$218,886,384 represents a maximum amount which the City has available to commit to payments related to debt and financial obligations before the statutory limit is breached and corresponds to approximately \$2.2 B of additional borrowing which the City could undertake (assuming a 15-year term and 5% interest rate). The related tax and rate impacts would be considered before approving debt within these limits.

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ALTERNATIVES FOR CONSIDERATION

Beyond the recommended rate increase, staff can direct changes to this budget submission that would require a review of the 2020 Capital Budget submissions.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive city where people are active, healthy, and have a high quality of life.

Clean and Green

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

Our People and Performance

Hamiltonians have a high level of trust and confidence in their City government.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report FCS19070 – 2020 Hamilton Water Operating Budget – Combined Water, Wastewater and Storm

Appendix “B” to Report FCS19070 – 2020 Hamilton Water Operating Budget – Water

Appendix “C” to Report FCS19070 – 2020 Hamilton Water Operating Budget – Combined Wastewater and Storm

Appendix “D” to Report FCS19070 – 2020 Hamilton Water Operating Budget – Wastewater

Appendix “E” to Report FCS19070 – 2020 Hamilton Water Operating Budget – Storm

Appendix “F” to Report FCS19070 – 2020 Rate Supported Staffing Summary and 2020 Rate Budget – Business Case Summary

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Appendix “G” to Report FCS19070 – 2020 Water and Wastewater / Storm Fees and Charges Effective January 1, 2020 – 2020 Private Fire Line Rates – 2020 Proposed User Fees and Charges)

Appendix “H” to Report FCS19070 – Source of Capital Financing – 2020 to 2029 Rate Program Capital Budget

Appendix “I” to Report FCS19070 – 2020 – 2029 Water / Wastewater / Storm Capital Financing Plan (2020 – 2029 Capital Financing Charges – Rate Programs)

Appendix “J” to Report FCS19070 – Source of Capital Financing – 2020 to 2029 Rate Program Capital Budget

Appendix “K” to Report FCS19070 – Water System – 2020 Capital Budget Project List

Appendix “L” to Report FCS19070 – Water System – 2020 – 2029 Capital Budget List

Appendix “M” to Report FCS19070 – Source of Capital Financing – 2020 to 2029 Rate Program Capital Budget

Appendix “N” to Report FCS19070 – Wastewater System – 2020 Capital Budget Project List

Appendix “O” to Report FCS19070 – Wastewater System – 2020 – 2029 Capital Budget List

Appendix “P” to Report FCS19070 – Source of Capital Financing – 2020 to 2029 Rate Program Capital Budget

Appendix “Q” to Report FCS19070 – Storm Water Management – 2020 Capital Budget Project List

Appendix “R” to Report FCS19070 – Storm Water Management – 2020 – 2029 Capital Budget List

Appendix “S” to Report FCS19070 – 2020 Rate Program Capital Budget Summary

Appendix “T” to Report FCS19070 – City of Hamilton Treasurer’s Updated 2019 Annual Repayment Limit

JS/dt

CITY OF HAMILTON
2020 HAMILTON WATER OPERATING BUDGET
COMBINED WATER, WASTEWATER AND STORM

	2019	2019	2020	CHANGE		CHANGE	
	RESTATED BUDGET	PROJECTED ACTUAL	REQUESTED BUDGET	2019 PROJECTED ACTUAL / 2019 RESTATED BUDGET	%	2020 REQUESTED / 2019 RESTATED BUDGET	%
<u>OPERATING EXPENDITURES:</u>	\$	\$	\$	\$	%	\$	%
Divisional Administration & Support	2,242,620	2,242,620	1,408,041	(0)	(0.0%)	(834,579)	(37.2%)
Woodward Upgrades	1,524,540	1,524,540	1,108,390	-	0.0%	(416,150)	(27.3%)
Customer Service	421,610	421,610	254,823	-	0.0%	(166,787)	(39.6%)
Outreach & Education	1,350,860	1,300,860	1,239,577	50,000	3.7%	(111,283)	(8.2%)
Service Co-ordination	4,251,610	3,785,610	3,745,588	466,000	11.0%	(506,022)	(11.9%)
Engineering Systems & Data Collection	1,286,870	1,286,870	1,351,831	-	0.0%	64,961	5.0%
Compliance & Regulations	871,210	871,210	976,984	-	0.0%	105,774	12.1%
Laboratory Services	3,527,640	3,527,640	3,660,204	-	0.0%	132,564	3.8%
Environmental Monitoring & Enforcement	1,818,020	1,818,020	1,778,256	-	0.0%	(39,764)	(2.2%)
Water Distribution & Wastewater Collection	21,369,840	21,369,840	22,014,201	-	0.0%	644,361	3.0%
Plant Operations & Maintenance	41,383,390	39,383,390	33,449,649	2,000,000	4.8%	(7,933,741)	(19.2%)
Capital Delivery	1,859,660	1,859,660	1,595,011	-	0.0%	(264,649)	(14.2%)
Sustainable Initiatives	1,497,370	1,497,370	1,431,094	-	0.0%	(66,276)	(4.4%)
Infrastructure Planning & System Design	2,314,770	2,314,770	1,877,476	-	0.0%	(437,294)	(18.9%)
Wastewater Abatement Program	1,150,000	1,150,000	1,150,040	-	0.0%	40	0.0%
Alectra Utilities Service Contract	5,700,000	5,400,000	5,600,000	300,000	5.3%	(100,000)	(1.8%)
Corporate & Departmental Support Services	6,432,040	6,432,040	6,977,580	-	0.0%	545,540	8.5%
Utilities Arrears Program	500,000	500,000	500,080	-	0.0%	80	0
Sewer Lateral Management Program	500,000	500,000	414,738	-	0.0%	(85,262)	(0)
Hamilton Harbour Remedial Action Plan	395,000	395,000	382,550	-	0.0%	(12,450)	(3.2%)
Protective Plumbing Program (3P)	1,250,000	885,034	1,250,000	364,966	29.2%	-	0.0%
Financial Charges	177,000	177,000	86,019	-	0.0%	(90,981)	(51.4%)
	101,824,050	98,643,084	92,252,132	3,180,966	3.1%	(9,571,918)	(9.4%)
Capital and Reserve Recoveries	(6,099,580)	(6,099,580)	(6,029,550)	0	(0.0%)	70,030	(1.1%)
Sub-Total	95,724,470	92,543,504	86,222,582	3,180,966	3.3%	(9,501,888)	(9.9%)
<u>Capital and Reserve Impacts on Operating</u>							
<u>Contributions to Capital</u>							
Water Quality Initiatives	51,762,000	51,762,000	50,296,000	-	-	(1,466,000)	(2.8%)
Wastewater	42,837,000	42,837,000	52,673,000	-	-	9,836,000	23.0%
Stormwater	3,205,000	3,205,000	15,685,000	-	-	12,480,000	389.4%
Sub-Total Contributions to Capital	97,804,000	97,804,000	118,654,000	-	-	20,850,000	21.3%
<u>Contributions for DC Exemptions</u>							
Water Quality Initiatives	2,547,000	2,547,000	2,240,000	-	-	(307,000)	(12.1%)
Wastewater	4,590,000	4,590,000	4,080,000	-	-	(510,000)	(11.1%)
Stormwater	1,863,000	1,863,000	1,680,000	-	-	(183,000)	(9.8%)
Sub-Total Contributions for DC Exemptions	9,000,000	9,000,000	8,000,000	-	-	(1,000,000)	(11.1%)

CITY OF HAMILTON
2020 HAMILTON WATER OPERATING BUDGET
COMBINED WATER, WASTEWATER AND STORM

OPERATING EXPENDITURES:	2019	2019	2020	CHANGE		CHANGE	
	RESTATED BUDGET	PROJECTED ACTUAL	REQUESTED BUDGET	2019 PROJECTED / 2019 RESTATED BUDGET	ACTUAL	2020 REQUESTED / 2019 RESTATED BUDGET	
	\$	\$	\$	\$	%	\$	%
Capital Debt Charges							
Water Quality Initiatives	9,762,487	7,537,276	8,593,943	2,225,211	22.8%	(1,168,544)	(12.0%)
Wastewater	10,120,380	8,460,849	11,514,374	1,659,531	16.4%	1,393,994	13.8%
Stormwater	3,950,054	2,371,561	3,399,997	1,578,493	40.0%	(550,057)	(13.9%)
DC Debt Charges Recoveries	(4,467,237)	(904,431)	(3,826,205)	(3,562,806)	79.8%	641,032	(14.3%)
Sub-Total Debt Charges	19,365,685	17,465,255	19,682,108	1,900,430	9.8%	316,424	1.6%
Sub-Total Capital Financing	126,169,685	124,269,256	146,336,108	1,900,430	1.5%	20,166,424	16.0%
Reserve Transfers	365,324	365,324	42,969	0	0.0%	(322,355)	(88.2%)
Sub-Total Capital and Reserve Impacts on Operating	126,535,009	124,634,580	146,379,077	1,900,430	1.5%	19,844,068	15.7%
TOTAL EXPENDITURES	222,259,479	217,178,084	232,601,659	5,081,395	2.3%	10,342,180	4.7%
REVENUES:							
Rate Revenue							
Residential	97,938,766	98,938,766	101,816,099	1,000,000	1.0%	3,877,333	4.0%
Industrial/Commercial/Institutional/Multi-res	107,752,759	108,752,759	112,557,622	1,000,000	0.9%	4,804,863	4.5%
Haldimand	2,353,282	2,353,282	2,476,307	-	0.0%	123,025	5.2%
Halton	247,782	247,782	259,593	-	0.0%	11,811	4.8%
Raw Water	150,000	120,000	125,000	(30,000)	(20.0%)	(25,000)	(16.7%)
Non-Metered	580,000	1,700,000	580,000	1,120,000	193.1%	-	0.0%
Private Fire Lines	1,550,000	1,750,000	1,850,000	200,000	12.9%	300,000	19.4%
Hauler / 3rd Party Sales	1,225,000	1,225,000	1,225,000	-	0.0%	-	0.0%
Overstrength Agreements	2,249,480	3,098,294	2,892,902	848,814	37.7%	643,422	28.6%
Sewer Surcharge Agreements	5,200,000	5,200,000	5,806,726	-	0.0%	606,726	11.7%
Sub-Total Utility Rates	219,247,069	223,385,883	229,589,249	4,138,814	1.9%	10,342,180	4.7%
Non-Rate Revenue							
Local Improvement Recoveries	275,850	275,850	275,850	-	-	-	-
Permits / Leases / Agreements	1,365,050	1,365,050	1,365,050	-	-	-	0.0%
Investment Income	450,000	450,000	450,000	-	0.0%	-	-
General Fees and Recoveries	921,510	921,510	921,510	-	0.0%	-	0.0%
Sub-Total Non-Rate Revenue	3,012,410	3,012,410	3,012,410	-	0.0%	-	0.0%
TOTAL REVENUES	222,259,479	226,398,293	232,601,659	4,138,814	1.9%	10,342,180	4.7%
NET EXPENDITURES	-	(9,220,209)	-	9,220,209	-	-	-

**CITY OF HAMILTON
2020 - 2023 WATER, WASTEWATER AND STORM OPERATING BUDGET
COMBINED WATER, WASTEWATER AND STORM**

	2019	2020	2021	2022	2023	CHANGE		CHANGE		CHANGE	
	RESTATED BUDGET	REQUESTED BUDGET	PROJECTED BUDGET	PROJECTED BUDGET	PROJECTED BUDGET	2020 REQUESTED / 2019 RESTATED BUDGET	%	2021 PROJECTED / 2020 REQUESTED BUDGET	%	2022 PROJECTED / 2021 PROJECTED BUDGET	%
	\$	\$	\$	\$	\$	\$	%	\$	%	\$	%
OPERATING EXPENDITURES:											
Divisional Administration & Support	2,242,620	1,408,041	1,436,202	1,464,926	1,494,224	(834,579)	(37.2%)	28,161	2.0%	28,724	2.0%
Woodward Upgrades	1,524,540	1,108,390	1,130,558	1,153,169	1,176,232	(416,150)	(27.3%)	22,168	2.0%	22,611	2.0%
Customer Service	421,610	254,823	259,919	265,118	270,420	(166,787)	(39.6%)	5,096	2.0%	5,198	2.0%
Outreach & Education	1,350,860	1,239,577	1,264,369	1,289,656	1,315,449	(111,283)	(8.2%)	24,792	2.0%	25,287	2.0%
Service Co-ordination	4,251,610	3,745,588	3,820,500	3,896,910	3,974,848	(506,022)	(11.9%)	74,912	2.0%	76,410	2.0%
Engineering Systems & Data Collection	1,286,870	1,351,831	1,378,868	1,406,445	1,434,574	64,961	5.0%	27,037	2.0%	27,577	2.0%
Compliance & Regulations	871,210	976,984	996,524	1,016,454	1,036,783	105,774	12.1%	19,540	2.0%	19,930	2.0%
Laboratory Services	3,527,640	3,660,204	3,733,408	3,808,076	3,884,238	132,564	3.8%	73,204	2.0%	74,668	2.0%
Environmental Monitoring & Enforcement	1,818,020	1,778,256	1,813,821	1,850,098	1,887,099	(39,764)	(2.2%)	35,565	2.0%	36,276	2.0%
Water Distribution & Wastewater Collection	21,369,840	22,014,201	22,454,485	22,903,575	23,361,646	644,361	3.0%	440,284	2.0%	449,090	2.0%
Plant Operations & Maintenance	41,383,390	33,449,649	34,118,642	34,801,015	35,497,035	(7,933,741)	(19.2%)	668,993	2.0%	682,373	2.0%
Capital Delivery	1,859,660	1,595,011	1,626,911	1,659,449	1,692,638	(264,649)	(14.2%)	31,900	2.0%	32,538	2.0%
Sustainable Initiatives	1,497,370	1,431,094	1,459,716	1,488,910	1,518,688	(66,276)	(4.4%)	28,622	2.0%	29,194	2.0%
Infrastructure Planning & System Design	2,314,770	1,877,476	1,915,026	1,953,326	1,992,393	(437,294)	(18.9%)	37,550	2.0%	38,301	2.0%
Wastewater Abatement Program	1,150,000	1,150,040	1,173,041	1,196,502	1,220,432	40	0.0%	23,001	2.0%	23,461	2.0%
Alectra Utilities Service Contract	5,700,000	5,600,000	5,712,000	5,826,240	5,942,765	(100,000)	(1.8%)	112,000	2.0%	114,240	2.0%
Corporate & Departmental Support Services	6,432,040	6,977,580	7,117,132	7,259,474	7,404,664	545,540	8.5%	139,552	2.0%	142,343	2.0%
Utilities Arrears Program	500,000	500,080	510,082	520,283	530,689	80	0.0%	10,002	2.0%	10,202	2.0%
Sewer Lateral Management Program	500,000	414,738	423,033	431,493	440,123	(85,262)	(17.1%)	8,295	2.0%	8,461	2.0%
Hamilton Harbour Remedial Action Plan	395,000	382,550	390,201	398,005	405,965	(12,450)	(3.2%)	7,651	2.0%	7,804	2.0%
Protective Plumbing Program (3P)	1,250,000	1,250,000	1,275,000	1,300,500	1,326,510	-	0.0%	25,000	2.0%	25,500	2.0%
Financial Charges	177,000	86,019	87,739	89,494	91,284	(90,981)	(51.4%)	1,720	2.0%	1,755	2.0%
Capital and Reserve Recoveries	101,824,050	92,252,132	94,097,175	95,979,118	97,898,700	(9,571,918)	(9.4%)	1,845,043	2.0%	1,881,943	2.0%
Sub-Total	(6,099,580)	(6,029,550)	(6,150,141)	(6,273,144)	(6,398,607)	70,030	(1.1%)	(120,591)	2.0%	(123,003)	2.0%
95,724,470	86,222,582	87,947,034	89,705,974	91,500,094	(9,501,888)	(9.9%)	1,724,452	2.0%	1,758,941	2.0%	
Capital and Reserve Impacts on Operating											
Contributions to Capital											
Water Quality Initiatives	51,762,000	50,296,000	52,953,000	56,553,000	63,516,000	(1,466,000)	(2.8%)	2,657,000	5.3%	3,600,000	6.8%
Wastewater	42,837,000	52,673,000	55,057,000	54,249,000	54,174,000	9,836,000	23.0%	2,384,000	4.5%	(808,000)	(1.5%)
Stormwater	3,205,000	15,685,000	14,382,000	15,775,000	15,975,000	12,480,000	389.4%	(1,303,000)	(8.3%)	1,393,000	9.7%
Sub-Total Contributions to Capital	97,804,000	118,654,000	122,392,000	126,577,000	133,665,000	20,850,000	21.3%	3,738,000	3.2%	4,185,000	3.4%
Contributions for DC Exemptions											
Water Quality Initiatives	2,547,000	2,240,000	2,240,000	2,240,000	2,240,000	(307,000)	(12.1%)	-	0.0%	-	0.0%
Wastewater	4,590,000	4,080,000	4,080,000	4,080,000	4,080,000	(510,000)	(11.1%)	-	0.0%	-	0.0%
Stormwater	1,863,000	1,680,000	1,680,000	1,680,000	1,680,000	(183,000)	(9.8%)	-	0.0%	-	0.0%
Sub-Total Contributions for DC Exemptions	9,000,000	8,000,000	8,000,000	8,000,000	8,000,000	(1,000,000)	(11.1%)	-	0.0%	-	0.0%
Debt Charges											
Water Quality Initiatives	9,762,487	8,593,943	13,081,230	19,120,697	22,771,434	(1,168,544)	(12.0%)	4,487,287	52.2%	6,039,467	46.2%
Wastewater	10,120,380	11,514,374	18,224,240	24,836,447	29,106,256	1,393,994	13.8%	6,709,866	58.3%	6,612,207	36.3%
Stormwater	3,950,054	3,399,997	4,917,875	5,719,347	6,438,841	(550,057)	(13.9%)	1,517,878	44.6%	801,472	16.3%
DC Debt Charges Recoveries	(4,467,237)	(3,826,205)	(10,928,162)	(17,429,536)	(21,372,836)	641,032	(14.3%)	(7,101,957)	185.6%	(6,501,374)	59.5%
Sub-Total Debt Charges	19,365,685	19,682,108	25,295,182	32,246,955	36,943,695	316,424	1.6%	5,613,074	28.5%	6,951,772	27.5%
Sub-Total Capital Financing	126,169,685	146,336,108	155,687,182	166,823,955	178,608,695	20,166,424	16.0%	9,351,074	6.4%	11,136,772	7.2%
Reserve Transfers	365,324	42,969	104,448	146,480	270,888	(322,355)	(88.2%)	61,479	143.1%	42,032	40.2%
Sub-Total Capital and Reserve Impacts on Operating	126,535,009	146,379,077	155,791,630	166,970,435	178,879,583	19,844,068	15.7%	9,412,553	6.4%	11,178,805	7.2%
TOTAL EXPENDITURES	222,259,479	232,601,659	243,738,664	256,676,409	270,379,677	10,342,180	4.7%	11,137,005	4.8%	12,937,745	5.3%

CITY OF HAMILTON
2020 - 2023 WATER, WASTEWATER AND STORM OPERATING BUDGET
COMBINED WATER, WASTEWATER AND STORM

	2019 RESTATED BUDGET	2020 REQUESTED BUDGET	2021 PROJECTED BUDGET	2022 PROJECTED BUDGET	2023 PROJECTED BUDGET	CHANGE 2020 REQUESTED / 2019 RESTATED BUDGET		CHANGE 2021 PROJECTED / 2020 REQUESTED BUDGET		CHANGE 2022 PROJECTED / 2021 PROJECTED BUDGET	
	\$	\$	\$	\$	\$	\$	%	\$	%	\$	%
REVENUES:											
Rate Revenue											
Residential	97,938,766	101,816,099	107,533,183	113,624,568	120,099,836	3,877,333	4.0%	5,717,083	5.6%	6,091,385	5.7%
Industrial/Commercial/Institutional/Multi-res	107,752,759	112,557,622	117,408,155	123,603,330	130,095,258	4,804,863	4.5%	4,850,533	4.3%	6,195,175	5.3%
Haldimand	2,353,282	2,476,307	2,591,366	2,739,374	2,931,659	123,025	5.2%	115,058	4.6%	148,008	5.7%
Halton	247,782	259,593	269,837	284,866	303,990	11,811	4.8%	10,245	3.9%	15,029	5.6%
Raw Water	150,000	125,000	128,750	132,613	136,591	(25,000)	(16.7%)	3,750	3.0%	3,863	3.0%
Non-Metered	580,000	580,000	580,000	610,000	640,000	-	0.0%	-	0.0%	30,000	5.2%
Private Fire Lines	1,550,000	1,850,000	1,924,000	2,000,960	2,080,998	300,000	19.4%	74,000	4.0%	76,960	4.0%
Hauler / 3rd Party Sales	1,225,000	1,225,000	1,261,750	1,299,603	1,338,591	-	0.0%	36,750	3.0%	37,853	3.0%
Overstrength Agreements	2,249,480	2,892,902	2,979,689	3,069,080	3,161,152	643,422	28.6%	86,787	3.0%	89,391	3.0%
Sewer Surcharge Agreements	5,200,000	5,806,726	5,980,928	6,160,356	6,345,166	606,726	11.7%	174,202	3.0%	179,428	3.0%
Sub-Total Utility Rates	219,247,069	229,589,249	240,657,657	253,524,748	267,133,241	10,342,180	4.7%	11,068,408	4.8%	12,867,091	5.3%
Non-Rate Revenue											
Local Improvement Recoveries	275,850	275,850	275,850	275,850	275,850	-	0.0%	-	0.0%	-	0.0%
Permits/Leases/Agreements	1,365,050	1,365,050	1,406,002	1,448,182	1,491,627	-	0.0%	40,952	3.0%	42,180	3.0%
Investment Income	450,000	450,000	450,000	450,000	450,000	-	0.0%	-	0.0%	-	0.0%
General Fees and Recoveries	921,510	921,510	949,155	977,630	1,028,959	-	0.0%	27,645	3.0%	28,475	3.0%
							0.0%		0.0%		0.0%
Sub-Total Non-Rate Revenue	3,012,410	3,012,410	3,081,007	3,151,662	3,246,436	-	0.0%	68,597	2.3%	70,655	2.3%
TOTAL REVENUES	222,259,479	232,601,659	243,738,664	256,676,409	270,379,677	10,342,180	4.7%	11,137,005	4.8%	12,937,745	5.3%
NET EXPENDITURES	-	-	-	-	-	(0)	-	(0)	-	0	-

**CITY OF HAMILTON
2020-2029 WATER, WASTEWATER & STORM OPERATING BUDGET
COMBINED WATER, WASTEWATER AND STORM
(\$ 000'S)**

	2019 Restated	2020 Requested	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast
OPERATING EXPENDITURES											
OPERATING COSTS	91,224	82,223	83,717	83,977	85,653	87,363	89,107	90,885	92,698	94,546	96,530
BIO-SOLIDS	4,500	4,000	4,230	4,129	4,215	4,302	4,392	4,484	4,578	4,676	4,676
TERTIARY TREATMENT	-	-	-	1,600	1,632	1,665	1,698	1,732	1,767	1,802	1,838
TOTAL OPERATING COSTS	95,724	86,223	87,947	89,706	91,500	93,330	95,197	97,101	99,043	101,023	103,044
CAPITAL & RESERVE IMPACTS ON OPERATING											
Contributions to Capital											
Water	51,762	50,296	52,953	56,553	63,516	73,300	84,611	83,417	72,832	90,002	107,861
Wastewater	42,837	52,673	55,057	54,249	54,174	52,379	58,704	63,479	67,164	68,470	65,440
Stormwater	3,205	15,685	14,382	15,775	15,975	17,595	9,875	16,385	37,430	34,735	35,215
Sub-total Contributions to Capital	97,804	118,654	122,392	126,577	133,665	143,274	153,190	163,281	177,426	193,207	208,516
Contributions for DC Exemptions											
Water	2,547	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240
Wastewater	4,590	4,080	4,080	4,080	4,080	4,080	4,080	4,080	4,080	4,080	4,080
Stormwater	1,863	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680
Sub-total Contributions to Capital	9,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Debt Charges											
Water	9,762	8,594	13,081	19,121	22,771	24,378	26,861	29,864	30,861	30,665	30,561
Wastewater	10,120	11,514	18,224	24,836	29,106	30,401	30,518	34,295	41,345	47,498	51,136
Stormwater	3,950	3,400	4,918	5,719	6,439	6,775	6,728	6,681	6,690	6,705	6,778
DC Debt Charges Recoveries	(4,467)	(3,826)	(10,928)	(17,430)	(21,373)	(23,098)	(25,025)	(31,460)	(41,112)	(49,540)	(53,306)
Sub-total Debt Charges	19,366	19,682	25,295	32,247	36,944	38,456	39,082	39,380	37,784	35,328	35,169
Reserve Transfers	365	43	104	146	134	185	245	278	258	264	741
Sub-Total Capital & Reserve Impacts on Operating	126,535	146,379	155,792	166,970	178,743	189,915	200,517	210,938	223,468	236,799	252,426
TOTAL EXPENDITURES	222,259	232,602	243,739	256,676	270,243	283,245	295,714	308,039	322,511	337,823	355,470
REVENUES											
Residential	97,939	101,816	107,533	113,625	120,100	126,815	134,051	141,659	149,749	157,939	166,460
Industrial/Commercial/Institutional/Multi-res	107,753	112,558	117,408	123,603	130,095	135,830	140,539	144,771	150,606	157,123	165,607
Haldimand	2,353	2,476	2,591	2,739	2,932	3,074	3,179	3,241	3,351	3,507	3,687
Halton	248	260	270	285	304	318	331	340	351	367	385
Raw Water	150	125	129	133	137	141	145	149	154	158	163
Non-Metered	580	580	580	610	640	670	700	730	760	790	820
Private Fire Lines	1,550	1,850	1,924	2,001	2,081	2,164	2,251	2,341	2,434	2,532	2,633
Hauler / 3rd Party Sales	1,225	1,225	1,262	1,300	1,326	1,352	1,379	1,407	1,435	1,464	1,493
Overstrength Agreements	2,249	2,893	2,980	3,069	3,130	3,193	3,257	3,322	3,389	3,456	3,525
Sewer Surcharge Agreements	5,200	5,807	5,981	6,160	6,284	6,409	6,537	6,668	6,802	6,938	7,076
Non-Rate Revenue	3,012	3,012	3,081	3,152	3,215	3,279	3,345	3,411	3,480	3,549	3,620
TOTAL REVENUES	222,259	232,602	243,739	256,676	270,243	283,245	295,714	308,039	322,511	337,823	355,470
NET EXPENDITURES											
Rate Increase	4.66%	4.00%	4.39%	4.50%	4.55%	4.41%	4.46%	4.41%	4.54%	4.34%	4.37%
RESIDENTIAL BILL (200m³ p.a.)	\$ 722.90	\$ 751.80	\$ 784.80	\$ 820.10	\$ 857.40	\$ 895.20	\$ 935.10	\$ 976.30	\$ 1,020.60	\$ 1,064.85	\$ 1,111.35

CITY OF HAMILTON
2020 HAMILTON WATER OPERATING BUDGET
WATER

	2019 RESTATED BUDGET	2019 PROJECTED ACTUAL	2020 REQUESTED BUDGET	CHANGE		CHANGE	
				2019 PROJECTED / 2019 RESTATED BUDGET	ACTUAL BUDGET	2020 REQUESTED / 2019 RESTATED BUDGET	
	\$	\$	\$	\$	%	\$	%
<u>OPERATING EXPENDITURES:</u>							
Divisional Administration & Support	1,012,984	1,012,984	636,007	(0)	(0.0%)	(376,977)	(37.2%)
Woodward Upgrades	-	-	-	-	0.0%	-	0.0%
Customer Service	211,240	211,240	127,674	-	0.0%	(83,566)	(39.6%)
Outreach & Education	690,420	664,865	633,544	25,555	3.7%	(56,876)	(8.2%)
Service Co-ordination	2,091,780	1,862,509	1,842,819	229,271	11.0%	(248,961)	(11.9%)
Engineering Systems & Data Collection	643,430	643,430	675,910	-	0.0%	32,480	5.0%
Compliance & Regulations	435,600	435,600	488,486	-	0.0%	52,886	12.1%
Laboratory Services	1,132,777	1,132,777	1,175,345	-	0.0%	42,568	3.8%
Environmental Monitoring & Enforcement	-	-	-	-	0.0%	-	0.0%
Water Distribution & Wastewater Collection	15,793,060	15,793,060	16,269,265	-	0.0%	476,205	3.0%
Plant Operations & Maintenance	20,354,155	19,370,468	16,451,995	983,687	4.8%	(3,902,160)	(19.2%)
Capital Delivery	836,847	836,847	717,755	-	0.0%	(119,092)	(14.2%)
Sustainable Initiatives	673,816	673,816	643,991	-	0.0%	(29,824)	(4.4%)
Infrastructure Planning & System Design	959,142	959,142	777,946	-	0.0%	(181,196)	(18.9%)
Wastewater Abatement Program	-	-	-	-	0.0%	-	0.0%
Alectra Utilities Service Contract	2,850,000	2,700,000	2,800,000	150,000	5.3%	(50,000)	(1.8%)
Corporate & Departmental Support Services	2,872,450	2,872,450	3,116,080	-	0.0%	243,630	8.5%
Utilities Arrears Program	250,000	250,000	250,040	-	0.0%	40	0.0%
	50,807,699	49,419,187	46,606,858	1,388,513	2.7%	(4,200,842)	(8.3%)
Capital and Reserve Recoveries	(1,881,768)	(1,881,768)	(1,860,163)	-	0.0%	21,605	(1.1%)
Sub-Total	\$ 48,925,932	\$ 47,537,419	\$ 44,746,695	\$ 1,388,513	2.8%	\$ (4,179,237)	(8.5%)
<u>Capital and Reserve Impacts on Operating</u>							
<u>Contributions to Capital</u>							
Water Quality Initiatives	51,762,000	51,762,000	50,296,000	-	-	(1,466,000)	(2.8%)
Sub-Total Contributions to Capital	51,762,000	51,762,000	50,296,000	-	-	(1,466,000)	(2.8%)
<u>Contributions for DC Exemptions</u>							
Water Quality Initiatives	2,547,000	2,547,000	2,240,000	-	-	(307,000)	(12.1%)
Sub-Total Contributions for DC Exemptions	2,547,000	2,547,000	2,240,000	-	-	(307,000)	(12.1%)

**CITY OF HAMILTON
2020 - 2023 WATER, WASTEWATER AND STORM OPERATING BUDGET
WATER**

	2019 RESTATED BUDGET	2020 REQUESTED BUDGET	2021 PROJECTED BUDGET	2022 PROJECTED BUDGET	2023 PROJECTED BUDGET	CHANGE 2020 REQUESTED / 2019 RESTATED BUDGET		CHANGE 2021 PROJECTED / 2020 REQUESTED BUDGET		CHANGE 2022 PROJECTED / 2021 PROJECTED BUDGET	
	\$	\$	\$	\$	\$	\$	%	\$	%	\$	%
OPERATING EXPENDITURES:											
Divisional Administration & Support	1,012,984	636,007	648,728	661,702	674,936	(376,977)	(37.2%)	12,720	2.0%	12,975	2.0%
Woodward Upgrades	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Customer Service	211,240	127,674	130,228	132,832	135,489	(83,566)	(39.6%)	2,553	2.0%	2,605	2.0%
Outreach & Education	690,420	633,544	646,215	659,139	672,322	(56,876)	(8.2%)	12,671	2.0%	12,924	2.0%
Service Co-ordination	2,091,780	1,842,819	1,879,675	1,917,268	1,955,614	(248,961)	(11.9%)	36,856	2.0%	37,593	2.0%
Engineering Systems & Data Collection	643,430	675,910	689,428	703,217	717,281	32,480	5.0%	13,518	2.0%	13,789	2.0%
Compliance & Regulations	435,600	488,486	498,256	508,221	518,386	52,886	12.1%	9,770	2.0%	9,965	2.0%
Laboratory Services	1,132,777	1,175,345	1,198,852	1,222,829	1,247,285	42,568	3.8%	23,507	2.0%	23,977	2.0%
Environmental Monitoring & Enforcement	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Water Distribution & Wastewater Collection	15,793,060	16,269,265	16,594,651	16,926,544	17,265,075	476,205	3.0%	325,385	2.0%	331,893	2.0%
Plant Operations & Maintenance	20,354,155	16,451,995	16,781,035	17,116,656	17,458,989	(3,902,160)	(19.2%)	329,040	2.0%	335,621	2.0%
Capital Delivery	836,847	717,755	732,110	746,752	761,687	(119,092)	(14.2%)	14,355	2.0%	14,642	2.0%
Sustainable Initiatives	673,816	643,991	656,871	670,009	683,409	(29,824)	(4.4%)	12,880	2.0%	13,137	2.0%
Infrastructure Planning & System Design	959,142	777,946	793,505	809,375	825,562	(181,196)	(18.9%)	15,559	2.0%	15,870	2.0%
Wastewater Abatement Program	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Alectra Utilities Service Contract	2,850,000	2,800,000	2,856,000	2,913,120	2,971,382	(50,000)	(1.8%)	56,000	2.0%	57,120	2.0%
Corporate & Departmental Support Services	2,872,450	3,116,080	3,178,401	3,241,969	3,306,809	243,630	8.5%	62,322	2.0%	63,568	2.0%
Utilities Arrears Program	250,000	250,040	255,041	260,142	265,344	40	0.0%	5,001	2.0%	5,101	2.0%
	50,807,699	46,606,858	47,538,995	48,489,775	49,459,570	(4,200,842)	(8.3%)	932,137	2.0%	950,780	2.0%
Capital and Reserve Recoveries	(1,881,768)	(1,860,163)	(1,897,366)	(1,935,314)	(1,974,020)	21,605	(1.1%)	(37,203)	2.0%	(37,947)	2.0%
Sub-Total	48,925,932	44,746,695	45,641,629	46,554,461	47,485,550	(4,179,237)	(8.5%)	894,934	2.0%	912,833	2.0%
Capital and Reserve Impacts on Operating											
Contributions to Capital											
Water Quality Initiatives	51,762,000	50,296,000	52,953,000	56,553,000	63,516,000	(1,466,000)	(2.8%)	2,657,000	5.3%	3,600,000	6.8%
Sub-Total Contributions to Capital	51,762,000	50,296,000	52,953,000	56,553,000	63,516,000	(1,466,000)	(2.8%)	2,657,000	5.3%	3,600,000	6.8%
Contributions for DC Exemptions											
Water Quality Initiatives	2,547,000	2,240,000	2,240,000	2,240,000	2,240,000	(307,000)	(12.1%)	-	0.0%	-	0.0%
Wastewater	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Stormwater	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Sub-Total Contributions for DC Exemptions	2,547,000	2,240,000	2,240,000	2,240,000	2,240,000	(307,000)	(12.1%)	-	0.0%	-	0.0%
Debt Charges											
Water Quality Initiatives	9,762,487	8,593,943	13,081,230	19,120,697	22,771,434	(1,168,544)	(12.0%)	4,487,287	52.2%	6,039,467	46.2%
DC Debt Charges Recoveries	(976,370)	(418,112)	(2,419,501)	(5,145,642)	(6,411,633)	558,257	(57.2%)	(2,001,389)	478.7%	(2,726,140)	112.7%
Sub-Total Debt Charges	8,786,118	8,175,831	10,661,728	13,975,055	16,359,801	(610,287)	(6.9%)	2,485,898	30.4%	3,313,326	31.1%
Sub-Total Capital Financing	63,095,118	60,711,831	65,854,728	72,768,055	82,115,801	(2,383,287)	(3.8%)	5,142,898	8.5%	6,913,326	10.5%
Reserve Transfers	(4,745,039)	6,830,465	5,650,089	4,328,570	1,481,014	11,575,504	(243.9%)	(1,180,375)	(17.3%)	(1,321,519)	(23.4%)
Sub-Total Capital and Reserve Impacts on Operating	58,350,079	67,542,295	71,504,818	77,096,625	83,596,814	9,192,217	15.8%	3,962,522	5.9%	5,591,808	7.8%
TOTAL EXPENDITURES	107,276,010	112,288,990	117,146,446	123,651,086	131,082,365	5,012,980	4.7%	4,857,456	4.3%	6,504,640	5.6%

**CITY OF HAMILTON
2020-2029 WATER, WASTEWATER & STORM OPERATING BUDGET
WATER**

	2019 Restated	2020 Requested	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast
OPERATING EXPENDITURES											
OPERATING COSTS	48,926	44,747	45,642	46,554	47,486	48,435	49,404	50,392	51,400	52,428	53,476
TOTAL OPERATING COSTS	48,926	44,747	45,642	46,554	47,486	48,435	49,404	50,392	51,400	52,428	53,476
CAPITAL & RESERVE IMPACTS ON OPERATING											
Contributions to Capital											
Water	51,762	50,296	52,953	56,553	63,516	73,300	84,611	83,417	72,832	90,002	107,861
Sub-total Contributions to Capital	51,762	50,296	52,953	56,553	63,516	73,300	84,611	83,417	72,832	90,002	107,861
Contributions for DC Exemptions											
Water	2,547	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240
Sub-total Contributions to Capital	2,547	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240
Debt Charges											
Water	9,762	8,594	13,081	19,121	22,771	24,378	26,861	29,864	30,861	30,665	30,561
DC Debt Charges Recoveries	(976)	(418)	(2,420)	(5,146)	(6,412)	(6,919)	(8,559)	(11,047)	(13,153)	(14,089)	(14,089)
Sub-total Debt Charges	8,786	8,176	10,662	13,975	16,360	17,459	18,303	18,817	17,708	16,576	16,472
Reserve Transfers	(4,745)	6,830	5,650	4,329	1,448	(3,612)	(9,212)	(2,761)	13,889	4,480	(6,359)
Sub-Total Capital & Reserve Impacts on Operating	58,350	67,542	71,505	77,097	83,564	89,387	95,942	101,713	106,669	113,298	120,214
TOTAL EXPENDITURES	107,276	112,289	117,146	123,651	131,050	137,822	145,346	152,105	158,069	165,726	173,691
REVENUES											
Residential	47,795	49,779	52,120	55,166	58,393	61,803	66,169	70,489	73,698	77,665	81,527
Industrial/Commercial/Institutional/Multi-res	52,541	55,161	57,417	60,559	64,370	67,424	70,306	72,513	74,981	78,327	82,056
Haldimand	2,353	2,476	2,591	2,739	2,932	3,074	3,179	3,241	3,351	3,507	3,687
Halton	248	260	270	285	304	318	331	340	351	367	385
Raw Water	150	125	129	133	137	141	145	149	154	158	163
Non-Metered	290	290	290	305	320	335	350	365	380	395	410
Private Fire Lines	1,550	1,850	1,924	2,001	2,081	2,164	2,251	2,341	2,434	2,532	2,633
Hauler / 3rd Party Sales	435	435	448	461	471	480	490	500	510	520	530
Non-Rate Revenue	1,914	1,914	1,957	2,002	2,042	2,083	2,125	2,167	2,210	2,255	2,300
TOTAL REVENUES	107,276	112,289	117,146	123,651	131,050	137,822	145,346	152,105	158,069	165,726	173,691
NET EXPENDITURES											
	-	-	-	-	-	-	-	-	-	-	-
Rate Increase	4.7%	4.3%	3.5%	4.7%	4.8%	4.7%	5.8%	5.2%	3.4%	4.3%	3.9%
RESIDENTIAL BILL (200m³ p.a.)	\$ 349.00	\$ 363.85	\$ 376.70	\$ 394.35	\$ 413.15	\$ 432.45	\$ 457.45	\$ 481.30	\$ 497.80	\$ 519.10	\$ 539.55

**CITY OF HAMILTON
2020 HAMILTON WATER OPERATING BUDGET
COMBINED WASTEWATER AND STORM**

	2019	2019	2020	CHANGE		CHANGE	
	RESTATED BUDGET	PROJECTED ACTUAL	REQUESTED BUDGET	2019 PROJECTED / 2019 RESTATED BUDGET	ACTUAL	2020 REQUESTED / 2019 RESTATED BUDGET	
	\$	\$	\$	\$	%	\$	%
<u>OPERATING EXPENDITURES:</u>							
Divisional Administration & Support	1,229,636	1,229,636	772,034	(0)	(0.0%)	(457,602)	(37.2%)
Woodward Upgrades	1,524,540	1,524,540	1,108,390	-	0.0%	(416,150)	(27.3%)
Customer Service	210,370	210,370	127,149	-	0.0%	(83,221)	(39.6%)
Outreach & Education	660,440	635,995	606,033	24,445	3.7%	(54,407)	(8.2%)
Service Co-ordination	2,159,830	1,923,101	1,902,769	236,729	11.0%	(257,061)	(11.9%)
Engineering Systems & Data Collection	643,440	643,440	675,921	-	0.0%	32,481	5.0%
Compliance & Regulations	435,610	435,610	488,498	-	0.0%	52,888	12.1%
Laboratory Services	2,394,864	2,394,864	2,484,859	-	0.0%	89,996	3.8%
Environmental Monitoring & Enforcement	1,818,020	1,818,020	1,778,256	-	0.0%	(39,764)	(2.2%)
Water Distribution & Wastewater Collection	5,576,780	5,576,780	5,744,936	-	0.0%	168,156	3.0%
Plant Operations & Maintenance	21,029,235	20,012,922	16,997,654	1,016,313	4.8%	(4,031,581)	(19.2%)
Capital Delivery	1,022,813	1,022,813	877,256	-	0.0%	(145,557)	(14.2%)
Sustainable Initiatives	823,555	823,555	787,103	-	0.0%	(36,452)	(4.4%)
Infrastructure Planning & System Design	1,355,629	1,355,629	1,099,530	-	0.0%	(256,098)	(18.9%)
Wastewater Abatement Program	1,150,000	1,150,000	1,150,040	-	0.0%	40	0.0%
Alectra Utilities Service Contract	2,850,000	2,700,000	2,800,000	150,000	5.3%	(50,000)	(1.8%)
Corporate & Departmental Support Services	3,559,590	3,559,590	3,861,500	-	0.0%	301,910	8.5%
Utilities Arrears Program	250,000	250,000	250,040	-	0.0%	40	0.0%
Sewer Lateral Management Program	500,000	500,000	414,738	-	0.0%	(85,262)	(17.1%)
Hamilton Harbour Remedial Action Plan	395,000	395,000	382,550	-	0.0%	(12,450)	(3.2%)
Protective Plumbing Program (3P)	1,250,000	885,034	1,250,000	364,966	29.2%	-	0.0%
Financial Charges	177,000	177,000	86,019	-	0.0%	(90,981)	(51.4%)
	51,016,350	49,223,897	45,645,274	1,792,453	3.5%	(5,371,076)	(10.5%)
Capital and Reserve Recoveries	(4,217,812)	(4,217,812)	(4,169,387)	0	(0.0%)	48,425	(1.1%)
Sub-Total	46,798,539	45,006,085	41,475,887	1,792,453	3.8%	(5,322,651)	(11.4%)
<u>Capital and Reserve Impacts on Operating</u>							
<u>Contributions to Capital</u>							
Wastewater	42,837,000	42,837,000	52,673,000	-	0.0%	9,836,000	23.0%
Stormwater	3,205,000	3,205,000	15,685,000	-	0.0%	12,480,000	389.4%
Sub-Total Contributions to Capital	46,042,000	46,042,000	68,358,000	-	0.0%	22,316,000	48.5%
<u>Contributions for DC Exemptions</u>							
Wastewater	4,590,000	4,590,000	4,080,000	-	0.0%	(510,000)	(11.1%)
Stormwater	1,863,000	1,863,000	1,680,000	-	0.0%	(183,000)	(9.8%)
Sub-Total Contributions for DC Exemptions	6,453,000	6,453,000	5,760,000	-	0.0%	(693,000)	(0)

**CITY OF HAMILTON
2020 - 2023 WATER, WASTEWATER AND STORM OPERATING BUDGET
COMBINED WASTEWATER AND STORM**

	2019 RESTATED BUDGET	2020 REQUESTED BUDGET	2021 PROJECTED BUDGET	2022 PROJECTED BUDGET	2023 PROJECTED BUDGET	CHANGE 2020 REQUESTED / 2019 RESTATED BUDGET	CHANGE 2021 PROJECTED / 2020 REQUESTED BUDGET	CHANGE 2022 PROJECTED / 2021 PROJECTED BUDGET			
	\$	\$	\$	\$	\$	\$	%	\$	%	\$	%
OPERATING EXPENDITURES:											
Divisional Administration & Support	1,229,636	772,034	787,474	803,224	819,288	(457,602)	(37.2%)	15,441	2.0%	15,749	2.0%
Woodward Upgrades	1,524,540	1,108,390	1,130,558	1,153,169	1,176,232	(416,150)	(27.3%)	22,168	2.0%	22,611	2.0%
Customer Service	210,370	127,149	129,692	132,285	134,931	(83,221)	(39.6%)	2,543	2.0%	2,594	2.0%
Outreach & Education	660,440	606,033	618,154	630,517	643,127	(54,407)	(8.2%)	12,121	2.0%	12,363	2.0%
Service Co-ordination	2,159,830	1,902,769	1,940,825	1,979,641	2,019,234	(257,061)	(11.9%)	38,055	2.0%	38,816	2.0%
Engineering Systems & Data Collection	643,440	675,921	689,439	703,228	717,293	32,481	5.0%	13,518	2.0%	13,789	2.0%
Compliance & Regulations	435,610	488,498	498,268	508,233	518,398	52,888	12.1%	9,770	2.0%	9,965	2.0%
Laboratory Services	2,394,864	2,484,859	2,534,556	2,585,248	2,636,953	89,996	3.8%	49,697	2.0%	50,691	2.0%
Environmental Monitoring & Enforcement	1,818,020	1,778,256	1,813,821	1,850,098	1,887,099	(39,764)	(2.2%)	35,565	2.0%	36,276	2.0%
Water Distribution & Wastewater Collection	5,576,780	5,744,936	5,859,834	5,977,031	6,096,572	168,156	3.0%	114,899	2.0%	117,197	2.0%
Plant Operations & Maintenance	21,029,235	16,997,654	17,337,607	17,684,359	18,038,046	(4,031,581)	(19.2%)	339,953	2.0%	346,752	2.0%
Capital Delivery	1,022,813	877,256	894,801	912,697	930,951	(145,557)	(14.2%)	17,545	2.0%	17,896	2.0%
Sustainable Initiatives	823,555	787,103	802,845	818,902	835,280	(36,452)	(4.4%)	15,742	2.0%	16,057	2.0%
Infrastructure Planning & System Design	1,355,629	1,099,530	1,121,521	1,143,951	1,166,830	(256,098)	(18.9%)	21,991	2.0%	22,430	2.0%
Wastewater Abatement Program	1,150,000	1,150,040	1,173,041	1,196,502	1,220,432	40	0.0%	23,001	2.0%	23,461	2.0%
Alectra Utilities Service Contract	2,850,000	2,800,000	2,856,000	2,913,120	2,971,382	(50,000)	(1.8%)	56,000	2.0%	57,120	2.0%
Corporate & Departmental Support Services	3,559,590	3,861,500	3,938,730	4,017,505	4,097,855	301,910	8.5%	77,230	2.0%	78,775	2.0%
Utilities Arrears Program	250,000	250,040	255,041	260,142	265,344	40	0.0%	5,001	2.0%	5,101	2.0%
Sewer Lateral Management Program	500,000	414,738	423,033	431,493	440,123	(85,262)	(17.1%)	8,295	2.0%	8,461	2.0%
Hamilton Harbour Remedial Action Plan	395,000	382,550	390,201	398,005	405,965	(12,450)	(3.2%)	7,651	2.0%	7,804	2.0%
Protective Plumbing Program (3P)	1,250,000	1,250,000	1,275,000	1,300,500	1,326,510	-	0.0%	25,000	2.0%	25,500	2.0%
Financial Charges	177,000	86,019	87,739	89,494	91,284	(90,981)	(51.4%)	1,720	2.0%	1,755	2.0%
	51,016,350	45,645,274	46,558,180	47,489,343	48,439,130	(5,371,076)	(10.5%)	912,905	2.0%	931,164	2.0%
Capital and Reserve Recoveries	(4,217,812)	(4,169,387)	(4,252,775)	(4,337,830)	(4,424,587)	48,425	(1.1%)	(83,388)	2.0%	(85,055)	2.0%
Sub-Total	46,798,539	41,475,887	42,305,405	43,151,513	44,014,543	(5,322,651)	(11.4%)	829,518	2.0%	846,108	2.0%
Capital and Reserve Impacts on Operating											
Contributions to Capital											
Wastewater	42,837,000	52,673,000	55,057,000	54,249,000	54,174,000	9,836,000	23.0%	2,384,000	4.5%	(808,000)	(1.5%)
Stormwater	3,205,000	15,685,000	14,382,000	15,775,000	15,975,000	12,480,000	389.4%	(1,303,000)	(8.3%)	1,393,000	9.7%
Sub-Total Contributions to Capital	46,042,000	68,358,000	69,439,000	70,024,000	70,149,000	22,316,000	48.5%	1,081,000	1.6%	585,000	0.8%
Contributions for DC Exemptions											
Wastewater	4,590,000	4,080,000	4,080,000	4,080,000	4,080,000	(510,000)	(11.1%)	-	0.0%	-	0.0%
Stormwater	1,863,000	1,680,000	1,680,000	1,680,000	1,680,000	(183,000)	(9.8%)	-	0.0%	-	0.0%
Sub-Total Contributions for DC Exemptions	6,453,000	5,760,000	5,760,000	5,760,000	5,760,000	(693,000)	(10.7%)	-	0.0%	-	0.0%
Debt Charges											
Wastewater	10,120,380	11,514,374	18,224,240	24,836,447	29,106,256	1,393,994	13.8%	6,709,866	58.3%	6,612,207	36.3%
Stormwater	3,950,054	3,399,997	4,917,875	5,719,347	6,438,841	(550,057)	(13.9%)	1,517,878	44.6%	801,472	16.3%
DC Debt Charges Recoveries	(3,490,867)	(3,408,093)	(8,508,661)	(12,283,894)	(14,961,202)	82,774	(2.4%)	(5,100,568)	149.7%	(3,775,233)	44.4%
Sub-Total Debt Charges	10,579,567	11,506,278	14,633,454	18,271,900	20,583,895	926,710	8.8%	3,127,176	27.2%	3,638,446	24.9%
Sub-Total Capital Financing	63,074,567	85,624,278	89,832,454	94,055,900	96,492,895	22,549,710	35.8%	4,208,176	4.9%	4,223,446	4.7%
Reserve Transfers	5,110,363	(6,787,496)	(5,545,641)	(4,182,090)	(1,210,126)	(11,897,859)	(232.8%)	1,241,855	(18.3%)	1,363,551	(24.6%)
Sub-Total Capital and Reserve Impacts on Operating	68,184,930	78,836,782	84,286,813	89,873,810	95,282,769	10,651,852	15.6%	5,450,031	6.9%	5,586,997	6.6%
TOTAL EXPENDITURES	114,983,469	120,312,669	126,592,218	133,025,323	139,297,313	5,329,200	4.6%	6,279,549	5.2%	6,433,105	5.1%

**CITY OF HAMILTON
2020 - 2023 WATER, WASTEWATER AND STORM OPERATING BUDGET
COMBINED WASTEWATER AND STORM**

	2019 RESTATED BUDGET	2020 REQUESTED BUDGET	2021 PROJECTED BUDGET	2022 PROJECTED BUDGET	2023 PROJECTED BUDGET	CHANGE 2020 REQUESTED / 2019 RESTATED BUDGET		CHANGE 2021 PROJECTED / 2020 REQUESTED BUDGET		CHANGE 2022 PROJECTED / 2021 PROJECTED BUDGET	
	\$	\$	\$	\$	\$	\$	%	\$	%	\$	%
REVENUES:											
Rate Revenue											
Residential	50,143,510	52,037,120	55,412,781	58,459,054	61,706,401	1,893,610	3.8%	3,375,661	6.5%	3,046,273	5.5%
Industrial/Commercial/Institutional/Multi-res	55,211,628	57,397,071	59,991,280	63,044,143	65,725,247	2,185,443	4.0%	2,594,209	4.5%	3,052,863	5.1%
Haldimand	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Halton	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Non-Metered	290,000	290,000	290,000	305,000	320,000	-	0.0%	-	0.0%	15,000	5.2%
Private Fire Lines	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Hauler / 3rd Party Sales	790,000	790,000	813,700	838,111	863,254	-	0.0%	23,700	3.0%	24,411	3.0%
Overstrength Agreements	2,249,480	2,892,902	2,979,689	3,069,080	3,161,152	643,422	28.6%	86,787	3.0%	89,391	3.0%
Sewer Surcharge Agreements	5,200,000	5,806,726	5,980,928	6,160,356	6,345,166	606,726	11.7%	174,202	3.0%	179,428	3.0%
Sub-Total Utility Rates	113,884,619	119,213,819	125,468,378	131,875,743	138,121,221	5,329,200	4.7%	6,254,559	5.2%	6,407,365	5.1%
Non-Rate Revenue											
Local Improvement Recoveries	265,850	265,850	265,850	265,850	265,850	-	0.0%	-	0.0%	-	0.0%
Permits/Leases/Agreements	515,000	515,000	530,450	546,364	562,754	-	0.0%	15,450	3.0%	15,914	3.0%
General Fees and Recoveries	318,000	318,000	327,540	337,366	347,487	-	0.0%	9,540	3.0%	9,826	3.0%
Sub-Total Non-Rate Revenue	1,098,850	1,098,850	1,123,840	1,149,580	1,176,092	-	0.0%	24,990	2.3%	25,740	2.3%
TOTAL REVENUES	114,983,469	120,312,669	126,592,218	133,025,323	139,297,313	5,329,200	4.6%	6,279,549	5.2%	6,433,105	5.1%
NET EXPENDITURES	-	-	-	-	-	0	-	(0)	-	0	-

CITY OF HAMILTON
2020-2029 WATER, WASTEWATER & STORM OPERATING BUDGET
COMBINED WASTEWATER AND STORM
(\$ 000'S)

	2019 Restated	2020 Requested	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast
OPERATING EXPENDITURES											
OPERATING COSTS	42,299	37,476	38,075	37,423	38,168	38,928	39,703	40,493	41,298	42,118	43,054
BIO-SOLIDS	4,500	4,000	4,230	4,129	4,215	4,302	4,392	4,484	4,578	4,676	4,676
TERTIARY TREATMENT	-	-	-	1,600	1,632	1,665	1,698	1,732	1,767	1,802	1,838
TOTAL OPERATING COSTS	46,799	41,476	42,305	43,152	44,015	44,895	45,793	46,709	47,643	48,596	49,568
CAPITAL & RESERVE IMPACTS ON OPERATING											
Contributions to Capital											
Wastewater	42,837	52,673	55,057	54,249	54,174	52,379	58,704	63,479	67,164	68,470	65,440
Stormwater	3,205	15,685	14,382	15,775	15,975	17,595	9,875	16,385	37,430	34,735	35,215
Sub-total Contributions to Capital	46,042	68,358	69,439	70,024	70,149	69,974	68,579	79,864	104,594	103,205	100,655
Contributions for DC Exemptions											
Wastewater	4,590	4,080	4,080	4,080	4,080	4,080	4,080	4,080	4,080	4,080	4,080
Stormwater	1,863	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680
Sub-total Contributions to Capital	6,453	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760
Debt Charges											
Wastewater	10,120	11,514	18,224	24,836	29,106	30,401	30,518	34,295	41,345	47,498	51,136
Stormwater	3,950	3,400	4,918	5,719	6,439	6,775	6,728	6,681	6,690	6,705	6,778
DC Debt Charges Recoveries	(3,491)	(3,408)	(8,509)	(12,284)	(14,961)	(16,179)	(16,467)	(20,413)	(27,959)	(35,451)	(39,217)
Sub-total Debt Charges	10,580	11,506	14,633	18,272	20,584	20,998	20,779	20,562	20,076	18,752	18,697
Reserve Transfers											
	5,110	(6,787)	(5,546)	(4,182)	(1,314)	3,797	9,457	3,039	(13,631)	(4,216)	7,100
Sub-Total Capital & Reserve Impacts on Operating	68,185	78,837	84,287	89,874	95,179	100,529	104,575	109,225	116,799	123,501	132,211
TOTAL EXPENDITURES	114,983	120,313	126,592	133,025	139,193	145,423	150,368	155,934	164,442	172,097	181,779
REVENUES											
Residential	50,144	52,037	55,413	58,459	61,706	65,012	67,881	71,170	76,052	80,274	84,933
Industrial/Commercial/Institutional/Multi-res	55,212	57,397	59,991	63,044	65,725	68,406	70,233	72,257	75,626	78,796	83,551
Non-Metered	290	290	290	305	320	335	350	365	380	395	410
Hauler / 3rd Party Sales	790	790	814	838	855	872	889	907	925	944	963
Overstrength Agreements	2,249	2,893	2,980	3,069	3,130	3,193	3,257	3,322	3,389	3,456	3,525
Sewer Surcharge Agreements	5,200	5,807	5,981	6,160	6,284	6,409	6,537	6,668	6,802	6,938	7,076
Non-Rate Revenue	1,099	1,099	1,124	1,150	1,173	1,196	1,220	1,244	1,269	1,295	1,321
TOTAL REVENUES	114,983	120,313	126,592	133,025	139,193	145,423	150,368	155,934	164,442	172,097	181,779
NET EXPENDITURES	-	-	-	-	-	-	-	-	-	-	-
Rate Increase	4.6%	3.8%	5.2%	4.3%	4.3%	4.2%	3.2%	3.6%	5.6%	4.4%	4.8%
RESIDENTIAL BILL (200m³ p.a.)	\$ 373.90	\$ 387.95	\$ 408.10	\$ 425.75	\$ 444.25	\$ 462.75	\$ 477.65	\$ 495.00	\$ 522.80	\$ 545.75	\$ 571.80

CITY OF HAMILTON
2020 HAMILTON WATER OPERATING BUDGET
WASTEWATER

	2019 RESTATE D BUDGET	2019 PROJECTED ACTUAL	2020 REQUESTED BUDGET	CHANGE		CHANGE	
				2019 PROJECTED / 2019 RESTATE D BUDGET	ACTUAL	2020 REQUESTED / 2019 RESTATE D BUDGET	
	\$	\$	\$	\$	%	\$	%
OPERATING EXPENDITURES:							
Environmental Services							
Divisional Administration & Support	1,006,104	1,006,104	631,688	(0)	(0.0%)	(374,416)	(37.2%)
Woodward Upgrades	1,524,540	1,524,540	1,108,390	-	0.0%	(416,150)	(27.3%)
Customer Service	168,630	168,630	101,921	-	0.0%	(66,709)	(39.6%)
Outreach & Education	528,350	508,794	484,825	19,556	3.7%	(43,525)	(8.2%)
Service Co-ordination	1,301,020	1,158,421	1,146,174	142,599	11.0%	(154,846)	(11.9%)
Engineering Systems & Data Collection	514,750	514,750	540,735	-	0.0%	25,985	5.0%
Compliance & Regulations	414,730	414,730	465,083	-	0.0%	50,353	12.1%
Laboratory Services	2,258,943	2,258,943	2,343,831	-	0.0%	84,888	3.8%
Environmental Monitoring & Enforcement	1,752,210	1,752,210	1,713,885	-	0.0%	(38,325)	(2.2%)
Water Distribution & Wastewater Collection	5,042,270	5,042,270	5,194,309	-	0.0%	152,039	3.0%
Plant Operations & Maintenance	20,209,645	19,232,942	16,335,190	976,703	4.8%	(3,874,455)	(19.2%)
Capital Delivery	836,847	836,847	717,755	-	0.0%	(119,092)	(14.2%)
Sustainable Initiatives	673,816	673,816	643,991	-	0.0%	(29,824)	(4.4%)
Infrastructure Planning & System Design	1,109,142	1,109,142	899,608	-	0.0%	(209,533)	(18.9%)
Wastewater Abatement Program	1,150,000	1,150,000	1,150,040	-	0.0%	40	0.0%
Alectra Utilities Service Contract	2,850,000	2,700,000	2,800,000	150,000	5.3%	(50,000)	(1.8%)
Corporate & Departmental Support Services	3,129,340	3,129,340	3,394,758	-	0.0%	265,418	8.5%
Utilities Arrears Program	250,000	250,000	250,040	-	0.0%	40	0.0%
Sewer Lateral Management Program	500,000	500,000	414,738	-	0.0%	(85,262)	(17.1%)
Financial Charges	177,000	177,000	86,019	-	0.0%	(90,981)	(51.4%)
	45,397,336	44,108,478	40,422,979	1,288,858	2.8%	(4,974,357)	(11.0%)
Capital and Reserve Recoveries	(3,397,058)	(3,397,058)	(3,358,056)	0	(0.0%)	39,002	(1.1%)
Sub-Total Environmental Services	42,000,278	40,711,420	37,064,923	1,288,858	3.1%	(4,935,355)	(11.8%)
Capital and Reserve Impacts on Operating							
Contributions to Capital							
Wastewater	42,837,000	42,837,000	52,673,000	-	-	9,836,000	23.0%
Sub-Total Contributions to Capital	42,837,000	42,837,000	52,673,000	-	-	9,836,000	23.0%
Contributions for DC Exemptions							
Wastewater	4,590,000	4,590,000	4,080,000	-	-	(510,000)	(11.1%)
Sub-Total Contributions for DC Exemptions	4,590,000	4,590,000	4,080,000	-	-	(510,000)	(11.1%)

**CITY OF HAMILTON
2020 - 2023 WATER, WASTEWATER AND STORM OPERATING BUDGET
WASTEWATER**

	2019 RESTATED BUDGET	2020 REQUESTED BUDGET	2021 PROJECTED BUDGET	2022 PROJECTED BUDGET	2023 PROJECTED BUDGET	CHANGE 2020 REQUESTED / 2019 RESTATED BUDGET	CHANGE 2021 PROJECTED / 2020 REQUESTED BUDGET	CHANGE 2022 PROJECTED / 2021 PROJECTED BUDGET			
	\$	\$	\$	\$	\$	\$	%	\$	%	\$	%
OPERATING EXPENDITURES:											
Divisional Administration & Support	1,006,104	631,688	644,322	657,208	670,352	(374,416)	(37.2%)	12,634	2.0%	12,886	2.0%
Woodward Upgrades	1,524,540	1,108,390	1,130,558	1,153,169	1,176,232	(416,150)	(27.3%)	22,168	2.0%	22,611	2.0%
Customer Service	168,630	101,921	103,959	106,038	108,159	(66,709)	(39.6%)	2,038	2.0%	2,079	2.0%
Outreach & Education	528,350	484,825	494,521	504,412	514,500	(43,525)	(8.2%)	9,696	2.0%	9,890	2.0%
Service Co-ordination	1,301,020	1,146,174	1,169,097	1,192,479	1,216,329	(154,846)	(11.9%)	22,923	2.0%	23,382	2.0%
Engineering Systems & Data Collection	514,750	540,735	551,549	562,580	573,832	25,985	5.0%	10,815	2.0%	11,031	2.0%
Compliance & Regulations	414,730	465,083	474,384	483,872	493,549	50,353	12.1%	9,302	2.0%	9,488	2.0%
Laboratory Services	2,258,943	2,343,831	2,390,708	2,438,522	2,487,292	84,888	3.8%	46,877	2.0%	47,814	2.0%
Environmental Monitoring & Enforcement	1,752,210	1,713,885	1,748,163	1,783,126	1,818,789	(38,325)	(2.2%)	34,278	2.0%	34,963	2.0%
Water Distribution & Wastewater Collection	5,042,270	5,194,309	5,298,195	5,404,159	5,512,242	152,039	3.0%	103,886	2.0%	105,964	2.0%
Plant Operations & Maintenance	20,209,645	16,335,190	16,661,894	16,995,132	17,335,034	(3,874,455)	(19.2%)	326,704	2.0%	333,238	2.0%
Capital Delivery	836,847	717,755	732,110	746,752	761,687	(119,092)	(14.2%)	14,355	2.0%	14,642	2.0%
Sustainable Initiatives	673,816	643,991	656,871	670,009	683,409	(29,824)	(4.4%)	12,880	2.0%	13,137	2.0%
Infrastructure Planning & System Design	1,109,142	899,608	917,601	935,953	954,672	(209,533)	(18.9%)	17,992	2.0%	18,352	2.0%
Wastewater Abatement Program	1,150,000	1,150,040	1,173,041	1,196,502	1,220,432	40	0.0%	23,001	2.0%	23,461	2.0%
Alectra Utilities Service Contract	2,850,000	2,800,000	2,856,000	2,913,120	2,971,382	(50,000)	(1.8%)	56,000	2.0%	57,120	2.0%
Corporate & Departmental Support Services	3,129,340	3,394,758	3,462,653	3,531,906	3,602,545	265,418	0	67,895	2.0%	69,253	2.0%
Utilities Arrears Program	250,000	250,040	255,041	260,142	265,344	40	0	5,001	2.0%	5,101	2.0%
Sewer Lateral Management Program	500,000	414,738	423,033	431,493	440,123	(85,262)	(17.1%)	8,295	2.0%	8,461	2.0%
Financial Charges	177,000	86,019	87,739	89,494	91,284	(90,981)	(51.4%)	1,720	2.0%	1,755	2.0%
	45,397,336	40,422,979	41,231,439	42,056,068	42,897,189	(4,974,357)	(11.0%)	808,460	2.0%	824,629	2.0%
Capital and Reserve Recoveries	(3,397,058)	(3,358,056)	(3,425,217)	(3,493,721)	(3,563,596)	39,002	(1.1%)	(67,161)	2.0%	(68,504)	2.0%
Sub-Total	42,000,278	37,064,923	37,806,222	38,562,346	39,333,593	(4,935,355)	(11.8%)	741,298	2.0%	756,124	2.0%
Capital and Reserve Impacts on Operating											
Contributions to Capital											
Water Quality Initiatives	-	-	-	-	-	-	-	-	-	-	-
Wastewater	42,837,000	52,673,000	55,057,000	54,249,000	54,174,000	9,836,000	23.0%	2,384,000	4.5%	(808,000)	(1.5%)
Sub-Total Contributions to Capital	42,837,000	52,673,000	55,057,000	54,249,000	54,174,000	9,836,000	23.0%	2,384,000	4.5%	(808,000)	(1.5%)
Contributions for DC Exemptions											
Wastewater	4,590,000	4,080,000	4,080,000	4,080,000	4,080,000	(510,000)	(11.1%)	-	0.0%	-	0.0%
Sub-Total Contributions for DC Exemptions	4,590,000	4,080,000	4,080,000	4,080,000	4,080,000	(510,000)	(11.1%)	-	0.0%	-	0.0%
Debt Charges											
Wastewater	10,120,380	11,514,374	18,224,240	24,836,447	29,106,256	1,393,994	13.8%	6,709,866	58.3%	6,612,207	36.3%
DC Debt Charges Recoveries	(1,669,722)	(2,260,170)	(6,113,270)	(9,356,174)	(11,581,584)	(590,448)	35.4%	(3,853,100)	170.5%	(3,242,903)	53.0%
Sub-Total Debt Charges	8,450,658	9,254,204	12,110,970	15,480,274	17,524,672	803,546	9.5%	2,856,766	30.9%	3,369,304	27.8%
Sub-Total Capital Financing	55,877,658	66,007,204	71,247,970	73,809,274	75,778,672	10,129,546	18.1%	5,240,766	7.9%	2,561,304	3.6%
Reserve Transfers	16,937,533	17,072,542	17,364,987	20,475,472	24,001,469	135,009	0.8%	292,445	1.7%	3,110,485	17.9%
Sub-Total Capital and Reserve Impacts on Operating	72,815,191	83,079,746	88,612,956	94,284,746	99,780,141	10,264,555	14.1%	5,533,210	6.7%	5,671,789	6.4%
TOTAL EXPENDITURES	114,815,469	120,144,669	126,419,178	132,847,092	139,113,734	5,329,200	4.6%	6,274,509	5.2%	6,427,914	5.1%

CITY OF HAMILTON
 2019 - 2022 WATER, WASTEWATER AND STORM OPERATING BUDGET
WASTEWATER

	2019 RESTATED BUDGET	2020 REQUESTED BUDGET	2021 PROJECTED BUDGET	2022 PROJECTED BUDGET	2023 PROJECTED BUDGET	CHANGE 2020 REQUESTED / 2019 RESTATED BUDGET	CHANGE 2021 PROJECTED / 2020 REQUESTED BUDGET	CHANGE 2022 PROJECTED / 2021 PROJECTED BUDGET			
	\$	\$	\$	\$	\$	\$	%	\$	%	\$	%
REVENUES:											
Rate Revenue											
Residential	50,143,510	52,037,120	55,412,781	58,459,054	61,706,401	1,893,610	3.8%	3,375,661	6.5%	3,046,273	5.5%
ICI	55,211,628	57,397,071	59,991,280	63,044,143	65,725,247	2,185,443	4.0%	2,594,209	4.5%	3,052,863	5.1%
Non-Metered	290,000	290,000	290,000	305,000	320,000	-	0.0%	-	0.0%	15,000	5.2%
Hauler / 3rd Party Sales	790,000	790,000	813,700	838,111	863,254	-	0.0%	23,700	3.0%	24,411	3.0%
Overstrength Agreements	2,249,480	2,892,902	2,979,689	3,069,080	3,161,152	643,422	28.6%	86,787	3.0%	89,391	3.0%
Sewer Surcharge Agreements	5,200,000	5,806,726	5,980,928	6,160,356	6,345,166	606,726	11.7%	174,202	3.0%	179,428	3.0%
Sub-Total Utility Rates	113,884,619	119,213,819	125,468,378	131,875,743	138,121,221	5,329,200	4.7%	6,254,559	5.2%	6,407,365	5.1%
Non-Rate Revenue											
Local Improvement Recoveries	265,850	265,850	265,850	265,850	265,850	-	-	-	-	-	-
Permits/Leases/Agreements	515,000	515,000	530,450	546,364	562,754	-	0.0%	15,450	3.0%	15,914	3.0%
General Fees and Recoveries	150,000	150,000	154,500	159,135	163,909	-	0.0%	4,500	3.0%	4,635	3.0%
Sub-Total Non-Rate Revenue	930,850	930,850	950,800	971,349	992,513	-	0.0%	19,950	2.1%	20,549	2.2%
TOTAL REVENUES	114,815,469	120,144,669	126,419,178	132,847,092	139,113,734	5,329,200	4.6%	6,274,509	5.2%	6,427,914	5.1%
NET EXPENDITURES	-	-	-	-	-	-	-	-	-	0	-

CITY OF HAMILTON
2020 HAMILTON WATER OPERATING BUDGET
STORM

	2019	2019	2020	CHANGE		CHANGE	
	RESTATED BUDGET	PROJECTED ACTUAL	REQUESTED BUDGET	2019 PROJECTED / 2019 RESTATED BUDGET	ACTUAL	2020 REQUESTED / 2019 RESTATED BUDGET	
	\$	\$	\$	\$	%	\$	%
<u>OPERATING EXPENDITURES:</u>							
Divisional Administration & Support	223,532	223,532	140,346	(0)	(0.0%)	(83,186)	(37.2%)
Customer Service	41,740	41,740	25,228	-	0.0%	(16,512)	(39.6%)
Outreach & Education	132,090	127,201	121,209	4,889	3.7%	(10,881)	(8.2%)
Service Co-ordination	858,810	764,680	756,595	94,130	11.0%	(102,215)	(11.9%)
Engineering Systems & Data Collection	128,690	128,690	135,186	-	0.0%	6,496	5.0%
Compliance & Regulations	20,880	20,880	23,415	-	0.0%	2,535	12.1%
Laboratory Services	135,921	135,921	141,028	-	0.0%	5,108	3.8%
Environmental Monitoring & Enforcement	65,810	65,810	64,371	-	0.0%	(1,439)	(2.2%)
Water Distribution & Wastewater Collection	534,510	534,510	550,627	-	0.0%	16,117	3.0%
Plant Operations & Maintenance	819,590	779,980	662,464	39,610	4.8%	(157,126)	(19.2%)
Capital Delivery	185,966	185,966	159,501	-	0.0%	(26,465)	(14.2%)
Sustainable Initiatives	149,739	149,739	143,111	-	0.0%	(6,628)	(4.4%)
Infrastructure Planning & System Design	246,487	246,487	199,922	-	0.0%	(46,565)	(18.9%)
Corporate & Departmental Support Services	430,250	430,250	466,742	-	0.0%	36,492	8.5%
Hamilton Harbour Remedial Action Plan	395,000	395,000	382,550	-	0.0%	(12,450)	(3.2%)
Protective Plumbing Program (3P)	1,250,000	885,034	1,250,000	364,966	29.2%	-	0.0%
	5,619,014	5,115,419	5,222,295	503,595	9.0%	(396,720)	(7.1%)
Capital and Reserve Recoveries	(820,754)	(820,754)	(811,331)	0	(0.0%)	820,754	(100.0%)
Sub-Total	4,798,261	4,294,665	4,410,964	503,595	10.5%	424,034	8.8%
<u>Capital and Reserve Impacts on Operating</u>							
<u>Contributions to Capital</u>							
Stormwater	3,205,000	3,205,000	15,685,000	-	0.0%	12,480,000	389.4%
Sub-Total Contributions to Capital	3,205,000	3,205,000	15,685,000	-	0.0%	12,480,000	389.4%
<u>Contributions for DC Exemptions</u>							
Stormwater	1,863,000	1,863,000	1,680,000	-	0.0%	(183,000)	(9.8%)
Sub-Total Contributions for DC Exemptions	1,863,000	1,863,000	1,680,000	-	0.0%	(183,000)	(9.8%)
<u>Debt Charges</u>							
Stormwater	3,950,054	651,022	3,399,997	3,299,032	83.5%	(550,057)	(13.9%)
DC Debt Charges Recoveries	(1,821,145)	(24,363)	(1,147,923)	(1,796,782)	98.7%	673,222	(37.0%)
Sub-Total Debt Charges	2,128,909	626,659	2,252,074	1,502,250	70.6%	123,165	5.8%
Sub-Total Capital Financing	7,196,909	5,694,659	19,617,074	1,502,250	20.9%	12,420,165	172.6%
Reserve Transfers	(11,827,169)	(9,821,324)	(23,860,038)	(2,005,845)	17.0%	(12,032,868)	101.7%
Sub-Total Cap\Reserve Impacts on Operating	(4,630,261)	(4,126,665)	(4,242,964)	(503,595)	10.9%	387,296	(8.4%)
TOTAL EXPENDITURES	168,000	168,000	168,000	0	0.00	0	0.00

CITY OF HAMILTON
2020 HAMILTON WATER OPERATING BUDGET
STORM

	2019 RESTATED BUDGET	2019 PROJECTED ACTUAL	2020 REQUESTED BUDGET	CHANGE		CHANGE	
				2019 PROJECTED ACTUAL / 2019 RESTATED BUDGET		2020 REQUESTED / 2019 RESTATED BUDGET	
	\$	\$	\$	\$	%	\$	%
REVENUES:							
Non-Rate Revenue							
General Fees and Recoveries	168,000	168,000	168,000	-	0.0%	-	0.0%
Sub-Total Non-Rate Revenue	168,000	168,000	168,000	-	0.0%	-	0.0%
TOTAL REVENUES	168,000	168,000	168,000	-	0.0%	-	0.0%
NET EXPENDITURES	-	(0)	0	0	-	0	-

**CITY OF HAMILTON
2020 - 2023 WATER, WASTEWATER AND STORM OPERATING BUDGET
STORM**

	2019	2020	2021	2022	2023	CHANGE		CHANGE		CHANGE	
	RESTATED BUDGET	REQUESTED BUDGET	PROJECTED BUDGET	PROJECTED BUDGET	PROJECTED BUDGET	2020 REQUESTED / 2019 RESTATED BUDGET	%	2021 PROJECTED / 2020 REQUESTED BUDGET	%	2022 PROJECTED / 2021 PROJECTED BUDGET	%
	\$	\$	\$	\$	\$	\$	%	\$	%	\$	%
OPERATING EXPENDITURES:											
Divisional Administration & Support	223,532	140,346	143,153	146,016	148,936	(83,186)	(37.2%)	2,807	2.0%	2,863	2.0%
Woodward Upgrades	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Customer Service	41,740	25,228	25,732	26,247	26,772	(16,512)	(39.6%)	505	2.0%	515	2.0%
Outreach & Education	132,090	121,209	123,633	126,105	128,627	(10,881)	(8.2%)	2,424	2.0%	2,473	2.0%
Service Co-ordination	858,810	756,595	771,727	787,162	802,905	(102,215)	(11.9%)	15,132	2.0%	15,435	2.0%
Engineering Systems & Data Collection	128,690	135,186	137,890	140,648	143,461	6,496	5.0%	2,704	2.0%	2,758	2.0%
Compliance & Regulations	20,880	23,415	23,883	24,361	24,848	2,535	12.1%	468	2.0%	478	2.0%
Laboratory Services	135,921	141,028	143,849	146,726	149,660	5,108	3.8%	2,821	2.0%	2,877	2.0%
Environmental Monitoring & Enforcement	65,810	64,371	65,658	66,971	68,311	(1,439)	(2.2%)	1,287	2.0%	1,313	2.0%
Water Distribution & Wastewater Collection	534,510	550,627	561,640	572,872	584,330	16,117	3.0%	11,013	2.0%	11,233	2.0%
Plant Operations & Maintenance	819,590	662,464	675,713	689,227	703,012	(157,126)	(19.2%)	13,249	2.0%	13,514	2.0%
Infrastructure Planning & System Design	246,487	199,922	203,920	207,999	212,159	(46,565)	(18.9%)	3,998	2.0%	4,078	2.0%
Corporate & Departmental Support Services	430,250	466,742	476,077	485,598	495,310	36,492	8.5%	9,335	2.0%	9,522	2.0%
Utilities Arrears Program	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Sewer Lateral Management Program	-	-	-	-	-	-	0.0%	-	0.0%	-	0.0%
Hamilton Harbour Remedial Action Plan	395,000	382,550	390,201	398,005	405,965	(12,450)	(3.2%)	7,651	2.0%	7,804	2.0%
Protective Plumbing Program (3P)	1,250,000	1,250,000	1,275,000	1,300,500	1,326,510	-	0.0%	25,000	2.0%	25,500	2.0%
	5,619,014	5,222,295	5,326,741	5,433,276	5,541,941	(396,720)	(7.1%)	104,446	2.0%	106,535	2.0%
Capital and Reserve Recoveries	(820,754)	(811,331)	(827,557)	(844,109)	(860,991)	9,423	(1.1%)	(16,227)	2.0%	(16,551)	2.0%
Sub-Total	4,798,261	4,410,964	4,499,183	4,589,167	4,680,950	(387,296)	(8.1%)	88,219	2.0%	89,984	2.0%
Capital and Reserve Impacts on Operating											
Contributions to Capital											
Stormwater	3,205,000	15,685,000	14,382,000	15,775,000	15,975,000	12,480,000	389.4%	(1,303,000)	(8.3%)	1,393,000	9.7%
Sub-Total Contributions to Capital	3,205,000	15,685,000	14,382,000	15,775,000	15,975,000	12,480,000	389.4%	(1,303,000)	(8.3%)	1,393,000	9.7%
Contributions for DC Exemptions											
Stormwater	1,863,000	1,680,000	1,680,000	1,680,000	1,680,000	(183,000)	(9.8%)	-	0.0%	-	0.0%
Sub-Total Contributions for DC Exemptions	1,863,000	1,680,000	1,680,000	1,680,000	1,680,000	(183,000)	(9.8%)	-	0.0%	-	0.0%
Debt Charges											
Stormwater	3,950,054	3,399,997	4,917,875	5,719,347	6,438,841	(550,057)	(13.9%)	1,517,878	44.6%	801,472	16.3%
DC Debt Charges Recoveries	(1,821,145)	(1,147,923)	(2,395,390)	(2,927,720)	(3,379,618)	673,222	(37.0%)	(1,247,467)	108.7%	(532,330)	22.2%
Sub-Total Debt Charges	2,128,909	2,252,074	2,522,484	2,791,626	3,059,223	123,165	5.8%	270,411	12.0%	269,142	10.7%
Sub-Total Capital Financing	7,196,909	19,617,074	18,584,484	20,246,626	20,714,223	12,420,165	172.6%	(1,032,589)	(5.3%)	1,662,142	8.9%
Reserve Transfers	(11,827,169)	(23,860,038)	(22,910,628)	(24,657,562)	(25,211,595)	(12,032,868)	101.7%	949,410	(4.0%)	(1,746,934)	7.6%
Sub-Total Capital and Reserve Impacts on Operating	(4,630,261)	(4,242,964)	(4,326,143)	(4,410,936)	(4,497,372)	387,296	(8.4%)	(83,179)	2.0%	(84,792)	2.0%
TOTAL EXPENDITURES	168,000	168,000	173,040	178,231	183,578	0	0.00	5,040	3.0%	5,191	3.0%

CITY OF HAMILTON
 2020 - 2023 WATER, WASTEWATER AND STORM OPERATING BUDGET
STORM

	2019 RESTATED BUDGET	2020 REQUESTED BUDGET	2021 PROJECTED BUDGET	2022 PROJECTED BUDGET	2023 PROJECTED BUDGET	CHANGE 2020 REQUESTED / 2019 RESTATED BUDGET	CHANGE 2021 PROJECTED / 2020 REQUESTED BUDGET	CHANGE 2022 PROJECTED / 2021 PROJECTED BUDGET			
	\$	\$	\$	\$	\$	\$	%	\$	%	\$	%
REVENUES:											
Non-Rate Revenue											
General Fees and Recoveries	168,000	168,000	173,040	178,231	183,578	-	0.0%	5,040	3.0%	5,191	3.0%
Sub-Total Non-Rate Revenue	168,000	168,000	173,040	178,231	183,578	-	0.0%	5,040	3.0%	5,191	3.0%
TOTAL REVENUES	168,000	168,000	173,040	178,231	183,578	-	0.0%	5,040	3.0%	5,191	3.0%
NET EXPENDITURES	-	0	(0)	(0)	0	0	-	(0)	-	(0)	-

CITY OF HAMILTON
2020-2029 WATER, WASTEWATER & STORM OPERATING BUDGET
STORM
(\$ 000'S)

	2019 Restated	2020 Requested	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast
OPERATING EXPENDITURES											
OPERATING COSTS	4,798	4,411	4,499	4,589	4,681	4,775	4,870	4,967	5,067	5,168	5,272
TOTAL OPERATING COSTS	4,798	4,411	4,499	4,589	4,681	4,775	4,870	4,967	5,067	5,168	5,272
CAPITAL & RESERVE IMPACTS ON OPERATING											
Contributions to Capital											
Stormwater	3,205	15,685	14,382	15,775	15,975	17,595	9,875	16,385	37,430	34,735	35,215
Sub-total Contributions to Capital	3,205	15,685	14,382	15,775	15,975	17,595	9,875	16,385	37,430	34,735	35,215
Contributions for DC Exemptions											
Stormwater	1,863	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680
Sub-total Contributions to Capital	1,863	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680
Debt Charges											
Stormwater	3,950	3,400	4,918	5,719	6,439	6,775	6,728	6,681	6,690	6,705	6,778
DC Debt Charges Recoveries	(1,821)	(1,148)	(2,395)	(2,928)	(3,380)	(3,603)	(3,599)	(3,595)	(3,590)	(3,593)	(3,595)
Sub-total Debt Charges	2,129	2,252	2,522	2,792	3,059	3,172	3,129	3,086	3,099	3,112	3,182
Transfer to Reserves	(11,827)	(23,860)	(22,911)	(24,658)	(25,213)	(27,036)	(19,365)	(25,925)	(47,079)	(44,495)	(45,144)
Sub-Total Capital & Reserve Impacts on Operating	(4,630)	(4,243)	(4,326)	(4,411)	(4,499)	(4,589)	(4,681)	(4,775)	(4,870)	(4,967)	(5,067)
TOTAL EXPENDITURES	168	168	173	178	182	185	189	193	197	201	205
REVENUES											
Non-Rate Revenue	168	168	173	178	182	185	189	193	197	201	205
TOTAL REVENUES	168	168	173	178	182	185	189	193	197	201	205
NET EXPENDITURES	-	0	(0)	0	0	(0)	-	0	0	0	(0)

**HAMILTON WATER
 2020 RATE SUPPORTED STAFFING SUMMARY**

Deptid	Deptid Description	2019 REQUESTED	2019* RESTATED	2020 MAINTENANCE	2020	2020	2020
					PROGRAM CHANGES	REQUESTED	REQUESTED vs. 2019 RESTATED
510200	Director Hamilton Water	3.00	3.00	3.00	0.00	3.00	0.00
510203	WWW Operations Director	2.00	2.00	2.00	0.00	2.00	0.00
510205	Woodward Upgrades	11.00	11.00	11.00	4.00	15.00	4.00
510210	Customer Service & Community Outreach	2.00	2.00	2.00	0.00	2.00	0.00
510215	Education & Outreach	5.65	5.65	5.65	0.00	5.65	0.00
510220	Service Co-ordination	21.00	21.00	21.00	0.00	21.00	0.00
510230	Engineering Systems & Data Collection	9.00	9.00	9.00	0.00	9.00	0.00
510240	Compliance & Regulations	7.00	7.00	7.00	0.00	7.00	0.00
510250	Laboratory Services	26.00	26.00	26.00	0.00	26.00	0.00
510260	Environmental Monitoring & Enforcement	13.00	13.00	13.00	0.00	13.00	0.00
510270	Water Distribution (WD) & Wastewtr Collection (WWC) *	6.00	12.00	12.00	1.00	13.00	1.00
510275	WD & WWC Contracts	20.00	20.00	20.00	0.00	20.00	0.00
510280	WD & WWC Construction	23.00	23.00	23.00	0.00	23.00	0.00
510285	WD & WWC Maintenance	20.00	20.00	20.00	0.00	20.00	0.00
510290	WD & WWC Operations	20.00	20.00	20.00	0.00	20.00	0.00
510300	WWW Planning & Capital Director	2.00	2.00	2.00	0.00	2.00	0.00
510305	Sustainable Initiatives	7.00	7.00	7.00	0.00	7.00	0.00
510310	Plant Operations & Maintenance	8.00	8.00	8.00	0.00	8.00	0.00
510320	Plant Maintenance	35.00	35.00	35.00	0.00	35.00	0.00
510330	Plant Operations	37.00	37.00	37.00	0.00	37.00	0.00
510340	Capital Delivery	13.00	13.00	13.00	0.00	13.00	0.00
510350	Infrastructure Planning and System Design	17.00	17.00	17.00	2.00	19.00	2.00
Total RATE Supported Staff		307.65	313.65	313.65	7.00	320.65	7.00

Note: * Stormwater portfolio moved from Transportation Operations & Maintenance to HW after the budget was approved in 2019

2020 Rate Budget - Business Case Summary

DEPARTMENT: Public Works

DIVISION	SERVICE / PROGRAM	DESCRIPTION OF PROGRAM ENHANCEMENT	2020 IMPACT			ANNUALIZED IMPACT
			\$ GROSS	\$ NET	FTE Impact	\$ NET
Hamilton Water	Woodward Upgrades Operational Support	Maintenance Operators required to support Woodward Upgrades Project	\$ 440,000	\$ -	4.00	\$ -
Hamilton Water	Water & Wastewater Systems Planning	Project Manager Stormwater & Data Modeller Tech for stormwater systems infrastructure planning, computer modelling and related data analysis	\$ 246,000	\$ -	2.00	\$ -
Hamilton Water	Water Distribution	A 7th Supervisor was approved on a temporary basis in 2017 and requested to report back in 2020 <u>NOTE:</u> Council approved a 3 year temporary assignment and requested we report back in 2020	\$ 139,000	\$ -	1.00	\$ -
Divn Subtotal			\$ 825,000	\$ -	7.00	\$ -
DEPARTMENT TOTAL			\$ 825,000	\$ -	7.00	\$ -

TOTAL NET Impact = net annualized (full year) amount - please state under "Description of Program Enhancement" if other revenue sources will be used to offset the cost of the program change (therefore identify gross cost); also please identify if 2020 calendar (part-year) impact is significantly different due to delayed implementation.

CITY OF HAMILTON
2020 WATER AND WASTEWATER/STORM FEES AND CHARGES
Effective January 1, 2020

A) Daily Water & Wastewater/Storm Fixed Charges

The fixed daily charge is not related to the direct costs of consumption and are not dependent upon or related to the amount of consumption incurred. The fixed charges are intended to offset the fixed costs of maintaining the water, wastewater and storm systems.

Meter Size	Water Rate	Wastewater/ Storm Rate
15 mm	\$ 0.37	\$ 0.39
16 mm	\$ 0.37	\$ 0.39
20 mm	\$ 0.37	\$ 0.39
21 mm	\$ 0.37	\$ 0.39
25 mm	\$ 0.93	\$ 0.98
38 mm	\$ 1.85	\$ 1.95
50 mm	\$ 2.96	\$ 3.12
75 mm	\$ 5.92	\$ 6.24
100 mm	\$ 9.25	\$ 9.75
150 mm	\$ 18.50	\$ 19.50
200 mm	\$ 29.60	\$ 31.20
250 mm	\$ 42.55	\$ 44.85
300 mm	\$ 62.90	\$ 66.30

B) Metered Water Consumption Charges

Water consumption shall be charged on a per cubic metre basis at the rates indicated in the table below. The total monthly Water Consumption Charge is the sum of usage in all blocks at the rate for each block.

Consumption Block	Monthly Water Consumption (m3)	Residential	Multi-Residential, Commercial, Institutional & Industrial
		Rate (\$/m3)	Rate (\$/m3)
1	0-10	0.82	1.63
2	>10	1.63	1.63

C) Wastewater/Storm Treatment Charges

Wastewater/Storm Treatment Charges are based on metered water consumption and the cost of wastewater collection and treatment, and stormwater management. Charges are on a per cubic metre basis at the rates indicated in the table below. The total monthly Wastewater/Storm Treatment Charge is the sum of usage in all blocks at the rate for each block.

Treatment Block	Monthly Water Consumption (m3)	Residential	Multi-Residential, Commercial, Institutional & Industrial
		Rate (\$/m3)	Rate (\$/m3)
1	0-10	0.88	1.75
2	>10	1.75	1.75

D) Non-Metered Annual Water & Wastewater/Storm Rate

Flat Rate Water Customers Annual Rate: \$594.95
 Flat Rate Wastewater/Storm Customers Annual Rate: \$638.75
 Combined Flat Rate Water & Wastewater/Storm Customers Annual Rate: \$1,233.70

City of Hamilton - 2020 Private Fire Line Rates

This service shall consist of permanent unmetered connections to the main for the purpose of supplying water to private fire protection systems such as automatic sprinkler systems, standpipes and private hydrants. This service shall also include reasonable quantities of water used for testing check valves and other backflow protection devices.

Unmetered Service

Size of Connection		Monthly Rate
mm	inches	
25	1	\$ 3.60
38	1.5	\$ 8.28
50	2	\$ 14.40
75	3	\$ 32.40
100	4	\$ 57.60
150	6	\$ 129.60
200	8	\$ 230.40
250	10	\$ 230.40
300	12	\$ 230.40

2020 PROPOSED USER FEES AND CHARGES

For Billing Purposes: M - F: 7:00am - 4:30pm
Regular Hours: M - F: 4:30pm - 7:00am, Weekends and Holidays

PUBLIC WORKS
HAMILTON WATER

Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2019 Including HST (if applicable)	2020 Proposed Fee	HST (y/n)	2020 Including HST (if applicable)	% Fee Change	Basis for Fee Increase or Decrease
R84-026	510220	47220	1	WATER DISTRIBUTION Water Meter Permit Fee Note: Charged for first-time meter installations. Includes supply and installation of water meter and remote reading device by City and related inspection.	\$359.70	\$359.70	n	\$359.70	0.0%	Current fee achieves full cost recovery
			1a)	16mm Displacement	\$404.60	\$404.60	n	\$404.60	0.0%	Current fee achieves full cost recovery
			1b)	20mm Displacement	\$404.60	\$404.60	n	\$404.60	0.0%	Current fee achieves full cost recovery
			1c)	21mm Displacement	\$559.40	\$559.40	n	\$559.40	0.0%	Current fee achieves full cost recovery
			1d)	25mm Displacement	\$866.76	\$866.76	n	\$866.76	2.1%	To achieve full cost recovery
			1e)	38mm Displacement	\$1,218.80	\$1,218.80	n	\$1,218.80	0.0%	Current fee achieves full cost recovery
			1f)	50mm Displacement	\$1,384.60	\$1,409.67	n	\$1,409.67	1.8%	To achieve full cost recovery
			1g)	50mm Turbine	\$3,316.40	\$3,316.40	n	\$3,316.40	0.0%	Current fee achieves full cost recovery
			1h)	50mm Compound	\$3,870.13	\$3,870.13	n	\$3,870.13	0.0%	Current fee achieves full cost recovery
			1i)	100mm Turbine	\$5,206.07	\$5,304.84	n	\$5,304.84	1.9%	To achieve full cost recovery
			1j)	100mm Compound	\$6,637.49	\$6,759.21	n	\$6,759.21	1.8%	To achieve full cost recovery
			1k)	100mm Fire Service Turbine	\$8,624.85	\$8,787.29	n	\$8,787.29	1.9%	To achieve full cost recovery
			1l)	100mm Fire Service Compound	\$8,899.76	\$9,067.33	n	\$9,067.33	1.9%	To achieve full cost recovery
			1m)	100mm Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$9,297.22	\$9,472.19	n	\$9,472.19	1.9%	To achieve full cost recovery
			1n)	100mm Fire Rated Magnetic Flow Meter (Must be approved by Supervisor of Meter Operation)	\$7,467.78	\$7,608.67	n	\$7,608.67	1.9%	To achieve full cost recovery
			1o)	150mm Turbine	\$10,226.88	\$10,419.16	n	\$10,419.16	1.9%	To achieve full cost recovery
			1p)	150mm Compound	\$11,028.42	\$11,235.65	n	\$11,235.65	1.9%	To achieve full cost recovery
			1q)	150mm Fire Service Turbine	\$11,186.31	\$11,396.47	n	\$11,396.47	1.9%	To achieve full cost recovery
			1r)	150mm Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$12,334.54	\$12,566.10	n	\$12,566.10	1.9%	To achieve full cost recovery
			1s)	150mm Fire Rated Magnetic Flow Meter (Must be approved by Supervisor of Meter Operation)	\$13,954.24	\$14,215.97	n	\$14,215.97	1.9%	To achieve full cost recovery
			1t)	200mm Turbine	\$8,998.80	\$9,187.68	n	\$9,187.68	2.1%	To achieve full cost recovery
			1u)	200mm Compound	\$12,097.96	\$12,344.57	n	\$12,344.57	2.0%	To achieve full cost recovery
			1v)	200mm Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$12,041.98	\$12,268.08	n	\$12,268.08	1.9%	To achieve full cost recovery
			1w)	200mm Fire Rated Magnetic Flow Meter (Must be approved by Supervisor of Meter Operation)	\$13,160.41	\$13,407.34	n	\$13,407.34	1.9%	To achieve full cost recovery
			1x)	200mm Fire Rated Magnetic Flow Meter (Must be approved by Supervisor of Meter Operation)	\$14,171.75	\$14,437.52	n	\$14,437.52	1.9%	To achieve full cost recovery
			1y)	200mm Fire Service Turbine	\$19,092.63	\$19,450.06	n	\$19,450.06	1.9%	To achieve full cost recovery
			1z)	200mm Fire Service Compound	\$15,496.05	\$15,785.99	n	\$15,785.99	1.9%	To achieve full cost recovery
			1aa)	250mm Turbine	\$14,415.75	\$14,886.07	n	\$14,886.07	1.9%	To achieve full cost recovery
			1ab)	250mm Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$17,063.33	\$17,382.96	n	\$17,382.96	1.9%	To achieve full cost recovery
			1ac)	250mm Fire Rated Magnetic Flow Meter (Must be approved by Supervisor of Meter Operation)	\$19,312.34	\$19,673.87	n	\$19,673.87	1.9%	To achieve full cost recovery
			1ad)	250mm Fire Service Turbine	\$24,832.75	\$25,297.11	n	\$25,297.11	1.9%	To achieve full cost recovery
			1ae)	250mm Fire Service Compound	\$209.80	\$214.63	n	\$214.63	2.3%	To achieve full cost recovery
			1af)	Radio Remote Read Equipment Installation						
R84-026	510220	45519	2	Water Meter Removal Fee Note: Cost to remove a meter prior to the building being demolished and/or the water service being decommissioned or abandoned. Failure to have the meter removed prior to the building being demolished will incur a meter replacement cost charge. Does not include a turn water off fee, which is required and charged separately as per Section 14 of this schedule.	\$123.62	\$112.87	y	\$127.54	3.2%	To achieve full cost recovery
			2a)	16mm Displacement	\$123.62	\$112.87	y	\$127.54	3.2%	To achieve full cost recovery
			2b)	20mm Displacement	\$123.62	\$112.87	y	\$127.54	3.2%	To achieve full cost recovery
			2c)	21mm Displacement	\$123.62	\$112.87	y	\$127.54	3.2%	To achieve full cost recovery
			2d)	25mm Displacement	\$123.62	\$112.87	y	\$127.54	3.2%	To achieve full cost recovery
			2e)	38mm - 250mm Meters (cost depends on size, labour, and meter location)	Cost + 10% OH	Cost + 10% OH	y	Cost + 10% OH	N/A	
R84-026	510220	45519	3	Water Meter Inspection Services Note: Cost for customer requested service relating to meter investigation	\$123.70	\$115.86	y	\$130.92	5.8%	To achieve full cost recovery
			3a)	Regular Hours Inspection	\$161.95	\$151.73	y	\$171.45	5.9%	To achieve full cost recovery
			3b)	After Hours Inspection						

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2020 PROPOSED USER FEES AND CHARGES

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PUBLIC WORKS
HAMILTON WATER

Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2019 Including HST (If applicable)	2020 Proposed Fee	HST (Y/N)	2020 Including HST (If applicable)	% Fee Change	Basis for Fee Increase or Decrease
R84-026	510220	45608	4	Replacement Cost for Lost Meter Note: Cost to replace a meter that has been lost, stolen or damaged. Includes meter, installation and administrative costs.						
			4a)	15mm Displacement	\$244.00	\$221.75	Y	\$250.58	2.7%	To achieve full cost recovery
			4b)	16mm Displacement	\$244.00	\$221.75	Y	\$250.58	2.7%	To achieve full cost recovery
			4c)	20mm Displacement	\$379.31	\$342.24	Y	\$386.73	2.0%	To achieve full cost recovery
			4d)	21mm Displacement	\$379.31	\$342.24	Y	\$386.73	2.0%	To achieve full cost recovery
			4e)	25mm Displacement	\$436.70	\$393.97	Y	\$445.19	1.9%	To achieve full cost recovery
			4f)	38mm Displacement	\$1,205.02	\$1,082.62	Y	\$1,223.36	1.5%	To achieve full cost recovery
			4g)	50mm Turbine	\$1,465.95	\$1,297.30	Y	\$1,465.95	0.0%	Current fee achieves full cost recovery
			4h)	50mm Displacement	\$1,804.05	\$1,596.50	Y	\$1,804.05	0.0%	Current fee achieves full cost recovery
			4i)	50mm Compound	\$2,338.65	\$2,069.60	Y	\$2,338.65	0.0%	Current fee achieves full cost recovery
			4j)	100mm Turbine	\$3,688.50	\$3,264.16	Y	\$3,688.50	0.0%	Current fee achieves full cost recovery
			4k)	100mm Compound	\$5,959.20	\$5,273.63	Y	\$5,959.20	0.0%	Current fee achieves full cost recovery
			4l)	100mm Fire Service Turbine	\$8,047.63	\$7,212.18	Y	\$8,149.76	1.3%	To achieve full cost recovery
			4m)	100mm Fire Service Compound	\$9,947.30	\$8,855.57	Y	\$10,006.80	0.6%	To achieve full cost recovery
			4n)	100mm Magnetic Flow Meter	\$10,972.29	\$9,855.25	Y	\$11,136.43	1.5%	To achieve full cost recovery
			4o)	150mm Fire Rated Magnetic Flow Meter	\$11,229.75	\$10,290.10	Y	\$11,627.81	3.5%	To achieve full cost recovery
			4p)	150mm Turbine	\$6,787.25	\$6,006.42	Y	\$6,787.25	0.0%	Current fee achieves full cost recovery
			4q)	150mm Compound	\$10,328.00	\$9,139.82	Y	\$10,328.00	0.0%	Current fee achieves full cost recovery
			4r)	150mm Fire Service Turbine	\$12,234.06	\$10,968.91	Y	\$12,394.87	1.3%	To achieve full cost recovery
			4s)	150mm Fire Service Compound	\$15,540.23	\$13,945.23	Y	\$15,762.63	1.4%	To achieve full cost recovery
			4t)	150mm Magnetic Flow Meter	\$12,255.20	\$10,918.06	Y	\$12,337.41	0.7%	To achieve full cost recovery
			4u)	150mm Fire Rated Magnetic Flow Meter	\$13,611.70	\$12,170.80	Y	\$13,753.00	1.0%	To achieve full cost recovery
			4v)	200mm Turbine	\$7,340.19	\$6,570.69	Y	\$7,424.88	1.2%	To achieve full cost recovery
			4w)	200mm Compound	\$11,551.00	\$10,222.12	Y	\$11,551.00	0.0%	Current fee achieves full cost recovery
			4x)	200mm Fire Service Turbine	\$14,454.48	\$12,854.48	Y	\$16,333.56	1.3%	To achieve full cost recovery
			4y)	200mm Fire Service Compound	\$18,466.10	\$16,466.10	Y	\$21,996.69	1.5%	To achieve full cost recovery
			4z)	200mm Magnetic Flow Meter	\$14,696.83	\$13,177.47	Y	\$14,890.54	1.3%	To achieve full cost recovery
			4aa)	200mm Fire Rated Magnetic Flow Meter	\$16,050.38	\$14,395.02	Y	\$16,266.37	1.3%	To achieve full cost recovery
			4ab)	250mm Turbine	\$12,754.60	\$11,424.07	Y	\$12,909.20	1.2%	To achieve full cost recovery
			4ac)	250mm Magnetic Flow Meter	\$14,766.00	\$13,336.65	Y	\$15,070.41	2.1%	To achieve full cost recovery
			4ad)	250mm Fire Rated Magnetic Flow Meter	\$17,726.90	\$16,225.00	Y	\$18,334.25	3.4%	To achieve full cost recovery
			4ae)	250mm Fire Service Turbine	\$20,293.29	\$18,219.75	Y	\$20,588.32	1.5%	To achieve full cost recovery
			4af)	250mm Fire Service Compound	\$29,046.50	\$25,704.87	Y	\$29,046.50	0.0%	Current fee achieves full cost recovery
			4ag)	50mm Strainer	\$462.97	\$419.15	Y	\$473.64	2.3%	To achieve full cost recovery
			4ah)	100mm Strainer	\$858.46	\$775.66	Y	\$876.50	2.1%	To achieve full cost recovery
			4ai)	150mm Strainer	\$1,374.34	\$1,240.69	Y	\$1,401.98	2.0%	To achieve full cost recovery
			4aj)	200mm Strainer	\$2,336.25	\$2,107.80	Y	\$2,381.81	2.0%	To achieve full cost recovery
			4ak)	250mm Strainer	\$3,993.11	\$3,533.73	Y	\$3,993.11	0.0%	Current fee achieves full cost recovery
R84-026	510220	45690	5	Bench Testing Water Meters Note: Cost to have a water meter tested for accuracy. If the meter tests within the accuracy standards as set out by AWWA then the property owner is responsible for the cost of the test and the replacement cost of the water meter; otherwise cost borne by the City. Fee includes removal of existing meter and installation of replacement meter.						
			5a)	15 mm & 16 mm Diameter	\$348.80	\$314.56	Y	\$355.45	1.9%	To achieve full cost recovery
			5b)	16-25mm Diameter - Test where meter has been removed from service within prior 90 days	\$144.19	\$130.39	Y	\$147.34	2.2%	To achieve full cost recovery
			5c)	20 mm Diameter	\$400.27	\$362.87	Y	\$410.04	2.4%	To achieve full cost recovery
			5d)	25 mm Diameter	\$457.67	\$414.60	Y	\$468.50	2.4%	To achieve full cost recovery
			5e)	38 mm Diameter	\$994.38	\$914.18	Y	\$1,033.02	3.9%	To achieve full cost recovery
			5f)	50 mm Diameter	\$1,742.55	\$1,542.08	Y	\$1,742.55	0.0%	Current fee achieves full cost recovery
			5g)	100 mm plus diameter (In Situ testing)	\$1,014.29	\$930.42	Y	\$1,051.37	3.7%	To achieve full cost recovery

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2020 PROPOSED USER FEES AND CHARGES

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HAMILTON WATER**

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Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2019 Including HST (if applicable)	2020 Proposed Fee	HST (y/n)	2020 Including HST (if applicable)	% Fee Change	Basis for Fee Increase or Decrease
10-103	510220	45644	6	<p>Backflow Prevention Program Note: Costs for contractor registration fee, administration fees for processing backflow prevention test reports and survey forms.</p> <p>6a) Annual Program Registration Fee 6b) Test Report receipt and processing (per submission of each test report) 6c) Cross Connection Survey Form processing (per form upon submission) 6d) Backflow Prevention Device Investigation - Regular Hours 6e) Backflow Prevention Device Investigation - After Hours</p>	\$150.89 \$72.61 \$179.16 \$159.10 \$233.80	\$134.96 \$64.26 \$160.28 \$142.12 \$206.90	y y y y y	\$152.51 \$72.61 \$181.12 \$160.60 \$233.80	1.1% 0.0% 1.1% 0.9% 0.0%	To achieve full cost recovery Current fee achieves full cost recovery To achieve full cost recovery To achieve full cost recovery Current fee achieves full cost recovery
R84-026	514330	45590	7	<p>Construction Water Note: Charge for unmetered water used for construction prior to meter installation. Paid at the time of submitting building permit payment.</p> <p>7a) Single Residential (per lot or townhouse) 7b) Multi-residential (per apartment/condo unit) 7c) Industrial/Commercial/Institutional (\$/1,000 sqft of building area or \$/ha where no structure is constructed)</p>	\$95.05 \$44.45 \$31.20	\$100.00 \$46.75 \$32.80	n n n	\$100.00 \$46.75 \$32.80	5.2% 5.2% 5.1%	Equal to variable water rate increase Equal to variable water rate increase Equal to variable water rate increase
R84-026	514330	41208	8	<p>Hydrant/Road Adaptor Fees Note: Costs to install or remove water meter & backflow prevention device. When moving a hydrant/road adaptor from one site to another for the same customer, both removal & installation fees apply. This service requires a usage deposit and a damage deposit.</p>	\$2.35	\$2.45	n	\$2.45	4.3%	Rate is 1.5x volumetric water rate
R84-026	514330	41209	8a)	Usage Cost (Metered Hauled Water Rate/m ³)	\$145.90	\$146.94	n	\$146.94	0.7%	To achieve full cost recovery
R84-026	514330	41209	8b)	Hydrant/Road Adaptor Connection/Disconnection Fee (Regular Hours-Emergency-Fee for Both Sides)	\$274.40	\$276.71	n	\$276.71	0.8%	To achieve full cost recovery
R84-026	514330	41209	8c)	Hydrant/Road Adaptor Connection/Disconnection Fee (After Hours/Emergency-Fee for Both Sides)	\$300.00	\$300.00	n	\$300.00	0.0%	Deposit rounded to the nearest \$100
R84-026	514330	41209	8d)	Non-Refundable Usage Deposit	\$6,000.00	\$6,000.00	n	\$6,000.00	0.0%	Deposit rounded to the nearest \$100
R84-026	514330	41209	8e)	Security/Damage Deposit	\$81.30	\$82.56	n	\$82.56	1.5%	To achieve full cost recovery
R84-026	514330	41209	8f)	Hydrant/road adaptor rental fee for initial 7 days	\$6.02	\$6.13	n	\$6.13	1.8%	To achieve full cost recovery
R84-026	514330	41209	8g)	Per Diem hydrant/road adaptor rental fee after initial 7 days			n			
R84-026	514330	47244	9	<p>Private Water Station Agreement Fees Annual Renewal</p>	\$357.80	\$386.22	n	\$386.22	7.9%	To achieve full cost recovery
R84-026	514330	47232	10	<p>Water Haulage Fees Annual Water Haulage Permit Fee Note: Annual license fee to utilize the City's public filling stations.</p>	\$64.78	\$57.44	y	\$64.91	0.2%	No cards issued, Online Registration
R84-026	514330	47232	10a)	Account review	\$99.08	\$87.91	y	\$99.34	0.3%	To achieve full cost recovery
R84-026	514330	47232	10b)	<p>Note: Costs charged for administrative services to provide customer account information for personal or taxation purposes.</p>						
R84-026	510220	45519	11	<p>General Administration Fees</p>						
R84-026	510220	45519	11a)	General Administrative Requests (per hour)/Report Requests	\$77.64	\$69.16	y	\$78.15	0.7%	To achieve full cost recovery
R84-026	510220	45519	11b)	Permit Cancellation administrative fee	\$46.36	\$41.14	y	\$46.49	0.3%	To achieve full cost recovery
R84-026	510220	45519	11c)	Permit Renewal Fee	\$46.36	\$41.14	y	\$46.49	0.3%	To achieve full cost recovery
R84-026	510220	45519	11d)	Lead Line Replacement Loan Application Fee	\$58.04	\$51.60	y	\$58.31	0.5%	To achieve full cost recovery
R84-026	510220	45519	11e)	Monthly AMI Manual Meter Read Fee	\$3.39	\$3.00	y	\$3.39	0.0%	Current fee achieves full cost recovery
R84-026	510220	45519	11f)	Water Shut-off Admin Fee	\$22.60	\$20.00	y	\$22.60	0.0%	Current fee achieves full cost recovery
R84-026	510220	45519	11g)	Water Shut-off Notice on Door	\$28.25	\$28.25	y	\$31.92	13.0%	To achieve full cost recovery

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PUBLIC WORKS
HAMILTON WATER

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R84-026			12	Water Inspection Services Note: Costs associated with various permit and inspection services related to water services for properties.						
	514330	47235	12a)	Private Water Service Repair/Replacement Inspection (Reg Hours - Max 1 Hour Total)	\$105.06	\$93.45	y	\$105.60	0.5%	Cost recovery - .01 for CS processing
	514330	47235	12b)	Private Water Service Repair/Replacement Inspection (After Hours /Emerg - Max 1 Hour Total)	\$177.60	\$158.36	y	\$178.95	0.8%	Cost recovery + .01 for CS processing
	514330	45690	12c)	Water Service Abandonment Inspection (Regular Hours - Max 1 Hour Total Labour)	\$93.73	\$83.47	y	\$94.32	0.6%	To achieve full cost recovery
	514330	45690	12d)	Water Service Abandonment Inspection (After Hours / Emergency - Max 1 Hour Total Labour)	\$166.32	\$148.36	y	\$167.65	0.8%	To achieve full cost recovery
	514330	45690	12e)	Water Service Inspection for Demolition (Regular Hours - Max 1 Hour Total Labour)	\$93.73	\$83.47	y	\$94.32	0.6%	To achieve full cost recovery
	514330	45690	12f)	Water Service Inspection for Demolition (After Hours / Emergency - Max 1 Hour Total Labour)	\$166.32	\$148.36	y	\$167.65	0.8%	To achieve full cost recovery
	514330	45690	12g)	Missed or Cancelled Inspection	\$88.25	\$60.65	y	\$68.53	0.4%	To achieve full cost recovery
R84-026	514330	45690	13	Upsize Public Portion Water Service from 20mm to 25mm Note: Charge for upsizing a public portion water service from 20mm to 25mm, when a public portion water service replacement is already being completed by the City.	\$150.00	\$155.00	n	\$155.00	3.3%	To achieve full cost recovery
R84-026	514330	45679	14	Turning Water Off or On Note: Turning water off at the curb to enable a property owner to complete internal plumbing repairs, or a private water service repair or replacement, and then turning the water back on.						
			14a)	Turning Water On/Off (Regular Hours)	\$123.35	\$124.10	n	\$124.10	0.6%	Cost recovery - .02 for CS processing
			14b)	Turning Water On/Off (After Hours/Emergency)	\$206.70	\$208.25	n	\$208.25	0.7%	Cost recovery - .01 for CS processing
			14c)	Turning Water On/Off During the Same Visit (Regular Hours - Max 1/2 Hour Total Labour)	\$82.95	\$83.47	n	\$83.47	0.6%	To achieve full cost recovery
			14d)	Labour	\$113.35	\$114.13	n	\$114.13	0.7%	To achieve full cost recovery
			14e)	Non-compliance Turn Water Off	\$82.95	\$83.47	n	\$83.47	0.6%	To achieve full cost recovery
			14f)	Non-compliance Turn Water On	\$82.95	\$83.47	n	\$83.47	0.6%	To achieve full cost recovery
R84-026	514330	45636	15	Hydrant Flow Test / Water Quality Flushing Note: Cost to operate a City Fire Hydrant(s) for a maximum of 1 hour total labour.	\$103.94	\$106.29	y	\$120.11	15.6%	Labour inc .3 hrs for cost recovery
R84-026	514330	45690	16	Water Quality/Quantity Service Calls Note: Cost for a service call to investigate a water quality/quantity complaint and the issue resides on private property. No charge for water quality/quantity complaints related to issues originating from the City's distribution system. Missed appointments will be billed the corresponding service call rate.						
			16a)	Service Call (Regular Hours - Max 1 Hour Total Labour)	\$93.73	\$83.47	y	\$94.32	0.6%	To achieve full cost recovery
			16b)	Service Call (After Hours - Max 1 Hour Total Labour)	\$166.32	\$148.36	y	\$167.65	0.8%	To achieve full cost recovery
R84-026	510290	45690	17	Hydrant Repair, Replace or Relocate Note: Cost to repair, replace, or relocate a City Fire Hydrant including labour, parts, materials, equipment, and permanent restoration.	Cost + 33% OH	Cost + 33% OH	y	Cost + 33% OH	N/A	To achieve full cost recovery
R84-026	514330	45690	18	Watermain Shutdowns Note: Costs associated with isolating a watermain to facilitate third party work.						
			18a)	Watermain Shutdown / Recharge (Regular Hours-Maximum 1 Hour Total Labour)	\$128.07	\$129.11	n	\$129.11	0.8%	To achieve full cost recovery
			18b)	Watermain Shutdown / Recharge (After Hours / Emergency-Maximum 1 Hour Total Labour)	\$230.54	\$232.49	n	\$232.49	0.8%	To achieve full cost recovery
R84-026	510350	45408	19	Environmental Records Search PRISM Reports related to soil contamination Reports - Environmental Assessments and Master Plans - plus fee per page	\$177.04	\$159.80	y	\$180.58	2.0%	2% allowed for inflation
					\$17.40	\$15.71	y	\$17.75	2.0%	2% allowed for inflation
					\$0.11	\$0.10	y	\$0.12	2.0%	2% allowed for inflation
R84-026	514330	45690	20	Miscellaneous Water Distribution System Repair Note: Cost for the City to repair damage to the water distribution system caused by a third party. Costs include labour, parts, materials, equipment, and permanent restoration.	Cost + 33% OH	Cost + 33% OH	y	Cost + 33% OH	N/A	To achieve full cost recovery
R84-026	514330	45690	21	Additional Labour Charges Note: Additional labour charge for all services/calls that exceed the allotted labour time. Costs are for a single Water Distribution Operator in minimum increments of 30 minutes.						
			21a)	1/2 Hour Additional Labour (Regular Hours)-Water Distribution Operator	\$25.50	\$22.83	y	\$25.80	1.2%	Cost recovery + .01 for CS processing
			21b)	1/2 Hour Additional Labour (After Hours)-Water Distribution Operator	\$36.25	\$34.25	y	\$38.70	1.2%	Cost recovery + .02 for CS processing
			21c)	1/2 Hour Additional Labour (Regular Hours)-Water Distribution Operator	\$22.55	\$22.82	n	\$22.82	1.2%	To achieve full cost recovery
			21d)	1/2 Hour Additional Labour (After Hours)-Water Distribution Operator	\$33.85	\$34.23	n	\$34.23	1.1%	To achieve full cost recovery

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06-026	516175	47230	1	COLLECTION SYSTEM INSPECTION & MAINTENANCE Wastewater Inspection Services Note: Costs associated with various permit and inspection services related to sewer laterals for properties. Private Sewer Lateral Repair/Replacement Inspection (Regular Hours - Maximum 1 Hour Total Labour)	\$108.50	\$96.68	Y	\$109.25	0.7%	To achieve full cost recovery
			1a)	Private Sewer Lateral Repair/Replacement Inspection (After Hours / Emergency - Maximum 1 Hour Total Labour)	\$229.90	\$205.40	Y	\$232.10	1.0%	Cost recovery - .02 for CS processing
			1b)	Missed or Cancelled Inspection	\$78.16	\$69.50	Y	\$78.54	0.5%	To achieve full cost recovery
			1c)	Mainline Sewer Inspection	Cost + 33% OH	Cost + 33% OH	Y	OH	N/A	To achieve full cost recovery
			1d)							
06-026	516175	45690	2	Sewer Related Service Calls Note: Cost for a service call to investigate a sewer related complaint and the issue resides on private property. No charge for sewer complaints related to issues originating from the City's sewer system. Missed appointments will be billed the corresponding Service Call (Regular Hours - Maximum 1 Hour Total Labour)	\$96.72	\$86.11	Y	\$97.30	0.6%	To achieve full cost recovery
			2a) 2b)	Service Call (After Hours - Maximum 1 Hour Total Labour)	\$194.53	\$173.70	Y	\$196.28	0.9%	To achieve full cost recovery
06-026	516175	45690	3	Sewer Lateral Cleaning and Investigation Fees Note: When a property owner qualifies for the Sewer Lateral Management Program and chooses to hire their own Plumbing Contractor, these prices represent the maximum amounts that will be reimbursed to the property owner for the sewer lateral cleaning and investigation services performed by the independent Plumbing Contractor	\$449.69	\$405.91	Y	\$458.68	2.0%	Lower Contract Costs
			3a)	Complete Sewer Lateral Investigation - Regular Hours	\$496.71	\$448.36	Y	\$506.65	2.0%	Lower Contract Costs
			3b)	Complete Sewer Lateral Investigation - After Hours	\$146.96	\$132.65	Y	\$149.89	2.0%	Lower Contract Costs
			3c)	Partial Sewer Lateral Cleaning - Regular Hours	\$205.74	\$185.71	Y	\$209.85	2.0%	Lower Contract Costs
			3d)	Partial Sewer Lateral Cleaning - After Hours	\$235.13	\$212.24	Y	\$239.83	2.0%	Lower Contract Costs
			3e)	Abandoned Sewer Lateral Investigation - Regular Hours	\$293.91	\$265.30	Y	\$299.79	2.0%	Lower Contract Costs
06-026	516175	45690	4	Miscellaneous Wastewater Collection System Repair Note: Cost for the City to repair damage to the wastewater collection system caused by a third party. Costs include labour, parts, materials, equipment, and permanent restoration.	Cost + 33% OH	Cost + 33% OH	Y	Cost + 33% OH	N/A	To achieve full cost recovery
			4a)							
06-026	516175	45690	5	Additional Labour Charges Note: Additional labour charge for all services/calls that exceed the allotted labour time. Costs are for a single Wastewater Collection Operator or Contract Inspector in minimum increments of 30 minutes.	\$24.45	\$21.90	Y	\$24.75	1.2%	To achieve full cost recovery
			5a) 5b)	1/2 Hour Additional Labour (Regular Hours) - Wastewater Collection 1/2 Hour Additional Labour (After Hours) - Wastewater Collection	\$36.70	\$32.83	Y	\$37.10	1.1%	Cost recovery - .02 for CS processing

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HAMILTON WATER

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LABORATORY SERVICES									
Inorganic Tests:									
510250	45519	1	Solids						
		1a)	Total Suspended Solids (TSS)	\$24.52	\$21.70	Y	\$24.52	0.0%	Current fee achieves full cost recovery
		1b)	TSS plus Volatile Suspended Solids (VSS)	\$24.52	\$21.70	Y	\$24.52	0.0%	Current fee achieves full cost recovery
		1c)	Total Solids (TS)	\$21.36	\$19.10	Y	\$21.58	1.1%	To achieve full cost recovery
		1d)	TS plus Volatile Solids (VS)	\$22.15	\$20.10	Y	\$22.71	2.6%	To achieve full cost recovery
		1e)	Total Dissolved Solids	\$0.00	\$32.00	Y	\$36.16		New
Skalar									
		2a)	Total Cyanide	\$37.40	\$34.40	Y	\$38.87	3.9%	To achieve full cost recovery
		2b)	Phenolics	\$34.92	\$31.80	Y	\$35.93	2.9%	To achieve full cost recovery
		2c)	Total Kjeldhal Nitrogen (TKN)	\$35.48	\$31.40	Y	\$35.48	0.0%	Current fee achieves full cost recovery
		2d)	Ammonia	\$39.10	\$34.60	Y	\$39.10	0.0%	Current fee achieves full cost recovery
		2e)	Dissolved Organic Carbon	\$38.53	\$34.30	Y	\$38.76	0.6%	To achieve full cost recovery
		2f)	Total Organic Carbon	\$38.53	\$34.30	Y	\$38.76	0.6%	To achieve full cost recovery
		2g)	Reactive Silica	\$31.30	\$28.80	Y	\$32.54	4.0%	To achieve full cost recovery
510250	45519	3	Ion Chromatography (IC Scan)	\$56.95	\$50.40	Y	\$56.95	0.0%	Current fee achieves full cost recovery
510250	45519	4	PC Titrate						
		4a)	pH	\$18.19	\$16.50	Y	\$18.65	2.5%	To achieve full cost recovery
		4b)	Alkalinity	\$18.08	\$16.40	Y	\$18.53	2.5%	To achieve full cost recovery
		4c)	Conductivity	\$18.08	\$16.40	Y	\$18.53	2.5%	To achieve full cost recovery
		4d)	Fluoride	\$27.46	\$24.80	Y	\$28.02	2.1%	To achieve full cost recovery
		5	Turbidity	\$27.69	\$24.70	Y	\$27.91	0.8%	To achieve full cost recovery
		6	UV Transmittance	\$28.59	\$25.30	Y	\$28.59	0.0%	Current fee achieves full cost recovery
		7	Color Apparent	\$25.20	\$22.90	Y	\$25.88	2.7%	To achieve full cost recovery
		8	Color True	\$25.20	\$22.90	Y	\$25.88	2.7%	To achieve full cost recovery
		9	O Phosphate	\$0.00	\$26.70	Y	\$30.17		New
		10	Chemical Oxygen Demand (COD)	\$42.83	\$37.90	Y	\$42.83	0.0%	Current fee achieves full cost recovery
		11	Biochemical Oxygen Demand (BOD)	\$42.60	\$37.70	Y	\$42.60	0.0%	Current fee achieves full cost recovery
		12	Volatile Acid	\$42.15	\$37.30	Y	\$42.15	0.0%	Current fee achieves full cost recovery
Microbiology Tests:									
		13	Total Coliform/E coli	\$24.75	\$25.70	Y	\$29.04	17.4%	To achieve full cost recovery
510250	45519	14	EC	\$30.96	\$28.60	Y	\$32.32	4.4%	To achieve full cost recovery
510250	45519	15	Heterotrophic Plate Count	\$29.04	\$26.70	Y	\$30.17	3.9%	To achieve full cost recovery
510250	45519	16	Micro Examination	\$152.89	\$137.30	Y	\$155.15	1.5%	To achieve full cost recovery
510250	45519	17	Microcystin		\$515.00	Y	\$581.95		New
Metals:									
510250	45519	18	ICP OES						
		18a)	ICP OES Scan (Wastewater)	\$65.09	\$58.20	Y	\$65.77	1.0%	To achieve full cost recovery
		18b)	Total Phosphorous	\$30.40	\$27.70	Y	\$31.30	3.0%	To achieve full cost recovery
		18c)	Total Dissolved Phosphorous	\$30.40	\$27.70	Y	\$31.30	3.0%	To achieve full cost recovery
510250	45519	19	ICP MS						
		19a)	ICP MS Scan	\$65.09	\$58.20	Y	\$65.77	1.0%	To achieve full cost recovery
510250	45519	20	AA						
		20a)	Mercury	\$51.64	\$45.70	Y	\$51.64	0.0%	Current fee achieves full cost recovery
510250	45519	21	Organics						
		21a)	Caffeine	\$124.60	\$124.60	Y	\$140.80		New
510250	45519	22	Additional Fees						
		22a)	Weekend surcharge	\$100.00	\$100.00	Y	\$113.00		New

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2020 PROPOSED USER FEES AND CHARGES

**PUBLIC WORKS
HAMILTON WATER**

Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2019 Including HST (if applicable)	2020 Proposed Fee	HST (y/n)	2020 Including HST (if applicable)	% Fee Change	Basis for Fee Increase or Decrease
14-090	516175	47232	1	ENVIRONMENTAL MONITORING & ENFORCEMENT To Regulate the Discharge of any Matter into the Sanitary, Combined, and Storm Sewer Systems. Annual Permit to Discharge Hauled Sewage Note: Cost for administration and processing of annual permits required to haul sewage within Hamilton	\$324.00	\$329.00	n	\$329.00	1.5%	To achieve full cost recovery
14-090	516175	41314	2a)	Discharge fees for Hauled Sewage generated: Inside the City - Compliant Note: Cost per truck full of sewage containing materials within Sewer Use By-law limits up to 1000 imperial gallons (4.54 m3) or any part thereof 2b) greater than 1000 (4.54 m3) but less than or equal to 3500 Imperial gallons (15.9m3) 2c) greater than 3500 (15.9 m3) but less than or equal to 5000 Imperial gallons (22.7 m3) 2d) greater than 5000 (22.7 m3) but less than or equal to 8000 Imperial gallons (36.3 m3) 2e) greater than 8000 (36.3 m3) but less than or equal to 10000 Imperial gallons (45.43 m3)	\$49.15	\$50.15	n	\$50.15	2.0%	To achieve full cost recovery
14-090	516175	41314	2b)		\$49.15	\$50.15	n	\$50.15	2.0%	Has to remain a multiple of \$49.15
14-090	516175	41314	2c)		\$98.30	\$100.30	n	\$100.30	2.0%	Has to remain a multiple of \$49.15
14-090	516175	41314	2d)		\$147.45	\$150.45	n	\$150.45	2.0%	Has to remain a multiple of \$49.15
14-090	516175	41314	2e)		\$196.60	\$200.60	n	\$200.60	2.0%	Has to remain a multiple of \$49.15
14-090	516175	41314	3	Discharge fees for Hauled Sewage generated: Inside the City - Non-Compliant Note: Cost per truck full of sewage containing materials that exceed one or more Sewer Use By-law limits	\$49.15	\$50.15	n	\$50.15	2.0%	To achieve full cost recovery
14-090	516175	41314	3a)	up to 1000 imperial gallons (4.54 m3) or any part thereof 3b) greater than 1000 (4.54 m3) but less than or equal to 3500 Imperial gallons (15.9m3) 3c) greater than 3500 (15.9 m3) but less than or equal to 5000 Imperial gallons (22.7 m3) 3d) greater than 5000 (22.7 m3) but less than or equal to 8000 Imperial gallons (36.3 m3) 3e) greater than 8000 (36.3 m3) but less than or equal to 10000 Imperial gallons (45.43 m3)	\$98.30	\$100.30	n	\$100.30	2.0%	Has to remain a multiple of \$49.15
14-090	516175	41314	3b)		\$98.30	\$100.30	n	\$100.30	2.0%	Has to remain a multiple of \$49.15
14-090	516175	41314	3c)		\$147.45	\$150.45	n	\$150.45	2.0%	Has to remain a multiple of \$49.15
14-090	516175	41314	3d)		\$245.75	\$250.75	n	\$250.75	2.0%	Has to remain a multiple of \$49.15
14-090	516175	41314	3e)		\$294.90	\$300.90	n	\$300.90	2.0%	Has to remain a multiple of \$49.15
14-090	516175	41314	4	Holding Tanks for Recreational Vehicles Note: Cost for Recreational Vehicles (RV's) to dump sewer waste at the Mountain Transfer Station	\$8.50	\$8.50	n	\$8.50	0.0%	Current fee achieves full cost recovery
14-090	516080	41315	5a)	Overstrength Discharge Fees Note: Cost per kilogram of each specified parameter that is in excess of Sewer Use By-law limits, and subject to a Sewer Discharge Permit 5a) Biochemical Oxygen Demand (charge per kg) 5b) Total suspended solids (charge per kg) 5c) Oil & grease (animal/vegetable) (charge per kg) 5d) Total Kjeldahl Nitrogen (charge per kg) 5e) Total Phosphorus (charge per kg)	\$0.78	\$0.78	n	\$0.78	0.0%	Current fee achieves full cost recovery
14-090	516080	41315	5b)		\$0.63	\$0.63	n	\$0.63	0.0%	Current fee achieves full cost recovery
14-090	516080	41315	5c)		\$0.66	\$0.44	n	\$0.44	-33.2%	Decrease reflecting rate review
14-090	516080	41315	5d)		\$2.39	\$1.00	n	\$1.00	-58.1%	Decrease reflecting rate review
14-090	516080	41315	5e)		\$1.68	\$1.78	n	\$1.78	6.1%	To achieve full cost recovery
14-090	516080	41317	6	Surcharge Discharge Fee (charge per m3)	\$1.68	\$1.75	n	\$1.75	4.2%	Equal to variable wastewater rate increase

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2020 PROPOSED USER FEES AND CHARGES

PUBLIC WORKS
HAMILTON WATER

Dept. #	Dept ID	Account #	Ref #	Service Offered	2019 including HST (if applicable)	2020 Proposed Fee	HST (y/n)	2020 including HST (if applicable)	% Fee Change	Basis for Fee Increase or Decrease
14-090	510260	45519	7	Application Fees for Sewer Discharge Permits NOTE: Fee to be paid upon application for Sewer Discharge Permit	\$697.32	\$629.34	y	\$711.15	2.0%	Increase due to incorporating 7b) and 7c) fees into Application Fee
14-090	510260	45519	7a)	Application Fee	\$500.00	\$500.00	n	\$500.00	0.0%	To achieve full cost recovery
14-090	510260	45519	7b)	Wastewater Characterization deposit (optional)	\$327.34	\$295.47	y	\$333.88	2.0%	
14-090	510260	45519	7c)	Amendment Fee (all permit types)						
14-090	510260	45532	8	Administrative Fees for Sewer Discharge Permits Note: Multiple permit holders pay the higher administration fee (for example, if the permit holder has both an Overstrength Discharge Permit and a Compliance Program Permit, they will pay \$810.00 per quarter)	\$427.00	\$435.00	n	\$435.00	1.9%	Lab/equip. costs up in 2018. Previous 2015, 2012
14-090	510260	45532	8a)	Overstrength Discharge Permit (charged quarterly)	\$427.00	\$435.00	n	\$435.00	1.9%	Lab/equip. costs up in 2018. Previous 2015, 2012
14-090	510260	45532	8b)	Sanitary Discharge Permit (charged quarterly)	\$427.00	\$435.00	n	\$435.00	1.9%	Lab/equip. costs up in 2018. Previous 2015, 2012
14-090	510260	45532	8c)	Chloride Discharge Permit (charged quarterly)	\$1,050.00	\$1,071.00	n	\$1,071.00	2.0%	Lab/equip. costs up in 2018. Previous 2015, 2012
14-090	510260	45532	8d)	Compliance Discharge Permit (charged quarterly)	\$1,050.00	\$1,071.00	n	\$1,071.00	2.0%	Lab/equip. costs up in 2018. Previous 2015, 2012
14-090	510260	45532	8e)	Conditional Discharge Permit (charged quarterly)	\$167.13	\$150.86	y	\$170.47	2.0%	To achieve full cost recovery
14-090	510260	45532	9	Information Requests Note: Fee per property for records search related to Sewer Use By-law historical violations						
14-090	510260	45532	10	Wastewater Sampling (optional) Note: Per unit costs to conduct wastewater sampling to determine permit conditions and limits	\$1.34	\$1.21	y	\$1.37	1.7%	To achieve full cost recovery
14-090	510260	45532	10a)	Wastewater Sampling Vehicle Fee (per kilometer)	\$43.96	\$39.68	y	\$44.84	2.0%	To achieve full cost recovery
14-090	510260	45532	10b)	Wastewater Sampling Equipment Fee (per day)	\$55.44	\$50.04	y	\$56.55	2.0%	EMT position - replaced by RFT one pay grade higher
14-090	510260	45532	10c)	Wastewater Sampling Technician Fee (per hour) Mon - Fri	\$83.16	\$75.06	y	\$84.82	2.0%	EMT position - replaced by RFT one pay grade higher
14-090	510260	45532	10d)	Wastewater Sampling Technician Fee (per hour) Sat	\$110.86	\$100.07	y	\$113.08	2.0%	EMT position - replaced by RFT one pay grade higher
14-090	510260	45532	10e)	Wastewater Sampling Technician Fee (per hour) Sun						

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2020 PROPOSED USER FEES AND CHARGES

PUBLIC WORKS
HAMILTON WATER

Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2019 including HST (if applicable)	2020 Proposed Fee	HST (y/n)	2020 including HST (if applicable)	% Fee Change	Basis for Fee Increase or Decrease
03-272	510260	45532	1	ENVIRONMENTAL MONITORING & ENFORCEMENT Fees related to the Wastewater Abatement Program	\$423.19	\$374.50	y	\$423.19	0.0%	Current fee achieves full cost recovery
03-272	510260	45532	2	Annual Administration Fee	\$805.46	\$745.30	y	\$842.19	4.6%	To achieve full cost recovery

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SOURCE OF CAPITAL FINANCING
2020 to 2029 RATE PROGRAM CAPITAL BUDGET
\$(000'S)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020 to 2029
TOTAL RATE PROGRAM											
Capital Program	325,981	303,381	228,236	157,946	168,240	208,032	293,637	302,672	290,930	213,571	2,492,626
<u>Source of Funding</u>											
Subsidy/Other Revenue	86,759	24,246	75	75	75	105	75	75	75	75	111,635
Development Charges	76,608	95,883	56,244	22,366	15,851	41,497	128,141	122,131	97,648	4,980	661,349
Reserves & Other Internal Sources	27,060	12,860	640	640	640	640	640	640	-	-	43,760
Contribution from Operating	118,654	122,392	126,577	133,665	143,274	153,190	163,281	177,426	193,207	208,516	1,540,182
External Debt	16,900	48,000	44,700	1,200	8,400	12,600	1,500	2,400	-	-	135,700
Total	325,981	303,381	228,236	157,946	168,240	208,032	293,637	302,672	290,930	213,571	2,492,626

**CITY OF HAMILTON
2020 - 2029 WATER / WASTEWATER / STORM CAPITAL FINANCING PLAN
(\$'s)**

	Restated 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020 - 2029
NET EXPENDITURES FORECAST												
WASTEWATER (NET)	42,837,000	69,573,000	83,757,000	81,749,000	55,374,000	52,379,000	58,704,000	63,479,000	68,364,000	68,470,000	65,440,000	667,289,000
WATER (NET)	66,103,000	50,296,000	72,253,000	73,753,000	63,516,000	81,700,000	97,211,000	84,917,000	72,832,000	90,002,000	107,861,000	794,341,000
STORM (NET)	3,205,000	15,685,000	14,382,000	15,775,000	15,975,000	17,595,000	9,875,000	16,385,000	38,630,000	34,735,000	35,215,000	214,252,000
TOTAL NET EXPENDITURES	112,145,000	135,554,000	170,392,000	171,277,000	134,865,000	151,674,000	165,790,000	164,781,000	179,826,000	193,207,000	208,516,000	1,675,882,000
SOURCE OF FINANCING												
DEBT ISSUES	14,341,000	16,900,000	48,000,000	44,700,000	1,200,000	8,400,000	12,600,000	1,500,000	2,400,000	0	0	135,700,000
TRANSFER FROM OPERATING	97,804,000	118,654,000	122,392,000	126,577,000	133,665,000	143,274,000	153,190,000	163,281,000	177,426,000	193,207,000	208,516,000	1,540,182,000
TOTAL CAPITAL FINANCING	112,145,000	135,554,000	170,392,000	171,277,000	134,865,000	151,674,000	165,790,000	164,781,000	179,826,000	193,207,000	208,516,000	1,675,882,000
OPERATING BUDGET IMPACT												
TRANSFER FROM OPERATING	97,804,000	118,654,000	122,392,000	126,577,000	133,665,000	143,274,000	153,190,000	163,281,000	177,426,000	193,207,000	208,516,000	1,540,182,000
DC EXEMPTION FUNDING	9,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	80,000,000
DEBT CHARGES (NET)	19,365,685	19,682,108	25,295,182	32,246,955	36,943,695	38,456,182	39,081,885	39,379,712	37,784,300	35,328,058	35,168,939	339,367,017
TOTAL CAPITAL FINANCING COSTS	126,169,685	146,336,108	155,687,182	166,823,955	178,608,695	189,730,182	200,271,885	210,660,712	223,210,300	236,535,058	251,684,939	1,959,549,017

**CITY OF HAMILTON
2020- 2029 CAPITAL FINANCING CHARGES - RATE PROGRAMS
(\$'s)**

	<u>Restated</u> <u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2020 - 2029</u>
<u>Wastewater</u>												
Existing External Debt Charges	8,259,325	8,295,616	8,121,035	7,948,226	7,728,980	7,506,821	7,327,765	7,150,424	6,588,871	5,190,079	5,060,580	70,918,397
Existing - Recovery from DC's	-253,901	-271,296	-268,136	-264,824	-215,275	-165,624	-161,917	-158,163	-154,298	-150,383	-146,404	-1,956,321
New External Debt Charges - Funded from Rates	445,234	1,229,884	4,258,071	7,796,872	10,010,967	10,484,564	10,484,564	10,484,564	10,542,369	10,600,174	10,600,174	86,492,202
New External Debt Charges - Funded from DC's	1,415,821	1,988,874	5,845,134	9,091,350	11,366,309	12,410,086	12,705,379	16,660,054	24,213,931	31,707,626	35,475,737	161,464,479
Recovery from DC's	-1,415,821	-1,988,874	-5,845,134	-9,091,350	-11,366,309	-12,410,086	-12,705,379	-16,660,054	-24,213,931	-31,707,626	-35,475,737	-161,464,479
Contribution to Capital	42,837,000	52,673,000	55,057,000	54,249,000	54,174,000	52,379,000	58,704,000	63,479,000	67,164,000	68,470,000	65,440,000	591,789,000
DC Exemption Funding	4,590,000	4,080,000	4,080,000	4,080,000	4,080,000	4,080,000	4,080,000	4,080,000	4,080,000	4,080,000	4,080,000	40,800,000
Subtotal	55,877,658	66,007,204	71,247,970	73,809,274	75,778,672	74,284,760	80,434,412	85,035,824	88,220,941	88,189,871	85,034,351	788,043,278
% Incr (Decr) from Previous Year	-3%	18%	8%	4%	3%	-2%	8%	6%	4%	0%	-4%	
<u>Water</u>												
Existing External Debt Charges	7,409,901	7,379,737	7,217,846	7,054,799	6,880,544	6,702,952	6,534,526	6,369,135	5,187,000	4,053,873	3,949,285	61,329,697
Existing - Recovery from DC's	-58,344	-62,618	-61,954	-61,251	-48,216	-35,154	-34,358	-33,548	-32,712	-31,863	-31,000	-432,675
New External Debt Charges - Funded from Rates	1,434,561	858,711	3,505,837	6,981,506	9,527,473	10,790,821	11,802,416	12,481,629	12,553,885	12,553,885	12,553,885	93,610,049
New External Debt Charges - Funded from DC's	918,025	355,495	2,357,547	5,084,391	6,363,418	6,883,931	8,524,331	11,013,175	13,120,506	14,057,619	14,057,619	81,818,030
Recovery from DC's	-918,025	-355,495	-2,357,547	-5,084,391	-6,363,418	-6,883,931	-8,524,331	-11,013,175	-13,120,506	-14,057,619	-14,057,619	-81,818,030
Contribution to Capital	51,762,000	50,296,000	52,953,000	56,553,000	63,516,000	73,300,000	84,611,000	83,417,000	72,832,000	90,002,000	107,861,000	735,341,000
DC Exemption Funding	2,547,000	2,240,000	2,240,000	2,240,000	2,240,000	2,240,000	2,240,000	2,240,000	2,240,000	2,240,000	2,240,000	22,400,000
Subtotal	63,095,118	60,711,831	65,854,728	72,768,055	82,115,801	92,998,619	105,153,583	104,474,216	92,780,173	108,817,895	126,573,170	912,248,071
% Incr (Decr) from Previous Year	32%	-4%	8%	10%	13%	13%	13%	-1%	-11%	17%	16%	
<u>Storm</u>												
Existing External Debt Charges	2,152,705	2,303,036	2,261,712	2,218,943	2,174,438	2,128,860	2,081,704	2,034,189	1,985,472	1,936,291	1,886,251	21,010,897
Existing - Recovery from DC's	-185,049	-205,023	-201,408	-197,617	-193,636	-189,538	-185,295	-180,997	-176,573	-172,090	-167,535	-1,869,711
New External Debt Charges - Funded from Rates	161,253	154,060	462,180	770,300	1,078,421	1,232,481	1,232,481	1,232,481	1,290,286	1,348,091	1,463,702	10,264,482
New External Debt Charges - Funded from DC's	1,636,096	942,901	2,193,983	2,730,104	3,185,982	3,413,921	3,413,921	3,413,921	3,413,921	3,420,825	3,427,730	29,557,207
Recovery from DC's	-1,636,096	-942,901	-2,193,983	-2,730,104	-3,185,982	-3,413,921	-3,413,921	-3,413,921	-3,413,921	-3,420,825	-3,427,730	-29,557,207
Contribution to Capital	3,205,000	15,685,000	14,382,000	15,775,000	15,975,000	17,595,000	9,875,000	16,385,000	37,430,000	34,735,000	35,215,000	213,052,000
DC Exemption Funding	1,863,000	1,680,000	1,680,000	1,680,000	1,680,000	1,680,000	1,680,000	1,680,000	1,680,000	1,680,000	1,680,000	16,800,000
Subtotal	7,196,909	19,617,074	18,584,484	20,246,626	20,714,223	22,446,802	14,683,890	21,150,672	42,209,185	39,527,292	40,077,419	259,257,668
% Incr (Decr) from Previous Year	-37%	173%	-5%	9%	2%	8%	-35%	44%	100%	-6%	1%	
TOTAL FINANCING CHARGES	126,169,685	146,336,108	155,687,182	166,823,955	178,608,695	189,730,182	200,271,885	210,660,712	223,210,300	236,535,058	251,684,939	1,959,549,017
% Incr (Decr) from Previous Year	8%	16%	6%	7%	7%	6%	6%	5%	6%	6%	6%	
Total Rate Funded Debt Charges	19,365,685	19,682,108	25,295,182	32,246,955	36,943,695	38,456,182	39,081,885	39,379,712	37,784,300	35,328,058	35,168,939	339,367,017
Total DC Funded Debt Charges	4,467,237	3,826,205	10,928,162	17,429,536	21,372,836	23,098,254	25,025,199	31,459,858	41,111,941	49,540,406	53,306,025	277,098,424

SOURCE OF CAPITAL FINANCING
2020 to 2029 RATE PROGRAM CAPITAL BUDGET
\$(000'S)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020 to 2029
WATER											
Capital Program	67,495	123,358	100,025	67,841	90,360	131,347	114,724	97,929	90,062	108,061	991,202
<u>Source of Funding</u>											
Subsidy/Other Revenue	6,353	1,681	-	-	-	30	-	-	-	-	8,064
Development Charges	9,186	48,784	25,632	3,685	8,020	33,466	29,167	24,457	60	200	182,657
Reserves & Other Internal Sources	1,660	640	640	640	640	640	640	640	-	-	6,140
Contribution from Operating	50,296	52,953	56,553	63,516	73,300	84,611	83,417	72,832	90,002	107,861	735,341
External Debt	-	19,300	17,200	-	8,400	12,600	1,500	-	-	-	59,000
Total	67,495	123,358	100,025	67,841	90,360	131,347	114,724	97,929	90,062	108,061	991,202

City of Hamilton
Water System
2020 Capital Budget Project List
(000's)

City Ward	Project Number	Project Description	DC Debt	Gross Costs	Grants And Subsidies	Other External Revenue	Dev Charges (Inc Debt)	Reserves	WIP Reserves	WIP Other / Other Internal	WIP Debt	Net Cost	Financing Sources	
													From Operating	Debt
Annual Projects														
City Wide	4032058001	Consultation and Accommodation		30	-	-	-	-	-	-	-	30	30	-
City Wide	5142001099	Engineering Services Staffing Costs - Water		4,700	-	-	-	-	-	-	-	4,700	4,700	-
City Wide	5142060711	PW Capital Water Consumption Program		180	-	-	-	-	-	-	-	180	180	-
<i>Sub-Total Annual Projects</i>				4,910	-	-	-	-	-	-	-	4,910	4,910	-
Building - New Construction														
City Wide	5142066350	WTP Chlorine Chemical Building		2,250	-	-	-	-	-	-	-	2,250	2,250	-
<i>Sub-Total Building - New Construction</i>				2,250	-	-	-	-	-	-	-	2,250	2,250	-
Coordinated - Replacement Projects														
1	5142070006	Hillcrest - Chedoke to end - Road Restoration		60	-	-	-	-	-	-	-	60	60	-
4	5142070018	Roxborough - Kenilworth to Strathearne (Homeside Neighbourhood) - Road Restoration		700	-	-	-	-	-	-	-	700	700	-
1	5142071306	Hillcrest - Chedoke to end		120	-	-	-	-	-	-	-	120	120	-
4	5142071315	Delena / Beland / Dunsmore		150	-	-	-	-	-	-	-	150	150	-
4	5142071318	Roxborough - Kenilworth to Strathearne (Homeside Neighbourhood)		770	-	-	-	-	-	-	-	770	770	-
<i>Sub-Total Coordinated - Replacement Projects</i>				1,800	-	-	-	-	-	-	-	1,800	1,800	-
Coordinated - Upgrade Projects														
3	5141971313	Sherman - King to south end (LRT Enabling Project)		1,130	1,000	-	-	-	-	-	-	130	130	-
3	5141971314	Wentworth - Wilson to King (LRT Enabling Project)		370	330	-	-	-	-	-	-	40	40	-
4	5141971315	Main - Delena to Normanhurst & Normanhurst - Main to Queenston (LRT Enabling Project)		4,800	4,800	-	-	-	-	-	-	-	-	-
4	5142070015	Main - Delena to Normanhurst & Normanhurst - Main to Queenston (LRT Enabling Project)		300	-	-	-	-	-	-	-	300	300	-
<i>Sub-Total Coordinated - Upgrade Projects</i>				6,600	6,130	-	-	-	-	-	-	470	470	-
Demolition														
2	5142067420	St. Joseph's Tank Pulsation Dampener (HD002STK)		60	-	-	-	-	-	-	-	60	60	-
<i>Sub-Total Demolition</i>				60	-	-	-	-	-	-	-	60	60	-
Development Projects														
15	5142080080	Dundas - 575m w/o Evans to 210 w/o Evans		410	-	-	410	-	-	-	-	-	-	-
<i>Sub-Total Development Projects</i>				410	-	-	410	-	-	-	-	-	-	-
Master Plan														
City Wide	5141555264	City-Wide Water Master Plan		300	-	-	270	-	-	-	-	30	30	-
City Wide	5142055010	Water Systems Planning Program		300	-	-	-	-	-	-	-	300	300	-
<i>Sub-Total Master Plan</i>				600	-	-	270	-	-	-	-	330	330	-
Master Plan - Horizontal Assets														
11	5142096250	Airport Lands External Water Servicing (Feedermain) (W-27)	*	1,080	-	223	857	-	-	-	-	-	-	-
12	5142096520	Garner Road Trunk Watermain - Southcote to Wilson (W-09)	*	3,390	-	-	3,390	-	-	-	-	-	-	-

City of Hamilton
Water System
2020 Capital Budget Project List
(000's)

City Ward	Project Number	Project Description	DC Debt	Gross Costs	Grants And Subsidies	Other External Revenue	Dev Charges (Inc Debt)	Reserves	WIP Reserves	WIP Other / Other Internal	WIP Debt	Net Cost	Financing Sources		
													From Operating	Debt	
1	5142096850	Locke St Trunk Watermain - Main to Barton (W-19)	*	2,200	-	-	2,200	-	-	-	-	-	-	-	-
		<i>Sub-Total Master Plan - Horizontal Assets</i>		6,670	-	223	6,447	-	-	-	-	-	-	-	-
Master Plan - Vertical Assets															
11	5141495551	PD7 (Upper Stoney Creek/Glanbrook) Elevated Reservoir (W-23)	*	610	-	-	610	-	-	-	-	-	-	-	-
13	5141595553	PS HD12A (Governors @ Huntingwood) Rebuild with Capacity Upgrade & Standby Power Installation (W-04)		550	-	-	413	-	-	-	-	137	137	-	-
13	5141695883	PS HD016 (York and Valley) Capacity Upgrade, Standby Power & Building Expansion (W-26) (CASH FLOWED)		780	-	-	701	-	-	-	-	79	79	-	-
5	5141795850	Greenhill PS HD04B & HD05A Upgrades (W-28) (CASH FLOWED)	*	220	-	-	165	-	-	-	-	55	55	-	-
City Wide	5142695552	P.S. HD07A - New District 7 (Elfrida area) Pumping Station (W-21)	*	170	-	-	170	-	-	-	-	-	-	-	-
		<i>Sub-Total Master Plan - Vertical Assets</i>		2,330	-	-	2,059	-	-	-	-	271	271	-	-
Outstations-Sustainable Asset Mgt (SAM)															
12	5141667421	Glancaster Rd & Hwy 53 Pumping Station (HD018) Upgrades (CASH FLOWED)		660	-	-	-	-	-	-	-	660	660	-	-
14	5141767650	New Greensville Communal Well		150	-	-	-	-	-	-	-	150	150	-	-
12	5142067450	Lee Smith Reservoir (HDR00) Upgrades		280	-	-	-	-	-	-	-	280	280	-	-
City Wide	5142067752	Water Outstation Inspections - Asset Management		660	-	-	-	-	-	-	-	660	660	-	-
		<i>Sub-Total Outstations-Sustainable Asset Mgt (SAM)</i>		1,750	-	-	-	-	-	-	-	1,750	1,750	-	-
Plant - Sustainable Asset Mgt (SAM)															
4	5141166110	Water Treatment Plant - Process Upgrades (CASH FLOWED)		4,950	-	-	-	-	-	-	-	4,950	4,950	-	-
4	5141567575	High Lift Pumping Station (HLPS) Improvements - Phase 2 (CASH FLOWED)		550	-	-	-	-	-	-	-	550	550	-	-
City Wide	5142066310	WTP Pre-Treatment Isolation Valves		280	-	-	-	-	-	-	-	280	280	-	-
		<i>Sub-Total Plant - Sustainable Asset Mgt (SAM)</i>		5,780	-	-	-	-	-	-	-	5,780	5,780	-	-
Plant - Water Quality Initiatives (WQI)															
City Wide	5142069075	City Environmental Lab Improvements Program		150	-	-	-	-	-	-	-	150	150	-	-
		<i>Sub-Total Plant - Water Quality Initiatives (WQI)</i>		150	-	-	-	-	-	-	-	150	150	-	-
Rehabilitation Project															
City Wide	5141761777	Beach Trunkmain Rehab		1,200	-	-	-	-	-	-	-	1,200	1,200	-	-
City Wide	5142057626	Critical Watermain Inspection Program		660	-	-	-	-	-	160	-	500	500	-	-
City Wide	5142060750	Unscheduled Valve, Hydrant, Watermain & Misc Water Replace Program		3,000	-	-	-	-	-	-	-	3,000	3,000	-	-
3	5142061305	Burlington Trunkmain Repairs		910	-	-	-	-	-	460	-	450	450	-	-
City Wide	5142061502	Water Meter - Installation/Replacement/Repair - General Maintenance		2,920	-	-	-	640	-	-	-	2,280	2,280	-	-
		<i>Sub-Total Rehabilitation Project</i>		8,690	-	-	-	640	-	620	-	7,430	7,430	-	-
Replacement Project															
10	5141961341	Pineland/Teal/Community/Garden/South Service		1,680	-	-	-	-	-	-	-	1,680	1,680	-	-
City Wide	5142060080	Valve Replacement Program		3,700	-	-	-	-	-	300	-	3,400	3,400	-	-
1, 2	5142061302	Barton - Locke to Caroline & Locke - York to Barton		1,000	-	-	-	-	-	-	-	1,000	1,000	-	-

City of Hamilton
Water System
2020 Capital Budget Project List
(000's)

City Ward	Project Number	Project Description	DC Debt	Gross Costs	Grants And Subsidies	Other External Revenue	Dev Charges (Inc Debt)	Reserves	WIP Reserves	WIP Other / Other Internal	WIP Debt	Net Cost	Financing Sources	
													From Operating	Debt
5	5142061310	Woodward Greenhill Transmission Main Pipeline repair on Summercrest		500	-	-	-	-	-	-	-	500	500	-
		<i>Sub-Total Replacement Project</i>		6,880	-	-	-	-	-	300	-	6,580	6,580	-
Restorations														
City Wide	5142011101	Road Restoration Program		5,400	-	-	-	-	-	-	-	5,400	5,400	-
		<i>Sub-Total Restorations</i>		5,400	-	-	-	-	-	-	-	5,400	5,400	-
Technical Services Projects														
City Wide	4031957944	PW Asset Management (PW-AM) System Implementation		1,000	-	-	-	-	-	-	-	1,000	1,000	-
City Wide	4032055522	State of the Infrastructure - Asset Management		100	-	-	-	-	-	100	-	-	-	-
City Wide	4032055588	O.Reg. 588/17 Compliance - Asset Management Plan Development		75	-	-	-	-	-	-	-	75	75	-
City Wide	5142049555	QA-QC Service Contract Program		140	-	-	-	-	-	-	-	140	140	-
City Wide	5142055022	Engineering Consultant Watermain Projects		300	-	-	-	-	-	-	-	300	300	-
City Wide	5142055425	Prestressed Concrete Cylinder Pipe Condition Assessment Inspection Program		400	-	-	-	-	-	-	-	400	400	-
City Wide	5142055556	Mapping Update Program		40	-	-	-	-	-	-	-	40	40	-
City Wide	5142055851	Water Efficiency Plan/Program		110	-	-	-	-	-	-	-	110	110	-
City Wide	5142057545	Water - Computer Model		280	-	-	-	-	-	-	-	280	280	-
City Wide	5142060577	Metallic Watermain Condition Assessment Program		630	-	-	-	-	-	-	-	630	630	-
		<i>Sub-Total Technical Services Projects</i>		3,075	-	-	-	-	-	100	-	2,975	2,975	-
Upgrade Projects														
City Wide	5142062073	Field Data Systems Program		110	-	-	-	-	-	-	-	110	110	-
City Wide	5142062078	Substandard Water Service Replacement Program		2,750	-	-	-	-	-	-	-	2,750	2,750	-
		<i>Sub-Total Upgrade Projects</i>		2,860	-	-	-	-	-	-	-	2,860	2,860	-
Vehicles-New														
City Wide	5141851810	Fleet Additions		1,630	-	-	-	-	-	-	-	1,630	1,630	-
		<i>Sub-Total Vehicles-New</i>		1,630	-	-	-	-	-	-	-	1,630	1,630	-
Water Quality Initiatives (WQI)														
City Wide	5141966911	Woodward WTP - Biological Filtration Pilot Study		250	-	-	-	-	-	-	-	250	250	-
		<i>Sub-Total Water Quality Initiatives (WQI)</i>		250	-	-	-	-	-	-	-	250	250	-
Watermain Lining														
City Wide	5142060072	Watermain Structural Lining		5,400	-	-	-	-	-	-	-	5,400	5,400	-
		<i>Sub-Total Watermain Lining</i>		5,400	-	-	-	-	-	-	-	5,400	5,400	-
Total All Projects				67,495	6,130	223	9,186	640	-	1,020	-	50,296	50,296	-

* DC Debt

CITY OF HAMILTON
WATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Rehabilitation, Replacement, & Upgrade Programs (SAM)																
City Wide	4031957944	PW Asset Management (PW-AM) System Implementation	750	0	1,000	1,000	670	670	670	670	670	670	3,760	3,010	2019	2023
City Wide	4032014405	Contaminated Soil & Rock Disposal Program	0	0	0	0	220	220	0	0	440	440	660	660	2020	Ongoing
City Wide	4032055522	State of the Infrastructure - Asset Management	0	0	100	0	90	90	90	90	630	630	910	810	2020	Ongoing
City Wide	4032055588	O.Reg. 588/17 Compliance - Asset Management Plan Development	0	0	75	75	75	75	75	75	75	75	300	300	2020	2023
City Wide	4032058001	Consultation and Accommodation	0	0	30	30	30	30	30	30	210	210	300	300	2020	Ongoing
4	5141641226	Centralized Water and Wastewater Operations Centre (CASH FLOWED)	1,250	2,250	0	0	0	0	0	0	7,500	7,500	8,750	9,750	2016	2024
City Wide	5141761777	Beach Trunkmain Rehab	7,300	5,000	1,200	1,200	0	0	0	0	0	0	8,500	6,200	2017	2020
City Wide	5141851810	Fleet Additions	1,230	580	1,630	1,630	290	290	700	700	410	410	4,260	3,610	2018	2019
10	5141961341	Pineland/Teal/Community/Garden/South Service	0	0	1,680	1,680	0	0	0	0	0	0	1,680	1,680	2019	2020
City Wide	5142001099	Engineering Services Staffing Costs - Water	0	0	4,700	4,700	4,700	4,700	4,700	4,700	32,900	32,900	47,000	47,000	2020	Ongoing
City Wide	5142011101	Road Restoration Program	0	0	5,400	5,400	5,400	5,400	5,400	5,400	37,800	37,800	54,000	54,000	2020	Ongoing
City Wide	5142049555	QA-QC Service Contract Program	0	0	140	140	140	140	140	140	980	980	1,400	1,400	2020	Ongoing
City Wide	5142055022	Engineering Consultant Watermain Projects	0	0	300	300	300	300	300	300	2,100	2,100	3,000	3,000	2020	Ongoing
City Wide	5142055425	Prestressed Concrete Cylinder Pipe Condition Assessment Inspection Program	0	0	400	400	0	0	0	0	0	0	400	400	2020	2020
City Wide	5142055556	Mapping Update Program	0	0	40	40	40	40	40	40	280	280	400	400	2018	Ongoing
City Wide	5142055851	Water Efficiency Plan/Program	0	0	110	110	113	113	115	115	880	880	1,218	1,218	2020	Ongoing
City Wide	5142057545	Water - Computer Model	0	0	280	280	280	280	280	280	1,680	1,680	2,520	2,520	2020	Ongoing
City Wide	5142057626	Critical Watermain Inspection Program	0	0	660	500	300	300	300	300	2,100	2,100	3,360	3,200	2020	Ongoing
City Wide	5142060080	Valve Replacement Program	0	0	3,700	3,400	1,200	1,200	1,200	1,200	8,400	8,400	14,500	14,200	2020	Ongoing
City Wide	5142060577	Metallic Watermain Condition Assessment Program	0	0	630	630	630	630	630	630	4,410	4,410	6,300	6,300	2020	Ongoing
City Wide	5142060711	PW Capital Water Consumption Program	0	0	180	180	180	180	180	180	1,260	1,260	1,800	1,800	2020	Ongoing

**CITY OF HAMILTON
 WATER SYSTEM
 2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Rehabilitation, Replacement, & Upgrade Programs (SAM)																
City Wide	5142060750	Unscheduled Valve, Hydrant, Watermain & Misc Water Replace Program	0	0	3,000	3,000	2,750	2,750	2,500	2,500	14,000	14,000	22,250	22,250	2020	Ongoing
City Wide	5142061300	Stand-Alone Watermain Replacement	0	0	0	0	0	0	0	0	1,500	1,500	1,500	1,500	2023	Ongoing
1, 2	5142061302	Barton - Locke to Caroline & Locke - York to Barton	0	0	1,000	1,000	0	0	0	0	0	0	1,000	1,000	2018	2020
3	5142061305	Burlington Trunkmain Repairs	0	0	910	450	0	0	0	0	0	0	910	450	2020	2020
5	5142061310	Woodward Greenhill Transmission Main Pipeline repair on Summercrest	0	0	500	500	0	0	0	0	0	0	500	500	2020	2020
City Wide	5142061502	Water Meter - Installation/Replacement/Repair - General Maintenance	0	0	2,920	2,280	3,610	2,970	3,680	3,040	23,640	20,440	33,850	28,730	2020	Ongoing
City Wide	5142062073	Field Data Systems Program	0	0	110	110	110	110	110	110	770	770	1,100	1,100	2020	Ongoing
City Wide	5142062078	Substandard Water Service Replacement Program	0	0	2,750	2,750	2,750	2,750	2,500	2,500	14,000	14,000	22,000	22,000	2020	Ongoing
City Wide	5142066350	WTP Chlorine Chemical Building	0	0	2,250	2,250	6,530	6,530	6,530	6,530	0	0	15,310	15,310	2020	2022
City Wide	5142071074	Contingency for Unscheduled Works Program	0	0	0	0	180	180	0	0	720	720	900	900	2020	Ongoing
City Wide	5142071940	Unspecified Water Works	0	0	0	0	0	0	0	0	80,000	80,000	80,000	80,000	2020	2024
2	5142161300	Duke - Queen to Hess	0	0	0	0	50	50	250	250	0	0	300	300	2021	2022
7	5142161300	Edwina - Lawson to Berko & Berko - Edwina to Lawfield	0	0	0	0	330	330	0	0	0	0	330	330	2021	2021
2	5142161300	Jackson - Catherine to Walnut	0	0	0	0	210	210	0	0	0	0	210	210	2021	2021
3	5142361300	Birge - Emerald to St. Matthews	0	0	0	0	0	0	0	0	270	270	270	270	2023	2023
3	5142361300	Evans - Wellington to East	0	0	0	0	0	0	0	0	360	360	360	360	2023	2023
1	5142461300	Amelia - Queen to West End	0	0	0	0	0	0	0	0	540	540	540	540	2024	2024
1	5142461300	Bold - Queen to Locke	0	0	0	0	0	0	0	0	700	700	700	700	2024	2024
1	5142461300	Caroline - Herkimer to Robinson	0	0	0	0	0	0	0	0	350	350	350	350	2024	2024
7	5142461300	Dallas - Upper Gage to West End	0	0	0	0	0	0	0	0	500	500	500	500	2024	2024
2	5142461300	James and Charlton Intersection	0	0	0	0	0	0	0	0	900	900	900	900	2024	2024
3	5142461300	Myler - Sanford to Milton/Milton - Barton to Princess	0	0	0	0	0	0	0	0	450	450	450	450	2024	2024

**CITY OF HAMILTON
WATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Rehabilitation, Replacement, & Upgrade Programs (SAM)																
13	5142471301	Hatt - Market to east end & York / Kerr	0	0	0	0	0	0	0	0	700	700	700	700	2024	2024
3	5142561300	Edward - Barnesdale to Lottridge	0	0	0	0	0	0	0	0	340	340	340	340	2025	2025
2	5142561300	Hess - Markland to Aberdeen	0	0	0	0	0	0	0	0	430	430	430	430	2025	2025
2	5142561300	Hughson - Wilson to Barton	0	0	0	0	0	0	0	0	500	500	500	500	2025	2025
2	5142561300	John - Cannon to Barton	0	0	0	0	0	0	0	0	760	760	760	760	2025	2025
2	5142661300	Robinson - Hess to Park	0	0	0	0	0	0	0	0	950	950	950	950	2026	2026
3	5142761300	Clinton\Case\lRuth\Barnesdale	0	0	0	0	0	0	0	0	1,740	1,740	1,740	1,740	2027	2027
4	5142761300	Edgemont - Main to King	0	0	0	0	0	0	0	0	660	660	660	660	2027	2028
			10,530	7,830	35,695	34,035	31,178	30,538	30,420	29,780	247,505	244,305	355,328	346,488		
Projects Coordinated with Roads Program																
3	5141971313	Sherman - King to south end (LRT Enabling Project)	90	0	1,130	130	0	0	0	0	0	0	1,220	130	2019	2020
3	5141971314	Wentworth - Wilson to King (LRT Enabling Project)	90	0	370	40	0	0	0	0	0	0	460	40	2019	2020
4	5141971315	Main - Delena to Normanhurst & Normanhurst - Main to Queenston (LRT Enabling Project)	230	0	4,800	0	0	0	0	0	0	0	5,030	0	2019	2020
City Wide	5142070000	Coordinated Road and Subsurface Works	0	0	0	0	3,440	3,440	2,000	2,000	26,020	26,020	31,460	31,460	2020	Ongoing
1	5142070006	Hillcrest - Chedoke to end - Road Restoration	0	0	60	60	0	0	0	0	0	0	60	60	2020	2020
4	5142070015	Main - Delena to Normanhurst & Normanhurst - Main to Queenston (LRT Enabling Project)	0	0	300	300	0	0	0	0	0	0	300	300	2020	2020
4	5142070018	Roxborough - Kenilworth to Strathearne (Homeside Neighbourhood) - Road Restoration	0	0	700	700	0	0	0	0	0	0	700	700	2020	2020
City Wide	5142071301	Watermain Replacement Coordinated with Roads	0	0	0	0	0	0	2,000	2,000	49,400	49,400	51,400	51,400	2020	Ongoing
1	5142071306	Hillcrest - Chedoke to end	0	0	120	120	0	0	0	0	0	0	120	120	2020	2020
4	5142071315	Delena / Beland / Dunsmore	0	0	150	150	1,140	1,140	0	0	0	0	1,290	1,290	2020	2021

CITY OF HAMILTON
WATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Projects Coordinated with Roads Program																
4	5142071318	Roxborough - Kenilworth to Strathearne (Homeside Neighbourhood)	0	0	770	770	0	0	0	0	0	0	770	770	2020	2020
4	5142171301	Barton - Parkdale to Talbot	0	0	0	0	1,080	1,080	0	0	0	0	1,080	1,080	2021	2021
2	5142171301	Strachan - James to east end	0	0	0	0	600	600	0	0	0	0	600	600	2021	2021
13	5142271301	Glenmorris Drive / Underhill Avenue (York Heights Neighbourhood)	0	0	0	0	0	0	330	330	0	0	330	330	2020	2022
1	5142271301	Marion - King to Dromore	0	0	0	0	0	0	300	300	0	0	300	300	2022	2022
8	5142371301	Fennell - Upper James to Upper Wellington	0	0	0	0	0	0	0	0	590	590	590	590	2023	2023
13	5142371301	Hatt & Bond - King to Market	0	0	0	0	0	0	0	0	560	560	560	560	2023	2023
1	5142371301	Jones / Oxford / Tecumseh (Strathcona Neighbourhood)	0	0	0	0	0	0	0	0	810	810	810	810	2023	2023
3	5142471301	Burlington & Industrial - Birch to Gage	0	0	0	0	0	0	0	0	2,760	2,760	2,760	2,760	2024	2024
13	5142471301	Cairns / East St N / Sleepy Hollow / Spencer / Wilmar (Hunter Neighbourhood)	0	0	0	0	0	0	0	0	1,090	1,090	1,090	1,090	2024	2024
1	5142471301	Carling / Macklin St S / Olmstead / Tope (Westdale South)	0	0	0	0	0	0	0	0	660	660	660	660	2024	2024
2	5142471301	Ferguson/Foster/Walnut/Patrick	200	0	0	0	0	0	0	0	1,710	1,710	1,910	1,710	2024	2024
8	5142471301	Upper James - Mohawk to Fennell	0	0	0	0	0	0	0	0	3,010	3,010	3,010	3,010	2024	2024
15	5142472304	Bridge 451 - Hwy 5 E, 120m e/o Mill St S	0	0	0	0	0	0	0	0	140	140	140	140	2024	2024
1	5142571301	Florence/Head/Morden/Napier/Nelson/Peel/Wellesley (Strathcona Neighbourhood)	0	0	0	0	0	0	0	0	720	720	720	720	2025	2025
7, 8	5142571301	Upper Wellington - Bryna to Mohawk	0	0	0	0	0	0	0	0	1,045	1,045	1,045	1,045	2025	2025
3	5142571301	Wilson - Wentworth to Sherman	0	0	0	0	0	0	0	0	810	810	810	810	2025	2025
1, 13	5142671301	Osler - South St to West Park	0	0	0	0	0	0	0	0	900	900	900	900	2026	2028
3	5142671301	Sanford - Main to Cannon	0	0	0	0	0	0	0	0	1,350	1,350	1,350	1,350	2026	2026
4	5142771301	Burlington & Industrial - Ottawa to Kenilworth	100	0	0	0	0	0	0	0	2,100	2,100	2,200	2,100	2027	2027
3	5142971301	Stipeley Neighbourhood (South) - Connaught / Balasm / Dunsmore	0	0	0	0	0	0	0	0	945	945	945	945	2029	2029

**CITY OF HAMILTON
WATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
			710	0	8,400	2,270	6,260	6,260	4,630	4,630	94,620	94,620	114,620	107,780		
Plant/Outstations Projects (SAM)																
4	5141166110	Water Treatment Plant - Process Upgrades (CASH FLOWED)	25,790	9,553	4,950	4,950	1,270	780	1,270	780	110,880	68,149	144,160	84,212	2011	2026
1	5141567273	Main / Whitney Pumping Station Replacement and Decommissioning	1,930	830	0	0	0	0	2,980	2,980	0	0	4,910	3,810	2015	2019
8	5141567520	Stone Church/Garth Water (HDR05) Reservoir	3,960	0	0	0	880	880	3,125	3,125	2,775	2,775	10,740	6,780	2015	2019
4	5141567575	High Lift Pumping Station (HLPS) Improvements - Phase 2 (CASH FLOWED)	880	220	550	550	2,470	2,470	2,470	2,470	0	0	6,370	5,710	2015	2019
12	5141667421	Glancaster Rd & Hwy 53 Pumping Station (HD018) Upgrades (CASH FLOWED)	6,040	4,400	660	660	5,900	5,900	2,200	2,200	0	0	14,800	13,160	2016	2022
14	5141767650	New Greensville Communal Well	1,250	500	150	150	5,250	5,250	0	0	0	0	6,650	5,900	2017	2021
9	5141867651	HD007 Highland Rd Reservoir Upgrades	260	260	0	0	0	0	990	990	0	0	1,250	1,250	2018	2019
15	5141895852	Carlisle Water Supply System - Additional Water Storage (CASH FLOWED)	440	440	0	0	440	440	6,600	6,600	0	0	7,480	7,480	2018	2022
City Wide	5142066310	WTP Pre-Treatment Isolation Valves	0	0	280	280	1,200	1,200	0	0	0	0	1,480	1,480	2020	2021
City Wide	5142066713	Water Maintenance Capital Program	0	0	0	0	2,000	2,000	2,000	2,000	14,000	14,000	18,000	18,000	2020	Ongoing
12	5142067450	Lee Smith Reservoir (HDR00) Upgrades	0	0	280	280	830	830	0	0	0	0	1,110	1,110	2020	2021
City Wide	5142067752	Water Outstation Inspections - Asset Management	0	0	660	660	660	660	660	660	4,400	4,400	6,380	6,380	2020	Ongoing
City Wide	5142367751	Water Outstation Upgrades - Asset Management Program	0	0	0	0	0	0	0	0	105,000	105,000	105,000	105,000	2023	Ongoing
			40,550	16,203	7,530	7,530	20,900	20,410	22,295	21,805	237,055	194,324	328,330	260,272		
Plant/Outstations Projects (WQI)																
City Wide	5141966911	Woodward WTP - Biological Filtration Pilot Study	150	0	250	250	0	0	0	0	0	0	400	250	2019	2020
City Wide	5142069075	City Environmental Lab Improvements Program	0	0	150	150	1,000	1,000	340	340	530	530	2,020	2,020	2020	Ongoing
4	5142666150	GAC Replacement	0	0	0	0	0	0	0	0	4,950	4,950	4,950	4,950	2020	Ongoing

**CITY OF HAMILTON
WATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
			150	0	400	400	1,000	1,000	340	340	5,480	5,480	7,370	7,220		
Master Plan - Horizontal Assets																
13, 15	5141796752	PD16 (Waterdown) Trunk Feedermain - PS HD016 to Hwy 5 at Algonquin (W-25) (CASH FLOWED)	2,570	422	0	0	0	0	8,370	2,092	0	0	10,940	2,514	2017	2019
11	5141996951	Binbrook Feedermain via Fletcher (W-30)	0	0	0	0	3,870	0	2,530	0	0	0	6,400	0	2019	2020
11	5142096250	Airport Lands External Water Servicing (Feedermain) (W-27)	0	0	1,080	0	7,170	0	0	0	10,340	0	18,590	0	2020	2025
12	5142096520	Garner Road Trunk Watermain - Southcote to Wilson (W-09)	0	0	3,390	0	13,550	0	0	0	0	0	16,940	0	2020	2021
1	5142096850	Locke St Trunk Watermain - Main to Barton (W-19)	0	0	2,200	0	0	0	0	0	2,524	0	4,724	0	2018	2019
6, 9	5142596250	HD07A Feedermain (W-22)	0	0	0	0	0	0	0	0	8,860	0	8,860	0	2025	2026
			2,570	422	6,670	0	24,590	0	10,900	2,092	21,724	0	66,454	2,514		
Master Plan - Vertical Assets																
12	5141395354	PD18 (Ancaster) Elevated Reservoir (W-14) (CASH FLOWED)	2,610	255	0	0	6,080	3,040	6,080	3,040	0	0	14,770	6,335	2013	2020
11	5141495551	PD7 (Upper Stoney Creek/Glanbrook) Elevated Reservoir (W-23)	1,990	0	610	0	5,500	0	5,500	0	0	0	13,600	0	2014	2020
City Wide	5141555264	City-Wide Water Master Plan	650	0	300	30	0	0	0	0	60	0	1,010	30	2015	2020
13	5141595553	PS HD12A (Governors @ Huntingwood) Rebuild with Capacity Upgrade & Standby Power Installation (W-04)	720	0	550	137	2,920	730	0	0	0	0	4,190	867	2015	2019
13	5141695883	PS HD016 (York and Valley) Capacity Upgrade, Standby Power & Building Expansion (W-26) (CASH FLOWED)	3,710	302	780	79	4,560	457	0	0	0	0	9,050	838	2016	2019
5	5141795850	Greenhill PS HD04B & HD05A Upgrades (W-28) (CASH FLOWED)	9,820	2,482	220	55	9,910	2,478	10,160	2,541	0	0	30,110	7,556	2017	2020
11	5141995951	PS HD019 (Binbrook) Capacity Upgrade (W-20)	220	0	0	0	1,810	0	0	0	0	0	2,030	0	2019	2020

**CITY OF HAMILTON
WATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Master Plan - Vertical Assets																
City Wide	5142055010	Water Systems Planning Program	0	0	300	300	300	300	300	300	2,100	2,100	3,000	3,000	2020	Ongoing
9	5142495251	Highland Reservoir HDR07 (W-11) Expansion (CASH FLOWED)	0	0	0	0	0	0	0	0	12,420	0	12,420	0	2024	2026
City Wide	5142695552	P.S. HD07A - New District 7 (Elfrida area) Pumping Station (W-21)	0	0	170	0	0	0	0	0	20,050	0	20,220	0	2025	2027
			19,720	3,039	2,930	601	31,080	7,005	22,040	5,881	34,630	2,100	110,400	18,626		
Development/Extension Projects																
15	5142080080	Dundas - 575m w/o Evans to 210 w/o Evans	0	0	410	0	0	0	0	0	0	0	410	0	2020	2020
City Wide	5142096011	Intensification Infrastructure Upgrades Program - Water	0	0	0	0	400	200	0	0	1,600	800	2,000	1,000	2020	Ongoing
12	5142171301	Southcote - Garner to Highway 403 Bridge	0	0	0	0	160	160	2,350	2,350	0	0	2,510	2,510	2021	2022
11	5142180120	RHBP - Twenty Rd Extension - Glover to Trinity Church	0	0	0	0	565	340	0	0	0	0	565	340	2021	2021
11	5142180182	Binbrook - Royal Winter/Binhaven to Fletcher	0	0	0	0	630	0	0	0	0	0	630	0	2021	2021
12	5142180182	Shaver - Kastura to Westview	0	0	0	0	225	170	700	525	0	0	925	695	2021	2022
11	5142580580	RHBP - Nebo - 900m s/o Twenty to Dickenson	0	0	0	0	0	0	0	0	400	0	400	0	2025	2025
11	5142780784	RHBP - Dickenson - Nebo to 800m e/o Nebo	0	0	0	0	0	0	0	0	900	0	900	0	2027	2027
10	5143480476	Millen - Arvin to South Service	0	0	0	0	0	0	0	0	0	0	0	0	2029	2029
			0	0	410	0	1,980	870	3,050	2,875	2,900	800	8,340	4,545		
Coordinated Projects																
City Wide	5141855777	Water infrastructure Analysis - Growth and Economic Opportunities	570	220	0	0	350	150	0	0	0	0	920	370	2018	2020
			570	220	0	0	350	150	0	0	0	0	920	370		
Demolition																
2	5142067420	St. Joseph's Tank Pulsation Dampener (HD002STK)	0	0	60	60	110	110	440	440	0	0	610	610	2020	2022

**CITY OF HAMILTON
WATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
			0	0	60	60	110	110	440	440	0	0	610	610		
Equipment Replacement																
City Wide	5141966151	SCADA servers and network	2,500	0	0	0	250	250	250	250	5,500	5,500	8,500	6,000	2019	2020
			2,500	0	0	0	250	250	250	250	5,500	5,500	8,500	6,000		
Plans/Studies																
City Wide	5141955713	Pressure Districts and Drinking Water System Optimization	220	0	0	0	110	110	110	110	110	110	550	330	2019	2022
City Wide	5142055247	Alterations to the Drinking Water System	0	0	0	0	150	150	150	150	900	900	1,200	1,200	2020	Ongoing
			220	0	0	0	260	260	260	260	1,010	1,010	1,750	1,530		
Pumping Station																
2	5142467422	New PD2 Water Pumping Station (CASH FLOWED)	500	500	0	0	0	0	0	0	12,100	12,100	12,600	12,600	2017	2021
			500	500	0	0	0	0	0	0	12,100	12,100	12,600	12,600		
Watermain Lining																
City Wide	5142060072	Watermain Structural Lining	0	0	5,400	5,400	5,400	5,400	4,050	4,050	37,800	37,800	52,650	52,650	2020	Ongoing
13	5142260072	WM Structural Lining - Dundas Valley Watermain	0	0	0	0	0	0	1,350	1,350	0	0	1,350	1,350	2022	2022
			0	0	5,400	5,400	5,400	5,400	5,400	5,400	37,800	37,800	54,000	54,000		
Total Water System			78,020	28,214	67,495	50,296	123,358	72,253	100,025	73,753	700,324	598,039	1,069,222	822,555		

**SOURCE OF CAPITAL FINANCING
 2020 to 2029 RATE PROGRAM CAPITAL BUDGET
 \$(000'S)**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020 to 2029
WASTEWATER											
Capital Program	218,606	157,808	108,361	70,055	56,210	62,735	158,453	162,038	161,998	66,220	1,222,484
Source of Funding											
Subsidy/Other Revenue	80,036	22,092	-	-	-	-	-	-	-	-	102,128
Development Charges	44,227	39,739	26,612	14,681	3,831	4,031	94,974	93,674	93,528	780	416,077
Reserves & Other Internal Sources	24,770	12,220	-	-	-	-	-	-	-	-	36,990
Contribution from Operating	52,673	55,057	54,249	54,174	52,379	58,704	63,479	67,164	68,470	65,440	591,789
External Debt	16,900	28,700	27,500	1,200	-	-	-	1,200	-	-	75,500
Total	218,606	157,808	108,361	70,055	56,210	62,735	158,453	162,038	161,998	66,220	1,222,484

City of Hamilton
Wastewater System
2020 Capital Budget Project List
(000's)

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City Ward	Project Number	Project Description	DC Debt	Gross Costs	Grants And Subsidies	Other External Revenue	Dev Charges (Inc Debt)	Reserves	WIP Reserves	WIP Other / Other Internal	WIP Debt	Net Cost	Financing Sources	
													From Operating	Debt
Annual Projects														
City Wide	4032058001	Consultation and Accommodation		30	-	-	-	-	-	-	-	30	30	-
City Wide	5162001099	Engineering Services Staffing Costs - Wastewater		4,700	-	-	-	-	-	-	-	4,700	4,700	-
City Wide	5162060711	PW Capital Water Consumption Program		180	-	-	-	-	-	-	-	180	180	-
8	5162061006	Inverness Ave E - Combined Major Trunk Rehabilitation		200	-	-	-	-	-	200	-	-	-	-
<i>Sub-Total Annual Projects</i>				5,110	-	-	-	-	-	200	-	4,910	4,910	-
Building - New Construction														
City Wide	5161667421	New Haulage Receiving Station		550	-	-	-	-	-	-	-	550	550	-
<i>Sub-Total Building - New Construction</i>				550	-	-	-	-	-	-	-	550	550	-
Computer Software Purchases														
City Wide	5162057545	Wastewater Computer Model Update & Maintenance		660	-	-	-	-	-	-	-	660	660	-
<i>Sub-Total Computer Software Purchases</i>				660	-	-	-	-	-	-	-	660	660	-
Coordinated - Network Extension Projects														
9	5162080089	Rymal - Fletcher to Upper Centennial	*	5,330	-	-	5,330	-	-	-	-	-	-	-
<i>Sub-Total Coordinated - Network Extension Projects</i>				5,330	-	-	5,330	-	-	-	-	-	-	-
Coordinated - Replacement Projects														
1	5162071006	Hillcrest - Chedoke to end		60	-	-	-	-	-	-	-	60	60	-
<i>Sub-Total Coordinated - Replacement Projects</i>				60	-	-	-	-	-	-	-	60	60	-
Coordinated - Upgrade Projects														
4	5162071315	Main -Queenston Traffic Circle to Delena & Rosewood (LRT Enabling Project)		1,160	-	-	-	-	-	-	-	1,160	1,160	-
<i>Sub-Total Coordinated - Upgrade Projects</i>				1,160	-	-	-	-	-	-	-	1,160	1,160	-
Development Projects														
4	5162080961	Roxborough Park Intensification		1,500	-	-	1,500	-	-	-	-	-	-	-
<i>Sub-Total Development Projects</i>				1,500	-	-	1,500	-	-	-	-	-	-	-
Maintenance Projects														
5, 6	5161968920	Fennell/Greenhill Drop Shaft		500	-	-	-	-	-	-	-	500	500	-
<i>Sub-Total Maintenance Projects</i>				500	-	-	-	-	-	-	-	500	500	-
Master Plan														
City Wide	5161555264	City-Wide Wastewater Master Plan		300	-	-	270	-	-	-	-	30	30	-
City Wide	5162055010	Wastewater Systems Planning Program		380	-	-	-	-	-	-	-	380	380	-
<i>Sub-Total Master Plan</i>				680	-	-	270	-	-	-	-	410	410	-
Master Plan - Horizontal Assets														
11	5161696452	Airport Lands Dickenson Rd Trunk Sewer (WW-27, WW-26, WW-28) (CASH FLOWED)	*	26,800	-	-	26,800	-	-	-	-	-	-	-
<i>Sub-Total Master Plan - Horizontal Assets</i>				26,800	-	-	26,800	-	-	-	-	-	-	-

City of Hamilton
Wastewater System
2020 Capital Budget Project List
(000's)

City Ward	Project Number	Project Description	DC Debt	Gross Costs	Grants And Subsidies	Other External Revenue	Dev Charges (Inc Debt)	Reserves	WIP Reserves	WIP Other / Other Internal	WIP Debt	Net Cost	Financing Sources	
													From Operating	Debt
Master Plan - Vertical Assets														
15	5161796786	First Street (Waterdown Sanitary) PS Upgrade DC014		1,050	-	-	640	-	-	-	-	410	410	-
City Wide	5162055050	Municipal Class EA Studies		400	-	-	-	-	-	-	-	400	400	-
City Wide	5162095800	Flooding & Drainage Master Plan Capital Improvements		880	-	-	-	-	-	-	-	880	880	-
<i>Sub-Total Master Plan - Vertical Assets</i>				2,330	-	-	640	-	-	-	-	1,690	1,690	-
Outstations-Sustainable Asset Mgt (SAM)														
12	5161267270	Ancaster Wastewater Outstations Upgrades		110	-	-	-	-	-	-	-	110	110	-
13	5161267273	Dundas Wastewater Outstations Upgrades		600	-	-	-	-	-	-	-	600	600	-
12, 13, 15	5161667622	FC001, DC009 & HC011 Wastewater Pumping Stations Upgrades		1,500	-	-	-	-	-	-	-	1,500	1,500	-
4	5161767420	Parkdale Avenue HC001 Wastewater Pumping Station Upgrades		10	-	-	-	-	-	-	-	10	10	-
5	5162067065	Eastport Drive SPS (HC017) Upgrades		390	-	-	-	-	-	-	-	390	390	-
15	5162067275	FC001 Elgin Street Sewage Pumping Station		550	-	-	-	-	-	-	-	550	550	-
4, 12, 15	5162067375	Minor Upgrades to SPS Outstations		170	-	-	-	-	-	-	-	170	170	-
12	5162067425	Hillside SPS (DC006) Upgrades		280	-	-	-	-	-	-	-	280	280	-
City Wide	5162067752	Wastewater Outstation Inspections - Asset Management Program		520	-	-	-	-	-	-	-	520	520	-
<i>Sub-Total Outstations-Sustainable Asset Mgt (SAM)</i>				4,130	-	-	-	-	-	-	-	4,130	4,130	-
Plans/Studies														
City Wide	5162055801	Woodward WWTP Facility Plan		350	-	-	-	-	-	-	-	350	350	-
City Wide	5162062543	CSO Characterization Program		450	-	-	-	-	-	-	-	450	450	-
<i>Sub-Total Plans/Studies</i>				800	-	-	-	-	-	-	-	800	800	-
Plant - Sustainable Asset Mgt (SAM)														
City Wide	5161966102	Woodward WWTP - Expansion (CASH FLOWED)	*	1,750	-	-	1,750	-	-	-	-	-	-	-
City Wide	5161966511	Woodward WWTP - Digester #5 (CASH FLOWED)		2,500	-	-	-	-	-	-	-	2,500	2,500	-
City Wide	5162066311	Woodward WWTP - Digester #3 (CASH FLOWED)		250	-	-	-	-	-	-	-	250	250	-
City Wide	5162066813	Dundas WWTP - Health & Safety Immediate Needs		4,900	-	-	-	-	-	1,150	-	3,750	3,750	-
City Wide	5162067420	Main & King CSO Rehabilitation		350	-	-	-	-	-	-	-	350	350	-
<i>Sub-Total Plant - Sustainable Asset Mgt (SAM)</i>				9,750	-	-	1,750	-	-	1,150	-	6,850	6,850	-
Plant - Wastewater Investment Needs (WINS)														
City Wide	5160866801	Woodward WWTP - Clean Harbour (CASH FLOWED)	*	100,631	65,736	-	5,096	12,120	-	-	-	17,679	2,579	15,100
City Wide	5160966910	Woodward WWTP - Biosolids Management Facility	*	28,030	14,300	-	2,590	11,140	-	-	-	-	-	-
City Wide	5162069075	City Environmental Lab Improvements Program		150	-	-	-	-	-	-	-	150	150	-
<i>Sub-Total Plant - Wastewater Investment Needs (WINS)</i>				128,811	80,036	-	7,686	23,260	-	-	-	17,829	2,729	15,100
Rehabilitation Project														
12	5161960942	Ancaster Sewage Works Pipeline CIPP Rehab - CASH FLOW		500	-	-	-	-	-	-	-	500	500	-
5	5162060044	Battlefield Creek Major Trunk Cleaning & Condition Assessment		250	-	-	-	-	-	-	-	250	250	-
City Wide	5162060302	Emergency Repairs - Cross Connections Program		700	-	-	-	-	-	-	-	700	700	-

City of Hamilton
Wastewater System
2020 Capital Budget Project List
(000's)

City Ward	Project Number	Project Description	DC Debt	Gross Costs	Grants And Subsidies	Other External Revenue	Dev Charges (Inc Debt)	Reserves	WIP Reserves	WIP Other / Other Internal	WIP Debt	Net Cost	Financing Sources	
													From Operating	Debt
City Wide	5162060390	Wastewater System Lining Program		4,050	-	-	-	-	-	-	-	4,050	4,050	-
City Wide	5162060522	Sewer Lateral Management Program (WWC)		4,250	-	-	-	-	-	-	-	4,250	4,250	-
City Wide	5162060533	Trenchless Manhole Rehabilitation		70	-	-	-	-	-	-	-	70	70	-
City Wide	5162060574	Pre-Construction Mainline Condition Assessment		500	-	-	-	-	-	-	-	500	500	-
City Wide	5162060575	Mainline Sewer Condition Assessment Program		1,640	-	-	-	-	-	-	-	1,640	1,640	-
City Wide	5162060576	Sewer Lateral Condition Assessment Program		540	-	-	-	-	-	-	-	540	540	-
City Wide	5162060577	Mainline Sewer Condition Assessment for Compliance & Regulations		100	-	-	-	-	-	-	-	100	100	-
5, 9	5162061051	Satellite City Trunk Sewer Rehabilitation		8,750	-	-	-	-	-	-	-	8,750	6,950	1,800
		<i>Sub-Total Rehabilitation Project</i>		21,350	-	-	-	-	-	-	-	21,350	19,550	1,800
Repairs														
City Wide	5162060820	Open Cut Repairs for CIPP Program		500	-	-	-	-	-	-	-	500	500	-
		<i>Sub-Total Repairs</i>		500	-	-	-	-	-	-	-	500	500	-
Replacement Project														
City Wide	5162061444	Sewer Lateral Replace/Rehab Program		3,600	-	-	-	-	-	-	-	3,600	3,600	-
City Wide	5162061740	Unscheduled Manhole and Sewermain Replacement Program		500	-	-	-	-	-	-	-	500	500	-
City Wide	5162071015	Sewer Lateral Replacement for Co-ordinated Projects		270	-	-	-	-	-	-	-	270	270	-
City Wide	5162071074	Contingency for Unscheduled Works Program		180	-	-	-	-	-	-	-	180	180	-
		<i>Sub-Total Replacement Project</i>		4,550	-	-	-	-	-	-	-	4,550	4,550	-
Restorations														
City Wide	5162011101	Road Restoration Program		1,800	-	-	-	-	-	-	-	1,800	1,800	-
		<i>Sub-Total Restorations</i>		1,800	-	-	-	-	-	-	-	1,800	1,800	-
Technical Services Projects														
City Wide	4032055522	State of the Infrastructure - Asset Management		100	-	-	-	-	-	100	-	-	-	-
City Wide	4032055588	O.Reg. 588/17 Compliance - Asset Management Plan Development		75	-	-	-	-	-	-	-	75	75	-
City Wide	5162049555	QA-QC Service Contract Program		140	-	-	-	-	-	-	-	140	140	-
City Wide	5162055022	Engineering Consultant Sewermain Projects		300	-	-	-	-	-	-	-	300	300	-
City Wide	5162055556	Mapping Update Program		40	-	-	-	-	-	-	-	40	40	-
City Wide	5162055878	Forcemain Condition Assessment Program		270	-	-	-	-	-	-	-	270	270	-
City Wide	5162055880	Inflow & Infiltration Studies and Flow Monitoring Program		500	-	-	251	-	-	-	-	249	249	-
		<i>Sub-Total Technical Services Projects</i>		1,425	-	-	251	-	-	100	-	1,074	1,074	-
Upgrade Projects														
City Wide	5162062073	Field Data Systems Program		110	-	-	-	-	-	60	-	50	50	-
		<i>Sub-Total Upgrade Projects</i>		110	-	-	-	-	-	60	-	50	50	-
Water Quality Initiatives (WQI)														
City Wide	5161468422	Randle Reef Sediment Remediation (CASH FLOWED)		550	-	-	-	-	-	-	-	550	550	-
		<i>Sub-Total Water Quality Initiatives (WQI)</i>		550	-	-	-	-	-	-	-	550	550	-

City of Hamilton
Wastewater System
2020 Capital Budget Project List
(000's)

City Ward	Project Number	Project Description	DC Debt	Gross Costs	Grants And Subsidies	Other External Revenue	Dev Charges (Inc Debt)	Reserves	WIP Reserves	WIP Other / Other Internal	WIP Debt	Net Cost	Financing Sources	
													From Operating	Debt
Waterfront Initiatives														
City Wide	5162055800	Sewer Outfall Monitoring Study		150	-	-	-	-	-	-	-	150	150	-
<i>Sub-Total Waterfront Initiatives</i>				150	-	-	-	-	-	-	-	150	150	-
Total All Projects				218,606	80,036	-	44,227	23,260	-	1,510	-	69,573	52,673	16,900

* DC Debt

**CITY OF HAMILTON
WASTEWATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Rehabilitation, Replacement, & Upgrade Programs (SAM)																
City Wide	4032014405	Contaminated Soil & Rock Disposal Program	0	0	0	0	220	220	0	0	440	440	660	660	2020	Ongoing
City Wide	4032055522	State of the Infrastructure - Asset Management	0	0	100	0	90	90	90	90	630	630	910	810	2020	Ongoing
City Wide	4032055588	O.Reg. 588/17 Compliance - Asset Management Plan Development	0	0	75	75	75	75	75	75	75	75	300	300	2020	2023
City Wide	4032058001	Consultation and Accommodation	0	0	30	30	30	30	30	30	210	210	300	300	2020	Ongoing
4	5161641226	Centralized Water and Wastewater Operations Centre (CASH FLOWED)	1,250	2,250	0	0	0	0	0	0	7,500	7,500	8,750	9,750	2016	2024
6, 7	5161655351	Lawfield / Berrisfield Neighbourhoods	185	110	0	0	170	170	0	0	0	0	355	280	2016	2021
City Wide	5161667421	New Haulage Receiving Station	1,690	0	550	550	4,250	4,250	4,250	4,250	0	0	10,740	9,050	2016	2022
12	5161960942	Ancaster Sewage Works Pipeline CIPP Rehab - CASH FLOW	0	0	500	500	0	0	0	0	0	0	500	500	2019	2020
City Wide	5162001099	Engineering Services Staffing Costs - Wastewater	0	0	4,700	4,700	4,700	4,700	4,700	4,700	32,900	32,900	47,000	47,000	2020	Ongoing
City Wide	5162011101	Road Restoration Program	0	0	1,800	1,800	1,800	1,800	1,800	1,800	12,600	12,600	18,000	18,000	2020	Ongoing
City Wide	5162049555	QA-QC Service Contract Program	0	0	140	140	140	140	140	140	980	980	1,400	1,400	2020	Ongoing
City Wide	5162055022	Engineering Consultant Sewermain Projects	0	0	300	300	300	300	300	300	2,100	2,100	3,000	3,000	2020	Ongoing
City Wide	5162055556	Mapping Update Program	0	0	40	40	40	40	40	40	280	280	400	400	2020	Ongoing
City Wide	5162055878	Forcemain Condition Assessment Program	0	0	270	270	270	270	270	270	1,890	1,890	2,700	2,700	2020	Ongoing
City Wide	5162055880	Inflow & Infiltration Studies and Flow Monitoring Program	0	0	500	249	500	249	500	249	1,510	749	3,010	1,496	2020	Ongoing
City Wide	5162057545	Wastewater Computer Model Update & Maintenance	0	0	660	660	660	660	280	280	1,960	1,960	3,560	3,560	2020	Ongoing
5	5162060044	Battlefield Creek Major Trunk Cleaning & Condition Assessment	0	0	250	250	0	0	0	0	0	0	250	250	2020	2020
City Wide	5162060302	Emergency Repairs - Cross Connections Program	0	0	700	700	700	700	500	500	1,550	1,550	3,450	3,450	2020	Ongoing
City Wide	5162060390	Wastewater System Lining Program	0	0	4,050	4,050	4,050	4,050	4,050	4,050	28,350	28,350	40,500	40,500	2020	Ongoing
City Wide	5162060522	Sewer Lateral Management Program (WWC)	0	0	4,250	4,250	4,250	4,250	4,000	4,000	24,500	24,500	37,000	37,000	2020	Ongoing
City Wide	5162060533	Trenchless Manhole Rehabilitation	0	0	70	70	70	70	70	70	490	490	700	700	2020	Ongoing

**CITY OF HAMILTON
WASTEWATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Rehabilitation, Replacement, & Upgrade Programs (SAM)																
City Wide	5162060574	Pre-Construction Mainline Condition Assessment	0	0	500	500	500	500	500	500	3,500	3,500	5,000	5,000	2020	Ongoing
City Wide	5162060575	Mainline Sewer Condition Assessment Program	0	0	1,640	1,640	1,140	1,140	1,140	1,140	7,980	7,980	11,900	11,900	2020	Ongoing
City Wide	5162060576	Sewer Lateral Condition Assessment Program	0	0	540	540	540	540	540	540	3,780	3,780	5,400	5,400	2020	Ongoing
City Wide	5162060577	Mainline Sewer Condition Assessment for Compliance & Regulations	0	0	100	100	100	100	100	100	700	700	1,000	1,000	2020	Ongoing
City Wide	5162060711	PW Capital Water Consumption Program	0	0	180	180	180	180	180	180	940	940	1,480	1,480	2020	Ongoing
City Wide	5162060820	Open Cut Repairs for CIPP Program	0	0	500	500	500	500	500	500	3,500	3,500	5,000	5,000	2020	Ongoing
8	5162061006	Inverness Ave E - Combined Major Trunk Rehabilitation	0	0	200	0	770	770	0	0	0	0	970	770	2020	2021
5, 9	5162061051	Satellite City Trunk Sewer Rehabilitation	0	0	8,750	8,750	0	0	0	0	0	0	8,750	8,750	2020	2020
City Wide	5162061444	Sewer Lateral Replace/Rehab Program	0	0	3,600	3,600	3,600	3,600	3,600	3,600	25,200	25,200	36,000	36,000	2020	Ongoing
City Wide	5162061740	Unscheduled Manhole and Sewermain Replacement Program	0	0	500	500	400	400	400	400	2,500	2,500	3,800	3,800	2020	Ongoing
City Wide	5162062073	Field Data Systems Program	0	0	110	50	110	110	110	110	770	770	1,100	1,040	2020	Ongoing
City Wide	5162071015	Sewer Lateral Replacement for Co-ordinated Projects	0	0	270	270	270	270	270	270	2,610	2,610	3,420	3,420	2020	Ongoing
City Wide	5162071074	Contingency for Unscheduled Works Program	0	0	180	180	0	0	180	180	540	540	900	900	2020	Ongoing
City Wide	5162071940	Unspecified WW Works	0	0	0	0	0	0	0	0	36,300	36,300	36,300	36,300	2020	2024
6, 7, 8	5162260291	Fennell Combined Trunk Sewer Trenchless Rehabilitation - West 5th to Mountain Brow	0	0	0	0	0	0	2,000	2,000	0	0	2,000	2,000	2022	2022
4	5162361340	Strathearne Ave North Trunk Sewer Rehabilitation	0	0	0	0	0	0	0	0	3,000	3,000	3,000	3,000	2023	2023
15	5162418420	Grindstone Creek Utility Bridge	0	0	0	0	0	0	0	0	3,500	3,500	3,500	3,500	2024	2024
4	5162561540	Strathearne Ave South Trunk Sewer Rehabilitation	0	0	0	0	0	0	0	0	2,000	2,000	2,000	2,000	2025	2025
			3,125	2,360	36,055	35,444	30,425	30,174	30,615	30,364	214,785	214,024	315,005	312,366		

Projects Coordinated with Roads Program

**CITY OF HAMILTON
WASTEWATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Projects Coordinated with Roads Program																
1	5162071006	Hillcrest - Chedoke to end	0	0	60	60	0	0	0	0	0	0	60	60	2020	2020
4	5162071315	Main -Queenston Traffic Circle to Delena & Rosewood (LRT Enabling Project)	0	0	1,160	1,160	0	0	0	0	0	0	1,160	1,160	2020	2020
1	5162371326	Jones / Oxford / Tecumseh (Strathcona Neighbourhood)	0	0	0	0	0	0	0	0	410	410	410	410	2023	2023
3, 4	5162771220	Burlington & Industrial - Ottawa to Kenilworth	0	0	0	0	0	0	0	0	740	740	740	740	2027	2027
3	5162961925	Stipeley Neighbourhood (South) - Connaught / Balasm / Dunsmure	0	0	0	0	0	0	0	0	80	80	80	80	2029	2029
			0	0	1,220	1,220	0	0	0	0	1,230	1,230	2,450	2,450		
SERG Projects																
City Wide	5162696475	Flooding & Drainage Master Plan Capital Forecast	0	0	0	0	0	0	0	0	22,500	22,500	22,500	22,500	2026	2029
			0	0	0	0	0	0	0	0	22,500	22,500	22,500	22,500		
Waterfront Initiatives																
City Wide	5162055800	Sewer Outfall Monitoring Study	0	0	150	150	0	0	0	0	0	0	150	150	2020	2020
			0	0	150	150	0	0	0	0	0	0	150	150		
Plant/Outstations Projects (SAM)																
13	5161266213	Dundas WWTP Improvements (CASH FLOWED)	3,070	0	0	0	1,650	1,650	1,650	1,650	24,150	24,150	30,520	27,450	2012	2021
12	5161267270	Ancaster Wastewater Outstations Upgrades	8,320	0	110	110	0	0	0	0	0	0	8,430	110	2012	2020
13	5161267273	Dundas Wastewater Outstations Upgrades	2,730	280	600	600	2,290	2,290	0	0	0	0	5,620	3,170	2012	2020
5	5161467756	Greenhill & Cochrane HCS01 Combined Sewer Overflow Tank Cleaning & Upgrades (CASH FLOWED)	2,920	930	0	0	1,530	1,530	0	0	0	0	4,450	2,460	2014	2021
12, 13, 15	5161667622	FC001, DC009 & HC011 Wastewater Pumping Stations Upgrades	5,190	1,438	1,500	1,500	0	0	0	0	0	0	6,690	2,938	2016	2020

**CITY OF HAMILTON
WASTEWATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Plant/Outstations Projects (SAM)																
4	5161767420	Parkdale Avenue HC001 Wastewater Pumping Station Upgrades	660	110	10	10	250	250	2,860	2,860	0	0	3,780	3,230	2017	2019
City Wide	5161966102	Woodward WWTP - Expansion (CASH FLOWED)	1,500	0	1,750	0	1,750	0	2,500	0	288,874	0	296,374	0	2019	2028
City Wide	5161966511	Woodward WWTP - Digester #5 (CASH FLOWED)	500	0	2,500	2,500	2,500	2,500	0	0	0	0	5,500	5,000	2018	2021
City Wide	5162066311	Woodward WWTP - Digester #3 (CASH FLOWED)	0	0	250	250	2,500	2,500	2,500	2,500	0	0	5,250	5,250	2020	2022
City Wide	5162066713	Wastewater Maintenance Capital Program	0	0	0	0	2,000	2,000	2,000	2,000	14,000	14,000	18,000	18,000	2020	Ongoing
City Wide	5162066813	Dundas WWTP - Health & Safety Immediate Needs	0	0	4,900	3,750	0	0	0	0	0	0	4,900	3,750	2020	2020
5	5162067065	Eastport Drive SPS (HC017) Upgrades	0	0	390	390	1,320	1,320	0	0	0	0	1,710	1,710	2020	2022
15	5162067275	FC001 Elgin Street Sewage Pumping Station	0	0	550	550	1,700	1,700	0	0	0	0	2,250	2,250	2020	2021
4, 12, 15	5162067375	Minor Upgrades to SPS Outstations	0	0	170	170	990	990	0	0	0	0	1,160	1,160	2020	2021
City Wide	5162067420	Main & King CSO Rehabilitation	0	0	350	350	0	0	0	0	0	0	350	350	2020	2020
12	5162067425	Hillside SPS (DC006) Upgrades	0	0	280	280	1,100	1,100	0	0	0	0	1,380	1,380	2020	2021
City Wide	5162067752	Wastewater Outstation Inspections - Asset Management Program	0	0	520	520	520	520	520	520	3,040	3,040	4,600	4,600	2020	Ongoing
City Wide	5162266011	Woodward WWTP - Secondary Digester	0	0	0	0	0	0	500	500	4,000	4,000	4,500	4,500	2022	2023
City Wide	5162366420	Woodward WWTP - Primary Clarifiers (Galleries 1-8)	0	0	0	0	0	0	0	0	27,940	27,940	27,940	27,940	2018	2023
City Wide	5162367751	Wastewater Outstation Upgrades - Asset Management Program	0	0	0	0	0	0	0	0	28,000	28,000	28,000	28,000	2023	Ongoing
City Wide	5162466301	Woodward WWTP North Plant Rehabilitation (CASH FLOWED)	0	0	0	0	0	0	0	0	50,000	50,000	50,000	50,000	2024	2028
			24,890	2,758	13,880	10,980	20,100	18,350	12,530	10,030	440,004	151,130	511,404	193,248		
Plant/Outstations Projects (WQI)																
City Wide	5161468422	Randle Reef Sediment Remediation (CASH FLOWED)	5,100	1,550	550	550	500	500	0	0	0	0	6,150	2,600	2014	2021
			5,100	1,550	550	550	500	500	0	0	0	0	6,150	2,600		
Plant/Outstations Projects (WINS)																

**CITY OF HAMILTON
WASTEWATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Plant/Outstations Projects (WINS)																
City Wide	5160866801	Woodward WWTP - Clean Harbour (CASH FLOWED)	216,743	3,266	100,631	17,679	69,363	29,793	25,186	22,155	0	0	411,923	72,893	2008	2022
City Wide	5160966910	Woodward WWTP - Biosolids Management Facility	10,470	630	28,030	0	2,770	2,240	2,770	2,240	19,390	15,680	63,430	20,790	2009	2051
City Wide	5162069075	City Environmental Lab Improvements Program	0	0	150	150	200	200	340	340	530	530	1,220	1,220	2020	Ongoing
			227,213	3,896	128,811	17,829	72,333	32,233	28,296	24,735	19,920	16,210	476,573	94,903		
Master Plan - Horizontal Assets																
5, 9	5161695747	Battlefield Trunk Sewer Twinning (WW-33) (CASH FLOWED)	12,150	0	0	0	10,500	0	0	0	0	0	22,650	0	2016	2021
11	5161696452	Airport Lands Dickenson Rd Trunk Sewer (WW-27, WW-26, WW-28) (CASH FLOWED)	4,400	0	26,800	0	20,300	0	20,300	0	11,300	0	83,100	0	2016	2018
1	5161996954	Aberdeen at Hillside Neighbourhood Sewer Separation	450	0	0	0	0	0	2,230	2,230	990	990	3,670	3,220	2019	2025
			17,000	0	26,800	0	30,800	0	22,530	2,230	12,290	990	109,420	3,220		
Master Plan - Vertical Assets																
City Wide	5161555264	City-Wide Wastewater Master Plan	650	0	300	30	0	0	0	0	60	6	1,010	36	2015	2021
15	5161796786	First Street (Waterdown Sanitary) PS Upgrade DC014	4,930	1,345	1,050	410	0	0	0	0	0	0	5,980	1,755	2017	2019
City Wide	5162055010	Wastewater Systems Planning Program	0	0	380	380	380	380	380	380	3,080	3,080	4,220	4,220	2020	Ongoing
City Wide	5162055050	Municipal Class EA Studies	0	0	400	400	0	0	0	0	0	0	400	400	2020	2020
City Wide	5162095800	Flooding & Drainage Master Plan Capital Improvements	0	0	880	880	880	880	0	0	0	0	1,760	1,760	2020	2023
			5,580	1,345	3,010	2,100	1,260	1,260	380	380	3,140	3,086	13,370	8,171		
Development/Extension Projects																
9	5162080089	Rymal - Fletcher to Upper Centennial	0	0	5,330	0	0	0	0	0	0	0	5,330	0	2020	2020
6, 11	5162080584	RHBP - Nebo - Rymal to Twenty	0	0	0	0	750	0	0	0	0	0	750	0	2020	2021
4	5162080961	Roxborough Park Intensification	0	0	1,500	0	0	0	0	0	0	0	1,500	0	2020	2020
City Wide	5162096011	Intensification Infrastructure Upgrades Program - Wastewater	0	0	0	0	400	200	0	0	1,600	800	2,000	1,000	2020	Ongoing

**CITY OF HAMILTON
WASTEWATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Development/Extension Projects																
7	5162180281	Rymal - 150m e/o Massina to 140m easterly	0	0	0	0	30	30	0	0	0	0	30	30	2021	2021
			0	0	6,830	0	1,180	230	0	0	1,600	800	9,610	1,030		
Coordinated Projects																
City Wide	5161855777	Wastewater infrastructure Analysis - Growth and Economic Opportunities	570	220	0	0	350	150	0	0	0	0	920	370	2018	2020
			570	220	0	0	350	150	0	0	0	0	920	370		
Demolition																
1	5161767772	Decommissioning Aberdeen Sewage Pumping Station	60	0	0	0	0	0	110	110	1,190	1,190	1,360	1,300	2019	2023
			60	0	0	0	0	0	110	110	1,190	1,190	1,360	1,300		
Energy Management																
City Wide	5162241350	Hamilton Water Solar Power Energy Pilot	0	0	0	0	0	0	150	150	600	600	750	750	2022	2023
			0	0	0	0	0	0	150	150	600	600	750	750		
Equipment Replacement																
City Wide	5161966151	SCADA servers and network	1,500	0	0	0	250	250	250	250	5,500	5,500	7,500	6,000	2019	2019
			1,500	0	0	0	250	250	250	250	5,500	5,500	7,500	6,000		
Maintenance Projects																
5, 6	5161968920	Fennell/Greenhill Drop Shaft	180	0	500	500	350	350	0	0	15,000	15,000	16,030	15,850	2019	2026
4	5162068851	Pier 25 Dredging - Windermere Basin	170	170	0	0	0	0	13,500	13,500	0	0	13,670	13,670	2018	2021
4	5162161142	Eastern Sanitary Interceptor (ESI) at Battlefield Creek Trunk	0	0	0	0	260	260	0	0	0	0	260	260	2021	2021
			350	170	500	500	610	610	13,500	13,500	15,000	15,000	29,960	29,780		
Plans/Studies																
City Wide	5162055801	Woodward WWTP Facility Plan	0	0	350	350	0	0	0	0	0	0	350	350	2020	2020

**CITY OF HAMILTON
WASTEWATER SYSTEM
2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Plans/Studies																
City Wide	5162062543	CSO Characterization Program	0	0	450	450	0	0	0	0	450	450	900	900	2020	2020
			0	0	800	800	0	0	0	0	450	450	1,250	1,250		
Total Wastewater System			285,388	12,299	218,606	69,573	157,808	83,757	108,361	81,749	738,209	432,710	1,508,372	680,088		

**SOURCE OF CAPITAL FINANCING
 2020 to 2029 RATE PROGRAM CAPITAL BUDGET
 \$(000'S)**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020 to 2029
STORM SEWERS											
Capital Program	39,880	22,215	19,850	20,050	21,670	13,950	20,460	42,705	38,870	39,290	278,940
Source of Funding											
Subsidy/Other Revenue	370	473	75	75	75	75	75	75	75	75	1,443
Development Charges	23,195	7,360	4,000	4,000	4,000	4,000	4,000	4,000	4,060	4,000	62,615
Reserves & Other Internal Sources	630	-	-	-	-	-	-	-	-	-	630
Contribution from Operating	15,685	14,382	15,775	15,975	17,595	9,875	16,385	37,630	34,735	35,215	213,252
External Debt	-	-	-	-	-	-	-	1,000	-	-	1,000
Total	39,880	22,215	19,850	20,050	21,670	13,950	20,460	42,705	38,870	39,290	278,940

City of Hamilton
 Storm Water Management
 2020 Capital Budget Project List
 (000's)

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City Ward	Project Number	Project Description	DC Debt	Gross Costs	Grants And Subsidies	Other External Revenue	Dev Charges (Inc Debt)	Reserves	WIP Reserves	WIP Other / Other Internal	WIP Debt	Net Cost	Financing Sources	
													From Operating	Debt
Annual Projects														
City Wide	4032058001	Consultation and Accommodation		30	-	-	-	-	-	-	-	30	30	-
City Wide	5182001099	Engineering Services Staffing Costs - Storm		1,100	-	-	-	-	-	-	-	1,100	1,100	-
<i>Sub-Total Annual Projects</i>				1,130	-	-	-	-	-	-	-	1,130	1,130	-
Building - New Construction														
5	5182067875	Beach Strip Stormwater Pumping Stations (CASH FLOWED)		300	-	-	-	-	-	-	-	300	300	-
<i>Sub-Total Building - New Construction</i>				300	-	-	-	-	-	-	-	300	300	-
Coordinated - Network Extension Projects														
9	5182080089	Rymal - Fletcher to Upper Centennial		1,100	-	-	935	-	-	-	-	165	165	-
<i>Sub-Total Coordinated - Network Extension Projects</i>				1,100	-	-	935	-	-	-	-	165	165	-
Coordinated - Replacement Projects														
13, 14	5182070001	Highway 8 - Woodley's Lane to Hillcrest - Road Restoration		920	-	-	-	-	-	-	-	920	920	-
13	5182070002	Highway 8 - Hillcrest to Park - Road Restoration		660	-	-	-	-	-	-	-	660	660	-
13	5182072293	Highway 8 - Hillcrest to Park		300	-	-	-	-	-	-	-	300	300	-
13, 14	5182072295	Highway 8 - Woodley's Lane to Hillcrest		1,590	-	-	-	-	-	530	-	1,060	1,060	-
<i>Sub-Total Coordinated - Replacement Projects</i>				3,470	-	-	-	-	-	530	-	2,940	2,940	-
Coordinated - Upgrade Projects														
15	5182072092	Cedar / Fern / Braeheid		100	-	-	-	-	-	-	-	100	100	-
<i>Sub-Total Coordinated - Upgrade Projects</i>				100	-	-	-	-	-	-	-	100	100	-
Development Projects														
8	5181480486	SWMP - St. Elizabeth Ponds		200	-	-	200	-	-	-	-	-	-	-
15	5182080082	SWMP - W19 (Parkside Hills Phase 2)	*	3,740	-	-	3,740	-	-	-	-	-	-	-
9	5182080086	SWMP - SM2 (Red Hill Phase 3/4)	*	4,120	-	-	4,120	-	-	-	-	-	-	-
11	5182080087	SWMP - B-10 (Lancaster Subdivision)	*	9,960	-	-	9,960	-	-	-	-	-	-	-
City Wide	5182080090	Storm Water Management Program		4,000	-	-	4,000	-	-	-	-	-	-	-
<i>Sub-Total Development Projects</i>				22,020	-	-	22,020	-	-	-	-	-	-	-
Maintenance Projects														
15	5182074950	Watercourse and Drainage Channel Maintenance		810	-	-	-	-	-	-	-	810	810	-
City Wide	5182074951	Shoreline Protection Program		400	-	-	-	-	-	-	-	400	400	-
<i>Sub-Total Maintenance Projects</i>				1,210	-	-	-	-	-	-	-	1,210	1,210	-
Master Plan - Vertical Assets														
City Wide	5182095800	Flooding & Drainage Master Plan Capital Improvements		880	-	-	-	-	-	-	-	880	880	-
<i>Sub-Total Master Plan - Vertical Assets</i>				880	-	-	-	-	-	-	-	880	880	-
Operations & Maintenance														
15	5181972940	Evans Road Culvert Twinning		540	-	-	-	-	-	-	-	540	540	-

City of Hamilton
 Storm Water Management
 2020 Capital Budget Project List
 (000's)

Appendix "Q" to Report FCS19070 Page 2 of 2

City Ward	Project Number	Project Description	DC Debt	Gross Costs	Grants And Subsidies	Other External Revenue	Dev Charges (Inc Debt)	Reserves	WIP Reserves	WIP Other / Other Internal	WIP Debt	Net Cost	Financing Sources	
													From Operating	Debt
15	5182017040	Highway 97 - Culvert Improvement Project		180	-	-	-	-	-	-	-	180	180	-
City Wide	5182060622	SWM Facility Maintenance Program		1,700	-	-	-	-	-	-	-	1,700	1,700	-
10, 11, 12, 13, 14,	5182060722	Municipal Drain Program		610	-	370	-	-	-	-	-	240	240	-
<i>Sub-Total Operations & Maintenance</i>				3,030	-	370	-	-	-	-	-	2,660	2,660	-
Programs & Contracts T.O.M.														
City Wide	5182017152	Right of Way Drainage Program		1,400	-	-	-	-	-	-	-	1,400	1,400	-
City Wide	5182017458	Catch Basin Replacement/Rehabilitation Program		500	-	-	-	-	-	-	-	500	500	-
<i>Sub-Total Programs & Contracts T.O.M.</i>				1,900	-	-	-	-	-	-	-	1,900	1,900	-
Rehabilitation Project														
City Wide	5182060533	Trenchless Manhole Rehabilitation		70	-	-	-	-	-	-	-	70	70	-
13	5182061046	Osler Dr Outfall @ Grant Blvd		100	-	-	-	-	-	-	-	100	100	-
<i>Sub-Total Rehabilitation Project</i>				170	-	-	-	-	-	-	-	170	170	-
Replacement Project														
City Wide	5181767723	Pumping Stations		600	-	-	-	-	-	-	-	600	600	-
City Wide	5182017549	Concrete Box Culvert Rehab/Repair - T.O.M.		250	-	-	-	-	-	-	-	250	250	-
City Wide	5182017550	Concrete Box Culvert Rehab/Repair - Engineering Services		250	-	-	-	-	-	-	-	250	250	-
City Wide	5182061740	Unscheduled Manhole and Sewermain Replacement Program		50	-	-	-	-	-	-	-	50	50	-
<i>Sub-Total Replacement Project</i>				1,150	-	-	-	-	-	-	-	1,150	1,150	-
SERG														
13	5181823155	South St E and East St S in Dundas Drainage Improvement - SERG		110	-	-	-	-	-	-	-	110	110	-
11	5181872295	SERG - Winona Area Drainage Improvements		100	-	-	-	-	-	-	-	100	100	-
City Wide	5182055421	Stormwater System Planning Program		380	-	-	-	-	-	-	-	380	380	-
5	5182155101	SERG - Stoney Creek & Battlefield Creek Flood and Erosion Control		250	-	-	-	-	-	-	-	250	250	-
<i>Sub-Total SERG</i>				840	-	-	-	-	-	-	-	840	840	-
Technical Services Projects														
City Wide	4032055522	State of the Infrastructure - Asset Management		100	-	-	-	-	-	100	-	-	-	-
City Wide	4032055588	O.Reg. 588/17 Compliance - Asset Management Plan Development		50	-	-	-	-	-	-	-	50	50	-
City Wide	5181555422	City Wide GRIDS II Stormwater Master Plan		300	-	-	240	-	-	-	-	60	60	-
City Wide	5182049555	QA-QC Service Contract Program		140	-	-	-	-	-	-	-	140	140	-
City Wide	5182055556	Mapping Update Program		40	-	-	-	-	-	-	-	40	40	-
City Wide	5182057545	Stormwater Computer Model		1,080	-	-	-	-	-	-	-	1,080	1,080	-
<i>Sub-Total Technical Services Projects</i>				1,710	-	-	240	-	-	100	-	1,370	1,370	-
Upgrade Projects														
City Wide	5182055825	Stormwater Drainage Analysis and Conceptual Design for Road Corridor Upgrades		760	-	-	-	-	-	-	-	760	760	-
City Wide	5182062073	Field Data Systems Program		110	-	-	-	-	-	-	-	110	110	-
<i>Sub-Total Upgrade Projects</i>				870	-	-	-	-	-	-	-	870	870	-
Total All Projects				39,880	-	370	23,195	-	-	630	-	15,685	15,685	-

* DC Debt

CITY OF HAMILTON
STORM WATER MANAGEMENT
2020 - 2029 CAPITAL BUDGET LIST (000's)

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Rehabilitation, Replacement, & Upgrade Programs (SAM)																
City Wide	4032014405	Contaminated Soil & Rock Disposal Program	0	0	0	0	220	220	0	0	440	440	660	660	2020	Ongoing
City Wide	4032055522	State of the Infrastructure - Asset Management	0	0	100	0	90	90	90	90	630	630	910	810	2020	Ongoing
City Wide	4032055588	O.Reg. 588/17 Compliance - Asset Management Plan Development	0	0	50	50	50	50	50	50	50	50	200	200	2020	2023
City Wide	4032058001	Consultation and Accommodation	0	0	30	30	30	30	30	30	210	210	300	300	2020	Ongoing
City Wide	5181555422	City Wide GRIDS II Stormwater Master Plan	650	0	300	60	0	0	0	0	60	0	1,010	60	2015	2020
9, 11, 12, 15	5181562590	SWMP Retrofits	720	500	0	0	0	0	0	0	220	220	940	720	2015	2023
City Wide	5181767723	Pumping Stations	100	100	600	600	0	0	100	100	50	50	850	850	2017	2026
15	5181972940	Evans Road Culvert Twinning	170	0	540	540	0	0	0	0	0	0	710	540	2019	2020
City Wide	5182001099	Engineering Services Staffing Costs - Storm	0	0	1,100	1,100	1,100	1,100	1,100	1,100	7,700	7,700	11,000	11,000	2020	Ongoing
15	5182017040	Highway 97 - Culvert Improvement Project	0	0	180	180	580	580	0	0	0	0	760	760	2020	2021
City Wide	5182017549	Concrete Box Culvert Rehab/Repair - T.O.M.	0	0	250	250	250	250	250	250	1,750	1,750	2,500	2,500	2020	Ongoing
City Wide	5182017550	Concrete Box Culvert Rehab/Repair - Engineering Services	0	0	250	250	250	250	250	250	1,750	1,750	2,500	2,500	2020	Ongoing
City Wide	5182049555	QA-QC Service Contract Program	0	0	140	140	140	140	140	140	980	980	1,400	1,400	2020	Ongoing
City Wide	5182055556	Mapping Update Program	0	0	40	40	40	40	0	0	160	160	240	240	2020	Ongoing
City Wide	5182055825	Stormwater Drainage Analysis and Conceptual Design for Road Corridor Upgrades	0	0	760	760	0	0	0	0	0	0	760	760	2020	2020
City Wide	5182057545	Stormwater Computer Model	0	0	1,080	1,080	0	0	1,080	1,080	2,200	2,200	4,360	4,360	2020	Ongoing
City Wide	5182060533	Trenchless Manhole Rehabilitation	0	0	70	70	70	70	70	70	490	490	700	700	2020	Ongoing
City Wide	5182060622	SWM Facility Maintenance Program	0	0	1,700	1,700	1,500	1,500	1,500	1,500	8,400	8,400	13,100	13,100	2020	Ongoing
10, 11, 12, 13, 14, 15	5182060722	Municipal Drain Program	0	0	610	240	700	227	100	25	700	175	2,110	667	2020	Ongoing
13	5182061046	Osler Dr Outfall @ Grant Blvd	0	0	100	100	380	380	0	0	0	0	480	480	2020	2021
City Wide	5182061740	Unscheduled Manhole and Sewermain Replacement Program	0	0	50	50	50	50	50	50	350	350	500	500	2020	Ongoing
City Wide	5182062073	Field Data Systems Program	0	0	110	110	110	110	110	110	770	770	1,100	1,100	2020	Ongoing

CITY OF HAMILTON
STORM WATER MANAGEMENT
2020 - 2029 CAPITAL BUDGET LIST (000's)

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Rehabilitation, Replacement, & Upgrade Programs (SAM)																
5	5182067875	Beach Strip Stormwater Pumping Stations (CASH FLOWED)	0	0	300	300	1,295	1,295	7,100	7,100	7,075	7,075	15,770	15,770	2020	2023
City Wide	5182072074	Contingency for Unscheduled Works Program	0	0	0	0	180	180	0	0	720	720	900	900	2020	Ongoing
			1,640	600	8,360	7,650	7,035	6,562	12,020	11,945	34,705	34,120	63,760	60,877		
Projects Coordinated with Roads Program																
13, 14	5182070001	Highway 8 - Woodley's Lane to Hillcrest - Road Restoration	0	0	920	920	0	0	0	0	0	0	920	920	2020	2020
13	5182070002	Highway 8 - Hillcrest to Park - Road Restoration	0	0	660	660	0	0	0	0	0	0	660	660	2020	2020
15	5182072092	Cedar / Fern / Braeheid	0	0	100	100	0	0	0	0	0	0	100	100	2020	2020
13	5182072293	Highway 8 - Hillcrest to Park	0	0	300	300	0	0	0	0	0	0	300	300	2020	2020
13, 14	5182072295	Highway 8 - Woodley's Lane to Hillcrest	0	0	1,590	1,060	0	0	0	0	0	0	1,590	1,060	2020	2020
4	5182172295	Barton - Parkdale to Talbot	0	0	0	0	1,530	1,530	0	0	0	0	1,530	1,530	2021	2021
1	5182372290	Jones / Oxford / Tecumseh (Strathcona Neighbourhood)	0	0	0	0	0	0	0	0	125	125	125	125	2023	2023
3	5182672290	Industrial - Ottawa to Gage / Gage / Depew	0	0	0	0	0	0	0	0	390	390	390	390	2026	2026
3, 4	5182772290	Burlington & Industrial - Ottawa to Kenilworth	0	0	0	0	0	0	0	0	675	675	675	675	2027	2027
3	5182972290	Stipeley Neighbourhood (South) - Connaught / Balasm / Dunsmure	0	0	0	0	0	0	0	0	850	850	850	850	2029	2029
			0	0	3,570	3,040	1,530	1,530	0	0	2,040	2,040	7,140	6,610		
SERG Projects																
1	5181260214	SERG - Parkside and Kipling Flood Solutions	1,890	170	0	0	1,000	1,000	0	0	0	0	2,890	1,170	2012	2027
6	5181372295	SERG - Mount Albion Stormwater Management Facility Rehabilitation	670	0	0	0	0	0	330	330	0	0	1,000	330	2013	2022
13	5181823155	South St E and East St S in Dundas Drainage Improvement - SERG	120	60	110	110	0	0	0	0	220	220	450	390	2018	2023
11	5181872295	SERG - Winona Area Drainage Improvements	500	330	100	100	440	440	170	170	1,100	1,100	2,310	2,140	2018	2025
City Wide	5181955347	SERG - Watercourse Erosion Assessment	0	0	0	0	770	770	130	130	1,100	1,100	2,000	2,000	2019	2024

**CITY OF HAMILTON
 STORM WATER MANAGEMENT
 2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
SERG Projects																
City Wide	5182055421	Stormwater System Planning Program	0	0	380	380	380	380	380	380	2,660	2,660	3,800	3,800	2020	Ongoing
5	5182155101	SERG - Stoney Creek & Battlefield Creek Flood and Erosion Control	150	0	250	250	0	0	0	0	0	0	400	250	2019	2020
5	5182323875	Beach Strip Stormwater Collection System Improvements	0	0	0	0	0	0	150	150	2,850	2,850	3,000	3,000	2023	2024
City Wide	5182355075	SERG - Watershed Project Coordination and Stewardship Action Plans	0	0	0	0	0	0	0	0	2,000	2,000	2,000	2,000	2023	2029
1	5182460214	SERG - Parkside & Kipling Stormwater Facility	0	0	0	0	0	0	0	0	12,610	12,610	12,610	12,610	2024	2028
3	5182472295	Main - Prospect to Gage - SERG B-3	0	0	0	0	0	0	0	0	1,580	1,580	1,580	1,580	2024	2024
City Wide	5182674850	Stormwater Management Program	0	0	0	0	0	0	0	0	20,000	20,000	20,000	20,000	2026	2029
City Wide	5182696475	Flooding & Drainage Master Plan Capital Forecast	0	0	0	0	0	0	0	0	67,500	67,500	67,500	67,500	2026	2029
			3,330	560	840	840	2,590	2,590	1,160	1,160	111,620	111,620	119,540	116,770		
Master Plan - Vertical Assets																
City Wide	5182095800	Flooding & Drainage Master Plan Capital Improvements	0	0	880	880	880	880	0	0	0	0	1,760	1,760	2020	2023
			0	0	880	880	880	880	0	0	0	0	1,760	1,760		
Development/Extension Projects																
8	5181480486	SWMP - St. Elizabeth Ponds	360	0	200	0	0	0	0	0	0	0	560	0	2014	2020
15	5182080082	SWMP - W19 (Parkside Hills Phase 2)	0	0	3,740	0	0	0	0	0	0	0	3,740	0	2020	2020
9	5182080086	SWMP - SM2 (Red Hill Phase 3/4)	0	0	4,120	0	0	0	0	0	0	0	4,120	0	2020	2020
11	5182080087	SWMP - B-10 (Lancaster Subdivision)	0	0	9,960	0	0	0	0	0	0	0	9,960	0	2020	2020
9	5182080089	Rymal - Fletcher to Upper Centennial	0	0	1,100	165	0	0	0	0	0	0	1,100	165	2020	2020
City Wide	5182080090	Storm Water Management Program	0	0	4,000	0	4,000	0	4,000	0	28,000	0	40,000	0	2020	Ongoing
6, 11	5182080584	RHBP - Nebo - Rymal to Twenty	0	0	0	0	2,000	0	0	0	0	0	2,000	0	2020	2021
11	5182180280	Airport Road Storm Sewer - Homestead to Mountaingate	0	0	0	0	1,360	0	0	0	0	0	1,360	0	2021	2021

**CITY OF HAMILTON
 STORM WATER MANAGEMENT
 2020 - 2029 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2020		2020		2021		2022		2023-2029		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Development/Extension Projects																
7	5182180281	Rymal - 150m e/o Massina to 140m easterly	0	0	0	0	70	70	0	0	0	0	70	70	2021	2021
			360	0	23,120	165	7,430	70	4,000	0	28,000	0	62,910	235		
Maintenance Projects																
15	5182074950	Watercourse and Drainage Channel Maintenance	0	0	810	810	90	90	580	580	3,870	3,870	5,350	5,350	2020	Ongoing
City Wide	5182074951	Shoreline Protection Program	0	0	400	400	750	750	170	170	3,040	3,040	4,360	4,360	2020	Ongoing
			0	0	1,210	1,210	840	840	750	750	6,910	6,910	9,710	9,710		
Programs & Contracts T.O.M.																
City Wide	5182017152	Right of Way Drainage Program	0	0	1,400	1,400	1,410	1,410	1,420	1,420	10,220	10,220	14,450	14,450	2020	Ongoing
City Wide	5182017458	Catch Basin Replacement/Rehabilitation Program	0	0	500	500	500	500	500	500	3,500	3,500	5,000	5,000	2020	Ongoing
			0	0	1,900	1,900	1,910	1,910	1,920	1,920	13,720	13,720	19,450	19,450		
Total Storm Water Management			5,330	1,160	39,880	15,685	22,215	14,382	19,850	15,775	196,995	168,410	284,270	215,412		

CITY OF HAMILTON
2020 Rate Program Capital Budget Summary
(\$000'S)

	Gross Costs	Subsidy/ Other Revenues	Development Charges	WIP / Other Internal Sources	Reserves	Net Cost	Financing Source	
							Contribution From Operating	External Borrowings (Debentures)
2020 Sustainable Asset Management Strategy (SAM)								
Rehabilitation, Replacement & Upgrade Projects	76,010	370	-	560	-	75,080	58,690	1,800
Projects Coordinated with Roads Program	16,330	6,130	-	1,150	640	8,410	23,300	-
S.E.R.G. Projects	840	-	-	-	-	840	840	-
Treatment Plant/Outstations Projects	19,830	-	1,750	1,150	-	16,930	16,630	-
Treatment Plant/Outstations Projects-WQI	950	-	-	-	-	950	950	-
Watermain Lining	5,400	-	-	-	-	5,400	5,400	-
Sub-Total	119,360	6,500	1,750	2,860	640	107,610	105,810	1,800
Wastewater Investments Needs Strategies (WINS)								
Treatment Plant/Outstations Projects	128,811	80,036	7,686	-	23,260	17,829	2,729	15,100
Sub-Total	128,811	80,036	7,686	-	23,260	17,829	2,729	15,100
Master Plan								
Horizontal and Vertical Assets	39,010	223	35,946	-	-	2,841	2,841	-
Technical Service Projects	8,440	-	1,031	300	-	7,109	7,109	-
Sub-Total	47,450	223	36,977	300	-	9,950	9,950	-
Development Program								
Development/Extension Projects	30,360	-	30,195	-	-	165	165	-
Sub-Total	30,360	-	30,195	-	-	165	165	-
Total	325,981	86,759	76,608	3,160	23,900	135,554	118,654	16,900

City of Hamilton Treasurer's Updated 2019 Annual Repayment Limit

Annual Repayment Limit - <i>effective January 1, 2019, as calculated by the Ministry of Municipal Affairs and Housing, based on 2017 Financial Information Return</i>	\$266,191,448
Annual debt service charges on City Municipal debt approved to-date 2019 and prior years but not yet issued (\$468.4 M @ 5% for 15 year term)	-\$45,130,619
Annual debt service charges on City Municipal debt in respect of ICIP Transit debt approved but not yet issued (\$83.6 M @ 5% for 15 year term)	-\$8,055,294
Annual debt service charges on City Housing Hamilton debt approved but not yet issued and guaranteed by City of Hamilton (\$59.28 M @ 5% for 30 year term)	-\$3,856,250
Annual debt service charges in 2019 resulting from 2018 debenture issue of \$110.820 M;	-\$10,756,928
Annual debt service charges on debentures discharged in 2017 and 2018	\$11,802,452
Adjustment for annual debt service charges on existing City Housing Hamilton mortgages and City of Hamilton Tangible Capital Leases	-\$76,563
Updated 2019 Annual Repayment Limit - a calculation by the Treasurer representing an estimate of the maximum amount available to commit to annual debt service charges	\$210,118,246
Debenture amount at 5% interest rate for 15 year term (amortizer) corresponding to the annual debt service charges of \$210,118,246	\$2,180,955,548



2020 RECOMMENDED WATER, WASTEWATER AND STORMWATER RATE SUPPORTED BUDGET

November 25, 2019

2020 RATE BUDGET



Performance Metrics / Statistics

2019 Highlights

Clean Harbour / Biosolids P3 Project

2019 Opportunities & Challenges

Future Outlook

Continuous Improvement

State of the Infrastructure

2020 Operating Budget

2019 WATER FORECAST



81,719 ML TREATED
WHICH IS EQUAL TO 30% OF HAMILTON HARBOUR

DAY-TO DAY
OPERATIONS AND
MAINTENANCE OF
13,322
FIRE HYDRANTS

SUPPORTING



CIES
WITH
RESEARCH

21 WATER
PUMPING
STATIONS

WELL
SYSTEMS
CARLISLE
FREELTON
GREENSVILLE
LYNDEN

13
RESERVOIRS

9 ACTIVE
CONSTRUCTION
PROJECTS

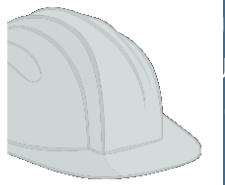
152,214
WATER METERS

7
WATER
TOWERS

20,282
WATER
TREATMENT
PLANT SAMPLES
TESTED



280,000
EDUCATIONAL
PRINT PIECES



FINISHING **4**
SUBSTANTIALLY
COMPLETED
PROJECTS

2,101 km
OF WATERMAINS

297
WATERMAIN
REPAIRS (YTD)

24,000
YOUTH WITH
OUTREACH
ACTIVITIES



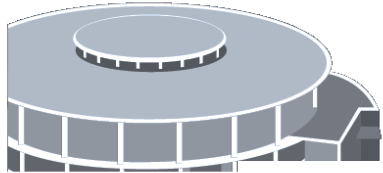
18,535
WATER
DISTRIBUTION
SAMPLES
TESTED

594

SUBSTANDARD
WATER SERVICE
LINE
REPLACEMENTS
COMPLETED
(YTD)

2019 WASTEWATER FORECAST

2 WASTEWATER TREATMENT PLANTS



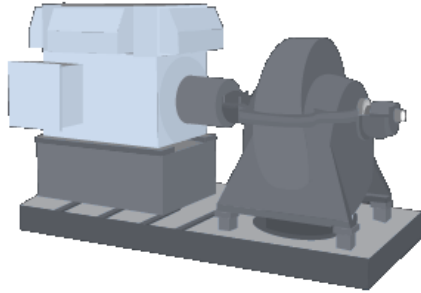
143,041 ML TREATED
WHICH IS EQUAL TO 50% OF
HAMILTON HARBOUR

323
BACKWATER VALVES
INSTALLED (YTD)

ADDITIONAL
SERVICES REVENUE
\$ 6,082,419
(64 ACTIVE
PERMITS)

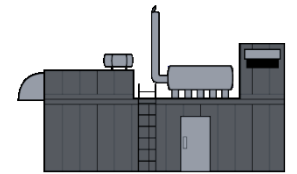


71 PUMPING STATIONS



9
COMBINED SEWER
OVERFLOW

8,607 MWH
ELECTRICITY
PRODUCED
29 % increase as compared to 2018 performance



3 ACTIVE
CONSTRUCTION
PROJECTS

1,196 km
SANITARY SEWER

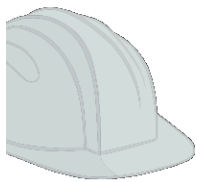
42,630
TONNES OF
BIOSOLIDS REMOVED



50,590
WASTEWATER
SAMPLES TESTED



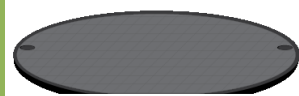
2532
DEVELOPMENT
APPLICATION
REVIEWS (YTD)



3
SUBSTANTIALLY
COMPLETED
PROJECTS

574 km
COMBINED
SEWER

45,981
MANHOLES



21,059
ENVIRONMENTAL
SAMPLES TESTED

\$4.4 M
COST AVOIDANCE
(YTD GLOBAL
ADJUSTMENT)

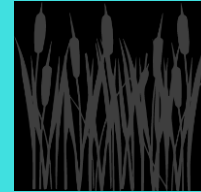
2019 STORMWATER PROGRAM



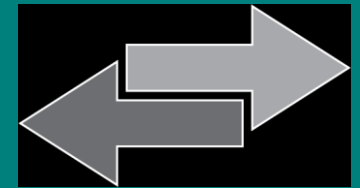
1,376,240 m³

STORMWATER STORAGE CAPACITY

7



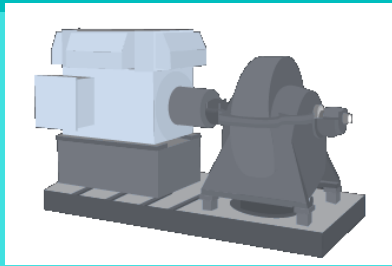
ENGINEERED WETLANDS



48

OIL & GRIT SEPARATORS

2



STORMWATER PUMPING STATIONS

191

KILOMETRES OF WATERCOURSES



57

KILOMETRES OF MUNICIPAL DRAINS

61 WET PONDS



59 DRY PONDS



1,216 km STORM SEWER

398 EMERGENCY SPILLS (YTD)



2019 FLOODING & DRAINAGE MASTER SERVICING



DRAINAGE EASEMENTS

SHORELINE ASSETS*

2019 SYSTEM PERFORMANCE

Woodward WWTP

- ❖ 138,353 ML wastewater treatment (forecast)
- ❖ 29 months continuous compliance
- ❖ 42,630 tonnes biosolids removed (forecast)
- ❖ 8,607 MWH of cogen electricity generated (forecast)
- ❖ 1,149,367 m³ of renewable natural gas generated by the bio-gas purification unit (forecast)
- ❖ 32 plant by-passes during wet weather events (YTD)

Dundas WWTP

- ❖ 4,688 ML wastewater treatment (forecast)
- ❖ 56 months continuous compliance
- ❖ 100 yr. anniversary



Water Treatment Plant

- ❖ 81,829 ML water treatment (forecast)
- ❖ Confirmed AWQIs
 - 0 Confirmed
 - 5 Unconfirmed
- ❖ YTD global adjustment - \$4.43M cost avoidance

2019 HIGHLIGHTS

OUR PRIORITIES



COMMUNITY ENGAGEMENT & PARTICIPATION

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.



ECONOMIC PROSPERITY & GROWTH

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.



HEALTHY & SAFE COMMUNITIES

Hamilton is a safe and supportive city where people are active, healthy, and have a high quality of life.



CLEAN & GREEN

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.



BUILT ENVIRONMENT & INFRASTRUCTURE

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.



CULTURE & DIVERSITY

Hamilton is a thriving, vibrant place for arts, culture, and heritage where diversity and inclusivity are embraced and celebrated.



OUR PEOPLE & PERFORMANCE

Hamiltonians have a high level of trust and confidence in their City government.



Economic Prosperity and Growth

- ❖ Partnership with CityLAB
 - Property assessment tool
 - Pumping station virtual tours



Clean and Green

- ❖ Outstation security upgrades

Healthy and Safe Communities

- ❖ WWTP bypass notification protocol
- ❖ Lynden distribution network flushing

Wastewater Treatment Plant Bypass
Home > Home, Property and Development > Water & Sewer > Wastewater Treatment Plant Bypass

City Survey
 Your Thoughts. Our Action.

Have your say to help the City better understand the performance of municipal services and identify areas where the City is doing well and where there is room to improve. [Learn more about the survey and how you contribute.](#)

No Active Wastewater Treatment Plant Bypass
Wastewater Treatment Plants operating as expected.

Wastewater Treatment Plant Bypass Events
A wastewater treatment bypass event could occur when:

- The volume of storm water (rain and melt water) and wastewater reaching the wastewater treatment plant exceeds the capacity of the plant.
- When elevated lake levels cause lake water to back-feed into the wastewater collection system.
- To facilitate vital maintenance repairs at the treatment plant.

Our People & Performance

- ❖ Succession planning
- ❖ Stormwater program restructure
- ❖ *#OwnYourThrone – golden quill award*





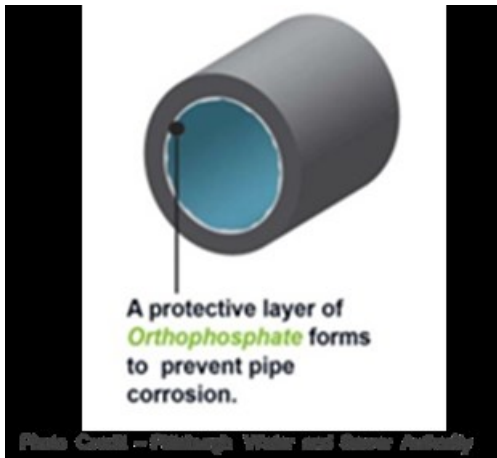
Built Environment and Infrastructure

- ❖ Beach blvd. ponding study
- ❖ Environmental Assessments
 - Ancaster water tower
 - Elfrida water tower and pumping station
 - Waste hauler station
- ❖ Disaster Mitigation Adaptation Fund
- ❖ Capital projects
 - Freelton tower upgrades
 - Binbrook WWPS capacity upgrades
 - Eastport dr. hauled waste receiving station upgrades
 - Water Treatment Plant – phase 1 upgrades
 - Hamilton mountain storm trunk sewer rehabilitation



Citizen Facing Programs

- ❖ Protective plumbing program (backwater valves)
 - Rostered contractor model continues to be a success
 - 9,638 valves installed since 2009 - \$23.5M in grants
- ❖ Sewer lateral management program
 - Upgrade of aged residential sewer service lines
 - 820 inspections (YTD), spot repairs, replacement or lining
 - Approximately \$2.7M invested in 2019
- ❖ Poor pressure program (lead services)
 - 594 services replaced (YTD)
 - 1,030 size & type inspections (YTD)
 - Approximately \$1.9M invested in 2019
- ❖ Corrosion control program
 - Program launched November 2018
 - No water quality issues observed / reported
 - Early tests results are showing benefits of program



CLEAN HARBOUR PROGRAM

Video Slide



CLEAN HARBOUR PROGRAM

For more information, visit our website at

- ❖ www.hamilton.ca/cleanharbour
- ❖ www.hamilton.ca/city-initiatives/our-harbour/current-projects

WOODWARD UPGRADE PROJECT



Contract 1 Main Pump Station



Status: Construction
Contract Value: \$87.6M
Completion: Q2 2021

Contract 2 Electrical & Chlorine System



Status: Construction
Contract Value: \$61M
Completion: Q2 2021

Contract 3 Tertiary Treatment Upgrade



Status: Construction
Contract Value: \$165M
Completion: Q4 2021

60,000 kg/yr	\$6,000,000 Average Payment Certificate	11 Trucks/Hr at Peak	250 Labourers at Peak

RANDLE REEF PROJECT



- ❖ Project phase 1 – containment facility
 - Completed – 2018
- ❖ Project phase 2 – dredging
 - 92,900 m³ by August 2019
- ❖ Next Steps:
 - Dredging continues into 2020
 - Phase 3 – capping and landscaping to be tendered in 2020
- ❖ Expected project completion : 2022
- ❖ Total project cost ~ \$139 M



- ❖ PPP Canada financial agreement with Infrastructure Canada
- ❖ 2019 Key milestones
 - Installation of drum dryers
 - Building construction complete
- ❖ Substantial completion April 30, 2020



2019 OPPORTUNITIES AND CHALLENGES



Regulatory Challenges

- ❖ MECP inspection process
- ❖ Consolidated wastewater ECAs (Woodward & Dundas)
- ❖ Watermain disinfection procedure
- ❖ Allocation capacity – combined sewer system
- ❖ Stormwater source control enforcement
- ❖ Tertiary treatment in rural applications



Clean and Green

- ❖ Stormwater program funding

Healthy and Safe Communities

- ❖ Capital rehabilitation program delays leading to increased maintenance and operating costs
- ❖ Backflow prevention by-law



Our People & Performance

- ❖ Call rationalization – knowledge transfer
- ❖ Increased staff workload
 - Operational support for WUP
 - Development applications
 - Development pressures (Airport Employment Growth District, Waterdown)
- ❖ Systems
 - Crystal reports (PW impact)
 - Vertical asset management program
 - Water and wastewater modelling
 - IT centralization
 - PW enterprise asset management project

Built Environment and Infrastructure

- ❖ Utility encroachment
- ❖ Management of contaminated soils – PCB's
- ❖ Climate change / high lake water levels
- ❖ Master Plan delays – impacts to EA's and capital projects

FUTURE OUTLOOK



Organizational

- ❖ Storm rate
- ❖ By-law updates
 - Sewer use by-law
 - Waterworks by-law



Operations

- ❖ Wastewater quality management system (QMS)
- ❖ Biosolids P3 30-year operations & maintenance contract
- ❖ Automated meter infrastructure (AMI) for ICI facilities
- ❖ Fats, oils and grease awareness campaign.
- ❖ Non revenue water / leak detection initiatives



Planning & Capital Program

- ❖ Capital projects
 - Lynden well
 - Kenilworth & Ben Nevis reservoir upgrades
 - Kenilworth pumping station upgrades – phase 2
 - Airport Employment Growth District servicing upgrades



Organizational

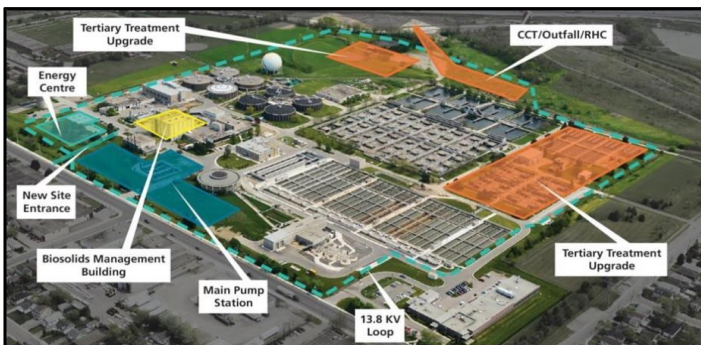
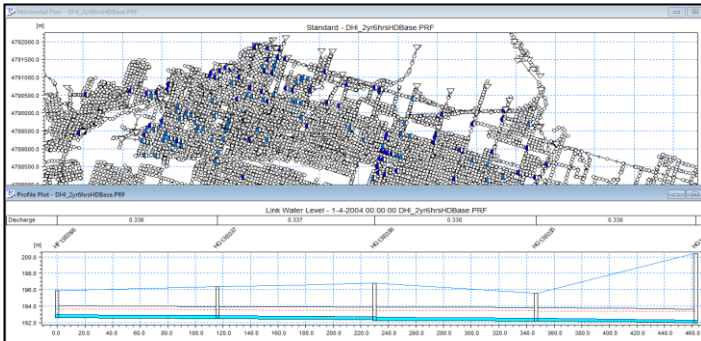
- ❖ Stormwater source control enforcement strategy
- ❖ Hydraulic models
 - Water
 - Wastewater
 - Stormwater
 - Groundwater

Operations

- ❖ Integration of the WUP capital into operations
- ❖ Support LRT construction
- ❖ Non revenue water initiatives

Planning & Capital Program

- ❖ Woodward WTP phase 2 upgrades
- ❖ Dundas wastewater treatment plant upgrades



CLIMATE CHANGE ADAPTATION/MITIGATION



“That the City of Hamilton declare a climate emergency that threatens our city, region, province, nation, civilization, humanity and the natural world.”

Hamilton City Council, March 29, 2019



Credit - <https://www.thespec.com/>

2020

- ❖ Inflow & infiltration studies
- ❖ CSO characterization program
- ❖ Beach blvd stormwater ponding strategy
- ❖ Winona area drainage improvements
- ❖ South st east / East st south drainage improvements (Dundas)
- ❖ Stormwater pumping stations – stand-by power upgrades

2021 - 2023

- ❖ Stormwater source control enforcement strategy
- ❖ Watercourse erosion assessment
- ❖ Flooding & drainage master plan strategy
- ❖ Woodward WTP phase 2 upgrades
 - Blue-green algae
- ❖ Woodward upgrade project
 - Increased storage / conveyance capacity and back up power for entire facility



Clean and Green

- ❖ Low Impact Development (LID) governance and enforcement

Healthy and Safe Communities

- ❖ Pending changes to drinking water regulatory limits (ex. lead)
- ❖ Contaminants of emerging concerns
- ❖ Climate change – rainfall, elevated lake levels, frozen services, algae blooms



Built Environment and Infrastructure

- ❖ Aging infrastructure
- ❖ Dedicated stormwater funding stream
- ❖ Dundas WWTP upgrades – funding
- ❖ Municipal responsibility agreements



Hamilton - the Ambitious City



Development Applications

- ❖ Estimated over 1000 applications in 2019
- ❖ Applications increase year over year
- ❖ Revised fire flow policy approved in 2019
- ❖ Additional FTEs in 2020 budget to support open for business and maintain existing service levels

Accelerated Growth Projects

- ❖ Waterdown
- ❖ Binbrook
- ❖ Airport Employment Growth District (AEGD)

Construction Dewatering and On-site Storage

- ❖ Oversight of temporary discharges to sewer to facilitate construction activities
- ❖ Approved on site storage must be monitored and inspected to ensure system sustainability
- ❖ FTE requests in 2021 to support strategy

WE ARE HAMILTON. WE ARE READY.

OCTOBER 29, 2019 · VNANDHRA · NEWS

INVEST IN HAMILTON

Hamilton, Ontario, Canada. The nation's most diversified economy, the fastest growing mid-sized city for tech talent and a fantastic community approach to supporting investment big and small.

Credit - <https://investinhamilton.ca/>

CONTINUOUS IMPROVEMENT

Customer Oriented

- ❖ Hydrant upgrades
 - Improved visibility
 - Improved fire fighting capabilities
 - \$20K/yr. estimated savings



- ❖ Flooding Heat Mapping Interface
 - On demand access to data
 - Optimize emergency response
 - Free up staff resources



Process Oriented

- ❖ Project management online tool
 - Support project chartering
 - Visibility for entire team
 - On-demand reporting
 - Collaboration with City IT
- ❖ SCADA cyber security enhancements
 - Multi layer defence system
 - Standardization and enhancements to physical security layer (servers)
 - Collaboration with City IT

Process Oriented

❖ Enzyme Substrate Method for Microbiological Analysis

- Presence/absence or quantifiable result
- Accreditation to ISO 17025
- Licensing by MECP for the analysis of drinking water expected by end of year
- 18hr vs 24hr incubation period
- 50% reduction to prep time for procedure
- Reduction in overtime expected.
- Interference elimination - AWQIs



HAMILTON WATER – QUALITY AND COMPETITIVENESS

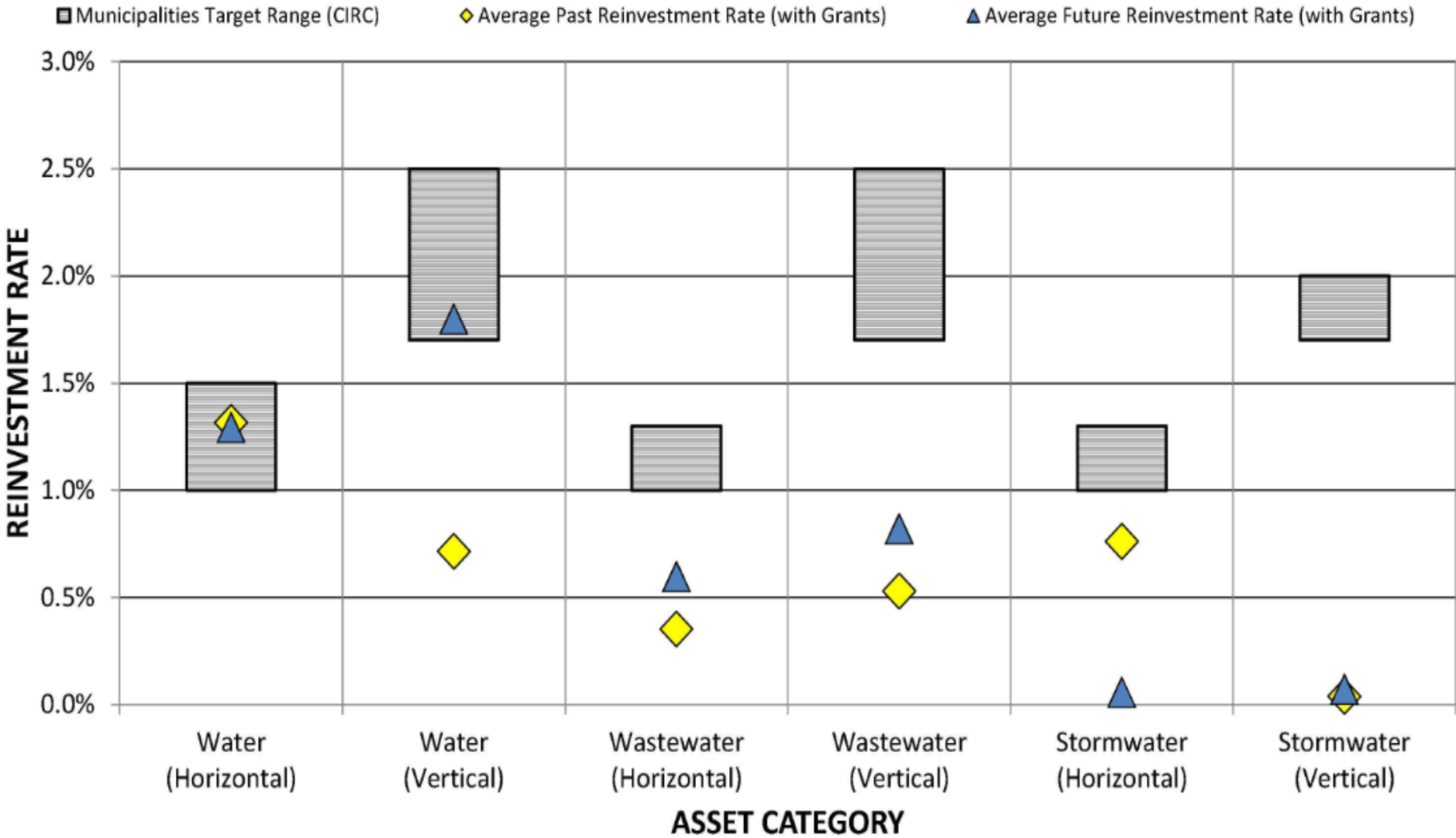


Service	Cost by City Staff (\$/event)	Cost by City Contractor (\$/event)
Hydrant Replacement	\$12,000	\$22,000
Watermain Break	\$7,000	\$11,000
Valve Installation/Replacement	\$8,000	\$16,000
Water Service Line Replacements: Non-Poor Pressure	\$11,000	\$15,000
Rod & Barrel Repairs (Water Shut-off)	\$912	\$3,856

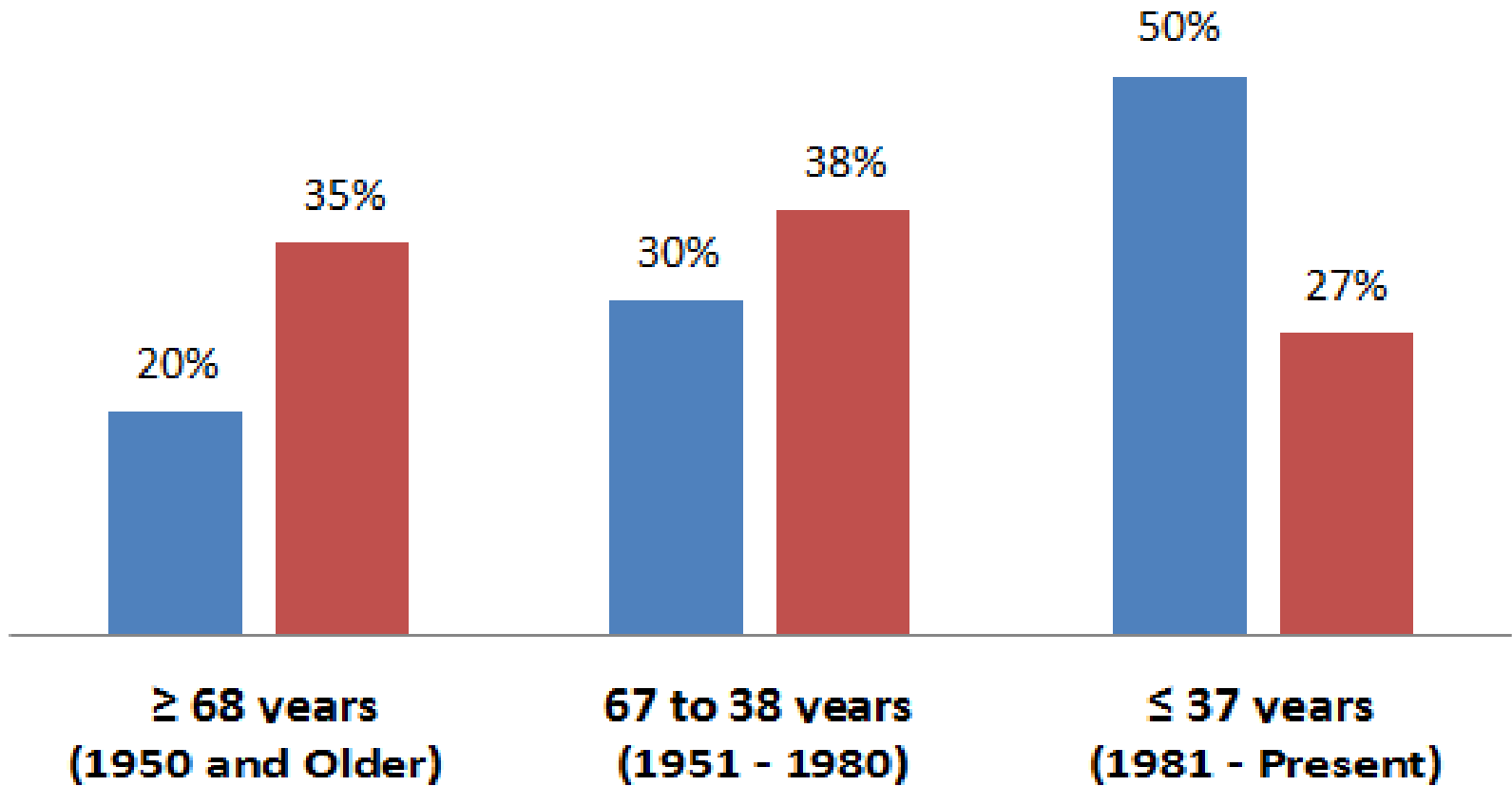


STATE OF THE INFRASTRUCTURE

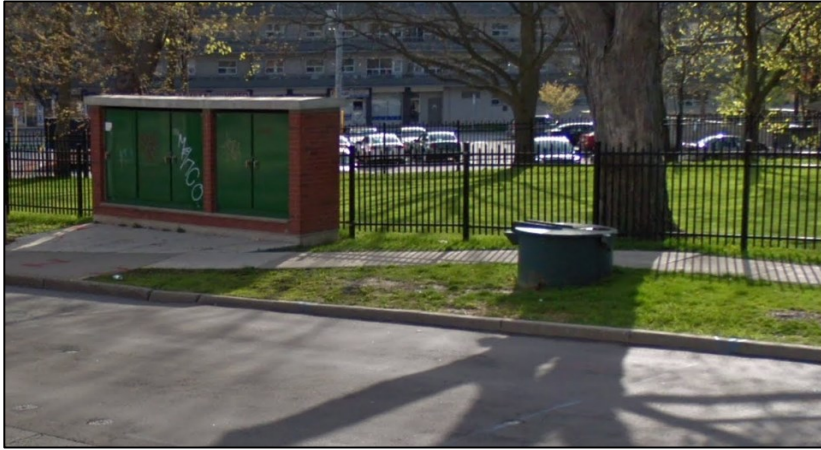
INFRASTRUCTURE REINVESTMENT RATE COMPARISON



■ Local Watermain (% of assets) ■ Transmission Watermain (% of assets)



9% of the distribution network is transmission watermain (450mm and larger)



Main st w/Whitney Ave. water pumping station (1968)
Replacement value - \$4.9M



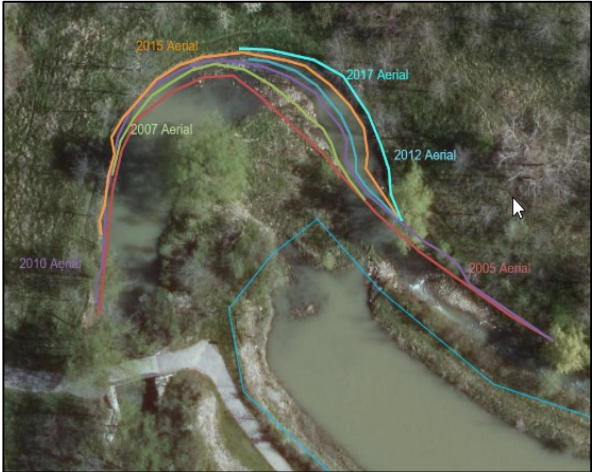
Parkdale Ave. wastewater pump station (1955)
Rehabilitation value - \$6.08M



Pinewarbler Dr



Dunning court siphon



Mountain Brow / Arbour Rd storm pond



Upper James St



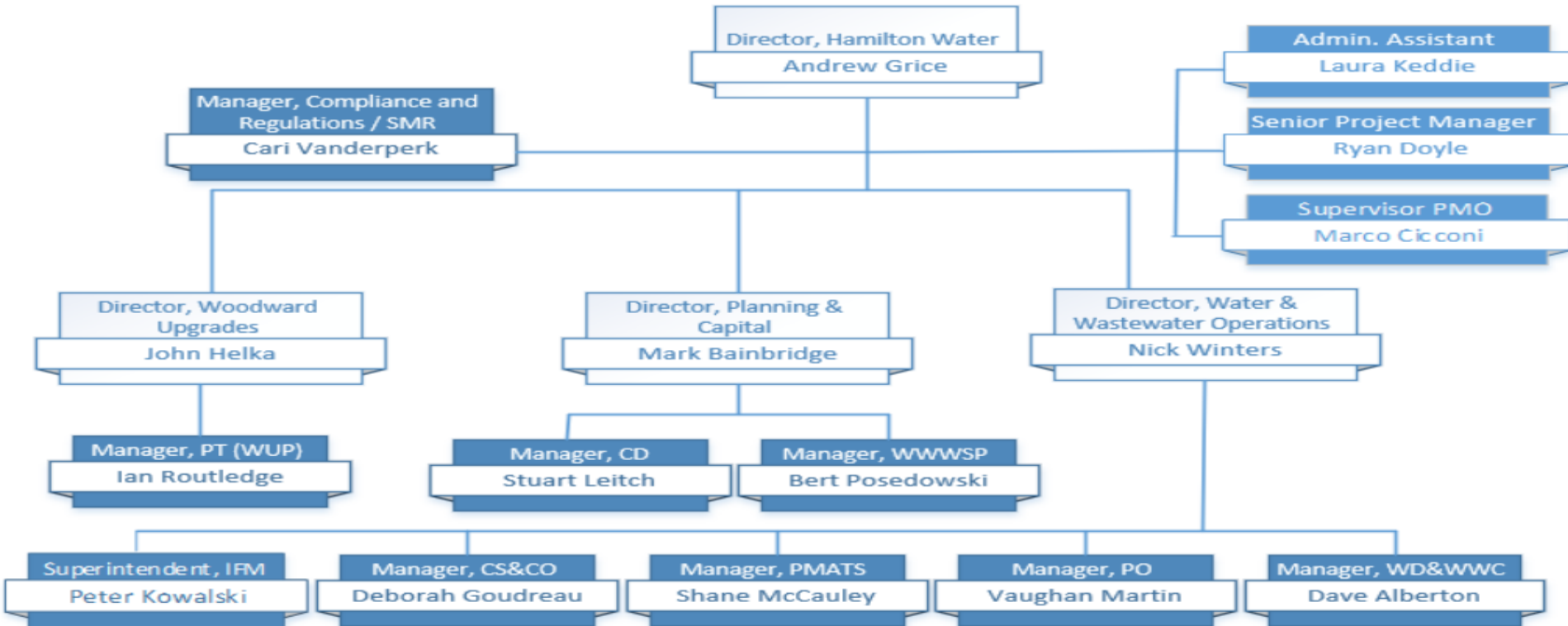
WW lateral – Dundas (East St/South St)



Stoney Creek watercourse outlet

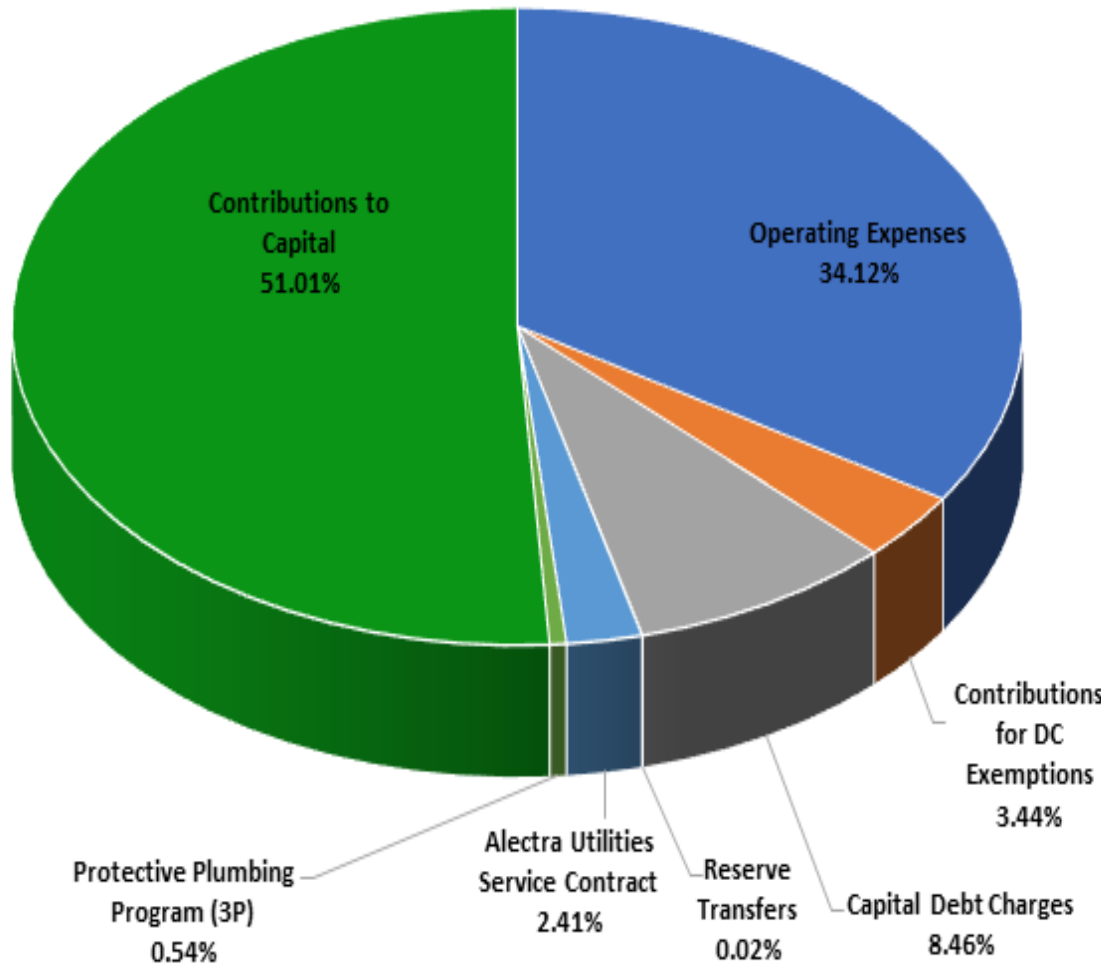
2020 OPERATING BUDGET

HAMILTON WATER



Complement (FTE)	Management	Other	Total	Staff to Mgt Ratio
2018	12	288.65	300.65	25.05
2019	12	301.65	313.65	26.14
2020	12	308.65	320.65	26.72
Change	0	+ 7	+ 7	

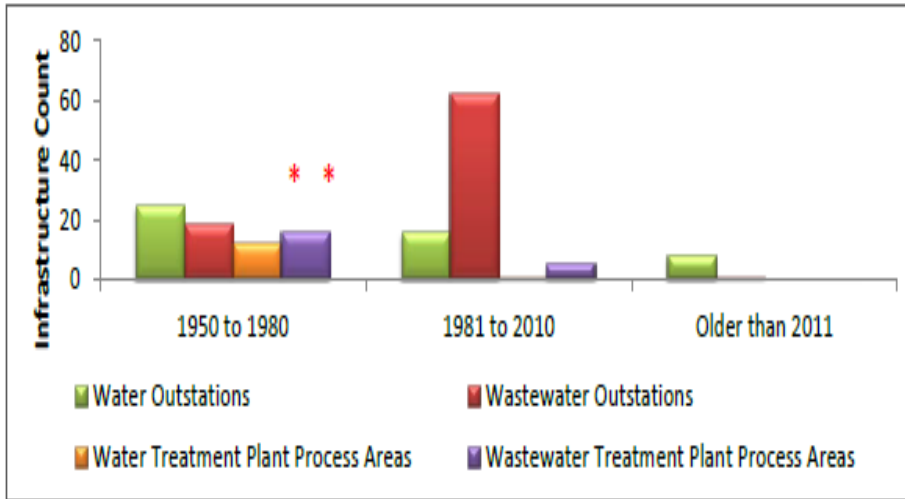
2020 PROPOSED RATE INCREASE



Proposed Rate Increase

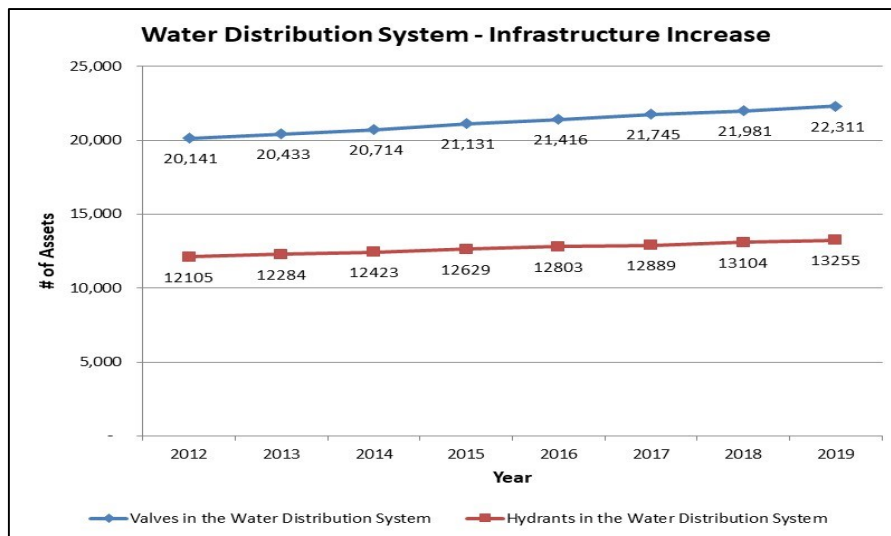
4.00 %

- ❖ 2020 requested O&M budget of \$86.2M reflects a decrease of \$9.5M or 9.9% over the 2019 budget
- ❖ Operating expenditures have been reduced to align with historical actuals
- ❖ Allows for a corresponding increase in capital contributions to be spent on improving infrastructure while not increasing reliance on debt
- ❖ 2019 approved budget ratios comparison
 - 44% capital expenses
 - 40% operating expenses



- ❖ Waterdown tower
- ❖ Corrosion control program
- ❖ Stormwater pump stations
- ❖ Stormwater pond – dev. assumptions
- ❖ Eastport wastehauler station
- ❖ Hardware lifecycle (SCADA)
- ❖ Capital rehabilitation strategy
- ❖ General growth of the system

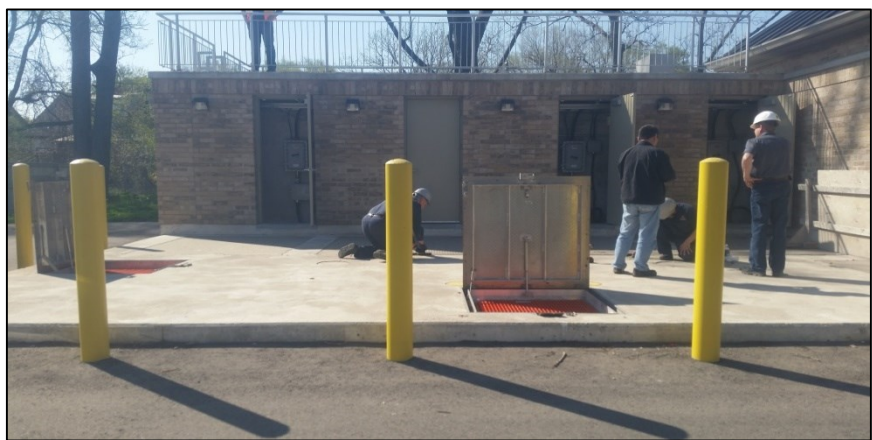
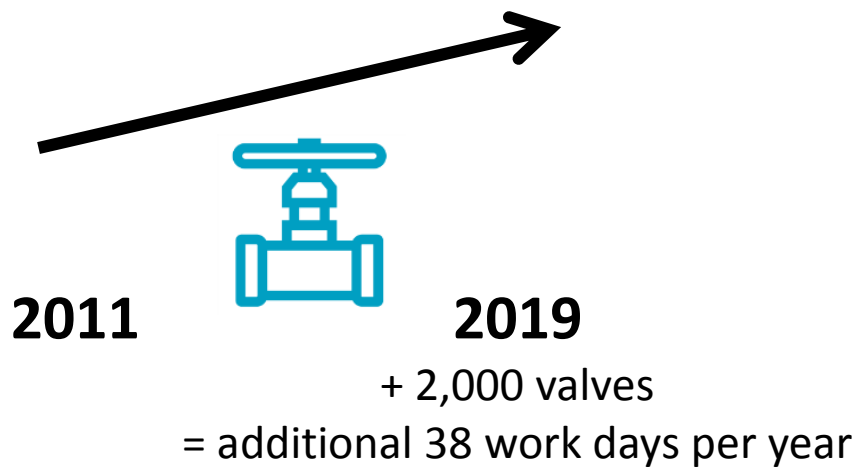
- Hydrants
- Valves
- Sewers
- Watermains
- Electricity costs
- Chemical costs



OPERATING IMPACTS FROM CAPITAL



Water valves preventative maintenance



Grafton stormwater pumping station



Centennial stormwater pumping station

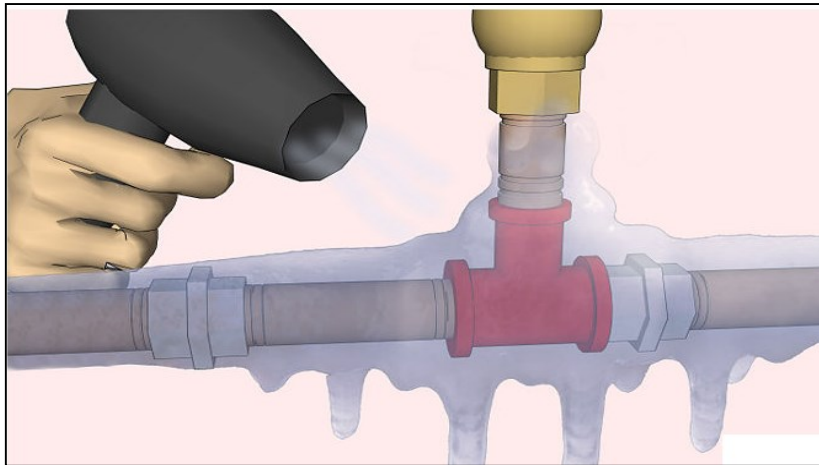
PRESSURES / RISKS NOT IN 2020 BUDGET



- ❖ Stormwater management
 - Contaminated pond soils
 - Gaps in existing program

- ❖ Climate change
 - Flooding
 - Frozen water services
 - High lake water levels

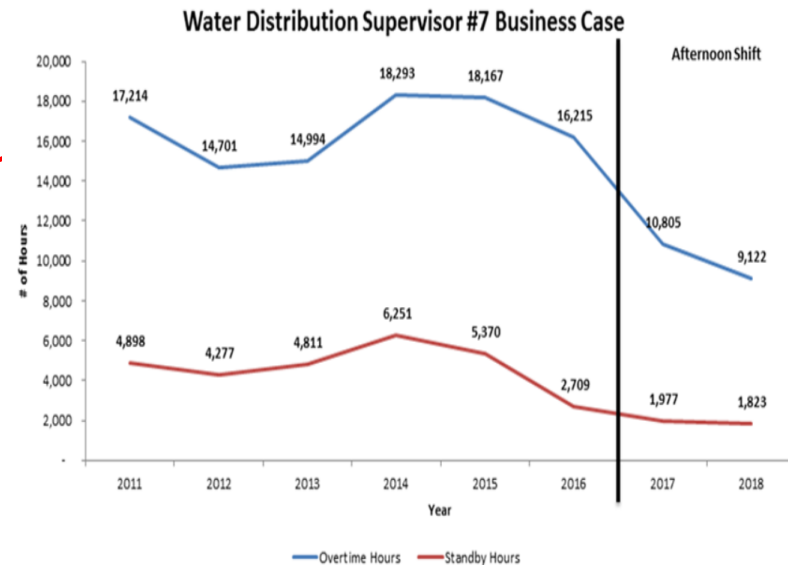
- ❖ Unidentified projects
 - Development pressures
 - Asset management program



2020 RESOURCE REQUEST

SECTION		Last Years 2020 Request	2020 Request
Woodward Upgrades – Office		0	0
Woodward Upgrades - Operations		7	4
Directors Office		0	0
Compliance & Regulations		0	0
Project Management Office		1	0
P&C	Capital Delivery	0	0
	Systems Planning	0	2
Operations	Plant Maintenance & Technical Services	1	0
	Plant Operations	0	0
	Customer Service & Community Outreach	0	0
	Distribution & Collections	1	1
TOTALS		10	7

Maintenance Operators



WD Supervisor (Temp. to Perm.)

SECTION		Last Years 2020 Request	2020 Request	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast
Woodward Upgrades – Office		0	0	0	0	0	0
Woodward Upgrades - Operations		7	4	3	0	0	0
Directors Office		0	0	0	0	0	0
Compliance & Regulations		0	0	4	1*	0	1*
Project Management Office		1	0	0	1	0	0
P&C	Capital Delivery	0	0	0	0	0	0
	Systems Planning	0	2	0	0	1	0
Operations	Plant Maintenance & Technical Services	1	0	0	2	0	0
	Plant Operations	0	0	1	0	0	2
	Customer Service & Community Outreach	0	0	2	0	0	0
	Distribution & Collections	1	1	2	0	2	1
TOTALS		10	7	12	3/ 1*	3	3/1*
				30 (23 Sectional & 7 WUP)			

(4) Maintenance Operators, Plant Operations

- ❖ Maintain and operate the wastewater treatment controls
- ❖ Work with contractors to integrate treatment processes during construction
- ❖ Operators required for new wastewater tertiary treatment process

(1) PM Stormwater, *Systems Planning*

- ❖ Review of development applications
- ❖ Support engineering studies and system growth activities
- ❖ Modelling support

(1) Data Modeller Technologist, *Systems Planning*

- ❖ Computer modeling and related analysis.
- ❖ City water/wastewater/storm model steward

(1) WD Supervisor, *Water Distribution & Wastewater Collections*

- ❖ Leads a team of operators to maintain and construct water infrastructure
- ❖ Coordinates leak detection, and water turn ons / offs
- ❖ Responsible for regulatory lead testing and lead service line replacement programs

Original 2016 WUP request

- 2 FTE in 2018
- 9 FTE in 2020



Total request: 11 FTEs

- 1 SCADA Technologist
- 1 Data Clerk
- 5 Maintenance Operators
- 2 Millwrights
- 2 Instrumentation Technicians

2017 WUP Request & 2019 WUP Request

Advanced FTE requests as temporary positions to assist in the delivery of the project

- 3 FTE in 2017
- 1 FTE in 2019
- 7 FTE in 2020



Total request: 11 FTEs

- 1 SCADA Technologist
- 1 Process Supervisor
- 1 Process Technologist
- 1 Maintenance Operator

3 FTE approved during 2017 budget & 1 FTE approved during 2019 budget

2020 WUP Request

- 4 FTE in 2020
- 3 FTE in 2021



Total request: 7 FTEs (+ 4 FTEs approved in 2017&2019 = 11 FTEs)





2020 Water, Wastewater and Stormwater Budget

November 25, 2019

2020 RATE BUDGET

Snap Shot

Operating

- **\$232.6 M** Total Program Expenditures
- **\$229.6 M** Rate Revenue
- **\$3.0 M** Non-Rate Revenue

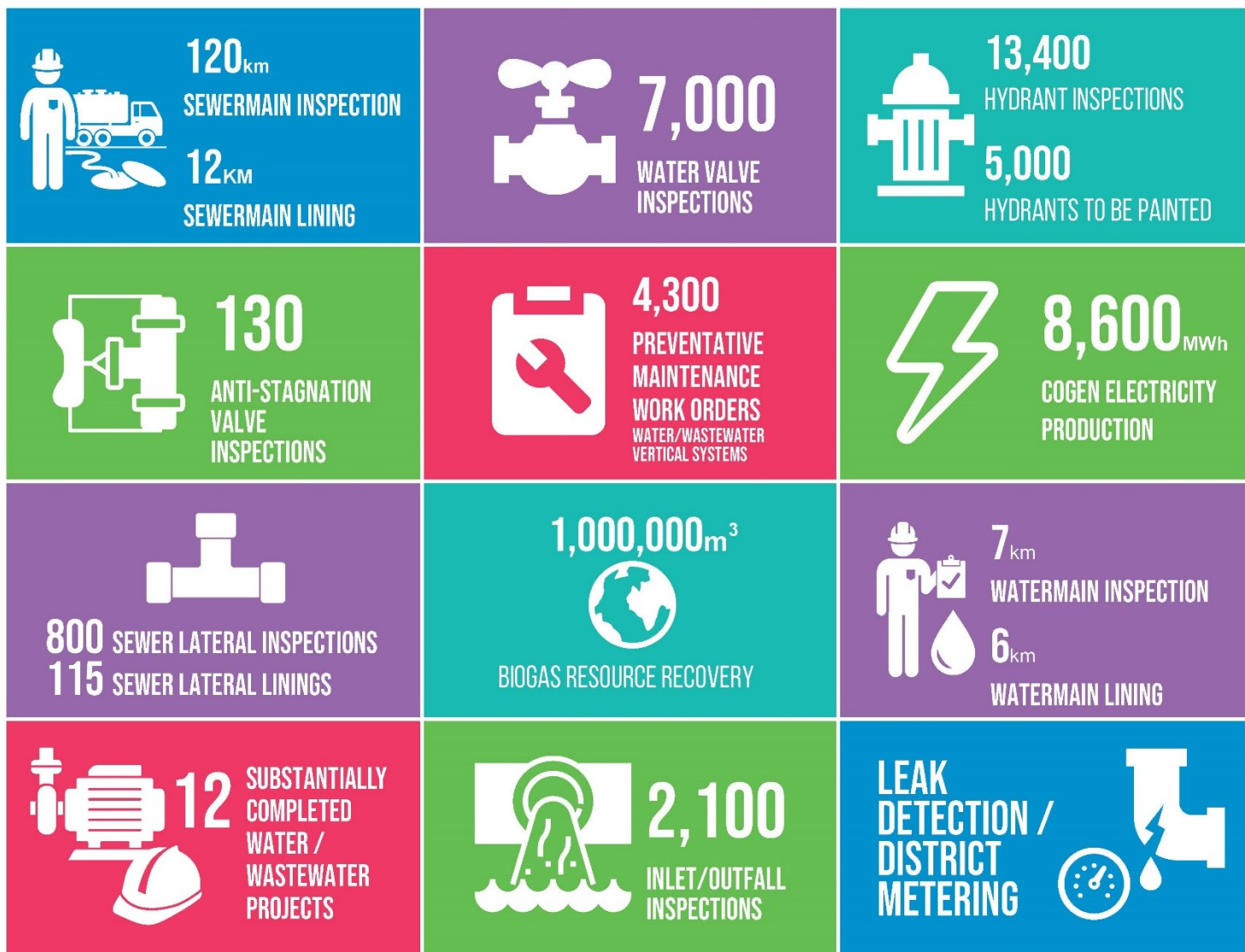
Capital

- **\$326.0 M** Rate Capital Program
 - 67% Wastewater
 - 21% Water
 - 12% Storm
- **\$2.49 B** capital investment forecast (2020 to 2029)
- **\$0.15 B** increase from last year's 10-year forecast

Recommended Combined Rate
Increase 4.0% vs 4.5%
Approved-in-Principle

2020 RATE BUDGET

2020 RATE BUDGET - What your dollars buy you Page 180 of 202



2020 RATE OPERATING BUDGET (000's)

By the Numbers

Summary of the 2020 Operating Budget				
(\$ millions)	2019 Restated Budget	2020 Requested Budget	2020 Requested / 2019 Restated Change	
			\$	%
<u>Expenditures</u>				
Program Expenditures	\$ 95.7	\$ 86.2	(\$ 9.5)	(9.9%)
Capital/Debt / Reserve Financing	\$ 126.6	\$ 146.4	\$ 19.8	15.6%
Total Expenditures	\$ 222.3	\$ 232.6	\$ 10.3	4.7%
<u>Revenues</u>				
Rate Revenue	\$ 219.3	\$ 229.6	\$ 10.3	4.7%
Non-Rate Revenue	\$ 3.0	\$ 3.0	---	---
Total Revenue	\$ 222.3	\$ 232.6	\$ 10.3	4.7%
Average Residential Water / Wastewater / Storm Bill	\$ 722.90	\$ 751.80	\$ 28.90	4.00%

2020 CAPITAL BUDGET

Sources of Funding

\$ 86.8 M Grants, Subsidies & Other Revenues +
\$ 76.6 M Development Charges +
\$118.7 M from Operating +
\$ 23.9 M Reserves +
\$ 3.1 M Work-in-progress (WIP) +
\$ 16.9 M Debt

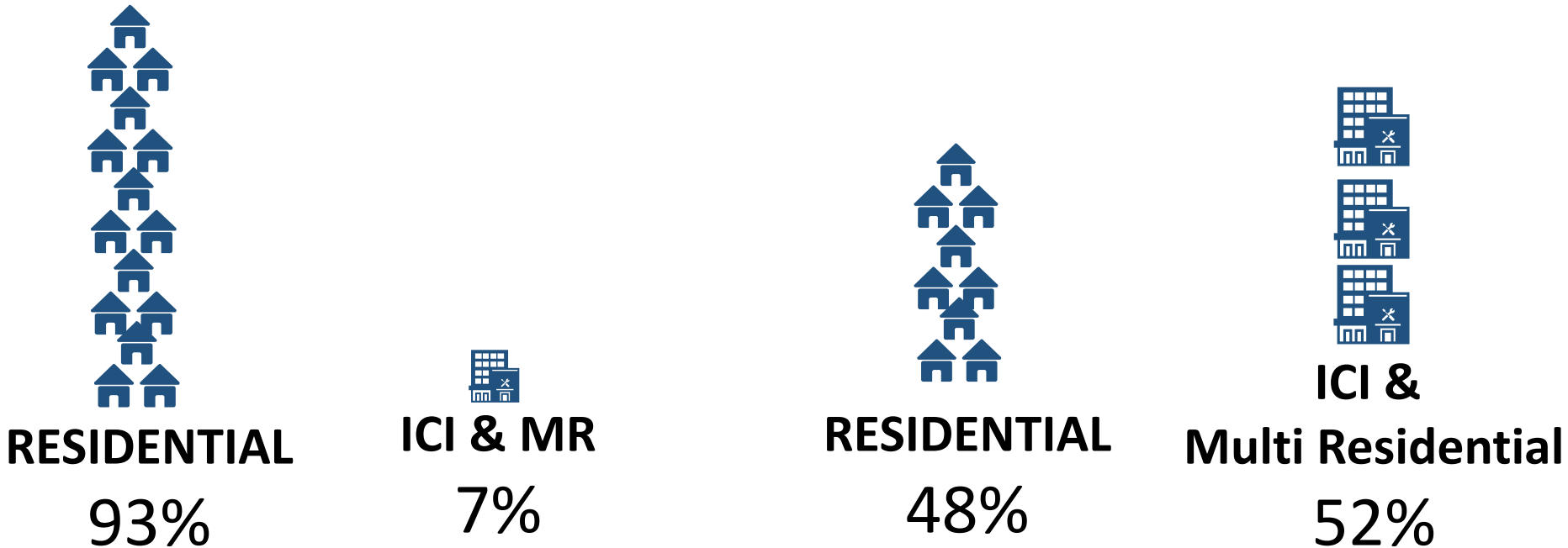
= \$326.0 M Gross Capital Funding

2020 METERED ACCOUNTS & REVENUE BY SECTOR

Where the \$ comes from

Metered Accounts by Sector

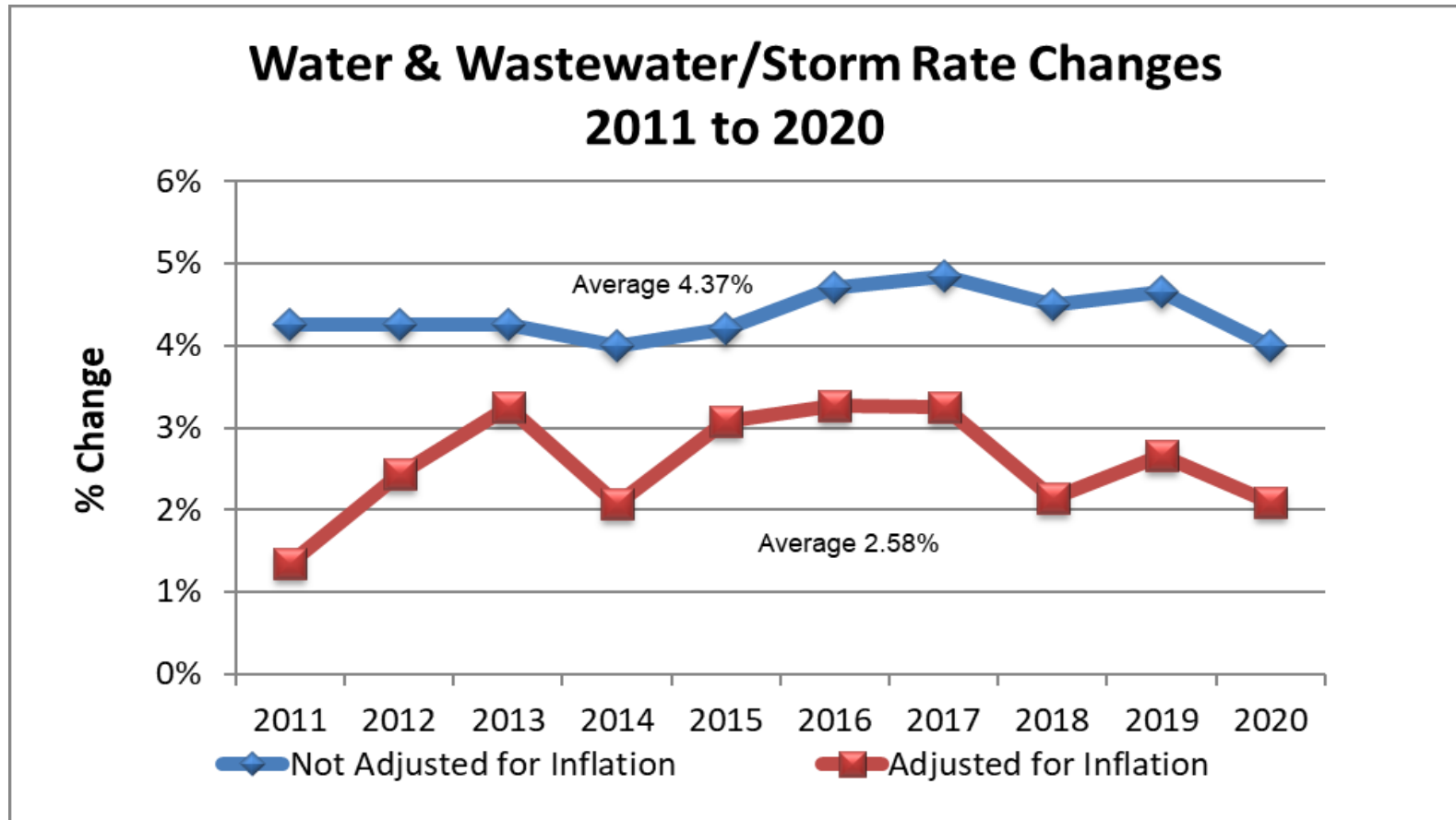
Revenue by Sector



RATE INFORMATION AT A GLANCE

10 Year Rate Increase Trend

By the numbers



2020 RESIDENTIAL AVERAGE BILL



Impact of Recommended 2020 Water and Wastewater/Storm Rate Increases on a Typical Residential Bill: 4.00%

Based on annual water consumption of 200m³

CONSUMPTION TRENDS AT A GLANCE

RESIDENTIAL WATER CONSUMPTION



2012

2018

+ 9,500 accounts



2012

2018

over 8% decrease
in consumption

4 YEAR WATER CONSUMPTION FORECAST (M³)



(Aldershot
Water Only)

(Caledonia & Cayuga
Water Only)

2020 → 2023

2020 → 2023

2020 → 2023

2020 → 2023

SLIGHT GROWTH

SLIGHT GROWTH

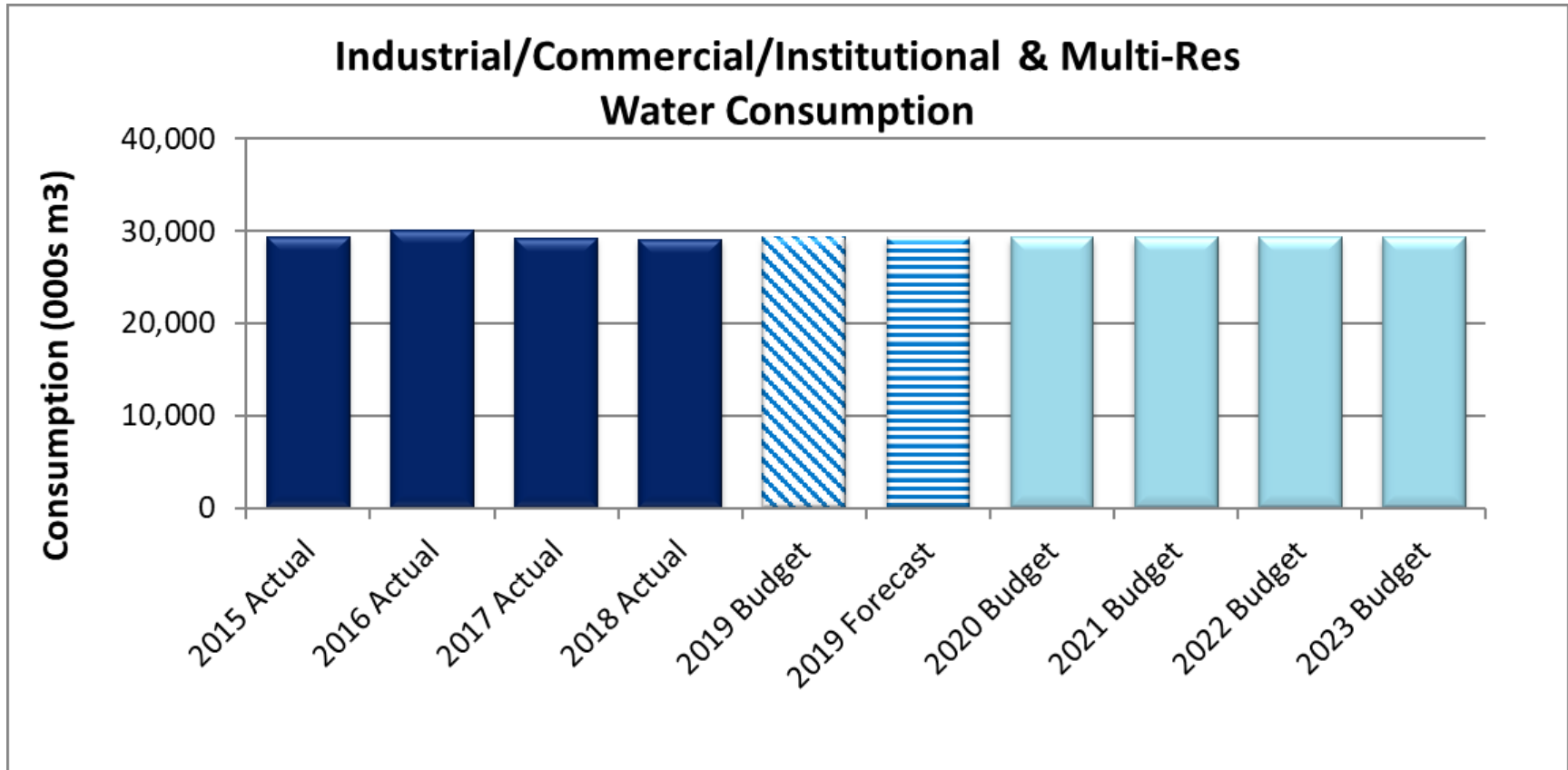
CONSISTENT

SLIGHT GROWTH

Residential

ICI/ Multi Res

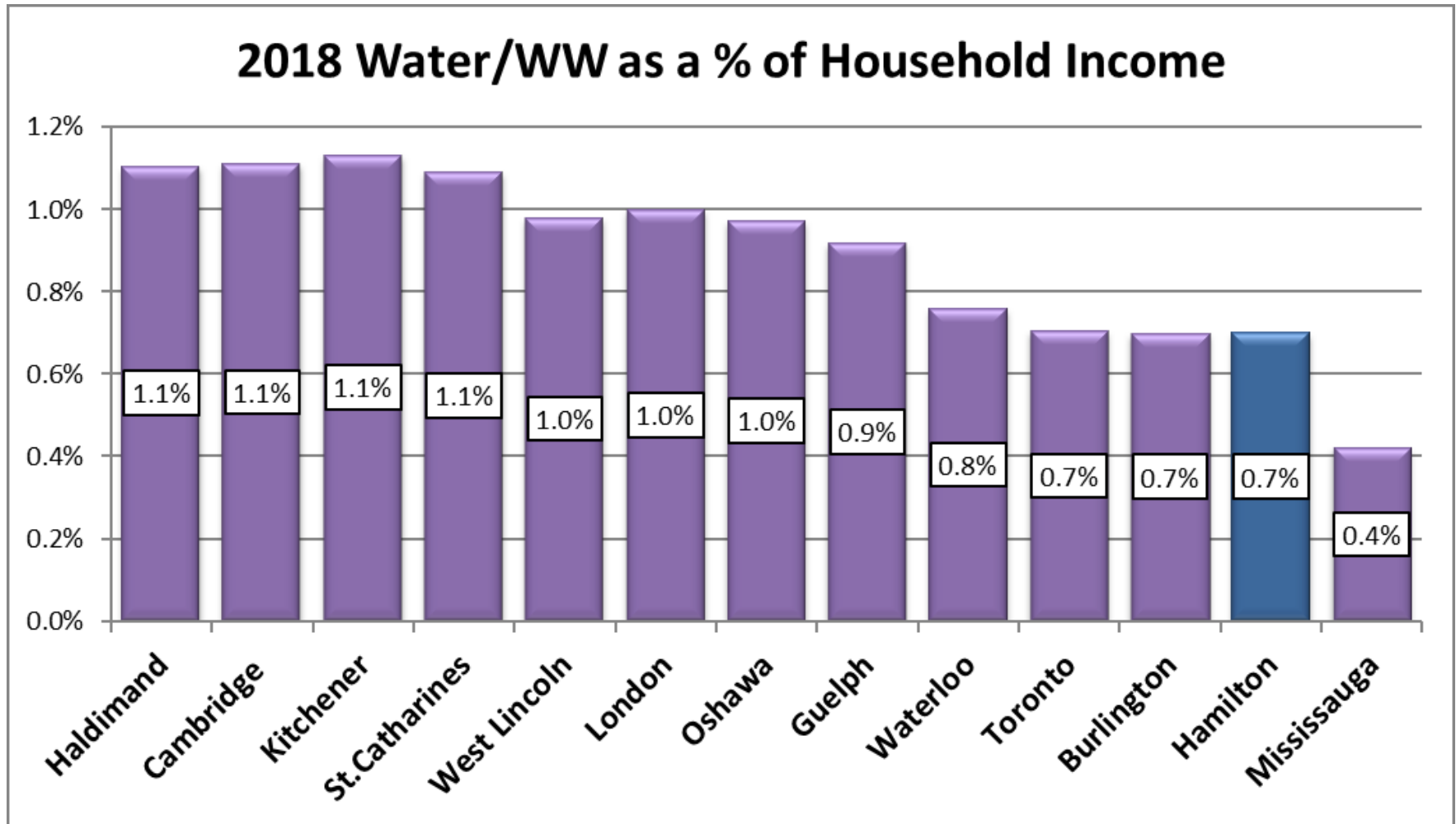
ICI & MR CONSUMPTION FORECAST



Consumption remains very consistent at just under 30M m³

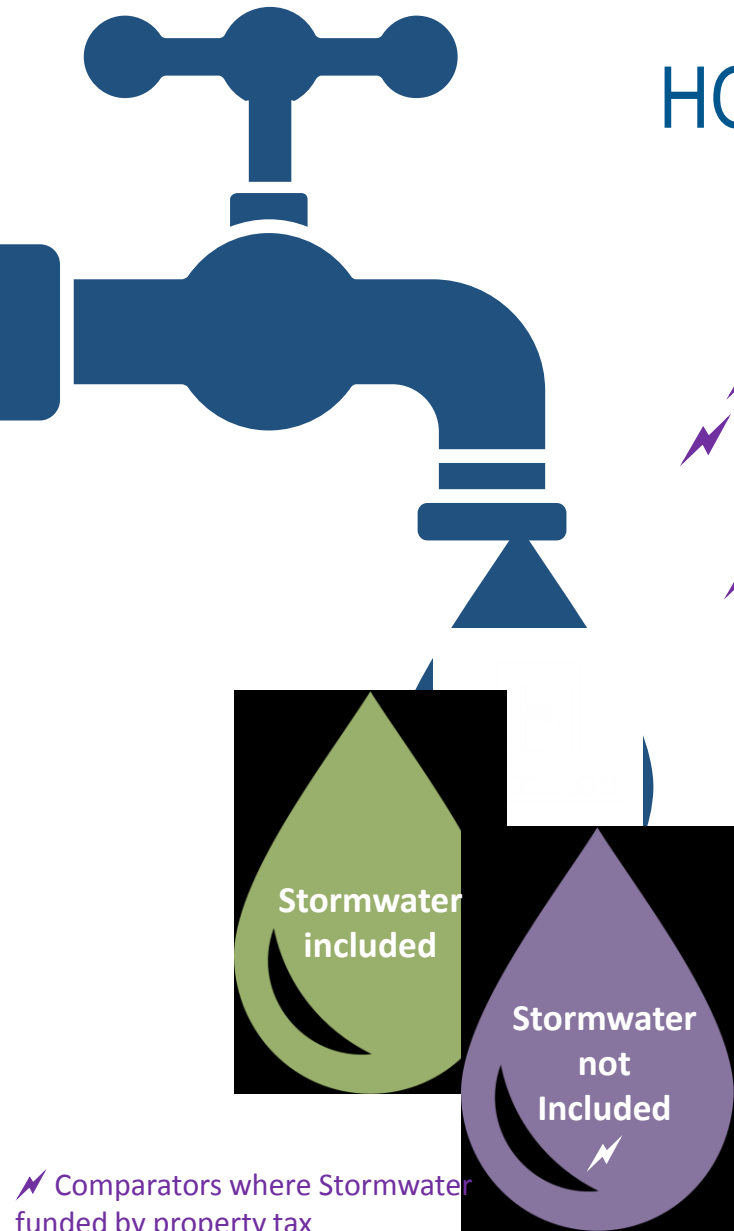
MUNICIPAL COMPARATORS

HOW DOES HAMILTON COMPARE?



Source: BMA Management Consulting Inc. – Municipal Study 2018

HOW DOES HAMILTON COMPARE?



- Kitchener: \$1,451**
- ⚡ **Norfolk: \$1,167**
- ⚡ **Cambridge: \$1,132**
- ⚡ **West-Lincoln: \$1,111**
- London: \$1,086**
- ⚡ **Haldimand: \$1,032**
- Waterloo: \$1,004**
- Guelph: \$980**
- ⚡ **Brantford: \$923**
- ⚡ **St. Catharines: \$920**
- ⚡ **Durham: \$893**
- ⚡ **Halton: \$873**
- Toronto: \$791**
- Hamilton: \$722**
- Peel: \$594**

2019 Water Bill Residential

200m³/ (year)

Survey Average
\$979

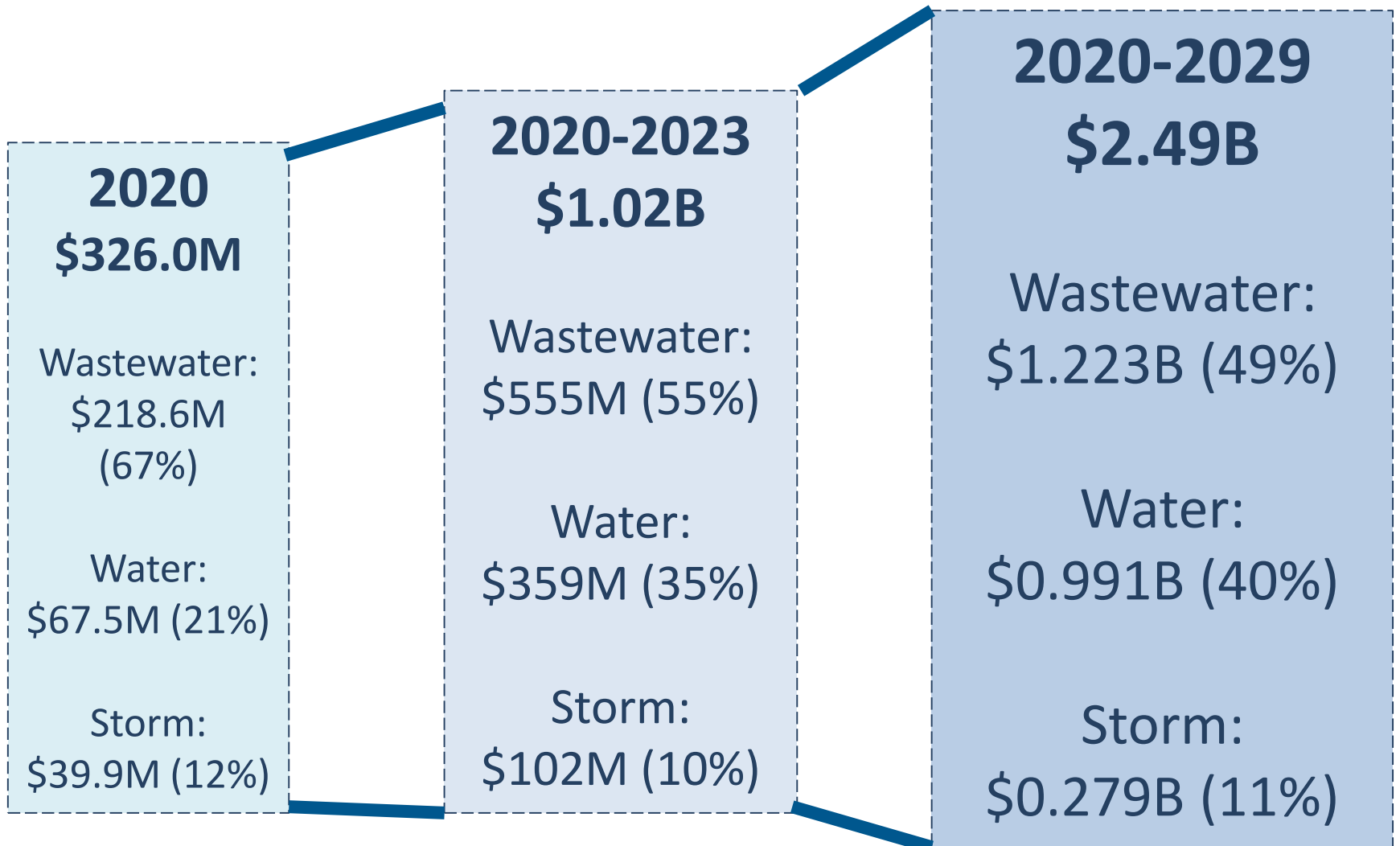
Hamilton provides **three** services for less than some municipalities which offer **two**

⚡ Comparators where Stormwater funded by property tax

CAPITAL INVESTMENT AT A GLANCE

LONG TERM CAPITAL PROGRAM

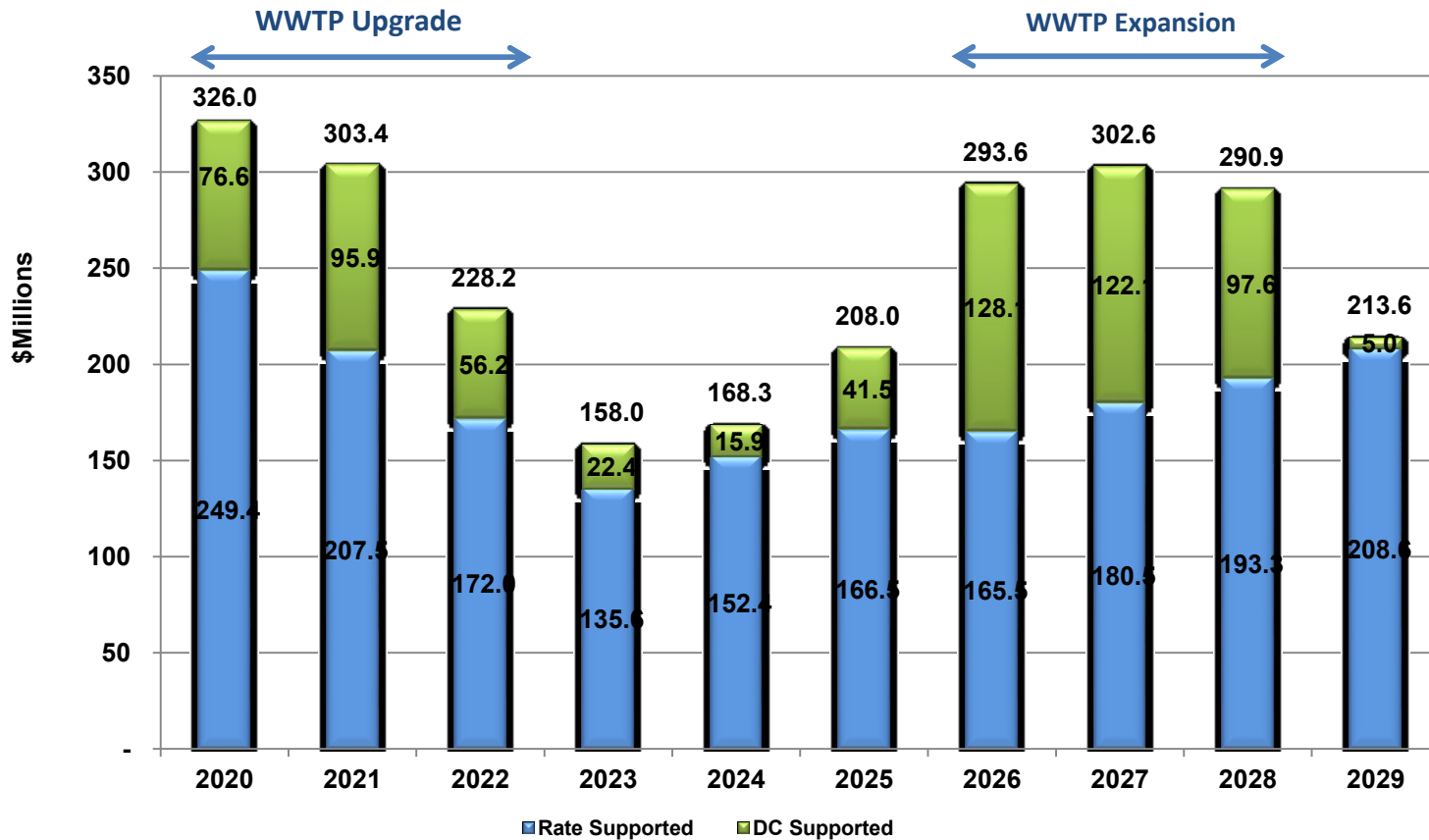
At a Glance



10 YEAR CAPITAL PROGRAM

How much we plan to spend

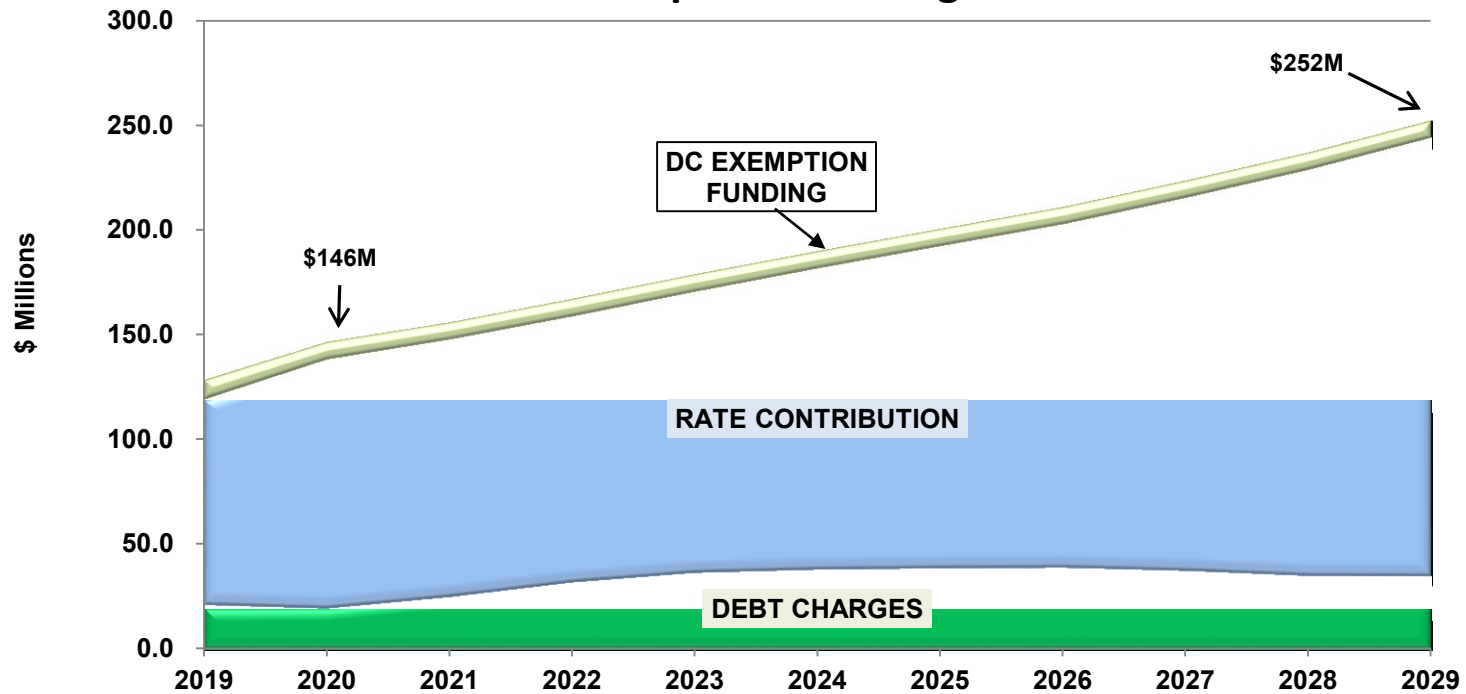
Total 10 Year Capital- \$2.49 Billion
Water / Wastewater / Storm



10 YEAR CAPITAL STRATEGY

How will we pay for it

Capital Financing Plan



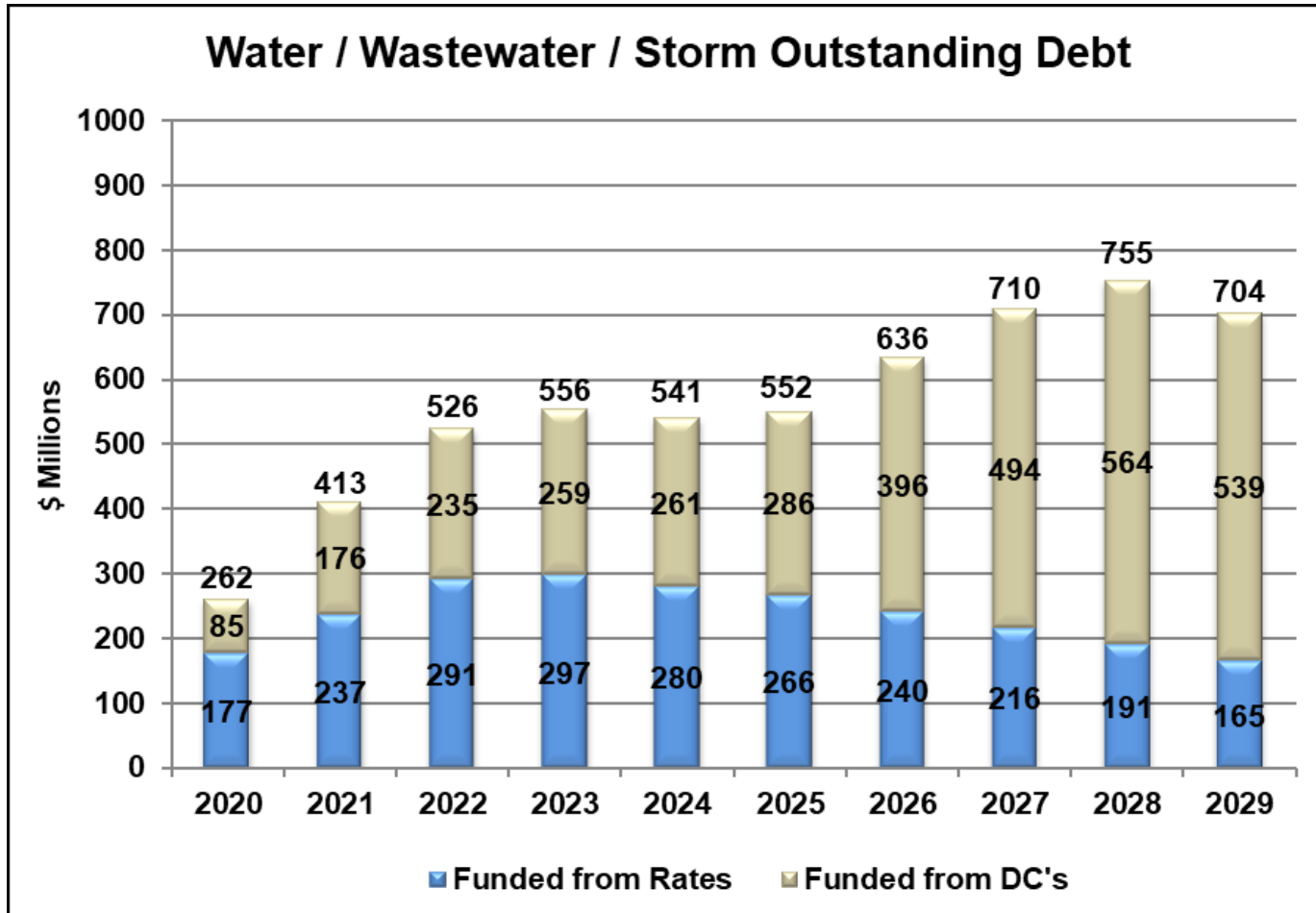
Contribution to capital increasing from \$146M in 2020 to \$252M in 2029

Largely due to increase in capital construction

DEBT FUNDING AT A GLANCE

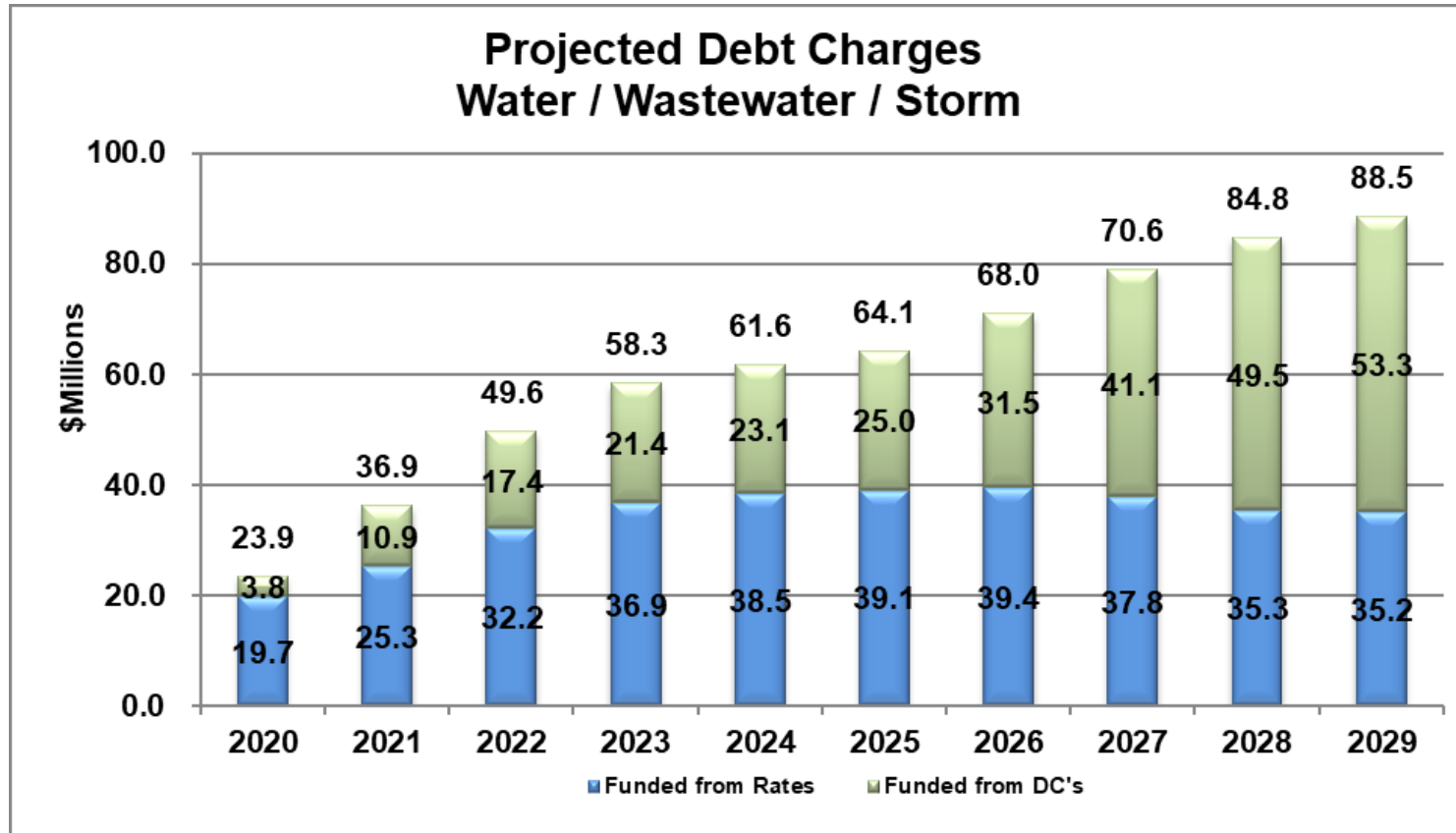
10 YEAR CAPITAL STRATEGY

What does our debt look like?



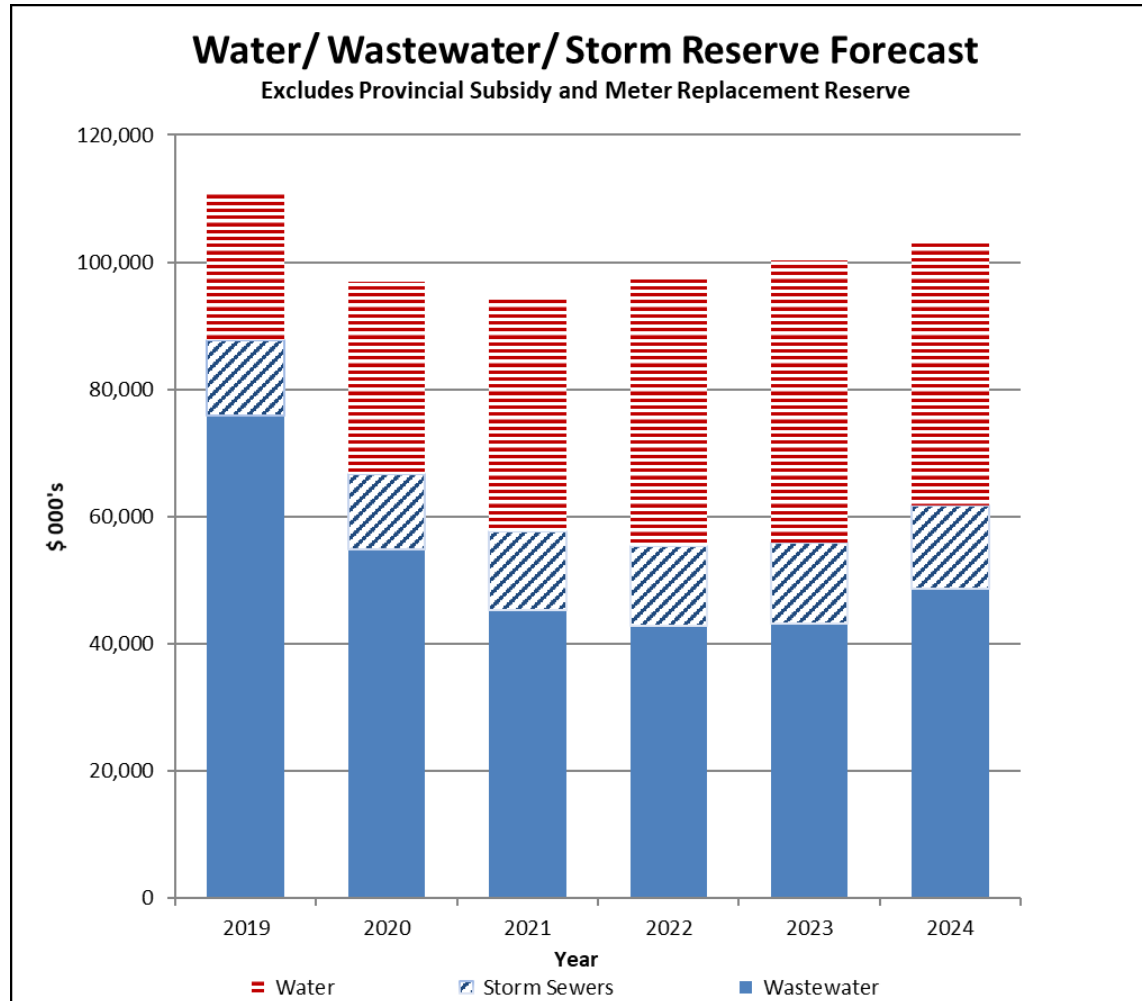
10 YEAR CAPITAL STRATEGY

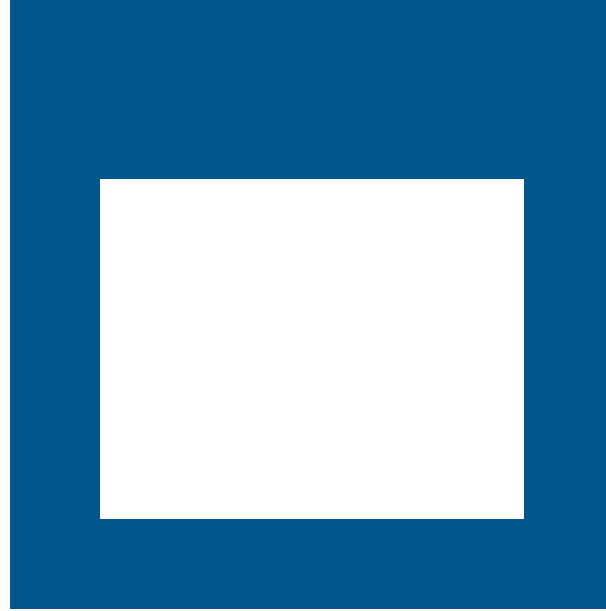
How much does our debt cost?



10 YEAR CAPITAL STRATEGY

How much reserves will we use?





THANK YOU