



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

TO:	Mayor and Members General Issues Committee
COMMITTEE DATE:	November 17, 2017
SUBJECT/REPORT NO:	2018 Recommended Water, Wastewater and Stormwater Budget (FCS17081) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	John Savoia (905) 546-2424 Ext. 7298 Marcel Cerminara (905) 546-2424 Ext. 4371 Ashley Bono (905) 546-2424 Ext. 4169
SUBMITTED BY:	Mike Zegarac General Manager Finance and Corporate Services
SIGNATURE:	

RECOMMENDATIONS

- (a) That the metered water consumption charges for residential properties in the City of Hamilton be imposed at the following rates, as of January 1, 2018:

Monthly Water Consumption (m3)	Rate (\$/m3)
0 – 10	0.75
10 +	1.49

- (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 \$1.49 per cubic metre, as of January 1, 2018;
- (c) That daily water fixed charges for all properties in the City of Hamilton be imposed at the following rates, as of January 1, 2018:

Meter Size	Daily Water Rate
15 mm	\$ 0.34
16 mm	\$ 0.34
20 mm	\$ 0.34
25 mm	\$ 0.85
38 mm	\$ 1.70
50 mm	\$ 2.72
75 mm	\$ 5.44
100 mm	\$ 8.50
150 mm	\$ 17.00
200 mm	\$ 27.20
250 mm	\$ 39.10
300 mm	\$ 57.80

- (d) That the wastewater / storm treatment charges for residential properties in the City of Hamilton be imposed at the following rates, effective January 1, 2018:

Monthly Water Consumption (m3)	Rate (\$/m3)
0 – 10	0.81
10 +	1.61

- (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 \$1.61 per cubic metre, effective January 1, 2018;
- (f) That daily wastewater / storm fixed charges for all properties in the City of Hamilton be imposed at the following rates, effective January 1, 2018:

Meter Size	Daily Wastewater/Storm Rate
15 mm	\$ 0.36
16 mm	\$ 0.36
20 mm	\$ 0.36
25 mm	\$ 0.90
38 mm	\$ 1.80
50 mm	\$ 2.88
75 mm	\$ 5.76
100 mm	\$ 9.00
150 mm	\$ 18.00
200 mm	\$ 28.80
250 mm	\$ 41.40
300 mm	\$ 61.20

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- (g) That the residential non-metered annual water rate be imposed at the flat rate of \$543.85 per annum, effective January 1, 2018;
- (h) That the residential non-metered annual wastewater/storm rate be imposed at the flat rate of \$587.65 per annum, effective January 1, 2018;
- (i) That the residential combined non-metered annual water and wastewater/storm rate be imposed at the flat rate of \$1,131.50 per annum, effective January 1, 2018;
- (j) That the Private Fire Line rates be imposed at the following rates, effective January 1, 2018:

Connection Size		Monthly Rate
mm	inches	
25	1.0	\$ 3.28
38	1.5	\$ 7.54
50	2.0	\$ 13.12
75	3.0	\$ 29.52
100	4.0	\$ 52.48
150	6.0	\$ 118.08
200	8.0	\$ 209.92
250	10.0	\$ 209.92
300	12.0	\$ 209.92

- (k) That the 2018 Water, Wastewater and Storm Proposed User Fees and Charges be imposed as per Appendix “G” to Report FCS17081, effective January 1, 2018;
- (l) That the 2018 Water, Wastewater and Stormwater Rate Supported Operating Budget in the amount of \$210,862,294 be approved as per Appendix “A” to Report FCS17081;
- (m) That the 2019 to 2021 Multi-year Operating Budget for the Water, Wastewater and Stormwater programs and related rate increases required to meet sustainable financing, as identified in the 2018-2027 Water, Wastewater and Stormwater Rate Supported Operating Budget forecast in Appendix “A” to Report FCS17081, be approved, in principle;
- (n) That the 2022 to 2027 Multi-year Operating Budget for the Water, Wastewater and Stormwater programs and related rate increases required to meet sustainable financing, as identified in the 2018-2027 Water, Wastewater and Stormwater Rate Supported Operating Budget forecast in Appendix “A” to Report FCS17081, be received for information;

- (o) That the 2018 Water, Wastewater and Stormwater Rate Supported Capital Budget and Financing Plan in the amount of \$219,277,000 be approved as per Appendices “K”, “N”, “Q” and “S” to Report FCS17081;
- (p) That the 2019 to 2021 Multi-year Capital Budget Forecast and Financing Plan for Water, Wastewater and Stormwater Rate Supported Capital Budget as identified in Appendix “I” to Report FCS17081 be adopted, in principle;
- (q) That the 2022 to 2027 Multi-year Capital Budget Forecast and Financing Plan for Water, Wastewater and Stormwater Rate Supported Capital Budget as identified in Appendix “I” to Report FCS17081 be received for information;
- (r) That the City Solicitor be authorized and directed to prepare, for Council approval, all necessary by-laws respecting the 2018 water and wastewater / storm user fees, charges and rates set out in recommendations (a) through (k) of Report FCS17081;
- (s) That Project 4411506103 Pier 8 Pumping Station originally approved to be funded by tax supported debt in the amount of \$3 M be now funded from Wastewater Reserve 108005.

EXECUTIVE SUMMARY

The 2018 Recommended Rate Budget is submitted for Council’s consideration.

As per the approved Multi-Year Business Planning and Budget Policy, the Rate Budget detailed in Report FCS17081 consists of:

- Rate Operating Budget for a four-year period (2018 to 2021) comprised of a one-year period for approval and a three-year forecast plan for adoption; and
- Rate Capital Budgets for a four-year period (2018 to 2021) comprised of a one-year period for approval and a three-year forecast plan for adoption plus a further six-year forecast (2022 to 2027) for information.

Asset management regulations under Bill 6, *Infrastructure for Jobs and Prosperity Act, 2015*, are being considered for adoption in January 2018. The General Issues Committee, at its meeting on October 20, 2017, received a staff presentation on these regulations. The Rate Budget forecasts in Report FCS17081 are based on the best available information as the impact of these asset management regulations is not fully known.

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The 2018 Rate Budget is submitted for Council’s consideration. The 2018 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 2018 to 2027, water, wastewater and stormwater capital investment is forecast at \$1.92 B which represents an increase of \$0.17 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.

The 2018 Operating expenditures in the 2018 Requested Budget of \$93.7 M reflect an increase of \$2.9 M or 3.2% over the 2017 budget with the following major cost drivers:

- Employee related expenditure increase of \$0.8
- Contractual services with a net increase of \$1.8 M related to increases for outstation vacuum services (\$0.4 M); plant facility maintenance (\$0.6 M); contract locates (\$1.3 M) and computer maintenance (\$0.2 M) offset by a \$0.6 M decrease in Bio-solids contractual services due to lower haulage costs
- The Protective Plumbing Program (3P) grant program decreased by \$0.5 M to reflect reduced program demand
- Hydro increases of \$0.6 M

Capital financing costs in the 2018 Requested Budget of \$117.1 M reflect an increase of \$6.8 M over the 2017 Budget. With non-rate revenues remaining at \$3.1 M, rate revenues of \$207.8 M are required to meet operating (program and capital) expenditures.

The following Table summarizes the budget changes for the 2018 Requested Budget:

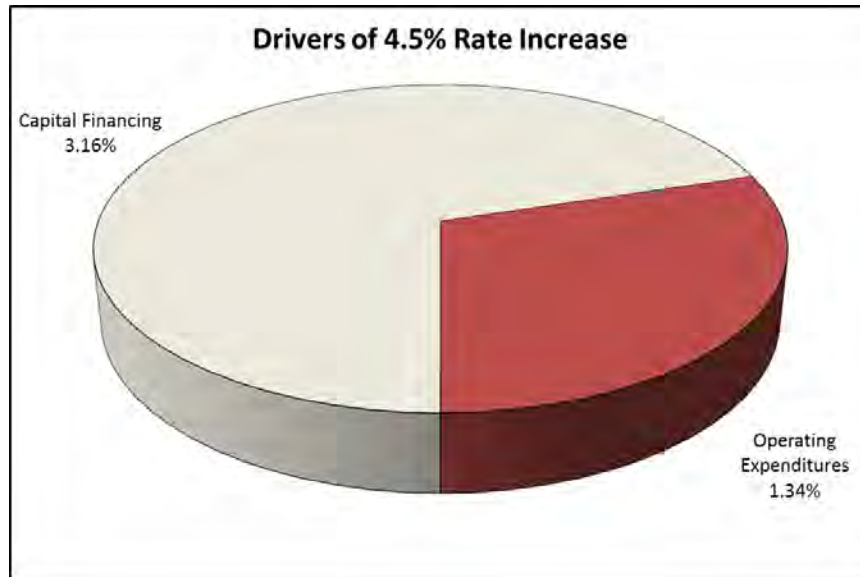
Summary of the 2018 Operating Budget				
(\$ millions)	2017 Restated Budget	2018 Requested Budget	2018 Requested /2017 Restated Change	
			\$	%
Expenditures				
Program Expenditures	\$ 90.8	\$ 93.8	\$ 3.0	3.2%
Capital/Debt Financing	\$ 110.3	\$ 117.1	\$ 6.8	6.2%
Total Expenditures	\$ 201.1	\$ 210.9	\$ 9.8	4.8%
Revenues				
Rate Revenue	\$ 197.9	\$ 207.8	\$ 9.9	5.0%
Non-Rate Revenue	\$ 3.2	\$ 3.1	(\$ 0.1)	(0.7%)
Total Revenue	\$ 201.1	\$ 210.9	\$ 9.8	4.8%
Average Residential Water/Wastewater/Storm Bill	\$ 660.95	\$ 690.70	\$ 29.75	4.5%

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.

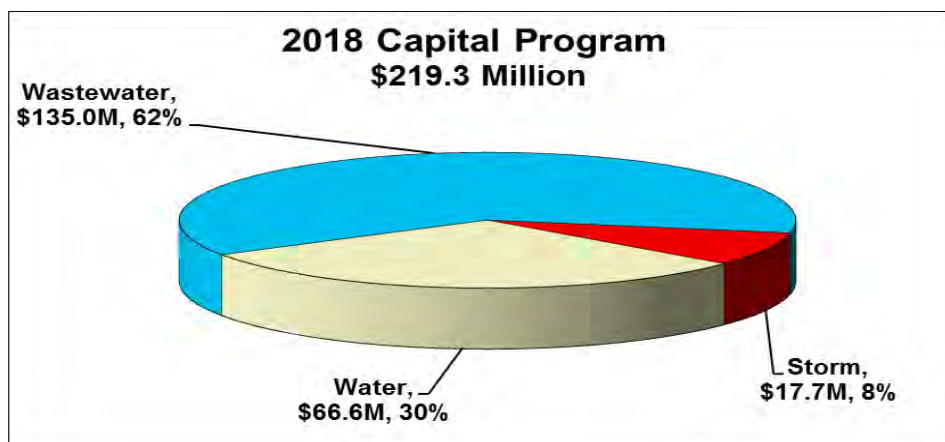
OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

The following Chart highlights that the proposed combined 4.5% rate increase is driven largely by increased capital and to a lesser extent operating expenditures in 2018.

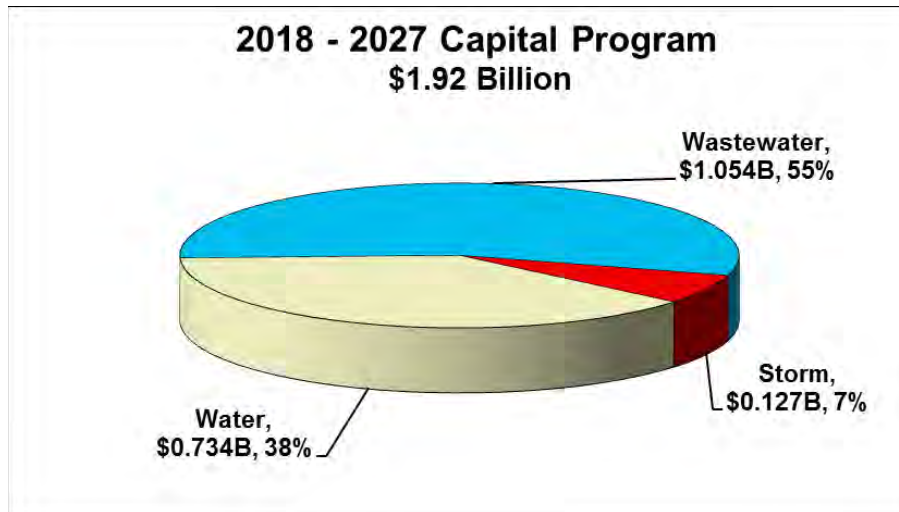


Other water and wastewater service user fees have been reviewed in accordance with the Water / Wastewater User Service Fee and Charges Policy. The Policy requires identification of both the cost of the service and the fees / charges to recover such cost with the intent that full cost recovery is achieved. Many service fees have remained unchanged with full cost recovery currently being achieved with others undergoing varying fee increases to achieve full cost recovery. Laboratory Services has identified three new service fees related to new tests that will be available in 2018.

The following Chart provides a breakdown of the 2018 Rate Capital Program, totalling \$219.3 M, by the three major program areas: Water, Wastewater and Storm.



The following Chart illustrates the \$1.92 B capital program for the 2018 – 2027 water, wastewater and storm capital budget. Of this amount, \$1.054 B or 55% is for wastewater, \$0.734 B or 38% is for water and \$0.127 B or 7% is for the storm program. A total of \$0.784 B or 41% of the 10-year capital program is required in the first three years (2018 – 2020). This is predominantly due to the Woodward Wastewater Treatment Plant (WWTP) Upgrade and Bio-solids Plant construction.



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 (DCs). The rate supported debt is projected to peak at \$303 M in 2021, compared with the 2017 budget forecasted debt peak of \$301 M in 2020. The debt funded from DCs is projected to peak at \$451 M in 2027, whereas the 2017 forecast was \$332 M in 2026. The increase in DC supported debt is due to the inclusion of Phase II of the WWTP expansion in the 10-year forecast. The WWTP expansion is planned to be 100% DC funded.

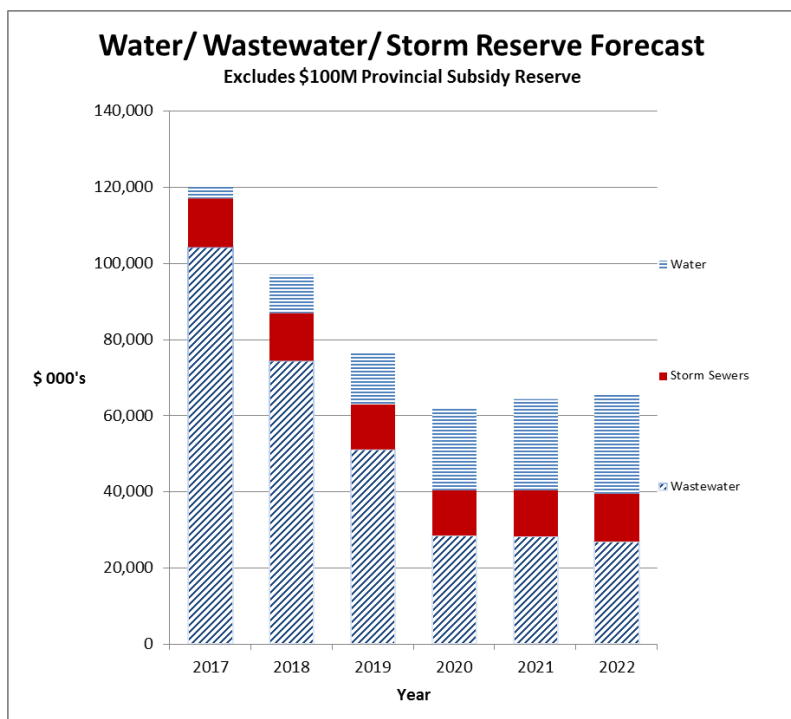
The levels of debt supported by development charges represent a significant risk if future growth does not materialize as planned. However, relative to forecasts prior to 2014, the risk has been deferred as a significant portion of the growth component of the Wastewater Plant Expansion and is now planned in years 2027 to 2029. This will allow an opportunity to monitor growth and DC Revenues over the next 10 years (2018 – 2027) and make adjustments to the plant expansion project and associated financing plan to align with growth requirements.

The following Table provides the 10-year debt forecast compared to the 2017 Budget.

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Projected Rate & DC Supported Outstanding Debt											
(\$ Millions)											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2017 Rate Budget											
Funded from Rates	183	230	275	301	284	260	236	211	186	160	132
Funded from DC's	87	185	307	324	327	321	317	320	329	332	313
Total	270	415	582	625	611	581	553	531	515	492	445
2018 Rate Budget											
Funded from Rates	128	178	236	302	303	286	262	236	219	200	173
Funded from DC's	1	69	151	286	312	325	333	344	364	370	451
Total	129	247	387	588	615	611	595	580	583	570	624
Increase (Decrease)	(141)	(168)	(195)	(37)	4	30	42	49	68	78	179

The following Graph provides the projected reserve balances for the Water, Wastewater and Storm programs. The 2018 Budget Forecast reflects utilizing \$45 M in reserve funds to fund the WWTP Clean Harbour project as well as \$14.7 M for the Bio-solids project. Additionally, the 2018 Budget recommends funding \$3 M for Project 4411506103 Pier 8 Pumping Station from Wastewater Reserve 108005. This Project was originally funded through Tax supported debt. However, upon further analysis, staff determined that the nature of the asset required it to be funded from Rate supported debt as opposed to the Tax supported budget. 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.



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 \$120 M at the end of 2017, to \$62 M in 2020 and then increase over the years to \$86 M in 2027. The Wastewater and Storm 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 Water Reserve as this reserve is currently below the defined lower reserve target balance largely due to the reliance on this reserve as part of the 2017 Rate financing plan.

The 2018 recommended water and wastewater / storm rate increases will result in an annual cost impact of approximately \$30 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 the Table below.

Impact of Recommended Rate Increases on Water and Wastewater/Storm Rates			
	2017	2018	Increase
Water Fixed Charge (daily) ¹	\$0.33	\$0.34	\$0.01
Consumption Charge Block 1 (0-10 cubic metres/month)	\$0.72	\$0.75	\$0.03
Consumption Charge Block 2 (>10 cubic metres/month)	\$1.43	\$1.49	\$0.06
Wastewater/Storm Fixed Charge (daily) ¹	\$0.34	\$0.36	\$0.02
Treatment Charge Block 1 (0-10 cubic metres/month)	\$0.77	\$0.81	\$0.04
Treatment Charge Block 2 (>10 cubic metres/month)	\$1.54	\$1.61	\$0.07
¹ Rate is for a 15-20 mm meter which most residential homes have installed.			

The following Table identifies the proposed rate increase impact on a residential customer.

Impact of Recommended 2018 Water and Wastewater/Storm Rate Increases on a Typical Residential Bill	
(based on annual water consumption of 200m ³)	
2017 Residential Bill	\$660.95
2018 Residential Bill	\$690.70
<i>Recommended Change (\$)</i>	\$29.75
<i>Recommended Change (%)</i>	4.50%

This Report identifies the steps staff has incorporated in the current 10-year forecast related to significant risks that have been identified related to a variety of conditions which may impact ratepayers and more significantly, in combination may place significant financial pressures on ratepayers. These risk factors detailed in later sections of this Report include:

- Sustainability of grant / subsidy programs funded by water/wastewater rates
- Increased operating and capital investment requirements

Staff pursued a variety of measures in an effort to control the impact of the above risks in order to maintain a safe and reliable service at a reasonable cost.

The recommended 2018 Rate Supported Budget endeavours to achieve a balance between capital investment, rate of growth and rate stability. The 2018 Rate Supported Budget links the change in demand for water with a staged approach to necessary capital investments at the WWTP.

While the Rate Supported Budget plan has changed from time to time, the overall goal of achieving a sustainable level of funding from users to support the necessary infrastructure investments has not. This financing approach has been in place since 1997 which, at that time, called for water rates to increase by three to seven percent after adjusting for inflation over a 15-year period. The 2018 – 2027 Budget is a continuation of this financing approach which assumes combined annual rate increases ranging from 4.2 – 4.7% over the 10-year period combined with the use of reserve funding and debt financing.

In general, the goal has been to support the water, wastewater and storm programs through a sustainable level of funding from users. While revenue forecasts have been adjusted from time to time for a variety of reasons, so too have expenditure forecasts and the need for additional financial resources. The recommended Rate Supported Budget calls for capital funding in 2018 of approximately \$219.3 M (2017 dollars) and \$1.92 B (2017 dollars) for the 2018 – 2027 timeframe.

The 2018 Budget 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.

Alternatives for Consideration – See Page 29

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Approval of the 2018 Water, Wastewater and Stormwater Supported Operating Budget will support operating and capital financing expenditures of \$210,862,294 for 2018.

Approval of the 2018 Water, Wastewater and Stormwater Rate Supported Capital Budget and Financing Plan in the amount of \$219,277,000.

The impact of the adoption of the multi-year operating budget and capital budget for 2019 to 2021 is contained in the appendices to Report FCS17081.

The impact of the 2018 user fees has been incorporated in the 2018 Rate Budget.

Staffing: The 2018 Rate Supported staffing complement does not include a requested change to the total FTE headcount as reflected in Appendix “F” to Report FCS17081.

Legal: Recommendation “R” of Report FCS17081 relates to by-laws requiring Council approval, respecting the implementation of 2018 water and wastewater user fees and charges set out in the recommendations (a) through (k) of Report FCS17081.

HISTORICAL BACKGROUND

The 2018 Rate Budget continues to support the priority of investing in infrastructure as evidenced by the 2018 to 2027 forecast investment of approximately \$1.92 B in water, wastewater and stormwater capital infrastructure.

Report FCS17081 outlines the various aspects and components that the recommended 2018 Rate Supported Budget strategy incorporates:

- Sustainable Rate Strategy
- Proposed 2018 Water and Wastewater / Storm Rates
- Operating Budget Highlights
- Capital Budget Highlights
- Water Consumption Review and Forecast

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The 2018 Recommended Rate Budget (Report FCS17081) supports the principle of a user-pay water and wastewater / storm system. The City's Rate Reserve Policy has guided staff's recommended use of rate reserves as a funding source in the 2018-2027 financing plan. The City's Multi-Year Business Planning and Budget Policy has guided the recommendations in Report FCS17081 as follows:

- Rate Operating Budget for a four-year period (2018 to 2021) comprised of a one-year period be approved and a three-year forecast plan be adopted; and
- Rate Capital Budgets for a four-year period (2018 to 2021) comprised of a one-year period for approved and a three-year forecast plan be adopted plus a further six-year forecast (2022 to 2027) be received for information.

Asset management regulations under Bill 6, Infrastructure for Jobs and Prosperity Act, 2015 are being considered for adoption by the Province in January 2018. The Rate Budget forecasts in Report FCS17081 are based on the best available information as the impact of these asset management regulations is not fully known.

RELEVANT CONSULTATION

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

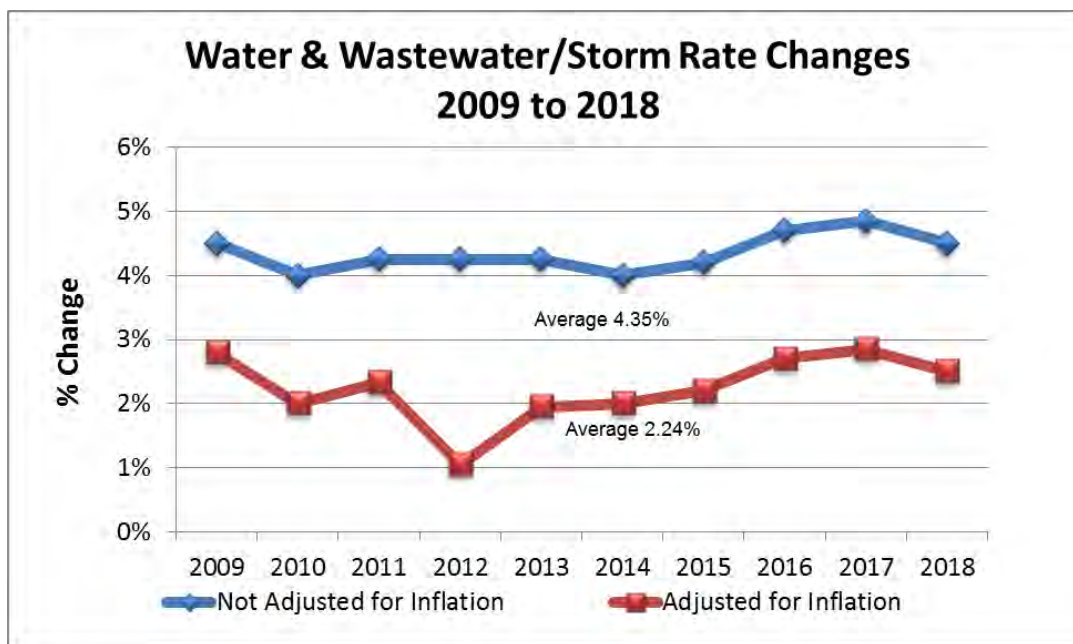
ANALYSIS AND RATIONALE FOR RECOMMENDATION

Appendix "A" to Report FCS17081 summarizes the 2018 operating budget expenditures (program and capital) and revenues of \$210.9 M compared to the 2018 projected actual and 2018 restated budget. The Executive Summary section of Report FCS17081 provides an overview of the main drivers of the 2018 Requested Operating Budget, 2018 Capital Budget and the proposed rate increase for the average residential water, wastewater and storm annual bill of \$29.75 (4.5%).

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.

Trends in Combined Water and Wastewater / Storm Rate Charges 2009-2018

Hamilton's overall average annual combined water and wastewater / storm rate increase is 4.35% before adjusting for inflation during the 10-year period from 2009 to 2018. Accounting for inflation results in the overall average, the annual rate increase over the same period would be 2.24%. The following Chart shows the trend in Hamilton's water and wastewater / storm rates for the period 2009 to 2018.



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 4.35% 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, is a reflection of the fact that similar to Hamilton, other municipalities are addressing many of the same investment requirements identified above.

Over the period 2004 to 2017, Hamilton's residential annual water and wastewater / storm bill has ranged from eighth to the current second lowest cost ranking of 14. Though Hamilton is one of the few listed in the comparator group that largely funds its stormwater management program through its wastewater / storm fee, it still has been able to maintain competitive rates.

2017 COMBINED METERED WATER/WASTEWATER CHARGE COMPARISON WITH OTHER MUNICIPALITIES				
MUNICIPALITY	AVERAGE RESIDENTIAL 200 M³		SMALL COMM/IND 325 M³	
	Annual Charge	Ranking	Annual Charge	Ranking
Kitchener**	\$1,282	1	\$1,597	3
Norfolk	\$1,150	2	\$1,522	4
Haldimand	\$1,085	3	\$1,402	5
Cambridge	\$1,051	4	\$1,586	2
London**	\$1,020	5	\$1,764	1
Waterloo**	\$1,003	6	\$1,415	7
West Lincoln	\$961	7	\$1,294	8
Guelph	\$906	8	\$1,339	9
Brantford	\$879	9	\$1,360	6
St. Catharines	\$858	10	\$1,241	10
Durham	\$843	11	\$1,187	12
Halton	\$811	12	\$1,105	13
Toronto*	\$725	13	\$1,177	11
Hamilton*	\$660	14	\$1,032	14
Peel**	\$534	15	\$804	15

* Include stormwater management in their rates.
 ** Have dedicated stormwater management user fee that is included within residential rates in above table.
 Note: All other municipalities fund stormwater from property taxes.

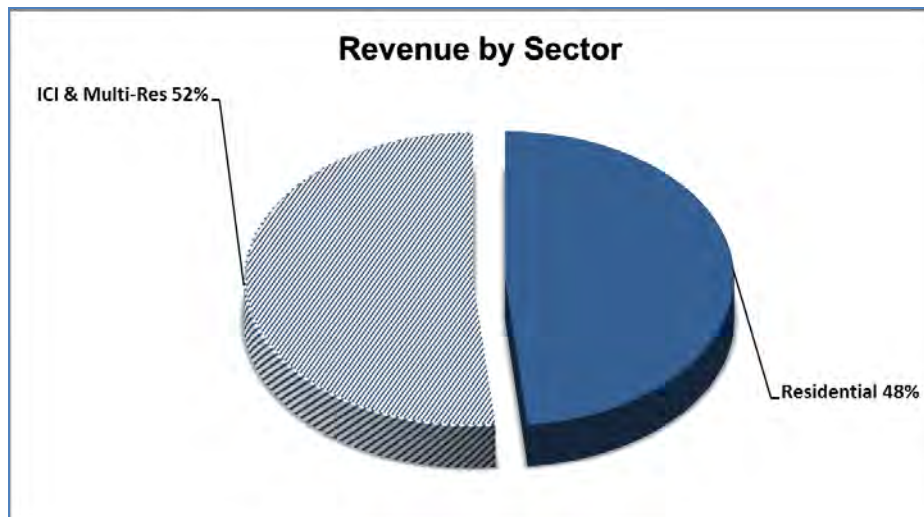
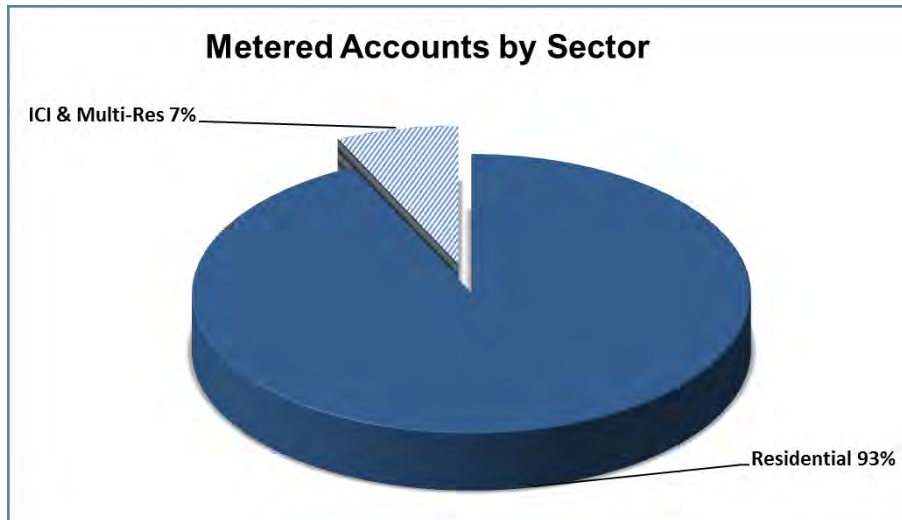
In the case of commercial and industrial ratepayers, the comparison of average annual charges indicates that Hamilton ranks in the mid-range which is consistent with last year.

2017 COMBINED METERED WATER/WASTEWATER CHARGE COMPARISON WITH OTHER MUNICIPALITIES				
MUNICIPALITY	MID-SIZE COMM/IND 2,272 M³		LARGE COMM/IND 22,727 M³	
	Annual Charge	Ranking	Annual Charge	Ranking
Kitchener	\$11,162	1	\$111,655	1
Cambridge	\$10,207	2	\$98,850	2
Waterloo	\$9,245	3	\$93,080	3
Brantford	\$8,840	4	\$87,408	4
Toronto	\$8,230	5	\$82,329	5
Guelph	\$8,201	6	\$80,717	6
Norfolk	\$7,681	7	\$71,506	8
St. Catharines	\$7,297	8	\$70,258	7
West Lincoln	\$7,117	9	\$63,889	11
Hamilton	\$6,826	10	\$68,921	9
London	\$6,666	11	\$52,251	14
Halton	\$6,440	12	\$57,298	12
Haldimand	\$6,334	13	\$64,235	10
Durham	\$6,148	14	\$56,699	13
Peel	\$4,909	15	\$49,101	15

CONSUMPTION AND RATE-GENERATED REVENUES

Metered Water Consumption

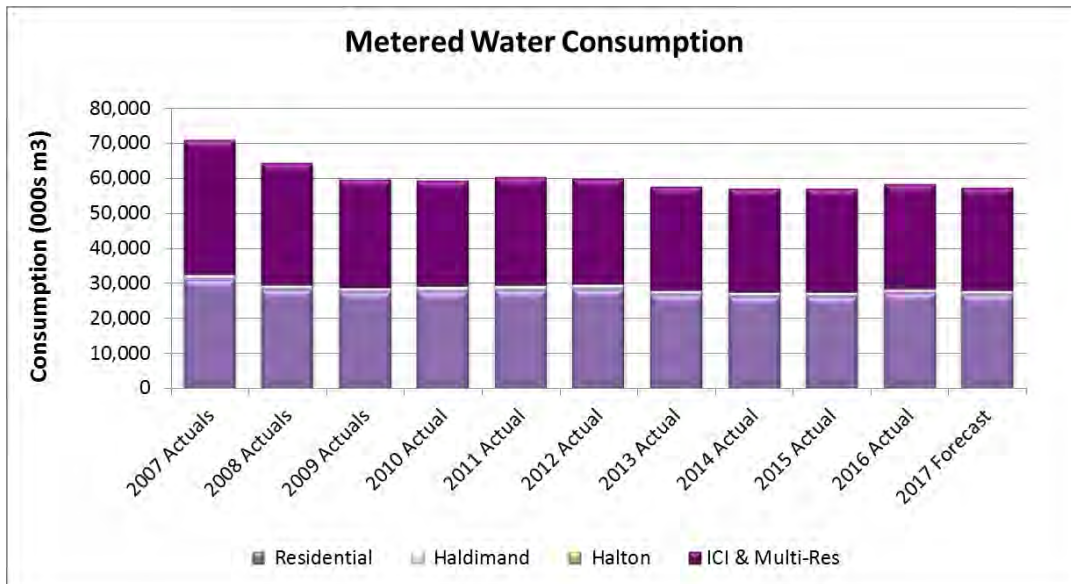
The following Charts reflect the City of Hamilton has approximately 150,000 metered water accounts. Residential users account for 93% of total metered accounts and approximately 48% of total water consumption. While industrial, commercial, institutional and multi-residential accounts only make up 7% of total metered accounts, ICI and multi-res water consumption accounts for 52% of total consumption.



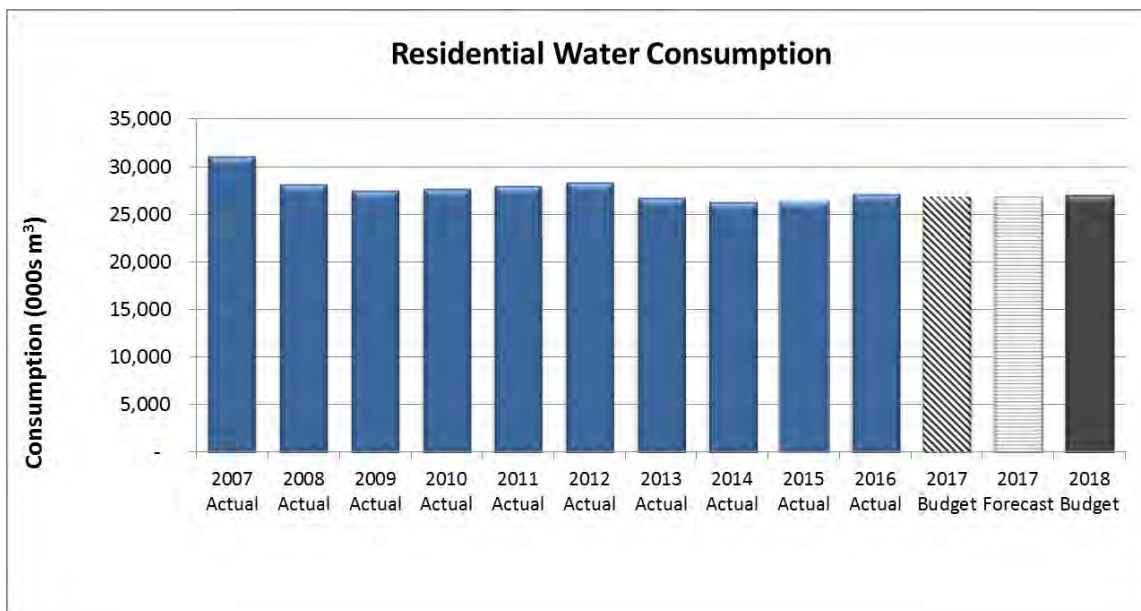
2017 Consumption Forecast

Environment Canada tracks municipal water usage and has observed a downward trend on water consumption across the country over the last decade.

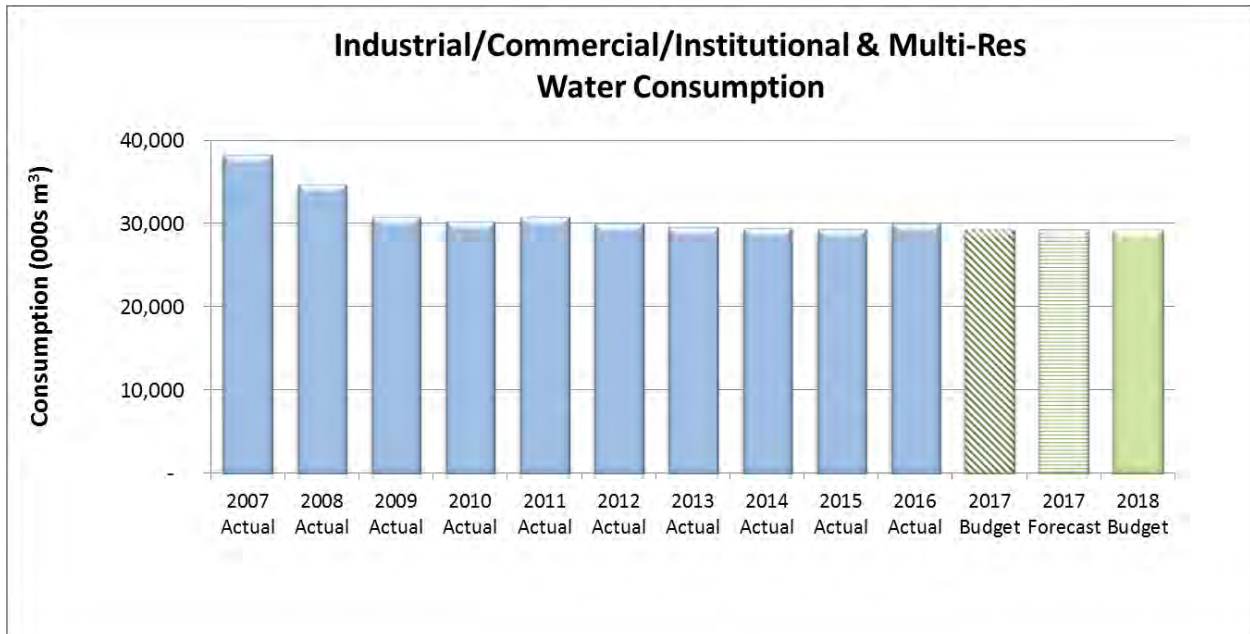
For 2017, as shown in the following Graph, Multi-Residential, Industrial, Commercial and Institutional are expected to meet budget. The Residential customer sector is trending to have a small unfavourable variance of \$300 K. Due to the record levels of precipitation that occurred during the spring of 2017 and mild weather experienced during the summer months, a reoccurrence of 2016's seasonal usage and related revenue surplus is unlikely to reoccur in 2017. For 2017, the total water and wastewater / storm revenues are projected to be approximately \$188 M, based on metered sales of approximately 57.3 million cubic metres.



The following Graph highlights consumption trends in the residential sector. The average water consumption, per household, during the last three years was approximately 195 m³ and for the purpose of the 2017 forecast, 200 m³ was assumed.



The Graph below highlights consumption trends in the ICI & Multi-Res sector. For 2017, the ICI & Multi-Res sector is expected to come in on budget reflecting consistent consumption levels seen in the ICI & Multi-Res sector since 2013. The increase in 2016 was due to the drought-like conditions experienced during summer 2016.

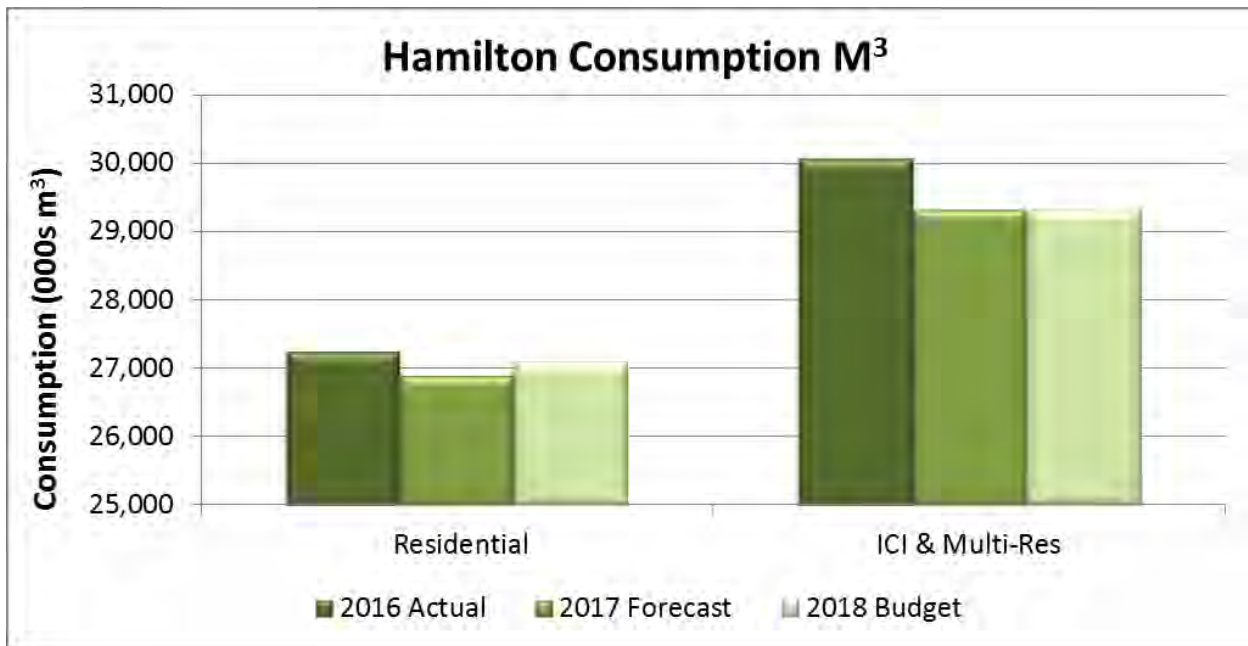


Staff will continue to monitor consumption across all sectors and take efforts to ensure that the City is maximizing its full revenue potential with respect to metered water and wastewater / storm. Similarly, staff will be monitoring changes in consumption on an ongoing basis identifying trends and related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

2018 Consumption Budget

Over the past number of years, staff recommended varying degrees of adjustment to the consumption assumptions in recognition of changing demand for water across all sectors.

For 2018, total metered water consumption is forecast at approximately 57.5 million cubic metres, a slight increase of approximately 0.20% relative to 2017 budget at 57.4 million cubic metres. The following Chart compares the 2018 budgeted consumption to the 2017 forecasted and 2016 actual consumption.

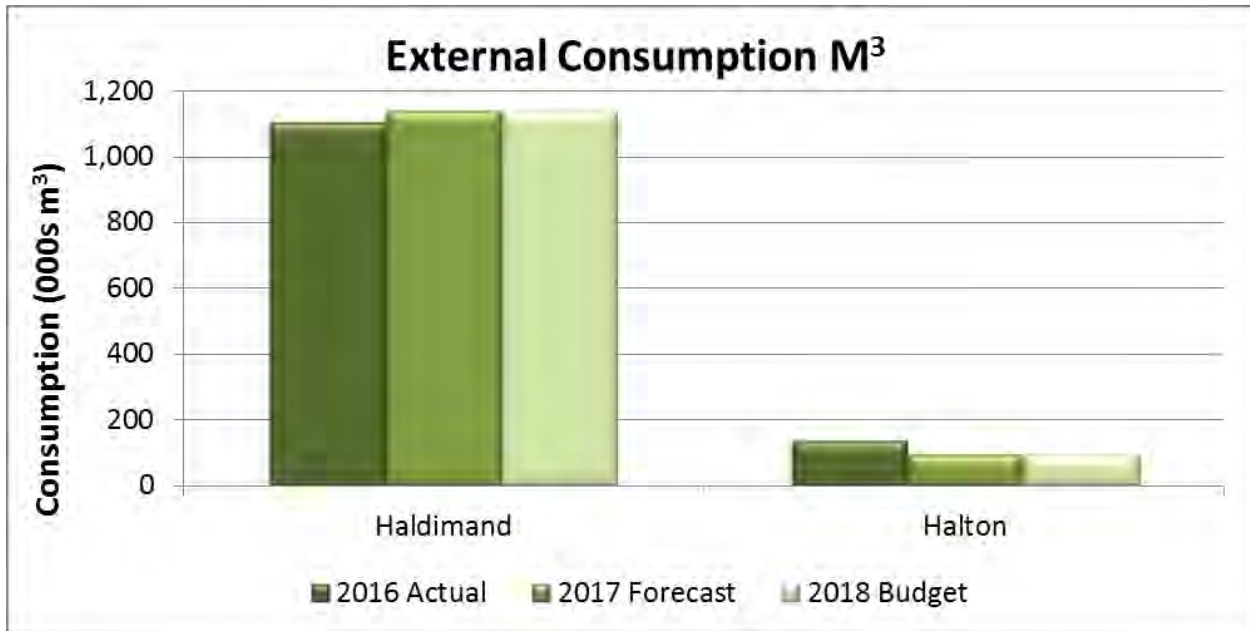


Based on the review of residential consumption patterns, residential consumption, on average, has been declining over the past decade. The declining consumption reflects ongoing conservation efforts associated with fixture / appliance obsolescence such as the installation of water efficient toilets and washing machines. However, since 2013, consumption levels have been fairly consistent ranging from 26.8 to 26.4 million cubic metres, for a three year average of 26.5 million cubic metres. Residential consumption 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. For 2018, 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 the associated regulations. For example, in 2012, the Ontario Building Code changed requirements related to the installation of high-efficiency toilets (4.8 L) and expanding the end uses of rainwater and other non-potable water.

The ICI & Multi-Res sector has experienced significant revenue shortfalls during the last recession levels and consumption levels have stabilized since 2013. As such, for the 2018 ICI & Multi-Res sector consumption forecast, staff is recommending basing consumption on the previous several years of consumption experience. A number of larger multi-residential customers including CityHousing Hamilton are implementing water conservation projects such as the installation of ultra-high efficiency 3.0 L toilets.

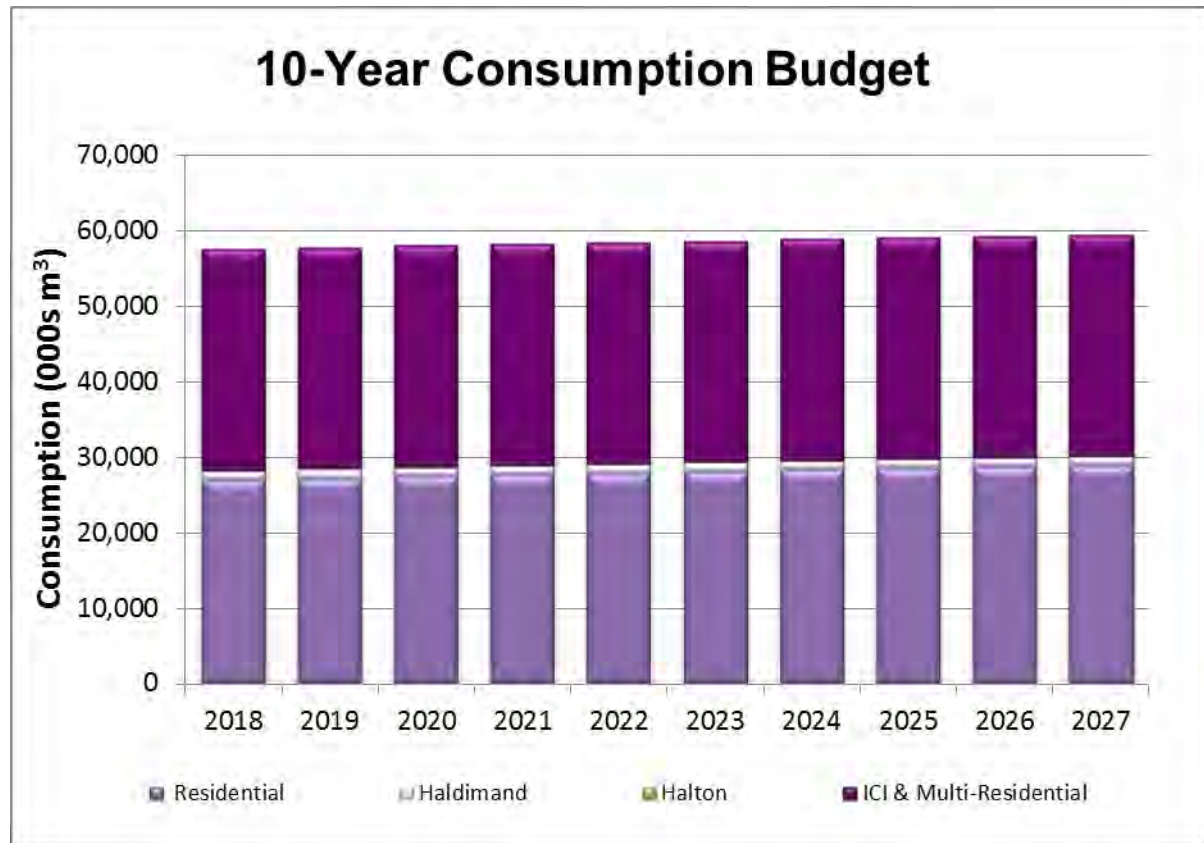
Under long-term arrangements, Hamilton supplies Haldimand County and Halton Region potable water but does not provide wastewater / storm services to either community. The following Chart compares the 2018 budgeted consumption to the 2017 forecasted and 2016 actual consumption.



10-Year Consumption Budget

As reflected in the following Graph, the total water consumption over the 10-year budget (2018 to 2027) is projected to slightly increase. This relatively conservative forecast reflects the following:

- Lack of recovery from 2009-10 Recession and continued uncertainty surrounding growth / decline of consumption in the ICI & Multi-Res sector
- Price elasticity in the ICI & Multi-Res sector
- Conservation impacts
 - residential toilet consumption = 30% of indoor consumption
 - newer high-efficiency toilets
 - 5% reduction in residential use = reduction of 1.6M m³
 - energy conservation initiatives in the ICI & Multi-Res sector usually include water impacts
- Renewed Haldimand water agreement executed in 2014
- Renewed Halton water agreement executed in 2011



2018 – 2027 Rate Capital Budget

The following Table summarizes the \$1.92 B capital program and the financing requirements for the 2018 – 2027 water, wastewater and storm capital budget. Of this amount, \$1.054 B or 55% is for wastewater, \$0.734 B or 38% is for water and \$0.127B or 7% is for the storm program. A total of \$0.784 B or 41% of the 10-year capital program is required in the first three years (2018 – 2020). This is predominantly due to the Woodward Wastewater Treatment Plant (WWTP) Upgrade and Bio-solids Plant construction. The capital program also includes \$406 M for growth infrastructure related to GRIDS which will be funded from Development Charges, except for \$71 M in Development Charge exemptions which the City is legislatively required to fund from rate revenues if Council chooses to discount its DCs or recover less than 100% of growth-related capital costs.

**SUBJECT: 2018 Recommended Water, Wastewater and Stormwater Budget
(FCS17081) (City Wide) – Page 22 of 31**

SOURCE OF CAPITAL FINANCING						
2018 to 2027 RATE PROGRAM CAPITAL BUDGET						
\$(000'S)						
	2018	2019	2020	2021	2022 to 2027	Total 2018 to 2027
WATERWORKS						
Capital Program	66,570	82,358	81,170	68,493	435,077	733,668
<u>Source of Funding</u>						
Subsidy/Other Revenue	1,652	-	223	1,481	30	3,386
Development Charges	8,424	13,770	29,451	12,618	69,266	133,529
Reserves & Other Internal Sources	2,897	1,140	640	640	3,840	9,157
Contribution from Operating	36,982	40,607	36,642	43,231	337,941	495,403
External Debt (Rate Supported)	16,615	26,841	14,214	10,523	24,000	92,193
Total	66,570	82,358	81,170	68,493	435,077	733,668
WASTEWATER						
Capital Program	135,037	163,929	205,068	79,553	470,730	1,054,317
<u>Source of Funding</u>						
Subsidy/Other Revenue	46,096	70,732	73,904	-	-	190,732
Development Charges	11,028	25,368	34,538	19,984	138,330	229,248
Reserves & Other Internal Sources	32,439	24,000	21,570	-	-	78,009
Contribution from Operating	45,474	43,829	51,015	47,019	332,400	519,737
External Debt (Rate Supported)	-	-	24,041	12,550	-	36,591
Total	135,037	163,929	205,068	79,553	470,730	1,054,317
STORM SEWERS						
Capital Program	17,670	13,730	14,290	10,690	70,640	127,020
<u>Source of Funding</u>						
Subsidy/Other Revenue	2,044	75	75	75	450	2,719
Development Charges	6,070	4,000	5,100	4,000	24,000	43,170
Reserves & Other Internal Sources	1,040	1,000	-	-	-	2,040
Contribution from Operating	8,516	8,655	7,065	6,615	46,190	77,041
External Debt (Rate Supported)	-	-	2,050	-	-	2,050
Total	17,670	13,730	14,290	10,690	70,640	127,020
TOTAL RATE PROGRAM						
Capital Program	219,277	260,017	300,528	158,736	976,447	1,915,005
<u>Source of Funding</u>						
Subsidy/Other Revenue	49,792	70,807	74,202	1,556	480	196,837
Development Charges	25,522	43,138	69,089	36,602	231,596	405,947
Reserves & Other Internal Sources	36,376	26,140	22,210	640	3,840	89,206
Contribution from Operating	90,972	93,091	94,722	96,865	716,531	1,092,181
External Debt (Rate Supported)	16,615	26,841	40,305	23,073	24,000	130,834
Total	219,277	260,017	300,528	158,736	976,447	1,915,005

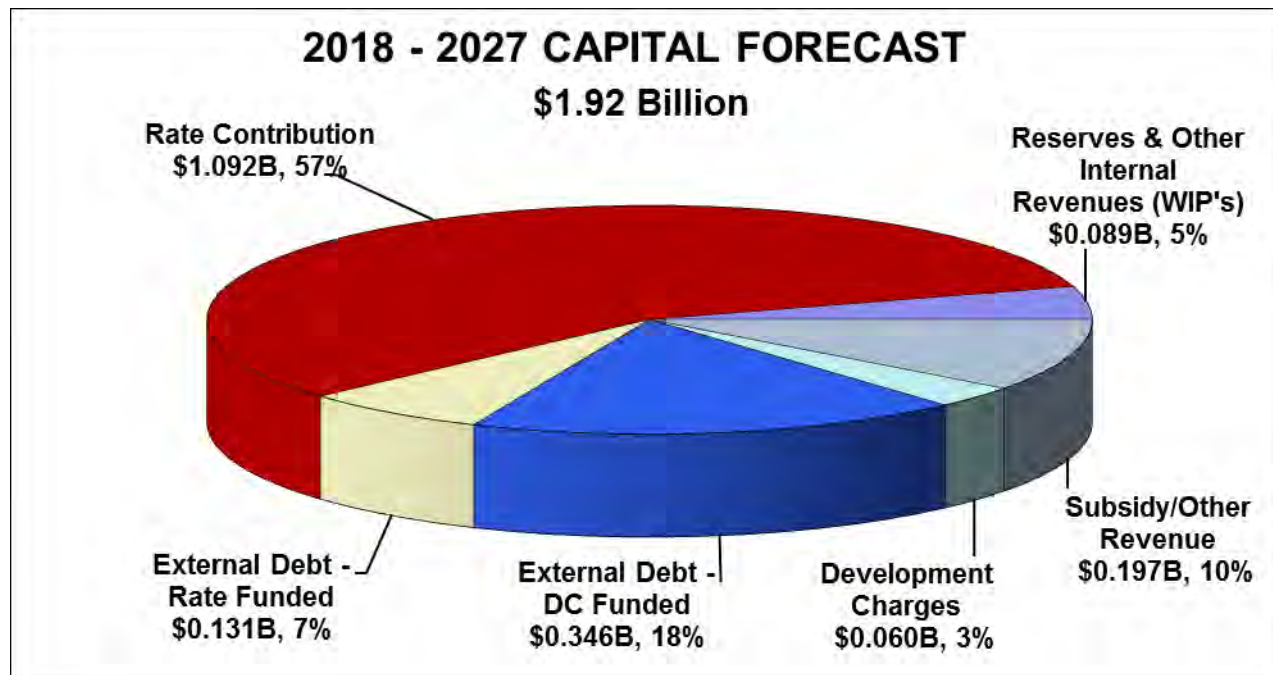
OUR Vision: To be the best place to raise a child and age successfully.

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.

The Chart below provides the sources of capital financing for the 2018 – 2027 forecast period. The growth related infrastructure investment included in the 2018 – 2027 forecast to accommodate for growth is \$406 M of which all but \$60 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 \$30 M each year in 2018 and 2019 will be utilized to fund growth capital in those years reducing the amount of debt required to fund growth capital.

The 2018 – 2027 Capital Forecast includes \$8.7 M in funding from capital work-in-progress (WIP's). Capital funding from reserves in years 2018 through 2027 totals \$80.5 M which helps to mitigate debt financing.



Wastewater Treatment Upgrade & Expansion Project

The implementation plan for the Upgrade and Expansion of the WWTP is consistent with the 2017 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. Of the \$237.5 M, \$145 M of the total growth component costs is forecast beyond the 10-year period (2018 – 2027) in the 2018 Budget.

**SUBJECT: 2018 Recommended Water, Wastewater and Stormwater Budget
(FCS17081) (City Wide) – Page 24 of 31**

The total budget for the Wastewater Treatment Plant upgrade and expansion has decreased by \$6.2 M in the 2018 budget forecast compared to the 2017 budget forecast, as reflected in the following Table. The budget decrease is attributable to favorable tender results realized in Phase One of the Project. Additionally, some of the costs forecast in the 2017 budget for 2018 have been deferred to 2018 - 2021 in the 2018 budget. The following Table provides a comparison of the budgeted costs in the 2017 and 2018 Rate Budgets for the Wastewater Treatment Plant upgrade and expansion.

Woodward Wastewater Treatment Plant Project - Gross Capital Forecasts													
(\$ Millions)													
		pre											post
	Total	2018	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2027
2018 Budget													
Phase 1 - Clean Harbour	408.7	76.2	76.1	112.1	116.4	27.9	-	-	-	-	-	-	-
Phase 2 - Expansion	237.5	-	-	-	-	-	-	-	5.0	5.0	5.0	77.5	145.0
Total WWTP	646.2	76.2	76.1	112.1	116.4	27.9	-	-	5.0	5.0	5.0	77.5	145.0
2017 Budget													
Phase 1 - Clean Harbour	414.9	76.9	106.0	119.2	95.0	17.8	-	-	-	-	-	-	-
Phase 2 - Expansion	237.5	-	-	-	-	-	-	-	5.0	5.0	5.0	77.5	145.0
Total WWTP	652.4	76.9	106.0	119.2	95.0	17.8	-	-	5.0	5.0	5.0	77.5	145.0
Increase (Decrease)	(6.2)	(0.7)	(29.9)	(7.1)	21.4	10.1	-	-	-	-	-	-	-

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) on a claim reimbursement basis.

The 2018 – 2027 Rate Capital Financing Plan incorporates both the Federal and Provincial subsidies to fund the Clean Harbour project. Although none of the \$200 M in total subsidies from the Province and Federal governments has actually been spent to date, \$26.196 M has been committed as a funding source in previous years' budgets, leaving \$173.804 M in funding for the Clean Harbour project to be applied in years 2018 – 2021.

The 2016 Federal Budget announced the establishment of a Clean Water and Wastewater Fund (CWWF) that proposes to invest up to \$569.6 M in the Province of Ontario for immediate improvements to water distribution and treatment infrastructure starting in 2016-17.

The CWWF is designed to accelerate short-term community investments, while supporting 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 government will contribute 50% of the eligible project costs, up to the maximum federal allocation, to Hamilton of \$21.9 M. In addition, the Province will contribute 25% of eligible project costs, up to the maximum provincial allocation for the City of \$11.0 M. The total CWWF funding allocation to Hamilton amounts to \$32.9 M for projects totaling \$43.9 M.

In June 2017, the City received CWWF approval for 16 projects submitted to Infrastructure Ontario (IO) in October 2016 (for project details refer to Appendix “A” of Report FCS16083(b)). The approved projects were included with the 2017 Rate Supported Budget reflecting the CWWF funding.

Projected Water / Wastewater / Storm Debt

The 2018 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 2018 – 2027 has increased by \$36.6 M from the 2017 Rate Budget. The increase in debt is as a result of a conscious effort to maintain Council approved minimum reserve balances, while staying within Council approved debt levels.

The forecasted DC supported debt financing has increased by approximately \$72.8 M over the same period, resulting in an overall net increase in forecasted debt financing of \$109.4 M from the forecast in the 2017 Rate Budget. The increased reliance on DC supported debt is attributable to an increase in the Growth Capital forecast in the 2018 Rate Budget compared to the 2017 Rate Budget, specifically the inclusion of the WWTP Expansion Project. The Growth Capital is partially offset with a \$30 M contribution from DC reserves in 2019 in the 2018 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 \$303 M in 2021, compared with the 2017 budget forecasted debt peak of \$301 M in 2020. The debt funded from DCs is projected to peak at \$451 M in 2027, whereas the 2017 forecast was \$332 M in 2026.

**SUBJECT: 2018 Recommended Water, Wastewater and Stormwater Budget
(FCS17081) (City Wide) – Page 26 of 31**

The increase in DC supported debt is due to the inclusion of the WWTP expansion in the 10-year forecast for the first time. The WWTP is planned to be 100% DC funded. The levels of debt supported by development charges represent a significant risk if future growth does not materialize as planned. Relative to forecasts prior to 2014, the risk has been deferred as a significant portion of the Wastewater Plant and expansion is now planned in years 2027 to 2029. This will allow an opportunity to monitor growth and DC Revenues over the next 10 years (2018 – 2027) and make adjustments to the plant expansion project and associated financing plan to align with growth requirements.

The Table below provides the 10-year debt forecast compared to the 2017 Budget forecast.

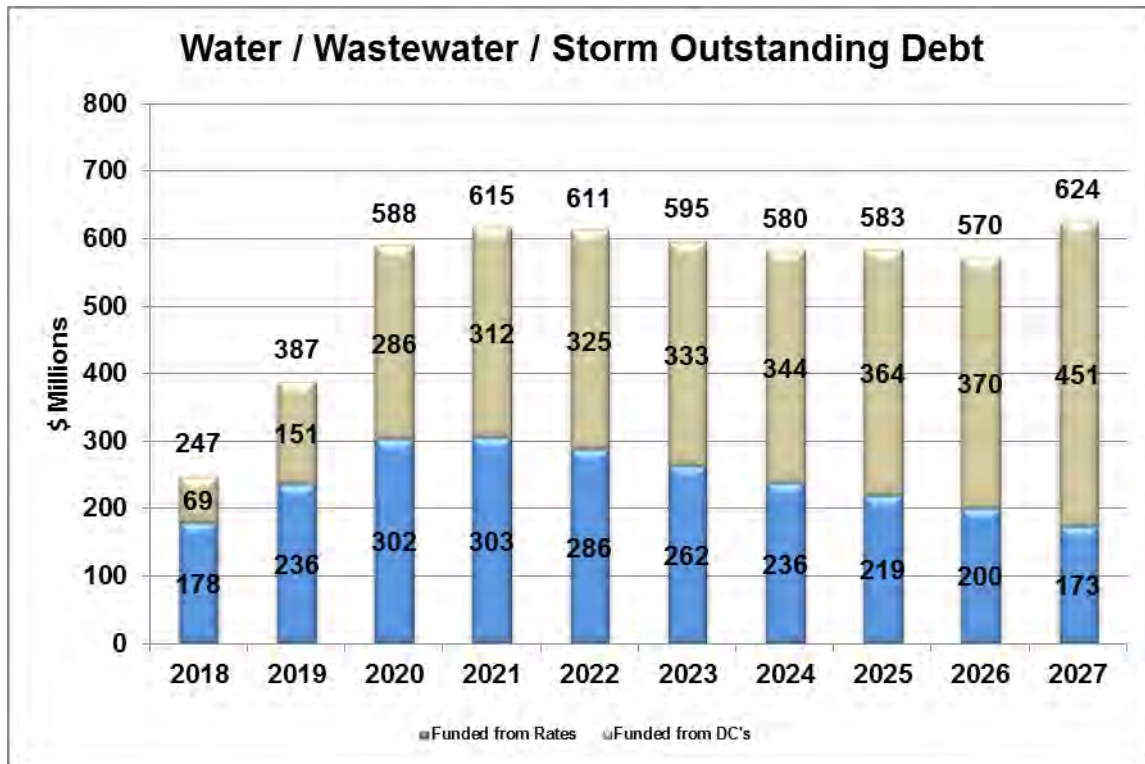
Projected Rate & DC Supported Outstanding Debt											
(\$ Millions)											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2017 Rate Budget											
Funded from Rates	183	230	275	301	284	260	236	211	186	160	132
Funded from DC's	87	185	307	324	327	321	317	320	329	332	313
Total	270	415	582	625	611	581	553	531	515	492	445
2018 Rate Budget											
Funded from Rates	128	178	236	302	303	286	262	236	219	200	173
Funded from DC's	1	69	151	286	312	325	333	344	364	370	451
Total	129	247	387	588	615	611	595	580	583	570	624
Increase (Decrease)	(141)	(168)	(195)	(37)	4	30	42	49	68	78	179

Consistent with the 2017 Rate Budget and in an effort 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 2018 Rate Capital Budget, versus full commitment based budgeting.

The following Graph compares the total outstanding debt (Rate & DC Funded) from the 2017 Budget forecast to the 2018 Budget forecast. The Graph illustrates the lower debt requirements in 2018 – 2020 and higher debt levels in 2021 – 2027 compared to the 2017 forecast for the 10-year period 2018 - 2027.

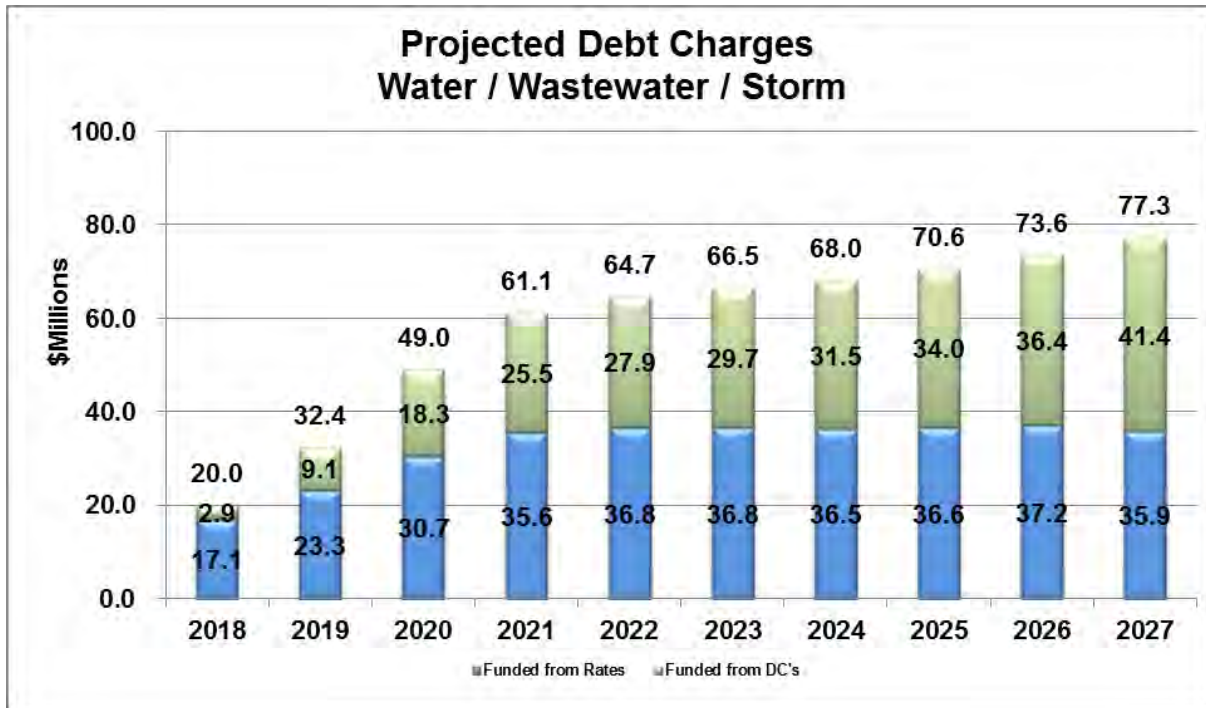


The following Graph illustrates the projected outstanding debt for the 10-year period (2018 – 2027) and the funding source of the associated debt charges.



SUBJECT: 2018 Recommended Water, Wastewater and Stormwater Budget (FCS17081) (City Wide) – Page 28 of 31

The following Graph shows the forecasted debt charges funded by water / sewer rates and by Development Charges.

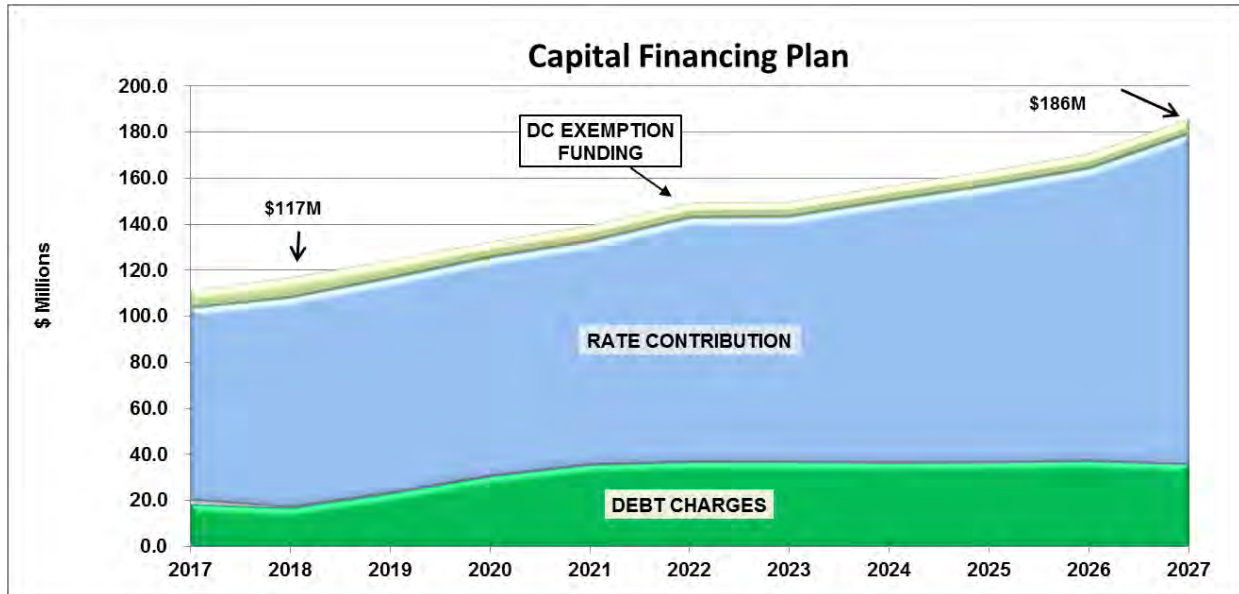


Impact of Capital Budget on Operating Budget

As summarized in the Table below, the 2018 Rate Budget incorporates \$117.1 M capital financing costs which is an increase of \$7.9 M from the 2017 Rate budget. The 2018 budgeted debt charge decrease of \$1.6 M is offset by an increase in contribution to capital of \$7.9 M and increase in DC exemption funding of \$1.6 M compared to the 2017 budget.

WATER, WASTEWATER & STORM					
IMPACT OF CAPITAL ON OPERATING BUDGET					
(000's)					
	<u>2017</u>	<u>2018</u>	<u>CHANGE</u>		<u>2018 - 2027</u>
	<u>APPROVED</u>	<u>PROPOSED</u>	<u>\$</u>	<u>%</u>	<u>FORECAST</u>
Debt to be Issued	14,872	16,615	1,743	11.7%	130,834
Debt Charges (Net)	18,680	17,108	(1,573)	-8.4%	326,460
Contribution to Capital	83,055	90,972	7,917	9.5%	1,092,181
DC Exemption Funding	7,400	9,000	1,600	21.6%	70,745
Impact on Operating Budget	109,135	117,080	7,944	7.3%	1,489,386

The following Graph highlights the annual debt servicing requirement for the Rate Supported Capital program. Financing costs are projected to increase from \$117 M in 2018 to \$186 M in 2027. Rate supported debt charges are expected to increase from 8.1% of total revenues in 2018 to 14.7% in 2021 and then decline to 11.4% in 2027.



ALTERNATIVES FOR CONSIDERATION

Beyond the recommended rate increase, Council can direct changes to this budget submission albeit any changes, in all likelihood, would require a review of the 2018 Capital Budget submissions.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

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 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” - Total Combined Water, Wastewater & Storm 1, 3, & 10 Year Operating Budget Forecast

Appendix “B” - Water 1, 3 & 10 Year Operating Budget Forecast

Appendix “C” – Wastewater and Storm 1, 3 & 10 Year Operating Budget Forecast

Appendix “D” - Wastewater 1, 3, & 10 Year Expenditure Forecast

Appendix “E” - Storm 1, 3, & 10 Year Expenditure Forecast

Appendix “F” - Water, Wastewater & Storm 2018 Rate Supported Staff Complement

Appendix “G” - Water, Wastewater & Storm 2018 Proposed User Fees & Charges Rate Supported

Appendix “H” - Water, Wastewater & Storm 2018-2027 Source of Capital Financing

Appendix “I” - Water, Wastewater & Storm 2018-2027 Capital Financing Plan

Appendix “J” - Water System 2018-2027 Source of Capital Financing

Appendix “K” - Water System 2018 Capital Project List

Appendix “L” - Water System 2018-2027 Capital Project List

Appendix “M” - Wastewater System 2018-2027 Source of Capital Financing

Appendix “N” - Wastewater System 2018 Capital Project List

Appendix “O” - Wastewater System 2018-2027 Capital Project List

Appendix “P” - Storm Water 2018-2027 Source of Capital Financing

Appendix “Q” - Storm Water 2018 Capital Project List

Appendix “R” - Storm Water 2018-2027 Capital Project List

Appendix “S” – 2018 Rate Program Capital Budget Summary

JS/MC/AB

**CITY OF HAMILTON
2018 HAMILTON WATER OPERATING BUDGET
COMBINED WATER, WASTEWATER AND STORM**

	2017 RESTATED BUDGET	2017 PROJECTED ACTUAL	2018 MAINTENANCE BUDGET	2018 PROGRAM CHANGE	2018 REQUESTED BUDGET	2017 PROJECTED ACTUAL / 2017 RESTATED BUDGET	2018 REQUESTED BUDGET	CHANGE PROJECTED ACTUAL / 2017 RESTATED BUDGET	2018 REQUESTED BUDGET	CHANGE PROJECTED ACTUAL / 2017 RESTATED BUDGET	2017 RESTATED BUDGET	CHANGE REQUESTED / 2017 RESTATED BUDGET
	\$	\$	\$	\$	\$	%	\$	\$	%	\$	%	
OPERATING EXPENDITURES:												
Environmental Services												
Divisional Administration & Support	2,039,361	2,033,398	2,079,859	-	2,079,859		2,079,859	5,962	0.3%	40,498	2.0%	
Woodward Upgrades	1,197,710	1,197,710	1,220,310	-	1,220,310		1,220,310	-	-	22,600	1.9%	
Customer Service	575,380	420,380	432,400	-	432,400		432,400	155,000	26.9%	(142,980)	(24.8%)	
Outreach & Education	1,391,050	1,391,050	1,295,620	-	1,295,620		1,295,620	-	-	(95,430)	(6.9%)	
Service Co-ordination	3,155,930	3,155,930	3,198,980	-	3,198,980		3,198,980	-	-	43,050	1.4%	
Engineering Systems & Data Collection	1,635,310	1,635,310	1,278,170	-	1,278,170		1,278,170	-	-	(357,140)	(21.8%)	
Compliance & Regulations	781,900	781,900	798,230	-	798,230		798,230	-	-	16,330	2.1%	
Laboratory Services	3,367,900	3,367,900	3,449,120	-	3,449,120		3,449,120	-	-	81,220	2.4%	
Environmental Monitoring & Enforcement	1,780,060	1,685,060	1,755,150	-	1,755,150		1,755,150	95,000	5.3%	(24,910)	(1.4%)	
Water Distribution & Wastewater Collection	20,035,960	20,035,960	21,484,360	-	21,484,360		21,484,360	-	-	1,448,400	7.2%	
Plant Operations & Maintenance	41,509,180	42,315,788	43,041,230	-	43,041,230		43,041,230	(806,608)	(1.9%)	1,532,050	3.7%	
Capital Delivery	1,733,310	1,733,310	1,865,830	-	1,865,830		1,865,830	(0)	(0.0%)	132,520	7.6%	
Sustainable Initiatives	1,352,841	1,352,734	1,470,340	-	1,470,340		1,470,340	107	0.0%	117,500	8.7%	
Infrastructure Planning & System Design	2,364,370	2,363,885	2,459,219	-	2,459,219		2,459,219	485	0.0%	94,849	4.0%	
Wastewater Abatement Program	821,000	821,000	1,000,000	-	1,000,000		1,000,000	-	-	179,000	21.8%	
Alectra Utilities Service Contract	5,275,000	5,124,720	5,559,720	-	5,559,720		5,559,720	150,280	2.8%	284,720	5.4%	
Corporate & Departmental Support Services	6,209,750	6,351,904	6,191,560	-	6,191,560		6,191,560	(142,154)	(2.3%)	(18,190)	(0.3%)	
Utilities Arrears Program	500,000	500,000	500,000	-	500,000		500,000	-	-	-	-	
Sewer Lateral Management Program	500,000	500,000	500,000	-	500,000		500,000	-	-	-	-	
Hamilton Harbour Remedial Action Plan	415,000	415,000	304,980	-	304,980		304,980	-	-	(110,020)	(26.5%)	
Protective Plumbing Program (3P)	2,500,000	2,500,000	2,000,000	-	2,000,000		2,000,000	-	-	(500,000)	(20.0%)	
Financial Charges	188,190	188,190	188,190	-	188,190		188,190	-	-	-	-	
Capital and Reserve Recoveries	(8,491,470)	(7,701,121)	(8,335,237)	-	(8,335,237)		(8,335,237)	(790,349)	9.3%	156,233	(1.8%)	
Sub-Total Environmental Services	90,837,731	92,170,008	93,738,031	-	93,738,031		93,738,031	(1,332,277)	(1.5%)	2,900,300	3.2%	
Capital and Reserve Impacts on Operating												
Contributions to Capital												
Water Quality Initiatives	58,771,000	58,771,000	36,982,000	-	36,982,000		36,982,000	-	-	(21,789,000)	(37.1%)	
Wastewater	13,325,000	13,325,000	45,474,000	-	45,474,000		45,474,000	-	-	32,149,000	241.3%	
Stormwater	10,959,000	10,959,000	8,516,000	-	8,516,000		8,516,000	-	-	(2,443,000)	(22.3%)	
Sub-Total Contributions to Capital	83,055,000	83,055,000	90,972,000	-	90,972,000		90,972,000	-	-	7,917,000	9.5%	
Contributions for DC Exemptions												
Water Quality Initiatives	2,800,000	2,800,000	2,547,000	-	2,547,000		2,547,000	-	-	(253,000)	(9.0%)	
Wastewater	3,870,000	3,870,000	4,590,000	-	4,590,000		4,590,000	-	-	720,000	18.6%	
Stormwater	730,000	730,000	1,863,000	-	1,863,000		1,863,000	-	-	1,133,000	155.2%	
Sub-Total Contributions for DC Exemptions	7,400,000	7,400,000	9,000,000	-	9,000,000		9,000,000	-	-	1,600,000	21.6%	

CITY OF HAMILTON
2018 - 2020 WATER, WASTEWATER AND STORM OPERATING BUDGET
COMBINED WATER, WASTEWATER AND STORM

	2017 RESTATED BUDGET \$	2018 REQUESTED BUDGET \$	2019 PROJECTED BUDGET \$	2020 PROJECTED BUDGET \$	CHANGE 2018 REQUESTED / 2017 RESTATED BUDGET %	CHANGE 2019 PROJECTED / 2018 REQUESTED BUDGET %	CHANGE 2020 PROJECTED / 2019 PROJECTED BUDGET %
OPERATING EXPENDITURES:							
Environmental Services							
Divisional Administration & Support	2,039,361	2,079,859	2,142,255	2,206,522	40,498	2.0%	64,268
Woodward Upgrades	1,197,710	1,220,310	1,256,919	1,294,627	22,600	1.9%	37,708
Customer Service	575,380	432,400	1,112,606	1,145,984	(142,980)	(24.8%)	33,378
Outreach & Education	1,391,050	1,295,620	667,255	687,272	(95,430)	(6.9%)	20,018
Service Co-ordination	3,153,930	3,198,980	3,294,949	3,393,798	43,050	1.4%	98,848
Engineering Systems & Data Collection	1,635,310	1,278,170	1,316,515	1,356,011	(357,140)	(21.8%)	39,495
Compliance & Regulations	781,900	798,230	822,177	846,842	16,330	2.1%	24,665
Laboratory Services	3,367,900	3,449,120	3,552,594	3,659,171	81,220	2.4%	106,578
Environmental Monitoring & Enforcement	1,780,060	1,755,150	1,807,805	1,862,039	(24,910)	(1.4%)	54,234
Water Distribution & Wastewater Collection	20,035,960	21,484,360	22,128,891	22,792,758	1,448,400	7.2%	663,867
Plant Operations & Maintenance	41,509,180	43,041,230	44,332,467	45,662,441	1,532,050	3.7%	1,329,974
Capital Delivery	1,733,310	1,865,830	1,921,805	1,979,459	132,520	7.6%	57,654
Sustainable Initiatives	1,352,841	1,470,340	1,514,450	1,559,884	117,500	0.0%	45,434
Infrastructure & Source Water Planning	2,364,370	2,459,219	2,532,996	2,608,986	94,849	4.0%	75,990
Wastewater Abatement Program	821,000	1,000,000	1,030,000	1,060,900	179,000	21.8%	30,900
Alectra Utilities Service Contract	5,275,000	5,559,720	5,726,512	5,898,307	284,720	5.4%	171,795
Corporate & Departmental Support Services	6,209,750	6,191,560	6,286,359	6,384,002	(18,190)	(0.3%)	97,643
Utilities Arrears Program	500,000	500,000	500,000	500,000	-	-	-
Sewer Lateral Management Program	500,000	500,000	515,000	530,450	-	-	15,450
Hamilton Harbour Remedial Action Plan	415,000	304,980	314,129	323,553	(110,020)	(26.5%)	9,424
Protective Plumbing Program (3P)	2,500,000	2,000,000	2,060,000	2,121,800	(500,000)	(20.0%)	61,800
Financial Charges	188,190	188,190	193,836	199,651	-	-	5,815
Capital and Reserve Recoveries	(8,491,470)	(8,335,237)	(8,585,294)	(8,842,853)	156,233	(1.8%)	(257,559)
Sub-Total Environmental Services	90,837,731	93,738,031	96,444,224	99,231,603	2,900,300	3.2%	2,787,379
Capital and Reserve Impacts on Operating							
Contributions to Capital							
Water Quality Initiatives	58,771,000	36,982,000	40,607,000	36,642,000	(21,789,000)	(37.1%)	(3,965,000)
Wastewater	13,325,000	45,474,000	43,829,000	51,015,000	32,149,000	241.3%	7,186,000
Stormwater	10,959,000	8,516,000	8,655,000	7,065,000	(2,443,000)	(22.3%)	(1,590,000)
Sub-Total Contributions to Capital	83,055,000	90,972,000	93,091,000	94,722,000	7,917,000	9.5%	1,631,000
Contributions for DC Exemptions							
Water Quality Initiatives	2,800,000	2,547,000	2,264,000	1,981,000	(253,000)	(9.0%)	(283,000)
Wastewater	3,870,000	4,590,000	4,080,000	3,570,000	720,000	18.6%	(510,000)
Stormwater	730,000	1,863,000	1,656,000	1,449,000	1,133,000	155.2%	(207,000)
Sub-Total Contributions for DC Exemptions	7,400,000	9,000,000	8,000,000	7,000,000	1,600,000	21.6%	(1,000,000)
Debt Charges							
Water Quality Initiatives	9,925,680	9,448,542	15,713,674	22,714,566	(477,138)	(4.8%)	7,000,893
Wastewater	10,130,540	8,737,296	12,615,523	19,805,124	(1,393,244)	(13.8%)	7,189,601
Stormwater	2,272,050	1,839,143	4,121,060	6,432,916	(432,907)	(19.1%)	2,311,856
DC Debt Charges Recoveries	(3,647,840)	(2,917,437)	(9,132,587)	(18,299,366)	730,403	(20.0%)	(9,166,780)
Sub-Total Debt Charges	18,680,430	17,107,544	23,317,670	30,653,240	(1,572,886)	(8.4%)	7,335,570
Sub-Total Capital Financing	109,135,430	117,079,544	124,408,670	132,375,240	7,944,114	7.3%	7,966,570
Reserve Transfers	1,146,459	45,718	85,584	48,529	(1,100,740)	(96.0%)	(37,155)
Sub-Total Capital and Reserve Impacts on Operating	110,281,889	117,125,263	124,494,354	132,423,769	6,843,374	6.2%	7,929,415
TOTAL EXPENDITURES	201,119,620	210,863,294	220,938,578	231,655,372	9,743,674	4.8%	10,716,793

**CITY OF HAMILTON
2018 - 2020 WATER, WASTEWATER AND STORM OPERATING BUDGET
COMBINED WATER, WASTEWATER AND STORM**

	2017 RESTATED BUDGET \$	2018 REQUESTED BUDGET \$	2019 PROJECTED BUDGET \$	2020 PROJECTED BUDGET \$	CHANGE 2017 RESTATED BUDGET / 2018 REQUESTED BUDGET %	CHANGE 2018 REQUESTED BUDGET / 2019 PROJECTED BUDGET %	CHANGE 2019 PROJECTED BUDGET / 2020 PROJECTED BUDGET %
REVENUES:							
Rate Revenue							
Residential	88,104,650	92,860,600	98,036,337	103,314,636	4,755,950	5,175,737	5,278,298
Industrial/Commercial/Institutional/Multi-res	98,598,250	102,918,990	107,435,884	112,349,214	4,320,740	4,516,894	4,913,330
Haldimand	2,190,750	2,195,300	2,197,759	2,329,304	5,550	1,459	131,545
Halton	228,170	237,460	247,432	259,592	9,290	9,972	12,161
Non-Metered	440,000	550,000	580,000	610,000	110,000	30,000	30,000
Private Fire Lines	1,100,000	1,350,000	1,390,500	1,432,215	250,000	40,500	41,715
Hauler / 3rd Party Sales	1,475,000	1,475,000	1,519,250	1,584,828	-	44,250	45,578
Overstrength Agreements	2,148,500	2,249,480	2,316,964	2,386,473	100,980	67,484	69,509
Sewer Surcharge Agreements	3,581,800	4,000,000	4,120,000	4,243,600	418,200	120,000	123,600
Sub-Total Utility Rates	197,867,120	207,837,830	217,844,126	228,489,861	9,970,710	10,006,296	10,645,735
Non-Rate Revenue							
Local Improvement Recoveries	275,850	275,850	275,850	275,850	-	-	-
Permits/Leases/Agreements	1,486,650	1,441,603	1,484,851	1,529,397	(45,047)	43,248	44,546
Investment Income	450,000	450,000	450,000	450,000	-	-	-
General Fees and Recoveries	1,040,000	858,011	883,751	910,264	(181,989)	25,740	26,513
Sub-Total Non-Rate Revenue	3,252,500	3,025,464	3,094,452	3,165,510	(227,036)	68,988	71,058
TOTAL REVENUES	201,119,620	210,863,294	220,938,578	231,655,372	9,743,674	10,075,284	10,716,793
NET EXPENDITURES							

CITY OF HAMILTON
2018-2027 WATER, WASTEWATER & STORM OPERATING BUDGET
 COMBINED WATER, WASTEWATER AND STORM
 (\$ 000'S)

	2017 Restated	2018 Requested	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast
OPERATING EXPENDITURES											
OPERATING COSTS	86,338	89,838	92,444	95,002	97,612	98,250	104,131	107,746	111,048	114,449	117,953
BIO-SOLIDS	4,500	3,900	4,000	4,230	4,129	4,215	4,302	4,392	4,484	4,578	4,676
TERTIARY TREATMENT	-	-	-	-	468	2,810	2,866	2,924	2,982	3,042	3,102
TOTAL OPERATING COSTS	90,838	93,738	96,444	99,232	102,209	105,275	111,299	115,062	118,514	122,069	125,731
CAPITAL & RESERVE IMPACTS ON OPERATING											
Contributions to Capital											
Water	58,771	36,982	40,607	36,642	43,231	47,091	53,919	55,565	62,419	58,453	60,494
Wastewater	13,325	45,474	43,829	51,015	47,019	51,790	45,750	46,550	53,105	59,705	75,500
Stormwater	10,959	8,516	8,655	7,065	6,615	7,145	6,815	17,445	4,545	8,845	7,395
Sub-total Contributions to Capital	83,055	90,972	93,091	94,722	96,865	106,026	106,484	113,560	120,069	127,003	143,389
Contributions for DC Exemptions											
Water	2,800	2,547	2,264	1,981	1,950	1,912	1,873	1,873	1,873	1,873	1,873
Wastewater	3,870	4,080	4,590	3,570	3,514	3,445	3,376	3,376	3,376	3,376	3,376
Stormwater	730	1,863	1,656	1,449	1,426	1,398	1,370	1,370	1,370	1,370	1,370
Sub-total Contributions to Capital	7,400	9,000	8,000	7,000	6,890	6,755	6,620	6,620	6,620	6,620	6,620
Debt Charges											
Water	9,926	9,449	15,714	22,715	27,167	28,555	28,953	29,078	30,638	32,944	33,465
Wastewater	10,131	8,737	12,616	19,805	26,094	28,010	29,125	30,223	30,952	31,270	34,114
Stormwater	2,272	1,839	4,121	6,433	7,830	8,140	8,451	8,762	9,073	9,383	9,694
DC Debt Charges Recoveries	(3,648)	(2,917)	(9,133)	(18,299)	(25,473)	(27,935)	(29,715)	(31,547)	(34,014)	(36,426)	(41,410)
Sub-total Debt Charges	18,680	17,108	23,318	30,653	35,618	36,770	36,814	36,517	36,649	37,172	35,863
Reserve Transfers	1,146	46	86	49	409	(910)	2,308	1,249	1,940	1,886	1,667
Sub-Total Capital & Reserve Impacts on Operating	110,282	117,125	124,494	132,424	139,782	148,641	152,226	157,945	165,278	172,681	187,539
TOTAL EXPENDITURES	201,120	210,863	220,939	231,655	241,991	253,916	263,525	273,007	283,792	294,750	313,270
REVENUES											
Residential	88,105	92,861	98,036	103,315	108,635	114,115	118,783	123,680	128,864	134,730	146,380
Industrial/Commercial/Institutional/Multi-res	98,598	102,919	107,436	112,349	116,861	122,732	127,148	131,184	136,197	140,711	146,963
Haldimand	2,191	2,196	2,198	2,329	2,410	2,545	2,624	2,715	2,829	2,921	3,034
Halton	228	237	247	260	269	282	291	300	312	323	340
Non-Metered	1,100	550	580	610	640	670	700	730	760	790	820
Private Fire Lines	1,350	1,350	1,391	1,432	1,475	1,519	1,565	1,612	1,660	1,710	1,761
Hauler / 3rd Party Sales	1,475	1,475	1,519	1,565	1,612	1,660	1,710	1,761	1,814	1,868	1,925
Overstrength Agreements	2,149	2,249	2,317	2,386	2,458	2,532	2,608	2,686	2,767	2,850	2,935
Sewer Surcharge Agreements	3,582	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219
Non-Rate Revenue	3,253	3,025	3,094	3,166	3,260	3,358	3,459	3,563	3,670	3,780	3,893
TOTAL REVENUES	201,120	210,863	220,939	231,655	241,991	253,916	263,525	273,007	283,792	294,750	313,270
NET EXPENDITURES											
Rate Increase	4.85%	4.50%	4.66%	4.50%	4.26%	4.23%	4.17%	4.33%	4.33%	4.37%	4.28%
RESIDENTIAL BILL (200m³ p.a.)	\$ 660.95	\$ 690.70	\$ 722.90	\$ 755.45	\$ 787.65	\$ 820.95	\$ 855.15	\$ 892.20	\$ 930.85	\$ 971.55	\$ 1,013.10

**CITY OF HAMILTON
2018 HAMILTON WATER OPERATING BUDGET
WATER**

	2017 RESTATED BUDGET \$	2017 PROJECTED ACTUAL \$	2018 MAINTENANCE BUDGET \$	2018 PROGRAM CHANGE \$	2018 REQUESTED BUDGET \$	CHANGE 2017 PROJECTED ACTUAL / 2017 RESTATED BUDGET %	CHANGE 2017 RESTATED BUDGET \$	CHANGE 2018 REQUESTED / 2017 RESTATED BUDGET %
OPERATING EXPENDITURES:								
Environmental Services								
Divisional Administration & Support	921,500	915,538	935,730		935,730	0.6%	14,230	1.5%
Customer Service	287,690	210,190	216,640		216,640	26.9%	(71,050)	(24.7%)
Outreach & Education	695,520	695,520	647,800		647,800	-	(47,720)	(6.9%)
Service Co-ordination	1,650,555	1,650,555	1,667,032		1,667,032	-	16,477	1.0%
Engineering Systems & Data Collection	817,650	817,650	639,100		639,100	-	(178,550)	(21.8%)
Compliance & Regulations	390,950	390,950	399,120		399,120	-	8,170	2.1%
Laboratory Services	1,067,625	1,067,625	1,093,375		1,093,375	-	25,750	2.4%
Water Distribution & Wastewater Collection	14,716,390	14,716,390	16,017,880		16,017,880	-	1,301,490	8.8%
Plant Operations & Maintenance	20,391,370	20,794,674	21,152,620		21,152,620	(2.0%)	761,250	3.7%
Capital Delivery	961,987	961,987	1,035,536		1,035,536	(0.0%)	73,549	7.6%
Sustainable Initiatives	1,014,657	1,014,551	1,102,755		1,102,755	0.0%	88,098	8.7%
Infrastructure Planning & System Design	825,481	824,996	859,126		859,126	0.1%	33,645	4.1%
Electra Utilities Service Contract	2,637,500	2,562,360	2,779,860		2,779,860	2.8%	142,360	5.4%
Corporate & Departmental Support Services	2,700,870	2,760,198	2,733,750		2,733,750	(2.2%)	32,880	1.2%
Utilities Arrears Program	250,000	250,000	250,000		250,000	-	-	-
Financial Charges	3,620	3,620	3,620		3,620	-	-	-
Capital and Reserve Recoveries	(3,138,041)	(2,845,752)	(3,928,630)		(3,928,630)	9.3%	(790,590)	25.2%
Sub-Total Environmental Services	\$ 46,195,325	\$ 46,791,050	47,605,313	-	47,605,313	(1.3%)	1,409,989	3.1%
Capital and Reserve Impacts on Operating								
Contributions to Capital								
Water Quality Initiatives	58,771,000	58,771,000	36,982,000		36,982,000	-	(21,789,000)	(37.1%)
Sub-Total Contributions to Capital	58,771,000	58,771,000	36,982,000	-	36,982,000	-	(21,789,000)	(37.1%)
Contributions for DC Exemptions								
Water Quality Initiatives	2,800,000	2,800,000	2,547,000		2,547,000	-	(253,000)	(9.0%)
Sub-Total Contributions for DC Exemptions	2,800,000	2,800,000	2,547,000	-	2,547,000	-	(253,000)	(9.0%)
Debt Charges								
Water Quality Initiatives	9,925,660	6,726,452	9,448,542		9,448,542	32.2%	(477,138)	(4.8%)
DC Debt Charges Recoveries	(1,791,930)	(224,038)	(1,176,642)		(1,176,642)	87.5%	615,288	(34.3%)
Sub-Total Debt Charges	8,133,730	6,502,414	8,271,901	-	8,271,901	20.1%	138,151	1.7%
Sub-Total Capital Financing	69,704,750	68,073,414	47,800,901	-	47,800,901	2.3%	(21,903,849)	(31.4%)
Reserve Transfers	(17,655,335)	(17,069,909)	7,028,476	-	7,028,476	3.3%	24,683,810	(139.8%)
Sub-Total Capital and Reserve Impacts on Operating	52,049,416	51,003,505	54,829,377	-	54,829,377	2.0%	2,779,961	5.3%
TOTAL EXPENDITURES	98,244,740	97,794,555	102,434,690	-	102,434,690	0.5%	4,189,950	4.3%

CITY OF HAMILTON
2018 - 2020 WATER, WASTEWATER AND STORM OPERATING BUDGET
WATER

	2017 RESTATED BUDGET	2018 REQUESTED BUDGET	2019 PROJECTED BUDGET	2020 PROJECTED BUDGET	CHANGE 2017 RESTATED BUDGET / 2018 REQUESTED BUDGET	CHANGE 2018 REQUESTED BUDGET / 2019 PROJECTED BUDGET	CHANGE 2019 PROJECTED BUDGET / 2020 PROJECTED BUDGET
	\$	\$	\$	\$	\$ %	\$ %	\$ %
OPERATING EXPENDITURES:							
Environmental Services							
Divisional Administration & Support	921,500	935,730	963,801	992,715	14,230 1.5%	28,072 3.0%	28,914 3.0%
Customer Service	287,690	864,440	890,373	917,084	576,750 200.5%	25,933 3.0%	26,711 3.0%
Service Co-ordination	1,650,555	1,687,032	1,717,043	1,768,554	16,477 1.0%	50,011 3.0%	51,511 3.0%
Engineering Systems & Data Collection	817,650	639,100	658,273	678,021	(178,550) (21.8%)	19,173 3.0%	19,748 3.0%
Compliance & Regulations	390,950	399,120	411,094	423,426	8,170 2.1%	11,974 3.0%	12,333 3.0%
Laboratory Services	1,067,625	1,093,375	1,126,176	1,159,962	25,750 2.4%	32,801 3.0%	33,785 3.0%
Water Distribution & Wastewater Collection	14,716,390	16,017,880	16,498,416	16,993,369	1,301,490 8.8%	480,536 3.0%	494,952 3.0%
Plant Operations & Maintenance	20,391,370	21,152,620	21,787,199	22,440,815	761,250 3.7%	634,579 3.0%	653,616 3.0%
Capital Delivery	961,987	1,035,536	1,066,602	1,098,600	73,549 7.6%	31,066 3.0%	31,998 3.0%
Sustainable Initiatives	1,014,657	1,102,755	1,135,838	1,169,913	88,098 8.7%	33,083 3.0%	34,075 3.0%
Infrastructure & Source Water Planning	825,481	859,126	884,900	911,447	33,645 4.1%	25,774 3.0%	26,547 3.0%
Electra Utilities Service Contract	2,637,500	2,779,860	2,863,256	2,949,153	142,360 5.4%	83,396 3.0%	85,898 3.0%
Corporate & Departmental Support Services	2,700,870	2,733,750	2,815,763	2,900,235	32,880 1.2%	82,013 3.0%	84,473 3.0%
Utilities Arrears Program	250,000	250,000	250,000	250,000	-	-	-
Financial Charges	3,620	3,620	3,729	3,840	109 0.0%	112 3.0%	112 3.0%
Capital and Reserve Recoveries	(3,138,041)	(3,928,630)	(4,046,489)	(4,167,884)	(790,590) 25.2%	(117,859) 3.0%	(121,395) 3.0%
Sub-Total Environmental Services	46,195,325	47,605,313	49,025,973	50,489,252	2,105,509 4.6%	1,420,659 3.0%	1,463,279 3.0%
Capital and Reserve Impacts on Operating							
Contributions to Capital							
Water Quality Initiatives	58,771,000	36,982,000	40,607,000	36,642,000	(21,789,000) (37.1%)	3,625,000 9.8%	(3,965,000) (9.8%)
Sub-Total Contributions to Capital	58,771,000	36,982,000	40,607,000	36,642,000	(21,789,000) (37.1%)	3,625,000 9.8%	(3,965,000) (9.8%)
Contributions for DC Exemptions							
Water Quality Initiatives	2,800,000	2,547,000	2,264,000	1,981,000	(253,000) (9.0%)	(283,000) (0)	(283,000) (12.5%)
Sub-Total Contributions for DC Exemptions	2,800,000	2,547,000	2,264,000	1,981,000	(253,000) (9.0%)	(283,000) (0)	(283,000) (12.5%)
Debt Charges							
Water Quality Initiatives	9,925,660	9,448,542	15,713,674	22,714,566	(477,138) (4.8%)	6,265,132 66.3%	7,000,893 44.6%
DC Debt Charges Recoveries	(1,791,930)	(1,176,642)	(3,695,246)	(7,057,450)	615,288 (34.3%)	(2,518,604) 214.1%	(3,362,235) 91.0%
Sub-Total Debt Charges	8,133,750	8,271,901	12,018,428	15,657,086	138,151 1.7%	3,746,527 45.3%	3,638,658 30.3%
Sub-Total Capital Financing	69,704,750	47,800,901	54,889,428	54,280,086	(21,903,849) (31.4%)	7,088,527 14.8%	(609,342) (1.1%)
Reserve Transfers	(17,655,335)	7,028,476	3,347,237	7,747,819	24,683,810 (139.8%)	(3,681,239) (52.4%)	4,400,583 131.5%
Sub-Total Capital and Reserve Impacts on Operating	52,049,416	54,829,377	58,236,665	62,027,905	2,779,961 5.3%	3,407,288 6.2%	3,791,241 6.5%
TOTAL EXPENDITURES	98,244,740	102,434,690	107,262,638	112,517,158	4,189,950 4.3%	4,827,948 4.7%	5,254,520 4.9%

**CITY OF HAMILTON
2018 - 2020 WATER, WASTEWATER AND STORM OPERATING BUDGET
WATER**

	2017 RESTATED BUDGET	2018 REQUESTED BUDGET	2019 PROJECTED BUDGET	2020 PROJECTED BUDGET	CHANGE 2017 RESTATED BUDGET / 2018 REQUESTED BUDGET	CHANGE 2018 REQUESTED BUDGET / 2019 PROJECTED BUDGET	CHANGE 2019 PROJECTED BUDGET / 2020 PROJECTED BUDGET
	\$	\$	\$	\$	\$ %	\$ %	\$ %
REVENUES:							
Rate Revenue							
Residential	43,299,760	45,302,680	47,847,656	50,287,139	2,002,920 4.6%	2,544,976 5.6%	2,439,483 5.1%
Industrial/Commercial/Institutional/Multi-res	48,291,260	50,239,950	52,384,792	54,926,074	1,948,690 4.0%	2,144,842 4.3%	2,541,281 4.9%
Haldimand	2,190,750	2,196,300	2,197,759	2,329,304	5,550 0.3%	1,459 0.1%	131,545 6.0%
Halton	228,170	237,460	247,432	259,592	9,290 4.1%	9,972 4.2%	12,161 4.9%
Non-Metered	220,000	275,000	290,000	305,000	55,000 25.0%	15,000 5.5%	15,000 5.2%
Private Fire Lines	1,100,000	1,350,000	1,390,500	1,432,215	250,000 22.7%	40,500 3.0%	41,715 3.0%
Hauler / 3rd Party Sales	910,850	685,000	705,850	726,717	(225,850) (24.8%)	20,550 3.0%	21,167 3.0%
Sub-Total Utility Rates	96,240,790	100,286,390	105,063,689	110,266,040	4,045,600 4.2%	4,777,299 4.8%	5,202,352 5.0%
Non-Rate Revenue							
Local Improvement Recoveries	10,000	10,000	10,000	10,000	- -	- -	- -
Permits/Leases/Agreements	1,057,450	1,040,650	1,071,870	1,104,026	(16,800) (1.6%)	31,220 3.0%	32,156 3.0%
Investment Income	450,000	450,000	450,000	450,000	- -	- -	- -
General Fees and Recoveries	486,500	647,650	667,080	687,092	161,150 33.1%	19,430 3.0%	20,012 3.0%
Sub-Total Non-Rate Revenue	2,003,950	2,148,300	2,198,949	2,251,117	144,350 7.2%	50,649 2.4%	52,168 2.4%
TOTAL REVENUES	98,244,740	102,434,690	107,262,638	112,517,158	4,189,950 4.3%	4,827,948 4.7%	5,254,520 4.9%
NET EXPENDITURES							

CITY OF HAMILTON
2018-2027 WATER, WASTEWATER & STORM OPERATING BUDGET
WATER

	2017 Restated	2018 Requested	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast											
OPERATING EXPENDITURES																						
OPERATING COSTS	46,195	47,605	49,026	50,489	52,004	53,564	55,171	56,826	58,531	60,287	62,095											
TOTAL OPERATING COSTS	46,195	47,605	49,026	50,489	52,004	53,564	55,171	56,826	58,531	60,287	62,095											
CAPITAL & RESERVE IMPACTS ON OPERATING																						
Contributions to Capital	58,771	36,982	40,607	36,642	43,231	47,091	53,919	55,565	62,419	58,453	60,494											
Water	58,771	36,982	40,607	36,642	43,231	47,091	53,919	55,565	62,419	58,453	60,494											
Sub-total Contributions to Capital																						
Contributions for DC Exemptions	2,800	2,547	2,264	1,981	1,950	1,912	1,873	1,873	1,873	1,873	1,873											
Water	2,800	2,547	2,264	1,981	1,950	1,912	1,873	1,873	1,873	1,873	1,873											
Sub-total Contributions to Capital																						
Debt Charges	9,926	9,449	15,714	22,715	27,167	28,555	28,953	29,078	30,638	32,944	33,465											
Water	(1,792)	(1,177)	(3,695)	(7,057)	(9,559)	(10,246)	(10,448)	(10,717)	(11,989)	(13,619)	(14,912)											
DC Debt Charges Recoveries	8,134	8,272	12,018	15,657	17,608	18,309	18,505	18,361	18,649	19,326	18,553											
Sub-total Debt Charges	(17,655)	7,028	3,347	7,748	1,999	1,650	(3,344)	(2,132)	(5,574)	975	10,439											
Reserve Transfers																						
Sub-Total Capital & Reserve Impacts on Operating	52,049	54,829	58,237	62,028	64,788	68,961	70,954	73,668	77,368	80,627	91,359											
TOTAL EXPENDITURES	98,245	102,435	107,263	112,517	116,791	122,526	126,125	130,494	135,899	140,914	153,454											
REVENUES																						
Residential	43,300	45,303	47,848	50,287	52,376	54,975	56,573	58,733	61,308	63,809	71,972											
Industrial/Commercial/Institutional/Multi-res	48,291	50,240	52,385	54,926	56,875	59,709	61,468	63,417	65,958	68,200	72,275											
Halldmand	2,191	2,196	2,198	2,329	2,410	2,545	2,624	2,715	2,829	2,921	3,034											
Halton	228	237	247	260	269	282	291	300	312	323	340											
Non-Metered	220	275	290	305	320	335	350	365	380	395	410											
Private Fire Lines	1,100	1,350	1,391	1,432	1,475	1,519	1,565	1,612	1,660	1,710	1,761											
Hauler /3rd Party Sales	911	685	706	727	749	771	794	818	842	868	894											
Non-Rate Revenue	2,004	2,148	2,199	2,251	2,319	2,388	2,460	2,534	2,610	2,688	2,769											
TOTAL REVENUES	98,245	102,435	107,263	112,517	116,791	122,526	126,125	130,494	135,899	140,914	153,454											
NET EXPENDITURES																						
Rate Increase	3.3%	3.8%	4.7%	4.3%	3.3%	4.2%	4.0%	5.2%	5.6%	4.7%	4.1%											
RESIDENTIAL BILL (200m ³ p.a.)	\$	321.25	\$	333.30	\$	349.00	\$	363.85	\$	375.90	\$	391.55	\$	407.25	\$	428.60	\$	452.40	\$	473.75	\$	493.10

CITY OF HAMILTON
2018 HAMILTON WATER OPERATING BUDGET
 COMBINED WASTEWATER AND STORM

	2017 RESTATED BUDGET \$	2017 PROJECTED ACTUAL \$	2018 MAINTENANCE BUDGET \$	2018 PROGRAM CHANGE \$	2018 REQUESTED BUDGET \$	CHANGE 2017 PROJECTED ACTUAL / 2017 RESTATED BUDGET %	CHANGE 2018 REQUESTED / 2017 RESTATED BUDGET %
OPERATING EXPENDITURES:							
Environmental Services							
Divisional Administration & Support	1,117,861	1,117,861	1,144,130	-	1,144,130	-	26,269 2.3%
Woodward Upgrades	1,197,710	1,197,710	1,220,310	-	1,220,310	-	22,600 1.9%
Customer Service	287,690	210,190	215,760	-	215,760	26.9%	(71,930) (25.0%)
Outreach & Education	695,530	695,530	647,820	-	647,820	-	(47,710) (6.9%)
Service Co-ordination	1,505,375	1,505,375	1,531,948	-	1,531,948	-	26,573 1.8%
Engineering Systems & Data Collection	817,660	817,660	639,070	-	639,070	-	(178,590) (21.8%)
Compliance & Regulations	390,950	390,950	399,110	-	399,110	-	8,160 2.1%
Laboratory Services	2,300,275	2,300,275	2,355,745	-	2,355,745	-	55,470 2.4%
Environmental Monitoring & Enforcement	1,780,060	1,685,060	1,755,150	-	1,755,150	5.3%	(24,910) (1.4%)
Water Distribution & Wastewater Collection	5,319,570	5,319,570	5,466,480	-	5,466,480	-	146,910 2.8%
Plant Operations & Maintenance	21,117,810	21,521,114	21,888,610	-	21,888,610	(1.9%)	770,800 3.6%
Capital Delivery	771,323	771,323	830,294	-	830,294	-	58,971 7.6%
Sustainable Initiatives	338,184	338,184	367,585	-	367,585	-	29,402 8.7%
Infrastructure & Source Water Planning	1,538,889	1,538,889	1,600,093	-	1,600,093	-	61,204 4.0%
Wastewater Abatement Program	821,000	821,000	1,000,000	-	1,000,000	-	179,000 21.8%
Alectra Utilities Service Contract	2,637,500	2,562,360	2,779,860	-	2,779,860	2.8%	142,360 5.4%
Corporate & Departmental Support Services	3,508,880	3,591,706	3,457,810	-	3,457,810	(2.4%)	(82,826) (1.5%)
Utilities Arrears Program	250,000	250,000	250,000	-	250,000	-	- -
Sewer Lateral Management Program	500,000	500,000	500,000	-	500,000	-	- -
Hamilton Harbour Remedial Action Plan	415,000	415,000	304,980	-	304,980	-	(110,020) (26.5%)
Protective Plumbing Program (3P)	2,500,000	2,500,000	2,000,000	-	2,000,000	0.0%	(500,000) (20.0%)
Financial Charges	184,570	184,570	184,570	-	184,570	-	- -
Capital and Reserve Recoveries	(5,353,430)	(4,855,369)	(4,406,607)	-	(4,406,607)	9.3%	946,823 (17.7%)
Sub-Total Environmental Services	44,642,407	45,378,957	46,132,718	-	46,132,718	(1.6%)	1,490,311 3.3%
Capital and Reserve Impacts on Operating							
Contributions to Capital							
Wastewater	13,325,000	13,325,000	45,474,000	-	45,474,000	-	32,149,000 2
Stormwater	10,959,000	10,959,000	8,516,000	-	8,516,000	-	(2,443,000) (0)
Sub-Total Contributions to Capital	24,284,000	24,284,000	53,990,000	-	53,990,000	-	29,706,000 1
Contributions for DC Exemptions							
Wastewater	3,870,000	3,870,000	4,590,000	-	4,590,000	-	720,000 0
Stormwater	730,000	730,000	1,863,000	-	1,863,000	-	1,133,000 2
Sub-Total Contributions for DC Exemptions	4,600,000	4,600,000	6,453,000	-	6,453,000	-	1,853,000 0
Debt Charges							
Wastewater	10,130,540	7,159,734	8,737,296	-	8,737,296	29.3%	(1,393,244) (13.8%)
Stormwater	2,272,050	662,397	1,839,143	-	1,839,143	70.8%	(432,907) (19.1%)
DC Debt Charges Recoveries	(1,855,910)	60,376	(1,740,795)	-	(1,740,795)	103.3%	115,115 (6.2%)
Sub-Total Debt Charges	10,546,680	7,882,507	8,835,644	-	8,835,644	25.3%	(1,711,036) (16.2%)
Sub-Total Capital Financing	39,430,680	36,766,507	69,278,644	-	69,278,644	6.8%	29,847,964 75.7%
Reserve Transfers	18,801,793	20,852,181	(6,982,758)	-	(6,982,758)	(10.9%)	(25,784,551) (137.1%)
Sub-Total Capital and Reserve Impacts on Operating	58,232,473	57,618,688	62,295,886	-	62,295,886	1.1%	4,063,413 7.0%
TOTAL EXPENDITURES	102,874,880	102,997,645	108,428,604	-	108,428,604	(0.1%)	5,553,724 5.4%

**CITY OF HAMILTON
2018 - 2020 WATER, WASTEWATER AND STORM OPERATING BUDGET
COMBINED WASTEWATER AND STORM**

	2017 RESTATED BUDGET \$	2018 REQUESTED BUDGET \$	2019 PROJECTED BUDGET \$	2020 PROJECTED BUDGET \$	CHANGE 2018 RESTATED BUDGET / 2017 RESTATED BUDGET %	CHANGE 2019 PROJECTED / 2018 REQUESTED BUDGET %	CHANGE 2020 PROJECTED / 2019 PROJECTED BUDGET %
OPERATING EXPENDITURES:							
Environmental Services							
Divisional Administration & Support	1,117,861	1,144,130	1,178,453	1,213,807	2.3%	26,269	34,324
Woodward Upgrades	1,197,710	1,220,310	1,256,919	1,294,627	1.9%	22,600	36,609
Customer Service	287,690	215,760	222,233	228,900	(25.0%)	(71,930)	6,673
Outreach & Education	695,530	647,820	667,255	687,272	(0)	(47,710)	19,435
Service Co-ordination	1,505,375	1,531,948	1,577,906	1,625,244	1.8%	26,573	45,958
Engineering Systems & Data Collection	817,660	639,070	658,242	677,989	(21.8%)	(178,590)	19,172
Compliance & Regulations	390,950	393,110	411,083	423,416	2.1%	8,160	11,973
Laboratory Services	2,300,275	2,355,745	2,426,417	2,499,210	2.4%	55,470	70,672
Environmental Monitoring & Enforcement	1,780,060	1,755,150	1,807,805	1,862,039	(1.4%)	(24,910)	52,655
Water Distribution & Wastewater Collection	5,319,570	5,466,480	5,630,474	5,799,389	2.8%	146,910	163,994
Plant Operations & Maintenance	21,117,810	21,888,610	22,545,268	23,221,626	3.6%	770,800	656,658
Capital Delivery	771,323	830,294	855,203	880,859	7.6%	58,971	24,909
Sustainable Initiatives	338,184	367,585	378,613	389,971	8.7%	29,402	11,028
Infrastructure & Source Water Planning	1,538,889	1,600,093	1,648,096	1,697,539	4.0%	61,204	48,003
Wastewater Abatement Program	821,000	1,000,000	1,030,000	1,060,900	21.8%	179,000	30,000
Alectra Utilities Service Contract	2,637,500	2,779,860	2,863,256	2,949,153	5.4%	142,360	83,396
Corporate & Departmental Support Services	3,508,880	3,457,810	3,470,596	3,483,766	(1.5%)	(51,070)	12,786
Utilities Arrears Program	250,000	250,000	250,000	250,000	-	-	-
Sewer Lateral Management Program	500,000	500,000	515,000	530,450	-	15,000	15,450
Hamilton Harbour Remedial Action Plan	415,000	304,980	314,129	323,553	(26.5%)	(110,020)	9,149
Protective Plumbing Program (3P)	2,500,000	2,000,000	2,060,000	2,121,800	(20.0%)	(500,000)	60,000
Financial Charges	184,570	184,570	190,107	195,810	-	5,537	5,703
Capital and Reserve Recoveries	(5,353,430)	(4,406,607)	(4,538,805)	(4,674,969)	(17.7%)	946,823	(132,198)
Sub-Total Environmental Services	44,642,407	46,132,718	47,418,251	48,742,351	3.3%	1,490,311	1,285,534
Capital and Reserve Impacts on Operating							
Contributions to Capital							
Wastewater	13,325,000	45,474,000	43,829,000	51,015,000	2	32,149,000	7,186,000
Stormwater	10,959,000	8,516,000	8,655,000	7,065,000	(0)	(2,443,000)	(1,590,000)
Sub-Total Contributions to Capital	24,284,000	53,990,000	52,484,000	58,080,000	1	(1,506,000)	5,596,000
Contributions for DC Exemptions							
Wastewater	3,870,000	4,590,000	4,080,000	3,570,000	0	720,000	(510,000)
Stormwater	730,000	1,863,000	1,656,000	1,449,000	2	1,133,000	(207,000)
Sub-Total Contributions for DC Exemptions	4,600,000	6,453,000	5,736,000	5,019,000	0	(717,000)	(717,000)
Debt Charges							
Wastewater	10,130,540	8,737,296	12,615,523	19,805,124	(13.8%)	(1,393,244)	3,878,227
Stormwater	2,272,050	1,839,143	4,121,060	6,432,916	(19.1%)	(432,907)	2,281,917
DC Debt Charges Recoveries	(1,855,910)	(1,740,795)	(5,437,341)	(11,241,886)	(6.2%)	(3,698,545)	(5,804,545)
Sub-Total Debt Charges	10,546,680	8,835,644	11,299,242	14,996,153	(16.2%)	(1,711,036)	3,696,911
Sub-Total Capital Financing	39,430,680	69,278,644	69,519,242	78,095,153	75.7%	29,847,964	8,575,911
Reserve Transfers	18,801,793	(6,982,758)	(3,261,553)	(7,699,290)	(137.1%)	(25,784,551)	(4,437,798)
Sub-Total Capital and Reserve Impacts on Operating	58,232,473	62,295,886	66,257,689	70,395,863	7.0%	4,063,413	4,138,174
TOTAL EXPENDITURES	102,874,880	108,428,604	113,675,941	119,138,214	5.4%	5,553,724	5,462,273

CITY OF HAMILTON
2018-2027 WATER, WASTEWATER & STORM OPERATING BUDGET
 COMBINED WASTEWATER AND STORM
 (\$ 000'S)

	2017 Restated	2018 Requested	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast
OPERATING EXPENDITURES											
OPERATING COSTS	40,142	42,233	43,418	44,512	45,608	44,686	48,960	50,920	52,517	54,162	55,858
BIO-SOLIDS	4,500	3,900	4,000	4,230	4,129	4,215	4,302	4,392	4,484	4,578	4,676
TERTIARY TREATMENT	-	-	-	-	468	2,810	2,866	2,924	2,982	3,042	3,102
TOTAL OPERATING COSTS	44,642	46,133	47,418	48,742	50,205	51,711	56,128	58,236	59,983	61,782	63,636
CAPITAL & RESERVE IMPACTS ON OPERATING											
Contributions to Capital											
Wastewater	13,325	45,474	43,829	51,015	47,019	51,790	45,750	46,550	53,105	59,705	75,500
Stormwater	10,959	8,516	8,655	7,065	6,615	7,145	6,815	11,445	4,545	8,845	7,395
Sub-total Contributions to Capital	24,284	53,990	52,484	58,080	53,634	58,935	52,565	57,995	57,650	68,550	82,895
Contributions for DC Exemptions											
Wastewater	3,870	4,590	4,080	3,570	3,514	3,445	3,376	3,376	3,376	3,376	3,376
Stormwater	730	1,863	1,656	1,449	1,426	1,398	1,370	1,370	1,370	1,370	1,370
Sub-total Contributions to Capital	4,600	6,453	5,736	5,019	4,940	4,843	4,747	4,747	4,747	4,747	4,747
Debt Charges											
Wastewater	10,131	8,737	12,616	19,805	26,094	28,010	29,125	30,223	30,952	31,270	34,114
Stormwater	2,272	1,839	4,121	6,433	7,830	8,140	8,451	8,762	9,073	9,383	9,694
DC Debt Charges Recoveries	(1,856)	(1,741)	(5,437)	(11,242)	(15,914)	(17,689)	(19,267)	(20,830)	(22,025)	(22,807)	(26,498)
Sub-total Debt Charges	10,547	8,836	11,299	14,996	18,010	18,461	18,309	18,156	18,000	17,846	17,310
Reserve Transfers	18,802	(6,983)	(3,262)	(7,699)	(1,589)	(2,560)	5,652	3,380	7,514	911	(8,771)
Sub-Total Capital & Reserve Impacts on Operating	58,232	62,296	66,258	70,396	74,995	79,680	81,272	84,277	87,910	92,054	96,180
TOTAL EXPENDITURES	102,875	108,429	113,676	119,138	125,199	131,390	137,401	142,513	147,893	153,836	159,816
REVENUES											
Residential	44,805	47,558	50,189	53,027	56,259	59,139	62,211	64,947	67,556	70,921	74,408
Industrial/Commercial/Institutional/Multi-res	50,307	52,679	55,051	57,423	59,986	63,023	65,680	67,767	70,239	72,511	74,688
Non-Metered	220	275	290	305	320	335	350	365	380	395	410
Hauler / 3rd Party Sales	564	790	814	838	863	889	916	943	972	1,001	1,031
Overstrength Agreements	2,149	2,249	2,317	2,386	2,458	2,532	2,608	2,686	2,767	2,850	2,935
Sewer Surcharge Agreements	3,582	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219
Non-Rate Revenue	1,249	877	896	914	942	970	999	1,029	1,060	1,092	1,125
TOTAL REVENUES	102,875	108,429	113,676	119,138	125,199	131,390	137,401	142,513	147,893	153,836	159,816
NET EXPENDITURES											
Rate Increase	4.8%	5.2%	4.6%	4.7%	5.1%	4.3%	4.3%	3.5%	3.2%	4.0%	4.5%
RESIDENTIAL BILL (200m³ p.a.)	\$ 339.70	\$ 357.40	\$ 373.90	\$ 391.60	\$ 411.75	\$ 429.40	\$ 447.90	\$ 463.60	\$ 478.45	\$ 497.80	\$ 520.00

CITY OF HAMILTON
2018 HAMILTON WATER OPERATING BUDGET
WASTEWATER

	2017 RESTATED BUDGET	2017 PROJECTED ACTUAL	2018 MAINTENANCE BUDGET	2018 PROGRAM CHANGE	2018 REQUESTED BUDGET	CHANGE 2017 PROJECTED ACTUAL / 2017 RESTATED BUDGET	2017 RESTATED BUDGET	CHANGE 2018 REQUESTED BUDGET
	\$	\$	\$	\$	\$	%	\$	%
OPERATING EXPENDITURES:								
Environmental Services								
Divisional Administration & Support	915,528	915,528	935,720	-	935,720	-	20,192	2.2%
Woodward Upgrades	1,197,710	1,197,710	1,220,310	-	1,220,310	-	22,600	1.9%
Customer Service	245,650	168,150	172,960	-	172,960	31.5%	(72,690)	(29.6%)
Outreach & Education	556,420	556,420	518,250	-	518,250	-	(38,170)	100.0%
Service Co-ordination	912,065	912,065	930,602	-	930,602	-	18,537	2.0%
Engineering Systems & Data Collection	654,130	654,130	511,280	-	511,280	-	(142,850)	(21.8%)
Compliance & Regulations	377,650	377,650	385,540	-	385,540	-	7,890	2.1%
Laboratory Services	2,172,295	2,172,295	2,224,675	-	2,224,675	-	52,380	2.4%
Environmental Monitoring & Enforcement	1,712,412	1,621,022	1,688,452	-	1,688,452	5.3%	(23,960)	(1.4%)
Water Distribution & Wastewater Collection	4,841,440	4,841,440	4,951,880	-	4,951,880	-	110,440	2.3%
Plant Operations & Maintenance	20,438,610	20,761,914	21,123,960	-	21,123,960	(1.6%)	685,350	3.4%
Capital Delivery	771,323	771,323	830,294	-	830,294	-	58,971	7.6%
Sustainable Initiatives	338,184	338,184	367,585	-	367,585	-	29,402	8.7%
Infrastructure Planning & System Design	1,007,015	1,007,015	1,046,215	-	1,046,215	-	39,200	3.9%
Wastewater Abatement Program	821,000	821,000	1,000,000	-	1,000,000	-	179,000	21.8%
Alectra Utilities Service Contract	2,637,500	2,562,360	2,779,860	-	2,779,860	2.8%	142,360	5.4%
Corporate & Departmental Support Services	3,082,110	3,165,621	3,031,600	-	3,031,600	(2.7%)	(50,510)	(1.6%)
Utilities Arrears Program	250,000	250,000	250,000	-	250,000	-	-	-
Sewer Lateral Management Program	500,000	500,000	500,000	-	500,000	-	-	-
Financial Charges	183,650	183,650	183,650	-	183,650	-	-	-
Capital and Reserve Recoveries	(4,249,461)	(3,854,113)	(3,925,291)	-	(3,925,291)	9.3%	324,170	(7.6%)
Sub-Total Environmental Services	39,365,231	39,923,363	40,727,542	-	40,727,542	(1.4%)	1,362,311	3.5%
Capital and Reserve Impacts on Operating								
Contributions to Capital								
Wastewater	13,325,000	13,325,000	45,474,000	-	45,474,000	-	32,149,000	241.3%
Sub-Total Contributions to Capital	13,325,000	13,325,000	45,474,000	-	45,474,000	-	32,149,000	241.3%
Contributions for DC Exemptions								
Wastewater	3,870,000	3,870,000	4,590,000	-	4,590,000	-	720,000	18.6%
Sub-Total Contributions for DC Exemptions	3,870,000	3,870,000	4,590,000	-	4,590,000	-	720,000	18.6%
Debt Charges								
Wastewater	10,130,540	7,159,734	8,737,296	-	8,737,296	29.3%	(1,393,244)	(13.8%)
DC Debt Charges Recoveries	(899,600)	668,280	(1,007,689)	-	(1,007,689)	174.3%	(108,089)	12.0%
Sub-Total Debt Charges	9,230,940	7,828,014	7,729,607	-	7,729,607	15.2%	(1,501,333)	(16.3%)
Sub-Total Capital Financing	26,425,940	25,023,014	57,793,607	-	57,793,607	5.3%	31,367,667	118.7%
Reserve Transfers	36,850,199	37,809,610	9,666,941	-	9,666,941	(2.6%)	(27,183,258)	(73.8%)
Sub-Total Capital and Reserve Impacts on Operating	63,276,139	62,832,624	67,460,548	-	67,460,548	0.7%	4,184,409	6.6%
TOTAL EXPENDITURES	102,641,370	102,755,987	108,188,090	-	108,188,090	(0.1%)	5,546,720	5.4%

CITY OF HAMILTON
2018 - 2020 WATER, WASTEWATER AND STORM OPERATING BUDGET
WASTEWATER

	2017 RESTATE D BUDGET \$	2018 REQUESTED BUDGET \$	2019 PROJECTED BUDGET \$	2020 PROJECTED BUDGET \$	CHANGE 2018 RESTATE D BUDGET / 2017 RESTATE D BUDGET %	CHANGE 2019 PROJECTED BUDGET / 2018 REQUESTED BUDGET %	CHANGE 2020 PROJECTED BUDGET / 2019 PROJECTED BUDGET %
OPERATING EXPENDITURES:							
Environmental Services							
Divisional Administration & Support	915,528	935,720	963,791	992,705	20,192	28,072	28,914
Woodward Upgrades	1,197,710	1,220,310	1,256,919	1,294,627	22,600	36,609	37,708
Customer Service	245,650	172,960	178,149	183,493	(72,690)	5,189	5,344
Outreach & Education	556,420	518,250	533,798	549,811	(38,170)	15,548	16,014
Service Co-ordination	912,065	930,602	958,520	987,276	18,537	27,918	28,756
Engineering Systems & Data Collection	654,130	511,280	526,818	542,417	(142,850)	15,338	15,799
Compliance & Regulations	377,650	385,540	397,106	409,019	7,890	11,566	11,913
Laboratory Services	2,172,295	2,224,675	2,291,415	2,360,158	52,380	66,740	68,742
Environmental Monitoring & Enforcement	1,712,412	1,688,452	1,739,106	1,791,279	(23,960)	50,654	52,173
Water Distribution & Wastewater Collection	4,841,440	4,951,880	5,100,436	5,253,449	110,440	148,556	153,013
Plant Operations & Maintenance	20,438,610	21,123,960	21,757,679	22,410,409	685,350	633,719	652,730
Capital Delivery	771,323	830,294	855,203	880,859	58,971	24,909	25,656
Sustainable Initiatives	338,184	367,585	378,613	389,971	29,402	11,028	11,358
Infrastructure Planning & System Design	1,007,015	1,046,215	1,077,601	1,109,929	39,200	31,386	32,328
Wastewater Abatement Program	821,000	1,000,000	1,030,000	1,060,900	179,000	30,000	30,900
Alcra Utilities Service Contract	2,637,500	2,779,860	2,863,256	2,949,153	142,360	83,396	85,898
Corporate & Departmental Support Services	3,082,110	3,031,600	3,031,600	3,031,600	(50,510)	-	-
Utilities Arrears Program	250,000	250,000	250,000	250,000	-	-	-
Financial Charges	183,650	183,650	189,160	184,834	-	5,510	5,675
Capital and Reserve Recoveries	(4,249,481)	(3,925,291)	(4,043,050)	(4,164,341)	324,170	(117,759)	(121,291)
Sub-Total Environmental Services	39,365,231	40,727,542	41,850,920	43,008,000	1,362,311	1,123,378	1,157,080
Capital and Reserve Impacts on Operating							
Contributions to Capital							
Wastewater	13,325,000	45,474,000	43,829,000	51,015,000	32,149,000	(1,645,000)	7,186,000
Sub-Total Contributions to Capital	13,325,000	45,474,000	43,829,000	51,015,000	32,149,000	(1,645,000)	7,186,000
Contributions for DC Exemptions							
Wastewater	3,870,000	4,590,000	4,080,000	3,570,000	720,000	(510,000)	(510,000)
Sub-Total Contributions for DC Exemptions	3,870,000	4,590,000	4,080,000	3,570,000	720,000	(510,000)	(510,000)
Debt Charges							
Wastewater	10,130,540	8,737,296	12,615,523	19,805,124	(1,393,244)	3,878,227	7,189,601
DC Debt Charges Recoveries	(899,600)	(1,007,689)	(3,370,235)	(7,879,683)	(108,089)	(2,362,545)	(4,509,448)
Sub-Total Debt Charges	9,230,940	7,729,607	9,245,288	11,925,440	(1,501,333)	1,515,682	2,680,152
Sub-Total Capital Financing	26,425,940	57,793,607	57,154,288	66,510,440	31,367,667	(639,318)	9,356,152
Reserve Transfers	36,850,199	9,666,941	14,423,003	9,364,613	(27,183,258)	4,756,062	(5,056,390)
Sub-Total Capital and Reserve Impacts on Operating	63,276,139	67,460,548	71,577,291	75,875,053	4,184,409	4,116,743	4,297,762
TOTAL EXPENDITURES	102,641,370	108,188,090	113,428,211	118,883,053	5,546,720	5,240,121	5,454,841

CITY OF HAMILTON
2017 - 2019 WATER, WASTEWATER AND STORM OPERATING BUDGET
WASTEWATER

	2017 RESTATED BUDGET	2018 REQUESTED BUDGET	2019 PROJECTED BUDGET	2020 PROJECTED BUDGET	CHANGE 2018 REQUESTED / 2017 RESTATED BUDGET	CHANGE 2019 PROJECTED / 2018 REQUESTED BUDGET	CHANGE 2020 PROJECTED / 2019 PROJECTED BUDGET
	\$	\$	\$	\$	\$	\$	\$
					%	%	%
REVENUES:							
Rate Revenue							
Residential	44,804,890	47,557,920	50,188,681	53,027,497	2,753,030	2,630,761	2,838,815
ICI	50,306,990	52,679,040	55,051,092	57,423,140	2,372,050	2,372,052	2,372,048
Non-Metered	220,000	275,000	290,000	305,000	55,000	15,000	15,000
Hauler / 3rd Party Sales	564,150	790,000	813,700	838,111	225,850	23,700	24,411
Overstrength Agreements	2,148,500	2,249,480	2,316,964	2,386,473	100,980	67,484	69,509
Sewer Surcharge Agreements	3,581,800	4,000,000	4,120,000	4,243,600	418,200	120,000	123,600
Sub-Total Utility Rates	101,626,330	107,551,440	112,780,437	118,223,821	5,925,110	5,228,997	5,443,384
					5.8%	4.9%	4.8%
Non-Rate Revenue							
Local Improvement Recoveries	265,850	265,850	265,850	265,850	-	-	-
Permits/Leases/Agreements	361,090	330,800	340,724	350,946	(30,290)	9,924	10,222
General Fees and Recoveries	388,100	40,000	41,200	42,436	(348,100)	1,200	1,236
Sub-Total Non-Rate Revenue	1,015,040	636,650	647,774	659,232	(378,390)	11,124	11,458
					(37.3%)	1.7%	1.8%
TOTAL REVENUES	102,641,370	108,188,090	113,428,211	118,883,053	5,546,720	5,240,121	5,454,841
					5.4%	4.8%	4.8%
NET EXPENDITURES							

CITY OF HAMILTON
2018 HAMILTON WATER OPERATING BUDGET
STORM

	2017 RESTATED BUDGET \$	2017 PROJECTED ACTUAL \$	2018 MAINTENANCE BUDGET \$	2018 PROGRAM CHANGE \$	2018 REQUESTED BUDGET \$	CHANGE 2017 PROJECTED ACTUAL / 2017 RESTATED BUDGET %	2017 PROJECTED ACTUAL \$	CHANGE 2017 PROJECTED ACTUAL / 2017 RESTATED BUDGET %	2018 REQUESTED BUDGET \$	CHANGE 2018 REQUESTED / 2017 RESTATED BUDGET %	
OPERATING EXPENDITURES:											
Environmental Services											
Divisional Administration & Support	202,333	202,333	208,410	-	208,410	-	208,410	-	208,410	6,077	3.0%
Customer Service	42,040	42,040	42,800	-	42,800	-	42,800	-	42,800	760	1.8%
Outreach & Education	139,110	139,110	129,570	-	129,570	-	129,570	-	129,570	(9,540)	100.0%
Service Co-ordination	593,310	593,310	601,346	-	601,346	-	601,346	-	601,346	8,036	1.4%
Engineering Systems & Data Collection	163,530	163,530	127,790	-	127,790	-	127,790	-	127,790	(35,740)	(21.9%)
Compliance & Regulations	13,300	13,300	13,570	-	13,570	-	13,570	-	13,570	270	2.0%
Laboratory Services	127,980	127,980	131,070	-	131,070	-	131,070	-	131,070	3,090	2.4%
Environmental Monitoring & Enforcement	67,648	64,038	66,698	-	66,698	5.3%	66,698	3,610	66,698	(950)	(1.4%)
Water Distribution & Wastewater Collection	478,130	478,130	514,600	-	514,600	-	514,600	-	514,600	36,470	7.6%
Plant Operations & Maintenance	679,200	759,200	764,650	-	764,650	(11.8%)	(80,000)	(80,000)	764,650	85,450	12.6%
Infrastructure Planning & System Design	531,874	531,874	553,878	-	553,878	-	553,878	-	553,878	22,004	4.1%
Corporate & Departmental Support Services	426,770	426,085	426,210	-	426,210	0.2%	685	685	426,210	(560)	(0.1%)
Hamilton Harbour Remedial Action Plan	415,000	415,000	304,980	-	304,980	-	304,980	-	304,980	(110,020)	(26.5%)
Protective Plumbing Program (3P)	2,500,000	2,500,000	2,000,000	-	2,000,000	-	2,000,000	-	2,000,000	(500,000)	(20.0%)
Financial Charges	920	920	920	-	920	-	920	-	920	-	-
Capital and Reserve Recoveries	(1,103,959)	(1,001,256)	(481,316)	-	(481,316)	9.3%	(102,713)	(102,713)	(481,316)	1,104,859	(100.1%)
Sub-Total Environmental Services	5,277,176	5,455,594	5,405,176	-	5,405,176	(3.4%)	(178,418)	(178,418)	5,405,176	610,236	11.6%
Capital and Reserve Impacts on Operating											
Contributions to Capital											
Stormwater	10,959,000	10,959,000	8,516,000	-	8,516,000	-	8,516,000	-	8,516,000	(2,443,000)	(22.3%)
Sub-Total Contributions to Capital	10,959,000	10,959,000	8,516,000	-	8,516,000	-	8,516,000	-	8,516,000	(2,443,000)	(22.3%)
Contributions for DC Exemptions											
Stormwater	730,000	730,000	1,863,000	-	1,863,000	-	1,863,000	-	1,863,000	1,133,000	155.2%
Sub-Total Contributions for DC Exemptions	730,000	730,000	1,863,000	-	1,863,000	-	1,863,000	-	1,863,000	1,133,000	155.2%
Debt Charges											
Stormwater	2,272,050	662,397	1,839,143	-	1,839,143	70.8%	1,609,653	1,609,653	1,839,143	(432,907)	(19.1%)
DC Debt Charges Recoveries	(956,310)	(607,904)	(733,106)	-	(733,106)	36.4%	(348,406)	(348,406)	(733,106)	223,204	(23.3%)
Sub-Total Debt Charges	1,315,740	54,493	1,106,037	-	1,106,037	95.9%	1,261,247	1,261,247	1,106,037	(209,703)	(15.9%)
Sub-Total Capital Financing	13,004,740	11,743,493	11,485,037	-	11,485,037	9.7%	1,261,247	1,261,247	11,485,037	(1,519,703)	(11.7%)
Reserve Transfers	(18,048,406)	(16,957,429)	(16,649,699)	-	(16,649,699)	6.0%	(1,090,977)	(1,090,977)	(16,649,699)	1,398,707	(7.7%)
Sub-Total Capital and Reserve Impacts on Operating	(5,043,666)	(5,213,936)	(5,164,662)	-	(5,164,662)	(3.4%)	170,270	170,270	(5,164,662)	(120,996)	2.4%
TOTAL EXPENDITURES	233,510	241,658	240,514	-	240,514	(3.5%)	(8,148)	(8,148)	240,514	7,004	3.0%

CITY OF HAMILTON
2018 HAMILTON WATER OPERATING BUDGET
STORM

	2017 RESTATED BUDGET \$	2017 PROJECTED ACTUAL \$	2018 MAINTENANCE BUDGET \$	2018 PROGRAM CHANGE \$	2018 REQUESTED BUDGET \$	CHANGE 2017 PROJECTED ACTUAL / 2017 RESTATED BUDGET %	CHANGE 2018 REQUESTED / 2017 RESTATED BUDGET \$	CHANGE 2018 REQUESTED / 2017 RESTATED BUDGET %
Non-Rate Revenue								
Permits / Leases / Agreements	68,110	169,200	70,153	-	70,153	101,090 (92,942)	2,043	3.0%
General Fees and Recoveries	165,400	72,458	170,361	-	170,361	(56.2%)	4,961	3.0%
Sub-Total Non-Rate Revenue	233,510	241,658	240,514	-	240,514	8,148	7,004	3.0%
TOTAL REVENUES	233,510	241,658	240,514	-	240,514	8,148	7,004	3.0%
NET EXPENDITURES	-	(0)	-	-	-	0	-	-

CITY OF HAMILTON
2016 - 2020 WATER, WASTEWATER AND STORM OPERATING BUDGET
STORM

	2017 RESTATED BUDGET	2018 REQUESTED BUDGET	2019 PROJECTED BUDGET	2020 PROJECTED BUDGET	CHANGE 2018 RESTATED BUDGET / 2019 PROJECTED BUDGET	CHANGE 2018 REQUESTED BUDGET / 2019 PROJECTED BUDGET	CHANGE 2019 REQUESTED BUDGET / 2020 PROJECTED BUDGET
	\$	\$	\$	\$	\$	\$	\$
					%	%	%
OPERATING EXPENDITURES:							
Environmental Services							
Divisional Administration & Support	202,333	208,410	214,662	221,102	6,077	3.0%	3.0%
Customer Service	42,040	42,800	44,084	45,407	760	1.8%	3.0%
Outreach & Education	139,110	129,570	133,457	137,461	(9,540)	(6.9%)	3.0%
Service Co-ordination	593,310	601,346	619,386	637,968	8,036	1.4%	3.0%
Engineering Systems & Data Collection	163,530	127,790	131,624	135,572	(35,740)	(21.9%)	3.0%
Compliance & Regulations	13,300	13,570	13,977	14,396	270	2.0%	3.0%
Laboratory Services	127,980	131,070	135,002	139,052	3,090	2.4%	3.0%
Environmental Monitoring & Enforcement	67,648	66,698	70,760	(950)	(950)	(1.4%)	3.0%
Water Distribution & Wastewater Collection	478,130	514,600	530,038	545,939	36,470	7.6%	3.0%
Plant Operations & Maintenance	679,200	764,650	787,590	811,217	85,450	12.6%	3.0%
Infrastructure Planning & System Design	531,874	553,878	570,494	587,609	22,004	4.1%	3.0%
Corporate & Departmental Support Services	426,770	438,996	(560)	(560)	(560)	(0.1%)	3.0%
Hamilton Harbour Remedial Action Plan	415,000	304,980	314,129	323,553	(110,020)	(26.5%)	3.0%
Protective Plumbing Program (3P)	2,500,000	2,000,000	2,060,000	2,121,800	(500,000)	(20.0%)	3.0%
Financial Charges	920	920	948	976	-	-	3.0%
Capital and Reserve Recoveries	(1,103,969)	(481,316)	(495,755)	(510,628)	622,653	(56.4%)	3.0%
Sub-Total Environmental Services	5,277,176	5,405,176	5,567,331	5,734,351	128,000	2.4%	3.0%
Capital and Reserve Impacts on Operating Contributions to Capital							
Stormwater	10,959,000	8,516,000	8,655,000	7,065,000	(2,443,000)	(22.3%)	1.6%
Sub-Total Contributions to Capital	10,959,000	8,516,000	8,655,000	7,065,000	(2,443,000)	(22.3%)	1.6%
Contributions for DC Exemptions							
Stormwater	730,000	1,863,000	1,656,000	1,449,000	1,133,000	155.2%	(11.1%)
Sub-Total Contributions for DC Exemptions	730,000	1,863,000	1,656,000	1,449,000	1,133,000	155.2%	(11.1%)
Debt Charges							
Stormwater	2,272,050	1,839,143	4,121,060	6,432,916	(432,907)	(19.1%)	124.1%
DC Debt Charges Recoveries	(956,310)	(733,106)	(2,067,106)	(3,362,203)	223,204	(23.3%)	182.0%
Sub-Total Debt Charges	1,315,740	1,106,037	2,053,954	3,070,713	(209,703)	(15.9%)	85.7%
Sub-Total Capital Financing	13,004,740	11,485,037	12,364,954	11,584,713	(1,519,703)	(11.7%)	7.7%
Reserve Transfers	(18,048,406)	(16,649,699)	(17,684,556)	(17,063,903)	1,398,707	(7.7%)	6.2%
Sub-Total Capital and Reserve Impacts on Operating	(5,043,666)	(5,164,662)	(5,319,602)	(5,479,190)	(120,996)	2.4%	3.0%
TOTAL EXPENDITURES	233,510	240,514	247,729	255,161	7,004	3.0%	3.0%

	2019 PROJECTED BUDGET	2020 PROJECTED BUDGET	CHANGE 2019 PROJECTED BUDGET / 2020 PROJECTED BUDGET
	\$	\$	\$
			%
Environmental Services	5,567,331	5,734,351	167,020
Capital and Reserve Impacts on Operating	(5,319,602)	(5,479,190)	(159,588)
TOTAL EXPENDITURES	255,161	255,161	7,432

CITY OF HAMILTON
 2017 - 2019 WATER, WASTEWATER AND STORM OPERATING BUDGET
STORM

	2017 RESTATED BUDGET \$	2018 REQUESTED BUDGET \$	2019 PROJECTED BUDGET \$	2020 PROJECTED BUDGET \$	CHANGE 2018 RESTATED BUDGET / 2017 RESTATED BUDGET %	CHANGE 2019 PROJECTED / 2018 REQUESTED BUDGET %	CHANGE 2020 PROJECTED / 2019 PROJECTED BUDGET %
Non-Rate Revenue	68,110	70,153	72,258	74,425	2,043	2,105	2,168
Permits/Leases/Agreements	165,400	170,361	175,472	180,736	4,961	5,111	5,264
General Fees and Recoveries							
Sub-Total Non-Rate Revenue	233,510	240,514	247,729	255,161	7,004	7,215	7,432
TOTAL REVENUES	233,510	240,514	247,729	255,161	7,004	7,215	7,432
NET EXPENDITURES	-	-	-	-	-	-	-

REVENUES:

Non-Rate Revenue
 Permits/Leases/Agreements
 General Fees and Recoveries

Sub-Total Non-Rate Revenue

TOTAL REVENUES

NET EXPENDITURES

**HAMILTON WATER
2018 RATE SUPPORTED STAFFING SUMMARY**

Deptid	Deptid Description	2017 REQUESTED	2017* RESTATED	2018 MAINTENANCE	2018 PROGRAM CHANGES	2018 REQUESTED	2018 REQUESTED vs. 2017 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	8.00	8.00	8.00	0.00	8.00	0.00
510210	Customer Service & Community Outreach	2.00	2.00	2.00	0.00	2.00	0.00
510215	Education & Outreach	5.25	5.25	5.25	0.00	5.25	0.00
510220	Service Co-ordination	23.00	23.00	23.00	0.00	23.00	0.00
510230	Engineering Systems & Data Collection	9.00	9.00	9.00	0.00	9.00	0.00
510240	Compliance & Regulations	6.00	6.00	6.00	0.00	6.00	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)	6.33	6.00	6.00	0.00	6.00	0.00
510275	WD & WWC Contracts	18.67	20.00	20.00	0.00	20.00	0.00
510280	WD & WWC Construction	22.00	24.00	24.00	0.00	24.00	0.00
510285	WD & WWC Maintenance	23.00	19.00	19.00	0.00	19.00	0.00
510290	WD & WWC Operations	19.00	19.00	19.00	0.00	19.00	0.00
510300	WWW Planning & Capital Director	2.00	2.00	2.00	0.00	2.00	0.00
510305	Sustainable Initiatives	8.00	7.00	7.00	0.00	7.00	0.00
510310	Plant Operations & Maintenance	5.00	6.00	6.00	0.00	6.00	0.00
510320	Plant Maintenance	38.00	36.00	36.00	0.00	36.00	0.00
510330	Plant Operations	40.00	39.00	39.00	0.00	39.00	0.00
510340	Capital Delivery	10.00	11.00	11.00	0.00	11.00	0.00
510350	Infrastructure Planning and System Design	16.00	16.00	16.00	0.00	16.00	0.00
Total RATE Supported Staff		305.25	302.25	302.25	0.00	302.25	0.00

Note: * Council approved 3.0 FTEs

CITY OF HAMILTON
2018 WATER AND WASTEWATER/STORM FEES AND CHARGES
Effective January 1, 2018

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	\$ 0.34	\$ 0.36
16 mm	\$ 0.34	\$ 0.36
20 mm	\$ 0.34	\$ 0.36
25 mm	\$ 0.85	\$ 0.90
38 mm	\$ 1.70	\$ 1.80
50 mm	\$ 2.72	\$ 2.88
75 mm	\$ 5.44	\$ 5.76
100 mm	\$ 8.50	\$ 9.00
150 mm	\$ 17.00	\$ 18.00
200 mm	\$ 27.20	\$ 28.80
250 mm	\$ 39.10	\$ 41.40
300 mm	\$ 57.80	\$ 61.20

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.

		Residential	Multi- Residential, Commercial, Institutional & Industrial
Consumption Block	Monthly Water Consumption (m3)	Rate (\$/m3)	Rate (\$/m3)
1	0-10	0.75	1.49
2	>10	1.49	1.49

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.

		Residential	Multi- Residential, Commercial, Institutional & Industrial
Treatment Block	Monthly Water Consumption (m3)	Rate (\$/m3)	Rate (\$/m3)
1	0-10	0.81	1.61
2	>10	1.61	1.61

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

Flat Rate Water Customers Annual Rate: \$543.85

Flat Rate Wastewater/Storm Customers Annual Rate: \$587.65

Combined Flat Rate Water & Wastewater/Storm Customers Annual Rate: \$1,131.50

City of Hamilton - 2018 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

Connection Size (mm)	Monthly Rate
25	\$ 3.28
38	\$ 7.54
50	\$ 13.12
75	\$ 29.52
100	\$ 52.48
150	\$ 118.08
200	\$ 209.92
250	\$ 209.92
300	\$ 209.92

2018 PROPOSED USER FEES AND CHARGES

PUBLIC WORKS
HAMILTON WATER

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Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2017 including HST (if applicable)	2018 Proposed Fee	HST (y/n)	2018 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%	To achieve full cost recovery
			1a)	16mm Displacement	\$404.60	\$404.60	n	\$404.60	0.0%	To achieve full cost recovery
			1b)	20mm Displacement	\$559.40	\$559.40	n	\$559.40	0.0%	To achieve full cost recovery
			1c)	25mm Displacement	\$869.95	\$869.95	n	\$869.95	1.6%	To achieve full cost recovery
			1d)	38mm Displacement	\$1,218.80	\$1,218.80	n	\$1,218.80	0.0%	To achieve full cost recovery
			1e)	50mm Displacement	\$1,384.60	\$1,384.60	n	\$1,384.60	0.0%	To achieve full cost recovery
			1f)	50mm Turbine	\$3,316.40	\$3,316.40	n	\$3,316.40	0.0%	To achieve full cost recovery
			1g)	50mm Compound	\$3,719.75	\$3,719.75	n	\$3,719.75	2.0%	To achieve full cost recovery
			1h)	100mm Turbine	\$5,003.80	\$5,104.30	n	\$5,104.30	2.0%	To achieve full cost recovery
			1i)	100mm Compound	\$6,379.65	\$6,507.65	n	\$6,507.65	2.0%	To achieve full cost recovery
			1j)	100mm Fire Service Turbine	\$8,289.80	\$8,456.05	n	\$8,456.05	2.0%	To achieve full cost recovery
			1k)	100mm Fire Service Compound	\$8,554.05	\$8,725.55	n	\$8,725.55	2.0%	To achieve full cost recovery
			1l)	100mm Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$8,936.10	\$9,115.25	n	\$9,115.25	2.0%	To achieve full cost recovery
			1m)	100mm Fire Rated Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$7,177.70	\$7,321.65	n	\$7,321.65	2.0%	To achieve full cost recovery
			1n)	150mm Turbine	\$9,829.65	\$10,026.65	n	\$10,026.65	2.0%	To achieve full cost recovery
			1o)	150mm Compound	\$10,600.05	\$10,812.50	n	\$10,812.50	2.0%	To achieve full cost recovery
			1p)	150mm Fire Service Turbine	\$10,751.80	\$10,967.30	n	\$10,967.30	2.0%	To achieve full cost recovery
			1q)	150mm Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$11,855.45	\$12,093.00	n	\$12,093.00	2.0%	To achieve full cost recovery
			1r)	150mm Fire Rated Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$13,412.25	\$13,680.95	n	\$13,680.95	2.0%	To achieve full cost recovery
			1s)	150mm Fire Service Compound	\$8,666.80	\$8,841.40	n	\$8,841.40	2.0%	To achieve full cost recovery
			1t)	200mm Turbine	\$11,646.45	\$11,879.80	n	\$11,879.80	2.0%	To achieve full cost recovery
			1u)	200mm Compound	\$11,590.75	\$11,806.20	n	\$11,806.20	1.9%	To achieve full cost recovery
			1v)	200mm Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$12,649.25	\$12,902.70	n	\$12,902.70	2.0%	To achieve full cost recovery
			1w)	200mm Fire Rated Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$13,621.30	\$13,894.20	n	\$13,894.20	2.0%	To achieve full cost recovery
			1x)	200mm Fire Service Turbine	\$18,351.10	\$18,718.60	n	\$18,718.60	2.0%	To achieve full cost recovery
			1y)	200mm Fire Service Compound	\$14,868.25	\$15,166.05	n	\$15,166.05	2.0%	To achieve full cost recovery
			1z)	250mm Turbine	\$13,855.85	\$14,133.40	n	\$14,133.40	2.0%	To achieve full cost recovery
			1aa)	250mm Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$16,400.60	\$16,729.05	n	\$16,729.05	2.0%	To achieve full cost recovery
			1ab)	250mm Fire Rated Magnetic Flow Meter (Must be approved by Supervisor of Meter Operations)	\$18,562.30	\$18,934.00	n	\$18,934.00	2.0%	To achieve full cost recovery
			1ac)	250mm Fire Service Turbine	\$23,868.35	\$24,346.15	n	\$24,346.15	2.0%	To achieve full cost recovery
			1ad)	250mm Fire Service Compound						
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.	\$123.60	\$109.40	y	\$123.62	0.0%	To achieve full cost recovery
			2a)	16mm Displacement	\$123.60	\$109.40	y	\$123.62	0.0%	To achieve full cost recovery
			2b)	20mm Displacement	\$123.60	\$109.40	y	\$123.62	0.0%	To achieve full cost recovery
			2c)	25mm Displacement	Cost + 10% OH	Cost + 10% OH	y	Cost + 10% OH	N/A	To achieve full cost recovery
			2d)	38mm - 250mm Meters (cost depends on size, labour, and meter location)	Cost + 10% OH	Cost + 10% OH	y	Cost + 10% OH	N/A	To achieve full cost recovery

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2018 PROPOSED USER FEES AND CHARGES

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HAMILTON WATER

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R84-026	510220	45519	3	Water Meter Inspection Services Note: Cost for customer requested service relating to meter investigation	\$123.60	\$109.40	y	\$123.62	0.0%	To achieve full cost recovery
			3a)	Regular Hours Inspection	\$161.95	\$143.30	y	\$161.93	0.0%	To achieve full cost recovery
			3b)	After Hours Inspection						
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.	\$237.85	\$212.02	y	\$239.58	0.7%	To achieve full cost recovery
			4a)	15mm Displacement	\$237.85	\$212.02	y	\$239.58	0.7%	To achieve full cost recovery
			4b)	16mm Displacement	\$363.75	\$330.98	y	\$374.01	2.8%	To achieve full cost recovery
			4c)	20mm Displacement	\$418.80	\$380.78	y	\$430.28	2.7%	To achieve full cost recovery
			4d)	25mm Displacement	\$1,157.55	\$1,045.53	y	\$1,181.45	2.1%	To achieve full cost recovery
			4e)	38mm Displacement	\$1,465.95	\$1,297.30	y	\$1,465.95	0.0%	To achieve full cost recovery
			4f)	50mm Turbine	\$1,804.05	\$1,596.50	y	\$1,804.05	0.0%	To achieve full cost recovery
			4g)	50mm Displacement	\$2,338.65	\$2,069.60	y	\$2,338.65	0.0%	To achieve full cost recovery
			4h)	50mm Compound	\$3,688.45	\$3,264.10	y	\$3,688.43	0.0%	To achieve full cost recovery
			4i)	100mm Turbine	\$5,959.15	\$5,273.60	y	\$5,959.17	0.0%	To achieve full cost recovery
			4j)	100mm Compound	\$7,733.95	\$6,981.90	y	\$7,733.95	0.0%	To achieve full cost recovery
			4k)	100mm Fire Service Turbine	\$9,944.75	\$8,802.93	y	\$9,947.31	2.0%	To achieve full cost recovery
			4l)	100mm Fire Service Compound	\$10,470.70	\$9,519.32	y	\$10,756.83	2.7%	To achieve full cost recovery
			4m)	100mm Magnetic Flow Meter	\$10,929.90	\$9,937.85	y	\$11,229.77	2.7%	To achieve full cost recovery
			4n)	100mm Fire Rated Magnetic Flow Meter	\$6,787.25	\$6,006.40	y	\$6,787.23	0.0%	To achieve full cost recovery
			4o)	150mm Turbine	\$10,327.95	\$9,139.80	y	\$10,327.97	0.0%	To achieve full cost recovery
			4p)	150mm Compound	\$11,809.65	\$10,614.04	y	\$11,993.87	1.6%	To achieve full cost recovery
			4q)	150mm Fire Service Turbine	\$12,255.20	\$13,482.48	y	\$15,235.20	1.7%	To achieve full cost recovery
			4r)	150mm Fire Service Compound	\$13,611.65	\$10,845.30	y	\$12,255.19	0.0%	To achieve full cost recovery
			4s)	150mm Magnetic Flow Meter	\$7,053.80	\$12,045.70	y	\$13,611.64	0.0%	To achieve full cost recovery
			4t)	150mm Fire Rated Magnetic Flow Meter	\$11,550.95	\$6,368.07	y	\$7,195.92	2.0%	To achieve full cost recovery
			4u)	200mm Turbine	\$15,545.70	\$10,222.10	y	\$11,550.97	0.0%	To achieve full cost recovery
			4v)	200mm Compound	\$20,889.40	\$13,985.57	y	\$15,803.69	1.7%	To achieve full cost recovery
			4w)	200mm Fire Service Turbine	\$14,031.60	\$18,809.07	y	\$21,254.25	1.7%	To achieve full cost recovery
			4x)	200mm Fire Service Compound	\$15,320.00	\$12,750.56	y	\$14,408.13	2.7%	To achieve full cost recovery
			4y)	200mm Magnetic Flow Meter	\$12,258.15	\$13,924.92	y	\$15,735.16	2.7%	To achieve full cost recovery
			4z)	200mm Fire Rated Magnetic Flow Meter	\$14,258.15	\$11,065.49	y	\$12,504.00	2.0%	To achieve full cost recovery
			4aa)	250mm Turbine	\$14,765.95	\$13,067.20	y	\$14,765.94	0.0%	To achieve full cost recovery
			4ab)	250mm Magnetic Flow Meter	\$19,504.10	\$17,606.08	y	\$19,894.87	2.0%	To achieve full cost recovery
			4ac)	250mm Fire Rated Magnetic Flow Meter	\$29,046.40	\$25,704.80	y	\$29,046.42	0.0%	To achieve full cost recovery
			4ad)	250mm Fire Service Turbine	\$426.40	\$385.50	y	\$435.62	2.2%	To achieve full cost recovery
			4ae)	250mm Fire Service Compound	\$806.55	\$728.63	y	\$823.35	2.1%	To achieve full cost recovery
			4af)	50mm Strainer	\$1,302.40	\$1,176.21	y	\$1,329.12	2.1%	To achieve full cost recovery
			4ag)	100mm Strainer	\$2,226.95	\$2,010.77	y	\$2,272.17	2.0%	To achieve full cost recovery
			4ah)	150mm Strainer	\$3,624.00	\$3,271.80	y	\$3,697.13	2.0%	To achieve full cost recovery
			4ai)	200mm Strainer						
			4aj)	250mm Strainer						

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2018 PROPOSED USER FEES AND CHARGES

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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. 15 mm & 16 mm Diameter 20 mm Diameter 25 mm Diameter 38 mm Diameter 50 mm Diameter 100 mm plus diameter (In Situ testing)	\$329.20 \$374.45 \$429.65 \$916.35 \$1,742.45 \$989.65	\$296.03 \$338.73 \$388.53 \$872.13 \$1,542.03 \$894.20	Y Y Y Y Y Y	\$334.51 \$382.76 \$439.04 \$985.51 \$1,742.49 \$1,010.45	1.6% 2.2% 2.2% 7.5% 0.0% 2.1%	To achieve full cost recovery To achieve full cost recovery To achieve full cost recovery To achieve full cost recovery To achieve full cost recovery To achieve full cost recovery
10-103	510220	45644	6	Backflow Prevention Program Note: Costs for contractor registration fee, administration fees for processing backflow prevention test reports and survey forms. 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	\$140.70 \$68.35 \$168.80 \$149.75 \$233.80	\$131.24 \$63.27 \$155.75 \$138.36 \$206.90	Y Y Y Y Y	\$148.30 \$71.50 \$176.00 \$156.35 \$233.80	5.4% 4.6% 4.3% 4.4% 0.0%	To achieve full cost recovery To achieve full cost recovery To achieve full cost recovery To achieve full cost recovery To achieve full cost recovery
R84-026	514330	45590	7	Construction Water Note: Charge for unmetered water used for construction prior to meter installation. Paid at the time of submitting building permit payment. 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)	\$87.20 \$40.80 \$28.70	\$91.40 \$42.75 \$30.00	n n n	\$91.40 \$42.75 \$30.00	4.8% 4.8% 4.5%	Equal to variable water rate increase Equal to variable water rate increase Equal to variable water rate increase
R84-026	514330	41208	8	Hydrant Adaptor Fees Note: Costs to install or remove water meter & backflow prevention device. When moving a hydrant 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.	\$2.15	\$2.25	n	\$2.25	4.9%	Rate is 1.5x volumetric water rate
R84-026	514330	41209	8a)	Usage Cost (Metered Hauled Water Rate/m ³)	\$136.30	\$137.98	n	\$137.98	1.2%	To achieve full cost recovery
R84-026	514330	41209	8b)	Hydrant Adaptor Connection/Disconnection Fee (Regular Hours-Fee for Both Services)	\$259.95	\$263.72	n	\$263.72	1.5%	To achieve full cost recovery
R84-026	514330	41209	8c)	Hydrant Adaptor Connection/Disconnection Fee (After Hours/Emergency-Fee for Both Services)	\$290.70	\$290.70	n	\$290.70	0.0%	To achieve full cost recovery
R84-026	514330	41209	8d)	Usage Deposit	\$5,829.00	\$5,829.00	n	\$5,829.00	0.0%	To achieve full cost recovery
R84-026	514330	41209	8e)	Security/Damage Deposit	\$80.00	\$80.00	n	\$80.00	0.0%	To achieve full cost recovery
R84-026	514330	41209	8f)	Hydrant adaptor rental fee for initial 7 days	\$5.90	\$5.90	n	\$5.90	0.0%	To achieve full cost recovery
R84-026	514330	41209	8g)	Per Diem hydrant adaptor rental fee after initial 7 days	\$5.90	\$5.90	n	\$5.90	0.0%	To achieve full cost recovery

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R84-026	514330	47244	9	Private Water Station Agreement Fees Annual Renewal New Application	\$357.80	\$358.30	n	\$358.30	0.1%	To achieve full cost recovery
			9a)		\$1,193.20	\$1,193.65	n	\$1,193.65	0.0%	To achieve full cost recovery
			9b)							
R84-026	514330	47232	10	Water Haulage Fees Annual Water Haulage License Fee Note: Annual license fee to utilize the City's public filling stations. Account review Note: Costs charged for administrative services to provide customer account information for personal or taxation purposes.	\$227.85	\$50.00	y	\$56.50	-78.1%	No cards issued, Online Registration
			10a)		\$144.60	\$129.60	y	\$146.45	1.3%	To achieve full cost recovery
R84-026	510220	45519	11	General Administration Fees General Administrative Requests (per hour)/Report Requests NSF Cheque Permit Cancellation administrative fee Permit Renewal Fee Lead Line Loan Application Fee Monthly AMI Manual Meter Read Fee	\$74.90	\$67.70	y	\$76.50	2.1%	To achieve full cost recovery
			11a)		\$55.45	\$60.15	n	\$60.15	8.4%	To achieve full cost recovery
			11b)		\$45.45	\$40.53	y	\$45.80	0.8%	To achieve full cost recovery
			11c)		\$45.45	\$40.53	y	\$45.80	0.8%	To achieve full cost recovery
			11d)		\$56.50	\$50.71	y	\$57.30	1.4%	To achieve full cost recovery
			11e)		\$0.00	\$3.00	y	\$3.39		NEW FEE - To achieve full cost recovery

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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 Labour)	\$96.40	\$85.31	y	\$96.40	0.0%	To achieve full cost recovery
	514330	47235	12b)	Private Water Service Repair/Replacement Inspection (After Hours /Emerg - Max 1 Hour Labour)	\$166.30	\$149.03	y	\$168.40	1.3%	To achieve full cost recovery
	514330	45690	12c)	Water Service Abandonment Inspection (Regular Hours - Max 1 Hour Total Labour)	\$85.50	\$76.49	y	\$86.43	1.1%	To achieve full cost recovery
	514330	45690	12d)	Water Service Abandonment Inspection (After Hours / Emergency - Max 1 Hour Total Labour)	\$155.35	\$139.36	y	\$157.48	1.4%	To achieve full cost recovery
	514330	45690	12e)	Water Service Inspection for Demolition (Regular Hours - Max 1 Hour Total Labour)	\$85.50	\$76.49	y	\$86.43	1.1%	To achieve full cost recovery
	514330	45690	12f)	Water Service Inspection for Demolition (After Hours / Emergency - Max 1 Hour Total Labour)	\$155.35	\$139.36	y	\$157.48	1.4%	To achieve full cost recovery
	514330	45690	12g)	Missed or Cancelled Inspection	\$60.95	\$54.37	y	\$61.44	0.8%	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.	\$124.70	\$124.70	n	\$124.70	0.0%	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)	\$110.25	\$115.85	n	\$115.85	5.1%	To achieve full cost recovery
			14b)	Turning Water On/Off (After Hours/Emergency)	\$194.80	\$197.35	n	\$197.35	1.3%	To achieve full cost recovery
			14c)	Turning Water On/Off During the Same Visit (Regular Hours - Max 1/2 Hour Total Labour)	\$62.65	\$63.22	n	\$63.22	0.9%	To achieve full cost recovery
			14d)	Turning Water On/Off During the Same Visit (After Hours/Emerg - Max 1/2 Hour Total Labour)	\$104.90	\$106.17	n	\$106.17	1.2%	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.	\$95.30	\$85.34	y	\$96.43	1.2%	To achieve full 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)	\$85.50	\$76.49	y	\$86.43	1.1%	To achieve full cost recovery
			16b)	Service Call (After Hours - Max 1 Hour Total Labour)	\$155.35	\$139.36	y	\$157.48	1.4%	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)	\$119.05	\$120.74	n	\$120.74	1.4%	To achieve full cost recovery
			18b)	Watermain Shutdown / Recharge (After Hours / Emergency-Maximum 1 Hour Total Labour)	\$217.70	\$220.86	n	\$220.86	1.5%	To achieve full cost recovery
R84-026	510350	45408	19	Environmental Records Search PRISM Reports related to soil contamination	\$177.05	\$156.67	y	\$177.04	0.0%	To achieve full cost recovery
			19a)	Reports - Environmental Assessments and Master Plans - plus fee per page	\$17.40	\$15.40	y	\$17.40	0.0%	To achieve full cost recovery
					\$0.10	\$0.10	y	\$0.11	0.0%	To achieve full cost recovery
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	\$41.45	\$37.12	y	\$41.95	1.1%	To achieve full cost recovery
			21b)	1/2 Hour Additional Labour (After Hours)-Water Distribution Operator	\$53.75	\$48.19	y	\$54.45	1.3%	To achieve full cost recovery
			21c)	1/2 Hour Additional Labour (Regular Hours)-Water Distribution Operator	\$41.45	\$37.12	n	\$37.12	1.1%	To achieve full cost recovery
			21d)	1/2 Hour Additional Labour (After Hours)-Water Distribution Operator	\$53.75	\$48.19	n	\$48.19	1.3%	To achieve full cost recovery

2018 PROPOSED USER FEES AND CHARGES

**PUBLIC WORKS
HAMILTON WATER**

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

Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2017 including HST (if applicable)	2018 Proposed Fee	HST (y/n)	2018 including HST (if applicable)	% Fee Change	Basis for Fee Increase or Decrease
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)	\$105.70	\$94.60	y	\$106.90	1.1%	To achieve full cost recovery
			1a)	Private Sewer Lateral Repair/Replacement Inspection (After Hours / Emergency - Maximum 1 Hour Total Labour)	\$187.20	\$167.97	y	\$189.81	1.4%	To achieve full cost recovery
			1b)	Missed or Cancelled Inspection	\$65.60	\$58.57	y	\$66.18	0.9%	To achieve full cost recovery
			1c)	Mainline Sewer Inspection	Cost + 33% OH	Cost + 33% OH	y	Cost + 33% OH	N/A	To achieve full cost recovery
			1d)	Note: CCTV inspection of mainline sewers (storm, sanitary or combined). Cost based on linear meter inspection.						
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 rate. Service Call (Regular Hours - Maximum 1 Hour Total Labour)	\$83.45	\$74.67	y	\$84.38	1.1%	To achieve full cost recovery
			2a)	Service Call (After Hours - Maximum 1 Hour Total Labour)	\$150.75	\$135.26	y	\$152.84	1.4%	To achieve full cost recovery
			2b)							
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	\$555.95	\$492.00	y	\$555.96	0.0%	To achieve full cost recovery
			3a)	Complete Sewer Lateral Investigation - Regular Hours	\$663.30	\$587.00	y	\$663.31	0.0%	To achieve full cost recovery
			3b)	Partial Sewer Lateral Investigation - After Hours	\$328.85	\$291.00	y	\$328.83	0.0%	To achieve full cost recovery
			3c)	Partial Sewer Lateral Cleaning - Regular Hours	\$379.70	\$336.00	y	\$379.68	0.0%	To achieve full cost recovery
			3d)	Partial Sewer Lateral Cleaning - After Hours	\$355.95	\$315.00	y	\$355.95	0.0%	To achieve full cost recovery
			3e)	Abandoned Sewer Lateral Investigation - Regular Hours	\$433.90	\$384.00	y	\$433.92	0.0%	To achieve full cost recovery
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
			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. 1/2 Hour Additional Labour (Regular Hours) - Wastewater Collection 1/2 Hour Additional Labour (After Hours) - Wastewater Collection	\$43.30	\$38.77	y	\$43.81	1.2%	To achieve full cost recovery
			5b)		\$56.45	\$50.66	y	\$57.25	1.4%	To achieve full cost recovery

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For general inquiries, please call (905) 546-4426 between 8:30am - 4:30pm

2018 PROPOSED USER FEES AND CHARGES

PUBLIC WORKS
HAMILTON WATER

Dept ID	Account #	Ref #	Service Offered	2017 including HST (if applicable)	2018 Proposed Fee	HST (y/n)	2018 including HST (if applicable)	% Fee Change	Basis for Fee Increase or Decrease
LABORATORY SERVICES									
Inorganic Tests:									
510250	45519	1	Solids						
		1a)	Total Suspended Solids (TSS)	\$24.50	\$21.70	y	\$24.52	0.0%	Current fee achieves full cost recovery
		1b)	TSS plus Volatile Suspended Solids (VSS)	\$24.50	\$21.70	y	\$24.52	0.0%	Current fee achieves full cost recovery
		1c)	Total Solids (TS)	\$20.45	\$18.10	y	\$20.45	0.0%	Current fee achieves full cost recovery
		1d)	TS plus Volatile Solids (VS)	\$20.70	\$18.30	y	\$20.68	0.0%	Current fee achieves full cost recovery
		2	Skalar						
		2a)	Total Cyanide	\$35.50	\$31.40	y	\$35.48	0.0%	Current fee achieves full cost recovery
		2b)	Phenolics	\$34.90	\$30.90	y	\$34.92	0.0%	Current fee achieves full cost recovery
		2c)	Total Kjeldhal Nitrogen (TKN)	\$35.50	\$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	\$36.50	\$32.30	y	\$36.50	0.0%	Current fee achieves full cost recovery
		2f)	Total Organic Carbon	\$36.50	\$32.30	y	\$36.50	0.0%	Current fee achieves full cost recovery
		2g)	Reactive Silica	\$31.10	\$27.50	y	\$31.08	0.0%	Current fee achieves full cost recovery
		3	Ion Chromatography (IC Scan)	\$56.95	\$50.40	y	\$56.95	0.0%	Current fee achieves full cost recovery
		4	PC Titrant						
		4a)	pH	\$17.05	\$15.35	y	\$17.35	1.7%	To achieve full cost recovery
		4b)	Alkalinity	\$16.95	\$15.20	y	\$17.18	1.3%	To achieve full cost recovery
		4c)	Conductivity	\$17.05	\$15.20	y	\$17.18	0.7%	To achieve full cost recovery
		4d)	Fluoride	\$26.90	\$23.80	y	\$26.89	0.0%	Current fee achieves full cost recovery
		5	Turbidity	\$26.80	\$23.70	y	\$26.78	0.0%	Current fee achieves full cost recovery
		6	UV Transmittance	\$28.60	\$25.30	y	\$28.59	0.0%	Current fee achieves full cost recovery
		7	Color Apparent	\$23.40	\$20.70	y	\$23.39	0.0%	Current fee achieves full cost recovery
		8	Color True	\$23.40	\$20.70	y	\$23.39	0.0%	Current fee achieves full cost recovery
		9	Chemical Oxygen Demand (COD)	\$42.85	\$37.90	y	\$42.83	0.0%	Current fee achieves full cost recovery
		10	Biochemical Oxygen Demand (BOD)	\$42.60	\$37.70	y	\$42.60	0.0%	Current fee achieves full cost recovery
		11	Volatile Acid	\$42.15	\$37.30	y	\$42.15	0.0%	Current fee achieves full cost recovery
			Microbiology Tests:						
510250	45519	12	Total Coliform/E coli/Total Background Coliform (DC)	\$24.75	\$21.90	y	\$24.75	0.0%	Current fee achieves full cost recovery
510250	45519	13	EC (mFC-BIG)	\$27.35	\$24.20	y	\$27.35	0.0%	Current fee achieves full cost recovery
510250	45519	14	Heterotrophic Plate Count	\$28.15	\$24.90	y	\$28.14	0.0%	Current fee achieves full cost recovery
510250	45519	15	Micro Examination	\$130.50	\$115.50	y	\$130.52	0.0%	Current fee achieves full cost recovery
510250	45519		Metals:						
510250	45519	16	Hydride Generation						
510250	45519	16a)	Arsenic	\$51.55	\$45.60	y	\$51.53	0.0%	Current fee achieves full cost recovery
510250	45519	16b)	Antimony	\$51.55	\$45.60	y	\$51.53	0.0%	Current fee achieves full cost recovery
510250	45519	16c)	Selenium	\$51.55	\$45.60	y	\$51.53	0.0%	Current fee achieves full cost recovery
510250	45519	17	ICP						
510250	45519	17a)	ICP Scan (Wastewater)	\$60.10	\$53.20	y	\$60.12	0.0%	Current fee achieves full cost recovery
510250	45519	17b)	Total Phosphorous	N/A	\$25.55	y	\$28.87		New test for 2018
510250	45519	17c)	Total Dissolved Phosphorous	N/A	\$25.55	y	\$28.87		New test for 2018
510250	45519	18	ICP MS						
510250	45519	18a)	ICP MS Scan	N/A	\$53.75	y	\$60.74		New test for 2018
510250	45519	19	AA						
510250	45519	19a)	Lead	\$39.80	\$35.20	y	\$39.78	0.0%	Current fee achieves full cost recovery
510250	45519	19b)	Cadmium	\$39.80	\$35.20	y	\$39.78	0.0%	Current fee achieves full cost recovery
510250	45519	19c)	Mercury	\$51.65	\$45.70	y	\$51.64	0.0%	Current fee achieves full cost recovery

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2018 PROPOSED USER FEES AND CHARGES

**PUBLIC WORKS
HAMILTON WATER**

Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2017 including HST (if applicable)	2018 Proposed Fee	HST (Y/n)	2018 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	\$312.00	\$324.00	n	\$324.00	3.8%	To achieve full cost recovery
14-090	516175	41314	2	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 m ³) or any part thereof	\$47.25	\$48.20	n	\$48.20	2.0%	To achieve full cost recovery
14-090	516175	41314	2a)	greater than 1000 (4.54 m ³) but less than or equal to 3500 imperial gallons (15.9m ³)	\$47.25	\$48.20	n	\$48.20	2.0%	Has to remain a multiple of \$48.20
14-090	516175	41314	2b)	greater than 3500 (15.9 m ³) but less than or equal to 5000 imperial gallons (22.7 m ³)	\$94.50	\$96.39	n	\$96.39	2.0%	Has to remain a multiple of \$48.20
14-090	516175	41314	2c)	greater than 5000 (22.7 m ³) but less than or equal to 8000 imperial gallons (36.3 m ³)	\$141.75	\$144.59	n	\$144.59	2.0%	Has to remain a multiple of \$48.20
14-090	516175	41314	2d)	greater than 8000 (36.3 m ³) but less than or equal to 10000 imperial gallons (45.43 m ³)	\$189.00	\$192.78	n	\$192.78	2.0%	Has to remain a multiple of \$48.20
14-090	516175	41314	2e)	greater than 10000 imperial gallons (45.43 m ³)			n			
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	\$47.25	\$48.20	n	\$48.20	2.0%	To achieve full cost recovery
14-090	516175	41314	3a)	up to 1000 imperial gallons (4.54 m ³) or any part thereof	\$47.25	\$48.20	n	\$48.20	2.0%	Has to remain a multiple of \$48.20
14-090	516175	41314	3b)	greater than 1000 (4.54 m ³) but less than or equal to 3500 imperial gallons (15.9m ³)	\$94.50	\$96.39	n	\$96.39	2.0%	Has to remain a multiple of \$48.20
14-090	516175	41314	3c)	greater than 3500 (15.9 m ³) but less than or equal to 5000 imperial gallons (22.7 m ³)	\$141.75	\$144.59	n	\$144.59	2.0%	Has to remain a multiple of \$48.20
14-090	516175	41314	3d)	greater than 5000 (22.7 m ³) but less than or equal to 8000 imperial gallons (36.3 m ³)	\$236.25	\$240.98	n	\$240.98	2.0%	Has to remain a multiple of \$48.20
14-090	516175	41314	3e)	greater than 8000 (36.3 m ³) but less than or equal to 10000 imperial gallons (45.43 m ³)	\$283.50	\$289.17	n	\$289.17	2.0%	Has to remain a multiple of \$48.20

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2018 PROPOSED USER FEES AND CHARGES

PUBLIC WORKS
HAMILTON WATER

Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2017 HST including (if applicable)	2018 Proposed Fee	HST (y/n)	2018 including HST (if applicable)	% Fee Change	Basis for Fee Increase or Decrease
14-090	516175	41314	4	Holding Tanks for Recreational Vehicles Note: Cost for Recreational Vehicles (RVs) to dump sewer waste at the Mountain Transfer Station	\$8.50	\$8.50	n	\$8.50	0.0%	Rounded for cash handling purposes
14-090	516080	41315	5	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	\$0.7532	\$0.7683	n	\$0.77	2.0%	To achieve full cost recovery
14-090	516080	41315	5a)	Biochemical Oxygen Demand (charge per kg)	\$0.6025	\$0.6146	n	\$0.61	2.0%	To achieve full cost recovery
14-090	516080	41315	5b)	Total suspended solids (charge per kg)	\$0.6326	\$0.6453	n	\$0.65	2.0%	To achieve full cost recovery
14-090	516080	41315	5c)	Oil & grease (animal/vegetable) (charge per kg)	\$2.2935	\$2.3394	n	\$2.34	2.0%	To achieve full cost recovery
14-090	516080	41315	5d)	Total Kjeldahl Nitrogen (charge per kg)	\$1.6132	\$1.6455	n	\$1.65	2.0%	To achieve full cost recovery
14-090	516080	41315	5e)	Total Phosphorus (charge per kg)			n			
14-090	516080	41317	6	Surcharge Discharge Fee (charge per m3)	\$1.54	\$1.61	n	\$1.61	4.5%	Equal to variable wastewater rate increase
14-090	510260	45519	7	Application Fees for Sewer Discharge Permits NOTE: Fee to be paid upon application for Sewer Discharge Permit	\$640.70	\$605.00	y	\$683.65	6.7%	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%	Decrease due to difficulty collecting \$1500 as deposit from users without PO #
14-090	510260	45519	7b)	Wastewater Characterization deposit (optional)	\$307.35	\$284.00	y	\$320.92	4.4%	To achieve full cost recovery
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)	\$364.00	\$416.00	n	\$416.00	14.3%	Lab/equip. costs up in 2018. Previous 2015, 2012
14-090	510260	45532	8a)	Overstrength Discharge Permit (charged quarterly)	\$364.00	\$416.00	n	\$416.00	14.3%	Lab/equip. costs up in 2018. Previous 2015, 2012
14-090	510260	45532	8b)	Sanitary Discharge Permit (charged quarterly)	\$364.00	\$416.00	n	\$416.00	14.3%	Lab/equip. costs up in 2018. Previous 2015, 2012
14-090	510260	45532	8c)	Chloride Discharge Permit (charged quarterly)	\$859.00	\$1,022.50	n	\$1,022.50	19.0%	Lab/equip. costs up in 2018. Previous 2015, 2012
14-090	510260	45532	8d)	Compliance Discharge Permit (charged quarterly)	\$859.00	\$1,022.50	n	\$1,022.50	19.0%	Lab/equip. costs up in 2018. Previous 2015, 2012
14-090	510260	45532	8e)	Conditional Discharge Permit (charged quarterly)	\$156.95	\$144.90	y	\$163.74	4.3%	Current fee achieves full cost recovery
14-090	510260	45519	9	Information Requests Note: Fee per property for records search related to Sewer Use By-law historical violations						

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2018 PROPOSED USER FEES AND CHARGES

**PUBLIC WORKS
HAMILTON WATER**

Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2017 Including HST (if applicable)	2018 Proposed Fee	HST (Y/N)	2018 including HST (if applicable)	% Fee Change	Basis for Fee Increase or Decrease
14-090	510260	45532	10	Wastewater Sampling (optional) Note: Per unit costs to conduct wastewater sampling to determine permit conditions and limits	\$1.30	\$1.17	Y	\$1.32	1.7%	To achieve full cost recovery
			10a)	Wastewater Sampling Vehicle Fee (per kilometer)	\$33.90	\$36.00	Y	\$40.68	20.0%	Current fee achieves full cost recovery/equip. updated
			10b)	Wastewater Sampling Equipment Fee (per day)	\$51.10	\$46.33	Y	\$52.35	2.5%	Current fee achieves full cost recovery
			10c)	Wastewater Sampling Technician Fee (per hour) Mon - Fri	\$76.60	\$69.49	Y	\$78.52	2.5%	Current fee achieves full cost recovery
			10d)	Wastewater Sampling Technician Fee (per hour) Sat		\$92.65	Y	\$104.69		Current fee achieves full cost recovery
			10e)	Wastewater Sampling Technician Fee (per hour) Sun	\$102.15		Y			Current fee achieves full cost recovery

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2018 PROPOSED USER FEES AND CHARGES

PUBLIC WORKS
HAMILTON WATER

Dept. By-Law #	Dept ID	Account #	Ref #	Service Offered	2017 including HST (if applicable)	2018 Proposed Fee	HST (y/n)	2018 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	\$423.20	\$374.50	y	\$423.19	0.0%	Current fee achieves full cost recovery
03-272	510260	45532	2	Annual Administration Fee	\$659.00	\$693.30	y	\$783.43	18.9%	To achieve full cost recovery

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**SOURCE OF CAPITAL FINANCING
2018 to 2027 RATE PROGRAM CAPITAL BUDGET
\$(000'S)**

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total 2018 to 2027
TOTAL RATE PROGRAM	219,277	260,017	300,528	158,736	138,525	128,247	140,360	165,237	160,429	243,649	1,915,005
Capital Program											
Source of Funding											
Subsidy/Other Revenue	49,792	70,807	74,202	1,556	75	75	75	105	75	75	196,837
Development Charges	25,522	43,138	69,089	36,602	24,784	21,048	26,085	35,423	24,711	99,545	405,947
Reserves & Other Internal Sources	36,376	26,140	22,210	640	640	640	640	640	640	640	89,206
Contribution from Operating	90,972	93,091	94,722	96,865	106,026	106,484	113,560	120,069	127,003	143,389	1,092,181
External Debt	16,615	26,841	40,305	23,073	7,000	-	-	9,000	8,000	-	130,834
Total	219,277	260,017	300,528	158,736	138,525	128,247	140,360	165,237	160,429	243,649	1,915,005

**CITY OF HAMILTON
2018 - 2027 WATER / WASTEWATER / STORM CAPITAL FINANCING PLAN
(\$'s)**

Restated	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018 - 2027
NET EXPENDITURES FORECAST												
WASTEWATER (NET)	28,197,000	45,474,000	43,829,000	75,056,000	59,569,000	51,790,000	45,750,000	46,550,000	53,105,000	59,705,000	75,500,000	556,328,000
WATER (NET)	58,771,000	53,597,000	67,448,000	50,856,000	53,754,000	54,091,000	53,919,000	55,565,000	71,419,000	66,453,000	60,494,000	587,596,000
STORM (NET)	10,959,000	8,516,000	8,655,000	9,115,000	6,615,000	7,145,000	6,815,000	11,445,000	4,545,000	8,845,000	7,395,000	79,091,000
TOTAL NET EXPENDITURES	97,927,000	107,587,000	119,932,000	135,027,000	119,938,000	113,026,000	106,484,000	113,560,000	129,069,000	135,003,000	143,389,000	1,223,015,000
SOURCE OF FINANCING												
DEBT ISSUES	14,872,000	16,615,000	26,841,000	40,305,000	23,073,000	7,000,000	0	0	9,000,000	8,000,000	0	130,834,000
TRANSFER FROM OPERATING	83,055,000	90,972,000	93,091,000	94,722,000	96,865,000	106,026,000	106,484,000	113,560,000	120,069,000	127,003,000	143,389,000	1,092,181,000
TOTAL CAPITAL FINANCING	97,927,000	107,587,000	119,932,000	135,027,000	119,938,000	113,026,000	106,484,000	113,560,000	129,069,000	135,003,000	143,389,000	1,223,015,000
OPERATING BUDGET IMPACT												
TRANSFER FROM OPERATING	83,055,000	90,972,000	93,091,000	94,722,000	96,865,000	106,026,000	106,484,000	113,560,000	120,069,000	127,003,000	143,389,000	1,092,181,000
DC EXEMPTION FUNDING	7,400,000	9,000,000	8,000,000	7,000,000	6,890,000	6,755,000	6,620,000	6,620,000	6,620,000	6,620,000	6,620,000	70,745,000
DEBT CHARGES (NET)	18,680,434	17,107,544	23,317,670	30,653,240	35,617,863	36,769,126	36,812,483	36,513,532	36,645,151	37,167,223	35,856,639	326,460,471
TOTAL CAPITAL FINANCING COSTS	109,135,434	117,079,544	124,408,670	132,375,240	139,372,863	149,550,126	149,916,483	156,693,532	163,334,151	170,790,223	185,866,639	1,489,386,471

CITY OF HAMILTON
2018 - 2027 CAPITAL FINANCING CHARGES - RATE PROGRAMS
 (\$'s)

	Restated 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018 - 2027
Wastewater												
Existing External Debt Charges	8,024,663	7,012,631	6,866,188	6,726,146	6,578,946	6,435,160	6,246,581	6,066,183	5,909,984	5,766,048	5,238,995	62,836,861
Existing - Recovery from DC's	-108,409	-113,893	-113,505	-113,130	-112,730	-112,342	-65,884	-19,434	-19,038	-18,650	-18,263	-706,869
New External Debt Charges - Funded from Rates	1,314,685	830,868	2,492,605	5,312,425	7,905,924	8,510,472	8,510,472	8,510,472	8,510,472	8,510,472	8,510,472	67,604,651
New External Debt Charges - Funded from DC's	791,192	893,797	3,256,730	7,766,553	11,609,024	13,063,983	14,368,326	15,656,621	16,531,666	16,993,462	20,364,052	120,504,213
Recovery from DC's	-791,192	-893,797	-3,256,730	-7,766,553	-11,609,024	-13,063,983	-14,368,326	-15,656,621	-16,531,666	-16,993,462	-20,364,052	-120,504,213
Contribution to Capital	13,325,000	45,474,000	43,829,000	51,015,000	47,019,000	51,790,000	45,750,000	46,550,000	53,105,000	59,705,000	75,500,000	519,737,000
DC Exemption Funding	3,870,000	4,590,000	4,080,000	3,570,000	3,513,900	3,445,050	3,376,200	3,376,200	3,376,200	3,376,200	3,376,200	36,079,950
Subtotal	26,425,939	57,793,607	57,154,288	66,510,440	64,905,039	70,088,339	63,817,368	64,473,421	70,882,618	77,339,069	92,607,403	685,551,594
% Incr (Decr) from Previous Year	-48%	119%	-1%	16%	-2%	8%	-9%	1%	10%	9%	20%	
Water												
Existing External Debt Charges	7,279,065	6,594,856	6,445,528	6,303,991	6,162,052	6,018,878	5,865,632	5,708,996	5,563,907	5,421,422	4,262,949	58,348,209
Existing - Recovery from DC's	-24,584	-24,584	-24,584	-24,584	-24,584	-24,584	-12,292	0	0	0	0	-135,210
New External Debt Charges - Funded from Rates	879,272	1,701,628	5,597,483	9,377,679	11,470,554	12,314,656	12,651,854	12,651,854	13,085,395	13,904,304	14,289,673	107,045,082
New External Debt Charges - Funded from DC's	1,753,140	1,152,058	3,670,662	7,032,897	9,534,835	10,221,792	10,435,318	10,717,089	11,988,854	13,618,742	14,912,493	93,284,740
Recovery from DC's	-1,753,140	-1,152,058	-3,670,662	-7,032,897	-9,534,835	-10,221,792	-10,435,318	-10,717,089	-11,988,854	-13,618,742	-14,912,493	-93,284,740
Contribution to Capital	58,771,000	36,982,000	40,607,000	36,642,000	43,231,000	47,091,000	53,919,000	55,565,000	62,419,000	58,453,000	60,494,000	495,403,000
DC Exemption Funding	2,800,000	2,547,000	2,264,000	1,981,000	1,949,870	1,911,665	1,873,460	1,873,460	1,873,460	1,873,460	1,873,460	20,020,835
Subtotal	69,704,753	47,800,901	54,889,428	54,280,086	62,788,891	67,311,615	74,297,654	75,799,310	82,941,762	79,652,186	80,920,083	680,681,916
% Incr (Decr) from Previous Year	46%	-31%	15%	-1%	16%	7%	10%	2%	9%	-4%	2%	
Storm												
Existing External Debt Charges	804,345	651,022	639,748	598,580	586,991	575,742	564,542	553,457	541,984	530,746	519,497	5,762,306
Existing - Recovery from DC's	-17,667	-24,363	-23,929	-23,509	-23,061	-22,627	-22,193	-21,768	-21,325	-20,890	-20,456	-224,122
New External Debt Charges - Funded from Rates	529,064	479,378	1,438,135	2,495,643	3,073,772	3,073,772	3,073,772	3,073,772	3,073,772	3,073,772	3,073,772	25,929,562
New External Debt Charges - Funded from DC's	938,642	708,743	2,043,177	3,338,693	4,169,004	4,489,974	4,810,944	5,131,915	5,452,885	5,773,855	6,094,826	42,014,016
Recovery from DC's	-938,642	-708,743	-2,043,177	-3,338,693	-4,169,004	-4,489,974	-4,810,944	-5,131,915	-5,452,885	-5,773,855	-6,094,826	-42,014,016
Contribution to Capital	10,959,000	8,516,000	8,655,000	7,065,000	6,615,000	7,145,000	6,815,000	11,445,000	4,545,000	8,845,000	7,395,000	77,041,000
DC Exemption Funding	730,000	1,863,000	1,656,000	1,449,000	1,426,230	1,398,285	1,370,340	1,370,340	1,370,340	1,370,340	1,370,340	14,644,215
Subtotal	13,004,742	11,485,037	12,364,954	11,584,713	11,678,932	12,170,172	11,801,461	16,420,801	9,509,771	13,798,968	12,338,153	123,152,961
% Incr (Decr) from Previous Year	44%	-12%	8%	-6%	1%	4%	-3%	39%	-42%	45%	-11%	
TOTAL FINANCING CHARGES	109,135,434	117,079,544	124,408,670	132,375,240	139,372,863	149,550,126	149,916,483	156,693,532	163,334,151	170,790,223	185,865,639	1,489,386,471
% Incr (Decr) from Previous Year		7%	6%	6%	5%	7%	0%	5%	4%	5%	9%	

**SOURCE OF CAPITAL FINANCING
2018 to 2027 WATER PROGRAM CAPITAL BUDGET
\$(000'S)**

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total 2018 to 2027
WATERWORKS											
Capital Program	66,570	82,358	81,170	68,493	59,235	55,377	62,410	97,582	82,224	78,249	733,668
Source of Funding											
Subsidy/Other Revenue	1,652	-	223	1,481	-	-	-	30	-	-	3,386
Development Charges	8,424	13,770	29,451	12,618	4,504	818	6,205	25,493	15,131	17,115	133,529
Reserves & Other Internal Sources	2,897	1,140	640	640	640	640	640	640	640	640	9,157
Contribution from Operating	36,982	40,607	36,642	43,231	47,091	53,919	55,565	62,419	58,453	60,494	495,403
External Debt	16,615	26,841	14,214	10,523	7,000	-	-	9,000	8,000	-	92,193
Total	66,570	82,358	81,170	68,493	59,235	55,377	62,410	97,582	82,224	78,249	733,668

CITY OF HAMILTON
WATER SYSTEM
2018 CAPITAL BUDGET PROJECT LIST
(000's)

City Ward	Project Number	Project Description	Gross Costs	Grants & Subsidies	Other External Revenues	Net Costs	Dev Charges	Reserves	WIP Reserves	Financing Sources				WIP Debt
										WIP Other	Funding Required	From Operating	Debt Own	
Rehabilitation, Replacement & Upgrade Projects (SAM)														
City Wide	4031814405	Contaminated Soil & Rock Disposal Program	100	-	-	100	-	-	-	-	100	100	-	-
City Wide	5141455425	Prestressed Concrete Cylinder Pipe Condition Assessment Inspection	500	94	-	406	-	-	-	-	406	406	-	-
4	5141641226	Centralized Water and WW Operations Centre (CASH FLOWED)	1,000	-	-	1,000	-	-	-	1,000	1,000	-	-	-
14, 15	5141667423	Freeton Well (FDF01) Capacity Increase	1,100	-	-	1,100	1,022	-	-	78	78	-	-	-
City Wide	5141760754	Kenilworth Transmission Watermain Renewal	2,200	-	-	2,200	-	-	-	2,200	200	2,000	-	-
City Wide	5141766421	Woodward WTP Fluoride Building HVAC	300	-	-	300	-	-	-	300	300	-	-	-
City Wide	5141811101	Road Restoration Program	5,400	-	-	5,400	-	-	-	5,400	5,400	-	-	-
City Wide	5141849555	QA-QC Service Contract Program	110	-	-	110	-	-	-	110	110	-	-	-
City Wide	5141851810	Fleet Additions	580	-	-	580	-	-	-	580	580	-	-	-
City Wide	5141855556	Mapping Update Program	40	-	-	40	-	-	-	40	40	-	-	-
City Wide	5141855851	Water Efficiency Plan/Program	150	-	-	150	-	-	-	150	150	-	-	-
City Wide	5141857626	Critical Watermain Inspection Program	330	75	-	255	-	-	-	255	255	-	-	-
City Wide	5141857627	Fennell Trunkmain Inspection	700	-	-	700	-	-	-	700	700	-	-	-
City Wide	5141857628	Saltfleet Trunkmain Inspection	550	-	-	550	-	-	-	550	550	-	-	-
City Wide	5141860080	Valve Replacement Program	1,000	-	-	1,000	-	-	-	1,000	1,000	-	-	-
City Wide	5141860577	Metallic Watermain Condition Assessment Program	700	150	-	550	-	-	-	550	550	-	-	-
City Wide	5141860711	PW Capital Water Consumption Program	200	-	-	200	-	-	-	200	200	-	-	-
City Wide	5141860750	Unscheduled Valve, Hydrant, Watermain & Misc Water Replace Program	700	-	-	700	-	-	-	700	700	-	-	-
1, 2	5141861300	Barton - Queen to Locke	100	-	-	100	-	-	-	100	100	-	-	-
2	5141861300	Mulberry - Bay to James	700	-	-	700	-	-	-	700	700	-	-	-
City Wide	5141861502	Water Meter - Installation/Replacement/Repair - General Maintenance	2,800	-	-	2,800	-	640	-	-	2,160	-	-	-
City Wide	5141862078	Substandard Water Service Replacement Program	2,750	-	-	2,750	-	-	-	2,750	2,750	-	-	-
City Wide	5141871074	Contingency for Unscheduled Works Program	100	-	-	100	-	-	-	100	100	-	-	-
City Wide	5141895956	Water Distribution Model	350	-	-	350	-	-	-	350	-	-	-	-
Sub-Total Rehabilitation, Replacement & Upgrade Projects (SAM)			22,460	319	-	22,141	1,022	640	-	350	20,129	18,129	2,000	-
Projects Coordinated with Roads Program (SAM)														
City Wide	4411806202	Coordinated Road and Subsurface Works - Central Park	560	-	-	560	-	-	-	-	560	560	-	-
2	4411806202	Sheaffe / Cannon / Caroline / Railway / Mill / Harriet (Central Park)	1,100	-	-	1,100	-	-	-	1,100	1,100	-	-	-
8	5141571301	Rymal W - Garth to West 5th	1,950	-	-	1,950	-	-	-	1,950	195	1,755	-	-
2	5141771301	Watermain Replacement under CP Tracks at Ferguson	200	-	-	200	-	-	-	200	200	-	-	-
City Wide	5141870000	Coordinated Road and Subsurface Works	4,340	-	-	4,340	-	-	-	4,340	4,340	-	-	-
8	5141871301	Columbia / Hudson / Leedale / Marcus / Stacey / Verona	1,290	-	-	1,290	-	-	-	1,290	130	1,160	-	-
2	5141871301	Ferguson/Foster/Walnut/Patrick	200	-	-	200	-	-	-	200	-	-	-	-
7	5141871301	Mackenzie - East 27th to Upper Sherman (Burkholme Neighbourhood)	190	-	-	190	-	-	-	190	190	-	-	-
6	5141871301	Mohawk - Upper Ottawa to Upper Kenilworth	1,450	-	-	1,450	-	-	-	1,450	145	1,305	-	-
8	5141871301	South Bend & Delmar (Buchanan Neighbourhood)	940	-	-	940	-	-	-	940	940	-	-	-
3	5141871301	Sipeley Neighbourhood (South) - Connaught / Balsam / Dunsmore	1,050	-	-	1,050	-	-	-	1,050	1,050	-	-	-
Sub-Total Projects Coordinated with Roads Program (SAM)			13,270	-	-	13,270	-	-	200	13,070	8,850	4,220	-	-

CITY OF HAMILTON
WATER SYSTEM
2018 CAPITAL BUDGET PROJECT LIST
(000's)

City Ward	Project Number	Project Description	Gross Costs	Grants & Subsidies	Other External Revenues	Net Costs	Dev Charges	Reserves	WIP Reserves	Financing Sources				WIP Debt	
										Funding Required	From Operating	Debt Own	WIP Other		
Treatment Plant/Outstation Projects (SAM)															
4	5141166110	Water Treatment Plant - Process Upgrades (CASH FLOWED)	6,290	-	-	6,290	-	-	-	-	5,740	-	-	5,740	-
5, 10, 11	5141267275	Stoney Creek Water Outstations Upgrades	500	-	-	500	-	-	-	500	-	-	-	-	-
4	5141269250	HVAC system Upgrades at New Environmental Laboratory and	220	-	-	220	-	-	-	220	-	-	-	-	-
1	5141567273	Main / Whitney Pumping Station Replacement and Decommissioning	280	-	-	280	-	-	-	280	-	-	-	-	-
14	5141666608	Lynden Additional Water Supply	1,320	-	-	1,320	-	-	-	1,320	-	-	-	1,200	-
10	5141667420	Ben Nevis & Dewitt (HD08A) Water Pumping Station Upgrades	880	-	-	880	-	-	-	880	-	-	-	-	-
15	5141767420	Carlisle Well Stations System Enhancements	500	-	-	500	-	-	-	500	-	-	-	-	-
14	5141767650	New Greensville Communal Well	110	-	-	110	-	-	-	110	-	-	-	-	-
City Wide	5141866713	Water Maintenance Capital Program	1,500	-	-	1,500	-	-	-	920	-	-	-	-	-
9	5141867651	HD007 Highland Rd Reservoir Upgrades	260	-	-	260	-	-	-	260	-	-	-	-	-
City Wide	5141867752	Water Outstation Inspections - Asset Management	660	-	-	660	-	-	-	660	-	-	-	-	-
15	5141895852	Carlisle Water System - Additional Water Storage (CASH FLOWED)	440	-	-	440	-	-	-	440	-	-	-	-	-
Sub-Total Treatment Plant/Outstation Projects (SAM)			12,960	-	-	12,960	-	-	-	11,830	-	-	4,890	6,940	-
Treatment Plant/Outstation Projects (WQI)															
City Wide	5141869075	City Environmental Lab Improvements Program	200	-	-	200	-	-	-	200	-	-	-	-	-
Sub-Total Treatment Plant/Outstation Projects (WQI)			200	-	-	200	-	-	-	200	-	-	200	-	-
Master Plans															
12	5141395354	PD18 (Ancaster) Elevated Reservoir (W-14) (CASH FLOWED)	60	-	-	60	30	-	-	-	30	-	-	-	-
11	5141495551	PD7 (Upper Stoney Creek/Glanbrook) Elevated Reservoir (W-23)	550	-	-	550	550	-	-	-	-	-	-	-	-
13	5141596152	PD11 (Governor's Road) Watermain Extension (W-05)	580	-	-	580	580	-	-	-	-	-	-	-	-
5	5141795850	Greenhill PS HD04B & HD05A Upgrades (W-28) (CASH FLOWED)	7,550	-	-	7,550	5,512	-	-	2,038	-	-	403	1,635	-
13, 15	5141796752	PD16 (Waterdown) Trunk Feedermain - PS HD016 (CASH FLOWED)	440	-	-	440	330	-	-	110	-	-	110	-	-
City Wide	5141855010	Water Systems Planning Program	300	-	-	300	-	-	-	70	-	-	230	-	-
Sub-Total Master Plans			9,480	-	-	9,480	7,002	-	-	70	-	-	773	1,635	-
Development/Extension Projects															
9	5141380370	Upper Mount Albion - Highland to approximately 410m S	400	-	-	400	400	-	-	-	-	-	-	-	-
6, 9	5141880886	Pritchard Rd - Connect Watermain from #355 to #601	110	-	-	110	-	-	-	110	-	-	110	-	-
Sub-Total Development/Extension Projects			510	-	-	510	400	-	-	110	-	-	110	-	-

CITY OF HAMILTON
 WATER SYSTEM
 2018 CAPITAL BUDGET PROJECT LIST
 (000's)

City Ward	Project Number	Project Description	Gross Costs	Grants & Subsidies	Other External Revenues	Net Costs	Dev Charges	Reserves	Financing Sources				
									WIP Reserves	WIP Other	Funding Required	From Operating	Debt Own
<u>Coordinated - Network Extension Projects</u>													
6, 9	5141860887	Multi-Area Employment Lands - W/M for Extension to Pritchard	70	-	-	70	-	-	-	70	70	-	-
		<i>Sub-Total Coordinated - Network Extension Projects</i>	70	-	-	70	-	-	-	70	70	-	-
<u>Coordinated Projects</u>													
City Wide	5141865777	LRT Corridor - Water Infrastructure Assessment and Approvals	220	-	-	220	-	-	-	220	220	-	-
		<i>Sub-Total Coordinated Projects</i>	220	-	-	220	-	-	-	220	220	-	-
<u>Energy Management</u>													
City Wide	5141866350	Water Treatment Plant Lighting Upgrade	200	20	-	180	-	-	-	180	180	-	-
		<i>Sub-Total Energy Management</i>	200	20	-	180	-	-	-	180	180	-	-
<u>Watermain Lining</u>													
City Wide	5141860072	Watermain Structural Lining	5,200	1,313	-	3,887	-	-	507	3,380	3,380	-	-
6	5141860072	Watermain Structural Lining - Site 1 (Sunning Hill)	2,000	-	-	2,000	-	-	-	2,000	180	1,820	-
		<i>Sub-Total Watermain Lining</i>	7,200	1,313	-	5,887	-	-	507	5,380	3,560	1,820	-
Total All Projects			66,570	1,652	-	64,918	8,424	640	2,257	53,597	36,982	16,615	-

**CITY OF HAMILTON
WATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		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	4031814405	Contaminated Soil & Rock Disposal Program	0	0	100	100	0	0	0	0	720	720	820	820	2018	Ongoing
City Wide	4031855522	State of the Infrastructure - Asset Management	0	0	0	0	100	100	100	100	700	700	900	900	2018	Ongoing
City Wide	5141455425	Prestressed Concrete Cylinder Pipe Condition Assessment	1,730	(51)	500	406	500	500	0	0	0	0	2,730	855	2014	2019
4	5141641226	Inspection Program Centralized Water and Wastewater Operations Centre (CASH FLOWED)	250	0	1,000	1,000	0	0	0	0	7,500	7,500	8,750	8,500	2016	2024
14, 15	5141667423	Freelon Well (FDF01) Capacity Increase	330	220	1,100	78	170	12	390	28	3,300	235	5,290	573	2016	2019
City Wide	5141760754	Kenilworth Transmission Watermain Renewal	200	200	2,200	2,200	0	0	0	0	0	0	2,400	2,400	2017	2018
City Wide	5141766421	Woodward WTP Fluoride Building HVAC	390	390	300	300	0	0	0	0	0	0	690	690	2017	2018
City Wide	5141811101	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	2018	Ongoing
City Wide	5141849555	QA-QC Service Contract Program	0	0	110	110	110	110	110	110	770	770	1,100	1,100	2018	Ongoing
City Wide	5141851810	Fleet Additions	0	0	580	580	300	300	0	0	0	0	880	880	2018	2019
City Wide	5141855556	Mapping Update Program	0	0	40	40	0	0	40	40	120	120	200	200	2016	Ongoing
City Wide	5141855851	Water Efficiency Plan/Program	0	0	150	150	108	108	110	110	840	840	1,208	1,208	2018	Ongoing
City Wide	5141857626	Critical Watermain Inspection Program	0	0	330	255	330	330	330	330	2,310	2,310	3,300	3,225	2018	Ongoing
City Wide	5141857627	Fennell Trunkmain Inspection	0	0	700	700	0	0	0	0	0	0	700	700	2018	2018
City Wide	5141857628	Salffleet Trunkmain Inspection	0	0	550	550	0	0	0	0	0	0	550	550	2018	2018
City Wide	5141860080	Valve Replacement Program	0	0	1,000	1,000	1,000	1,000	1,000	1,000	5,600	5,600	8,600	8,600	2018	Ongoing
City Wide	5141860577	Metallic Watermain Condition Assessment Program	0	0	700	550	700	700	700	700	4,900	4,900	7,000	6,850	2018	Ongoing
City Wide	5141860711	PW Capital Water Consumption Program	0	0	200	200	200	200	200	200	1,400	1,400	2,000	2,000	2018	Ongoing
City Wide	5141860750	Unscheduled Valve, Hydrant, Watermain & Misc Water Replace Program	0	0	700	700	2,000	2,000	2,000	2,000	14,000	14,000	18,700	18,700	2018	Ongoing
1, 2	5141861300	Barton - Queen to Locke	0	0	100	100	1,080	1,080	0	0	0	0	1,180	1,180	2018	2019
2	5141861300	Mulberry - Bay to James	0	0	700	700	0	0	0	0	0	0	700	700	2018	2018

**CITY OF HAMILTON
WATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		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	5141861300	Stand-Alone Watermain Replacement	0	0	0	0	0	0	0	0	6,490	6,490	6,490	6,490	2021	Ongoing
City Wide	5141861502	Water Meter - Installation/Replacement/Repair - General Maintenance	0	0	2,800	2,160	2,860	2,220	2,910	2,270	22,090	17,610	30,660	24,260	2018	Ongoing
City Wide	5141862073	Field Data Systems Program	0	0	0	0	0	0	100	100	300	300	400	400	2018	Ongoing
City Wide	5141862078	Substandard Water Service Replacement Program	0	0	2,750	2,750	2,750	2,750	2,750	2,750	14,750	14,750	23,000	23,000	2018	Ongoing
City Wide	5141871074	Contingency for Unscheduled Works Program	0	0	100	100	200	200	0	0	800	800	1,100	1,100	2018	Ongoing
City Wide	5141895956	Water Distribution Model	0	0	350	0	0	0	0	0	0	0	350	0	2018	2020
10	5141961300	PineLand/Teal/Community/Garden/South Service	0	0	0	0	100	100	1,860	1,860	0	0	1,960	1,960	2019	2020
7	5142161300	Edwina - Lawson to Berko & Berko - Edwina to Lawfield	0	0	0	0	0	0	0	0	360	360	360	360	2021	2021
1	5142461300	Bold - Queen to Locke	0	0	0	0	0	0	0	0	780	780	780	780	2024	2024
1	5142461300	Caroline - Herkimer to Robinson	0	0	0	0	0	0	0	0	390	390	390	390	2024	2024
1	5142561300	Amelia - Queen to West End	0	0	0	0	0	0	0	0	600	600	600	600	2024	2024
3	5142561300	Edward - Barnesdale to Lottridge	0	0	0	0	0	0	0	0	380	380	380	380	2025	2025
2	5142561300	Hess - Markland to Aberdeen	0	0	0	0	0	0	0	0	480	480	480	480	2025	2025
2	5142561300	John - Cannon to Barton	0	0	0	0	0	0	0	0	840	840	840	840	2025	2025
2	5142661300	Robinson - Hess to Park	0	0	0	0	0	0	0	0	1,050	1,050	1,050	1,050	2026	2026
4	5142761300	Edgemont - Main to King	0	0	0	0	0	0	0	0	70	70	70	70	2027	2028
			2,900	759	22,460	20,129	17,908	17,110	18,000	16,998	129,340	121,795	190,608	176,791		
Projects Coordinated with Roads Program																
City Wide	4411806202	Coordinated Road and Subsurface Works - Central Park	0	0	560	560	0	0	0	0	0	0	560	560	2018	Ongoing
2	4411806202	Sheaffe / Cannon / Caroline / Railway / Mill / Harriët (Central Park)	100	100	1,100	1,100	0	0	0	0	0	0	1,200	1,200	2017	2018
8	5141571301	Rymal W - Garth to West 5th	100	0	1,950	1,950	0	0	0	0	0	0	2,050	1,950	2015	2018
2	5141771301	Watermain Replacement under CP Tracks at Ferguson	50	50	200	200	0	0	0	0	0	0	250	250	2017	2018

**CITY OF HAMILTON
WATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year	
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net			
Projects Coordinated with Roads Program																	
City Wide	5141870000	Coordinated Road and Subsurface Works	0	0	4,340	4,340	5,730	5,730	3,290	3,290	44,760	44,760	58,120	58,120	2018	2018	Ongoing
8	5141871301	Columbia / Hudson / Leadale / Marcus / Stacey / Verona (Buchanan Neighbourhood)	0	0	200	200	1,700	1,700	0	0	0	0	1,900	1,700	2018	2019	2019
2	5141871301	Ferguson/Foster/Wainut/Patrick	0	0	190	190	0	0	0	0	0	0	190	190	2018	2018	2018
7	5141871301	Mackenzie - East 27th to Upper Sherman (Burkholme Neighbourhood)	0	0	1,450	1,450	0	0	0	0	0	0	1,450	1,450	2018	2018	2018
6	5141871301	Mohawk - Upper Ottawa to Upper Kenilworth	0	0	940	940	0	0	0	0	0	0	940	940	2018	2018	2018
8	5141871301	South Bend & Delmar (Buchanan Neighbourhood)	0	0	1,050	1,050	0	0	0	0	0	0	1,050	1,050	2018	2018	2018
3	5141871301	Stipeley Neighbourhood (South) - Connaught / Balasm / Dunsmore	0	0	0	0	0	0	0	0	61,390	61,390	61,390	61,390	2018	2018	Ongoing
City Wide	5141871301	Watermain Replacement Coordinated with Roads	0	0	0	0	420	420	0	0	0	0	420	420	2019	2019	2019
2	5141971301	Area Rating - Ferguson Ave N - Simcoe to Burlington	0	0	0	0	100	100	0	0	0	0	100	100	2019	2019	2019
13	5141971301	Baldwin / Court - West St. to Dundas St.	0	0	0	0	500	500	0	0	0	0	500	0	2019	2019	2019
4	5141971301	Brampton - Parkdale to Strathearne	0	0	0	0	1,650	1,650	0	0	0	0	1,650	1,650	2019	2019	2019
7	5141971301	Bruceedale - Upper Wentworth to Upper Sherman (Eastmount Neighbourhood)	0	0	0	0	510	510	0	0	0	0	510	510	2019	2019	2019
3	5141971301	Cheever - Barton to Birge and Birge - Cheever to Wentworth	0	0	0	0	350	350	0	0	0	0	350	350	2019	2019	2019
10	5141971301	Hewitson - Dupont to Barton	0	0	0	0	2,400	2,400	0	0	0	0	2,400	2,400	2019	2019	2019
1	5141971301	Locke - Herkimer to Main	0	0	0	0	650	650	0	0	0	0	650	650	2019	2019	2019
4	5141971301	Parkdale - Burlington to north end & Steel City Crt - Parkdale to 100m easterly	0	0	0	0	850	850	0	0	0	0	850	850	2019	2019	2019
4	5141971301	Roxborough - Kenilworth to Strathearn (Homeside Neighbourhood)	0	0	0	0	1,010	1,010	0	0	0	0	1,010	1,010	2019	2019	2019
2	5141971301	Sheaffe / Park / Mulberry (Central Neighbourhood (North))	0	0	0	0	0	0	3,060	3,060	0	0	3,060	3,060	2020	2020	2020
3	5142071301	Burlington & Industrial - Birch to Gage	0	0	0	0	0	0	0	0	0	0	0	0	2020	2020	2020

**CITY OF HAMILTON
WATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Projects Coordinated with Roads Program																
4	5142171301	Barton - Parkdale to Talbot	0	0	0	0	0	0	0	0	1,200	1,200	1,200	1,200	2021	2021
1, 13	5142171301	Osler - South St to West Park	0	0	0	0	0	0	0	0	1,000	1,000	1,000	1,000	2021	2022
3, 4	5142271301	Burlington & Industrial - Ottawa to Kenilworth	100	0	0	0	0	0	0	0	2,300	2,300	2,400	2,300	2022	2022
1	5142271301	Jones / Oxford / Tecumseh (Strathcona Neighbourhood)	0	0	0	0	0	0	0	0	900	900	900	900	2022	2022
1	5142371301	Florence/Morden/Napier/Nelson/Peel/Wellesley (Strathcona Neighbourhood)	0	0	0	0	0	0	0	0	800	800	800	800	2023	2023
7	5142471301	Fennell - Upper James to Upper Wellington	0	0	0	0	0	0	0	0	650	650	650	650	2024	2024
15	5142472304	Bridge 451 - Hwy 5 E, 120m e/o Mill St S	0	0	0	0	0	0	0	0	150	150	150	150	2024	2024
3	5142571301	Wilson - Wentworth to Sherman	0	0	0	0	0	0	0	0	900	900	900	900	2025	2025
3	5142671301	Sanford - Main to Cannon	0	0	0	0	0	0	0	0	1,500	1,500	1,500	1,500	2026	2026
			350	150	13,270	13,070	15,870	15,370	6,350	6,350	115,550	115,550	151,390	150,490		

Plant/Outstations Projects (SAM)

4	5141166110	Water Treatment Plant - Process Upgrades (CASH FLOWED)	8,150	3,813	6,290	5,740	10,800	10,800	3,990	3,990	97,750	70,870	126,980	95,213	2011	2026
5, 10, 11	5141267275	Stoney Creek Water Outstations Upgrades	3,890	0	500	500	0	0	0	0	0	0	4,390	500	2012	2018
4	5141269250	HVAC system Upgrades at New Environmental Laboratory and Administration Building	5,400	0	220	220	0	0	0	0	0	0	5,620	220	2012	2018
1	5141567273	Main / Whitney Pumping Station Replacement and Decommissioning	1,650	550	280	280	0	0	0	0	2,980	2,980	4,910	3,810	2015	2019
8	5141567520	Stone Church/Garth Water (HDR05) Reservoir	3,960	0	0	0	770	770	4,950	4,950	0	0	9,680	5,720	2015	2019
4	5141567575	High Lift Pumping Station (HLPS) Improvements - Phase 2 (CASH FLOWED)	880	220	0	0	0	0	550	550	4,940	4,940	6,370	5,710	2015	2019
14	5141666608	Lynden Additional Water Supply	3,250	910	1,320	1,320	0	0	0	0	0	0	4,570	2,230	2016	2018
10	5141667420	Ben Nevis & Dewitt (HD08A) Water Pumping Station Upgrades	1,710	460	880	880	0	0	0	0	0	0	2,590	1,340	2016	2018

**CITY OF HAMILTON
WATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year	
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net			
Plant/Outstations Projects (SAM)																	
12	5141867421	Glancaster Rd & Hwy 53 Pumping Station (HD018) Upgrades (CASH FLOWED)	6,040	4,400	0	6,210	6,210	0	0	0	0	0	0	12,250	10,610	2016	2018
15	5141767420	Carlisle Well Stations System Enhancements	440	440	500	0	0	0	0	0	0	0	0	940	940	2017	2018
14	5141767650	New Greensville Communal Well	390	390	110	3,410	3,410	0	0	0	0	0	0	3,910	3,910	2017	2018
City Wide	5141866711	Water Treatment Studies Program	0	0	0	250	250	0	0	1,000	1,000	1,000	1,250	1,250	1,250	2018	Ongoing
City Wide	5141866713	Water Maintenance Capital Program	0	0	1,500	920	2,000	2,000	2,000	2,000	14,000	14,000	19,500	19,500	18,920	2018	Ongoing
2	5141867420	St. Joseph's Tank Pulsation Dampener (HD002STK)	0	0	0	0	0	0	0	0	390	390	390	390	390	2021	2022
9	5141867651	HD007 Highland Rd Reservoir Upgrades	0	0	260	750	750	0	0	0	0	0	0	1,010	1,010	2018	2019
City Wide	5141867751	Water Outstation Upgrades - Asset Management Program	0	0	0	0	0	0	0	0	11,550	11,550	11,550	11,550	11,550	2021	Ongoing
City Wide	5141867752	Water Outstation Inspections - Asset Management	0	0	660	660	660	660	660	660	4,620	4,620	6,600	6,600	6,600	2018	Ongoing
15	5141895852	Carlisle Water Supply System - Additional Water Storage (CASH FLOWED)	0	0	440	1,320	1,320	4,400	4,400	4,400	0	0	0	6,160	6,160	2018	2020
			35,760	11,183	12,960	11,830	26,170	26,170	16,550	16,550	137,230	110,350	228,670	176,083			
Plant/Outstations Projects (WQI)																	
4	5141866150	GAC Replacement	0	0	0	0	0	0	0	0	4,950	4,950	4,950	4,950	4,950	2018	Ongoing
City Wide	5141869075	City Environmental Lab Improvements Program	0	0	200	300	300	530	530	530	630	630	1,660	1,660	1,660	2018	Ongoing
			0	0	200	200	300	530	530	530	5,580	5,580	6,610	6,610			
Master Plan - Horizontal Assets																	
12	5141396351	Garner Road Trunk Watermain - Southcote to Wilson (W-09)	530	0	0	0	0	0	0	0	0	0	530	0	0	2013	2029
13	5141596152	PD11 (Governor's Road) Watermain Extension (W-05)	540	0	580	0	0	0	0	0	0	0	1,120	0	0	2015	2018
13, 15	5141796752	PD16 (Waterdown) Trunk Feedermain - PS HD016 to Hwy 5 at Algonquin (W-25) (CASH FLOWED)	0	0	440	110	880	2,090	8,360	2,090	0	0	9,680	2,420	2,420	2017	2019

**CITY OF HAMILTON
WATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
Master Plan - Horizontal Assets																
1	5141896850	Locke St Trunk Watermain - Main to Batton (W-19)	0	0	0	0	350	0	3,470	0	0	0	3,820	0	2018	2019
11	5141996951	Binbrook Feedermain via Fletcher (W-30)	0	0	0	0	580	0	3,870	0	0	0	4,450	0	2019	2020
11	5142096250	Airport Lands External Water Servicing (Feedermain) (W-27)	0	0	0	0	0	0	1,080	0	17,510	0	18,590	0	2020	2025
6, 9	5142696250	HD07A Feedermain (W-22)	0	0	0	0	0	0	0	0	8,860	0	8,860	0	2026	2027
			1,070	0	1,020	110	1,810	220	16,780	2,090	26,370	0	47,050	2,420		
Master Plan - Vertical Assets																
12	5141395354	PD18 (Ancaster) Elevated Reservoir (W-14) (CASH FLOWED)	2,550	225	60	30	0	0	0	0	10,840	5,420	13,450	5,675	2013	2020
11	5141495551	PD7 (Upper Stoney Creek/Glanbrook) Elevated Reservoir (W-23)	1,440	0	550	0	0	0	6,960	0	0	0	8,950	0	2014	2019
13	5141595553	PS HD12A (Governors @ Huntingwood) Rebuild with Capacity Upgrade & Standby Power Installation (W-04)	720	0	0	0	2,530	0	110	0	0	0	3,360	0	2015	2019
13	5141695883	PS HD016 (York and Valley) Capacity Upgrade, Standby Power & Building Expansion (W-26) (CASH FLOWED)	3,710	302	0	0	3,040	302	0	0	0	0	6,750	604	2016	2019
5	5141795850	Greenhill PS HD04B & HD05A Upgrades (W-28) (CASH FLOWED)	720	444	7,550	2,038	6,950	1,876	5,400	1,458	0	0	20,620	5,816	2017	2020
City Wide	5141855010	Water Systems Planning Program	0	0	300	230	300	300	300	300	2,100	2,100	3,000	2,930	2018	Ongoing
11	5141995951	PS HD019 (Binbrook) Capacity Upgrade (W-20)	0	0	0	0	220	0	1,430	0	0	0	1,650	0	2019	2020
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	5142595552	P.S. HD07A - New District 7 (Elfrida area) Pumping Station (W-21)	0	0	0	0	0	0	0	0	5,580	0	5,580	0	2025	2028
			9,140	971	8,460	2,298	13,040	2,478	14,200	1,758	30,940	7,520	75,780	15,025		

Development/Extension Projects

**CITY OF HAMILTON
WATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year	
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net			
Development/Extension Projects																	
9	5141380370	Upper Mount Albion - Highland to approximately 410m S	80	0	400	0	0	0	0	0	0	0	0	480	0	2013	2018
11	5141564533	Upper Wentworth - South limit @ Hydro Corridor to Twenty	200	0	0	0	860	0	0	0	0	0	0	1,060	0	2015	2019
6, 9	5141880886	Pritchard Rd - Connect Watermain from #355 to #601	0	0	110	110	0	0	0	0	0	0	0	110	110	2018	2018
6, 9	5141880887	Multi-Area Employment Lands - W/M for Street A Extension to Pritchard (new road)	0	0	70	70	0	0	0	0	0	0	0	70	70	2018	2020
City Wide	5141896011	Intensification Infrastructure Upgrades Program - Water	0	0	0	0	400	200	0	0	1,600	800	2,000	1,000	2018	Ongoing	
1	5141980950	Frid St. Extension - McMaster Innovation Park to Chatham	0	0	0	0	400	400	0	0	0	0	400	400	2019	2019	
11	5141980982	Binbrook - Royal Winter/Binhaven to Fletcher	0	0	0	0	400	0	0	0	0	0	400	0	2019	2019	
11	5142080080	South Service Rd - Fruitland to Jones	0	0	0	0	0	0	1,280	0	0	0	1,280	0	2020	2020	
12	5142080082	Shaver - Kastura to Westview	0	0	0	0	0	0	600	400	0	0	600	400	2020	2020	
11	5142080088	Lewis - Barton to Hwy 8	0	0	0	0	0	0	500	0	0	0	500	0	2020	2020	
11	5142080220	RHBP - Twenty Rd Extension - Glover to Trinity Church	0	0	0	0	0	0	500	300	0	0	500	300	2020	2020	
10	5142180181	Dewitt CNR Tracks to Barton	0	0	0	0	0	0	0	0	610	0	610	0	2021	2021	
11	51422280280	RHBP - Nebo - 900m s/o Twenty to Dickenson	0	0	0	0	0	0	0	0	700	0	700	0	2022	2022	
11	51422280281	RHBP - Dartnall Road Extension - Twenty to Dickenson	0	0	0	0	0	0	0	0	750	0	750	0	2022	2022	
11	5142780784	RHBP - Dickenson - Nebo to 800m e/o Nebo	0	0	0	0	0	0	0	0	800	0	800	0	2027	2027	
			280	0	580	180	2,060	600	2,880	700	4,460	800	10,260	2,280			
Coordinated Projects																	
City Wide	5141855777	LRT Corridor - Water Infrastructure Assessment and Approvals	0	0	220	220	0	0	0	0	0	0	220	220	2018	2018	
			0	0	220	220	0	0	0	0	0	0	220	220			
Energy Management																	
City Wide	5141866350	Water Treatment Plant Lighting Upgrade	0	0	200	180	0	0	0	0	0	0	200	180	2018	2018	

**CITY OF HAMILTON
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2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
			0	0	200	180	0	0	0	0	0	0	200	180		
2	5141767422	New PD2 Water Pumping Station (CASH FLOWED)	500	500	0	0	0	0	880	880	12,100	12,100	13,480	13,480	2017	2021
			500	500	0	0	0	0	880	880	12,100	12,100	13,480	13,480		
Watermain Lining																
City Wide	5141860072	Watermain Structural Lining	0	0	5,200	3,380	5,200	5,200	3,500	3,500	42,000	42,000	55,900	54,080	2018	Ongoing
6	5141860072	Watermain Structural Lining - Site 1 (Sunning Hill)	0	0	2,000	2,000	0	0	0	0	0	0	2,000	2,000	2018	2018
13	5142060072	WM Structural Lining - Dundas Valley Watermain	0	0	0	0	0	0	1,500	1,500	0	0	1,500	1,500	2020	2020
			0	0	7,200	5,380	5,200	5,200	5,000	5,000	42,000	42,000	59,400	57,580		
Total Water System			50,000	13,563	66,570	53,597	82,358	67,448	81,170	50,856	503,570	415,695	783,668	601,159		

**SOURCE OF CAPITAL FINANCING
2018 to 2027 WASTEWATER PROGRAM CAPITAL BUDGET
\$(000'S)**

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total 2018 to 2027
WASTEWATER											
Capital Program	135,037	163,929	205,068	79,553	68,070	61,980	62,430	59,035	65,285	153,930	1,054,317
Source of Funding											
Subsidy/Other Revenue	46,096	70,732	73,904	-	-	-	-	-	-	-	190,732
Development Charges	11,028	25,368	34,538	19,984	16,280	16,230	15,880	5,930	5,580	78,430	229,248
Reserves & Other Internal Sources	32,439	24,000	21,570	-	-	-	-	-	-	-	78,009
Contribution from Operating	45,474	43,829	51,015	47,019	51,790	45,750	46,550	53,105	59,705	75,500	519,737
External Debt	-	-	24,041	12,550	-	-	-	-	-	-	36,591
Total	135,037	163,929	205,068	79,553	68,070	61,980	62,430	59,035	65,285	153,930	1,054,317

CITY OF HAMILTON
WASTEWATER SYSTEM
2018 CAPITAL BUDGET PROJECT LIST
(000's)

City Ward	Project Number	Project Description	Gross Costs	Grants & Subsidies	Other External Revenues	Net Costs	Dev Charges	Reserves	Financing Sources				From Operating	Debt Own	WIP Debt	
									WIP Reserves	WIP Other	Funding Required	WIP				
Rehabilitation, Replacement & Upgrade Projects (SAM)																
City Wide	4031814405	Contaminated Soil & Rock Disposal Program	100	-	-	100	-	-	-	-	-	-	-	100	-	-
4	5161641226	Centralized Water and Wastewater Operations Centre (CASH FLOWED)	1,000	-	-	1,000	-	-	-	-	-	-	-	1,000	-	-
6, 7	5161656351	Lawfield / Berrisfield Neighbourhoods	110	-	-	110	-	-	-	-	-	-	-	110	-	-
12	5161661434	Upsize Forcemain under Wilson Street (Wilson St & Rousseaux St)	50	-	-	50	-	-	-	-	-	-	-	50	-	-
15	5161718420	Grindstone Creek Utility Bridge	3,080	-	-	3,080	-	-	-	-	-	-	-	3,080	-	-
City Wide	5161811101	Road Restoration Program	1,800	-	-	1,800	-	-	-	-	-	-	-	1,800	-	-
City Wide	5161849555	QA-QC Service Contract Program	110	-	-	110	-	-	-	-	-	-	-	110	-	-
City Wide	5161855556	Mapping Update Program	40	-	-	40	-	-	-	-	-	-	-	40	-	-
City Wide	5161855640	Flow Monitoring Program	50	-	-	50	-	-	-	50	-	-	-	-	-	-
City Wide	5161855878	Forcemain Condition Assessment Program	300	-	-	300	-	-	-	-	-	-	-	300	-	-
City Wide	5161857545	Wastewater Computer Model Update & Maintenance	280	-	-	280	-	-	-	280	-	-	-	-	-	-
City Wide	5161860302	Emergency Repairs - Cross Connections Program	500	-	-	500	-	-	-	149	-	-	-	351	-	-
City Wide	5161860390	Wastewater System Lining Program	4,500	1,229	-	3,271	-	-	-	250	-	-	-	3,021	-	-
City Wide	5161860522	Sewer Lateral Management Program (WWC)	4,500	-	-	4,500	-	-	-	-	-	-	-	4,500	-	-
City Wide	5161860533	Trenchless Manhole Rehabilitation	40	-	-	40	-	-	-	-	-	-	-	40	-	-
City Wide	5161860574	Pre-Construction Mainline Condition Assessment	550	-	-	550	-	-	-	-	-	-	-	550	-	-
City Wide	5161860575	Mainline Sewer Condition Assessment Program	1,260	281	-	979	-	-	-	-	-	-	-	979	-	-
City Wide	5161860576	Sewer Lateral Condition Assessment Program	600	-	-	600	-	-	-	-	-	-	-	600	-	-
City Wide	5161860577	Mainline Sewer Condition Assessment for Compliance & Regulations	110	-	-	110	-	-	-	-	-	-	-	110	-	-
City Wide	5161860711	PW Capital Water Consumption Program	150	-	-	150	-	-	-	150	-	-	-	-	-	-
City Wide	5161860820	Open Cut Repairs for CIPP Program	550	-	-	550	-	-	-	-	-	-	-	550	-	-
City Wide	5161861444	Sewer Lateral Replace/Rehab Program	4,000	188	-	3,813	-	-	-	-	-	-	-	3,813	-	-
City Wide	5161861740	Unscheduled Manhole and Sewermain Replacement Program	320	-	-	320	-	-	-	-	-	-	-	320	-	-
11	5161862850	Eastern Interceptor Repair at the WWTP Aeration Tank	2,800	-	-	2,800	-	-	-	-	-	-	-	2,800	-	-
City Wide	5161871015	Sewer Lateral Replacement for Co-ordinated Projects	210	-	-	210	-	-	-	210	-	-	-	-	-	-
City Wide	5161871074	Contingency for Unscheduled Works Program	100	-	-	100	-	-	-	-	-	-	-	100	-	-
City Wide	5162166810	Woodward WWTP - New Maintenance Building (CASH FLOWED)	500	-	-	500	-	-	-	-	-	-	-	500	-	-
Sub-Total Rehabilitation, Replacement & Upgrade Projects (SAM)			27,610	1,698	-	25,912	-	-	-	1,089	24,823	24,823	-	-	-	-
Projects Coordinated with Roads Program (SAM)																
3	5161861825	Stipeley Neighbourhood (South) - Connaught / Balasm / Dunsmore	80	-	-	80	-	-	-	-	-	-	-	80	-	-
5, 9	5161871842	Locke St Sewer Rehabilitation	2,090	-	-	2,090	-	-	-	-	-	-	-	2,090	-	-
6	5161872840	Mohawk - Upper Ottawa to Upper Kenilworth	1,000	-	-	1,000	-	-	-	-	-	-	-	1,000	-	-
Sub-Total Projects Coordinated with Roads Program (SAM)			3,170	-	-	3,170	-	-	-	-	3,170	3,170	-	-	-	-

CITY OF HAMILTON
WASTEWATER SYSTEM
2018 CAPITAL BUDGET PROJECT LIST
(000's)

City Ward	Project Number	Project Description	Gross Costs	Grants & Subsidies	Other External Revenues	Net Costs	Dev Charges	Reserves	WIP Reserves	Financing Sources			From Operating	Debt Own	WIP Debt
										WIP Other	Funding Required	WIP			
Treatment Plant/Outstation Projects (SAM)															
13	5161266213	Dundas WWTP Improvements (CASH FLOWED)	(1,400)	-	-	(1,400)	-	-	-	-	-	(1,400)	(1,400)	-	-
13	5161267273	Dundas Wastewater Outstations Upgrades	280	-	-	280	-	-	-	-	-	280	280	-	-
5	5161467756	Greenhill & Cochrane HC501 Overflow Tank Upgrades(CASH FLOWED)	930	-	-	930	-	-	-	-	-	930	930	-	-
12, 13, 15	5161667622	FC001, DC009 & HC011 Wastewater Pumping Stations Upgrades	1,400	-	-	1,400	-	-	-	-	-	1,400	1,400	-	-
City Wide	5161766745	Woodward WWTP - Operational Readiness	1,075	-	-	1,075	-	-	-	-	-	1,075	1,075	-	-
4	5161767420	Parkdale Avenue HC001 Wastewater Pumping Station Upgrades	110	-	-	110	-	-	-	-	-	110	110	-	-
City Wide	5161866511	Woodward WWTP - Digester #4	5,500	-	-	5,500	-	-	500	3,050	-	1,950	1,950	-	-
City Wide	5161866713	Wastewater Maintenance Capital Program	4,750	-	-	4,750	-	-	-	-	-	4,750	4,750	-	-
City Wide	5161867752	Wastewater Outstation Inspections - Asset Management Program	520	-	-	520	-	-	-	-	-	520	520	-	-
Sub-Total Treatment Plant/Outstation Projects (SAM)			13,165	-	-	13,165	-	-	500	3,050	-	9,615	9,615	-	-
Treatment Plant/Outstation Projects (WINS)															
City Wide	5160866801	Woodward WWTP - Clean Harbour (CASH FLOWED)	76,062	43,468	-	32,594	5,328	24,000	-	-	-	3,266	3,266	-	-
City Wide	5160966910	Woodward WWTP - Biosolids Management Facility	5,200	-	-	5,200	990	3,580	-	-	-	630	630	-	-
City Wide	5161766423	Sewer Use Bylaw 14-090 Parameter Limit Review	150	-	-	150	-	-	-	-	-	150	150	-	-
City Wide	5161869075	City Environmental Lab Improvements Program	200	-	-	200	-	-	-	-	-	200	200	-	-
Sub-Total Treatment Plant/Outstation Projects (WINS)			81,612	43,468	-	38,144	6,318	27,580	-	-	-	4,246	4,246	-	-
Master Plans															
11	5161595858	Binbrook PS Upgrade (WW-20)	3,640	-	-	3,640	3,640	-	-	-	-	-	-	-	-
15	5161796786	First Street (Waterdown Sanitary) PS Upgrade DC014	1,930	-	-	1,930	585	-	-	-	-	1,345	1,345	-	-
City Wide	5161855010	Wastewater Systems Planning Program	300	-	-	300	-	-	-	220	-	80	80	-	-
Sub-Total Master Plans			5,870	-	-	5,870	4,225	-	-	220	-	1,425	1,425	-	-
Development/Extension Projects															
9	516180184	Highland Rd - Winterberry to Upper Mount Albion	90	-	-	90	90	-	-	-	-	-	-	-	-
9	5161880184	Upper Mount Albion - Highland to Rymal	800	-	-	800	395	-	-	-	-	405	405	-	-
Sub-Total Development/Extension Projects			890	-	-	890	485	-	-	-	-	405	405	-	-
Assessment Growth															
11	5161860830	Windemere Rd Sewer Extension, Municipal Act	980	-	880	100	-	-	-	-	-	100	100	-	-
Sub-Total Assessment Growth			980	-	880	100	-	-	-	-	-	100	100	-	-
Coordinated - Network Extension Projects															
2	4411806202	Central Park	110	-	-	110	-	-	-	-	-	110	110	-	-
Sub-Total Coordinated - Network Extension Projects			110	-	-	110	-	-	-	-	-	110	110	-	-

CITY OF HAMILTON
WASTEWATER SYSTEM
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(000's)

City Ward	Project Number	Project Description	Gross Costs	Grants & Subsidies	Other External Revenues	Net Costs	Dev Charges	Reserves	WIP Reserves	Financing Sources			From Operating	Debt Own	WIP Debt
										WIP Other	Funding Required				
<u>Coordinated Projects</u>															
City Wide	5161855777	LRT Corridor - Wastewater Infrastructure Assessment and Approvals	220	-	-	220	-	-	-	-	220	220	-	-	-
<i>Sub-Total Coordinated Projects</i>			220	-	-	220	-	-	-	220	220	-	-	-	-
<u>Energy Management</u>															
City Wide	5161866350	Woodward Wastewater Treatment Plant Lighting Upgrade	690	50	-	640	-	-	-	-	640	640	640	-	-
<i>Sub-Total Energy Management</i>			690	50	-	640	-	-	-	640	640	640	-	-	-
<u>Maintenance Projects</u>															
4	5162068851	Pier 25 Dredging - Windermere Basin	170	-	-	170	-	-	-	-	170	170	170	-	-
<i>Sub-Total Maintenance Projects</i>			170	-	-	170	-	-	-	170	170	170	-	-	-
<u>Water Quality Initiatives (WQI)</u>															
City Wide	5161468422	Randle Reef Sediment Remediation (CASH FLOWED)	550	-	-	550	-	-	-	-	550	550	550	-	-
<i>Sub-Total Water Quality Initiatives (WQI)</i>			550	-	-	550	-	-	-	550	550	550	-	-	-
Total All Projects			135,037	45,216	880	88,941	11,028	27,580	500	4,359	45,474	45,474	-	-	-

**CITY OF HAMILTON
WASTEWATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		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	4031814405	Contaminated Soil & Rock Disposal Program	0	0	100	0	0	0	0	0	720	720	820	820	2018	Ongoing
City Wide	4031855522	State of the Infrastructure - Asset Management	0	0	0	100	100	100	100	100	700	700	900	900	2018	Ongoing
2	5161461422	Patrick - Walnut to west end	330	0	0	70	70	0	0	0	0	0	400	70	2014	2019
4	5161641226	Centralized Water and Wastewater Operations Centre (CASH FLOWED)	250	0	1,000	1,000	0	0	0	0	7,500	7,500	8,750	8,500	2016	2024
5, 10	5161655350	Riverdale Flood Relief Remedial Measures EA	220	0	0	220	220	1,100	1,100	1,100	0	0	1,540	1,320	2016	2020
6, 7	5161655351	Lawfield / Berrisfield Neighbourhoods	75	0	110	170	170	0	0	0	0	0	355	280	2016	2019
12	5161661434	Upsize Forcemain under Wilson Street (Intersection of Wilson Street & Rousseaux Street)	50	0	50	170	170	0	0	0	0	0	270	220	2016	2019
15	5161718420	Grindstone Creek Utility Bridge	390	390	3,080	3,080	0	0	0	0	0	0	3,470	3,470	2017	2018
City Wide	5161811101	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	2018	Ongoing
City Wide	5161849555	QA-QC Service Contract Program	0	0	110	110	110	110	110	110	770	770	1,100	1,100	2018	Ongoing
City Wide	5161855556	Mapping Update Program	0	0	40	40	0	0	40	40	120	120	200	200	2018	Ongoing
City Wide	5161855640	Flow Monitoring Program	0	0	50	50	100	50	100	50	700	350	950	450	2018	Ongoing
City Wide	5161855878	Forcemain Condition Assessment Program	0	0	300	300	300	300	300	300	2,100	2,100	3,000	3,000	2018	Ongoing
City Wide	5161855955	Inflow & Infiltration Studies and Control Program	0	0	0	300	150	0	0	0	1,200	600	1,500	750	2018	Ongoing
City Wide	5161857545	Wastewater Computer Model Update & Maintenance	0	0	280	280	280	280	280	280	1,960	1,960	2,800	2,520	2018	Ongoing
City Wide	5161860302	Emergency Repairs - Cross Connections Program	0	0	500	351	350	350	350	350	1,050	1,050	2,250	2,101	2018	Ongoing
City Wide	5161860390	Wastewater System Lining Program	0	0	4,500	3,021	4,500	4,500	4,500	4,500	31,500	31,500	45,000	43,521	2018	Ongoing
City Wide	5161860522	Sewer Lateral Management Program (WWC)	0	0	4,500	4,500	4,500	4,500	3,500	3,500	24,500	24,500	37,000	37,000	2018	Ongoing
City Wide	5161860533	Trenchless Manhole Rehabilitation	0	0	40	40	80	80	80	80	560	560	760	760	2018	Ongoing
City Wide	5161860574	Pre-Construction Mainline Condition Assessment	0	0	550	550	550	550	550	550	3,850	3,850	5,500	5,500	2018	Ongoing
City Wide	5161860575	Mainline Sewer Condition Assessment Program	0	0	1,260	979	1,260	1,260	1,260	1,260	8,820	8,820	12,600	12,319	2018	Ongoing

**CITY OF HAMILTON
WASTEWATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		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	5161860576	Sewer Lateral Condition Assessment Program	0	0	600	600	600	600	600	600	4,200	4,200	6,000	6,000	2018	Ongoing
City Wide	5161860577	Mainline Sewer Condition Assessment for Compliance & Regulations	0	0	110	110	110	110	110	110	770	770	1,100	1,100	2018	Ongoing
City Wide	5161860711	PW Capital Water Consumption Program	0	0	150	0	200	200	200	200	1,220	1,220	1,770	1,620	2018	Ongoing
City Wide	5161860820	Open Cut Repairs for CIPP Program	0	0	550	550	550	550	550	550	3,850	3,850	5,500	5,500	2018	Ongoing
City Wide	5161861444	Sewer Lateral Replace/Rehab Program	0	0	4,000	3,813	4,000	4,000	4,000	4,000	28,000	28,000	40,000	39,813	2018	Ongoing
City Wide	5161861740	Unscheduled Manhole and Sewermain Replacement Program	0	0	320	320	350	350	350	350	2,450	2,450	3,470	3,470	2018	Ongoing
City Wide	5161862073	Field Data Systems Program	0	0	2,800	2,800	0	0	100	100	300	300	400	400	2018	Ongoing
11	5161862850	Eastern Interceptor Repair at the WWTP Aeration Tank	0	0	2,800	2,800	0	0	0	0	0	0	2,800	2,800	2018	2018
City Wide	5161871015	Sewer Lateral Replacement for Co-ordinated Projects	0	0	210	0	300	300	300	300	2,500	2,500	3,310	3,100	2018	Ongoing
City Wide	5161871074	Contingency for Unscheduled Works Program	0	0	100	100	0	0	200	200	600	600	900	900	2018	Ongoing
City Wide	5161971940	Unspecified Works	0	0	0	0	0	0	0	0	88,500	88,500	88,500	88,500	2020	2024
City Wide	5162166810	Woodward WWTP - New Maintenance Building (CASH FLOWED)	0	0	500	500	0	0	550	550	3,300	3,300	4,350	4,350	2021	2022
			1,315	390	27,610	24,823	20,970	20,770	21,030	20,980	234,340	233,390	305,265	300,353		

Projects Coordinated with Roads Program

3	5161861825	Stipeley Neighbourhood (South) - Connaught / Balasam / Dunsmuire	0	0	80	80	0	0	0	0	0	0	80	80	2018	2018
5, 9	5161871842	Locke St Sewer Rehabilitation	0	0	2,090	2,090	0	0	0	0	0	0	2,090	2,090	2018	2018
6	5161872840	Mohawk - Upper Ottawa to Upper Kenilworth	0	0	1,000	1,000	0	0	0	0	0	0	1,000	1,000	2018	2018
3	5161971935	Cheever - Barton to Birge and Birge - Cheever to Wentworth	0	0	0	0	80	80	0	0	0	0	80	80	2019	2019
3, 4	5162271220	Burlington & Industrial - Ottawa to Kenilworth	0	0	0	0	0	0	0	0	820	820	820	820	2022	2022
1	5162271726	Jones / Oxford / Tecumseh (Strathcona Neighbourhood)	0	0	0	0	0	0	0	0	450	450	450	450	2022	2022

**CITY OF HAMILTON
WASTEWATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
			0	0	3,170	3,170	80	80	0	0	1,270	1,270	4,520	4,520		
Plant/Outstations Projects (SAM)																
13	5161266213	Dundas WWTP Improvements (CASH FLOWED)	3,070	0	(1,400)	(1,400)	1,100	1,100	1,100	1,100	25,250	25,250	29,120	26,050	2012	2021
13	5161267273	Dundas Wastewater Outstations Upgrades	2,450	0	280	280	660	660	0	0	0	0	3,390	940	2012	2019
5	5161467756	Greenhill & Cochrane HCS01 Combined Sewer Overflow Tank Cleaning & Upgrades (CASH FLOWED)	1,060	0	930	930	930	930	0	0	0	0	2,920	1,860	2014	2018
12, 13, 15	5161667622	FC001, DC009 & HC011 Wastewater Pumping Stations Upgrades	590	38	1,400	1,400	0	0	0	0	0	0	1,990	1,438	2016	2018
City Wide	5161766745	Woodward WWTP - Operational Readiness	3,800	0	1,075	1,075	0	0	0	0	0	0	4,875	1,075	2017	2018
4	5161767420	Parkdale Avenue HC001 Wastewater Pumping Station Upgrades	550	0	110	110	2,530	2,530	0	0	0	0	3,190	2,640	2017	2019
1	5161767772	Decommissioning Aberdeen Sewage Pumping Station	0	0	0	0	60	60	110	110	1,190	1,190	1,360	1,360	2019	2021
City Wide	5161866420	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	5161866511	Woodward WWTP - Digester #4	0	0	1,950	1,950	0	0	0	0	0	0	5,500	1,950	2018	2019
City Wide	5161866713	Wastewater Maintenance Capital Program	0	0	4,750	4,750	3,000	3,000	2,000	2,000	24,000	24,000	33,750	33,750	2018	Ongoing
City Wide	5161867751	Wastewater Outstation Upgrades - Asset Management Program	0	0	0	0	0	0	0	0	7,350	7,350	7,350	7,350	2021	Ongoing
City Wide	5161867752	Wastewater Outstation Inspections - Asset Management Program	0	0	520	520	520	520	520	520	3,640	3,640	5,200	5,200	2018	Ongoing
City Wide	5161966511	Woodward WWTP - Digester #5	0	0	0	0	500	500	3,000	3,000	0	0	3,500	3,500	2018	2019
City Wide	5162066311	Woodward WWTP - Digester #3	0	0	0	0	0	0	500	500	3,000	3,000	3,500	3,500	2020	2021
City Wide	5162066612	Woodward WWTP - South Secondary Clarifiers	0	0	0	0	0	0	4,500	4,500	0	0	4,500	4,500	2020	2020
City Wide	5162067420	Main & King CSO Rehabilitation	0	0	0	0	0	0	910	910	0	0	910	910	2020	2020
City Wide	5162266011	Woodward WWTP - Secondary Digester	0	0	0	0	0	0	0	0	4,500	4,500	4,500	4,500	2022	2023
City Wide	5162266102	Woodward WWTP - Expansion (CASH FLOWED)	0	0	0	0	0	0	0	0	92,500	92,500	92,500	0	2022	2027

**CITY OF HAMILTON
WASTEWATER SYSTEM
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Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		

			11,520	38	13,165	9,615	9,300	9,300	12,640	12,640	12,640	189,370	96,870	235,995	128,463		
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Plant/Outstations Projects (WQI)

City Wide	5161468422	Randle Reef Sediment Remediation (CASH FLOWED)	4,000	1,000	550	550	550	550	550	550	550	500	500	6,150	3,150	2014	2021
			4,000	1,000	550	550	550	550	550	550	500	500	500	6,150	3,150		

Plant/Outstations Projects (WNS)

City Wide	5160866801	Woodward WWTP - Clean Harbour (CASH FLOWED)	76,150	0	76,062	3,266	112,059	11,409	116,428	37,956	27,883	24,129	408,582	76,760	2008	2021
City Wide	5160966910	Woodward WWTP - Biosolids Management Facility	5,020	0	5,200	630	250	190	28,030	0	19,390	15,680	57,890	16,500	2009	2051
City Wide	5161766423	Sewer Use Bylaw 14-090 Parameter Limit Review	150	150	150	150	0	0	0	0	0	0	300	300	2017	2018
City Wide	5161869075	City Environmental Lab Improvements Program	0	0	200	200	300	300	430	430	510	510	1,440	1,440	2018	Ongoing
			81,320	150	81,612	4,246	112,609	11,899	144,888	38,386	47,783	40,319	468,212	95,000		

Master Plan - Horizontal Assets

1	5161596855	Royal to Main/King Sanitary Sewer Upgrades (WW-22) (CASH FLOWED)	18,040	0	0	0	6,840	0	0	0	0	0	0	24,880	0	2015	2018
5, 9	5161695747	Battlefield Trunk Sewer Twinning (WW-33) (CASH FLOWED)	1,650	0	0	0	10,500	0	10,500	0	0	0	22,650	0	2016	2019	
11	5161696452	Airport Lands Dickenson Rd Trunk Sewer (WW-27, WW-26, WW-28) (CASH FLOWED)	2,750	0	0	0	1,650	0	6,800	0	56,200	0	67,400	0	2016	2018	
1	5161996954	Aberdeen at Hillside Neighbourhood Sewer Separation	0	0	0	0	450	450	0	0	3,220	3,220	3,670	3,670	2019	2024	
			22,440	0	0	0	19,440	450	17,300	0	59,420	3,220	118,600	3,670			

Master Plan - Vertical Assets

11	5161595858	Binbrook PS Upgrade (WW-20)	2,640	0	3,640	0	0	0	0	0	0	0	6,280	0	2015	2018
15	5161796786	First Street (Waterdown Sanitary) PS Upgrade DC014	1,520	0	1,930	1,345	0	0	0	0	0	0	3,450	1,345	2017	2018
City Wide	5161855010	Wastewater Systems Planning Program	0	0	300	80	300	300	300	300	2,100	2,100	3,000	2,780	2018	Ongoing

**CITY OF HAMILTON
WASTEWATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
			4,160	0	5,870	1,425	300	300	300	300	2,100	2,100	12,730	4,125		
Development/Extension Projects																
2	4411806202	Central Park	120	120	110	110	0	0	0	0	0	0	230	230	2017	2018
9	5161180184	Highland Rd - Winterberry to Upper Mount Albion	520	0	90	0	0	0	0	0	0	0	610	0	2011	2018
9	5161880184	Upper Mount Albion - Highland to Rymal	0	0	800	405	0	0	0	0	0	0	800	405	2018	2018
City Wide	5161896011	Intensification Infrastructure Upgrades Program - Wastewater Rymal - Fletcher to Upper Centennial	0	0	0	0	400	200	0	0	1,600	800	2,000	1,000	2018	Ongoing
9, 11	5162080089	Rymal - Fletcher to Upper Centennial	0	0	0	0	0	0	5,330	0	0	0	5,330	0	2020	2020
11	5162080584	RHBP - Nebo - Rymal to Twenty	0	0	0	0	0	0	830	0	0	0	830	0	2020	2020
11	5162280281	RHBP - Dartnall Road Extension - Twenty to Dickenson	0	0	0	0	0	0	0	0	400	0	400	0	2022	2022
			640	120	1,000	515	400	200	6,160	0	2,000	800	10,200	1,635		
Assessment Growth																
11	5161860830	Windemere Rd Sewer Extension, Municipal Act	0	0	980	100	0	0	0	0	0	0	980	100	2018	2018
			0	0	980	100	0	0	0	0	0	0	980	100		
Coordinated Projects																
City Wide	5161855777	LRT Corridor - Wastewater Infrastructure Assessment and Approvals	0	0	220	220	0	0	0	0	0	0	220	220	2018	2018
			0	0	220	220	0	0	0	0	0	0	220	220		
Energy Management																
City Wide	5161866350	Woodward Wastewater Treatment Plant Lighting Upgrade	0	0	690	640	0	0	0	0	0	0	690	640	2018	2018
			0	0	690	640	0	0	0	0	0	0	690	640		
Maintenance Projects																
4	5162068851	Pier 25 Dredging - Windemere Basin	0	0	170	170	0	0	0	0	13,500	13,500	13,670	13,670	2018	2021

**CITY OF HAMILTON
WASTEWATER SYSTEM
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year	
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net			
			0	0	170	170	0	0	0	0	0	13,500	13,500	13,670	13,670		
			1,140	0	0	0	280	280	2,200	2,200	2,200	0	0	3,620	2,480	2016	2018
			1,140	0	0	0	280	280	2,200	2,200	2,200	0	0	3,620	2,480		
			126,535	1,698	135,037	45,474	163,929	43,829	205,068	75,056	550,283	391,969	1,180,852	558,026			

Outstations-Wastewater Investment Needs (WINS)

City Wide 5161667421 New Haulage Receiving Station

Total Wastewater System

**SOURCE OF CAPITAL FINANCING
2018 to 2027 STORM PROGRAM CAPITAL BUDGET
\$(000'S)**

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total 2018 to 2027
STORM SEWERS											
Capital Program	17,670	13,730	14,290	10,690	11,220	10,890	15,520	8,620	12,920	11,470	127,020
Source of Funding											
Subsidy/Other Revenue	2,044	75	75	75	75	75	75	75	75	75	2,719
Development Charges	6,070	4,000	5,100	4,000	4,000	4,000	4,000	4,000	4,000	4,000	43,170
Reserves & Other Internal Sources	1,040	1,000	-	-	-	-	-	-	-	-	2,040
Contribution from Operating	8,516	8,655	7,065	6,615	7,145	6,815	11,445	4,545	8,845	7,395	77,041
External Debt	-	-	2,050	-	-	-	-	-	-	-	2,050
Total	17,670	13,730	14,290	10,690	11,220	10,890	15,520	8,620	12,920	11,470	127,020

CITY OF HAMILTON
STORM WATER MANAGEMENT
2018 CAPITAL BUDGET PROJECT LIST
(000's)

City Ward	Project Number	Project Description	Gross Costs	Grants & Subsidies	Other External Revenues	Net Costs	Dev Charges	Reserves	Financing Sources						
									WIP Reserves	WIP Other	Funding Required	From Operating	Debt Own	WIP Debt	
Rehabilitation, Replacement & Upgrade Projects (SAM)															
City Wide	4031814405	Contaminated Soil & Rock Disposal Program	100	-	-	100	-	-	-	-	-	100	-	-	
5, 10, 11, 13	5181460452	Shoreline Protection Program	200	-	-	200	-	-	-	-	-	200	-	-	
9, 11, 12, 15	5181562590	SWMP Retrofits	220	-	-	220	-	-	-	-	-	220	-	-	
6, 7	5181672650	West Mountain - Storm Interceptor aka "Juggernaut" (CASH FLOWED)	3,300	1,969	-	1,331	-	-	-	-	-	1,331	1,331	-	
City Wide	5181817152	Roadside Drainage Improvement Program	1,380	-	-	1,380	-	-	-	-	-	1,380	1,380	-	
City Wide	5181817458	Catch Basin Replacement/Rehabilitation Program	500	-	-	500	-	-	-	-	-	500	500	-	
City Wide	5181817549	Concrete Box Culvert Rehabilitation/Repair (< 3.0m span)	150	-	-	150	-	-	-	-	-	150	150	-	
City Wide	5181849555	QA-QC Service Contract Program	60	-	-	60	-	-	-	-	-	60	60	-	
City Wide	5181855556	Mapping Update Program	40	-	-	40	-	-	-	-	-	40	40	-	
City Wide	5181860533	Trenchless Manhole Rehabilitation	40	-	-	40	-	-	-	-	-	40	40	-	
City Wide	5181860622	SWM Pond/Creek Maintenance Program	1,200	-	-	1,200	-	-	-	-	-	1,200	1,200	-	
10, 11, 12, 13, 14, 15	5181860722	Municipal Drain Maintenance Program	100	-	75	25	-	-	-	-	-	25	25	-	
City Wide	5181861740	Unscheduled Manhole and Sewermain Replacement Program	30	-	-	30	-	-	-	-	-	30	30	-	
City Wide	5181872074	Contingency for Unscheduled Works Program	100	-	-	100	-	-	-	-	-	100	100	-	
5	5181872293	Bayside Ave Storm Sewer Replacement	780	-	-	780	-	-	-	-	-	780	780	-	
13	5181874840	Sydenham Interceptor Swale Re-construction	260	-	-	260	-	-	-	-	-	260	260	-	
5, 13	5181874841	Lower Davis Creek - Flood Control Facility	250	-	-	250	-	-	-	-	-	250	250	-	
Sub-Total Rehabilitation, Replacement & Upgrade Projects (SAM)			8,710	1,969	75	6,666						6,666	6,666		
Projects Coordinated with Roads Program (SAM)															
3	5181772290	Slipsey Neighbourhood (South) - Connaught / Balaam / Dunsmure	900	-	-	900	-	-	-	-	-	600	300	300	-
City Wide	5181870000	Coordinated Road and Subsurface Works	130	-	-	130	-	-	-	-	-	-	130	130	-
7	5181872290	Mackenzie - East 27th to Upper Sherman (Burkholme Neighbourhood)	390	-	-	390	-	-	-	-	-	390	-	-	
Sub-Total Projects Coordinated with Roads Program (SAM)			1,420			1,420						990	430	430	
SERG Projects															
1	5181260214	SERG - Parkside and Kipling Flood Solutions (CASH FLOWED)	170	-	-	170	-	-	-	-	-	-	170	170	-
13	5181823155	South St E and East St S in Dundas Drainage Improvement - SERG	60	-	-	60	-	-	-	-	-	-	60	60	-
3	5181872295	Main - Prospect to Gage - SERG B-3	110	-	-	110	-	-	-	-	-	-	110	110	-
11	5181872295	SERG - Winona Area Drainage Improvements	330	-	-	330	-	-	-	-	-	-	330	330	-
Sub-Total SERG Projects			670			670							670	670	

**CITY OF HAMILTON
STORM WATER MANAGEMENT
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		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	4031814405	Contaminated Soil & Rock Disposal Program	0	0	100	100	0	0	0	0	660	660	760	760	2018	Ongoing
City Wide	4031855522	State of the Infrastructure - Asset Management	0	0	0	0	100	100	100	100	700	700	900	900	2018	Ongoing
5, 10, 11, 13	5181460452	Shoreline Protection Program	1,110	510	200	200	0	0	0	0	0	0	1,310	710	2014	2018
5, 9	5181461450	Satellite City Trunk Sewer Rehabilitation	940	0	0	0	0	0	2,550	2,550	0	0	3,490	2,550	2014	2020
9, 11, 12, 15	5181562590	SWMP Retrofits	500	280	220	220	220	220	0	0	0	0	940	720	2015	2019
6, 7	5181672650	West Mountain Sewers - Storm Interceptor a.k.a. "Juggernaut" (CASH FLOWED)	9,300	1,894	3,300	1,331	0	0	0	0	0	0	12,600	3,225	2016	2018
City Wide	5181767723	Pumping Stations	100	100	0	0	600	600	0	0	150	150	850	850	2017	2026
City Wide	5181817152	Roadside Drainage Improvement Program	0	0	1,380	1,380	1,390	390	1,400	1,400	10,080	10,080	14,250	13,250	2018	Ongoing
City Wide	5181817458	Catch Basin Replacement/Rehabilitation Program	0	0	500	500	500	500	500	500	3,500	3,500	5,000	5,000	2018	Ongoing
City Wide	5181817549	Concrete Box Culvert Rehabilitation/Repair (< 3.0m span)	0	0	150	150	500	500	500	500	3,500	3,500	4,650	4,650	2018	Ongoing
City Wide	5181849555	QA-QC Service Contract Program	0	0	60	60	60	60	60	60	420	420	600	600	2018	Ongoing
City Wide	5181855556	Mapping Update Program	0	0	40	40	0	0	40	40	120	120	200	200	2018	Ongoing
City Wide	5181860533	Trenchless Manhole Rehabilitation	0	0	40	40	80	80	80	80	560	560	760	760	2018	Ongoing
City Wide	5181860622	SWM Pond/Creek Maintenance Program	0	0	1,200	1,200	1,200	1,200	1,500	1,500	8,400	8,400	12,300	12,300	2018	Ongoing
10, 11, 12, 13, 14, 15	5181860722	Municipal Drain Maintenance Program	0	0	100	25	100	25	100	100	700	175	1,000	250	2018	Ongoing
City Wide	5181861740	Unscheduled Manhole and Sewermain Replacement Program	0	0	30	30	50	50	50	50	350	350	480	480	2018	Ongoing
City Wide	5181862073	Field Data Systems Program	0	0	0	0	0	0	100	100	300	300	400	400	2018	Ongoing
City Wide	5181872074	Contingency for Unscheduled Works Program	0	0	100	100	0	0	200	200	580	580	880	880	2018	Ongoing
5	5181872293	Bayside Ave Storm Sewer Replacement	0	0	780	780	0	0	0	0	0	0	780	780	2018	2018
13	5181874840	Sydenham Interceptor Swale Re-construction	0	0	260	260	0	0	0	0	0	0	260	260	2018	2018
5, 13	5181874841	Lower Davis Creek - Flood Control Facility	0	0	250	250	0	0	0	0	0	0	250	250	2018	2018

**CITY OF HAMILTON
STORM WATER MANAGEMENT
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
			11,950	2,784	8,710	6,666	4,800	3,725	7,180	7,105	30,020	29,495	62,660	49,775		
Projects Coordinated with Roads Program																
13	5181572290	Baldwin / Court - West St. to Dundas St.	20	0	0	0	250	250	0	0	0	0	270	250	2015	2019
3	5181772290	Industrial - Ottawa to Gage / Gage / Depew	100	100	0	0	0	0	0	0	440	440	540	540	2017	2021
3	5181772290	Stipeley Neighbourhood (South) - Connaught / Balasm / Dunsmore	50	50	900	300	0	0	0	0	0	0	950	350	2017	2018
City Wide	5181870000	Coordinated Road and Subsurface Works	0	0	130	130	0	0	0	0	0	0	130	130	2018	Ongoing
7	5181872290	Mackenzie - East 27th to Upper Sherman (Burkholme Neighbourhood)	0	0	390	0	0	0	0	0	0	0	390	0	2018	2018
1	5181972290	Haddon - Sterling to Marion	0	0	0	0	290	290	0	0	0	0	290	290	2019	2019
10	5181972290	Hewitson - Dupont to Barton	0	0	0	0	500	500	0	0	0	0	500	500	2019	2019
13, 14	5182072290	Highway 8 - Bridge over Spencer Creek to Hillcrest	0	0	0	0	0	0	1,200	1,200	0	0	1,200	1,200	2020	2020
14	5182072290	Highway 8 - Hillcrest to Park	0	0	0	0	0	0	150	150	0	0	150	150	2020	2020
3, 4	5182272290	Burlington & Industrial - Ottawa to Kenilworth	50	0	0	0	0	0	0	0	750	750	800	750	2022	2022
1	5182272290	Jones / Oxford / Tecumseh (Strathcona Neighbourhood)	0	0	0	0	0	0	0	0	140	140	140	140	2022	2022
			220	150	1,420	430	1,040	1,040	1,350	1,350	1,330	1,330	5,360	4,300		

SERG Projects

1	5181260214	SERG - Parkside and Kipling Flood Solutions (CASH FLOWED)	1,720	0	170	170	0	0	0	0	12,610	12,610	14,500	12,780	2012	2027
13	5181823155	South St E and East St S in Dundas Drainage Improvement - SERG	0	0	60	60	110	110	220	220	0	0	390	390	2018	2020
City Wide	5181855075	SERG - Watershed Project Coordination and Stewardship Action Plans	0	0	0	0	0	0	0	0	2,250	2,250	2,250	2,250	2023	Ongoing
City Wide	5181855421	SERG - Stormwater System Planning Program	0	0	0	0	330	330	330	330	2,310	2,310	2,970	2,970	2018	Ongoing
3	5181872295	Main - Prospect to Gage - SERG B-3	0	0	110	110	1,760	1,760	0	0	0	0	1,870	1,870	2018	2019

**CITY OF HAMILTON
STORM WATER MANAGEMENT
2018 - 2027 CAPITAL BUDGET LIST (000's)**

Ward (s)	Project Number	Project Description	Pre 2018		2018		2019		2020		2021-2027		Project Total		Start Year	End Year
			Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
SERG Projects																
11	5181872295	SERG - Winona Area Drainage Improvements	0	0	330	330	990	990	110	110	1,420	1,420	2,850	2,850	2018	2021
City Wide	5181955347	SERG - Watercourse Erosion Assessment	0	0	0	0	700	700	0	0	1,230	1,230	1,930	1,930	2019	2023
	5182155101	SERG - Stoney Creek & Battlefield Creek Flood and Erosion Control	0	0	0	0	0	0	0	0	2,160	2,160	2,160	2,160	2021	2023
			1,720	0	670	670	3,890	3,890	660	660	21,980	21,980	28,920	27,200		
Development/Extension Projects																
2	4411806202	Central Park	280	0	50	50	0	0	0	0	0	0	330	50	2016	2018
9	5181380390	Highland - Upper Mount Albion to Easement	400	0	450	0	0	0	0	0	0	0	850	0	2013	2018
City Wide	5181880090	Storm Water Management Program	0	0	4,000	0	4,000	0	4,000	0	28,000	0	40,000	0	2018	Ongoing
15	5181880281	Greystones Channel Rehab - Greensville	0	0	200	150	0	0	0	0	0	0	200	150	2018	2018
11	5181880870	Lewis Rd Culvert - approximately 200m n/o Barton	0	0	460	0	0	0	0	0	0	0	460	0	2018	2018
15	5181880871	Borer's Creek Channel and Culvert (Parkside Hills Ph 2)	0	0	1,160	0	0	0	0	0	0	0	1,160	0	2018	2018
15	5181880872	Flanders Drive Flooding	0	0	200	200	0	0	0	0	0	0	200	200	2018	2018
6, 9	5181880887	Multi-Area Employment Lands - Storm Sewer for Street A Extension to Pritchard (new road)	0	0	350	350	0	0	0	0	0	0	350	350	2018	2018
9, 11	5182080089	Rymal - Fletcher to Upper Centennial	0	0	0	0	0	0	1,100	0	0	0	1,100	0	2020	2020
			680	0	6,870	750	4,000	0	5,100	0	28,000	0	44,650	750		
		Total Storm Water Management	14,570	2,934	17,670	8,516	13,730	8,655	14,290	9,115	81,330	52,805	141,590	82,025		

**CITY OF HAMILTON
2018 RATE PROGRAM CAPITAL BUDGET SUMMARY
(\$000'S)**

	Gross Costs	Subsidy/ Other Revenues	Net Costs	Development Charges	Other Internal Sources	Reserves	Funding Required	Financing Source	
								Contribution From Operating	External Borrowings (Debtentures)
2018 Sustainable Asset Management Strategy (SAM)									
Rehabilitation, Replacement & Upgrade Projects	58,950	4,061	54,889	1,022	1,439	640	51,788	49,788	2,000
Projects Coordinated with Roads Program	18,300	-	18,300	-	1,190	-	17,110	12,890	4,220
S.E.R.G. Projects	670	-	670	-	4,680	-	670	670	-
Treatment Plant/Outstations Projects	26,125	-	26,125	-	-	-	21,445	14,505	6,940
Treatment Plant/Outstations Projects-WQI	750	-	750	-	-	-	750	750	-
Watermain Lining	7,200	1,313	5,887	-	507	-	5,380	3,560	1,820
Sub-Total	111,995	5,374	106,621	1,022	7,816	640	97,143	82,163	14,980
Wastewater Investments Needs Strategies (WINS)									
Treatment Plant/Outstations Projects	81,612	43,468	38,144	6,318	-	27,580	4,246	4,246	-
Sub-Total	81,612	43,468	38,144	6,318	-	27,580	4,246	4,246	-
Master Plan									
Horizontal and Vertical Assets	15,350	-	15,350	11,227	290	-	3,833	2,198	1,635
Sub-Total	15,350	-	15,350	11,227	290	-	3,833	2,198	1,635
Development Program									
Development/Extension Projects	9,430	880	8,550	6,955	50	-	1,545	1,545	-
Energy Management	890	70	820	-	-	-	820	820	-
Sub-Total	10,320	950	9,370	6,955	50	-	2,365	2,365	-
Total	219,277	49,792	169,485	25,522	8,156	28,220	107,587	90,972	16,615