

CITY OF HAMILTON

CORPORATE SERVICES DEPARTMENT Financial Planning, Administration and Policy Division

ТО:	Chair and Members General Issues Committee
COMMITTEE DATE:	November 22, 2021
SUBJECT/REPORT NO:	2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Katie Black (905) 546-2424 Ext. 6415 John Savoia (905) 546-2424 Ext. 7298 Tran Trang (905) 546-2424 Ext. 4371
SUBMITTED BY:	Mike Zegarac General Manager, Finance and Corporate Services Corporate Services Department
SIGNATURE:	

RECOMMENDATIONS

(a) That the metered water consumption charges for average residential properties (meters < 25mm in size) in the City of Hamilton be imposed at the following rates, effective January 1, 2022:

Monthly Water Consumption (m3)	Rate (\$/m3)
0 – 10	0.89
> 10	1.77

- (b) That the metered water consumption charge for commercial, industrial, institutional and larger residential properties (meters = >25mm in size) in the City of Hamilton be imposed at the rate of \$1.77 per cubic metre, effective January 1, 2022;
- (c) That daily water fixed charges for all properties in the City of Hamilton be imposed at the following rates, effective January 1, 2022:

Meter Size	Daily Water Rate
15 mm	\$0.41
16 mm	\$0.41
20 mm	\$0.41
21 mm	\$0.41
25 mm	\$1.03
38 mm	\$2.05
50 mm	\$3.28
75 mm	\$6.56
100 mm	\$10.25
150 mm	\$20.50
200 mm	\$32.80
250 mm	\$47.15
300 mm	\$69.70

(d) That the wastewater / storm treatment charges for average residential properties (meters < 25mm in size) in the City of Hamilton be imposed at the following rates, effective January 1, 2022:

Monthly Water Consumption (m3)	Rate (\$/m3)
0 – 10	0.95
> 10	1.89

- (e) That the wastewater / storm treatment charge for all commercial, industrial, institutional and larger residential properties (meters = >25mm in size) in the City of Hamilton be imposed at the rate of \$1.89 per cubic metre, effective January 1, 2022;
- (f) That daily wastewater /storm fixed charges for all properties in the City of Hamilton be imposed at the following rates, effective January 1, 2022:

Meter Size	Daily Wastewater / Storm Rate
15 mm	\$0.44
16 mm	\$0.44
20 mm	\$0.44
21 mm	\$0.44
25 mm	\$1.10
38 mm	\$2.20
50 mm	\$3.52
75 mm	\$7.04
100 mm	\$11.00
150 mm	\$22.00
200 mm	\$35.20
250 mm	\$50.60
300 mm	\$74.80

- (g) That the residential non-metered annual water rate be imposed at the flat rate of \$646.05 per annum, effective January 1, 2022;
- (h) That the residential non-metered annual wastewater / storm rate be imposed at the flat rate of \$689.85 per annum, effective January 1, 2022;
- (i) That the residential combined non-metered annual water and wastewater / storm rate be imposed at the flat rate of \$1,335.90 per annum, effective January 1, 2022;
- (j) That the Private Fire Line rates be imposed at the following rates, effective January 1, 2022:

Connec	tion Size	Monthly Rate			
mm	inches	Monthly Kate			
25	1	\$3.88			
38	1.5	\$8.92			
50	2	\$15.52			
75	3	\$34.92			
100	4	\$62.08			
150	6	\$139.68			
200	8	\$248.32			
250	10	\$248.32			
300	12	\$248.32			

- (k) That the 2022 Water, Wastewater and Storm Proposed User Fees and Charges be imposed as per Appendix "G" to Report FCS21088, effective January 1, 2022;
- (I) That the 2022 Water, Wastewater and Stormwater Rate Supported Operating Budget in the amount of \$257,850,912 be approved as per Appendix "A" to Report FCS21088;
- (m) 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 2022-2031 Water, Wastewater and Stormwater Rate Supported Operating Budget forecast (Appendix "A" to Report FCS21088) be approved, in principle;
- (n) That the 2022 Water, Wastewater and Stormwater Rate Supported Capital Budget and Financing Plan in the amount of \$310,436,253 be approved as per Appendices "K", "N", "Q" and "S" to Report FCS21088;

SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 4 of 32

- (o) That the 2022-2031 Water, Wastewater and Stormwater Rate Supported Capital Budget forecast and financing plan (Appendix "I" to Report FCS21088) be approved, in principle;
- (p) That the City Solicitor be authorized and directed to prepare, for Council approval, all necessary by-laws respecting the 2022 water and wastewater / storm user fees, charges and rates set out in Recommendations (a) through (l) of Report FCS21088;
- (q) That the additional 10.0 Full Time Equivalent Rate Supported Staffing be approved as per Appendix "F" to Report FCS21088;
- (r) That the General Manager, Finance and Corporate Services, be authorized and directed to negotiate and confirm the terms, placement and issuance 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 \$118,717,030 Canadian currency as attached in Appendices "K", "N" and "Q" to Report FCS21088, which includes \$49,100,000 in Rate Supported municipal debt and \$69,617,030 Rate Supported Development Charges municipal debt;
- 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 Recommendation (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 Recommendations (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 Recommendations (s) and (t), in a form satisfactory to the City Solicitor and with content acceptable to the General Manager, Finance and Corporate Services;

SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 5 of 32

- (t) That all necessary By-Law(s) be passed to authorize the debenture issue(s) negotiated, placed and secured in accordance with Recommendations (r) and (s);
- (u) That the amending By-law attached as Appendix "U" to Report FCS21088 which amends By-law 03-272, being a By-law To Impose Fees and Charges Respecting the Use of the City of Hamilton Sanitary Sewage System and to Implement a Wastewater Abatement and which has been prepared in a form satisfactory to the City Solicitor, be enacted and effective immediately by Council;
- (v) That the amending by-law attached as Appendix "V" to Report FCS21088 which amends By-law 06-026, being a By-law To Regulate the Installation, Connection and Use of Sewers and Drains and which has been prepared in a form satisfactory to the City Solicitor, be enacted and effective immediately by Council;
- (w) That the amending by-law attached as Appendix "W" to Report FCS21088 which amends By-law R84-026, being a By-law To Regulate the Management and Maintenance of the Water Works Systems and which has been prepared in a form satisfactory to the City Solicitor, be enacted and effective immediately by Council;
- (x) That the matter, respecting Budgetary Plan to Address the Chedoke Creek Matter, be considered complete and removed from the General Issues Committee's Outstanding Business List.

EXECUTIVE SUMMARY

The 2022 Recommended Water, Wastewater and Stormwater (Rate) Budget is submitted for Council's consideration. The 2022 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 2022 to 2031, capital investments in water, wastewater and stormwater infrastructure are forecasted at \$2.70 B, which represents an increase of \$0.17 B from last year's 10-year forecast. This budget focuses on growing our economy, environmental stewardship, financial sustainability and effective inter-governmental relations.

The Rate Capital Budget was prepared in accordance with the City of Hamilton's Strategic Asset Management Policy. 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.

SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 6 of 32

The 2022 Rate Operating Budget program expenditures of \$98.4 M reflects an increase of \$7.8 M or 8.6% over the 2021 Budget. 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 and corporate cost allocations. The remaining costs are variable related to production volumes (heating fuel – natural gas, hydro, fluid and chemicals, biosolids contract).

The 2022 Rate Operating Budget expenditures contain the request for 10 new full-time equivalent (FTE) employees. The net operating cost of the request is approximately \$917 K. The FTE requests are largely driven by regulatory pressures, business benefits and operating impacts from capital. For the full FTE request details, please refer to Appendix "F" to Report FCS21088.

Beyond employee related costs, there are increases in operating and maintenance expenditures (O&M). Increases in O&M expenditures are largely driven by existing facility pressures, increased compliance standards in soils management, inlet and outlet maintenance, as well as, the new Tertiary Treatment Facility. Lastly, the price for fluid and chemicals used to treat water and wastewater at the Plant is increasing versus last year's budgeted price.

Capital financing costs, including reserve transfers, in the 2022 Requested Budget of \$159.4 M reflects an increase of \$4.5 M over the 2021 Budget. With non-rate revenues of \$3.0 M, rate revenues of \$254.9 M are required to meet operating (program and capital financing) expenditures.

Table 1 summarizes the budget changes for the 2022 Requested Budget.

Table 1

Summary of the 2022 Operating Budget									
(\$ millions)	2021 Restated Budget	2022 Requested Budget	•	ested / 2021 d Change					
Expenditures									
Program Expenditures	\$ 90.7	\$ 98.4	\$ 7.8	8.6%					
Capital/Debt / Reserve Financing	\$ 154.9	\$ 159.4	\$ 4.5	2.9%					
Total Expenditures	\$ 245.6	\$ 257.9	\$ 12.3	5.0%					
Revenues									
Rate Revenue	\$ 242.7	\$ 254.9	\$ 12.2	5.0%					
Non-Rate Revenue	\$ 2.9	\$ 3.0	\$ 0.1	3.0%					
Total Revenue	\$ 245.6	\$ 257.9	\$ 12.3	5.0%					
Average Residential Water / Wastewater / Storm Bill	\$ 784.80	\$ 823.85	\$ 39.05	4.98%					

Note: Anomalies due to rounding.

SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 7 of 32

Chart 1 highlights that the proposed combined 4.98% rate increase is driven largely by increased operating and capital financing expenditures in 2022.

Chart 1
Drivers of 4.98% Rate Increase

Operating Expenditures 2.85%

Capital Financing 1.67%

Residential Leak Protection 0.46%

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

Table 2
Impact of Recommended 2022 Water and Wastewater /
Storm Rate Increases on a Typical Residential Bill

(Based on annual water consumption of 200 m³)

2021 Residential Bill	\$784.80
2022 Residential Bill	\$823.85
Recommended Change (\$)	\$39.05
Recommended Change (%)	4.98%

The recommended 2022 Rate Supported Strategy differs slightly from the Strategy approved by Council, in principle, for 2021. Staff had forecast the need for a combined 4.05% rate increase in 2022. Based on the need to fund an escalating Capital program and incremental operating program expenditures, staff recommend that Council approve a 2022 rate increase of 4.98%, 0.93% higher than previously forecast.

It should be noted that in October 2021, Council approved a revised Water Leak Adjustment Policy (Policy) that will come into effect January 1, 2022 (for details please refer to Report FCS21087 / LS21037). The residential leak protection program is intended to be cost-neutral for the City and as such, the associated insurance premium fees borne by the City will be recovered from the fixed charges applied to residential

water accounts. The water daily fixed charge has been increased by one cent which represents a rate increase of 0.46%.

While it is true that the Rate Supported Budget Financing Strategy has changed from time to time, the overall goal of achieving a sustainable level of funding to support the necessary infrastructure investments, has not. Approved, in principle, rates were to increase by 4.05% to 4.35% for the forecast period of 2022 - 2030. The amended Strategy calls for combined rate increases averaging 6.4% from 2023 - 2026 and approximately 3.0% annually from 2027 - 2031.

In general, the goal of the Strategy has been to support the water, wastewater and storm programs through a sustainable level of funding. Capital investment forecasts have changed for a number of reasons creating the need for additional financial resources. It should be noted that the intention of the 2021 Strategy was to provide approximately \$2.2 B (2020\$) in support of the 2022 - 2031 capital program. The 2022 Strategy calls for funding of approximately \$2.3 B (2021\$) to support the 2023 – 2031 capital program.

Charts 2 and 3 highlight the 2022 Strategy relative to the previously approved 2021 Strategy.

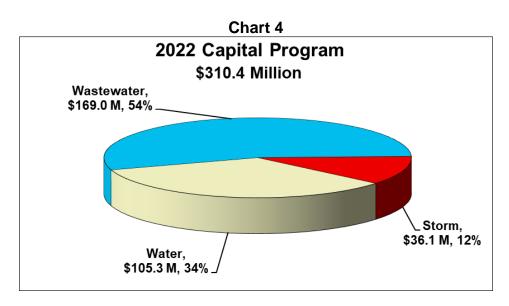


SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 9 of 32



The recommended 2022 Rate Supported Financing Strategy endeavours to achieve a balance between capital investment needs, rate of growth and rate stability. The 2022 Rate Supported Financing Strategy links forecast water demand and estimated wastewater discharge with a staged approach to necessary capital investments at the Woodward Wastewater Treatment Plant (WWTP). The current strategy calls for capital funding in 2022 of approximately \$310.4 M (2021\$) and \$2.70 B (2021\$) for the 2022 – 2031 timeframe. The 2022 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.

Chart 4 provides a breakdown of the 2022 Rate Capital Program totalling \$310.4 M, by the three major program areas: Water, Wastewater and Storm.



SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 10 of 32

Report FCS21088 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 FCS21088 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 (I) of Report FCS21088, approval of the

2022 Water, Wastewater and Stormwater Supported Operating Budget will support operating and capital financing expenditures of \$257,850,912 for

2022.

Staffing: The 2022 Rate Supported staffing complement reflects a requested

increase of 10.0 FTE as reflected in Appendix "F" to Report FCS21088.

Legal: Recommendation (p) of Report FCS21088 relates to By-laws requiring

Council approval, respecting the implementation of 2022 water and wastewater user fees and charges set out in the Recommendations (a)

through (k) of Report FCS21088.

HISTORICAL BACKGROUND

The 2022 Rate Budget continues to support the priority of investing in infrastructure as evidenced by the 2022 to 2031 forecast investment of approximately \$2.70 B in water, wastewater and stormwater capital infrastructure.

Report FCS21088 outlines the various aspects and components that the recommended 2022 Rate Supported strategy incorporates:

- Sustainable Rate Strategy
- Proposed 2022 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 2022 - 2031 financing plan.

SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 11 of 32

RELEVANT CONSULTATION

Public Works, Hamilton Water Division, provided operating / capital expenditure and non-rate revenue forecasts as reflected in Report FCS21088.

Senior Leadership Team (SLT) reviewed a number of rate financing strategies.

ANALYSIS AND RATIONALE FOR RECOMMENDATIONS

Appendix "A" to Report FCS21088 summarizes the 2022 operating budget expenditures (program and capital financing) and revenues of \$257.9 M compared to the 2021 restated budget of \$245.6 M.

The 2022 Operating expenditures in the 2022 Requested Budget of \$98.4 M reflect an increase of \$7.8 M or 8.6% over the 2021 budget. 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 and corporate cost allocations. The remaining costs are variable related to production volumes (heating fuel – natural gas, hydro, fluid and chemicals, biosolids contract).

The 2022 Rate Operating Budget expenditures contains the request for 10 new full-time equivalent (FTE) employees. The net operating cost of the request is approximately \$917 K. The FTE requests are largely driven by regulatory pressures, business benefits and operating impacts from capital. For the full FTE request details, please refer to Appendix "F" to Report FCS21088.

Beyond employee related costs, there are increases in operating and maintenance expenditures (O&M). Increases in O&M expenditures are largely driven by existing facility pressures, increased compliance standards in soils management, inlet and outlet maintenance, as well as, the new Tertiary Treatment Facility. Lastly, the price for fluid and chemicals used to treat water and wastewater at the Plant is increasing versus last year's budgeted price.

2022 Proposed Rate Increases

The recommended 2022 Rate Supported Strategy differs slightly from the Strategy approved by Council, in principle, for 2021. Staff had forecast the need for a combined 4.05% rate increase in 2022. Based on the need to fund an escalating Capital program and increased operating costs, staff recommend that Council approve a 2022 rate increase of 4.98%, 0.93% higher than previously forecast increasing the average annual residential bill to approximately \$824.

In October 2021, Council approved a revised Water Leak Adjustment Policy (Policy) that will come into effect January 1, 2022 (for details please refer to Report FCS21087 /

SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 12 of 32

LS21037). The residential leak protection program is intended to be cost-neutral for the City and, as such, the associated insurance premium fees borne by the City will be recovered from the fixed charges applied to residential water accounts. The water daily fixed charge has been increased by one cent which represents a rate increase of 0.46%

Water and wastewater service user fees have been reviewed in accordance with the User Service Fee and Charges Policy which require 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 impact of the 2022 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.

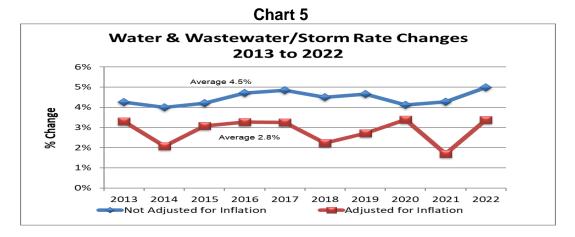
Table 3
Impact of Recommended Rate Increases on Water and Wastewater / Storm Rates

	2021	2022	Increase
Water			
Fixed Charge (daily)1	\$0.38	\$0.41	\$0.03
Consumption Charge Block 1 (0-10 cubic metres / month	\$0.85	\$0.89	\$0.04
Consumption Charge Block 2 (>10 cubic metres / month)	\$1.70	\$1.77	\$0.07
Wastewater / Storm			
Fixed Charge (daily) ¹	\$0.42	\$0.44	\$0.02
Treatment Charge Block 1 (0-10 cubic metres / month)	\$0.91	\$0.95	\$0.04
Treatment Charge Block 2 (>10 cubic metres / month)	\$1.82	\$1.89	\$0.07

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

Trends in Combined Rate Changes 2013-2022

Hamilton's overall average annual combined water and wastewater / storm rate increase is 4.5% before adjusting for inflation during the 10-year period from 2013 to 2022. Accounting for inflation results in the overall average, the annual rate increase over the same period would be 2.8%. Chart 5 shows the trend in Hamilton's combined water and wastewater / storm rates for the period 2013 to 2022.

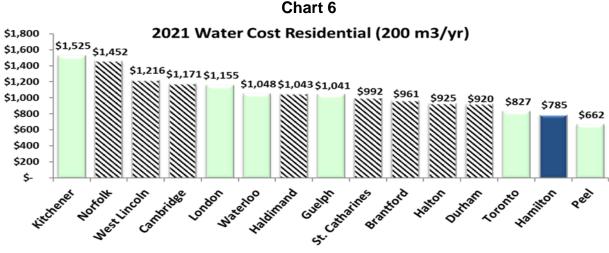


Comparative Rates

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 4.5% 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.

In 2021, Hamilton's residential annual water and wastewater / storm bill continued 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 6.



Stormwater funded by property taxes

Affordability

In preparation of the recommended combined rate increase for 2022 and considering the pandemic's impact on all ratepayers, an assessment of ratepayers' ability to pay current water and wastewater / storm billings during 2021 has been completed. Ability-to-pay is primarily a function of income related to the cost of living. Fixed costs, such as housing, property taxes, utilities and other necessities take a smaller share of household income for households with higher income levels.

A review of BMA Management Consulting's 2020 Municipal Survey (108 Ontario municipalities participation) indicates that while Hamilton's median household income of \$98,496 is below the survey median \$101,737, Hamilton's average residential water and wastewater annual bill of \$753 represents 0.8% of household income that compares favourably to the survey average of 1.1%.

Arguably, a more accurate measure of affordability may be to review water bill delinquency rates. Per the City's Arrears Policy unpaid water and wastewater / storm arrears that remain unpaid 60 days past the invoice due date are transferred to the property's tax roll. Alectra reports this metric within their annual service activity report (for details refer to Report FCS21089). Alectra is forecasting there will be an increase of nearly 2,000 tax roll arrears transfers in 2021 over 2020 which amounts to an increase of approximately \$300 K in the associated dollar value being transferred over last year.

From 2017 to 2021, the number of unpaid arrears tax roll transfers has more than doubled over the five-year period from approximately 11,700 transfers to 23,000 transfers. With respect to transferred arrears amounts, about \$2.3 M was transferred in 2017 and \$4.4 M is forecasted for 2021 (91% increase). It should be noted that the change to monthly residential billing was completed in June 2017 and generally speaking, more frequent billing was expected to help with the ability to manage bills. Hence, the increase in arrears transfers since 2017 is most concerning as approximately 90% of arrears transfers are related to residential accounts. Prior to 2017, a significant portion of arrears transfers were associated with large commercial / industrial accounts.

In January 2020, the minimum arrears threshold amount for an active account was increased to \$100 from \$75 in an attempt to provide more time for outstanding lower arrears amounts to be addressed before tax roll transfers occur. Approximately, 30% of arrears transfers in 2019 were for arrears amounts between \$75 and \$100. However, the expected reduction in the number of arrears transfers was not realized as the number of transfers increased by 5% in 2020. The minimum arrears threshold amount for an active account will increase to \$125 as of January 1, 2022. It should be noted that an administrative fee is applied by Taxation for each arrears tax roll transfer

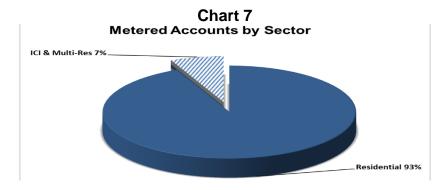
occurrence (for 2021, the fee is \$36.02 plus H.S.T.). Staff will continue to monitor water bill delinquency rates on an ongoing basis to gauge the impact of increasing water bills.

One factor that may be contributing to increasing tax roll transfers is, unlike with some other utilities (natural gas and electricity), service disconnection is not utilized to address unpaid water bills in Hamilton. A number of neighbouring water utilities employ service disconnection within their collection policies.

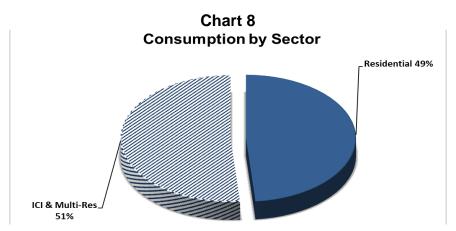
CONSUMPTION AND RATE-GENERATED REVENUES

Metered Water Consumption

Currently, the City of Hamilton has over 154,000 metered water accounts (see Chart 7). Residential users account for 93% of total metered accounts and approximately 49% 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 comprises 51% of total consumption (see Chart 8).



Revenues associated with consumption represents approximately 94% of the total budgeted Rate revenues of \$229.0 M for 2021 or \$240.4 M for 2022.



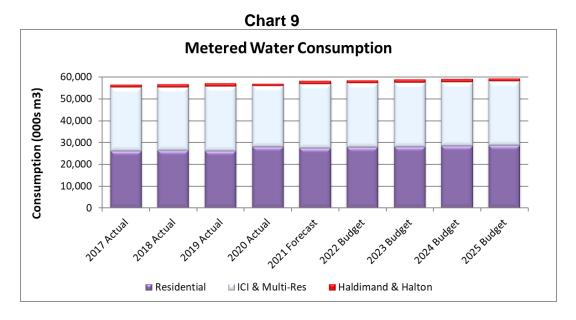
Total Consumption – 2022 Budget \$240.4 M

Since 2017, Hamilton's total metered annual water consumption (see Chart 9) has remained at approximately 56-59 million cubic metres. The 2021 projected total consumption is just over 57 million cubic metres. The 2022 Budget of 58.4 M cubic metres is approximately 0.3% above the consumption in the 2021 Budget.

Total water consumption forecast over the 10-year period (2022 to 2031) reflects relatively flat consumption demand. This relatively conservative forecast reflects the following:

- Continued uncertainty surrounding growth / decline of consumption
- Conservation impacts:
 - residential toilet consumption = 35% 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.

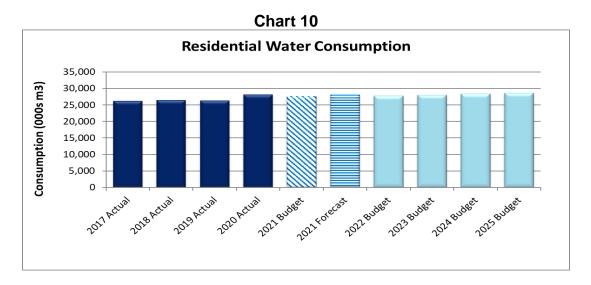


Residential Consumption - 2022 Budget \$113.9 M

Since 2017, residential consumption (see Chart 10) has remained relatively unchanged reflecting an observation that the growth of new customers' consumption has been offset 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 2022, staff is recommending that the forecast for average residential consumption remain at 200 m3 to reflect the past several years of consumption for an estimate of 27.7 M cubic metres.

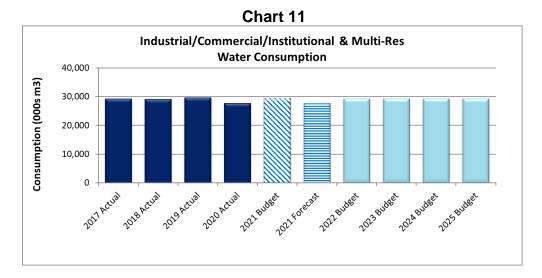
It is not clear how much further average residential consumption can decline, but there exists the potential for further declines, principally due to conservation efforts and associated regulations. For example, in 2012, the Ontario Building Code changed requirements related to the installation of high-efficiency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



Industrial / Commercial / Institutional and Multi-Res Consumption – 2022 Budget \$123.3 M

Despite continuing 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 projects.

In sharp contrast to many neighbouring communities, Hamilton is unique in that a 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. As reflected in Chart 11, water consumption demand is forecast to remain relatively flat for the ICI / Multi-res sector at 29.3 M cubic metres for the 2022 Budget.

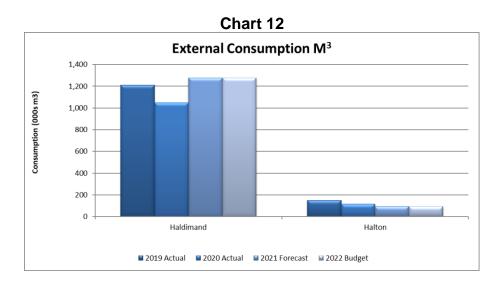


External Consumption - 2022 Budget \$3.1 M

Under long-term arrangements, Hamilton supplies Haldimand County and Halton Region potable water (see Chart 12) 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.

The current water supply agreement for Halton was executed in 2011 for an initial 10-year period with Hamilton supplying water to the Aldershot and Snake Road communities. In September 2019, a renewal agreement was executed that will conclude on November 16, 2031.



OTHER REVENUE HIGHLIGHTS

Sewer Discharge Permits – 2022 Budget \$9.8 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 - 2022 Budget \$2.9 M

Service fees may be charged with the issuance of a permit or alternatively charged on the customer's water bill. Appendix "G" to Report FCS21088 provides details of the user fees and 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 - 2022 Budget \$2.0 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.

2022-2031 Rate Capital Budget

Table 4 and Appendices "H", "J", "M" and "P" to report FCS21088 summarizes the \$2.7 B capital program and the financing requirements for the 2022–2031 water, wastewater and storm capital budget. Of this amount, \$1.069 B (40%) is for water, \$1.275 B (47%) is for wastewater and \$0.355 B (13%) is for the storm program. A total of \$825 M or 31% of the 10-year capital program is required in the first three years (2022–2024). Significant projects include the Woodward Wastewater Treatment Plant (WWTP) Upgrade, Greenhill Pumping Station Upgrades, Airport Lands Trunk Sewer and Battlefield Trunk Sewer Twinning.

The capital program also includes \$667 M for growth infrastructure related to the current Growth Related Integrated Development Strategy (GRIDS), which will be funded from Development Charges except for an estimated \$90 M in Development Charge (DC) exemptions that 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.

Table 4 SOURCE OF CAPITAL FINANCING 2022 to 2031 RATE PROGRAM CAPITAL BUDGET \$(000'S)

	2022	2023	2024	2025	2026 to 2031	2022 to 2031
WATER						
Capital Program	105,271	111,222	148,240	157,650	546,254	1,068,637
Source of Funding						
Subsidy/Other Revenue	3,498	-	2,004	8,100	-	13,602
Development Charges	26,127	29,882	40,671	44,189	73,939	214,807
Reserves & Other Internal Sources	19,007	640	640	640	3,840	24,767
Contribution from Operating	39,540	72,200	84,926	94,722	457,275	748,661
External Debt	17,100	8,500	20,000	10,000	11,200	66,800
Total _	105,271	111,222	148,240	157,650	546,254	1,068,637
WASTEWATER						
Capital Program	169,020	82,005	106,565	93,275	824,149	1,275,014
Source of Funding						
Subsidy/Other Revenue	4,000	_	2,720	7,000	_	13,720
Development Charges	39,241	18,059	24,634	6,564	294,405	382,901
Reserves & Other Internal Sources	19,996	9,000	5,000	-	-	33,996
Contribution from Operating	73,784	47,226	36,791	46,481	514,514	718,797
External Debt	32,000	7,720	37,420	33,230	15,230	125,600
Total	169,020	82,005	106,565	93,275	824,149	1,275,014
STORM SEWERS						
Capital Program	36,145	29,890	36,475	23,530	228,840	354,880
Source of Funding						
Subsidy/Other Revenue	75	75	2,075	5,275	6,390	13,890
Development Charges	19,160	10,175	10,055	4,000	25,540	68,930
Reserves & Other Internal Sources	5,145	-	-	-	-	5,145
Contribution from Operating	11,765	19,640	24,345	14,255	176,010	246,015
External Debt	-	-	-	-	20,900	20,900
Total _	36,145	29,890	36,475	23,530	228,840	354,880
TOTAL RATE PROGRAM						
Capital Program	310,436	223,117	291,280	274,455	1,599,243	2,698,531
Source of Funding						
Subsidy/Other Revenue	7,573	75	6,799	20,375	6,390	41,212
Development Charges	84,527	58,116	75,359	54,752	393,885	666,638
Reserves & Other Internal Sources	44,148	9,640	5,640	640	3,840	63,908
Contribution from Operating	125,089	139,066	146,062	155,458	1,147,798	1,713,473
External Debt	49,100	16,220	57,420	43,230	47,330	213,300
Total	310,436	223,117	291,280	274,455	1,599,243	2,698,531

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.

Chart 13 illustrates the \$2.70 B capital program for the 2022–2031 water, wastewater and storm capital budget.

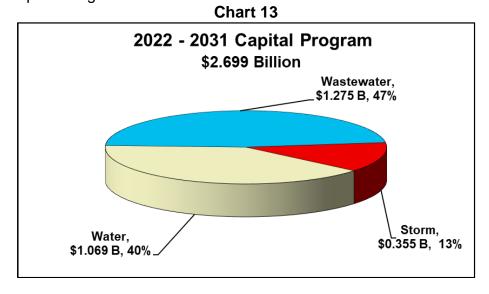
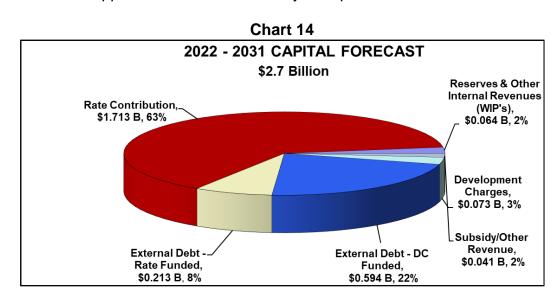


Chart 14 provides the sources of capital financing for the 2022–2031 forecast period. The growth-related infrastructure investment included in the 2022–2031 forecast to accommodate for growth is \$667 M, including \$594 M from DC funded external debt and \$73 M from development charges. Debt charges associated with DC funded debt will be recovered from development charges over the terms of issuance.

The 2022–2031 Capital Forecast includes \$15.2 M in funding from capital work-in-progress (WIP's). The Financing Plan for the 2022-2031 water, wastewater and storm capital program requires a net draw from reserves of \$48.7M, helping to mitigate reliance on rate supported debt for the delivery of capital works.



Rate Reserves

Chart 15 provides the projected reserve balances for the Water, Wastewater and Storm programs. The 2022 Budget Forecast reflects utilizing \$9.1 M in reserve funds for the Chedoke Creek project and \$12.6 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 dedicated for the WWTP Clean Harbour project) or the Meter Replacement Reserve.

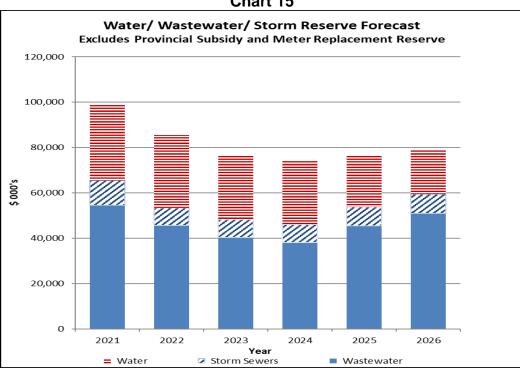


Chart 15

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 proposed Financial Plan leverages the available capacity in the water, wastewater and storm reserves and draws down the reserves to their minimum required balances over the next few years.

The combined reserve balances will decrease from \$99 M at the end of 2021 to \$79 M in 2026 and then stabilize over the remaining years in the 2027 to 2031 forecast under the proposed Capital Financing Plan. The decrease in reserves coincides with construction of the Clean Harbour Projects at the WWTP plant of which the City is funding over \$60 M from the Wastewater Reserve from 2018 to 2021 and the Chedoke Creek and Cootes Paradise workplan. All three system Reserves are within the target balances relative to the Rate Reserve Policy approved by Council in June 2016.

Woodward Wastewater Treatment Upgrade and Expansion Project

The implementation plan for the upgrade and expansion of the WWTP is consistent with the 2021 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 \$315 M of the total growth component related to Phase Two is in the 2022-2031 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 \$30.9 M compared to the 2021 budget forecast. The change can be attributed to the 2022 budget using the 2019 DC background study and the 2021 budget using the 2014 DC background study. Table 5 provides a summary.

The WWTP expansion project implementation plan has remained unchanged when compared to the 2021 forecast but has been updated with revised cost estimates. 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 (2022 – 2025) 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.

i able	5
--------	---

Woodward Wastewater Trea (\$ Millions)	tment F	Plant P	roject ·	- Gross	Capita	al Fore	casts					
		pre										
	Total	2022	2022	2023	2024	2025	2026	2027	2028	2029	2030	203 ⁻
2022 Budget												
Phase 1 - Clean Harbour	424.6	386.7	37.9									-
Phase 2 - Expansion	314.7	5.0	4.5	4.5	5.7	5.7	98.2	95.5	95.6			-
Total WWTP	739.3	391.7	42.4	4.5	5.7	5.7	98.2	95.5	95.6	-	-	-
2021 Budget	440.0	200.0	05.0									
Phase 1 - Clean Harbour	412.0	386.8	25.2	-	-	-	-	-	-	-	-	-
Phase 2 - Expansion	296.4	5.1	2.5	2.5	3.1	3.1	94.3	92.9	92.9	-	-	
Total WWTP	708.4	391.9	27.7	2.5	3.1	3.1	94.3	92.9	92.9	-	-	-
Increase (Decrease)												
Phase 1 - Clean Harbour	12.6	(0.1)	12.7	-	-	-	-	-	-	-	-	-
Phase 2 - Expansion	18.3	(0.1)	2.0	2.0	2.6	2.6	3.9	2.6	2.7	-	-	-
Total WWTP	30.9	(0.2)	14.7	2.0	2.6	2.6	3.9	2.6	2.7	-	-	-

Chedoke Creek - Cootes Paradise Workplan

In 2018, the City of Hamilton had discovered that one of its combined sewer overflow tanks was discharging combined sewage into Chedoke Creek. The City immediately stopped the discharge, began clean-up activities in the area and contacted the Provincial Spills Action Centre. As a result of the overflow discharge, the City was served an order by the Ministry of Environment, Conservation and Parks (MECP) outlining several actions required by the City.

The first part of the order required the City to develop the Chedoke Creek Workplan, which was approved on June 11, 2021 and identified the remedial strategy for targeted dredging in Chedoke Creek. The initial workplan is a living document and subject to change as potential new information is discovered while executing the targeted dredging work.

The second part of the order required the City to develop the Cootes Paradise Report, which was also approved on June 11, 2021. This Report proposed the remediation and mitigation works to offset the impacts associated with the added nutrient loading to Cootes Paradise and the Western Hamilton Harbour Area that cannot be recovered by dredging Chedoke Creek.

In addition to the order, City Council directed Hamilton Water staff to meet with Royal Botanical Gardens staff to review potential solutions to Chedoke Creek and report back to the General Issues Committee with their findings. As a result, the Chedoke Creek Water Quality Improvement Study was developed and finalized to proactively address some requirements of the order. Contributions from the study were included in the development of the Cootes Paradise Report and subsequently applied in the development of the Cootes Paradise Workplan.

Table 6 details the capital investment that has been included in the 2022-2031 rate supported capital forecast to meet the requirements of the initial Chedoke Creek and Cootes Paradise Workplan with the majority of funding coming from reserves.

Table 6

	. 45.0	•					
Chedoke Creek - Cootes Paradise Workplan							
(\$000's)							
	Total	Pre-2022	2022	2023	2024	2025	2026-2031
Chedoke Creek Water Quality Improvements (CASH FLOWED)	12,450	1,050	9,050	1,250	1,100	-	
Lower Chedoke Combined EA Study	7,230		280	1,650	1,100	2,100	2,100
Chedoke Watershed Stormwater Retrofit EA Study	11,980		280	1,100	3,150	3,150	4,300
Total	31,660	1,050	9,610	4,000	5,350	5,250	6,400

Provincial / Federal Subsidy Programs

In 2018, the Government of Canada launched the Disaster Mitigation and Adaptation Fund (DMAF) committing \$2 B over 10 years to invest in structural and natural infrastructure projects to increase the resilience of communities that are impacted by natural disasters triggered by climate change. In 2021, an additional \$1.375 B in federal funding over 12 years was announced to renew the DMAF.

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.

Through Report FCS21090, staff has proposed projects for the City's application for the second intake under that DMAF program for approval by Council. The potential funding contribution from the DMAF would enhance the City's ability to address built infrastructure, such as, escarpment biodiversity and stability, trail asset condition and wastewater and stormwater asset additions and enhancements. Total estimated project spending equates to \$106 M (\$82.4 M in rate supported projects and \$23.5 M in tax supported projects) with \$41 M from DMAF and \$65 M of City share, cash flowed over a 10-year period.

The majority of the proposed projects in the City's application are currently in the 10-year Tax and Rate Capital forecasts. However, eight projects are not included in the 10-year forecast and an additional six projects are partially funded. Should this application be successful, staff will report back with a recommended financing strategy to accommodate the City's portion of these projects.

Addressing Climate Change

City Council declared a climate change emergency in March 2019, at that time, joining 435 municipalities world-wide. Since then, the total number of municipalities has reached more than 800 cities around the world, as well as, the Government of Canada, all acknowledging the scale of the climate crisis and the need for accelerated action.

The City of Hamilton understands declaring a climate emergency is just the beginning. City Council, through its climate emergency declaration, directed staff to form a multi-departmental Corporate Climate Change Task Force (CCCTF). Through the CCCTF, a centralized approach has been created to recommend actions and initiatives that the City is required to take in order to reach the goal of reducing greenhouse gas emissions to net zero before 2050.

SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 26 of 32

A key piece of work is the Community Energy and Emissions Plan, which is a long-term plan to meet Hamilton's future energy needs while improving energy efficiency, reducing greenhouse gas emissions and fostering local sustainable and community-supported energy solutions. A draft of the Community Energy and Emissions Plan is anticipated to be brought to the General Issues Committee in late 2021 or early 2022.

Projected Water / Wastewater / Storm Debt

The 2022 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 2022–2031 has increased by \$142.5 M from the 2021 Rate Budget.

The forecasted DC supported debt financing has increased by approximately \$111.7 M over the same period, resulting in an overall net increase in forecasted debt financing of \$111.7 M from the forecast in the 2021 Rate Budget. The increase in reliance on DC supported debt is attributable to the increased cost estimate of the Woodward Wastewater Treatment Plant Expansion and various new projects. The Growth Capital is partially offset with a \$15 M contribution from DC reserves in the 2022 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 \$377 M in 2025, compared with the 2021 budget forecasted debt peak of \$288 M in 2024. The debt funded from DC's is projected to peak at \$743 M in 2028, whereas the 2021 budget was \$641 M in 2028.

Table 7 provides the multi-year debt forecast compared to the 2021 Budget forecast.

Table 7

Projected Rate & DC Su (\$ Millions)	ipported (Outstar	nding [Debt							
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
2021 Rate Budget											
Funded from Rates	199	258	271	288	273	246	220	194	167	143	118
Funded from DC's	115	227	338	402	403	493	578	641	609	575	540
Total	314	485	609	690	676	739	798	835	776	718	658
2022 Rate Budget											
Funded from Rates	140	214	250	323	377	347	327	306	288	255	221
Funded from DC's	4	139	251	372	473	586	676	743	707	669	631
Total	144	353	501	695	850	933	1003	1049	995	924	852
Increase (Decrease)	(170)	(132)	(108)	5	174	194	205	214	219	206	194

Consistent with the 2021 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 2022 Rate Capital Budget, versus full commitment-based budgeting.

Chart 16 compares the total outstanding debt (Rate and DC Funded) from the 2021 Budget forecast to the 2022 Budget forecast. The graph illustrates the lower debt requirements for 2021-2023 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 timeline of the Wastewater Treatment Plant expansion project which is to be 100% DC debt funded.

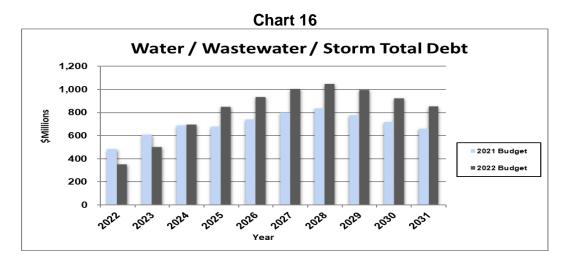


Chart 17 illustrates the projected outstanding debt for the 10-year period (2022–2031) and the funding source of the associated debt charges.

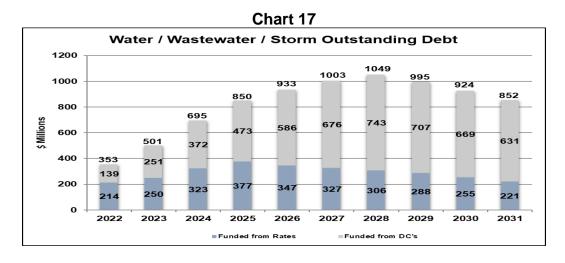
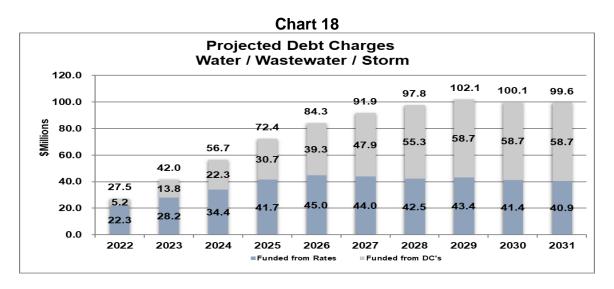


Chart 18 shows the forecasted debt charges funded by water / sewer rates and by Development Charges. In the upcoming years, staff in Corporate Services and in

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.



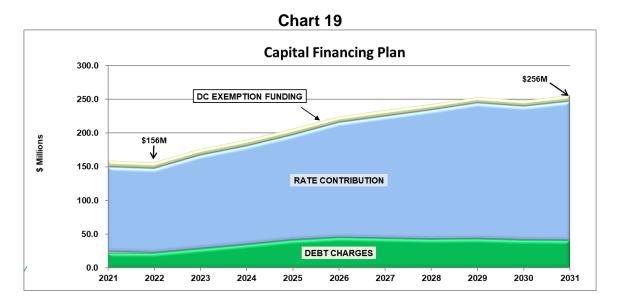
Impact of Capital Budget on Operating Budget

As summarized in Table 8, the 2021 Rate Budget incorporates \$156.0 M capital financing costs which is an increase of \$1.5 M from the 2021 Rate budget. The 2022 budgeted debt charges increase by \$1.8 M, while contribution to capital and DC exemption funding remain the same compared to the 2021 budget.

Table 8

	!	ubic o				
WATER, WASTEWATER &	STORM					
IMPACT OF CAPITAL ON (OPERATING BU	JDGET				
(000's)						
	2021	2021 2022		CHANGE		
	APPROVED	PROPOSED	\$	%	FORECAST	
Debt to be Issued	48,000	49,100	1,100	2.3%	213,300	
Debt Charges (Net of DCs)	20,534	22,349	1,815	8.8%	383,880	
Contribution to Capital	125,369	125,089	(280)	-0.2%	1,713,473	
DC Exemption Funding	9,000	9,000	0	0.0%	90,000	
Impact on Operating Budget 154,903		156,438	1,535	1.0%	2,187,354	

Chart 19 highlights the impact on the operating budget from the Rate Supported Capital program. These impacts are projected to increase from \$156 M in 2022 to \$256 M in 2031. Rate supported debt charges are expected to increase from 8.7% of total revenues in 2022 to 13.2% in 2026 and then decline to 9.9% in 2031.



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 2021 ARL in the amount of \$291,914,218 and is based on 2019 Financial Information Returns.

Using this 2021 ARL, the City Treasurer has calculated an updated ARL of \$219,967,107, shown in Appendix "T" to Report FCS21088. The 2021 ARL was adjusted for possible debt service charges of \$71,947,111 corresponding to approximately \$955.5 M of debt (including City Housing Hamilton), which has been approved by Council in 2020 and prior years but not yet issued. Further adjustments were made to reflect debt service charges both for prior issued debt discharged since 2018 and for new debt assumed in 2018 and 2020.

According to this calculation, the updated ARL of \$219,967,107, represents a maximum annual amount that the City has available to commit to payments related to debt and financial obligations before the statutory limit is breached and corresponds to approximately \$2.6 B of additional borrowing which the City could undertake (assuming a 15-year term and 3% interest rate). The related tax and rate impacts would be considered before approving debt within these limits.

SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 30 of 32

ALTERNATIVES FOR CONSIDERATION

Beyond the recommended rate increase, staff can submit for Council consideration changes to this budget submission that would require a review of the 2022 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 FCS21088 – 2022 Hamilton Water, Wastewater and Storm Operating Budget – Combined Water, Wastewater and Storm

Appendix "B" to Report FCS21088 – 2022 Hamilton Water Operating Budget – Water

Appendix "C" to Report FCS21088 – 2022 Hamilton Wastewater and Storm Operating Budget – Combined Wastewater and Storm

Appendix "D" to Report FCS21088 – 2022 Hamilton Wastewater and Storm Operating Budget – Wastewater

Appendix "E" to Report FCS21088 – 2022 Hamilton Wastewater and Storm Operating Budget – Storm

SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 31 of 32

Appendix "F" to Report FCS21088 – Hamilton Water – 2022 Rate Supported Staffing Summary and 2022 Rate Budget – Business Case Summary – Public Works

Appendix "G" to Report FCS21088 – 2022 Water and Wastewater / Storm Fees and Charges, Effective January 1, 2022 – 2022 Private Fire Line Rates – 2022 Proposed User Fees and Charges

Appendix "H" to Report FCS21088 – Source of Capital Financing – 2022 to 2031 Rate Program Capital Budget

Appendix "I" to Report FCS21088 – 2022 to 2031 Water / Wastewater / Storm Capital Financing Plan

Appendix "J" to Report FCS21088 – Source of Capital Financing – 2022 to 2031 Rate Program Capital Budget – Water

Appendix "K" to Report FCS21088 – Water System – 2022 Capital Budget Project List

Appendix "L" to Report FCS21088 – Water System – 2022 to 2031 Capital Budget List

Appendix "M" to Report FCS21088 – Source of Capital Financing – 2022 to 2031 Rate Program Capital Budget – Wastewater

Appendix "N" to Report FCS21088 – Wastewater System – 2022 Capital Budget Project List

Appendix "O" to Report FCS21088 – Wastewater System – 2022 to 2031 Capital Budget List

Appendix "P" to Report FCS21088 – Source of Capital Financing – 2022 to 2031 Rate Program Capital Budget – Storm Sewers

Appendix "Q" to Report FCS21088 – Storm Water Management – 2022 Capital Budget Project List

Appendix "R" to Report FCS21088 – Storm Water Management – 2022 to 2031 Capital Budget List

Appendix "S" to Report FCS21088 – 2022 Rate Program Capital Budget Summary

Appendix "T" to Report FCS21088 – City of Hamilton Treasurer's Updated 2021 Annual Repayment Limit

Appendix "U" to Report FCS21088 – Amendments to By-law 03-272

SUBJECT: 2022 Recommended Water, Wastewater and Stormwater Budget (FCS21088) (City Wide) – Page 32 of 32

Appendix "V" to Report FCS21088 - Amendments to By-law 06-026

Appendix "W" to Report FCS21088 - Amendments to By-law R84-026