DRAFT RATE SUPPORTED

OPERATING BUDGET & CAPITAL FORECAST

WATER & WASTEWATER

Haldimand County

2020

2020 Rate Supported Water & Wastewater
Operating Budget and Capital Forecast

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2020 Rate Supported Capital Forecast

HALDIMAND COUNTY

Chief Financial Officer Report

2020 Draft Rate Supported Operating Budget and Capital Forecast

For Consideration by Committee of the Whole on January 28, 2020

Message from the Chief Financial Officer

Mayor and Members of the Council,

This document presents the 2020 Draft Rate Supported Operating Budget and Capital Forecast, outlining the services to provide potable water and wastewater services to Haldimand County's citizens and businesses. As such, it is one of the most important strategic documents that Council reviews annually in ensuring reliable, safe, clean and affordable potable water is available to people in every community. The review and approval of the 2020 Draft Rate Supported Budget will provide for the applicable water and wastewater rates required to fully recover the cost of the relevant systems, as **none** of these costs are funded by property taxes.

The provision of potable water services in the Province of Ontario is highly regulated. While these regulatory requirements have helped to ensure potable water is safe and clean, they have significantly impacted the water and wastewater operations over time and have adversely impacted the associated rates. Despite these impacts and the large number of independent water and wastewater systems across the County, Haldimand County's water and wastewater rates have remained competitive through long range financial planning and good fiscal stewardship over the annual operations.

The 2020 Draft Rate Supported Operating Budget and Capital Forecast has been developed on the following fundamental principles:

- Capital and operating costs associated with the provision of water and wastewater services have been allocated directly to the users of these systems (although the majority of customers use both systems, some users only have one system or the other);
- Full cost recovery of all operating and capital costs are recovered directly from the users of the applicable systems;
- Aggregate net costs (i.e. revenues required from rates revenue) will be recovered 50% from fixed revenues (i.e. basic charges) and 50% from variable revenues (i.e. consumption revenues);
- Leachate costs to be allocated based on relative loading at the treatment plant and recovered 50% from fixed revenues and 50% from variable revenues;
- Annual indexing of all miscellaneous revenues based on the annual increase of underlying costs;

As such, there are three main factors that impact the rates annually: (i) increase/decreases in gross costs; (ii) increases/decreases in miscellaneous revenues (i.e. bulk services, industrial recoveries, etc.); and (iii) changes in annual consumptions/number of customers.

The 2020 Draft Rate Supported Operating Budget, as outlined in this document, represents an overall net **increase** in total rate revenue requirements of $328,050 or 2.68% compared to the 2019 budgeted total rates revenue of $12.2 million (the water system requires an increase of $126,690 or 2.25% in rates revenue; while the wastewater system reflects an increase of $201,360 or 3.05% in rates revenue). The relative impact on each system varies: a 1% impact in the water system is equal to approximately $56,000 in user rates revenue; while a 1% impact on the wastewater system is equal to $66,000 ($122,000 combined).

Based on the total net rate revenue requirements, the typical residential user will see a monthly **increase** of approximately ***$0.60 or 0.7%*** (based on a residential service of 1" or less and average consumption of 15 m^3 per month – as outlined in Operating Summary 1). This is primarily due to a new initiative for a Project Manager, Water and Wastewater Engineering and Compliance. Details on this initiative can be found in Operating Appendix A.

Key Financial Messages - 2020 Draft Rate Supported Operating Budget and Capital Forecast

- Full cost recovery of all capital and operating costs from users of the systems achieved (no revenues from property taxation);
- Targeted rate stabilization reserves maintained at a level of 25% of rates revenue to offset any unforeseen revenue shortfalls due to fluctuating consumption or cost increases
- All capital financing principles met:
    - Planned rehabilitation/replacement of underlying infrastructure;
    - Continued focus on comprehensive performance reviews, condition assessments and inflow/infiltration studies to maximize performance and capacity of existing infrastructure;
    - Providing capacity for anticipated growth;
    - Within projected/established debt limits and sufficient capital replacement reserves to meet forecasted replacements;
- An overall increase in net costs, driven primarily by:
    - Combined overall increase in capital related costs of 1.0%;
    - Net increase in Veolia operations contract of approximately $112,000. As the water contract is up for renewal in mid-2020, an estimate based on anticipated increases has resulted in a budget increase of $59,000. The annual wastewater contract increase for 2020 is approximately $53,000;
    - Increased salaries, wages and related expenses of approximately $157,000. The majority of this increase is the result of a new initiative for an Engineering and Compliance Project Manager, as outlined in Operating Appendix A;
    - Overall consumption increases and new users assist in reducing the net impact of the cost increases

Overall impact is a **0.7%** increase (or **$0.60**) per month for the average residential user.

Average Monthly Residential Customer Impact (15 m3)				
	2019	**2020**	**$**	**%**
Total Water	$34.65	$34.85	$0.20	
Total Wastewater	$47.12	$47.52	$0.40	
Total	**$81.77**	**$82.37**	**$0.60**	**0.7%**

It should be noted that other customer's will have slightly varying impacts depending on individual circumstances, such as: service size, monthly consumption and type of service (i.e. water only or wastewater only).

All bulk services (i.e. water depot, septic holding treatment, etc.) have been increased by 2.5% based on increases to the overall underlying costs.

The 2020 Draft Rate Supported Operating Budget and Capital Forecast is fiscally sustainable and based on sound financial principles. There are significant investments in rehabilitation/replacement of infrastructure and provisions for growth while maintaining the integrity of the water and wastewater systems. In addition, based on current projections and assumptions, water and wastewater rates should be very stable over the term of Council. However, it should be cautioned, that Provincial legislation can significantly impact municipal operations and senior staff will continue to monitor the political environment and lobby against changes that may impact the affordability of water rates in the Province of Ontario.

Respectfully Submitted,

Mark Merritt, CPA, CA
Chief Financial Officer and General Manager of Financial & Data Services

Executive Summary:

The County currently develops three (3) annual budgets as follows:

- Rate Supported (Water and Wastewater) - Operating Budget (current year) and Capital Budget (current year plus 9 year capital forecast)
- Tax Supported Capital Budget (current year plus 9 year capital forecast)
- Tax Supported Operating Budget – (current year).

Council has approved the following 2020 Budget Timetable:

Draft Budget	Review Date(s)	Additional/Conditional Dates
Rate Supported Operating and Capital Budget	January 28, 2020	n/a
Tax Supported Capital Budget	March 5, 2020	March 6, 2020 (if required)
Tax Supported Operating Budget	April 22, 2020	April 23, 2020 (if required)

The review and approval of the 2020 Rate Supported Budget will provide for the applicable water and wastewater rates required to fully recover the cost of the relevant systems, as **none** of these costs are funded by property taxes. The subsequent review of the 2020 Draft Tax Supported Operating Budget will provide the basis for the 2020 levy impacts for tax supported operations.

2020 Rate Supported Operating Budget

Notable drivers in the 2020 Rate Supported Operating Budget include:

Water Operations:

- Revenue increases in New Credit consumption, the annual fire protection charge as well as an increase in engineering and inspection fees;
- Expenditure increases to Veolia operations based on an estimated service delivery, as the current water operations contract expires in the summer of 2020;
- A new initiative for a Engineering and Compliance Project Manager, as detailed in Operating Appendix A;
- A contribution to the Capital Replacement Reserve Fund – Water (CRRF – Water) matching the financing principles set out in Capital Summary 3.

Wastewater Operations:

- Expenditure increases to the Veolia operations as well as hydro increases at treatment plants;
- A new initiative for a Engineering and Compliance Project Manager, as detailed in Operating Appendix A;
- A contribution to the Capital Replacement Reserve Fund – Sewer (CRRF – Sewer) matching the financing principles set out in Capital Summary 3.

As water and wastewater operations are recovered 100% from the applicable users, changes in consumption patterns can shift the burden to different users. Although setting the fixed component of the bill at 50% will assist in offsetting future shifts in consumption, approximately 25% of the County's total water consumption is derived from 2 major industrial users (includes 4 separate locations). As a result, any fluctuations in their operations can cause large revenue shifts on the volumetric portion of the billing. Though the County's user group is relatively small, the growth mainly related to the development in Caledonia is beginning to impact the end cost to the user, as additional customers will help spread the costs over more users.

As a result of the proposed changes, the effective monthly impact on selected standard services is as follows (for bulk services – water and wastewater – based on a "per use" basis including treatment and transportation):

AVERAGE CUSTOMER IMPACTS						
User			**2019**	**2020**	**$ Change**	**% Change**
Monthly Services						
Residential (15 m3)	**Water**	Basic	$ 19.80	$ 20.24	$ 0.44	2.2%
		Consumption	$ 14.85	$ 14.61	$ (0.24)	(1.6%)
		Total	**$ 34.65**	**$ 34.85**	**$ 0.20**	**0.6%**
	Wastewater	Basic	$ 24.03	$ 24.86	$ 0.83	3.5%
		Consumption	$ 23.09	$ 22.66	$ (0.43)	(1.9%)
		Total	**$ 47.12**	**$ 47.52**	**$ 0.40**	**0.9%**
	Total		**$ 81.77**	**$ 82.37**	**$ 0.60**	**0.7%**
Commercial (2" 500 m3)	**Water**	Basic	$ 243.17	$ 248.60	$ 5.42	2.2%
		Consumption	$ 495.05	$ 487.00	$ (8.05)	(1.6%)
		Total	**$ 738.23**	**$ 735.60**	**$ (2.63)**	**(0.4%)**
	Wastewater	Basic	$ 295.06	$ 305.31	$ 10.25	3.5%
		Consumption	$ 769.66	$ 755.21	$ (14.45)	(1.9%)
		Total	**$ 1,064.72**	**$ 1,060.52**	**$ (4.20)**	**(0.4%)**
	Total		**$ 1,802.95**	**$ 1,796.12**	**$ (6.83)**	**(0.4%)**
Industrial (4" 4,000 m3)	**Water**	Basic	$ 851.11	$ 870.09	$ 18.98	2.2%
		Consumption	$ 3,960.42	$ 3,896.01	$ (64.41)	(1.6%)
		Total	**$ 4,811.52**	**$ 4,766.10**	**$ (45.43)**	**(0.9%)**
	Wastewater	Basic	$ 1,032.70	$ 1,068.59	$ 35.88	3.5%
		Consumption	$ 6,157.30	$ 6,041.70	$ (115.61)	(1.9%)
		Total	**$ 7,190.01**	**$ 7,110.28**	**$ (79.73)**	**(1.1%)**
	Total		**$ 12,001.53**	**$ 11,876.38**	**$ (125.15)**	**(1.0%)**
Bulk Services (per use basis)						
Bulk Water (approximately 13.6 m3 or 3,000 gallons)	Potable Water Costs (County)		$40.90	$41.94	$ 1.04	2.5%
	Estimated Delivery Charges (Private Hauler)		$85.45	$85.45	$-	0.0%
	Total		**$126.35**	**$127.38**	**$1.04**	**0.8%**
Septic/Holding (approximately 9.1 m3 or 2,000 gallons)	Treatment Costs (County)		$130.45	$133.70	$ 3.25	2.5%
	Estimated Delivery Charges (Private Hauler)		$91.57	$91.57	$-	0.0%
	Total		**$222.02**	**$225.27**	**$3.25**	**1.5%**

The majority of the County's customers have both water and wastewater services and, for residential users, will see a slight increase in their overall monthly costs as a result of the proposed 2020 rates. Bulk water users, holding/septic tank customers, and other miscellaneous user rates will experience overall increases relative to the inflationary increase of 2.5% on costs for 2020.

2020 Rate Supported Capital Forecast

The County's Capital Budget process is focused on **strategic objectives** and **long term financial plans**.

The 2020 Draft Rate Supported Capital Budget focuses on the following key principles:

- Focus on Replacement/Rehabilitation
- Studies/Reviews/Evaluations
- Provide Service Capacity for Anticipated Growth

A comparison of the gross capital expenditures included in the 2020 Draft Rate Supported Capital Forecast are summarized below:

Gross Expenditures	**2019 Budget** **Average Annual Gross Expenditures**	**2020 Draft Budget** **Average Annual Gross Expenditures**
Water System	$3.9 Million	$3.8 Million
Wastewater System	$8.6 Million	$7.8 Million
Total	**$12.5 Million**	**$11.6 Million**

As the County's Asset Management Plan is an evolving tool, it is anticipated that staff will be better able to predict the capital requirements as they relate to the water and wastewater infrastructure, particularly in the latter years of the

forecast. Details of the significant changes over the 2019-2028 Rate Supported Capital Forecast can be found in Capital Summary 1.

As the water and wastewater systems are 100% self-funded from the users, there are limited financing sources and limited customers to spread the burden of expensive project expenditures across (approximately 9,800 users in total). As the individual systems are funded specifically from the users of the relative systems (i.e. water users pay 100% of infrastructure costs related to the water system and wastewater users pay 100% of infrastructure costs related to wastewater systems), the funding sources are different for the two systems. Typically, replacements and rehabilitations, as well as enhancements to existing services and processes that are not growth related, are funded from the applicable capital replacement reserve funds. As well, 50% of the annual allocation of Federal Gas Tax is applied to water and wastewater needs. As the water capital replacement reserve fund is experiencing a significant decline in the first three years of the forecast (reaching a low of approximately $200,000 in 2022) a significant portion of the Federal Gas Tax allocation was applied to water capital projects. All growth related projects are funded from development charges. If insufficient funds are available from DC receipts, debt will be issued, resulting in the annual debt payments funded from future development charges. Other than growth related debt, this capital forecast does not have any new proposed debt financed projects for water or wastewater projects.

Introduction/Background:

Prudent management, as well as section 290 (1) of the Municipal Act, requires local municipalities to prepare and adopt annual estimates required for the purposes of the municipality, including amounts sufficient to pay all debts of the municipality falling due within the year, amounts required to be raised for sinking funds, and amounts required for any board, commission or other body. A budget is a guide to ensure Corporate Strategic priorities and departmental business plans are achieved. Annual budget estimates ultimately determine the County's revenue requirements and the impact on taxation/user rates to County residents.

Legislative Framework and Budget Process:

Legislative Framework:

Haldimand County is responsible for the purification and distribution of potable water to its users and the collection and treatment of the resulting wastewater. This system is ***fully funded by the users***, with no financial support from property taxes. Capital infrastructure is funded from user rates with offsetting funding from Development Charges and financial assistance from other levels of Government when available.

The Province has enacted specific legislation to ensure safe, clean and affordable potable water is available to people in every community. These regulatory requirements have significantly impacted the water and wastewater operations over time and have adversely impacted the associated rates. Increased staffing and treatment costs have been realized to accommodate the substantial workload to respond to these regulatory requirements and rigorous reporting/enforcement by the Ministry of the Environment. The legislative environment in which municipalities operate is continually evolving, inevitably placing additional constraints and pressures on resources and finances. The ideology of sustainable services and the allocation of limited resources are paramount in the budgeting decisions of all municipalities across the Province.

Although the Municipal Act provides the legislative authority for multi-year budgets, sustainable long range financing principles go beyond "multi-year budgeting" and involve the integration of long range strategic planning with service delivery plans and the appropriate annual budgets to facilitate the financial resources required.

With respect to meeting full cost recovery pricing for water and wastewater systems, past studies/surveys indicate the impacts of these legislative requirements are more dramatic on the smaller rural systems that also service large geographic areas (i.e. servicing less than 10,000 customers). Across the Province, there are several systems that fall into this category (i.e. there are more than 600 municipal systems across the Province that have fewer than 10,000 customers). Haldimand County's water and wastewater systems currently have approximately 9,800 customers and are further hampered by a diverse topography and numerous independent water supply and wastewater treatment networks. These factors can negatively impact the County's long range financial sustainability plan.

It is generally accepted that municipalities do not currently have the financial resources to fully fund the essential replacements associated with their current infrastructure needs. As such, it would take a collaborative effort by all levels of government to be committed to sustained increases in municipal infrastructure investments to ensure municipalities are providing safe, reliable and environmentally responsible services. The current underfunding of government infrastructure investments has been commonly referred to as the "infrastructure deficit" being *"the total value of physical infrastructure investments that should have occurred to maintain optimal performance but did not. This would include any delayed rehabilitation and replacement of assets that are worn out"*. It is anticipated, through current and future asset management plans, long range funding plans will be developed to fund infrastructure replacements at the optimal time within the available resources, thereby reducing the current "infrastructure deficit".

Rate Supported Budget Process

An integral part of the budget process is to adopt guidelines to ensure a consistent approach in developing the draft budget. The budget process is a culmination of collaborating efforts between supervisors, managers and senior staff. The budget guidelines establish the framework to develop the proposed budgetary needs to meet existing service levels, as well as identify proposed changes to these service levels. During 2013, the County completed a comprehensive Water and Wastewater Rate study to review cost allocation methodologies and recovery principles for all water and wastewater customers. This review included a series of public consultations as well as review by Council of the principles and the associated impacts on specific users of the water/wastewater systems.

The principles, as approved during the 2013 water/wastewater rate study, and as amended, continue to be utilized for preparation of the 2020 Draft Rate Supported (Water and Wastewater) Operating and Capital Budget, including:

- Full cost recovery of all operating and capital costs – recovered directly from the users of the applicable systems;
- Net costs (i.e. revenues required from rates revenue) will be recovered 50% from fixed revenues (i.e. basic charges) and 50% from variable revenues (i.e. consumption revenues);
- Leachate costs to be allocated based on relative loading at the treatment plant and recovered 50% from fixed revenues and 50% from variable revenues;
- Annual indexing of all miscellaneous revenues based on annual increase of underlying costs.

The Rate Supported Budget is scheduled to be reviewed by Council on January 28th, 2020. It is recommended that the required rate increases take effect February 1st, 2020, upon approval of the draft budget by Council.

A. 2020 DRAFT RATE SUPPORTED OPERATING BUDGET

Rate Supported Operating Process and Budgetary Constraints

The environment for water and wastewater operations is very highly regulated and monitored. The County's treatment facilities are governed by contracts with independent operators who are qualified to meet the stringent legislative requirements. As a result, several financial pressures influence the 2020 Draft Rate Supported Operating Budget that are, to some degree, beyond Council's control.

In addition to these external factors, there are several budgetary constraints that are unique to Haldimand County. The County operates a number of independent water and wastewater systems servicing relatively few users. With only approximately 9,800 users, the County operates four wastewater treatment facilities, four wastewater lagoons, two water treatment facilities, seven water distribution systems and eight wastewater collection systems. Though the County's user group is relatively small, the growth mainly related to the development in Caledonia is beginning to impact the end cost to the user, as discussed further within this report. Additional customers will help spread the costs over more users, however, other factors will impact operations: increased costs for servicing more users, potential loss/reduced consumption by large scale industrial customers; and change in consumption patterns for all users.

2019 Forecasted Operating Variance

Annual rates are impacted by the net costs to be recovered by rates revenues (i.e. increases/decreases in costs or miscellaneous revenue sources). In addition, fluctuations in annual consumption can significantly impact the annual water/wastewater revenues. As a result, to mitigate these fluctuations, the fixed component of the water and wastewater billings was increased to 50% of the total estimated annual revenues starting in 2013 (recovery principles are outlined in Operating Appendix C). The emphasis on fixed revenues ("basic/base charges") can help alleviate budget variances due to fluctuations in consumption. In addition to this, the County maintains a rate stabilization reserve for both water and wastewater to offset any unanticipated operating variances. As outlined in the draft 2020 operating budget document, the combined water/wastewater forecasted year end 2019 operating **surplus** is approximately $786,500.

The following chart outlines the forecasted 2019 surplus/(deficit) for water operations:

2019 Projected Water Operating Surplus/(Deficit)	
	Surplus/(Deficit)
Revenues:	
User Rate Revenues - Base and Consumption - mainly due to Large Industrial Consumption	$322,079
New Credit - Water Depot and Residential Consumption	$40,704
Bulk Water Consumption and Related Administrative fees	($32,750)
Water Meter Installations	($34,524)
Nanticoke Industrial Pumping Station-Stelco & Imperial Oil recoveries offset by expenditures below	$162,550
Miscellaneous items	($9,506)
Sub-total Revenues	***$467,564***
Expenditures:	
Salaries, Wages & Benefits - Manager of Engineering gapping, Operator 2 replaced with Operator in training, 2019 budget assumptions for benefits higher than actuals	$67,579
Hamilton Water Supply - lower than budgeted consumption	$88,300
Nanticoke Industrial Pumping Station - Stelco & Imperial Oil share of expenditures – due to hydro	($162,550)
Interdepartmental Charges - mainly adjustment to over estimation in 2019	$51,910
Billing and Collecting Contract - based on 10,000 customers, which was not reached in 2019	$28,919
Miscellaneous Items	($49,082)
Sub-total Expenditures	***$25,076***
Net Projected Surplus/(Deficit)	**$492,640**

The following chart outlines the forecasted 2019 surplus/(deficit) for wastewater operations:

2019 Project Wastewater Operating Surplus/(Deficit)	
Revenues:	**Surplus/(Deficit)**
User Rate Revenues - Base and Consumption - mainly due to Large Industrial Consumption	$23,093
Leachate - higher than anticipated volumes	$177,596
Water Meter Installations	($36,620)
Miscellaneous items	($17,151)
Sub-total Revenues	***$146,918***
Expenditures:	
Salaries, Wages & Benefits - Manager of Engineering gapping, Operator 2 replaced with Operator in training, 2019 budget assumptions for benefits higher than actuals	$22,680
Interfunctional Adjustments - mainly adjustment to over estimation in 2019	$27,160
Taxes and Local Improvements - mainly Townsend Lagoon	$53,500
M&R Services	$9,462
Billing and Collecting Contract - based on 10,000 customers, which was not reached in 2019	$28,919
Miscellaneous items	$5,187
Sub-total Expenditures	***$146,908***
Net Projected Surplus/(Deficit)	**$293,826**

There were several items with significant 2019 variances that impact the 2020 operations as follows:

- Fluctuating annual consumption (particularly industrial and commercial water users though residential consumption is rising slightly as a result of new development as well);
  - Action: historical averages have been used in calculating consumption predictions, including an estimate of anticipated increases in consumption due to residential growth.
- Greater than budgeted bulk water usage (mainly bulk water usage in New Credit);
  - Action: increases in consumption have been taken in to account in determining the estimated consumption for New Credit accounts. There is a slight deficit in bulk water sales within the County for 2019, though insignificant enough to have a significant impact on the 2020 budget.
- Water meter installations deficit:
  - Action: Staff will be reviewing the timing of water meter installation and the associated process to provide for more accurate future budgeting of the related revenues;
- Hamilton Water Supply costs impacted by fluctuating volumes;
  - Action: The 2020 budget has been adjusted to reflect the anticipated consumption related to the Hamilton Water Supply contract, including increases based on residential growth, as well as rate changes.
- Higher than budgeted leachate treatment levels;
  - Action: Leachate budget remains the same, as a Leachate Best Practices Study is currently being completed. The study findings will be considered further during preparation of the 2021 budget.
- Taxes and Local Improvements;
  - Action: Historically the County has not been billed for the taxes at the Townsend Lagoon, though it is responsible for these costs per the applicable agreement. These costs remain budgeted for 2020, as it is anticipated that the County will be billed for them in the future.
- Billing and Collecting Contract;
  - Action: The 2019 budget for the billing and collecting contract was based on 10,000 customers. Although it was not reached in 2019, it is anticipated that the County will reach this customer base in 2020, therefore no adjustment to this underlying assumption has been made for 2020.

2020 Draft Rate Supported Operating Budget Overview

The 2020 Draft Rate Supported Operating Budget, as outlined in this document, represents an overall net **increase** in total rate revenue requirements of $328,050 or 2.68% compared to the 2019 budgeted total rates revenue of $12.2 million: the water system requires a increase of $126,690 or 2.25% in rates revenue; the wastewater system reflects an increase of $201,360 or 3.05% in rates revenue. The relative impact on each system varies: a 1% impact in the water system is equal to approximately $56,000 in user rates revenue; while a 1% impact on the wastewater system is equal to $66,000.

The budget summary by major function is outlined below. The 2020 Draft Rate Supported Budget includes a number of impacts as discussed below, resulting in a monthly increase of approximately $0.60 or 0.7% for the typical residential user (based on a residential service of 1" or less and average consumption of 15 m^3 per month – as outlined in Operating Summary 1). Increased consumption and basic charges realized as a result of the new development (particularly in Caledonia) has assisted in keeping the increase on customers under 1% despite additional costs.

2020 Budget Drivers – Water Operations

WATER OPERATIONS				
	2019 Budget	2020 Budget	increase/(decrease)	
	$	$	$	%
Expenditures				
Salaries, Wages & Benefits	1,864,260	1,946,730	82,470	4.42%
Supplies & Materials	2,225,920	2,409,420	183,500	8.24%
Hamilton Water Supply	2,348,400	2,349,600	1,200	0.05%
Services	562,120	590,980	28,860	5.13%
Rents & Financial Expenses	11,390	10,300	(1,090)	-9.57%
Veolia Operating Services Charges	2,201,740	2,287,500	85,760	3.90%
Interdepartmental Charges	422,750	371,620	(51,130)	-12.09%
Long Term Debt Charges	1,441,050	1,438,280	(2,770)	-0.19%
Transfers to Reserves/Reserve Funds	1,611,570	1,132,620	(478,950)	-29.72%
Total Expenditures	**12,689,200**	**12,537,050**	**(152,150)**	**-1.20%**
Revenues				
Bulk Service Charges	1,519,100	1,552,500	33,400	2.20%
General Fees	5,025,260	4,713,070	(312,190)	-6.21%
Transfers from Reserves/Reserve Funds	502,370	502,320	(50)	-0.01%
Total Revenues	**7,046,730**	**6,767,890**	**(278,840)**	**-3.96%**
Net Revenues Required from User Rates	**5,642,470**	**5,769,160**	**126,690**	**2.25%**

As noted above, the overall 2020 rates revenue requirement from water users has increased by $126,690 or 2.25%.

Driver	***Net Rate Revenues Impact***	***% Impact***
A. Base Budget (net)	($21,010)	(0.37%)
B. New Initiatives	$61,370	1.09%
C. Water Additional Capital Contribution	$86,330	1.53%
Total	**$126,690**	**2.25%**

Details of the water operations budget drivers are outlined below.

A. Base Budget Drivers (net)

As indicated above, the total base budget net operating expenditures **decrease** by approximately $21,010. This net change is driven primarily by: increased New Credit consumption, fire protection charges as well as an increase in engineering and inspection fees. Expenditure drivers for 2020 include increases to Veolia Operations based on an estimated service delivery, as the current water operations contract expires in the summer of 2020.

The major detailed net operational impacts are outlined below:

2020 Draft Water Operating Budget	
Summary of Impact of Base Budget Drivers on Rate Revenue Requirements	
Base Budget:	**Increase/ (Decrease)**
Revenues (excludes rate revenues):	
New Credit Water Depot and Residential - 3 year average consumption	($35,180)
Fire Hydrant Fees - Estimated 2.5% increase	($55,400)
Engineering Inspection Fees	($25,600)
Water Meter Installations	$12,200
Nanticoke Industrial Pumping Station - Stelco and Imperial Oil recoveries offset by expenditures below	($171,180)
Dunnville Microstrainer Reserve Fund Recovery - moving towards direct billing of capital expenditures, therefore reserve fund recoveries and contributions no longer required	$568,000
Miscellaneous Fees & Recoveries	$9,250
Sub-total Revenues	***$302,090***
Expenditures:	
Salaries, Wages and Benefits	$21,100
Nanticoke Industrial Pumping Station - Stelco and Imperial Oil share of expenditures - hydro ($144K), Veolia ($27K)	$171,180
Dunnville Microstrainer Reserve Fund Recovery - moving towards direct billing of expenditures, therefore reserve fund recoveries and contributions no long required	($568,000)
Veolia Operations	$59,050
M&R Services - Increased by $20K based on historical and future needs	$20,000
Interdepartmental Charges - mainly adjustment to over estimate in 2019	($51,130)
Increase in Engineering and Compliance administration costs	$16,180
Miscellaneous Supplies & Services	$8,520
Sub-total Expenditures	***($323,100)***
Total Base Budget Impact on Rate Revenue Requirements	**($21,010)**

B. New Initiatives

There is one New Initiative for 2020, as outlined in Operating Appendix A. Overall, the net rate revenue impact of this initiative in water operations is an increase of $61,370 (1.1%) as outlined below:

Description	**Rate Revenue Increase/ (Decrease)**
New Initiatives	-
Water and Wastewater Engineering & Compliance Project Manager	$61,370
Sub-total	**$61,370**
Total Initiatives Impact on Rate Revenue Requirements	**$61,370**

C. Infrastructure Capital Financing Requirements

Overall, water annual capital financing related impacts on the user rates were held to **1.5%** in 2020. Capital related impacts include the combination of annual capital replacement reserve fund contributions and debt repayments, as outlined in Capital Summary 3. Essentially, the combined water reserve fund contributions and changes to debt repayments for 2020 increased by $86,330. As indicated previously, it is recommended to maintain an annual combined water and wastewater rate increase of 1.0% dedicated for capital related impacts over the forecasted period, with an annual shift in additional contributions to water from wastewater phased in over 10 years. It is recommended that increases to these capital replacement reserve funds will end in 2024. This plan will be revisited on an annual basis based on projected sources of capital financing and relative capital replacement reserves.

2020 Budget Drivers – Wastewater Operations

WASTEWATER OPERATIONS				
	2019	2020	increase/(decrease)	
	$	$	$	%
Expenditures				
Salaries, Wages & Benefits	913,980	988,810	74,830	8.19%
Supplies & Materials	1,167,700	1,216,300	48,600	4.16%
Services	341,280	343,210	1,930	0.57%
Rents & Financial Expenses	3,590	3,300	(290)	-8.08%
Veolia Operating Services Charges	2,548,490	2,601,000	52,510	2.06%
Interfunctional Adjustments	319,250	290,030	(29,220)	-9.15%
Long Term Debt Charges	1,139,060	2,330,070	1,191,010	104.56%
Transfers to Reserves/Reserve Funds	2,585,640	1,566,640	(1,019,000)	-39.41%
Total Expenditures	**9,018,990**	**9,339,360**	**320,370**	**3.55%**
Revenues				
Bulk Service Charges	1,648,460	1,650,540	2,080	0.13%
Municipal Recoveries	49,000	53,100	4,100	8.37%
General Fees	245,710	238,960	(6,750)	-2.75%
Transfers from Reserves/Reserve Funds	473,640	593,220	119,580	25.25%
Total Revenues	**2,416,810**	**2,535,820**	**119,010**	**4.92%**
Net Revenues Required from User Rates	**6,602,180**	**6,803,540**	**201,360**	**3.05%**

As noted above, the overall 2020 rates revenue requirement from wastewater users has increased by $201,360 or 3.05%. Detailed budget drivers are outlined below.

Driver	***Net Rate Revenues Impact***	***% Impact***
A. Base Budget (net)	$103,760	1.57%
B. New Initiatives	$61,170	0.93%
C. Wastewater Additional Capital Contribution	$36,430	0.55%
Total	**$201,360**	**3.05%**

A. Base Budget Drivers (net)

As indicated above, total net base expenditures increased by approximately $103,760. Expenditure related impacts include Veolia operating impacts and hydro increases at treatment plants. The major detailed net operational impacts are outlined below:

2020 Draft Wastewater Operating Budget	
Summary of Impact of Base Budget Drivers on Rate Revenue Requirements	
Base Budget:	**Increase/ (Decrease)**
Other Revenues (excludes rate revenues):	
Water Meter Installations	$12,200
Miscellaneous items	($11,590)
Sub-total Revenues	***$610***
Expenditures:	
Salaries, Wages and Benefits	$16,660
Interfunctional Adjustments - mainly adjustment to over estimate in 2019	($29,220)
Veolia Operations - Standard annual increase	$52,510
Hydro - 3 year average consumption with estimated rate increase	$19,560
Increase in Engineering and Compliance administration costs	$17,630
Miscellaneous items	$26,010
Sub-total Expenditures	***$103,150***
Total Base Budget Impact on Rate Revenue Requirements	**$103,760**

B. New Initiatives

There is one New Initiative for 2020, as outlined in Operating Appendix A. Overall, the net rate revenue impact of this initiative in wastewater operations is an increase of $61,270 (0.9%) as outlined below:

Description	**Rate Revenue Increase/ (Decrease)**
New Initiatives	
Water and Wastewater Engineering and Compliance Project Manager	$61,270
Subtotal	**$61,270**
Total Initiatives Impact on Rate Revenue Requirements	**$61,270**

C. Infrastructure Capital Financing Requirements

Overall, wastewater annual capital financing related impacts on the user rates were **0.6%** in 2020. Capital related impacts include the combination of annual capital replacement reserve fund contributions and debt repayments, as outlined in Capital Summary 3. Essentially, the combined wastewater reserve fund contributions and changes to debt repayments for 2020 increased by $36,430. As indicated previously, it is recommended to maintain an annual combined water and wastewater rate increase of 1.0% dedicated for capital related impacts over the forecasted period, with an annual shift in additional contributions to water from wastewater phased in over 10 years. It is recommended that increases to these capital replacement reserve funds will end in 2024. This plan will be revisited on an annual basis based on projected sources of capital financing and relative capital replacement reserves.

Impacts on Miscellaneous Rates

As outlined above, both water and wastewater operations are benefitted by higher charges from miscellaneous revenue sources. A comprehensive list of all fees and charges is included in Operating Appendix F – Schedules B through D, inclusive. The intent is to pass a comprehensive water and wastewater by-law that includes all water and wastewater fees, with an effective date of February 1, 2020.

The majority of the revenues derived from miscellaneous charges are the bulk processing fees (i.e. bulk water charges and bulk wastewater treatment charges – leachate, holding/septic tanks and portable toilets) and Fire Protection Charges. These fees and recovery methodologies were covered in detail in the 2013 rate study (see Operating Appendix C for the applicable methodologies). The principles adopted as part of the rate study were based on cost allocation methodologies to ensure the users of the systems pay for the full costs of these systems. There are no planned changes to the underlying recovery methodologies in 2020.

Water Miscellaneous Revenues

Miscellaneous revenues represent approximately $6.8 million in annual revenues for the water system, reducing the user rates revenue by a corresponding amount. These fees are broken down as follows:

- approximately $2.2 million relates to the recovery of costs associated with the provision of non-potable water to industries in Nanticoke - it should be noted that this budget has been developed with no changes to the cost allocations under the Lake Erie industrial agreement;
- bulk water recoveries represent total revenues of approximately $1.6 million, with the impacts on the end user outlined below;
- $502,000 relates to development charges funding to offset related development related debt payments;
- fire protection charges represent approximately $2.3 million which includes an increase of $55,000 or 2.5%;
- the remaining miscellaneous fees total approximately $198,000 and include:
  - property tax recoveries from industry of approximately $92,000;
  - miscellaneous charges of approximately $106,000.

These miscellaneous revenues (excluding the New Credit charge as it is covered by a specific agreement) are all proposed to reflect an annual inflationary increase of 2.5% (rounded where applicable), based on the underlying increase in the associated costs to provide these services (subject to the annual budget review).

Ultimately, if the proposed miscellaneous charges are not adopted, the rates to other users of the systems will have to be increased to offset the resulting reduction in revenue.

The following summarizes the proposed changes for bulk processing fees:

(i) Bulk Water Charges

As outlined in Operating Appendix C, historically Bulk Water charges were based on the methodology outlined in the County's 2013 rate study as approved by Council. The methodology included both a "fixed" component and a variable component. Due to the fluctuations in consumption within this user group, the related rate had been fluctuating in recent years. In order to maintain a level of predictability to these rates, Council adopted a change as part of the 2018 budget to provide for the indexing of the bulk water cubic meter rate based on the underlying cost increases (2.5% for 2020), which is the same approach taken with respect to the septic and holding tank customers a few years ago in order to achieve rate consistency. The proposed 2020 monthly fee is $17.62 which represents a 2.5% **increase**. The monthly administration fee

will continue to be billed to all customers with consumption in the applicable month. The majority of the revenues generated from these charges relate to commercial water haulers.

For reference purposes, a history of the bulk water rate is included below:

	2013	2014	2015	2016	2017	2018	2019	2020
Bulk Water Rate (per m3)	$3.02	$2.96	$2.93	$2.96	$2.89	$2.94	$3.00	$3.08

The proposed per load impact on a "typical end user", based on the assumptions noted below, is as follows:

Bulk Water Rate	**2019 Rate**	**2020 Rate**	**Change**	
(per cubic metre)			*($)*	*(%)*
Controlled by Haldimand County				
Bulk Water Rate (charged to hauler)	$3.00	$3.08	$0.07	2.5%
Monthly Administration Fee (charged to hauler)	$17.19	$17.62	$0.43	2.5%
Per Load Impact on "Typical End User" (13.6 m3 or 3,000 gallon load)				
Water Commodity (determined by Haldimand County)	$40.90	$41.94	$1.04	2.5%
Estimated hauler delivery charge (determined by hauler)	$85.45	$85.45	$0.00	0.0%
Total "End User" estimated cost	**$126.36**	**$127.38**	**$1.04**	**0.8%**

The following assumptions were used in the above chart: average load is 3,000 gallons (i.e. approximately 13.6 cubic metres); no change in the hauler's delivery charge; and excludes any allocation of administration fee. It should be noted that a customer using one load of 3,000 gallons per month would be equivalent to the County's annual average of 13.6 cubic metres for potable water supplied directly to metered water residents (i.e. typically urban residents). Additionally, rural customers have the ability to reduce their required purchases of water by capturing rainwater for personal use (typically not available to urban residents). In wet seasons, this has the potential of significantly reducing the need to purchase water directly from water haulers.

Wastewater Miscellaneous Revenues

Miscellaneous revenues represent approximately $2.5 million in annual income for the wastewater system which helps reduce the impact on user rates revenue. These fees are broken down as follows:

- approximately $1.4 million relates to the leachate treatment cost recovery. The 2020 budget reflects no change in this revenue source as a Leachate Best Practices Study is currently being completed, and the study findings will be considered during preparation of the 2021 budget. As the majority of the costs are allocated based on loading, it is anticipated as leachate strength and volumes decline after the closure of Tom Howe, that these revenues will decline. The associated loading and allocation of costs will be monitored in future years to ensure appropriate costs allocations;
- the holding/septic tank treatment charges total approximately $173,000. This is a increase of $2,000 in aggregate due to a proposed increase of 2.5% in the per cubic meter rate and what appears to be the evening out of volumes after a number of years of declining volumes (see analysis of impact on end user below).
- $593,000 relates to development charges funding to offset related development related debt payments;
- the remaining miscellaneous fees total approximately $334,000 and include:
  - "overstrength" charges established under the Sewer Use By-law of $155,000;
  - sludge storage charges to Norfolk County of approximately $53,100;
  - miscellaneous charges of approximately $125,900;

The miscellaneous fees reflect an inflationary increase of 2.5% (rounded as required), based on the underlying increase in the associated cost to provide these services (subject to the annual budget review).

(i) Holding/Septic/Portable Toilet Tank Treatment Charges

As outlined in Operating Appendix C and approved by Council during the 2013 rate supported budget review, the recovery methodology for holding and septic tank treatment cost allocation is to allocate the full operating costs associated with these services to the applicable users. Similar to other fixed/miscellaneous fees, it is recommended to increase the "fixed" monthly charge to $17.62 or 2.5%. The volumetric rates apply equally to all septic, holding tank and portable toilet waste treated at the County's facilities.

When the rate study was approved, Council amended the proposed recovery methodology to exclude specific capital costs associated with this service. As a result, there were no funds to replace any capital failures/repairs/maintenance which will impact the County's ability to provide this service in the future. During the 2015 budget review, Council evaluated options to continue to provide this service and recover the full costs associated therein (i.e. recovery of capital replacement costs) to ensure the sustainability of this service. From this review, Council approved the closure of the Caledonia septage receiving station and recovery of capital costs at the Dunnville receiving plant to provide the necessary capital funding to sustain this service into the future. In addition, all future rates will be indexed similar to other miscellaneous fees.

Based on Council's recommendation, the 2020 holding/septic tank rates have been increased by 2.5% similar to other miscellaneous fees. Due to an increase in volumetric rates, coupled with an increase in volumes, the annual revenues are expected to increase by $2,000. Holding/septic volumes treated on an annual basis declined steadily from 2010 to 2016 (from a high of 24,000 cubic meters to a low of approximately 9,000 cubic metres). Over the past few years, volumes have rebound, with a four year average volume utilized for the projected 2020 volumes of approximately 11,800 cubic metres.

The impact on the holding/septic tank rates for 2020 is as follows:

Holding/Septic/Portable Toilet Tank Treatment Charge	**2019**	**2020 Proposed**	**Change**	
(per cubic metre)			*($)*	*(%)*
Controlled by Haldimand County:				
Proposed Rate (charged to hauler)	$14.35	$14.71	$0.36	2.5%
Monthly Administration Fee (charged to hauler)	$17.19	$17.62	$0.43	2.5%
Per Load Impact on "Typical End User" (9.1 m3 or 2,000 gallon load)				
Treatment Cost (determined by Haldimand)	$130.45	$133.70	$3.25	2.5%
Estimated hauler delivery charge (determined by Hauler)	$91.57	$91.57	$0.00	0.0%
Total "End User" cost	**$222.02**	**$225.27**	**$3.25**	**1.5%**

The proposed administration and treatment fees are paid by all customers that discharge holding tank/septic/portable toilet waste to County treatment facilities. As this represents only a handful (approximately 4) of commercial haulers, the cost to the end user (i.e. household) includes additional haulage charges. To determine the per use impact on the "typical end user" (i.e. predominantly rural residents), the following assumptions were used: average load is 2,000 gallons (i.e. approximately 9.1 cubic metres); and an estimated delivery charge of $87.70. The impacts on specific users will vary considerably based on the number of times a year this service is required.

Impacts on Rates

Water and wastewater rates are impacted by the net revenue requirements, as well as the anticipated consumption by the affected users. As a result, although additional revenues may not be required, anticipated consumption can increase/decrease the relative rates correspondingly (i.e. increased consumption will decrease rates; decreased consumption will increase rates). Given there are different users of each system (i.e. there are approximately 250 water only customers and approximately 75 wastewater only customers), the funding of these two systems must remain autonomous. The rate revenue consumption assumptions are outlined in Operating Appendix C.

For 2020, the water users are required to generate approximately $5.8 million, which represents an increase in water rate revenue requirements of 2.25%. These revenues are collected by a combination of base water fixed fees and volumetric consumption charges per cubic metre consumed. As outlined in Operating Appendix C, one of the principles adopted as part of the rate study was to increase the relative portion of the "fixed"/base fees. As the costs of the systems are approximately 50% fixed, the fixed component of the billing is set at 50% of the total revenues. This fixed component will help to offset any fluctuations in revenues due to shifts in annual consumption patterns.

The required rate revenue for the wastewater users is approximately $6.8 million in 2020, representing an increased requirement of 3.05%. Similar to water customers, these revenues are recovered through a combination of basic wastewater charges and volumetric charges based on the water consumed (other than those users that qualify for the Wastewater Discharge Program – which allows for billing based on a wastewater meter). The fixed component is also set at 50% of the total rate revenue requirement. As there are several customers with water service but no corresponding wastewater service (particularly large industrial and commercial customers), the rate model compensates for these deviations.

As water and wastewater operations are recovered 100% from the applicable users, changes in consumption patterns can shift the burden to different users. Although setting the fixed component of the bill at 50% will assist in offsetting future shifts in consumption, approximately 25% of the County's total water consumption is derived from 2 major industrial users (includes 4 separate locations). As a result, any fluctuations in their operations can cause large revenue shifts on the volumetric portion of the billing. The following outlines the estimated consumption for 2020:

Water Customers and Consumption Comparison

	2019				2020			
	Forecast		Budget		Budget			
	Users	%	Consumption	%	Users	%	Consumption	%
Residential	9,088	90.63%	1,402,322	41.52%	9,152	90.60%	1,424,814	40.47%
Commercial/Industrial	676	6.74%	609,511	18.05%	676	6.69%	611,996	17.38%
Large Industrial	4	0.04%	837,598	24.80%	4	0.04%	924,763	26.27%
Subtotal	**9,768**	**97.41%**	**2,849,431**	**84.37%**	**9,832**	**97.33%**	**2,961,573**	**84.12%**
Bulk Water	260	2.59%	370,984	10.98%	270	2.67%	378,993	10.76%
New Credit Wholesale			84,594	2.50%			104,744	2.97%
New Credit Depot			72,493	2.15%			75,530	2.15%
Total	**10,028**	**100.00%**	**3,377,502**	**100.00%**	**10,102**	**100.00%**	**3,520,839**	**100.00%**

Wastewater Customers and Consumption Comparison

	2019				2020			
	Forecast		Budget		Budget			
	Users	%	Consumption	%	Users	%	Consumption	%
Residential	8,963	93.36%	1,406,719	64.29%	9,027	93.41%	1,453,506	63.25%
Commercial/Industrial	630	6.56%	454,457	20.77%	630	6.52%	469,366	20.43%
Large Industrial	3	0.03%	283,343	12.95%	3	0.03%	329,352	14.33%
Subtotal	**9,596**	**99.96%**	**2,144,519**	**98.01%**	**9,660**	**99.96%**	**2,252,223**	**98.01%**
Septic/Holding	4	0.04%	11,952	0.55%	4	0.04%	11,811	0.51%
Leachate		0.00%	31,628	1.45%			33,820	1.47%
Total	**9,600**	**100.00%**	**2,188,099**	**100.00%**	**9,664**	**100.00%**	**2,297,854**	**100.00%**

The number of customers for budgeting purposes reflects the totals from an in-year review, with an incremental increase related the known development coming on in 2020.

Similar consumption projections were utilized for wastewater customers with corresponding reductions for large industrial customers (one of the large industrial customers has water only and operates its own wastewater lagoon).

The resulting 2020 water and wastewater user rates are included in Operating Appendix F in this budget document. The proposed rates would be effective on all billings for consumption **effective February 1, 2020**. The intent is to implement rate changes as early in the year as possible to provide the users with a more predictable increase (i.e. one rate increase at the beginning of each year). Additionally, this would provide the flexibility to change the rates during the year to offset anticipated in-year shortfalls as the case may be.

B. 2020 DRAFT RATE SUPPORTED CAPITAL BUDGET AND FORECAST TO 2029

Capital Budget Process/Principles

The County's Capital Budget process has been focused on **strategic objectives** and **long term financial plans**. This process provides direction to management when identifying infrastructure needs and implementing a long range financial plan that is sustainable. The County completed a comprehensive Asset Management Plan (AMP) in early 2014 for the following asset categories: roads, bridges/culverts, storm sewer, water and wastewater. The plan included the required annual reserve contributions based on the anticipated cost and timing of replacement of the assets in these categories. This plan identified some funding shortfalls, in particular, water and wastewater had an annual deficit of approximately $700,000 (primarily in water). Although this plan was approved in early 2014, it is anticipated to change/evolve over time. The results of both the rate study and AMP will help refine the current long range plan which continues to provide the fundamental basis for the ten year capital forecast.

The 2020 Draft Rate Supported Capital Budget focuses on the following key principles:

- *Focus on Replacement/Rehabilitation*: Focus on replacement/rehabilitation projects that support the overall objectives of the system and long range infrastructure plan. Using the comprehensive inventory of our current infrastructure needs, a long range financing strategy can be implemented to ensure the system is financially sustainable and affordable.
- *Studies/Reviews/Evaluations*: Continue comprehensive performance evaluations and condition reviews of the facilities. These evaluations and studies provide the basis for determining future infrastructure needs as well as the timing of these requirements. By identifying physical or operational "bottlenecks", operational and capital plans can be put in place to address these issues. Also, continued inflow and infiltration (I/I) studies/reviews are planned to identify sources of extraneous flow. These studies will assist in identifying areas of concern to provide

additional future capacity and delay costly infrastructure upgrades/replacements (as well as address lost water management – a component of pending legislative requirements under the Water Opportunities Act).

- *Provide Service Capacity for Anticipated Growth*: Provide the necessary new/upgraded infrastructure at the critical timelines identified in the long range infrastructure plan based on existing capacity and future needs. This provides a more realistic opportunity to develop a financial plan that is affordable to the rate payers. The ten year forecast focuses on replacement of existing infrastructure but given the substantial growth that is anticipated over the next 10 years, there are a significant number of growth related projects, particularly for wastewater infrastructure, within the draft 10 year capital forecast which are to be funded in part from the applicable development charges reserve fund (i.e. approximately 51% of the required funding over the ten year forecast is budgeted from development charges, primarily influenced by the need for additional wastewater service capacity in Caledonia).

Gross Capital Costs Overview

Based on the aforementioned guidelines and principles, the total gross capital expenditures (for the combined water and wastewater systems) are approximately $116.5 million for the period 2020 to 2029. Relative to the approved forecast in 2019, this represents a **decrease** of approximately $9 million over the ten year forecast (this decrease is due mainly to large projects initiated in 2019 and therefore no longer form part of the capital forecast as they are active projects). Typically gross capital costs decrease significantly in the later part of the forecast. As a result, some non-specific capital costs have been identified in these later years (primarily years 5 through 10). The specifics of these projects will be identified as better replacement information is developed through updates to the County's asset management plan in future years.

Although the current annual capital requirements are realistic and manageable, given the current customer base, there are replacements, not currently within the current 10 year forecast, that require a long range plan to address the associated financial impacts. A long range financial plan to address the replacement of current water and wastewater infrastructure was included as part of the 2013 rate study (the principles from which form the basis for the 2020 Capital Budget and Forecast). As indicated below, there are fairly consistent average gross costs relative to the prior year's approved budget over the 10 year forecasted period.

Gross Expenditures	**2019 Budget** **Average Annual Gross Expenditures**	**2020 Draft Budget** **Average Annual Gross Expenditures**
Water System	$3.9 Million	$3.8 Million
Wastewater System	$8.6 Million	$7.8 Million
Total	**$12.5 Million**	**$11.6 Million**

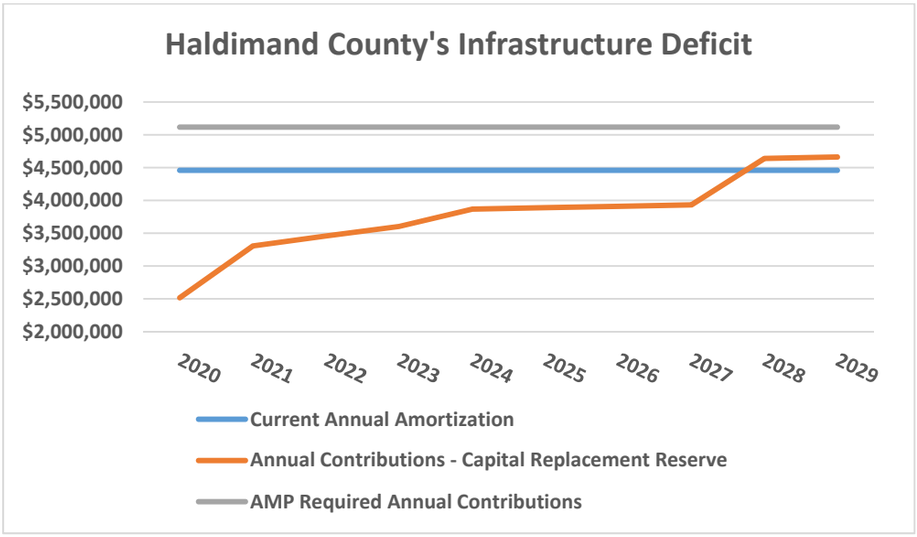
Estimated Haldimand County Water/Wastewater "Infrastructure Deficit"

It is generally accepted that municipalities do not currently have the financial resources to fully fund the essential replacements associated with their current infrastructure needs. The County's current capital asset inventory, as reported for audited financial statement purposes, reflects the historical value of the assets, less the accumulated amortization (i.e. value used/utilized over its useful life to date). The resulting "Net Book Value" (NBV = historical cost less accumulated amortization) represents the remaining value of the asset over its remaining useful life. The net book value of assets, as a % of historical cost, is a good financial indicator of the state of good repair of the County's infrastructure – the lower the percentage, the greater percentage of infrastructure that is nearing its replacement/end of useful life. Based on the audited 2018 financial statements, the County's net book value of assets for water and wastewater only (excludes tax supported infrastructure) was as follows:

2018 Net Book Value *(water and wastewater assets only)*	**Haldimand**
Historical Cost	$214,177,364
Net Book value	$141,840,681
Percentage	**66.2%**

The County's NBV as a % of historical cost has remained relatively constant from 2009 to 2018, ranging with a low of 64.2% to a high of 67.6% (this information has only been reported in the County's financial statements since 2009). This indicator has increased from 2017 (64.2%), and is a good indicator that capital asset investments have kept pace with the utilization of existing assets in relative terms. The Province completes an annual "Financial Indicator Review" of Ontario municipalities which Haldimand is grouped with 28 single tier municipalities in southern Ontario, ranging in size, but excluding Toronto. This review notes our 2018 Asset Consumption Ratio (the extent to which depreciable assets have been consumed) at 48.3% for all asset categories, compared to the average of 41.9% for our comparator municipalities. Lower numbers indicate newer infrastructure, and a ratio under 50% is considered low risk by the Province. Ultimately, as assets age and near the end of their useful life, the County needs to develop a long term financial plan to meet these requirements.

As noted previously, the County completed a comprehensive Asset Management Plan (AMP) in 2014 for the following asset categories: roads, bridges/culverts, storm sewer, water and wastewater. The plan included the required annual capital reserve contributions based on the anticipated cost and timing of replacement of the underlying assets in these categories. This plan identified significant annual funding shortfalls, particularly in the roads/bridges and water categories. By utilizing the information from the AMP, an "**estimated** infrastructure deficit" can be calculated for the County's water and wastewater infrastructure. Although based on incomplete information (not every single asset is reported for financial reporting purposes) and several assumptions, it provides an indication as to whether the County is currently providing sustainable capital funding to replace the current infrastructure.



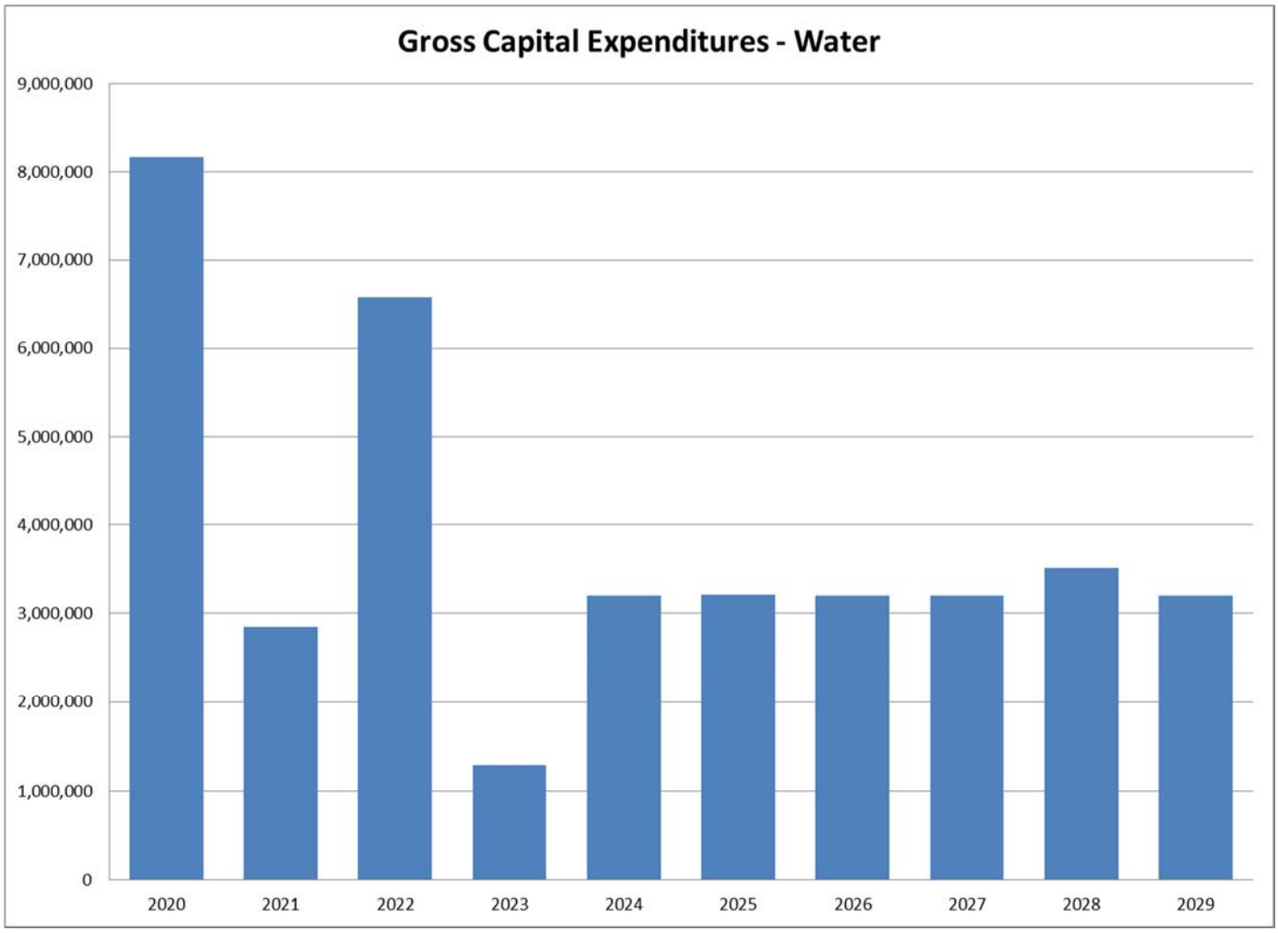
Note: reduced 2020 annual contribution is due to new debt payments beginning related to Dunnville WWTP; increased contributions in 2028 are due to the final payments on debt that was issued in 2017

Although the above information is based on several assumptions (i.e. rate of inflation, interest earnings on applicable reserves, estimated useful life, anticipated debenture issuances, etc.), it is a good indication that there are future funding issues to be addressed in order to fully finance future asset replacements. As capital contributions are the sum of debt payments and capital reserve contributions, increased debt payments limit the ability to increase annual reserve contributions (as is the case in years 2020 through 2022). The asset management plan for water and wastewater also indicates a funding shortfall averaging approximately $700,000 over the forecast period (particularly in water). These estimates provide a fundamental basis to assist in developing future sustainable funding plans that can be evaluated and monitored.

Water Gross Capital Costs:

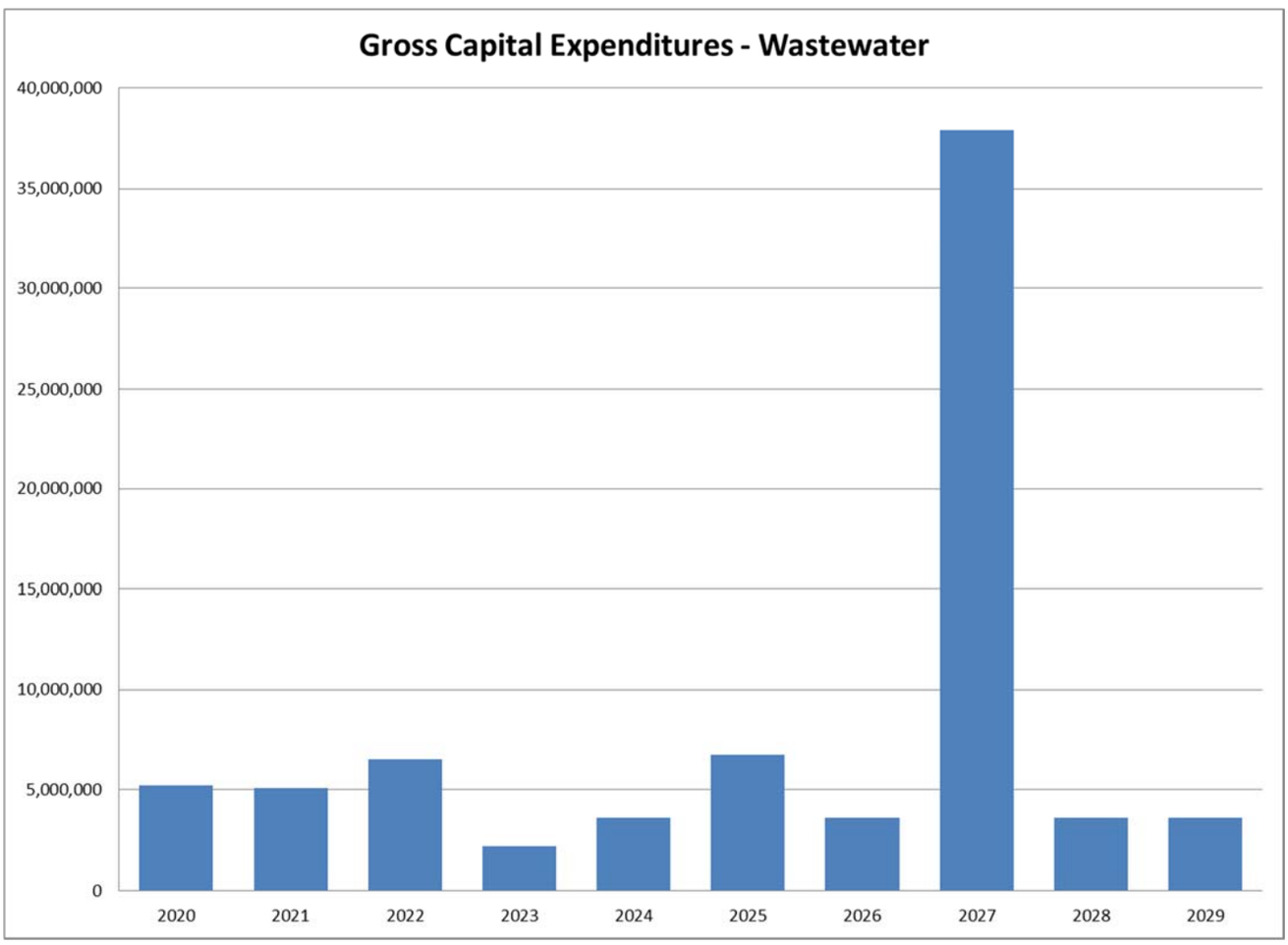
A summary of the planned gross capital costs for Water services is presented in the chart below. Although there are limited overall changes, there are shifts in timing/scope changes for projects that will affect the long range financing plan (primarily due to the changes in the early years of the forecast – 2020 to 2022). As it is more difficult to predict long term needs, fewer specifically identified projects are scheduled in the final 6 years of the forecast. More detailed inventory and continued studies will better identify the timing of these related projects. Specifics of some of the identified water system capital projects are as follows:

Average annual costs water projects are approximately $3.8 million. Annual fluctuations would reflect growth related projects funded from Development Charges or one-time significant replacements. The replacement of the existing water standpipe in Caledonia began in 2018 with the project spanning a four year period at an estimated total cost of $5.4 million ($5.2 million identified in 2021 and 2022), funded primarily by Development Charges ($3.0 million). Upgrades to the Dunnville Water Treatment Plant were initiated in 2019. Preliminary design work has determined an increase to this budget is required in the amount of $705,000 in 2020, bringing the total project budget to $5.0 million. As this project is fully funded from CRRF – Water, this increase will have a negative impact on the reserve fund.



Wastewater Gross Capital Costs – As depicted in the chart below, there is a fairly consistent focus on replacement and upgrades to existing wastewater infrastructure over the forecasted period. The details of some of the wastewater capital projects are as follows:

Average annual wastewater project costs are approximately $7.8 million. Planned for the last half of the ten year forecast is also the new/upgraded Caledonia Wastewater Treatment Plant at a total cost of $47 million over the years 2019 to 2027 (funded fully from Development Charges). As discussed, it is anticipated based on current growth in the Caledonia area, that a new/enhanced WWTP will be required to cope with the increased wastewater flows in that area.



Financing Methodology

There are limited financing sources available to the County to fund the necessary infrastructure replacements. As the water and wastewater systems are 100% self-funded from the users, there are limited customers to spread the burden of expensive project expenditures across (approximately 9,800 users in total). As the individual systems are funded specifically from the users of the relative systems (i.e. water users pay 100% of infrastructure costs related to the water system and wastewater users pay 100% of infrastructure costs related to wastewater systems), the funding sources are different for the two systems. The sources of financing for specific projects depend on the availability of funds and the nature of the capital projects. A long range plan was developed independently for water and wastewater infrastructure needs based on the 10 year forecasted costs. As a result, the focus of the 2020 Draft Rate Supported Capital Budget and Forecast is ***financing,*** meaning there are ***no*** capital projects financed directly from rates. These principles are a major step towards sustainability and lifecycle costing of infrastructure needs – it is the first step in moving from a "cash basis" to an "accrual basis" of funding.

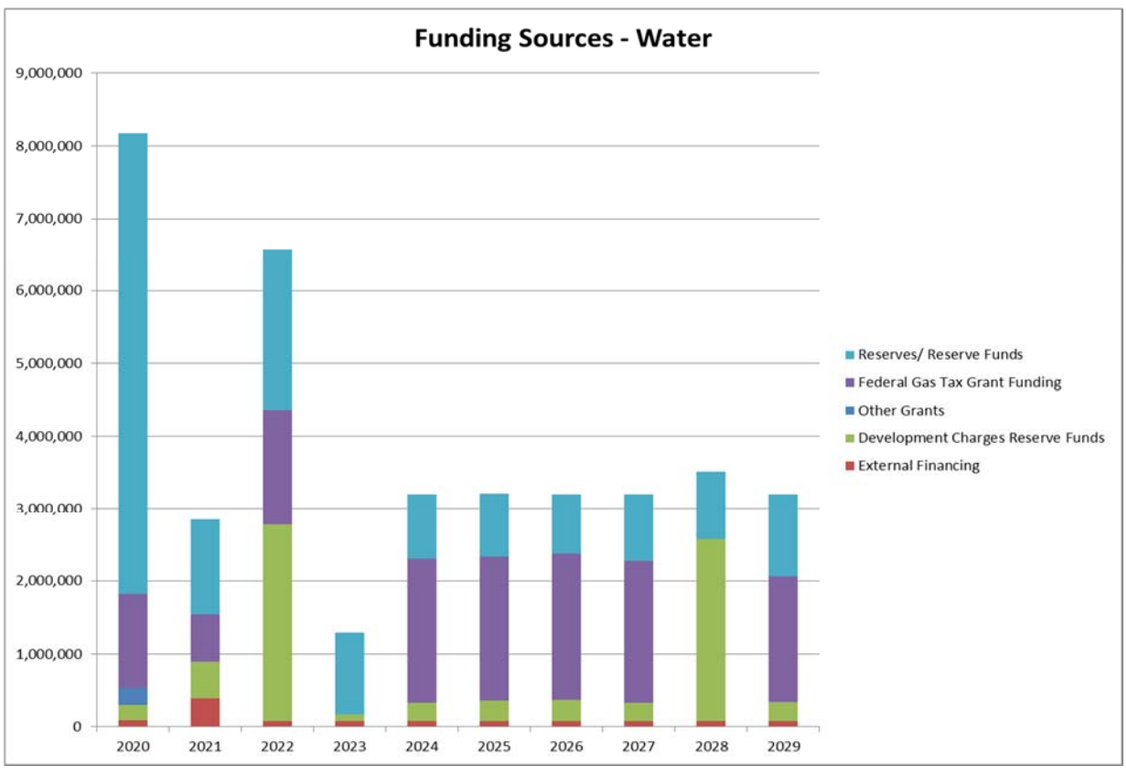
Typically, water and wastewater capital projects are funded in specific ways, depending mainly on whether the expenditure is for replacement or enhancement, as follows:

Replacements/Rehabilitation – These projects are typically financed from the applicable capital replacement reserve (i.e. water and wastewater respectively). Where sufficient reserves are not available, these projects must be debt financed. When available, external sources of financing will be utilized, including grants, recoveries from joint partners or developer contributions. The County's Capital Financing Principles allocate 50% of the annual Federal Gas Tax funds, Capital Appendix D, to water or wastewater replacements; plant upgrades and the meter replacement program. In addition, master plan studies are funded from the development charges reserve funds as identified in the development charges background study. Replacements at water plants for capital works specific to supplying non-potable water to industry is recovered 100% from the industries supplied by this infrastructure. As outlined in the chart below, the majority of financing over the forecasted period for replacements is funded from the applicable reserve fund (i.e. water or wastewater) and from an allocation of annual Federal Gas Tax grant funding. There is no new debt for replacement/upgrades related to major water/wastewater treatment plant capital projects over the forecasted period.

Plant Upgrades/Enhancement Projects: Typically, these projects are financed from external revenue sources. Enhancements to existing services/processes, not growth related, are internally financed. Development charges are collected for specifically identified projects. External sources of funds may be available as new grants are made available or third party groups partner with the County to initiate these activities. The County currently does not have an established predictable source of new funding for these initiatives other than the development charges collected on the specifically identified projects.

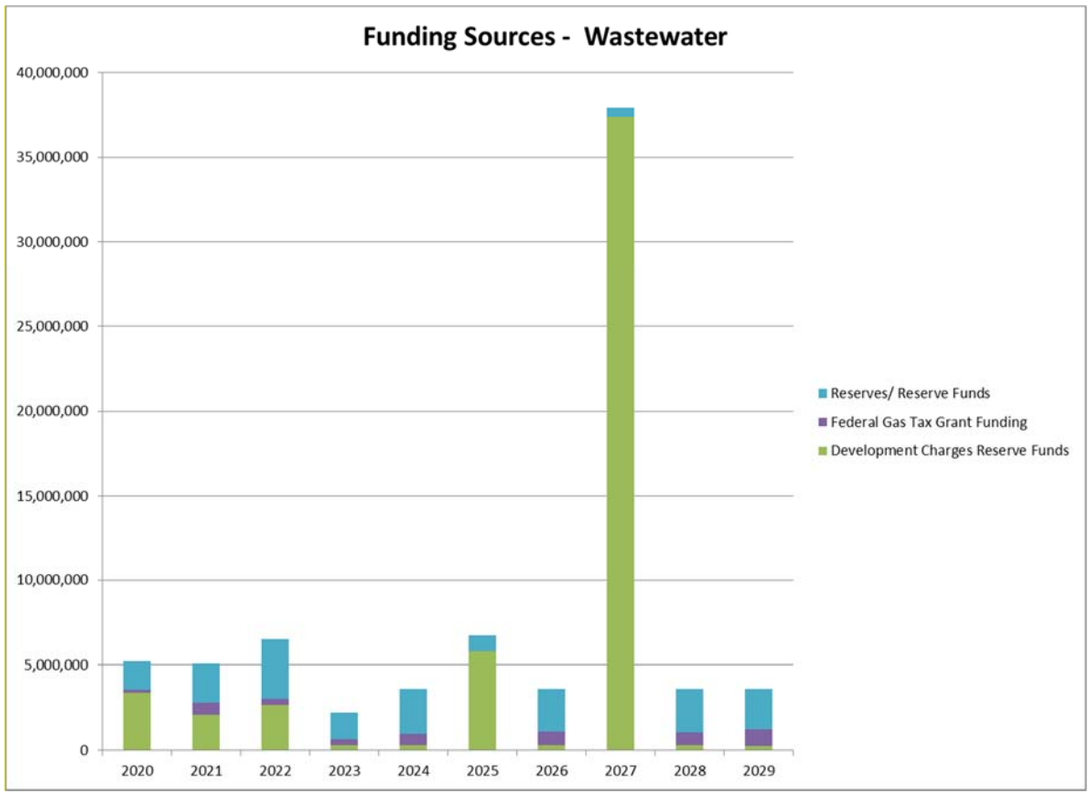
Funding Sources

Funding Sources – Water Projects: As depicted below, the majority of funding for water capital projects is from the water capital replacement reserve fund (in aggregate, approximately 43% of total funding over the forecast period). Federal Gas Tax grant funding represents the next largest portion totaling 34%. There have been no announcements regarding grant funding on a go forward basis, therefore no future funding is included within this forecast. There is limited use of development charges (approximately 19% related to growth related share of identified projects). The external funding is related to contributions for capital works undertaken on behalf of industries supplied with raw water from Nanticoke or Port Maitland. These projects are primarily funded 100% from the applicable industries utilizing this infrastructure.



Funding Sources – Wastewater: As depicted below, the majority of funding for replacement wastewater capital projects is from the wastewater capital replacement reserve fund (in aggregate, approximately 26% of total funding over the forecasted period). Grant funding (i.e. Federal Gas Tax) represents approximately 6% of the annual funding. Use of Development Charges for wastewater financing is substantial and represents approximately 67% of total projects financing. As mentioned, the main driver of the significant development charges financing for wastewater projects is as a result of the inclusion of a second wastewater treatment plant in Caledonia in the amount of $47 million (which is fully financed by Development Charges over the ten year forecast period).

It should be noted that a budget amendment, provided under separate cover, is required related to the Dunnville Wastewater Treatment Plant. These additional funds have not been included in the analysis within this report, and as such will have a impact on the related funding sources.



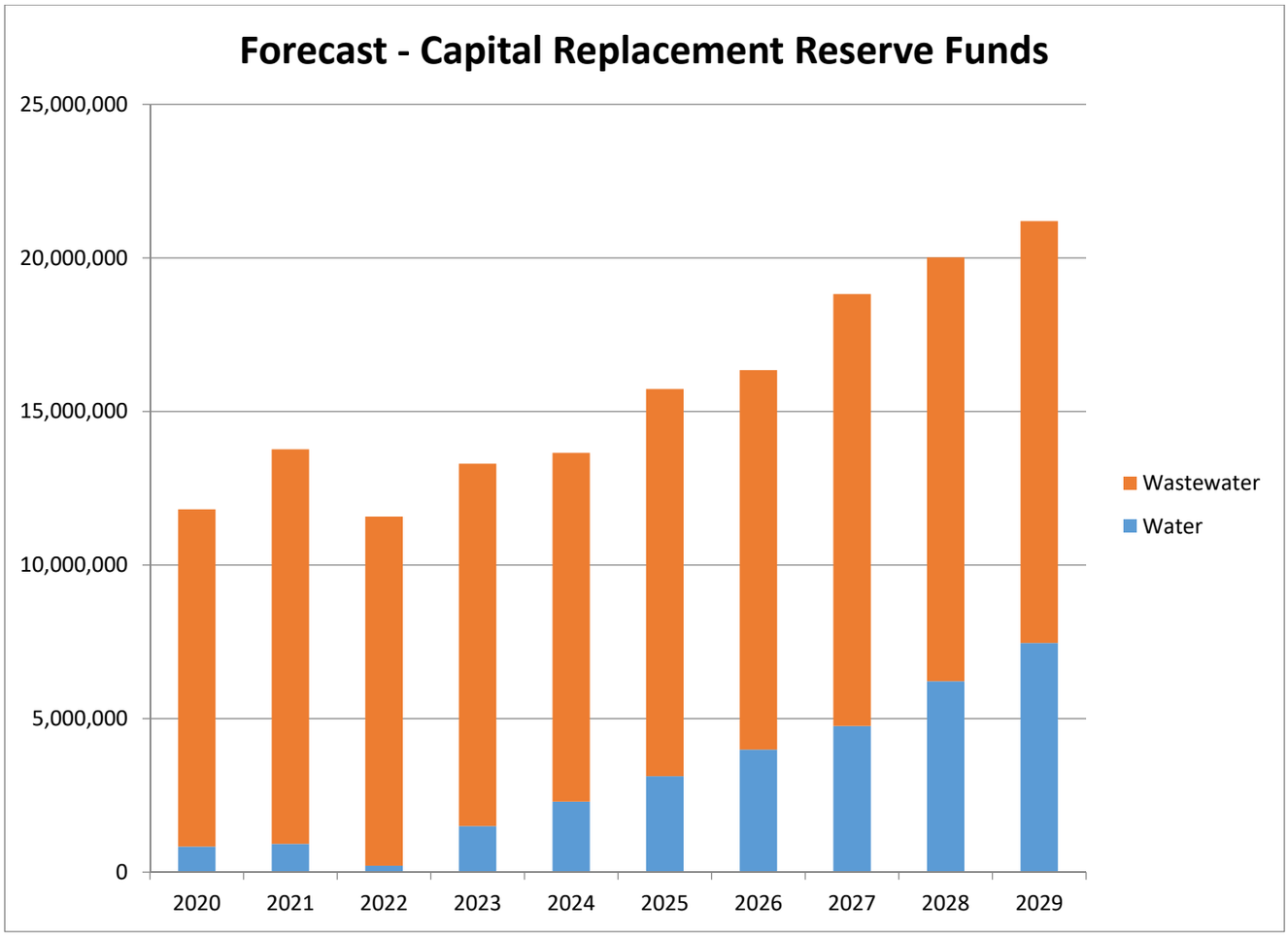
Grant Funding

As indicated above, the only predictable grant funding is the County's annual Federal Gas Tax Allocation (our current allocation is approximately $2.77 million per year). As outlined in the capital financing principles, 50% of the annual allocation is applied to water/wastewater capital needs. Of the approximately $18.0 million allocated to water/wastewater capital projects over the forecast period, $13.1 million is allocated to water and $4.9 million is allocated to wastewater. As there is currently a funding deficit in water; more Gas Tax funds have been allocated to the water system. Currently, the only other grant funding is related to the carryover of a Reservoir and Transfer Baffling system ($231,450) in Nanticoke that is funded from the previous Clean Water and Wastewater Fund (CWWF).

If additional grant funding is available in future years, staff will need to reassess the allocation principles for the Federal Gas Tax funds, between water and wastewater and tax supported capital needs, in conjunction with the asset management plans and revised funding needs.

Impacts on Reserves and Reserve Funds

As noted above, reserves and reserve funds are a critical component of a municipality's long-term financing plan and represent the major financing source for projected future capital projects. Included in the appendices is a summary of the water and wastewater capital replacement reserve funds. Income for these funds is derived from the County's rate supported operating budget and is used to fund the proposed capital projects included in the 2020 Draft Rate Supported Capital Budget and Forecast to 2029. The following chart outlines the projected balance of the water and wastewater capital replacement reserve funds (impacts on the development charges reserve funds are described in more detail later in this report).



The capital financing principles approved by Council, included in Capital Appendix A, require the respective reserve funds to remain positive over the forecasted period. In addition, any particular year's deficit cannot exceed 25% of the annual contributions to the respective reserve. As outlined in the graph above, the projected balances in the water and wastewater capital replacement reserve funds meet the financial principles outlined above. As new debt requirements to fund water/wastewater related capital infrastructure start in 2020 (for debt that was issued in 2019), the increased debt payments reduce the ability to transfer funds to the applicable capital replacement reserve. The water capital replacement reserve fund reaches a critically low balance in 2022. The wastewater capital replacement reserve fund, although projecting a healthy balance, does not include an estimate for the additional funds required for the Dunnville Wastewater Treatment Plant, provided under separate cover. A more comprehensive asset replacement program is required in future years to identify specific financing needs so that the impacts on the capital replacement reserve can be re-evaluated at that time.

As identified during the 2014 Rate Supported Budget, the water capital replacement reserve was violating the above noted financing principles. As a result, staff proposed a shift in contributions to capital replacement reserves from wastewater to water, to be phased in over 10 years starting in 2014, as identified in Capital Summary 3. Overall, annual capital related impacts on the user rates were held to approximately $122,000 or 1.0% of combined rates revenue per year. The impact in 2020 specific to water is $86,330 or 1.5% and for wastewater is $36,430 or 0.5%. Staff will further review the need for this additional 1% contribution to capital, prior to the estimated end of the program in 2024.

Capital related impacts include the combination of annual capital replacement reserve fund contributions and debt repayments. As outlined in Capital Summary 3, It is recommended that increases to these capital replacement reserve funds continue until 2024, subject to annual review, to offset the anticipated future disbursements, particularly for water. The annual shift in additional contributions to water from wastewater will be phased in over 10 years but limited to a cumulative annual rate increase of **1.0%**. Similar to the allocation of Federal Gas Tax, if future predictable grants are available for water/wastewater infrastructure projects, this reallocation will need to be re-evaluated.

Development Charges (DC)

During the comprehensive update to the Development Charges By-law in 2018/2019, detailed capital projects and the relative growth related proportions were identified. Incorporated in this analysis is the financing of these requirements over the next 10 and 20 years (10 years for parking, leisure, library, general government, cemeteries and ambulance services; 20 years for roads/bridges, fleet, fire services, water/water and storm sewer). As a result, the projects included in the 2020 Rate Supported Capital Budget and Forecast include the projects outlined in the Haldimand County Development Charge Background Study, dated March 5, 2019.

In aggregate, there is $7.3 million of growth related water capital projects to be financed from development charges (Caledonia Elevated Tank – approximately $2.9 million; Caledonia North Water Storage Upgrades - $600,000, Dunnville WTP reservoir expansion – approximately $1.8 million, and the majority of the balance, approximately $2.0 million, represents estimated costs related to future replacements/plant upgrades yet to be identified). Wastewater capital projects includes approximately $52.6 million funded from development charges (the majority of which represents the

new/upgraded Caledonia WWTP in the amount of approximately $46.5 million and the Caledonia wet well expansion, of approximately $1.3 million). The remaining balance of the Wastewater DC projects are distributed throughout the 2020 ten year capital forecast.

During the setting of the development charges rates in 2018/2019, the anticipated timing of receipts in relation to infrastructure needs was evaluated. As a result, it was anticipated that certain development charges reserve funds would be "negative" over the period covered by the current rates. These shortfalls would be offset by growth related borrowing, Development Charge Debt (DC Debt), which would ultimately be collected from future development charges as these costs are fully self financed. A summary of the water and wastewater development charges reserve funds over the forecasted period is included in Capital Appendix E (which includes the impacts of any required DC debt).

Impact on Long Term Debt

As outlined in the Capital Financing Principles (Capital Appendix A), debt financing for rate supported projects is utilized in limited circumstances when insufficient alternative funds are not available.

Existing Debt: The County has future repayments related to debt issued for to water and wastewater projects, with total remaining principal payments at the end of 2019 of approximately $21.6 million. The annual debt repayments (interest and principal) are committed over the forecast term and are included in the Net Capital Financing page in Capital Summary 3 as part of the overall capital financing. Typically debt payments begin the year after the debt proceeds are received (e.g. for debt issued in 2019; repayments began in 2020). Existing debt have maturity dates ranging from 2020 to 2029 – see Capital Summary 3.

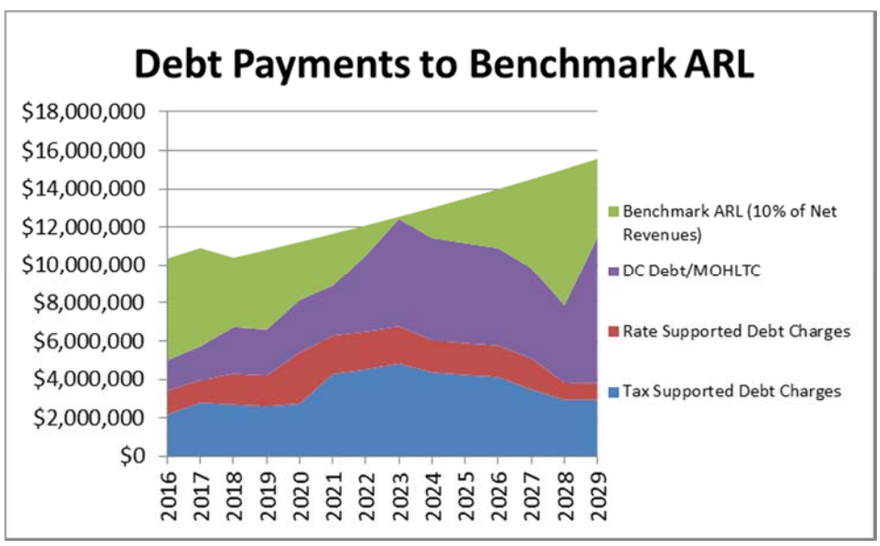
Proposed New Debt: Over the ten year forecast, there is **NO** new proposed debt financed projects for water or wastewater projects. New debt to be issued over the forecast term includes existing projects where construction is to be completed and debt financed in 2020 or beyond.

Development Charge Debt (DC Debt): As outlined above, it is anticipated that new growth related debt to be recovered from future Development Charges will need to be issued over the forecast period to offset negative cash flows due to timing of Development Charges receipts (i.e. commonly referred to as DC or growth related debt). Over the ten year forecast, there is approximately $60 million of new debt issuances required to fund specifically identified projects (approximately $16.6 million when excluding the new/upgraded Caledonia WWTP).

Annual debt repayments for DC debt will be offset by future development charges. All existing and proposed DC debt related payments are included in the Net Capital Financing page in Capital Summary 3 as part of the overall capital financing.

The Ministry of Municipal Affairs and Housing regulates the level of debt that may be incurred by municipalities - no more than 25% of the total own purpose revenue can be used to service debt and other long-term obligations. It should be noted that, despite the limits imposed by the Province, a prudent municipality in a low growth area would not consider a debt burden to this level. A typical guideline established by municipalities is a 10% maximum.

The following analysis projects the annual debt charges, in comparison to the County's annual repayment limit (ARL) and in relation to the County's Financial Principles Guideline of 10% (this analysis also includes the tax supported debt payments as approved in the 2019-2028 tax supported 10 year capital forecast and all proposed DC Debt).



The above graph includes debt required to offset the timing of cash flows related to Development Charge receipts (typically referred to as "DC Debt"), CVF receipts and offsetting grants for Grandview Lodge Debt (until 2027).

Based on projected annual debt repayments (assuming approximately a 3% increase in net revenues annually), the County is within its established financing principles of a maximum of 10% of annual net revenues (Municipal sources only). Over the forecasted period, the County's total debt payments (i.e. DC debt, tax and rate supported) reach a maximum of nearly $12.4 million (tax supported $4.8 million; rate supported $2.0 million, DC debt $5.6 million) or 9.91% of annual net revenues in 2023. Given the significant infrastructure requirements, the future use of debt is unavoidable. However, proper debt policies ensure:

- That outstanding debt obligations will not threaten long-term financial stability;
- That the amount of outstanding debt will not place undue burden on future water and wastewater users;
- That the municipality maintains the flexibility to take advantage of opportunities that arise;
- Continued investment in long-term infrastructure;
- A better matching of the Water and Wastewater user's cost of financing the proposed project with the future benefits derived from the infrastructure investment.

Staff will continue to monitor the ARL limits for debt in future years when the payments for the new facility will take effect (i.e., beyond the 10 year forecast).

Future Impacts/Budget Constraints

Although the County has consistently established the Rate Supported Budget as full cost recovery from the users of these systems (i.e. no property tax revenues support the water or wastewater operations or capital infrastructure), there are some areas that still require assumptions and projections that could impact future rates. In addition, as a result of changing legislative environments, operating costs can fluctuate year to year. These will have varying effects on future budgets; and it is anticipated that, through future reviews and closely monitoring actual results, impacts can be minimized. These future issues include:

- Impacts of additional customers and/or consumption patterns related to residential growth
- Impacts of Reduced Consumption at Large Industrial Users – As indicated above, reduced consumption at the 4 large industrial operations (2 separate owners) could have significant impacts on future rates. These users currently represent approximately 26% of total water rates revenue consumption and 14% of wastewater revenue consumption in 2020. In addition, Raw Water revenues account for approximately $2.2 million in cost recovery, not all of which could be eliminated if consumption was reduced.
- Maintenance Costs Associated with Ontario Power Generation (OPG) Water Intake – The current budget does not include any future costs associated with the shared water intake at OPG that has been traditionally maintained by OPG.
- Tangible Capital Asset Reporting and Long Range Asset Management – A comprehensive inventory of water and wastewater assets will identify the infrastructure needs for long range infrastructure planning.
- Ongoing Performance Evaluations of Facilities - Facility reviews and needs studies may impact future timing of required infrastructure replacements.
- Leachate Treatment Revenues – With the transition from landfill operations to a transfer station, the treatment of leachate from these closed landfills will decline over time and affect the revenues generated from the applicable treatment. This will ultimately shift costs to other users of the systems thereby affecting future rates. Further review of leachate management will be completed in the upcoming years.
- Available Balances in Rate Stabilization Reserves – The availability of balances in rate stabilization reserves will be a major factor in the ability to offset/mitigate any of the above factors in a given year or over a planned timeframe. These balances need to be managed and monitored to ensure sufficient reserves are available.

All of these items could have substantial financial impacts on future County budgets and/or user rates. As these issues are resolved or completed, a more strategic and long range financial plan can be developed and implemented.

Conclusion/Recommendations

In light of the current economic times and from a financial perspective, the 2020 Draft Rate Supported Operating Budget and Capital Forecast is fiscally responsible and based on sound financial principles. There are significant investments in rehabilitation/replacement of infrastructure while maintaining the integrity of the water and wastewater system.

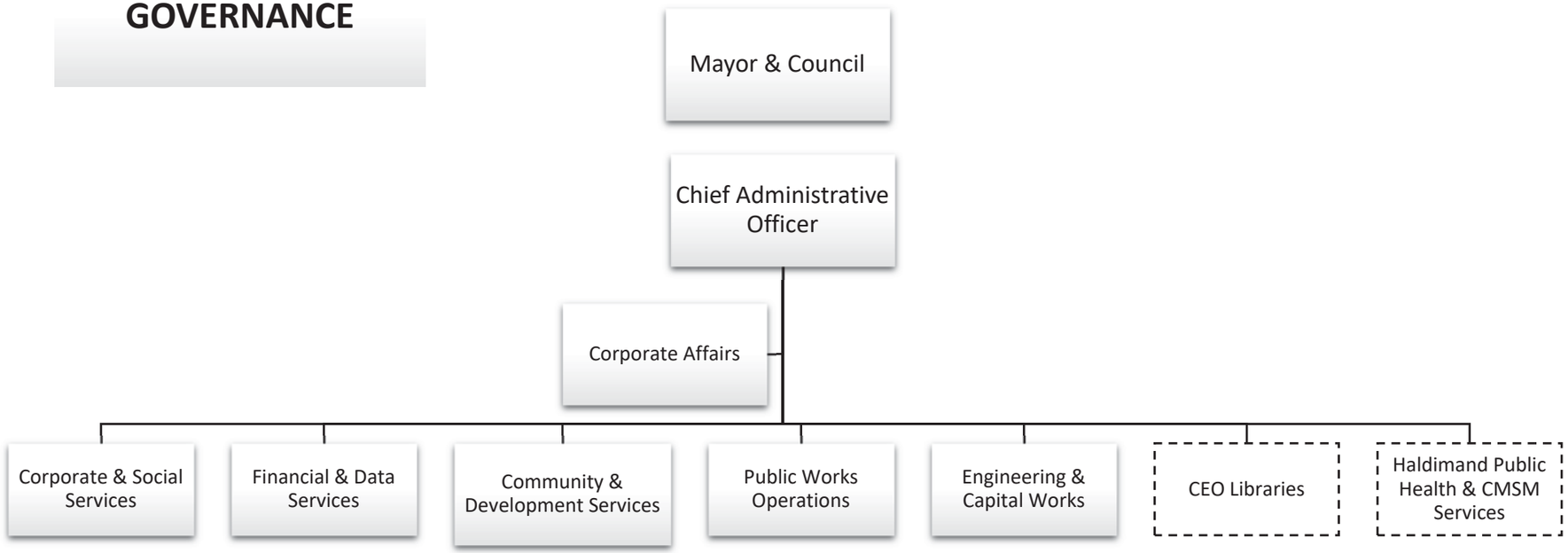
Continual revisions to the operating budget process will help the County better allocate resources to manage its operations and develop a long range financial plan with predictable water and wastewater rates.

It is, therefore, recommended that Council adopt the 2020 Draft Rate Supported Operating Budget and Capital Forecast and associated revisions to user rates and miscellaneous fees and charges.

Prepared by: Charmaine Corlis, Treasurer

Respectfully submitted: Mark Merritt, CPA, CA, Chief Financial Officer and General Manager of Financial & Data Services

GOVERNANCE


Mayor & Council
Chief Administrative Officer
Corporate Affairs
Corporate & Social Services
Financial & Data Services
Community & Development Services
Public Works Operations
Engineering & Capital Works
CEO Libraries
Haldimand Public Health & CMSM Services

HALDIMAND COUNTY COUNCIL

2018-2022

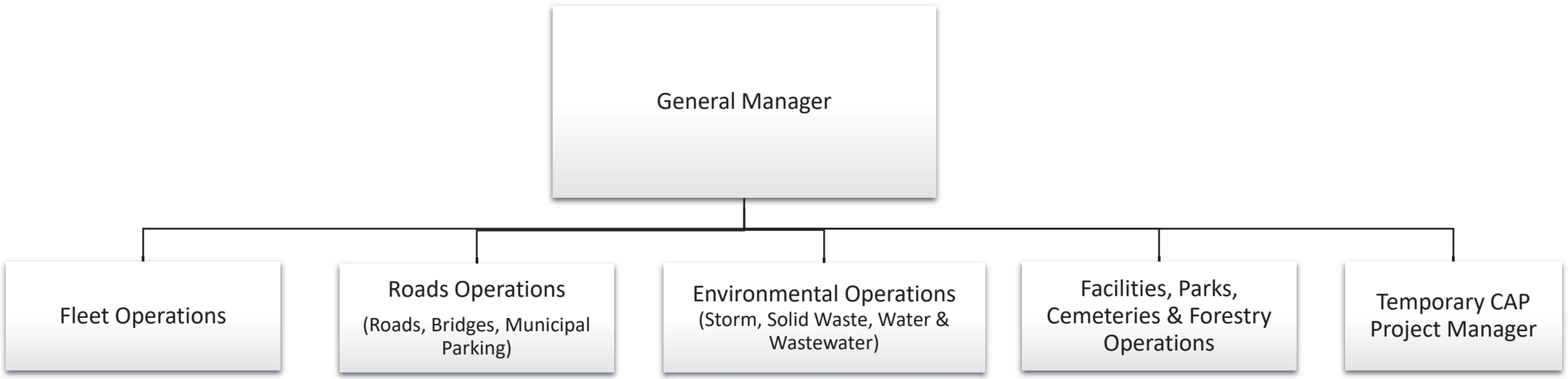
MAYOR	KEN HEWITT
WARD 1	STEWART PATTERSON
WARD 2	JOHN METCALFE
WARD 3	DAN LAWRENCE
WARD 4	TONY DALIMONTE
WARD 5	ROB SHIRTON
WARD 6	BERNIE CORBETT

HALDIMAND COUNTY

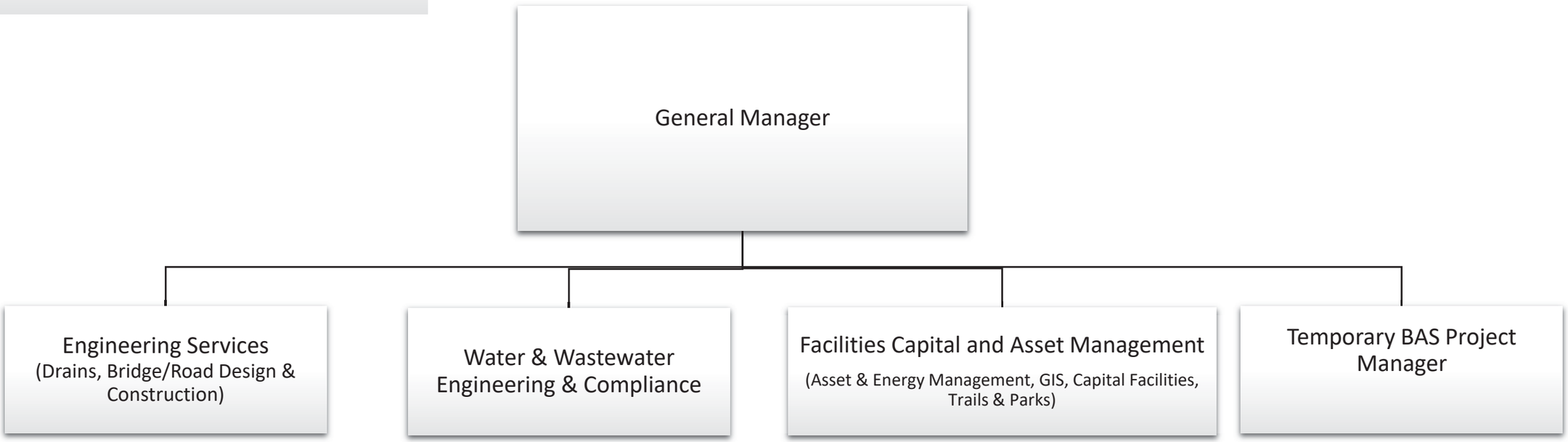
SENIOR MANAGEMENT

CHIEF ADMINISTRATIVE OFFICER	CRAIG MANLEY
GENERAL MANAGER CORPORATE & SOCIAL SERVICE	CATHY CASE
GENERAL MANAGER FINANCIAL & DATA SERVICES	MARK MERRITT
GENERAL MANAGER COMMUNITY & DEVELOPMENT SERVICES	MIKE EVERS
GENERAL MANAGER PUBLIC WORKS OPERATIONS	PHIL METE
GENERAL MANAGER ENGINEERING & CAPITAL WORKS	TYSON HAEDRICH

PUBLIC WORKS OPERATIONS



ENGINEERING & CAPITAL WORKS



DRAFT RATE SUPPORTED

OPERATING BUDGET

WATER & WASTEWATER

Haldimand County

2020

AVERAGE CUSTOMER IMPACTS						
User			**2019**	**2020**	**$ Change**	**% Change**
Monthly Services						
Residential (15 m3)	**Water**	Basic	$ 19.80	$ 20.24	$ 0.44	2.2%
		Consumption	$ 14.85	$ 14.61	$ (0.24)	(1.6%)
		Total	**$ 34.65**	**$ 34.85**	**$ 0.20**	**0.6%**
	Wastewater	Basic	$ 24.03	$ 24.86	$ 0.83	3.5%
		Consumption	$ 23.09	$ 22.66	$ (0.43)	(1.9%)
		Total	**$ 47.12**	**$ 47.52**	**$ 0.40**	**0.9%**
	Total		**$ 81.77**	**$ 82.37**	**$ 0.60**	**0.7%**
Commercial (2" 500 m3)	**Water**	Basic	$ 243.17	$ 248.60	$ 5.42	2.2%
		Consumption	$ 495.05	$ 487.00	$ (8.05)	(1.6%)
		Total	**$ 738.23**	**$ 735.60**	**$ (2.63)**	**(0.4%)**
	Wastewater	Basic	$ 295.06	$ 305.31	$ 10.25	3.5%
		Consumption	$ 769.66	$ 755.21	$ (14.45)	(1.9%)
		Total	**$ 1,064.72**	**$ 1,060.52**	**$ (4.20)**	**(0.4%)**
	Total		**$ 1,802.95**	**$ 1,796.12**	**$ (6.83)**	**(0.4%)**
Industrial (4" 4,000 m3)	**Water**	Basic	$ 851.11	$ 870.09	$ 18.98	2.2%
		Consumption	$ 3,960.42	$ 3,896.01	$ (64.41)	(1.6%)
		Total	**$ 4,811.52**	**$ 4,766.10**	**$ (45.43)**	**(0.9%)**
	Wastewater	Basic	$ 1,032.70	$ 1,068.59	$ 35.88	3.5%
		Consumption	$ 6,157.30	$ 6,041.70	$ (115.61)	(1.9%)
		Total	**$ 7,190.01**	**$ 7,110.28**	**$ (79.73)**	**(1.1%)**
	Total		**$ 12,001.53**	**$ 11,876.38**	**$ (125.15)**	**(1.0%)**
Bulk Services (per use basis)						
Bulk Water (approximately 13.6 m3 or 3,000 gallons)	Potable Water Costs (County)		$40.90	$41.94	$ 1.04	2.5%
	Estimated Delivery Charges (Private Hauler)		$85.45	$85.45	$-	0.0%
	Total		**$126.35**	**$127.38**	**$1.04**	**0.8%**
Septic/Holding (approximately 9.1 m3 or 2,000 gallons)	Treatment Costs (County)		$130.45	$133.70	$ 3.25	2.5%
	Estimated Delivery Charges (Private Hauler)		$91.57	$91.57	$-	0.0%
	Total		**$222.02**	**$225.27**	**$3.25**	**1.5%**

Haldimand County 2020 Draft Rate Supported Operating Budget

Water and Wastewater Summary

Function:
To manage the water supply, water and wastewater treatment systems as well as operate and maintain the County's water distribution system, wastewater collection and storm water collection systems.

Services:
The Water & Waste Water Operations Division and the Water & Wastewater Engineering and Compliance Division are committed to providing safe, reliable drinking water and good economical effluent through the efficient, effective and environmentally responsible operation of the county's Water, Wastewater and Storm Sewer systems.

Services include:

- Contract administration for the Nanticoke and Dunnville water treatment facilities and supply systems
- Operation of the Caledonia and Cayuga water supply systems
- Operation and maintenance of the County's three water systems, including fire hydrants and water meters
- Contract administration for the eight Wastewater Treatment Facilities within the County
- Operation and maintenance of the County's eight wastewater collection systems
- Operation and maintenance of the County's eight urban storm sewer systems in partnership with the County's Roads Operations Division
- Ensuring legislative compliance for all aspects of the operation of the water, wastewater and storm facilities
- Assessment and prioritization of short term and long term capital requirements for the water and wastewater and urban storm sewer systems through activities and initiatives designed to enhance understanding of system needs.

Service Issues:
Ensure legislative compliance for all aspects of the operation of the water, wastewater and storm facilities. Continued communication and involvement with Industries to ensure compliance with the Sewer use By-Law. Ongoing review and update of the Drinking Water Quality Management System for all water facilities and systems to meet the requirements of the Safe Drinking Water Act. Ensure effluent compliance through continuing optimization at all Wastewater Treatment Facilities. Continuation of upgrade projects in water and wastewater treatment facilities throughout the County to ensure capable plants are in place. Promotion of optimization tools with a focus on data based decision making to enhance process control for all treatment facilities to ensure the production of safe reliable water in sufficient quantity to meet system requirements.

Service Outcomes:
The establishment of a water, wastewater and storm water management program that fosters a team-based approach to ensure the protection of public health and the environment. Resolution of servicing and environmental issues; building trust and positive relationships through strict adherence to legislative requirements and forged partnerships with local industries, the Mississaugas of the New Credit First Nation and the City of Hamilton.

Haldimand County 2020 Rate Supported Operating Budget

Water and Wastewater Summary

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Expenditures:						
Salaries, Wages & Benefits	2,687,981	2,778,240	90,259	2,935,540	157,300	5.66%
Supplies & Materials	3,530,539	3,393,620	(136,919)	3,623,270	229,650	6.77%
Hamilton Water Supply	2,260,100	2,348,400	88,300	2,349,600	1,200	0.05%
Services	855,996	903,400	47,404	936,640	33,240	3.68%
Rents & Financial Expenses	14,318	14,980	662	13,600	(1,380)	(9.21%)
Veolia Operating Services Charges	4,750,230	4,750,230		4,888,500	138,270	2.91%
Interfunctional Adjustments	662,930	742,000	79,070	661,650	(80,350)	(10.83%)
Long Term Debt Charges	2,580,110	2,580,110	-	3,768,350	1,188,240	46.05%
Transfers to Reserve/Reserve Funds	4,194,002	4,197,210	3,208	2,699,260	(1,497,950)	(35.69%)
Total Expenditures:	**21,536,206**	**21,708,190**	**171,984**	**21,876,410**	**168,220**	**0.77%**
Revenues						
Revenue Required from User Rates	(12,589,822)	(12,244,650)	345,172	(12,572,700)	(328,050)	2.68%
Bulk Service Charges	(3,344,322)	(3,167,560)	176,762	(3,203,040)	(35,480)	1.12%
Municipal Recoveries	(57,962)	(49,000)	8,962	(53,100)	(4,100)	8.37%
General Fees	(5,354,591)	(5,270,970)	83,621	(4,952,030)	318,940	(6.05%)
Transfers from Reserves/Reserve Funds	(975,976)	(976,010)	(34)	(1,095,540)	(119,530)	12.25%
Total Revenues:	**(22,322,672)**	**(21,708,190)**	**614,482**	**(21,876,410)**	**(168,220)**	**0.77%**
Water Surplus/(Deficit)	**(786,466)**	**-**	**786,466**	**-**	**-**	
Staffing (stated in FTEs)						
Full Time		28.38		28.28	(0.10)	
New Initiative - WEC Project Manager				1.00	1.00	
Part Time &/or Temporary F/T		0.28		0.28	0.00	
Total FTEs		**28.66**		**29.56**	**0.90**	

Haldimand County 2020 Rate Supported Operating Budget

Water Summary

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Expenditures:						
Salaries, Wages & Benefits	1,796,681	1,864,260	67,579	1,946,730	82,470	4.42%
Supplies & Materials	2,412,647	2,225,920	(186,727)	2,406,970	181,050	8.13%
Hamilton Water Supply	2,260,100	2,348,400	88,300	2,349,600	1,200	0.05%
Services	558,487	562,120	3,633	593,430	31,310	5.57%
Rents & Financial Expenses	11,009	11,390	381	10,300	(1,090)	(9.57%)
Veolia Operating Services Charges	2,201,740	2,201,740	-	2,287,500	85,760	3.90%
Interfunctional Adjustments	370,840	422,750	51,910	371,620	(51,130)	(12.09%)
Long Term Debt Charges	1,441,050	1,441,050	-	1,438,280	(2,770)	(0.19%)
Transfers to Reserve/Reserve Funds	1,611,570	1,611,570	-	1,132,620	(478,950)	(29.72%)
Total Expenditures:	**12,664,124**	**12,689,200**	**25,076**	**12,537,050**	**(152,150)**	**(1.20%)**
Revenues						
Revenue Required from User Rates	(5,964,549)	(5,642,470)	322,079	(5,769,160)	(126,690)	2.25%
Bulk Service Charges	(1,526,731)	(1,519,100)	7,631	(1,552,500)	(33,400)	2.20%
General Fees	(5,163,138)	(5,025,260)	137,878	(4,713,070)	312,190	(6.21%)
Transfers from Reserves/Reserve Funds	(502,347)	(502,370)	(23)	(502,320)	50	(0.01%)
Total Revenues:	**(13,156,764)**	**(12,689,200)**	**467,564**	**(12,537,050)**	**152,150**	**(1.20%)**
Water Surplus/(Deficit)	**(492,640)**	**-**	**492,640**	**-**	**-**	
Staffing (stated in FTEs)						
Full Time		19.29		19.24	(0.05)	
New Initiative - WEC Project Manager				0.50	0.50	
Part Time &/or Temporary F/T		0.19		0.19	0.00	
Total FTEs		**19.48**		**19.93**	**0.45**	

Haldimand County 2020 Rate Supported Operating Budget

Water Administration

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Expenditures:						
Salaries, Wages & Benefits	820,035	830,490	10,455	909,040	78,550	9.46%
Supplies & Materials	226,884	234,700	7,816	252,100	17,400	7.41%
Services	229,222	259,420	30,198	269,930	10,510	4.05%
Rents & Financial Expenses	3,293	3,590	297	3,300	(290)	(8.08%)
Interfunctional Adjustments	236,920	296,520	59,600	234,350	(62,170)	(20.97%)
Long Term Debt Charges	1,441,050	1,441,050	-	1,438,280	(2,770)	(0.19%)
Transfers to Reserve/Reserve Funds	1,043,570	1,043,570	-	1,132,620	89,050	8.53%
Total Expenditures:	**4,000,974**	**4,109,340**	**108,366**	**4,239,620**	**130,280**	**3.17%**
Revenues						
General Fees	(20,850)	(24,820)	(3,970)	(24,600)	220	(0.89%)
Transfer from Reserves/Reserve Funds	(502,347)	(502,370)	(23)	(502,320)	50	(0.01%)
Total Revenues:	**(523,197)**	**(527,190)**	**(3,993)**	**(526,920)**	**270**	**(0.05%)**
Net Revenue Required from User Rates	**3,477,776**	**3,582,150**	**104,374**	**3,712,700**	**130,550**	**3.64%**

Staffing (stated in FTEs)				
Full Time	7.70	7.65	(0.05)	
New Initiative - WEC Project Manager		0.50	0.50	
Part Time &/or Temporary F/T	0.19	0.19	0.00	
Total FTEs	**7.89**	**8.34**	**0.45**	

2020 New Initiative - Project Manager - Water and Wastewater Engineering

Description:

A summary of the costs associated with this new imitative can be found below. For the detailed business case, please see Operating Appendix A.

Water and Wastewater Operating Budget Impacts:

	Water	Wastewater	Total
Salaries, Wages & Benefits	58,320	58,320	116,640
Safety Wear & Supplies	200	200	400
Meeting Expenses	100	100	200
Travel Expenses	1,200	1,000	2,200
Memberships	150	150	300
Professional Development	1,250	1,250	2,500
Cellular Phone Charges	150	150	300
Total	**$ 61,370**	**$ 61,170**	**$ 122,540**

Capital Budget Impacts:

	Water	Wastewater	Total
Expenditures:			
Cellphone	180	180	360
2-1 Laptop	1,450	1,450	2,900
Microsoft License	300	300	600
Second Screen	130	130	260
Desk Phone	150	150	300
Total Expenditures:	**$ 2,210**	**$ 2,210**	**$ 4,420**
Funding:			
CRRF - Water	2,210		2,210
CRRF - Wastewater		2,210	2,210
Total Funding	**$ 2,210**	**$ 2,210**	**$ 4,420**

Annual Tax Operating Budget Impacts:

Contributions to CRR - IT	
Contribution related to purchase of portable 2-1 device	580
Contribution related to purchase of additional second monitor	40
Contribution related to purchase of mobile device	180
Contribution related to purchase of desk phone	60
Contribution related to Microsoft software license	120
Total Contributions to CRR-IT	**$ 980**

Haldimand County 2020 Rate Supported Operating Budget

Direct Water Operations

	2019 Current Forecast	2019 Revised Budget	2019 Surplus /(Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Expenditures:						
Salaries, Wages & Benefits	976,646	1,033,770	57,124	1,037,690	3,920	0.38%
Supplies & Materials	833,673	801,680	(31,993)	820,860	19,180	2.39%
Hamilton Water Supply	2,260,100	2,348,400	88,300	2,349,600	1,200	0.05%
Services	317,765	291,050	(26,715)	311,850	20,800	7.15%
Rents & Financial Expenses	7,716	7,800	84	7,000	(800)	(10.26%)
Veolia Operating Services Charges	1,439,750	1,439,750	-	1,498,800	59,050	4.10%
Interfunctional Adjustments	133,920	126,230	(7,690)	137,270	11,040	8.75%
Transfers to Reserve/Reserve Funds	568,000	568,000	-		(568,000)	(100.00%)
Total Expenditures:	**6,537,571**	**6,616,680**	**79,109**	**6,163,070**	**(453,610)**	**(6.86%)**
Revenues						
General Fees	(573,640)	(573,640)	-	(28,890)	544,750	(94.96%)
Total Revenues:	**(573,640)**	**(573,640)**	**-**	**(28,890)**	**544,750**	**(94.96%)**
Net Revenue Required from User Rates	**5,963,931**	**6,043,040**	**79,109**	**6,134,180**	**91,140**	**1.51%**
Staffing (stated in FTEs)						
Full Time		11.59		11.59	0.00	
Part Time &/or Temporary F/T					0.00	
Total FTEs		**11.59**		**11.59**	**0.00**	

Haldimand County 2020 Rate Supported Operating Budget

Nanticoke Industrial Pumping Station

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Expenditures:						
Supplies & Materials	1,352,090	1,189,540	(162,550)	1,334,010	144,470	12.15%
Services	11,500	11,650	150	11,650	-	0.00%
Veolia Operating Services Charges	761,990	761,990	-	788,700	26,710	3.51%
Total Expenditures:	**2,125,580**	**1,963,180**	**(162,400)**	**2,134,360**	**171,180**	**8.72%**
Revenues						
General Fees	(2,164,442)	(1,997,410)	167,032	(2,172,720)	(175,310)	8.78%
Total Revenues:	**(2,164,442)**	**(1,997,410)**	**167,032**	**(2,172,720)**	**(175,310)**	**8.78%**
Net Revenue Required from User Rates	**(38,862)**	**(34,230)**	**4,632**	**(38,360)**	**(4,130)**	**12.07%**

Haldimand County 2020 Rate Supported Operating Budget

Water User Fees

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Revenues						
Bulk Service Charges	(1,526,731)	(1,519,100)	7,631	(1,552,500)	(33,400)	2.20%
General Fees	(2,404,205)	(2,429,390)	(25,185)	(2,486,860)	(57,470)	2.37%
Total Revenues:	**(3,930,936)**	**(3,948,490)**	**(17,554)**	**(4,039,360)**	**(90,870)**	**2.30%**
Net Revenue Required from User Rates	**(3,930,936)**	**(3,948,490)**	**(17,554)**	**(4,039,360)**	**(90,870)**	**2.30%**

Haldimand County 2020 Rate Supported Operating Budget

Water User Rates Revenues

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Revenues						
Residential Base Charges	(2,228,899)	(2,196,580)	32,319	(2,274,000)	(77,420)	3.52%
Residential Consumption	(1,385,499)	(1,371,700)	13,799	(1,387,800)	(16,100)	1.17%
Regular Commercial Base Charges	(520,013)	(552,690)	(32,677)	(537,030)	15,660	(2.83%)
Regular Commercial Consumption	(630,224)	(620,300)	9,924	(596,030)	24,270	(3.91%)
Large Industrial Base Charges	(72,579)	(71,900)	679	(73,500)	(1,600)	2.23%
Large Industrial Consumption	(955,634)	(829,300)	126,334	(900,800)	(71,500)	8.62%
Stelco Potable Water	(142,860)		142,860		-	
Imperial Oil Potable Water	(28,841)		28,841		-	
Total Revenues:	**(5,964,549)**	**(5,642,470)**	**322,079**	**(5,769,160)**	**(126,690)**	**2.25%**
Net Revenue Required from User Rates	**(5,964,549)**	**(5,642,470)**	**322,079**	**(5,769,160)**	**(126,690)**	**2.25%**

Haldimand County 2020 Rate Supported Operating Budget

Wastewater Summary

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Expenditures:						
Salaries, Wages & Benefits	891,300	913,980	22,680	988,810	74,830	8.19%
Supplies & Materials	1,117,891	1,167,700	49,809	1,216,300	48,600	4.16%
Services	297,509	341,280	43,771	343,210	1,930	0.57%
Rents & Financial Expenses	3,309	3,590	281	3,300	(290)	(8.08%)
Veolia Operating Services Charges	2,548,490	2,548,490		2,601,000	52,510	2.06%
Interfunctional Adjustments	292,090	319,250	27,160	290,030	(29,220)	(9.15%)
Long Term Debt Charges	1,139,060	1,139,060	-	2,330,070	1,191,010	104.56%
Transfers to Reserve/Reserve Funds	2,582,432	2,585,640	3,208	1,566,640	(1,019,000)	(39.41%)
Total Expenditures:	**8,872,082**	**9,018,990**	**146,908**	**9,339,360**	**320,370**	**3.55%**
Revenues						
Revenue Required from User Rates	(6,625,273)	(6,602,180)	23,093	(6,803,540)	(201,360)	3.05%
Bulk Service Charges	(1,817,591)	(1,648,460)	169,131	(1,650,540)	(2,080)	0.13%
Municipal Recoveris	(57,962)	(49,000)	8,962	(53,100)	(4,100)	8.37%
General Fees	(191,453)	(245,710)	(54,257)	(238,960)	6,750	(2.75%)
Transfers from Reserves/Reserve Funds	(473,629)	(473,640)	(11)	(593,220)	(119,580)	25.25%
Total Revenues:	**(9,165,908)**	**(9,018,990)**	**146,918**	**(9,339,360)**	**(320,370)**	**3.55%**
Wastewater Surplus/(Deficit)	**(293,826)**	**-**	**293,826**	**-**	**-**	
Staffing (stated in FTEs)						
Full Time		9.09		9.04	(0.05)	
New Initiative - WEC Project Manager				0.50	0.50	
Part Time &/or Temporary F/T		0.09		0.09	0.00	
Total FTEs		**9.18**		**9.63**	**0.45**	

Haldimand County 2020 Rate Supported Operating Budget

Wastewater Administration

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Expenditures:						
Salaries, Wages & Benefits	652,998	661,740	8,742	735,670	73,930	11.17%
Supplies & Materials	173,627	170,720	(2,907)	195,750	25,030	14.66%
Services	233,801	262,720	28,919	266,450	3,730	1.42%
Rents and Financial Expenses	3,293	3,590	297	3,300	(290)	(8.08%)
Interfunctional Adjustments	209,180	236,790	27,610	205,050	(31,740)	(13.40%)
Long Term Debt Charges	1,139,060	1,139,060	-	2,330,070	1,191,010	104.56%
Transfers to Reserve/Reserve Funds	2,582,432	2,585,640	3,208	1,566,640	(1,019,000)	(39.41%)
Total Expenditures:	**4,994,391**	**5,060,260**	**65,869**	**5,302,930**	**242,670**	**4.80%**
Revenues						
General Fees	(20,850)	(24,820)	(3,970)	(24,600)	220	(0.89%)
Transfers from Reserves/Reserve Funds	(473,629)	(473,640)	(11)	(593,220)	(119,580)	25.25%
Total Revenues:	**(494,479)**	**(498,460)**	**(3,981)**	**(617,820)**	**(119,360)**	**23.95%**
Net Revenues Required from User Rates	**4,499,912**	**4,561,800**	**61,888**	**4,685,110**	**123,310**	

Staffing (stated in FTEs)				
Full Time	7.70	7.65	(0.05)	
New Initiative - WEC Project Manager		0.50	0.50	
Part Time &/or Temporary F/T	0.19	0.19	0.00	
Total FTEs	**7.89**	**8.34**	**0.45**	

2020 New Initiative - Project Manager - Water and Wastewater Engineering

Description:

A summary of the costs associated with this new imitative can be found below. For the detailed business case, please see Operating Appendix A.

Water and Wastewater Operating Budget Impacts:

	Water	Wastewater	Total
Salaries, Wages & Benefits	58,320	58,320	116,640
Safety Wear & Supplies	200	200	400
Meeting Expenses	100	100	200
Travel Expenses	1,200	1,000	2,200
Memberships	150	150	300
Professional Development	1,250	1,250	2,500
Cellular Phone Charges	150	150	300
Total	**$ 61,370**	**$ 61,170**	**$ 122,540**

Capital Budget Impacts:

	Water	Wastewater	Total
Expenditures:			
Cellphone	180	180	360
2-1 Laptop	1,450	1,450	2,900
Microsoft License	300	300	600
Second Screen	130	130	260
Desk Phone	150	150	300
Total Expenditures:	**$ 2,210**	**$ 2,210**	**$ 4,420**
Funding:			
CRRF - Water	2,210		2,210
CRRF - Wastewater		2,210	2,210
Total Funding	**$ 2,210**	**$ 2,210**	**$ 4,420**

Annual Tax Operating Budget Impacts:

Contributions to CRR - IT	
Contribution related to purchase of portable 2-1 device	580
Contribution related to purchase of additional second monitor	40
Contribution related to purchase of mobile device	180
Contribution related to purchase of desk phone	60
Contribution related to Microsoft software license	120
Total Contributions to CRR-IT	**$ 980**

Haldimand County 2020 Rate Supported Operating Budget

Direct Wastewater Operations

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Expenditures:						
Salaries, Wages & Benefits	238,302	252,240	13,938	253,140	900	0.36%
Supplies & Materials	944,265	996,980	52,715	1,020,550	23,570	2.36%
Services	63,709	78,560	14,851	76,760	(1,800)	(2.29%)
Rents & Financial Expenses	16		(16)		-	
Veolia Operating Services Charges	2,548,490	2,548,490		2,601,000	52,510	2.06%
Interfunctional Adjustments	82,910	82,460	(450)	84,980	2,520	3.06%
Total Expenditures:	**3,877,691**	**3,958,730**	**81,039**	**4,036,430**	**77,700**	**1.96%**
Net Revenue Required from User Rates	**3,877,691**	**3,958,730**	**81,039**	**4,036,430**	**77,700**	
Staffing (stated in FTEs)						
Full Time		2.84		2.84	0.00	
Part Time &/or Temporary F/T					0.00	
Total FTEs		**2.84**		**2.84**	**0.00**	

Haldimand County 2020 Rate Supported Operating Budget

Wastewater User Fees

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Revenues						
Bulk Service Charges	(1,817,591)	(1,648,460)	169,131	(1,650,540)	(2,080)	0.13%
Municipal Recoveries	(57,962)	(49,000)	8,962	(53,100)	(4,100)	8.37%
General Fees	(170,602)	(220,890)	(50,288)	(214,360)	6,530	(2.96%)
Total Revenues:	**(2,046,155)**	**(1,918,350)**	**127,805**	**(1,918,000)**	**350**	**(0.02%)**
Net Revenue Required from User Rates	**(2,046,155)**	**(1,918,350)**	**127,805**	**(1,918,000)**	**350**	

Haldimand County 2020 Rate Supported Operating Budget

Wastewater User Rates Revenues

	2019 Current Forecast	2019 Revised Budget	2019 Surplus/ (Deficit)	2020 Proposed Budget	2020 Budget $ Incr/(Decr)	2020 Budget % Incr/(Decr)
Revenues						
Residential Base Charges	(2,638,152)	(2,649,480)	(11,328)	(2,755,420)	(105,940)	4.00%
Residential Consumption	(2,113,384)	(2,165,350)	(51,966)	(2,195,500)	(30,150)	1.39%
Commercial Base Charges	(554,909)	(603,790)	(48,881)	(596,720)	7,070	(1.17%)
Commercial Consumption	(739,379)	(699,560)	39,819	(708,940)	(9,380)	1.34%
Large Industrial Base Charges	(47,871)	(47,840)	31	(49,500)	(1,660)	3.47%
Large Industrial Consumption	(531,578)	(436,160)	95,418	(497,460)	(61,300)	14.05%
Total Revenues:	**(6,625,273)**	**(6,602,180)**	**23,093**	**(6,803,540)**	**(201,360)**	**3.05%**
Net Revenue Required from User Rates	**(6,625,273)**	**(6,602,180)**	**23,093**	**(6,803,540)**	**(201,360)**	**3.05%**

BUSINESS CASE FOR
PROJECT MANAGER - WATER AND WASTEWATER ENGINEERING

Problem Statement:

It has been recognized that there is a need to enhance the involvement and capacity of the Engineering and Capital Works department to support strategic planning activities, enhancing responses to development driven servicing needs and capital projects, and supporting Economic Development and Planning initiatives. Recent organizational re-structuring resulted in the creation of a Water and Wastewater Engineering and Compliance (WEC) division within Engineering and Capital Works that aligns with the recognized need. However, the current approach of having the Manager – Water and Wastewater Engineering and Compliance involved at the project management level for projects across the County, is reducing the ability of the division to engage in strategic planning activities, responding to development driven servicing needs and capital projects and supporting Economic Development and Planning initiatives.

Additionally, the growing water and wastewater capital project load to meet development needs and ensure essential infrastructure is in a state of good repair requires an increase in the capacity of the Water and Wastewater Engineering and Compliance division to provide project management support.

The Costs associated with this position are included below:

Annual Water and Wastewater Operating Budget Impacts:

	Water	Wastewater	Total
Salaries, Wages & Benefits	58,320	58,320	116,640
Safety Wear & Supplies	200	200	400
Meeting Expenses	100	100	200
Travel Expenses	1,200	1,000	2,200
Memberships	150	150	300
Professional Development	1,250	1,250	2,500
Cellular Phone Charges	150	150	300
Total	**61,370**	**61,170**	**122,540**

Water and Wastewater Capital Budget Impacts:

	Water	Wastewater	Total
Expenditures:			
Cellphone	180	180	360
2-1 Laptop	1,450	1,450	2,900
Microsoft License	300	300	600
Second Screen	130	130	260
Desk Phone	150	150	300
Total Expenditures:	**2,210**	**2,210**	**4,420**
Funding:			
CRRF - Water	2,210		2,210
CRRF - Wastewater		2,210	2,210
Total Funding	**2,210**	**2,210**	**4,420**

Annual Tax Operating Budget Impacts:

Contributions to CRR - IT	
Contribution related to purchase of portable 2-1 device	580
Contribution related to purchase of additional second monitor	40
Contribution related to purchase of mobile device	180
Contribution related to purchase of desk phone	60
Contribution related to Microsoft software license	120
Total Contributions to CRR-IT	**980**

Current Situation:

The County relies on the Manager – Water and Wastewater Engineering and Compliance, a permanent, full-time position to provide leadership for the County's Water and Wastewater Optimization and Compliance programs as well as project management support for the water and wastewater capital program, including SCADA. While these activities are critical to the effective management of the County's water and wastewater infrastructure, the approach can be enhanced by providing resources to allow this position to provide leadership in; strategic planning of water and wastewater servicing to meet current and future development needs; supporting activities to realize a centralized water treatment and supply strategy to neighbouring communities of Haldimand County, identification and development of grant applications to subsidize key infrastructure projects, and supporting Economic Development and Planning initiatives that involve water and wastewater servicing needs.

The Supervisor of Compliance is planning to retire in 2020. The person currently in this position has been instrumental in the development and support of the County's successful Optimization Program. When this person retires, there will be increased workload placed on the Manager – Water and Wastewater Engineering and Compliance to develop and mentor staff at the technologist level so that Optimization Program activities are sustained and the current level of understanding of water and wastewater infrastructure and operations is maintained.

It is believed that the creation of a Project Manager – Water and Wastewater Engineering to support the development and delivery of water and wastewater projects is essential for the Manager – Water and Wastewater Engineering and Compliance to take on the identified leadership roles.

Position Objective:

The principal objective for hiring a Project Manager - Water and Wastewater Engineering is to acquire additional project management capacity within the WEC division to allow for greater participation in strategic planning activities, responding to development driven servicing needs and capital projects, and supporting Economic Development and Planning initiatives at a management level.

Proposed Activities:

The following is a list of key activities that the Project Manager – Water and Wastewater Engineering will be responsible for:

- Project management functions associated with water and wastewater engineering projects
- Contract administration of water and wastewater engineering projects
- Capital project design review
- Capital project budget development and project prioritization process.
- Supervision of Water and Wastewater Project Technologist
- RFP development and tendering of construction projects

- Assumption process for new water and wastewater infrastructure built by developers

Position Rationale:

The new Project Manager – Water and Wastewater Engineering position would be expected to manage the ongoing capital project load and allow the Manager – Water and Wastewater Engineering and Compliance to provide leadership in:

Strategic Planning of Water and Wastewater Servicing

- Norfolk water supply
- Hagersville to Caledonia/Six Nations water supply
- Master Servicing Plan Updates

Responding to Development Driven Servicing Needs and Capital Projects

- Caledonia water servicing
    - South Elevated Tank
    - Distribution pumping and control enhancements
    - North Elevated Tank
- Caledonia wastewater servicing
    - North Wastewater Treatment Plant
    - New Sewage Pump Stations (Gateway, Beattie Estates)
    - Nairne St. forcemain replacement (river crossing)
- Acquiring additional wastewater treatment capacity for the community of Jarvis
    - Aggressive project delivery of forcemain to Townsend

Supporting Economic Development, Planning Initiatives

- Industrial Park Servicing Strategies (Gateway, LEIP)
- Development of annual Servicing Allocation Report
- Growth Management Working Group activities (Urban Boundary Review)

Other

- Staff development and mentoring
- Identifying and developing grant applications
- Enhancing understanding of County's water and wastewater infrastructure including asset management

New Initiative Timelines:

Upon approval of funding, the job evaluation process for a new position will be initiated, followed by the required recruitment process. It is anticipated that the hiring of a new Project Manager – Water and Wastewater Projects will be completed by the end of the first quarter in 2020.

Expected Benefits:

The following are expected benefits associated with the hiring of a Project Manager- Water and Wastewater Engineering:

- Improved capability to deliver capital projects in a timely manner so that Council approved projects can be initiated on schedule.
- Improved collaboration with large scale developments e.g. Empire Homes, Ballantry, etc.
- Enhanced strategy development and planning of future water and wastewater infrastructure.
- Improved long range forecast of key capital projects to support Rate Supported budgets and Development Charges studies.

New Initiative Risks:

A principal risk to this new initiative would be the inability to retain a staff person with the qualifications the position requires. Experiencing frequent turnover in staffing this position would significantly hinder the success of this initiative. In order to attract and retain a well qualified person to this position, a competitive wage is required.

HALDIMAND COUNTY RATE SUPPORTED BUDGET

FORECAST OF RATE STABILIZATION RESERVE - WATER
FOR THE YEARS 2016 TO 2024

	2016 ACTUALS $	2017 ACTUALS $	2018 ACTUALS $	2019 FORECAST $	2020 FORECAST $	2021 FORECAST $	2022 FORECAST $	2023 FORECAST $	2024 FORECAST $
Opening Balance January 1st	**2,966,310**	**4,117,621**	**5,003,433**	**1,533,186**	**2,068,755**	**2,126,680**	**2,186,227**	**2,247,442**	**1,493,930**
Source of Funds:									
Budgeted Annual Contribution	170,000	70,000							
Surplus/(Deficit) from Operations	861,649	754,337	864,209	492,640					
Interest Earned	119,662	61,475	82,168	42,929	57,925	59,547	61,214	46,488	41,830
Total Source of Funds	1,151,311	885,812	946,377	535,569	57,925	59,547	61,214	46,488	41,830
Use of Funds:									
Commitment for Active Projects									
Potential Contribution to CRRF - Water			4,416,624					800,000	
Total Use of Funds	0	0	4,416,624	0	0	0	0	800,000	0
Closing Balance December 31st	**4,117,621**	**5,003,433**	**1,533,186**	**2,068,755**	**2,126,680**	**2,186,227**	**2,247,442**	**1,493,930**	**1,535,760**
Balance in Reserve as a Percentage of Rates Revenue	68.44%	87.61%	26.81%	36.66%	35.59%	36.59%	37.61%	25.00%	25.70%
Rates Revenue	6,016,653	5,710,810	5,718,170	5,642,470	5,975,590	5,975,590	5,975,590	5,975,590	5,975,590
Budgeted Annual Contribution as a % of Rates Revenue	2.83%	1.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

FORECAST OF RATE STABILIZATION RESERVE - WASTEWATER
FOR THE YEARS 2016 TO 2024

	2016 ACTUALS $	2017 ACTUALS $	2018 ACTUALS $	2019 FORECAST $	2020 FORECAST $	2021 FORECAST $	2022 FORECAST $	2023 FORECAST $	2024 FORECAST $
Opening Balance January 1st	**1,023,840**	**973,419**	**2,114,578**	**2,909,113**	**3,419,686**	**3,669,937**	**1,476,458**	**1,517,799**	**1,560,297**
Source of Funds:									
Budgeted Annual Contribution		100,000							
Leachate/Overstrength contributions	105,053	158,127	176,820	135,292	154,500				
Surplus/(Deficit) from Operations	(193,471)	866,991	581,407	293,826					
Interest Earned	37,997	16,041	36,308	81,455	95,751	56,521	41,341	42,498	43,688
Total Source of Funds	(50,421)	1,141,159	794,535	510,573	250,251	56,521	41,341	42,498	43,688
Use of Funds:									
Commitment for Active Projects									
Potential Contribution to CRRF - Wastewater						2,250,000			
Total Use of Funds	0	0	0	0	0	2,250,000	0	0	0
Closing Balance December 31st	**973,419**	**2,114,578**	**2,909,113**	**3,419,686**	**3,669,937**	**1,476,458**	**1,517,799**	**1,560,297**	**1,603,985**
Balance in Reserve as a Percentage of Rates Revenue	16.39%	34.11%	46.22%	51.80%	59.20%	23.82%	24.48%	25.17%	25.87%
Rates Revenue	5,939,630	6,199,680	6,293,920	6,602,180	6,199,680	6,199,680	6,199,680	6,199,680	6,199,680
Budgeted Annual Contribution as a % of Rates Revenue	1.77%	4.16%	2.81%	2.05%	2.49%	0.00%	0.00%	0.00%	0.00%

Utilizing historical deficits data, it is prudent to ensure a reserve balance of 25% of rates revenue; this was a four year plan to ensure the annual contribution is approximately 3% of rates revenue starting in 2014. As both the water and wastewater rate stabilization reserves contain healthy balances, contributions ceased in 2018.
Staff will continue to monitor the reserve balances for the potential requirement of additional contributions.

If the balance within the reserve is greater than 25% for four years in a row, the additonal amount will be contributed to CRRF to assist in offsetting potential increases required for the capital program and implementation of asset management.

HALDIMAND COUNTY

WATER AND WASTEWATER RATE ASSUMPTIONS

**Note: thorough analysis is completed annually with respect to the assumptions used within each fee category. Due to the uncontrollable factors in water and wastewater (i.e. weather, shifts in consumption patterns, etc), the same assumption may not be utilized from year to year in order to ensure large fluctuations in rates is avoided.*

		Approved 2017 Budget	*Approved 2018 Budget*	*Approved 2019 Budget*	*Draft 2020 Budget*
Effective Date of Rate Change		Sunday, January 1, 2017	Monday, January 1, 2018	Friday, February 1, 2019	Saturday, February 1, 2020
WATER					
Consumption Assumptions					
Residential Users					
	Annual Water Consumption	Three Year Average Consumption with Three year Average Decline; Offset by Anticipated Growth	Four Year Rolling Average Consumption with Consumption Growth from Anticipated New Development	Three Year Rolling Average Consumption with Consumption Growth from Anticipated New Development	Three Year Rolling Average Consumption with Consumption Growth from Anticipated New Development
	Anticipated Growth	Slight Increase in Growth Projections	Increase in Growth Projections mainly due to development in Caledonia	Increase in Growth Projections mainly due to development in Caledonia	Increase in Growth Projections mainly due to development in Caledonia
"Regular" Commercial/Industrial Customers					
	Annual Water Consumption	Normalized Two Year Rolling Average	Three Year Rolling Average	Three Year Rolling Average	Two Year Rolling Average
	Anticipated Growth	Minimal growth expect in commercial users	Minimal growth expect in commercial users	Minimal growth expect in commercial users	Minimal growth expect in commercial users
Large Commercial/Industrial Users					
	Annual Water Consumption	*Large Commercial* : Three Year Average Consumption; *Large Industrial* : Normalized Two Year Average Consumption	*Large Commercial* : Three Year Rolling Average Consumption; *Large Industrial* : Normalized Two Year Average Consumption	*Large Commercial* : Three Year Rolling Average Consumption; *Large Industrial* : Normalized Two Year Average Consumption	*Large Commercial* : Two Year Rolling Average Consumption; *Large Industrial* : Two Year Average Consumption
New Credit (Wholesale Rate)					
	Annual Water Consumption	Three Year Rolling Average	Three Year Rolling Average	Three Year Rolling Average	Three Year Rolling Average
	Water Depot	Three Year Rolling Average	Three Year Rolling Average	Three Year Rolling Average	Three Year Rolling Average
Water Rates					
Basic Charges		50%/50% fixed/variable share	50%/50% fixed/variable share	50%/50% fixed/variable share	50%/50% fixed/variable share
		2.52% decrease in rates	3.14% decrease in rates	6.13% decrease in rates	2.24% increase in rates
Block 1	Rate Increases	1.01% Increase	0.23% Decrease	3.90% Decrease	1.63% Increase
Block 2	Rate Assumptions	N/A	N/A	N/A	N/A
	Rate Increase	N/A	N/A	N/A	N/A

HALDIMAND COUNTY

WATER AND WASTEWATER RATE ASSUMPTIONS

**Note: thorough analysis is completed annually with respect to the assumptions used within each fee category. Due to the uncontrollable factors in water and wastewater (i.e. weather, shifts in consumption patterns, etc), the same assumption may not be utilized from year to year in order to ensure large fluctuations in rates is avoided.*

	Approved 2017 Budget	*Approved 2018 Budget*	*Approved 2019 Budget*	*Draft 2020 Budget*
Effective Date of Rate Change	Sunday, January 1, 2017	Monday, January 1, 2018	Friday, February 1, 2019	Saturday, February 1, 2020
WASTEWATER				
Consumption Assumptions				
Residential Users				
Wastewater Consumption	Three Year Average Consumption with Three Year Average Decline; Offset by Anticipated Growth	Four Year Rolling Average Consumption with Consumption Growth from Anticipated New Development	Three Year Rolling Average Consumption with Consumption Growth from Anticipated New Development	Two Year Rolling Average Consumption with Consumption Growth from Anticipated New Development
"Regular" Commercial/Industrial Customers				
Wastewater Consumption	Normalized Two Year Rolling Average	Four Year Rolling Average	Two Year Rolling Average	Three Year Rolling Average
Large Commercial/Industrial				
Wastewater Consumption	Large Commercial: Three Year Average Consumption; Large Industrial: Normalized Two Year Average Consumption	Large Commercial: Four Year Rolling Average Consumption; Large Industrial: Two Year Rolling Average Consumption	Large Commercial: Four Year Rolling Average Consumption; Large Industrial: Two Year Rolling Average Consumption	Large Commercial: Two Year Rolling Average Consumption; Large Industrial: Two Year Rolling Average Consumption
Wastewater Rates				
Basic Charges	50%/50% fixed/variable share 4.77% increase in rates	50%/50% fixed/variable share 2.02% decrease in rates	50%/50% fixed/variable share 0.48% decrease in rates	50%/50% fixed/variable share 3.42% increase in rates
Block 1 Rate Increases	7.21% increase	5.12% decrease	4.69% increase	1.92% decrease
Block 2 Rate Assumptions	N/A	N/A	N/A	N/A
Rate Increase	N/A	N/A	N/A	N/A
Wastewater Discharge Program	20% Flow Differential Minimum 10,000 cubic metres	20% Flow Differential Minimum 10,000 cubic metres	20% Flow Differential Minimum 10,000 cubic metres	20% Flow Differential Minimum 10,000 cubic metres

HALDIMAND COUNTY

WATER AND WASTEWATER RATE ASSUMPTIONS

**Note: thorough analysis is completed annually with respect to the assumptions used within each fee category. Due to the uncontrollable factors in water and wastewater (i.e. weather, shifts in consumption patterns, etc), the same assumption may not be utilized from year to year in order to ensure large fluctuations in rates is avoided.*

	Approved 2017 Budget	*Approved 2018 Budget*	*Approved 2019 Budget*	*Draft 2020 Budget*
Effective Date of Rate Change	Sunday, January 1, 2017	Monday, January 1, 2018	Friday, February 1, 2019	Saturday, February 1, 2020
Other Rates				
Bulk Water Rates				
Assumption	Full Cost Recovery (based on bulk water depot direct cost allocation and water treatment & supply cost (per m3)); administration fee and bulk water activation fee	Full Cost Recovery (based on bulk water depot direct cost allocation and water treatment & supply cost (per m3)); administration fee and bulk water activation fee; commencing in 2018 all bulk water fees (consumption and administration fees) to be indexed based on underlying year over year increases in underlying costs	Consumption and administration fees indexed based on underlying year over year increases in underlying costs (indexed effective 2018)	Consumption and administration fees indexed based on underlying year over year increases in underlying costs (indexed effective 2018)
			2.00% Increase	2.50% Increase
Annual Water Consumption	Three Year Rolling Average	Adjusted Two Year Rolling Average	Adjusted Two Year Rolling Average	Adjusted Two Year Rolling Average
Increases	3.07% decrease, consumption rate	1.73% increase	2.00% increase	2.50% increase
Bulk Water Administration Fee	2.00% increase	2.00% increase	2.00% increase	2.50% increase
Bulk Water Activation Fee	2.00% increase	2.00% increase	2.00% increase	2.50% increase
Bulk Water Re-Activation Fee	2.00% increase	2.00% increase	2.00% increase	2.50% increase
Fire Protection				
Assumption	Based on industry standard allocation for flows allocated to fire protection (including specific capital/operating related hydrant costs); indexed since implementation of rate study.	Based on industry standard allocation for flows allocated to fire protection (including specific capital/operating related hydrant costs); indexed since implementation of rate study.	Based on industry standard allocation for flows allocated to fire protection (including specific capital/operating related hydrant costs); indexed since implementation of rate study.	Based on industry standard allocation for flows allocated to fire protection (including specific capital/operating related hydrant costs); indexed since implementation of rate study.
Increase	2.00% $2,129,990	2.00% $2,172,590	2.00% $2,216,040	2.50% $2,271,440
Miscellaneous Fees				
Leachate	Full Cost Recovery (based on loading and capital/operating cost allocation methodology, as well as 50%/50% fixed/variable recovery)	Full Cost Recovery (based on loading and capital/operating cost allocation methodology, as well as 50%/50% fixed/variable recovery)	Full Cost Recovery (based on loading and capital/operating cost allocation methodology, as well as 50%/50% fixed/variable recovery)	Full Cost Recovery (based on loading and capital/operating cost allocation methodology, as well as 50%/50% fixed/variable recovery)
	1.58% increase in consumption rate	15.28% decrease in consumption rate	14.74% decrease in consumption rate	6.49% decrease in consumption rate
Holding Tank	Blended Septic/Holding Rate based on relative loading and flows received (indexed effective 2016)	Blended Septic/Holding Rate based on relative loading and flows received (indexed effective 2016)	Blended Septic/Holding Rate based on relative loading and flows received (indexed effective 2016)	Blended Septic/Holding Rate based on relative loading and flows received (indexed effective 2016)
Septic Tank	2.00% increase	2.00% increase	2.00% increase	2.50% increase
Septic Hauler Administration Fee	Monthly fee to recover direct administration costs 2.00% increase	Monthly fee to recover direct administration costs 2.00% increase	Monthly fee to recover direct administration costs 2.00% increase	Monthly fee to recover direct administration costs 2.50% increase
Sludge Storage	Full Cost Recovery 2.00% increase	Full Cost Recovery 2.00% increase	Full Cost Recovery 2.00% increase	Full Cost Recovery 2.50% increase
Overstrength Charge (R-Value)	Full Cost Recovery 2.00% increase	Full Cost Recovery 2.00% increase	Full Cost Recovery 2.00% increase	Full Cost Recovery 2.50% increase
All Other Miscellaneous Fees	Based on increase in direct operating costs 2.00% increase	Based on increase in direct operating costs 2.00% increase	Based on increase in direct operating costs 2.00% increase	Based on increase in direct operating costs 2.50% increase

Consumer & Consumption Statistics

Residential & Commercial/Industrial Water Consumers (#)

	2012	2013	2014	2015	2016	2017	2018	2019	2020 estimate
Residential	8,147	8,217	8,186	8,231	8,284	8,533	8,993	9,088	9,152
Commercial	706	705	658	670	682	684	684	680	680
Total	**8,853**	**8,922**	**8,844**	**8,901**	**8,966**	**9,217**	**9,677**	**9,768**	**9,832**
Growth	2.10%	0.78%	-0.87%	0.64%	0.73%	2.80%	4.99%	0.94%	0.66%

Includes all water customers, including standby regardless of consumption useage.
Validation of customer data has been completed since 2014. Previous years are based on estimates.

Residential Water Consumption (m^3)

	2012	2013	2014	2015	2016	2017	2018	2019	Adjusted 3 Year Ave.	Ave m^3/mo
Total	1,422,245	1,368,552	1,322,031	1,348,254	1,311,078	1,433,273	1,400,815	1,399,347	1,424,814	13.0

Commercial/Industrial Water Consumption (m^3)

	2012	2013	2014	2015	2016	2017	2018	2019	2 Year Ave.
Total	1,500,682	1,550,611	1,694,822	1,531,123	1,546,833	1,650,211	1,669,751	1,726,294	1,536,759

Water & Wastewater
Comparison of Average Monthly Billing for Selected Municipalities

	Haldimand County	Haldimand County Proposed	Norfolk County	City of Brantford	Chatham-Kent	City of Woodstock*	County of Brant*	City of Kawartha Lakes*	City of Guelph	City of Hamilton	Town of Lincoln*
Effective Date	1-Feb-19	Proposed for 2020	1-Jan-20	1-Jan-19	1-Jan-19	1-Jan-20	1-Mar-19	1-Apr-19	1-Jan-20	1-Jan-20	1-Jan-20
Demographics											
Population	45,608	45,608	64,044	97,496	101,647	40,902	36,707	75,423	131,794	536,917	23,787
Water Customers	9,768	9,832	14,382	32,896	39,636	14,140	7,200	12,364	41,233	142,000	5,569
Geographic Area (Km^2)	1,252	1,252	1,608	72	2,458	49	843	3,084	87	1,117	163
Customers / (Km^2)	**7.8**	**7.9**	**8.9**	**454.1**	**16.1**	**288.7**	**8.5**	**4.0**	**472.7**	**127.1**	**34.2**
Metered Rates:											
Residential (15 m^3)											
Water ($)	34.65	34.85	45.52	41.02	44.00	30.30	68.87	71.32	34.35	27.60	37.35
Sewer ($)	47.12	47.52	62.33	29.10	45.10	26.60	42.72	51.47	38.40	29.25	40.67
Combined ($)	**81.77**	**82.37**	**107.84**	**70.12**	**89.10**	**56.90**	**111.59**	**122.79**	**72.75**	**56.85**	**78.01**
Commercial (2" 500 m^3)											
Water ($)	738.23	735.60	923.53	1,071.32	483.52	1,136.90	1,063.93	1,440.96	944.70	908.80	1,079.36
Sewer ($)	1,064.72	1,060.52	1,256.16	970.00	434.52	630.73	896.56	813.91	1,052.70	968.60	1,195.61
Combined ($)	**1,802.95**	**1,796.12**	**2,179.69**	**2,041.32**	**918.04**	**1,767.63**	**1,960.49**	**2,254.87**	**1,997.40**	**1,877.40**	**2,274.97**
Industrial (4" 4,000 m^3)											
Water ($)	4,811.52	4,766.10	6,480.96	8,504.56	3,160.02	4,631.46	6,013.32	11,266.41	7,097.80	6,837.50	8,473.28
Sewer ($)	7,190.01	7,110.28	8,793.89	7,760.00	2,846.54	4,877.95	5,984.54	6,246.02	7,696.60	7,292.50	9,382.46
Combined ($)	**12,001.53**	**11,876.38**	**15,274.85**	**16,264.56**	**6,006.56**	**9,509.41**	**11,997.86**	**17,512.43**	**14,794.40**	**14,130.00**	**17,855.74**
Miscellaneous Fees:											
Bulk Water Rate $/$m^3$	**3.00**	**3.08**	**4.320**	**4.240**	**2.600**	**1.500**	**2.660**	**3.260**	**3.410**	**2.450**	**2.102**
Holding Tank Waste $/$m^3$			**14.850**	**24.050**	**11.000**	**n/a**	**n/a**	**6.260**	**n/a**	**8.500**	
Blended Septic/Holding $/m3	**14.35**	**14.71**									**9.240**
Septic Rate $/$m^3$			**41.710**	**24.050**	**19.800**	**n/a**	**n/a**	**12.090**	**n/a**	**n/a**	

Note: Not all current fees for noted comparator municipalities were available at the time of printing. Those municipalities noted with an asterisk have the most recent available information.

WATER AND WASTEWATER FEES AND SERVICE CHARGES BY-LAW
INDEX OF SCHEDULES

Schedule	Division
A	Water and Wastewater Metered Charges
B	Water and Wastewater Bulk Service Charges
C	Water and Wastewater General Fees
D	Water and Wastewater Access Refusal and Tampering Charges
E	Fees and Charges Cost Calculation Template

Note: Housekeeping changes, if any, will been highlighted on the related schedule.

Schedule A - Metered Charges

Schedules should be read in conjunction with the By-Law for all applicable terms and conditions.

Water and Wastewater Metered Charges		Description	2019 Charge	2020 Charge	% Increase
Water					
Consumption Charges	$/m3		$0.9901	$0.9740	-1.63%
Basic Charges:	$/month based on domestic service size requirements		see below	see below	n/a
	Service Size:				
	mm	inches			
R1/C1	16 & 19	5/8 & 3/4	$19.80	$20.24	2.23%
R2/C2	25	1	$19.80	$20.24	2.23%
R3/C3	37	1.5	$111.88	$114.38	2.23%
R4/C4	50	2	$243.17	$248.60	2.23%
C5	75	3	$427.93	$437.47	2.23%
C6	100	4	$851.11	$870.09	2.23%
C7	150	6	$1,583.20	$1,618.51	2.23%
C8	200	8	$2,704.21	$2,764.52	2.23%
Flat Rate		*Consumption charge: 20 m3/month*	*$19.80*	*$19.48*	-1.63%
		R1/C1 Basic Charge	*$19.80*	*$20.24*	2.23%
		Total Flat Rate	**$39.60**	**$39.72**	**0.30%**
Standby Charge	When a property temporarily discontinues the supply of water or when a property is being developed or re-developed, a standby charge is billed based on the basic rate for the applicable service size until connection is in place. The standby charge represents the Basic Water charge.				
Wastewater					
Consumption Charges		$/m3	$1.5393	$1.5104	-1.88%
Basic Charges:	$/month based on domestic service size requirements		see below	see below	n/a
	Service Size:				
	mm	inches			
R1/C1	16 & 19	5/8 & 3/4	$24.03	$24.86	3.47%
R2/C2	25	1	$24.03	$24.86	3.47%
R3/C3	37	1.5	$135.76	$140.47	3.47%
R4/C4	50	2	$295.06	$305.31	3.47%
C5	75	3	$519.23	$537.28	3.47%
C6	100	4	$1,032.70	$1,068.59	3.47%
C7	150	6	$1,921.00	$1,987.75	3.47%
C8	200	8	$3,281.20	$3,395.21	3.47%
Flat Rate		*Consumption charge: 20 m3/month*	*$30.79*	*$30.21*	-1.88%
		R1/C1 Basic Charge	*$24.03*	*$24.86*	3.47%
		Total Flat Rate	**$54.81**	**$55.07**	**0.47%**
Standby Charge	When a property temporarily discontinues the use of the wastewater system or when a property is being developed or re-developed and discontinues the use of the wastewater system, a standby charge is billed based on the basic rate for the applicable service size until connection is in place. The standby charge represents the Basic Wastewater charge.				
Water and Wastewater Arrears					
Transfer to Taxes	Non-payment will result in the outstanding amounts due being transferred to the current property owners tax account within 60 days.				
Transfer to Taxes - Tenants	Non-payment by a tenant will result in the outstanding amount due being transferred to the property owner's tax account within 60 days.				

Schedule B - Bulk Service Charges

Schedules should be read in conjunction with the By-Law for all applicable terms and conditions.

Water and Wastewater Bulk Service Charges	Description	2019 Charge	2020 Charge	% Increase
Water				
Bulk Water Consumption Rate	$/m3	$3.00	$3.08	2.48%
Bulk Water Administration Fee	for months with billable consumption	$17.19	$17.62	2.45%
Bulk Water	Account Activation Fee (note: accounts will be deactivated if there is no consumption in the prior twelve month calendar year)	$28.20	$28.90	2.44%
Bulk Water	Re-Activation Fee	$28.20	$28.90	2.44%
New Credit Wholesale Rate	$/m3 (12% reduction of metered water charge based on agreement)	$0.87	$0.86	-1.65%
Wastewater				
Bulk Wastewater Disposal	Leachate - Local Volumetric Charge ($/m3)	$22.90	$21.41	-6.51%
Bulk Wastewater Disposal	Leachate - Base Charge	$724,200	$724,200	0.00%
Bulk Wastewater Disposal	Leachate - Haldimand Leachate Capital Charge (annual)	$27,137	$27,137	0.00%
Effluents exceeding the wastewater use by-law limits		cost recovery plus Admin Fee	cost recovery plus Admin Fee	n/a
Bulk Wastewater Disposal Consumption Rate	Blended Septic/Holding Toilet Waste (per m3)	$14.35	$14.71	2.49%
Bulk Wastewater Disposal Administration Fee	Septic/Holding Tank/Portable Toilet Hauler Administration Fee (per month) for months with billable disposable volumes	$17.19	$17.62	2.50%

Schedule C - General Fees

Schedules should be read in conjunction with the By-Law for all applicable terms and conditions.

Water and Wastewater General Fees	Description	2019 Charge	2020 Change	% Increase
Connection Permits and Fees				
Charges payable to the Corporation of Haldimand County for permits, inspections, material and labour. Charges vary depending on type and size of connection.				
Missed Appointment Fee		$93.00	$95.00	2.15%
Water Connection	Main to Street Line: Includes Inspection and Main Tap (contractor to supply all materials)	$355.00	$364.00	2.01%
Water Connection	Main to House: Includes Inspection and Main Tap (contractor to supply all materials - 3/4" to 2")	$448.00	$459.00	2.05%
Water Meter	Water Meter for new construction	Meter Cost	Meter Cost	n/a
	5/8" or 3/4" Meter	$286	$293	2.14%
	1' Meter	$337	$345	2.12%
	1.5" Meter	$653	$669	2.03%
	2" Meter	$847	$868	2.05%
Water Main Service Connection 100mm (4") Diameter and Larger	Inspection includes: operating valves to isolate main, installation inspection, pressure test verification, meter and backflow installation, hi range chlorine sampling, flushing (contractor to tap main and supply all materials)	$93 per hour	$95 per hour	2.15%
Bacteriological Testing for New 100mm (4") Diameter & Larger	Water Mains or Services - includes sampling and transport to accredited laboratory per sampling site	$192	$197	2.13%
Water Disconnection Inspection	Inspection Only (contractor to supply all materials)	$93	$95	2.20%
Sanitary Sewer Service Connection 100mm (4") Diameter	Main to Street Line - Includes Inspection and Main Tap (contractor to supply all materials)	$355	$364	2.01%
Other Sanitary Sewer Service Connection Diameters	Main to Street Line: 150mm (6") or Greater Diameter: Inspection Only	$169	$173	1.81%
Sanitary Sewer Disconnection Inspection	Inspection Only (contractor to supply all materials)	$93	$95	2.20%
Connection Fees	Existing house to connect to the water system - per Development Charges By-law for Singles and Semis	per Development Charges By-law	per Development Charges By-law	n/a
Connection Fees	Existing house to connect to the sewer system - per Development Charges By-law for Singles and Semis	per Development Charges By-law	per Development Charges By-law	n/a
Connection Fees	Monthly Fee for new construction prior to the meter installation. Based on Flat Rate of 20 m3 volume for Water and Wastewater. Monthly fee will be charged until a water meter is installed.	Flat Rate Water and Wastewater	Flat Rate Water and Wastewater	n/a
Testing of Water Meters				
Testing Requests	Customers may request that their water meter be tested. If the meter is found to be accurate, the customer must pay carrying charges and cost of testing, in addition to payment in full of the bill(s) in question. The following is an excerpt from Haldimand County's Water Use By-Law describing how the charge for testing of meters works.			
	"No person shall test any meter except the Water Purveyor. The Water Purveyor shall remove and test any meter by an owner or agent of the owner. If the meter is found to be inaccurate, Haldimand shall adjust the water bill accordingly. A new or rebuilt displacement meter from 17mm (5/8) to 50mm (2") in size will be deemed to be inaccurate if it records outside of the accuracy limits of 98.5 to 101.5 percent on high and intermediate flows and 95.0 to 101.0 percent on low flows. New and rebuilt compound meters, turbine meters, multi-jet meters and propeller meters from 50mm (2") to 250mm (10") in size will be deemed to be inaccurate if they record 2 percent higher or lower than the manufacturers' recommended accuracy limits. Repaired meters of all sizes will be deemed to be inaccurate if they record outside of the accuracy limit of 90 percent minimum. A rebuilt meter is defined as one that has had the measuring element replaced with a factory-made new unit. A repaired meter is defined as one that has had the old measuring element cleaned and refurbished."			
External Testing	Testing done at customer's request - includes meter removal, shipment and cost of test	100% cost recovery	100% cost recovery	n/a
Water Turn On/Off				
A customer may request their water be turned on or off due to an internal plumbing problem or for seasonal protection of the plumbing. Haldimand County Finance may initiate a turn off due to non-payment of a bill. The following is an excerpt of Haldimand County's Water Use By-Law.				
"No person shall turn off or turn on a water service except the Water Purveyor. If the Water Purveyor is requested to turn off or turn on a water service, a service charge as detailed in Miscellaneous Charges is to be paid, it being understood that no water service will be turned off or turned on unless the consumer or another person authorized in writing to act on his behalf, is present on the premises."				
During Normal Working Hours	Water Turn On	$93	$95	2.15%
During Normal Working Hours	Water Turn Off	$93	$95	2.15%
During Normal Working Hours	Water Turn On/Off Same Day for Fix and Repair	$104	$107	2.88%
During Normal Working Hours	Water Turn On and Meter Reconnection	$104	$107	2.88%
During Normal Working Hours	Water Turn Off and Meter Disconnection	$104	$107	2.88%

Schedule C - General Fees

Schedules should be read in conjunction with the By-Law for all applicable terms and conditions.

Water and Wastewater General Fees	Description	2019 Charge	2020 Change	% Increase
During Normal Working Hours	Water Meter Removal or Install	$19	$20	5.26%
Outside of Normal Working Hours	Water Turn On	$204	$209	2.45%
Outside of Normal Working Hours	Water Turn Off	$204	$209	2.45%
Outside of Normal Working Hours	Water Turn On and Meter Reconnection	$245	$251	2.45%
Outside of Normal Working Hours	Water Turn Off and Meter Disconnection	$245	$251	2.45%
Outside of Normal Working Hours	Water Meter Removal or Install	$41	$42	2.44%
Winter Control Service Calls				
Customers may call the County to perform certain services caused by cold weather conditions.				
Thawing Frozen Water Service Lines	During Normal Working Hours (per hour) (min. 1 hr)	$139	$142	2%
Thawing Frozen Water Service Lines	Outside of Normal Working Hours (per hour) (min. 2 hrs)	$244	$250	2%
Replacement of Water Meter due to Frost Plate damage	During Normal Working Hours	Meter Cost plus $93	Meter Cost plus $95	2.15%
Replacement of Water Meter due to Frost Plate damage	Outside of Normal Working Hours	Meter Cost plus $244	Meter Cost plus $249	2.15%
	5/8" or 3/4" Meter	$286	$293	2%
	1' Meter	$337	$345	2%
	1.5" Meter	$653	$669	2%
	2" Meter	$847	$868	2%
Sanitary Sewer Rodding/Teley Video				
If County staff determine that a sewer line blockage is the property owner's responsibility, the charges below will be billed. Services provided outside of normal working hours will be charged a minimum 2 hours.				
Sanitary Sewer Rodding	During Normal Working Hours - each full or additional hours (min. 1 hr)	$271	$278	2.58%
Sanitary Sewer Rodding	Outside of Normal Working Hours - each full or additional hours (min. 2 hrs)	$477	$489	2.52%
Sewer Video	Sewers will be videoed during normal working hours only. Rate is per hour with a minimum of a one (1) hour charge	$230	$236	2.61%
Dye Testing	During normal working hours (min. 1 hr)	$136	$139	2.21%
Dye Testing	Outside of normal working hours (min. 2 hrs)	$239	$245	2.51%
Vactor Charge	During normal working hours (min. 1 hr)	$283	$290	2.47%
Vactor Charge	Outside of normal working hours (min. 2 hrs)	$518	$531	2.51%
Wastewater Charges				
Sewer Sludge Storage Costs	Sludge Storage - Townsend Lagoon per Cubic Meter (m3)	$4.635	$4.751	2.50%
Sanitary Discharge Agreement	Over-strength discharge fee formula "R" value ("R" means the rate for sewage treatment in$/m3 of sewage flow as set out from time to time by the County)	$1.02	$1.04	2.50%
Sanitary Discharge Agreement	New discharger information report administrative fee	$247	$253	2.43%
Sanitary Discharge Agreement	Existing discharger information report administration fee	$247	$253	2.43%
Sanitary Discharge Agreement	Sanitary discharge agreement annual administration fee	$1,480	$1,517	2.50%
Sanitary Discharge Agreement	Sanitary discharge agreement amendment request application processing fee	$247	$253	2.43%
Sanitary Discharge Agreement	Application for a hauled sewage discharge permit processing fee	$247	$253	2.43%
Sanitary Discharge Agreement	Annual hauled sewage discharge permit processing fee	$247	$253	2.43%
Sanitary Discharge Agreement	Haldimand County assistance with all other additional requests	100% Cost Recovery	100% Cost Recovery	n/a
Wastewater Discharge Program	Application fee	$247	$253	2.43%
Wastewater Discharge Program	Engineering Compliance Report	100% Cost Recovery	100% Cost Recovery	n/a
Wastewater Discharge Program	Meter Testing, Meter Calibration, Meter Installation, Other administrative costs	100% Cost Recovery	100% Cost Recovery	n/a
Other Services				
Inspection of external services		100% Cost Recovery	100% Cost Recovery	n/a
Installation of Communication Antennae System on County Facilities	Other Agencies or Departments of the County	No Charge	No Charge	n/a
Installation of Communication Antennae System on County Facilities	Local Emergency Services, Provincial and Federal Agencies or Ministries per year, per mounting	$2,699	$2,766	2.48%
Installation of Communication Antennae System on County Facilities	Private Enterprises	Per Contract	Per Contract	n/a
Administration Fees and Late Payment Interest Charges				
Note: the following charges may be administered by a 3rd party on behalf of the County				
Arrears Certificate		$16.00	$16.50	3.13%

Schedule C - General Fees

Schedules should be read in conjunction with the By-Law for all applicable terms and conditions.

Water and Wastewater General Fees	Description	2019 Charge	2020 Change	% Increase
Non-sufficient Funds Charge (NSF)		$34.00	$35.50	4.41%
Credit Reference/Credit Check		$16.00	$16.50	3.13%
Account Setup Charge		$32.00	$33.00	3.13%
Late Payment Interest Charges:				
	Per Month	1.25%	1.25%	n/a
	Per Year	15.00%	15.00%	n/a
Transfer to Property Tax Account for Collection	adding water and wastewater charges that remain unpaid after the due date, to the property tax owners account	$32.00	$33.00	3.13%

Schedule D - Refusal & Tampering

Schedules should be read in conjunction with the By-Law for all applicable terms and conditions.

Water and Wastewater Access Refusal and Tampering Charges	Description	2019 Charge	2020 Charge	% Increase
Refusal of Entry for Inspection, Installation, Repair or Replacement of Meters/Equipment, Water Service Leaks				
These fees outline the applicable charges to residents who refuse access required for maintenance, inspection, installation, repair or replacement of meters/equipment.				
Disconnect from the System	Applicable to non-paying derelict properties. Costs to be recovered by the owner. Disconnect at property line or main is at the discretion of the County. Charges unpaid will be added to tax account following proper process	100% Cost Recovery	100% Cost Recovery	n/a
Refuse Access	Shut off - this is only an option if owner is refusing access and not paying their bill	100% Cost Recovery + continuation of monthly basic charge fee	100% Cost Recovery + continuation of monthly basic charge fee	n/a
Refuse Access	Monthly meter read estimate	$31.00	$31.50	1.61%
Refuse Access	Police attendance for enforcement	100% Cost Recovery	100% Cost Recovery	n/a
Refuse Access	Court costs to gain entry	100% Cost Recovery	100% Cost Recovery	n/a
Meter Pit Installation	Applicable cost for owners who refuse access to property	100% Cost Recovery	100% Cost Recovery	n/a
Tampering	Charge for tampering with Water Meter and/or Water Service. All costs of repairs to services and equipment will be recovered 100% in addition to the Tampering Charge and estimated consumption charges.	$520.00	$530.00	1.92%
When it is determined that a meter fails to register accurately the quantity of water consumed, during the period of such failure the quantity shall be estimated by the County.				

SCHEDULE E

FEES AND CHARGES COST CALCULATION TEMPLATE

Service/Activity to be calculated:

Description of Service/Activity:

Input required in yellow cells only.

The only items requiring input on this tab are those highlighted in yellow. This sheet is a summary tab of all of the input completed on the subsequent tabs and is used to calculate the final costs for the fee to be charged. There are hyperlinks in the title of each section below which will bring you directly to the tab where the input is required.

Please insert the name of the user fee under **Service/Activity to be calculated** along with a description of the fee under **Description of Service/Activity**
If the fee is to be offset by a revenue source (i.e. Subsidized by levy, grant funding, etc), enter the percentage or the dollar value of the reduction under **Ancillary Revenues** on this tab.

Once all information has been input, the total fee will be calculated in cell **G59.** If you plan on adjusting the fee (i.e. Rounding, or changing for any other purpose), please input the adjust amount, or duplicate the amount in cell G59 in cell **G60.** Ensure you document why the value is different in the Comment section.

Finally, please select from the drop down beside **Applicable Taxes**. If you are unsure what applies here, please contact your financial analyst for assistance.

COSTS:	DESCRIPTION OF COSTS/SERVICES:		HOURS/UNITS:	ESTIMATED COSTS:
DIRECT COSTS:				
WAGES & BENEFITS:				
Staffing Costs:	Hours x Hourly Rate		0.00	$0.00
Staffing Benefit Costs:	County Average Benefit Percentage		48%	$0.00
Supervisor Costs:	Hours x Hourly Rate		0.00	$0.00
Supervisor Benefit Costs:	County Average Benefit Percentage		48%	$0.00
VEHICLE COSTS:	Vehicles Used:	# of Vehicles Used:	Operating Hours:	
		0		$0.00
				$0.00
				$0.00
ADMINSITRATIVE COSTS:				
Inspection Costs:	Number of Staff x Hours x Hourly Rate		0.00	$0.00
Benefits:	County Average Benefit Percentage		48%	$0.00
Photocopying	Cost of Photocopying & Paper			$0.00
Mailing	Cost for Regular Mail			$0.00
Filing	Copying & Filing Internal Copies			$0.00
OTHER COSTS:	Description:	Cost Per Unit:	Units:	
		$0.00	0	$0.00
		$0.00	0	$0.00
		$0.00	0	$0.00
TOTAL DIRECT COSTS:				$0.00
INDIRECT COSTS:				
Department Overhead Allocation	Allocation to Department of Allocation (%)			$0.00
County General Admin Overhead	Council, CAO, Finance, Clerk's & General Overhead (%)			$0.00
TOTAL INDIRECT COSTS:				$0.00
TOTAL COSTS:				$0.00
Less: Ancillary Revenues:	Grants & Offsetting Revenues	Percentage:		$0.00
		$ Amount:	$0.00	$0.00
CALCULATED USER FEE				$0.00
ADJUSTED USER FEE APPROVED BY COUNCIL				

Applicable Taxes		1
Final User Fee Includin		$0.00

Comments:

DRAFT RATE SUPPORTED

CAPITAL FORECAST

WATER & WASTEWATER

Haldimand County

2020

HALDIMAND COUNTY
2020 - 2029 RATE SUPPORTED CAPITAL FORECAST
PROJECT CHANGES OVER $100,000

Environmental Services - Water	Stage of Good Repair/New Initiative	Explanation	Change Type	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Caledonia Water Distribution														
472004 - Argyle Bridge Watermain Relocation [WW] (2017)	State of Good Repair	Project re-identified in 2020 as project is contingent on Ministry of Transportation's confirmation of starting the Argyle Street bridge replacement. Project scope increased to include work on South side of river. Project was originally budgeted at $82,000. The project has been rebudgeted in 2020 at $250,000, fully funded from CRRF-Water. The increase has a negative impact on our long term financing plan due to the increase in costs.	Project Added	250,000	-	-	-	-	-	-	-	-	-	**250,000**
472005 - Elevated Storage Tank Replacement	State of Good Repair	Project dependent upon outcome of Master Servicing Plan, therefore pushed out one year. As this project is partially funded from Development Charges, a delay will provide additional time for collection of DC receipts. This project is also partially funded from the Federal Gas Tax Reserve Fund and is subject to the terms of that agreement as well.	Project Shifted	(523,500)	(4,113,300)	4,636,800	-	-	-	-	-	-	-	**-**
472019 - Distribution Flow/pressure Control Improvements	State of Good Repair	Additional equipment/infrastructure for enhanced pumping capability and integration of flow control and pressure relief to optimize water supply for staged development. As this project is funded from CRRF-Water, it has a negative impact on our long term finance planning as it was not previously budgeted.	Project Added	45,000	-	120,000	-	-	-	-	-	-	-	**165,000**
472020 - North Water Storage Upgrades	New Initiative	New infrastructure required to meet fire storage requirements associated with development on the north side of Caledonia. Additional components of the project to be budgeted beyond 2029, total cost of project anticipated to be approximately $6.8 million. This project is funded entirely from Development Charges and was included in the Haldimand County Development Charge Background Study, dated March 5, 2019.	Project Added	-	-	-	-	-	-	-	-	608,700	-	**608,700**
Total Caledonia Water Distribution				**(228,500)**	**(4,113,300)**	**4,756,800**	**-**	**-**	**-**	**-**	**-**	**608,700**	**-**	**1,023,700**
Cayuga Water Distribution														
475014 - Johnston St - Echo to end[CIW] [R]	State of Good Repair	Project deleted as work was completed in 2019 as part of a site plan development. The removal of this project has a positive impact on CRRF-Water.	Project Deleted	-	-	(160,000)	-	-	-	-	-	-	-	**(160,000)**
475019 - Cay - Norton St W - Ottawa St west to end [W]	State of Good Repair	Project added for replacement of existing 100 mm cast iron water main and services to a new 150 mm water main and services. This project is currently funded from the Federal Gas Tax Reserve Fund and is subject to the terms of that agreement, though an application for partial funding from the ICIP Green Fund is in process, which may result in reduction in the usage of this reserve fund.	Project Added	-	-	100,000	-	-	-	-	-	-	-	**100,000**
475020 - Cay - Kerr St W - Ottawa St to Munsee [W]	State of Good Repair	Project added for replacement of existing 100 mm cast iron water main and services to a new 150 mm water main and services. This project is currently funded from the Federal Gas Tax Reserve Fund and is subject to the terms of that agreement, though an application for partial funding from the ICIP Green Fund is in process, which may result in reduction in the usage of this reserve fund.	Project Added	-	-	120,000	-	-	-	-	-	-	-	**120,000**
475021 - Cay - Mohawk St E - Winniet east to end [W]	State of Good Repair	Project added for replacement of existing 100 mm cast iron water main and services to a new 150 mm water main and services. This project is currently funded from the Federal Gas Tax Reserve Fund and is subject to the terms of that agreement, though an application for partial funding from the ICIP Green Fund is in process, which may result in reduction in the usage of this reserve fund.	Project Added	-	-	200,000	-	-	-	-	-	-	-	**200,000**
475022 - Cay - McKay St W - Seneca to Ottawa [W]	State of Good Repair	Project added for replacement of existing 100 mm cast iron water main and services to a new 150 mm water main and services. This project is currently funded from the Federal Gas Tax Reserve Fund and is subject to the terms of that agreement, though an application for partial funding from the ICIP Green Fund is in process, which may result in reduction in the usage of this reserve fund.	Project Added	100,000	-	-	-	-	-	-	-	-	-	**100,000**
475023 - Cay - McKay St E - Thorburn to Fisher Carrier	State of Good Repair	Project added for replacement of existing 100 mm cast iron water main and services to a new 150 mm water main and services. This project is currently funded from the Federal Gas Tax Reserve Fund and is subject to the terms of that agreement.	Project Added	100,000	-	-	-	-	-	-	-	-	-	**100,000**
Total Cayuga Water Distribution				**200,000**	**-**	**260,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**460,000**

HALDIMAND COUNTY
2020 - 2029 RATE SUPPORTED CAPITAL FORECAST
PROJECT CHANGES OVER $100,000

Environmental Services - Water	Stage of Good Repair/New Initiative	Explanation	Change Type	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Dunnville Water Treatment Plant														
476025 - WTP Upgrades	State of Good Repair	Increased based on updated estimates based on preliminary design and to include additional work being incorporated. $155,000 of added expense for roofing work to be done per Facilities and Capital Asset Management forecast. This project is fully funded from CRRF-Water, and as a result this increase negatively impacts this reserve fund.	Scope Increase	705,000	-	-	-	-	-	-	-	-	-	**705,000**
476027 - Port Maitland Manual Screen Replacement	State of Good Repair	Ministry of Environment, Conservation and Parks Order - shift 2021 to 2020. As this project is fully funded from CRRF-Water, this shift impacts the available funds in the years identified.	Project Shifted	110,000	(110,000)	-	-	-	-	-	-	-	-	-
476033 - WTP Reservoir Expansion	New Initiative	To reflect anticipated need of project. As this project is funded from Development Charges, a delay will provide additional time for collection of DC receipts.	Project Shifted	-	-	-	-	-	-	(1,840,500)	-	1,840,500	-	-
476035 - Port Maitland Raw Water Intake Repairs	State of Good Repair	Pre-mature repair required. This project is partially funded from CRRF-Water, and therefore has a negative impact on that reserve fund. The remaining funding is the industry share of the project costs, and though communicated with the affected industry, it does not affect the County's funding sources.	Project Added	130,000	-	-	-	-	-	-	-	-	-	**130,000**
476036 - Pre-treatment, Disinfection and Storage Improvements Study	New Initiative	Study added to support design of planned future upgrades to enhance disinfection and storage capability. This project is funded from CRRF-Water, and therefore has a negative impact on that reserve fund.	Project Added	-	-	120,000	-	-	-	-	-	-	-	**120,000**
Total Dunnville Water Treatment Plant				**945,000**	**(110,000)**	**120,000**	**-**	**-**	**-**	**(1,840,500)**	**-**	**1,840,500**	**-**	**955,000**
Nanticoke Water Treatment Plant														
479023 - Reservoir Baffling and Transfer System	State of Good Repair	Re-identifying after consulting with engineers, the 2019 budget was determined to be insufficient. The project is being re-identified into 2020 at the updated requisite budget for remaining expenses. The overall increase in the project budget is approximately $176,000, fund 15% from DC-Water and the remainder from CRRF-Water. This increase has a negative impact on the related funding sources.	Project Added	485,000	-	-	-	-	-	-	-	-	-	**485,000**
479045 - IPS Forebay Headwall Structural Repairs	State of Good Repair	Project approved in 2019 for an estimated amount of repair work. Additional work was determined necessary once concrete capping was removed and headwall internals exposed. The majority of this project is funded from industry. The remaining balance is funded from CRRF-Water. The increase in the contribution from this reserve fund ($8,700) has a negative impact on CRRF-Water. This project has been communicated with the associated industries.	Scope Change	-	270,000	-	-	-	-	-	-	-	-	**270,000**
479062 - Filter 2 & 3 Media Replacement	State of Good Repair	Re-identifying the remaining work for filter deficiencies on filters 2 and 3, as additional work identified is more than the $130,000 available in these two projects. The increased overall budget is $85,000, with funding coming from CRRF-Water, which has a negative impact on this reserve fund.	Project Added	215,000	-	-	-	-	-	-	-	-	-	**215,000**
479064 - Filter Value Actuator Replacements	State of Good Repair	Project added as the result of issues with current acutators. As these are fully funded from CRRF-Water, this new project has a negative impact on the reserve fund.	Project Added	45,000	45,000	45,000								**135,000**
Total Nanticoke Water Treatment Plant				**745,000**	**315,000**	**45,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,105,000**
Lake Erie Industrial Park Technical Reviews and Studies														
479066 - LEIP - Master Servicing Plan [WW][R][S]	State of Good Repair	New project to establish a MSP for development of LEIP. This project is funded entirely from Development Charges and was included in the Haldimand County Development Charge Background Study, dated March 5, 2019.	Project Added	50,000	-	-	-	-	-	50,000	-	-	-	**100,000**
Total Lake Erie Industrial Park Technical Reviews and Studies				**50,000**	**-**	**-**	**-**	**-**	**-**	**50,000**	**-**	**-**	**-**	**100,000**
Total Environmental Services - Water				**1,711,500**	**(3,908,300)**	**5,181,800**	**-**	**-**	**-**	**(1,790,500)**	**-**	**2,449,200**	**-**	**3,643,700**

HALDIMAND COUNTY
2020 - 2029 RATE SUPPORTED CAPITAL FORECAST
PROJECT CHANGES OVER $100,000

Environmental Services - Water	Stage of Good Repair/New Initiative	Explanation	Change Type	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Environmental Services - Wastewater				-	-	-	-	-	-	-	-	-	-	-
Caledonia Wastewater Collection														
452004 - Nairne St. Forcemain Rehab	State of Good Repair	Re-identifying after consulting with engineers, the 2019 budget was determined to be insufficient. The project is being re-identified into 2020 at the updated requisite budget for remaining expenses, resulting in approximately $435,000 additional funding from DC-Sewer Debt and an increase in associated financing costs. This increase negatively impacts the related funding source.	Scope Change	1,274,400	-	-	-	-	-	-	-	-	-	**1,274,400**
Total Caledonia Wastewater Collection				1,274,400	-	-	-	-	-	-	-	-	-	**1,274,400**
Caledonia Wastewater Treatment														
452002 - Aeration Diffuser Head Upgrades	New Initiative	Re-identifying after consulting with engineers, the 2019 budget was determined to be insufficient. The project is being re-identified into 2020 at the updated requisite budget for remaining expenses. The increase in project cost totals $277,000 to be funded from DC-Sewer Debt plus associated financing costs. This increase negatively impacts the related funding source.	Project Added	586,500	-	-	-	-	-	-	-	-	-	**586,500**
452023 - WWTP Filter Building Roof Replacement	State of Good Repair	To reflect anticipated need for project. The net impact in the shift in timing is an increase of $15,000 and negatively impacts this reserve fund.	Project Shifted	-	(135,000)	-	150,000	-	-	-	-	-	-	**15,000**
452025 - Caledonia Wastewater Treatment Plant	New Initiative	To reflect anticipated need for project. As this project is fully funded from Development Charges, a delay will provide additional time for collection of DC receipts.	Project Shifted	(1,500,000)	(597,700)	2,097,700	-	-	-	-	-	-	-	-
452026 - Blower Replmts	State of Good Repair	To reflect anticipated need for project. As this project is fully funded from CRRF-Sewer, this shift impacts the available funds in the years identified.	Project Shifted	(350,000)	-	350,000	-	-	-	-	-	-	-	-
452027 - Sludge Storage Tank Retrofit	New Initiative	To reflect anticipated need for project. As this project is partially funded from CRRF-Sewer, this shift impacts the available funds in the years identified. The remaining funding is from Development Charges and as such, a delay will provide additional time for collection of DC receipts.	Project Shifted	(175,000)	-	-	175,000	-	-	-	-	-	-	-
Total Caledonia Wastewater Treatment				**(1,438,500)**	**(732,700)**	**2,447,700**	**325,000**	-	-	-	-	-	-	**601,500**
Cayuga Wastewater Collection														
455004 - Ouse St PS Replacements	State of Good Repair	To reflect anticipated need for project. As this project is partially funded from CRRF-Sewer, this shift impacts the available funds in the years identified. The remaining funding is from Development Charges and as such, a delay will provide additional time for collection of DC receipts.	Project Shifted	(1,272,200)	-	1,272,200	-	-	-	-	-	-	-	-
455009 - Ouse St Forcemain Twinning	New Initiative	Project was not initiated in 2019, re-identified to align with Ouse St Pump Station replacement work. This project is funded from a combination of Development Charges and the Federal Gas Tax Reserve Fund. This delay in timing will provide additional time for collection of DC receipts. The project is also subject to the terms of the Federal Gas Tax Agreement.	Project Added	(306,900)	30,800	306,900	-	-	-	-	-	-	-	**30,800**
Total Cayuga Wastewater Collection				**(1,579,100)**	**30,800**	**1,579,100**	-	-	-	-	-	-	-	**30,800**
Cayuga Wastewater Treatment														
455011 - Twinning of Headworks Screen	New Initiative	To reflect anticipated need for project. This funding for this project was also amended to CRRF-Sewer from the Federal Gas Tax Reserve Fund to allow for more Federal Gas Tax funding to be applied to water projects and alleviate some of the pressures on CRRF-Water.	Project Shifted	(275,000)	-	275,000	-	-	-	-	-	-	-	-
Total Cayuga Wastewater Treatment				**(275,000)**	-	**275,000**	-	-	-	-	-	-	-	-
Lake Erie Industrial Park Technical Reviews and Studies														
459006 - LEIP - Master Servicing Plan [W][R][S]	State of Good Repair	New project to establish a MSP for development of LEIP. This project is funded entirely from Development Charges and was included in the Haldimand County Development Charge Background Study, dated March 5, 2019.	Project Added	50,000	-	-	-	-	-	50,000	-	-	-	**100,000**
Total Lake Erie Industrial Park Technical Reviews and Studies				**50,000**	-	-	-	-	-	**50,000**	-	-	-	**100,000**
Total Environmental Services - Wastewater				**(1,968,200)**	**(701,900)**	**4,301,800**	**325,000**	-	-	**50,000**	-	-	-	**2,006,700**
Total Environmental Services - Water and Wastewater				**(256,700)**	**(4,610,200)**	**9,483,600**	**325,000**	-	-	**(1,740,500)**	-	**2,449,200**	-	**5,650,400**

HALDIMAND COUNTY

CO-ORDINATED PROJECTS
FOR THE YEARS 2020 to 2029

		TAX CAPITAL (preliminary information)						WATER AND WASTEWATER CAPITAL				
Project	Timing	Roads 2019 Open Projects	Roads 10 Year Forecast	Storm 2019 Open Projects	Storm 10 Year Forecast	Other 2019 Open Projects	Other 10 Year Forecast	Water 2019 Open Projects	Water 10 Year Forecast	Wastewater 2019 Open Projects	Wastewater 10 Year Forecast	Project Total
Caledonia												
Master Servicing Plan	2019, 2020, 2025	150,000	50,000	33,600	30,000		-	50,000	100,000	50,000	100,000	**563,600**
Argyle Bridge Watermain and Sanitary Sewer Relocation	2020		-		-		-		60,000		250,000	**310,000**
Blair St - Caithness to Park Lane	2021		100,000		-		-		150,000		-	**250,000**
Cameron St - Caithness to Ross	2021		120,000		-		-		150,000		-	**270,000**
Park Lane - Inverness to end	2021		200,000		-		-		200,000		-	**400,000**
Queen Ave - Caithness to end	2021		200,000		-		-		200,000		-	**400,000**
Cayuga												
Master Servicing Plan	2023, 2029		60,000		30,000		-		50,000		50,000	**190,000**
Brant St - Ouse St S to Cayuga St S	2020		50,000		-		-		120,000		-	**170,000**
Cayuga St S - Seneca to Brant	2020		100,000		-		-		150,000		-	**250,000**
Chippewa St W - Ottawa to Cayuga	2020		150,000		-		-		250,000		-	**400,000**
Kerr St E - Winniet to 100 m west of Winniet	2022		80,000		-		-		100,000		-	**180,000**
Kerr St W - Ottawa St to Munsee	2022		80,000		-		-		120,000		-	**200,000**
McKay St E - Thorburn to Fisher Carrier	2020		60,000		-		-		100,000		-	**160,000**
McKay St W - Seneca to Ottawa	2020		60,000		-		-		100,000		-	**160,000**
Mohawk St E - Winniet east to end	2022		150,000		-		-		200,000		-	**350,000**
Norton St E - Winniet to 60 m west of Winniet	2022		30,000		-		-		60,000		-	**90,000**
Norton St W - Ottawa St W to end	2022		60,000		-		-		100,000		-	**160,000**
Ouse St N - Talbot to Cayuga St N	2022		220,000		-		-		330,000		-	**550,000**
Ouse St S - Talbot to Tuscarora	2020		220,000		-		-		350,000		-	**570,000**
Seneca St S - Tuscarora to McKay	2020		100,000		-		-		220,000		-	**320,000**
Dunnville												
Master Servicing Plan	2022, 2028		60,000		60,000		-		60,000		60,000	**240,000**
Alley way - Broad to Central Lane	2023		50,000		-		-		200,000		-	**250,000**
Main St E - 710 Main E to 50 m south	2023		20,000		-		-		70,000		-	**90,000**
Hagersville												
Master Servicing Plan	2021, 2027		60,000		30,000		-		50,000		50,000	**190,000**
Foundry St - Tuscarora to end	2023		40,000		-		-		100,000		-	**140,000**
Victoria St - Tuscarora to Main St N	2023		200,000		-		-		300,000		-	**500,000**

HALDIMAND COUNTY

CO-ORDINATED PROJECTS
FOR THE YEARS 2020 to 2029

		TAX CAPITAL (preliminary information)						WATER AND WASTEWATER CAPITAL				
Project	Timing	Roads 2019 Open Projects	Roads 10 Year Forecast	Storm 2019 Open Projects	Storm 10 Year Forecast	Other 2019 Open Projects	Other 10 Year Forecast	Water 2019 Open Projects	Water 10 Year Forecast	Wastewater 2019 Open Projects	Wastewater 10 Year Forecast	Project Total
Jarvis												
Master Servicing Plan	2019, 2024	16,000	15,000	15,000	15,000		-	21,000	20,000	17,600	15,000	**134,600**
Lake Erie Industrial Park												
Master Servicing Plan	2020, 2026		100,000		60,000		-		100,000		100,000	**360,000**
County Wide												
Asbestos Annual Inspection and Remediation	2019-2029		-		-	107,180	282,700	3,100	31,000	4,000	40,000	**467,980**
CCTV Inspection Program	2019-2029		-	25,000	250,000		-	25,000	250,000	49,900	250,000	**849,900**
Facility Condition Assessments	2019-2029		-		-		-	83,300	125,000	68,600	125,000	**401,900**
SCADA Maintenance	2019-2029		-		-		-	30,000	300,000	20,000	200,000	**550,000**
SCADA Master Plan	2021, 2026		-		-		-	35,000	70,000	35,000	70,000	**210,000**
SCADA Technical Support	2019-2029		-		-		-	104,600	400,000	40,000	400,000	**944,600**
Total - Water and Wastewater		**166,000**	**2,635,000**	**73,600**	**475,000**	**107,180**	**282,700**	**352,000**	**5,186,000**	**285,100**	**1,710,000**	**11,272,580**

Note - does not include prior year closed projects or prior year open projects with no impact in 2020-2029 or co-ordinated projects that do not have a water/wastewater component.

HALDIMAND COUNTY
2020 RATE SUPPORTED BUDGET
Net Capital Financing from Water and Wastewater Rates

	2019			2020			2021			2022			2023			2024			2025			2026			2027			2028			2029		
	WATER	SEWER	COMBINED	WATER	SEWER	COMBINED	WATER	SEWER	COMBINED	WATER	SEWER	COMBINED	WATER	SEWER	COMBINED	WATER	SEWER	COMBINED	WATER	SEWER	COMBINED	WATER	SEWER	COMBINED	WATER	SEWER	COMBINED	WATER	SEWER	COMBINED	WATER	SEWER	COMBINED
DEBT CHARGES (Existing Debt)																																	
- Gross debt repayments	938,680	665,420	1,604,100	935,960	1,736,850	2,672,810	777,310	1,225,210	2,002,520	774,380	1,198,280	1,972,660	771,910	1,171,670	1,943,580	691,000	990,220	1,681,220	690,420	968,510	1,658,930	691,140	946,820	1,637,960	690,560	925,400	1,615,960	0	908,750	908,750	0	887,740	887,740
- Development related debt repayments	502,370	473,640	976,010	502,320	593,220	1,095,540	502,100	422,480	924,580	501,910	414,140	916,050	502,040	405,550	907,590	502,100	202,420	704,520	501,670	200,330	702,000	502,200	198,730	700,930	501,780	196,700	698,480	0	106,450	106,450	0	103,990	103,990
- Less funding from:																																	
- Develop. Charges Reserve Fund	(502,370)	(473,640)	(976,010)	(502,320)	(593,220)	(1,095,540)	(502,100)	(422,480)	(924,580)	(501,910)	(414,140)	(916,050)	(502,040)	(405,550)	(907,590)	(502,100)	(202,420)	(704,520)	(501,670)	(200,330)	(702,000)	(502,200)	(198,730)	(700,930)	(501,780)	(196,700)	(698,480)	0	(106,450)	(106,450)	0	(103,990)	(103,990)
Net Existing Debt Charges	938,680	665,420	1,604,100	935,960	1,736,850	2,672,810	777,310	1,225,210	2,002,520	774,380	1,198,280	1,972,660	771,910	1,171,670	1,943,580	691,000	990,220	1,681,220	690,420	968,510	1,658,930	691,140	946,820	1,637,960	690,560	925,400	1,615,960	0	908,750	908,750	0	887,740	887,740
DEBT CHARGES (Proposed Debt for Active Projects)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEBT CHARGES (Proposed Debt for Development Related Active Projects)	0	0	0	0	0	0	0	0	0	0	1,150,070	1,150,070	0	1,123,370	1,123,370	0	1,097,190	1,097,190	0	1,070,050	1,070,050	0	1,043,290	1,043,290	0	1,016,600	1,016,600	0	990,160	990,160	0	963,240	963,240
OFFSETTING FUNDING for Development Related Active Projects	0	0	0	0	0	0	0	0	0	0	(1,150,070)	(1,150,070)	0	(1,123,370)	(1,123,370)	0	(1,097,190)	(1,097,190)	0	(1,070,050)	(1,070,050)	0	(1,043,290)	(1,043,290)	0	(1,016,600)	(1,016,600)	0	(990,160)	(990,160)	0	(963,240)	(963,240)
DEBT CHARGES (Proposed New Debt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEBT CHARGES (Proposed New Debt for Development Related Projects)	0	0	0	0	0	0	0	0	0	0	225,540	225,540	374,460	259,080	633,540	365,770	253,080	618,850	357,260	246,810	604,070	348,380	240,670	589,050	339,690	686,900	1,026,590	331,000	670,600	1,001,600	627,260	4,036,090	4,663,350
OFFSETTING FUNDING for Development Related New Projects	0	0	0	0	0	0	0	0	0	0	(225,540)	(225,540)	(374,460)	(259,080)	(633,540)	(365,770)	(253,080)	(618,850)	(357,260)	(246,810)	(604,070)	(348,380)	(240,670)	(589,050)	(339,690)	(686,900)	(1,026,590)	(331,000)	(670,600)	(1,001,600)	(627,260)	(4,036,090)	(4,663,350)
DEBT CHARGES SUB-TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL DEBT CHARGES	**938,680**	**665,420**	**1,604,100**	**935,960**	**1,736,850**	**2,672,810**	**777,310**	**1,225,210**	**2,002,520**	**774,380**	**1,198,280**	**1,972,660**	**771,910**	**1,171,670**	**1,943,580**	**691,000**	**990,220**	**1,681,220**	**690,420**	**968,510**	**1,658,930**	**691,140**	**946,820**	**1,637,960**	**690,560**	**925,400**	**1,615,960**	**0**	**908,750**	**908,750**	**0**	**887,740**	**887,740**
CAPITAL REPLACEMENT RESERVE FUND																																	
- Budgeted annual contribution	1,043,570	2,420,000	3,463,570	1,132,620	1,385,000	2,517,620	1,393,350	1,912,790	3,306,140	1,504,080	1,952,820	3,456,900	1,616,050	1,987,530	3,603,580	1,696,960	2,168,980	3,865,940	1,697,540	2,190,690	3,888,230	1,696,820	2,212,380	3,909,200	1,697,400	2,233,800	3,931,200	2,387,960	2,250,450	4,638,410	2,387,960	2,271,460	4,659,420
TOTAL CAPITAL-RELATED FINANCING:	1,982,250	3,085,420	5,067,670	2,068,580	3,121,850	5,190,430	2,170,660	3,138,000	5,308,660	2,278,460	3,151,100	5,429,560	2,387,960	3,159,200	5,547,160	2,387,960	3,159,200	5,547,160	2,387,960	3,159,200	5,547,160	2,387,960	3,159,200	5,547,160	2,387,960	3,159,200	5,547,160	2,387,960	3,159,200	5,547,160	2,387,960	3,159,200	5,547,160
IMPACT ON USER RATES:																																	
% INCREASE - YEAR TO YEAR	4.52%	1.10%	2.41%	4.36%	1.18%	2.42%	4.93%	0.52%	2.28%	4.97%	0.42%	2.28%	4.81%	0.26%	2.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
$ INCREASE - YEAR TO YEAR	85,696	33,646	119,342	86,330	36,430	122,760	102,080	16,150	118,230	107,800	13,100	120,900	109,500	8,100	117,600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Revenue from User Rates	**5,642,470**	**6,602,180**	**12,244,650**	**5,642,470**	**6,602,180**	**12,244,650**	**5,642,470**	**6,602,180**	**12,244,650**	**5,642,470**	**6,602,180**	**12,244,650**	**5,642,470**	**6,602,180**	**12,244,650**	**5,642,470**	**6,602,180**	**12,244,650**	**5,642,470**	**6,602,180**	**12,244,650**	**5,642,470**	**6,602,180**	**12,244,650**	**5,642,470**	**6,602,180**	**12,244,650**	**5,642,470**	**6,602,180**	**12,244,650**	**5,642,470**	**6,602,180**	**12,244,650**
Estimated Impact of Proposed Capital Related Expenditures on User Rates	**1.5%**	**0.5%**	**1.0%**	**1.5%**	**0.6%**	**1.0%**	**1.8%**	**0.2%**	**1.0%**	**1.9%**	**0.2%**	**1.0%**	**1.9%**	**0.1%**	**1.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

NOTE: Existing Debt made up of debenture payments required for: WATER - Nanticoke Water Treatment Plant (2018-2027), Caledonia-Orkney Street (2011-2020), Caledonia - Caithness, Argyle to McClung (2014-2023), Dunnville-Cast Iron Watermains (2011-2020), Jarvis Watermain Replacement (2018-2027). WASTEWATER - Cayuga WPCP (2011-2020); and Hagersville WPCP (2011-2020) upgrades, Jarvis Lagoon upgrades (2018-2027); Caledonia - Caithness, Argyle to McClung (2014-2023), Caledonia WWTP Upgrades (2014-2023), refinancing of balloon debt for Caledonia Water Pollution Control Upgrade (2013-2022),Townsend Lagoon (2020-2029) and Dunnville WWTP (2020-2029).
New Debt requirements for Wastewater Development Related Projects within the 2020-2029 Capital Forecast include: Hagersville Grit Removal System (2023-2032), Caledonia Aeration Head Diffusers (2022-2031), Cayuga Ouse St. Forcemain Twinning (2022-2031), Caledonia WWTP Wet Well Expansion (2022-2031), Jarvis Additional Wastewater Treatment Capacity (2022-2031), Cayuga Ouse St Pumping Station (2022-2031), Caledonia Nairn St. Forcemain (2022-2031), Townsend Lagoon Upgrade (2020-2029), and New Caledonia Wastewater Treatment Plant Phase 1 & 2 (2027-2036 and 2029-2048).

NOTE: New Debt requirements for Water Development Related Projects within the 2020-2029 Capital Forecast include: Caledonia Elevated Tank (2023-2032), Caledonia North Water Storage Upgrades (2029-2038) and Dunnville WTP Reservoir Expansion (2029-2038).
The 1% of combined user rates revenue contribution to the capital replacement reserves was established in 2014 as a resolution to the water capital replacement reserve's violation of County financing principles. This practice was intended to proceed until 2024, and then be revisited. Given the current state of the water capital replacement reserve, staff may revisit this contribution for 2021.

Haldimand County 2020 Rate Supported Capital Forecast

Water and Wastewater Summary

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Summary - Water																	
General	378,620	278,100	218,100	243,100	2,898,000	2,921,100	2,965,000	2,887,000	868,100	3,047,500	**16,704,620**	(9,609,600)		(1,197,650)	(5,897,370)		**(16,704,620)**
Caledonia	391,500	1,283,500	4,756,800	5,000		108,000		5,000	608,700	2,500	**7,161,000**	(1,556,600)		(3,674,130)	(1,930,270)		**(7,161,000)**
Cayuga	1,407,000	25,000	920,000	25,000		12,000				25,000	**2,414,000**	(1,290,000)		(50,000)	(1,074,000)		**(2,414,000)**
Dunnville	4,750,000	90,000	235,000	485,000	142,000	25,000		95,000	1,870,500		**7,692,500**		(8,500)	(1,966,020)	(5,717,980)		**(7,692,500)**
Hagersville	40,000	25,000	250,000	407,500				25,000	12,500		**760,000**	(250,000)		(50,000)	(460,000)		**(760,000)**
Jarvis					20,000		5,000				**25,000**			(20,000)	(5,000)		**(25,000)**
Lake Erie Industrial Park	50,000						50,000				**100,000**			(100,000)			**(100,000)**
Nanticoke	1,113,000	1,145,000	195,000	125,000	140,000	140,000	180,000	188,000	150,000	125,000	**3,501,000**	(656,450)	(1,108,300)	(258,030)	(1,478,220)		**(3,501,000)**
Townsend	35,500										**35,500**				(35,500)		**(35,500)**
Total Water	**8,165,620**	**2,846,600**	**6,574,900**	**1,290,600**	**3,200,000**	**3,206,100**	**3,200,000**	**3,200,000**	**3,509,800**	**3,200,000**	**38,393,620**	**(13,362,650)**	**(1,116,800)**	**(7,315,830)**	**(16,598,340)**	**-**	**(38,393,620)**
Summary - Wastewater																	
General	589,000	782,000	879,000	397,000	2,554,500	417,000	3,200,000	407,000	2,832,500	3,551,500	**15,609,500**	(3,592,400)		(1,345,050)	(10,672,050)		**(15,609,500)**
Caledonia	3,415,500	1,500,000	2,487,200	535,000	28,500	5,957,600		37,335,900	145,000	2,500	**51,407,200**			(49,875,800)	(1,531,400)		**(51,407,200)**
Cayuga	5,000	30,800	2,298,100	25,000	165,000			19,000	5,000	25,000	**2,572,900**	(226,300)		(509,200)	(1,837,400)		**(2,572,900)**
Dunnville	655,000	1,071,000	571,000	1,255,000	5,000	16,000		16,000	30,000	16,000	**3,635,000**	(380,000)		(223,200)	(3,031,800)		**(3,635,000)**
Hagersville	335,000	1,724,700	42,000	22,000	10,000			145,000	237,500		**2,516,200**	(700,000)		(553,180)	(1,263,020)		**(2,516,200)**
Jarvis	132,000				562,000			5,000			**699,000**			(53,800)	(645,200)		**(699,000)**
Lake Erie Industrial Park	50,000						400,000				**450,000**			(100,000)	(350,000)		**(450,000)**
Oswego Park			225,000		275,000					5,000	**505,000**				(505,000)		**(505,000)**
Townsend	30,000					370,000			350,000		**750,000**				(750,000)		**(750,000)**
Total Wastewater	**5,211,500**	**5,108,500**	**6,502,300**	**2,234,000**	**3,600,000**	**6,760,600**	**3,600,000**	**37,927,900**	**3,600,000**	**3,600,000**	**78,144,800**	**(4,898,700)**	**-**	**(52,660,230)**	**(20,585,870)**	**-**	**(78,144,800)**
Total Water and Wastewater	**13,377,120**	**7,955,100**	**13,077,200**	**3,524,600**	**6,800,000**	**9,966,700**	**6,800,000**	**41,127,900**	**7,109,800**	**6,800,000**	**116,538,420**	**(18,261,350)**	**(1,116,800)**	**(59,976,060)**	**(37,184,210)**	**-**	**(116,538,420)**
Funding																	
Summary - Water																	
Grants/Subsidies	(1,521,450)	(649,400)	(1,582,200)		(1,973,900)	(1,967,500)	(1,999,500)	(1,945,100)		(1,723,600)	(13,362,650)						
External Financing	(88,500)	(388,300)	(80,000)	(80,000)	(80,000)	(80,000)	(80,000)	(80,000)	(80,000)	(80,000)	(1,116,800)						
Development Charges Reserve Funds	(209,800)	(504,900)	(2,694,300)	(83,800)	(248,620)	(283,280)	(289,800)	(247,080)	(2,499,150)	(255,100)	(7,315,830)						
Reserves/Reserve Funds	(6,345,870)	(1,304,000)	(2,218,400)	(1,126,800)	(897,480)	(875,320)	(830,700)	(927,820)	(930,650)	(1,141,300)	(16,598,340)						
Debenture Financing											-						
Total Water	**(8,165,620)**	**(2,846,600)**	**(6,574,900)**	**(1,290,600)**	**(3,200,000)**	**(3,206,100)**	**(3,200,000)**	**(3,200,000)**	**(3,509,800)**	**(3,200,000)**	**(38,393,620)**						
Summary - Wastewater																	
Grants/Subsidies	(170,000)	(720,570)	(375,730)	(380,000)	(681,400)		(834,000)		(748,400)	(988,600)	(4,898,700)						
External Financing											-						
Development Charges Reserve Funds	(3,373,750)	(2,062,930)	(2,668,000)	(271,900)	(277,650)	(5,798,500)	(274,350)	(37,375,600)	(310,450)	(247,100)	(52,660,230)						
Reserves/Reserve Funds	(1,667,750)	(2,325,000)	(3,458,570)	(1,582,100)	(2,640,950)	(962,100)	(2,491,650)	(552,300)	(2,541,150)	(2,364,300)	(20,585,870)						
Debenture Financing											-						
Total Wastewater	**(5,211,500)**	**(5,108,500)**	**(6,502,300)**	**(2,234,000)**	**(3,600,000)**	**(6,760,600)**	**(3,600,000)**	**(37,927,900)**	**(3,600,000)**	**(3,600,000)**	**(78,144,800)**						
Total Water and Wastewater	**(13,377,120)**	**(7,955,100)**	**(13,077,200)**	**(3,524,600)**	**(6,800,000)**	**(9,966,700)**	**(6,800,000)**	**(41,127,900)**	**(7,109,800)**	**(6,800,000)**	**(116,538,420)**						

Haldimand County 2020 Rate Supported Capital Forecast

Water Summary

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
General	378,620	278,100	218,100	243,100	2,898,000	2,921,100	2,965,000	2,887,000	868,100	3,047,500	**16,704,620**	(9,609,600)		(1,197,650)	(5,897,370)		**(16,704,620)**
Caledonia	391,500	1,283,500	4,756,800	5,000		108,000		5,000	608,700	2,500	**7,161,000**	(1,556,600)		(3,674,130)	(1,930,270)		**(7,161,000)**
Cayuga	1,407,000	25,000	920,000	25,000		12,000				25,000	**2,414,000**	(1,290,000)		(50,000)	(1,074,000)		**(2,414,000)**
Dunnville	4,750,000	90,000	235,000	485,000	142,000	25,000		95,000	1,870,500		**7,692,500**		(8,500)	(1,966,020)	(5,717,980)		**(7,692,500)**
Hagersville	40,000	25,000	250,000	407,500				25,000	12,500		**760,000**	(250,000)		(50,000)	(460,000)		**(760,000)**
Jarvis					20,000		5,000				**25,000**			(20,000)	(5,000)		**(25,000)**
Lake Erie Industrial Park	50,000						50,000				**100,000**			(100,000)			**(100,000)**
Nanticoke	1,113,000	1,145,000	195,000	125,000	140,000	140,000	180,000	188,000	150,000	125,000	**3,501,000**	(656,450)	(1,108,300)	(258,030)	(1,478,220)		**(3,501,000)**
Townsend	35,500										**35,500**				(35,500)		**(35,500)**
Total Water	**8,165,620**	**2,846,600**	**6,574,900**	**1,290,600**	**3,200,000**	**3,206,100**	**3,200,000**	**3,200,000**	**3,509,800**	**3,200,000**	**38,393,620**	**(13,362,650)**	**(1,116,800)**	**(7,315,830)**	**(16,598,340)**	**-**	**(38,393,620)**

Haldimand County 2020 Rate Supported Capital Forecast

Water - General

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Administration																	
441004 - WWW Financial Plan Update (O. Reg. 453/07)	6,100					6,100					**12,200**				(12,200)		**(12,200)**
441005 - Water and Wastewater Project Managers Capital	4,420										**4,420**				(4,420)		**(4,420)**
Total Administration	**10,520**	-	-	-	-	**6,100**	-	-	-	-	**16,620**	-	-	-	**(16,620)**	-	**(16,620)**
Distribution																	
471001 - Standpipe and Reservoir Inspections	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	**100,000**				(100,000)		**(100,000)**
471005 - Distribution System - Annual Repair & Replac't	95,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	**770,000**				(770,000)		**(770,000)**
471008 - Distribution Leak Detection Program	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	**200,000**				(200,000)		**(200,000)**
471011 - Replacement of Cast Iron Watermains					650,000	650,000	650,000	650,000	650,000	650,000	**3,900,000**	(1,400,000)			(2,500,000)		**(3,900,000)**
Total Distribution	**125,000**	**105,000**	**105,000**	**105,000**	**755,000**	**755,000**	**755,000**	**755,000**	**755,000**	**755,000**	**4,970,000**	**(1,400,000)**	-	-	**(3,570,000)**	-	**(4,970,000)**
Treatment																	
471003 - Facility Condition Assessment [WW]		25,000		25,000		25,000		25,000		25,000	**125,000**				(125,000)		**(125,000)**
471004 - SCADA Master Plan		35,000					35,000				**70,000**			(14,700)	(55,300)		**(70,000)**
471006 - Plant Optimization Program Support	65,000										**65,000**			(9,750)	(55,250)		**(65,000)**
471007 - SCADA Maintenance	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	**300,000**			(63,000)	(237,000)		**(300,000)**
471009 - Water Operating Capital	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	**400,000**				(400,000)		**(400,000)**
471010 - Asbestos Annual Inspection and Remediation [WW]	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	**31,000**				(31,000)		**(31,000)**
471012 - SCADA Technical Support	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	**400,000**			(84,000)	(316,000)		**(400,000)**
471017 - Plant Capital Improvements					2,029,900	2,021,900	2,061,900	1,993,900		2,154,400	**10,262,000**	(8,209,600)		(1,026,200)	(1,026,200)		**(10,262,000)**
471018 - Valve Maintenance Equipment	65,000										**65,000**				(65,000)		**(65,000)**
Total Treatment	**243,100**	**173,100**	**113,100**	**138,100**	**2,143,000**	**2,160,000**	**2,210,000**	**2,132,000**	**113,100**	**2,292,500**	**11,718,000**	**(8,209,600)**	-	**(1,197,650)**	**(2,310,750)**	-	**(11,718,000)**
Total Water - General	**378,620**	**278,100**	**218,100**	**243,100**	**2,898,000**	**2,921,100**	**2,965,000**	**2,887,000**	**868,100**	**3,047,500**	**16,704,620**	**(9,609,600)**	-	**(1,197,650)**	**(5,897,370)**	-	**(16,704,620)**

Haldimand County 2020 Rate Supported Capital Forecast

Water - Caledonia

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Distribution																	
472004 - Argyle Bridge Watermain Relocation [WW] (2017)	250,000										**250,000**				(250,000)		**(250,000)**
472005 - Elevated Storage Tank Replacement		523,500	4,636,800								**5,160,300**	(1,556,600)		(2,948,700)	(655,000)		**(5,160,300)**
472010 - Forfar St. Storage Building Roof Replacement	30,000									2,500	**32,500**				(32,500)		**(32,500)**
472011 - Reservoir–SCADA Computer & Network Replmt	16,500					20,000					**36,500**				(36,500)		**(36,500)**
472012 - Park Lane - Inverness to end[CIW] [R]		200,000									**200,000**				(200,000)		**(200,000)**
472013 - Queen Ave - Caithness to end[CIW] [R]		200,000									**200,000**				(200,000)		**(200,000)**
472014 - Cameron St - Caithness to Ross[CIW] [R]		150,000									**150,000**				(150,000)		**(150,000)**
472015 - Blair St - Caithness to Park Lane[CIW] [R]		150,000									**150,000**				(150,000)		**(150,000)**
472016 - Chloramination Feasibility Study		35,000									**35,000**			(8,750)	(26,250)		**(35,000)**
472017 - Chemical Dosing Equipment Replacement		25,000									**25,000**				(25,000)		**(25,000)**
472018 - Booster Station PLC Replacements						38,000					**38,000**			(7,980)	(30,020)		**(38,000)**
472019 - Distribution Flow/pressure Control Improvements	45,000		120,000								**165,000**				(165,000)		**(165,000)**
472020 - North Water Storage Upgrades									608,700		**608,700**			(608,700)			**(608,700)**
472021 - Caledonia Reservoir Roof Rehab								5,000			**5,000**				(5,000)		**(5,000)**
472022 - Caledonia Standpipe Building Roof Repairs				5,000							**5,000**				(5,000)		**(5,000)**
Total Distribution	**341,500**	**1,283,500**	**4,756,800**	**5,000**	**-**	**58,000**	**-**	**5,000**	**608,700**	**2,500**	**7,061,000**	**(1,556,600)**	**-**	**(3,574,130)**	**(1,930,270)**	**-**	**(7,061,000)**
Technical Reviews and Studies																	
472002 - Cal - Master Servicing Plan Update [WW][R][SS]	50,000					50,000					**100,000**			(100,000)	-		**(100,000)**
Total Technical Reviews and Studies	**50,000**	**-**	**-**	**-**	**-**	**50,000**	**-**	**-**	**-**	**-**	**100,000**	**-**	**-**	**(100,000)**	**-**	**-**	**(100,000)**
Total Water - Caledonia	**391,500**	**1,283,500**	**4,756,800**	**5,000**	**-**	**108,000**	**-**	**5,000**	**608,700**	**2,500**	**7,161,000**	**(1,556,600)**	**-**	**(3,674,130)**	**(1,930,270)**	**-**	**(7,161,000)**

Haldimand County 2020 Rate Supported Capital Forecast

Water - Cayuga

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Distribution																	
475003 - Reservoir Roof Replacement	105,000										**105,000**				(105,000)		**(105,000)**
475006 - Ouse St S - Talbot to Tuscarora[CIW] [R]	350,000										**350,000**	(350,000)					**(350,000)**
475007 - Chippewa St W - Ottawa to Cayuga[CIW] [R]	250,000										**250,000**	(250,000)					**(250,000)**
475008 - Seneca St S - Tuscarora to McKay[CIW] [R]	220,000										**220,000**	(220,000)					**(220,000)**
475009 - Cayuga St S - Seneca to Brant[CIW] [R]	150,000										**150,000**	(150,000)					**(150,000)**
475010 - Brant St - Ouse St S to Cayuga St S [CIW] [R]	120,000										**120,000**	(120,000)					**(120,000)**
475011 - Reservoir–SCADA Computer & Network Replmt	12,000					12,000					**24,000**				(24,000)		**(24,000)**
475012 - Online Analyzer Replacements		25,000									**25,000**				(25,000)		**(25,000)**
475013 - Ouse St N - Talbot to Cayuga St N[CIW] [R]			330,000								**330,000**				(330,000)		**(330,000)**
475015 - Kerr St E - Winniet to 100 m west of Winniet[CIW] [R]			100,000								**100,000**				(100,000)		**(100,000)**
475016 - Norton St E - Winniet to 60 m west of Winniet[CIW] [R]			60,000								**60,000**				(60,000)		**(60,000)**
475018 - Chemical Dosing Equipment			10,000								**10,000**				(10,000)		**(10,000)**
475019 - Cay - Norton St W - Ottawa St west to end [W]			100,000								**100,000**				(100,000)		**(100,000)**
475020 - Cay - Kerr St W - Ottawa St to Munsee [W]			120,000								**120,000**				(120,000)		**(120,000)**
475021 - Cay - Mohawk St E - Winniet east to end [W]			200,000								**200,000**				(200,000)		**(200,000)**
475022 - Cay - McKay St W - Seneca to Ottawa [W]	100,000										**100,000**	(100,000)					**(100,000)**
475023 - Cay - McKay St E - Thorburn to Fisher Carrier	100,000										**100,000**	(100,000)					**(100,000)**
Total Distribution	**1,407,000**	**25,000**	**920,000**	**-**	**-**	**12,000**	**-**	**-**	**-**	**-**	**2,364,000**	**(1,290,000)**	**-**	**-**	**(1,074,000)**	**-**	**(2,364,000)**
Technical Reviews and Studies																	
475017 - Cay - Master Servicing Plan Update [WW][R][SS]				25,000						25,000	**50,000**			(50,000)			**(50,000)**
Total Technical Reviews and Studies	**-**	**-**	**-**	**25,000**	**-**	**-**	**-**	**-**	**-**	**25,000**	**50,000**	**-**	**-**	**(50,000)**	**-**	**-**	**(50,000)**
Total Water - Cayuga	**1,407,000**	**25,000**	**920,000**	**25,000**	**-**	**12,000**	**-**	**-**	**-**	**25,000**	**2,414,000**	**(1,290,000)**	**-**	**(50,000)**	**(1,074,000)**	**-**	**(2,414,000)**

Haldimand County 2020 Rate Supported Capital Forecast

Water - Dunnville

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Distribution																	
476030 - Alley way - Broad to Central Lane [CIW] [R]				200,000							**200,000**				(200,000)		**(200,000)**
476031 - Main St E - 710 Main E to 50 m south [CIW] [R]				70,000							**70,000**				(70,000)		**(70,000)**
476037 - Dunnville Bulk Water Depot Roof Repairs								5,000			**5,000**				(5,000)		**(5,000)**
476039 - Dunnville Standpipe Building Roof Repairs				5,000							**5,000**				(5,000)		**(5,000)**
Total Distribution	**-**	**-**	**-**	**275,000**	**-**	**-**	**-**	**5,000**	**-**	**-**	**280,000**	**-**	**-**	**-**	**(280,000)**	**-**	**(280,000)**
Technical Reviews and Studies																	
476028 - Dun - Master Servicing Plan Update [WW][R][SS]			30,000						30,000		**60,000**			(60,000)			**(60,000)**
476040 - Raw Water Transmission Main Condition Assessment			80,000						-		**80,000**				(80,000)		**(80,000)**
Total Technical Reviews and Studies	**-**	**-**	**110,000**	**-**	**-**	**-**	**-**	**-**	**30,000**	**-**	**140,000**	**-**	**-**	**(60,000)**	**(80,000)**	**-**	**(140,000)**
Treatment																	
476002 - Granular Activated Carbon change out		90,000			90,000			90,000			**270,000**				(270,000)		**(270,000)**
476025 - WTP Upgrades	4,455,000										**4,455,000**				(4,455,000)		**(4,455,000)**
476026 - WTP SCADA Computer & Network Replmt	25,000					25,000					**50,000**			(10,500)	(39,500)		**(50,000)**
476027 - Port Maitland Manual Screen Replacement	110,000										**110,000**				(110,000)		**(110,000)**
476029 - WTP PLC Replacements				210,000							**210,000**			(44,100)	(165,900)		**(210,000)**
476032 - Remotes PLC Replacements					52,000						**52,000**			(10,920)	(41,080)		**(52,000)**
476033 - WTP Reservoir Expansion									1,840,500		**1,840,500**			(1,840,500)			**(1,840,500)**
476034 - Filter 1 and 2 - Filter to Waste Flow Meters	30,000										**30,000**				(30,000)		**(30,000)**
476035 - Port Maitland Raw Water Intake Repairs	130,000										**130,000**		(8,500)		(121,500)		**(130,000)**
476036 - Pre-treatment, Disinfection and Storage Improvements Study			120,000								**120,000**				(120,000)		**(120,000)**
476038 - Port Maitland Low Lift Facility Roof Repairs			5,000								**5,000**				(5,000)		**(5,000)**
Total Treatement	**4,750,000**	**90,000**	**125,000**	**210,000**	**142,000**	**25,000**	**-**	**90,000**	**1,840,500**	**-**	**7,272,500**	**-**	**(8,500)**	**(1,906,020)**	**(5,357,980)**	**-**	**(7,272,500)**
Total Water - Dunnville	**4,750,000**	**90,000**	**235,000**	**485,000**	**142,000**	**25,000**	**-**	**95,000**	**1,870,500**	**-**	**7,692,500**	**-**	**(8,500)**	**(1,966,020)**	**(5,717,980)**	**-**	**(7,692,500)**

Haldimand County 2020 Rate Supported Capital Forecast

Water - Hagersville

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Distribution																	
473001 - Booster Stn Roof Replacement									5,000		**5,000**				(5,000)		**(5,000)**
473003 - Hagersville Tuscarora St Operations Building Roof									2,500		**2,500**				(2,500)		**(2,500)**
473005 - Standpipe Coating Maintenance			250,000								**250,000**	(250,000)					**(250,000)**
473006 - Victoria St - Tuscarora to Main St N[CIW] [R]				300,000							**300,000**				(300,000)		**(300,000)**
473007 - Foundry St - Tuscarora to end[CIW] [R]				100,000							**100,000**				(100,000)		**(100,000)**
473008 - Hagersville Rechlorination Building Roof Repairs				7,500							**7,500**				(7,500)		**(7,500)**
473009 - Hagersville Booster Station VFD Addition	40,000										**40,000**				(40,000)		**(40,000)**
473010 - Hagersville Standpipe Building Roof Repairs									5,000		**5,000**				(5,000)		**(5,000)**
Total Distribution	**40,000**	**-**	**250,000**	**407,500**	**-**	**-**	**-**	**-**	**12,500**	**-**	**710,000**	**(250,000)**	**-**	**-**	**(460,000)**	**-**	**(710,000)**
Technical Reviews and Studies																	
473004 - Hag - Master Servicing Plan Update [WW][R][SS]		25,000						25,000			**50,000**			(50,000)			**(50,000)**
Total Technical Reviews and Studies	-	25,000	-	-	-	-	-	25,000	-	-	**50,000**	-	-	(50,000)	-	-	**(50,000)**
Total Water - Hagersville	**40,000**	**25,000**	**250,000**	**407,500**	**-**	**-**	**-**	**25,000**	**12,500**	**-**	**760,000**	**(250,000)**	**-**	**(50,000)**	**(460,000)**	**-**	**(760,000)**

Haldimand County 2020 Rate Supported Capital Forecast

Water - Jarvis

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Distribution																	
474002 - Jarvis Bulk Water Depot Roof Repairs							5,000				**5,000**				(5,000)		(5,000)
Total Distribution	-	-	-	-	-	-	**5,000**	-	-	-	**5,000**	-	-	-	**(5,000)**	-	**(5,000)**
Technical Reviews and Studies																	
474001 - Jar - Master Servicing Plan Update [WW][R][SS]					20,000						**20,000**			(20,000)			(20,000)
Total Technical Reviews and Studies	-	-	-	-	**20,000**	-	-	-	-	-	**20,000**	-	-	**(20,000)**	-	-	**(20,000)**
Total Water - Jarvis	-	-	-	-	**20,000**	-	**5,000**	-	-	-	**25,000**	-	-	**(20,000)**	**(5,000)**	-	**(25,000)**

Haldimand County 2020 Rate Supported Capital Forecast

Water - Lake Erie Industrial Park

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Technical Reviews and Studies																	
479066 - LEIP - Master Servicing Plan [WW][R][S]	50,000						50,000				**100,000**			(100,000)			**(100,000)**
Total Technical Reviews and Studies	50,000						50,000				**100,000**			(100,000)			**(100,000)**
Total Water - Lake Erie Industrial Park	**50,000**	-	-	-	-	-	**50,000**	-	-	-	**100,000**	-	-	**(100,000)**	-	-	**(100,000)**

Haldimand County 2020 Rate Supported Capital Forecast

Water - Nanticoke

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Treatment																	
479002 - Nant - WTP Lagoon Clean Out	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	**450,000**				(450,000)		**(450,000)**
479003 - Stelco IPS Operating Capital	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	**400,000**		(400,000)				**(400,000)**
479004 - Imperial Oil IPS Operating Capital	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	**400,000**		(400,000)				**(400,000)**
479011 - SCADA Computer & Network Replmt			25,000					25,000			**50,000**			-	(50,000)		**(50,000)**
479023 - Reservoir Baffling and Transfer System	485,000										**485,000**	(231,450)		(72,750)	(180,800)		**(485,000)**
479045 - IPS Forebay Headwall Structural Repairs		270,000									**270,000**		(243,300)		(26,700)		**(270,000)**
479054 - WTP Residuals Lagoon Structural Repairs	90,000										**90,000**				(90,000)		**(90,000)**
479055 - Stelco Transmission Main Leak Detection		65,000									**65,000**		(65,000)				**(65,000)**
479056 - Filter Building (Basement) Dehumidifier	45,000										**45,000**				(45,000)		**(45,000)**
479057 - Potable Water Pump Guide Rail Replacement	45,000										**45,000**				(45,000)		**(45,000)**
479058 - High Lift Chlorine Storage System Refurbishment	28,000										**28,000**				(28,000)		**(28,000)**
479059 - WTP PLC Replacements	35,000					15,000	55,000	38,000	25,000		**168,000**			(35,280)	(132,720)		**(168,000)**
479060 - Pre-Treatment Upgrades		200,000									**200,000**	(200,000)					**(200,000)**
479061 - Lowlift Pump Replmt		375,000									**375,000**	(225,000)		(150,000)			**(375,000)**
479062 - Filter 2 & 3 Media Replacement	215,000										**215,000**				(215,000)		**(215,000)**
479063 - WTP Backwash Holding Tank Winterization		65,000									**65,000**				(65,000)		**(65,000)**
479064 - Filter valve actuator replacements	45,000	45,000	45,000								**135,000**				(135,000)		**(135,000)**
479065 - Nanticoke WTP Facility Building Roof Repairs					15,000						**15,000**				(15,000)		**(15,000)**
Total Treatment	**1,113,000**	**1,145,000**	**195,000**	**125,000**	**140,000**	**140,000**	**180,000**	**188,000**	**150,000**	**125,000**	**3,501,000**	**(656,450)**	**(1,108,300)**	**(258,030)**	**(1,478,220)**	**-**	**(3,501,000)**
Total Water - Nanticoke	**1,113,000**	**1,145,000**	**195,000**	**125,000**	**140,000**	**140,000**	**180,000**	**188,000**	**150,000**	**125,000**	**3,501,000**	**(656,450)**	**(1,108,300)**	**(258,030)**	**(1,478,220)**	**-**	**(3,501,000)**

Haldimand County 2020 Rate Supported Capital Forecast

Water - Townsend

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Distribution																	
477002 - Townsend Rechlorination Building Roof Repairs	8,500										**8,500**				(8,500)		**(8,500)**
477003 - Townsend Elevated Tank Property Security Fence	27,000										**27,000**				(27,000)		**(27,000)**
Total Distribution	**35,500**	-	-	-	-	-	-	-	-	-	**35,500**	-	-	-	**(35,500)**	-	**(35,500)**
Total Water - Townsend	**35,500**	-	-	-	-	-	-	-	-	-	**35,500**	-	-	-	**(35,500)**	-	**(35,500)**

Haldimand County 2020 Rate Supported Capital Forecast

Wastewater Summary

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
General	589,000	782,000	879,000	397,000	2,554,500	417,000	3,200,000	407,000	2,832,500	3,551,500	**15,609,500**	(3,592,400)		(1,345,050)	(10,672,050)		**(15,609,500)**
Caledonia	3,415,500	1,500,000	2,487,200	535,000	28,500	5,957,600		37,335,900	145,000	2,500	**51,407,200**			(49,875,800)	(1,531,400)		**(51,407,200)**
Cayuga	5,000	30,800	2,298,100	25,000	165,000			19,000	5,000	25,000	**2,572,900**	(226,300)		(509,200)	(1,837,400)		**(2,572,900)**
Dunnville	655,000	1,071,000	571,000	1,255,000	5,000	16,000		16,000	30,000	16,000	**3,635,000**	(380,000)		(223,200)	(3,031,800)		**(3,635,000)**
Hagersville	335,000	1,724,700	42,000	22,000	10,000			145,000	237,500		**2,516,200**	(700,000)		(553,180)	(1,263,020)		**(2,516,200)**
Jarvis	132,000				562,000			5,000			**699,000**			(53,800)	(645,200)		**(699,000)**
Lake Erie Industrial Park	50,000						400,000				**450,000**			(100,000)	(350,000)		**(450,000)**
Oswego Park			225,000		275,000					5,000	**505,000**				(505,000)		**(505,000)**
Townsend	30,000					370,000			350,000		**750,000**				(750,000)		**(750,000)**
Total Wastewater	**5,211,500**	**5,108,500**	**6,502,300**	**2,234,000**	**3,600,000**	**6,760,600**	**3,600,000**	**37,927,900**	**3,600,000**	**3,600,000**	**78,144,800**	**(4,898,700)**	**-**	**(52,660,230)**	**(20,585,870)**	**-**	**(78,144,800)**

Haldimand County 2020 Rate Supported Capital Forecast

Wastewater - General

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Collection																	
451001 - Inflow & Infiltration Program Support	35,000	25,000	35,000	25,000	25,000	35,000	25,000	35,000	25,000	25,000	**290,000**			(43,500)	(246,500)		**(290,000)**
451005 - CCTV Inspections - Structural Ass'ments [SS] - Engineering	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	**250,000**				(250,000)		**(250,000)**
451008 - Collection System - Annual Repair	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	**700,000**				(700,000)		**(700,000)**
451012 - Sewer Manhole Repairs (I&I)		75,000		75,000		75,000		75,000		75,000	**375,000**			(56,250)	(318,750)		**(375,000)**
451013 - Sanitary Sewer Rehabilitations (I&I)	200,000		200,000		200,000		200,000		200,000		**1,000,000**	(850,000)		(150,000)			**(1,000,000)**
451017 - CCTV Inspections - Operations	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	**250,000**				(250,000)		**(250,000)**
451022 - Confined Space Entry Equipment Replacements			10,000			10,000			10,000		**30,000**				(30,000)		**(30,000)**
451023 - Pump Station Repairs/Replacement		350,000	350,000								**700,000**			(70,000)	(630,000)		**(700,000)**
451025 - Wastewater Camera	30,000										**30,000**				(30,000)		**(30,000)**
Total Collection	**385,000**	**570,000**	**715,000**	**220,000**	**345,000**	**240,000**	**345,000**	**230,000**	**355,000**	**220,000**	**3,625,000**	**(850,000)**	**-**	**(319,750)**	**(2,455,250)**	**-**	**(3,625,000)**
Treatment																	
451003 - Facility Condition Assessment [W]	25,000		25,000		25,000		25,000		25,000		**125,000**				(125,000)		**(125,000)**
451004 - SCADA Master Plan Optimization		35,000					35,000				**70,000**			(16,800)	(53,200)		**(70,000)**
451007 - SCADA Maintenance	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	**200,000**			(48,000)	(152,000)		**(200,000)**
451009 - Composite Sampler-Replacement Program		38,000		38,000		38,000		38,000		38,000	**190,000**				(190,000)		**(190,000)**
451010 - Plant Optimization Program Support	40,000										**40,000**			(6,000)	(34,000)		**(40,000)**
451011 - SCADA Technical Support	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	**400,000**			(96,000)	(304,000)		**(400,000)**
451014 - Effluent Water Quality & Impact Assessment	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	**350,000**			(350,000)			**(350,000)**
451015 - Wastewater Operating Capital	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	**400,000**				(400,000)		**(400,000)**
451018 - Asbestos Annual Inspection and Remediation [W]	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	**40,000**				(40,000)		**(40,000)**
451024 - Plant Capital Improvements					2,045,500		2,656,000		2,313,500	3,154,500	**10,169,500**	(2,742,400)		(508,500)	(6,918,600)		**(10,169,500)**
Total Treatment	**204,000**	**212,000**	**164,000**	**177,000**	**2,209,500**	**177,000**	**2,855,000**	**177,000**	**2,477,500**	**3,331,500**	**11,984,500**	**(2,742,400)**	**-**	**(1,025,300)**	**(8,216,800)**	**-**	**(11,984,500)**
Total Wastewater - General	**589,000**	**782,000**	**879,000**	**397,000**	**2,554,500**	**417,000**	**3,200,000**	**407,000**	**2,832,500**	**3,551,500**	**15,609,500**	**(3,592,400)**	**-**	**(1,345,050)**	**(10,672,050)**	**-**	**(15,609,500)**

Haldimand County 2020 Rate Supported Capital Forecast

Wastewater - Caledonia

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Collection																	
452004 - Nairne St. Forcemain Rehab	1,274,400										**1,274,400**			(1,274,400)			**(1,274,400)**
452006 - Argyle Bridge Sanitary Sewer Relocation [W] (17-$40,000)	60,000										**60,000**				(60,000)		**(60,000)**
452024 - Forfar St. Storage Building Roof Replacement	30,000									2,500	**32,500**				(32,500)		**(32,500)**
452030 - Nairne Pump Station Wet Well Gas Monitoring Equipment I	10,000										**10,000**				(10,000)		**(10,000)**
452032 - Nairne St. Pump Station GENSET Replacement				185,000							**185,000**				(185,000)		**(185,000)**
452040 - Kincardine and Paisley Pump Station Roof Repairs	6,000										**6,000**				(6,000)		**(6,000)**
452041 - Nairne Pump Station Roof Repairs			5,000								**5,000**				(5,000)		**(5,000)**
Total Collection	**1,380,400**	**-**	**5,000**	**185,000**	**-**	**-**	**-**	**-**	**-**	**2,500**	**1,572,900**	**-**	**-**	**(1,274,400)**	**(298,500)**	**-**	**(1,572,900)**
Technical Reviews and Studies																	
452001 - Cal - Master Servicing Plan Update [W][R][SS]	50,000					50,000					**100,000**			(100,000)			**(100,000)**
Technical Reviews and Studies	**50,000**	**-**	**-**	**-**	**-**	**50,000**	**-**	**-**	**-**	**-**	**100,000**	**-**	**-**	**(100,000)**	**-**	**-**	**(100,000)**
Treatment																	
452002 - Aeration Diffuser Head Upgrades	586,500										**586,500**			(586,500)			**(586,500)**
452003 - WWTP – SCADA Computer & Network Replmt				20,000					20,000		**40,000**				(40,000)		**(40,000)**
452007 - WWTP Wet Well Expansion	1,263,600										**1,263,600**			(1,263,600)			**(1,263,600)**
452023 - WWTP Filter Building Roof Replacement				150,000							**150,000**				(150,000)		**(150,000)**
452025 - Caledonia Wastewater Treatment Plant		1,500,000	2,097,700			5,682,600		37,255,900			**46,536,200**			(46,536,200)			**(46,536,200)**
452026 - Blower Replmts			350,000								**350,000**				(350,000)		**(350,000)**
452027 - Sludge Storage Tank Retrofit				175,000							**175,000**			(87,500)	(87,500)		**(175,000)**
452028 - West Digester Clean Out and Inspection/Minor Repairs	40,000										**40,000**				(40,000)		**(40,000)**
452029 - WTP Electrical Panels and VFD Inspection/Maintenance	10,000				10,000				10,000		**30,000**				(30,000)		**(30,000)**
452031 - Remotes–Control Equipment Replacement(SCADA)			34,500		18,500			80,000			**133,000**				(133,000)		**(133,000)**
452033 - WWTP GENSET Replacement						225,000					**225,000**				(225,000)		**(225,000)**
452034 - WWTP PLC Replacements									115,000		**115,000**			(27,600)	(87,400)		**(115,000)**
452035 - Admin. Building Air Conditioning Unit Replacement	25,000										**25,000**				(25,000)		**(25,000)**
452036 - Primary Sludge Valves - Actuator Replacements	30,000										**30,000**				(30,000)		**(30,000)**
452037 - Equalization Tank - Valve Actuator Replacement	15,000										**15,000**				(15,000)		**(15,000)**
452038 - Wet Well Roof Repairs	15,000										**15,000**				(15,000)		**(15,000)**
452039 - Control Building Roof Repairs				5,000							**5,000**				(5,000)		**(5,000)**
Total Treatment	**1,985,100**	**1,500,000**	**2,482,200**	**350,000**	**28,500**	**5,907,600**	**-**	**37,335,900**	**145,000**	**-**	**49,734,300**	**-**	**-**	**(48,501,400)**	**(1,232,900)**	**-**	**(49,734,300)**
Total Wastewater - Caledonia	**3,415,500**	**1,500,000**	**2,487,200**	**535,000**	**28,500**	**5,957,600**	**-**	**37,335,900**	**145,000**	**2,500**	**51,407,200**	**-**	**-**	**(49,875,800)**	**(1,531,400)**	**-**	**(51,407,200)**

Haldimand County 2020 Rate Supported Capital Forecast

Wastewater - Cayuga

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Collection																	
455004 - Ouse St PS Replacements			1,272,200								**1,272,200**			(304,400)	(967,800)		**(1,272,200)**
455009 - Ouse St Forcemain Twinning		30,800	306,900								**337,700**	(226,300)		(111,400)			**(337,700)**
Total Collection	**-**	**30,800**	**1,579,100**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,609,900**	**(226,300)**	**-**	**(415,800)**	**(967,800)**	**-**	**(1,609,900)**
Technical Reviews and Studies																	
455014 - Cay - Master Servicing Plan Update [W][R][SS]				25,000						25,000	**50,000**			(50,000)			**(50,000)**
Technical Reviews and Studies	**-**	**-**	**-**	**25,000**	**-**	**-**	**-**	**-**	**-**	**25,000**	**50,000**	**-**	**-**	**(50,000)**	**-**	**-**	**(50,000)**
Treatment																	
455005 - Remotes–Control Equipment Replacement(SCADA)			50,000								**50,000**			(5,000)	(45,000)		**(50,000)**
455011 - Twinning of Headworks Screen			275,000								**275,000**				(275,000)		**(275,000)**
455012 - WTP Electrical Panel and VFD Inspection/Maintenance	5,000				5,000				5,000		**15,000**				(15,000)		**(15,000)**
455013 - Mechanical Aerator (rotor) Replacement			375,000								**375,000**				(375,000)		**(375,000)**
455015 - WWTP SCADA Computer & Network Replmt			19,000					19,000			**38,000**				(38,000)		**(38,000)**
455016 - WWTP PLC Replacements					160,000						**160,000**			(38,400)	(121,600)		**(160,000)**
Total Treatment	**5,000**	**-**	**719,000**	**-**	**165,000**	**-**	**-**	**19,000**	**5,000**	**-**	**913,000**	**-**	**-**	**(43,400)**	**(869,600)**	**-**	**(913,000)**
Total Wastewater - Cayuga	**5,000**	**30,800**	**2,298,100**	**25,000**	**165,000**	**-**	**-**	**19,000**	**5,000**	**25,000**	**2,572,900**	**(226,300)**	**-**	**(509,200)**	**(1,837,400)**	**-**	**(2,572,900)**

Haldimand County 2020 Rate Supported Capital Forecast

Wastewater - Dunnville

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Collection																	
456010 - John St. Pump Station Upgrades	550,000										**550,000**			(55,000)	(495,000)		**(550,000)**
456023 - Broad St Pump Station Roof Repairs					5,000						**5,000**				(5,000)		**(5,000)**
Total Collection	**550,000**	-	-	-	**5,000**	-	-	-	-	-	**555,000**	-	-	**(55,000)**	**(500,000)**	-	**(555,000)**
Technical Reviews and Studies																	
456014 - Dun - Master Servicing Plan Update [W][R][SS]			30,000						30,000		**60,000**			(60,000)			**(60,000)**
Technical Reviews and Studies	-	-	**30,000**	-	-	-	-	-	**30,000**	-	**60,000**	-	-	**(60,000)**	-	-	**(60,000)**
Treatment																	
456005 - Low Lift Pump Replacements	65,000										**65,000**				(65,000)		**(65,000)**
456011 - Blower Replacement		600,000									**600,000**				(600,000)		**(600,000)**
456012 - Aeration Diffuser System Replacement		400,000									**400,000**				(400,000)		**(400,000)**
456013 - Remotes–Control Equipment Replacement(SCADA)		55,000									**55,000**			(13,200)	(41,800)		**(55,000)**
456015 - Odour Control Media Replacement		16,000				16,000				16,000	**48,000**				(48,000)		**(48,000)**
456016 - WWTP Wet-Well Valve Replacements			400,000								**400,000**				(400,000)		**(400,000)**
456017 - Sludge Storage Cell #4 Upgrades and Screen			120,000	750,000							**870,000**				(870,000)		**(870,000)**
456018 - WWTP SCADA Computer & Network Replmt			16,000					16,000			**32,000**				(32,000)		**(32,000)**
456019 - Digester Cover & Insulation				475,000							**475,000**	(380,000)		(95,000)			**(475,000)**
456020 - Blower Building - Heating System Replacement	40,000										**40,000**				(40,000)		**(40,000)**
456021 - Digester Transfer Pump Replacement				30,000							**30,000**				(30,000)		**(30,000)**
456022 - Digester Building Roof Repairs			5,000								**5,000**				(5,000)		**(5,000)**
Total Treatment	**105,000**	**1,071,000**	**541,000**	**1,255,000**	-	**16,000**	-	**16,000**	-	**16,000**	**3,020,000**	**(380,000)**	-	**(108,200)**	**(2,531,800)**	-	**(3,020,000)**
Total Wastewater - Dunnville	**655,000**	**1,071,000**	**571,000**	**1,255,000**	**5,000**	**16,000**	-	**16,000**	**30,000**	**16,000**	**3,635,000**	**(380,000)**	-	**(223,200)**	**(3,031,800)**	-	**(3,635,000)**

Haldimand County 2020 Rate Supported Capital Forecast

Wastewater - Hagersville

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Collection																	
453009 - Hagersville Tuscarora St Operations Building Roof									2,500		**2,500**				(2,500)		**(2,500)**
453018 - Parkview Pump Station Upgrades	215,000										**215,000**				(215,000)		**(215,000)**
453028 - Tuscarora Pump Station - Level Measurement Equipment Replacement	12,000										**12,000**				(12,000)		**(12,000)**
453032 - Parkview Pump Station Roof Repairs	3,000										**3,000**				(3,000)		**(3,000)**
Total Collection	**230,000**	-	-	-	-	-	-	-	**2,500**	-	**232,500**	-	-	-	**(232,500)**	-	**(232,500)**
Technical Reviews and Studies																	
453020 - Hag - Master Servicing Plan Update [W][R][SS]		25,000						25,000			**50,000**			(50,000)			**(50,000)**
Technical Reviews and Studies	-	**25,000**	-	-	-	-	-	**25,000**	-	-	**50,000**	-	-	**(50,000)**	-	-	**(50,000)**
Treatment																	
453002 - WWTP SCADA Computer & Network Replmt				22,000							**22,000**				(22,000)		**(22,000)**
453011 - Hagersville WWTP Driveway Reconstruction	45,000										**45,000**				(45,000)		**(45,000)**
453019 - WWTP Inlet Works Building Roof Replacement		50,000									**50,000**				(50,000)		**(50,000)**
453021 - WWTP Sludge Holding Building Roof Replacement		20,000									**20,000**				(20,000)		**(20,000)**
453022 - Remotes–Control Equipment Replacement(SCADA)	15,000		42,000						55,000		**112,000**			(26,880)	(85,120)		**(112,000)**
453023 - WTP Electrical Panel and VFD Inspection/Maintenance	10,000				10,000				10,000		**30,000**				(30,000)		**(30,000)**
453024 - WWTP Control Building Roof Replacement		130,000									**130,000**				(130,000)		**(130,000)**
453025 - Digester Covers and Insulation		450,000									**450,000**			(90,000)	(360,000)		**(450,000)**
453026 - Grit Removal System		1,016,700									**1,016,700**	(700,000)		(316,700)			**(1,016,700)**
453027 - WWTP PLC Replacements								120,000	170,000		**290,000**			(69,600)	(220,400)		**(290,000)**
453029 - Digester Tanks - Level Measurement Equipment Replacement		18,000									**18,000**				(18,000)		**(18,000)**
453030 - Equalization Tank - Secondary Pump Replacement	10,000										**10,000**				(10,000)		**(10,000)**
453031 - Filter Waste Pump System Improvement		15,000									**15,000**				(15,000)		**(15,000)**
453033 - WWTP Sludge Return Building Roof Repairs	25,000										**25,000**				(25,000)		**(25,000)**
Total Treatment	**105,000**	**1,699,700**	**42,000**	**22,000**	**10,000**	-	-	**120,000**	**235,000**	-	**2,233,700**	**(700,000)**	-	**(503,180)**	**(1,030,520)**	-	**(2,233,700)**
Total Wastewater - Hagersville	**335,000**	**1,724,700**	**42,000**	**22,000**	**10,000**	-	-	**145,000**	**237,500**	-	**2,516,200**	**(700,000)**	-	**(553,180)**	**(1,263,020)**	-	**(2,516,200)**

Haldimand County 2020 Rate Supported Capital Forecast

Wastewater - Jarvis

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Collection																	
454006 - Walpole St - Sewer Pipe Upsize (Peel to Talbot)					97,000						**97,000**			(38,800)	(58,200)		**(97,000)**
454012 - Jarvis/Talbot Pump Station Roof	17,000							5,000			**22,000**				(22,000)		**(22,000)**
Total Collection	**17,000**	-	-	-	**97,000**	-	-	**5,000**	-	-	**119,000**	-	-	**(38,800)**	**(80,200)**	-	**(119,000)**
Technical Reviews and Studies																	
454001 - Jar - Master Servicing Plan Update [W][R][SS]					15,000						**15,000**			(15,000)			**(15,000)**
Technical Reviews and Studies	-	-	-	-	**15,000**	-	-	-	-	-	**15,000**	-	-	**(15,000)**	-	-	**(15,000)**
Treatment																	
454010 - Jarvis Lagoon Clean Out					450,000						**450,000**				(450,000)		**(450,000)**
454011 - Wet Well Bypass Pump Replacement	30,000										**30,000**				(30,000)		**(30,000)**
454013 - Forcemain Bypass - Jarvis Pump Station	85,000										**85,000**				(85,000)		**(85,000)**
Total Treatment	**115,000**	-	-	-	**450,000**	-	-	-	-	-	**565,000**	-	-	-	**(565,000)**	-	**(565,000)**
Total Wastewater - Jarvis	**132,000**	-	-	-	**562,000**	-	-	**5,000**	-	-	**699,000**	-	-	**(53,800)**	**(645,200)**	-	**(699,000)**

Haldimand County 2020 Rate Supported Capital Forecast

Wastewater - Lake Erie Industrial Park

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Lagoons																	
459005 - LEIP Lagoon Clean Out							350,000				**350,000**				(350,000)		**(350,000)**
Total Lagoons	-	-	-	-	-	-	**350,000**	-	-	-	**350,000**	-	-	-	**(350,000)**	-	**(350,000)**
Technical Reviews and Studies																	
459006 - LEIP - Master Servicing Plan [W][R][S]	50,000						50,000				**100,000**			(100,000)			**(100,000)**
Technical Reviews and Studies	**50,000**	-	-	-	-	-	**50,000**	-	-	-	**100,000**	-	-	**(100,000)**	-	-	**(100,000)**
Total Wastewater - Lake Erie Industrial Park	**50,000**	-	-	-	-	-	**400,000**	-	-	-	**450,000**	-	-	**(100,000)**	**(350,000)**	-	**(450,000)**

Haldimand County 2020 Rate Supported Capital Forecast

Wastewater - Oswego Park

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Lagoons																	
458001 - Main Pump Station Roof Replacement										5,000	**5,000**				(5,000)		**(5,000)**
458002 - Oswego Pump Station New Forcemain			225,000								**225,000**				(225,000)		**(225,000)**
458003 - Oswego Lagoon Clean Out					275,000						**275,000**				(275,000)		**(275,000)**
Total Lagoons	-	-	**225,000**	-	**275,000**	-	-	-	-	**5,000**	**505,000**	-	-	-	**(505,000)**	-	**(505,000)**
Total Wastewater - Oswego Park	-	-	**225,000**	-	**275,000**	-	-	-	-	**5,000**	**505,000**	-	-	-	**(505,000)**	-	**(505,000)**

Haldimand County 2020 Rate Supported Capital Forecast

Wastewater - Townsend

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Exenditures	Grants/ Subsidies	External Financing	Development Charges Reserve Funds	Reserves/ Reserve Funds	Debenture Financing	Total Financing
Lagoons																	
457005 - Townsend Lagoon Clean Out						370,000			350,000		**720,000**				(720,000)		**(720,000)**
457006 - Lagoon Effluent Flow Measurement Equipment Replacement	20,000										**20,000**				(20,000)		**(20,000)**
457007 - Townsend Wet Well HVAC Replacements	10,000										**10,000**				(10,000)		**(10,000)**
Total Lagoons	**30,000**	-	-	-	-	**370,000**	-	-	**350,000**	-	**750,000**	-	-	-	**(750,000)**	-	**(750,000)**
Total Wastewater - Townsend	**30,000**	-	-	-	-	**370,000**	-	-	**350,000**	-	**750,000**	-	-	-	**(750,000)**	-	**(750,000)**

HALDIMAND COUNTY
2020 DRAFT CAPITAL BUDGET AND FORECAST
CAPITAL FINANCING PRINCIPLES

Principles ***Source***	***Sub-category***	***Principle***
External Sources	External Financing - Donation/Contributions	Municipal Drains based on legislative assessment. Partnership with community groups based on Community Partnership Framework for new service/enhanced infrastructure projects, or acceleration of replacement of infrastructure.
	External Financing - Donation towards Decorative Streetlights	Upgrades from standard to decorative streetlights will be funded by BIA or community group
	External Financing - Municipal Recoveries	Based on agreed cost sharing principles
Grants	Allocation of Federal Gas Tax Funds	Allocate 50/50 between water/wastewater and tax supported capital projects. Apply to incremental projects, new/enhanced services. Gas Tax will be used in order to avoid debt financing. Need to ensure the project meets eligibility requirements for Gas Tax funding.
	Ontario Community Infrastructure Fund - formula component	As the intention of this program is to assist municipalities in funding critical projects identified within their Asset Management Plans in the eligible "core infrastructure" areas, and as the County's current Asset Management Plan (AMP) identifies funding needs within the core infrastructure areas of Roads, Bridges, and Water, with the largest infrastructure deficit shown within the roads program, this funding will be utilized within the roads program. Future year's allocations will be assigned to eligible capital projects through the annual capital budget review process.
	Clean Water and Wastewater Fund	To be utilized for acceleration of the rehabilitation and modernization of drinking water, wastewater and stormwater infrastructure; to foster economic growth and support a cleaner and healthier environment for communities; to improve the reliability of drinking water, wastewater and stormwater systems and meet federal or provincial regulations, standards or guidelines.
	Other Grants	As available based on eligibility of funds
County Reserves/Reserve Funds	Capital Replacement Reserves/Reserve Funds	Capital Replacement Reserves/Reserve Funds will have a positive balance at the end of the 10 year forecast. Interim financing during the forecast will not exceed 25% of annual contributions in any given year. All projects requiring interim financing will have interest charges applied to the capital project.
	Land Sales Reserve	To be utilized for to provide a source of funds for land purchases, building construction or major capital improvements to County-owned buildings.
	Parkland Dedication Reserve fund	To be utilized for to provide a source of funds for acquisition and development of public parks, recreation facilities and trails.
	Development Charge Reserve Funds	Development Charges reserve funds will remain positive in aggregate over the 10 year forecast.
Debt Financing	County Debt Portion	Annual debt repayments will not exceed 10% of own source revenues. Debt will only be applied to projects under the following principles: Gross Project Costs < $1 million: Not eligible for debt Gross Project Costs between $1 Million and $10 Million : Debt financed for a period of 10 years. Gross Project Costs > $10 million and asset life >20 years: Debt financed for a period of 20 years. Engineering components less than 25% of project cost, if initiated more than 2 years before construction, will not be eligible for debt financing.
	DC Debt (growth related debt)	DC debt will be applied under the following circumstances: - projects where issuing debt for County share of project, and development charges funding is applicable, DC debt will be considered if insufficient development charges receipts are available. - if the DCRF results in a negative balance, a review of significant DC funded projects will occur to review for potential DC debt issuance

Application of Funding Sources for Specific Capital Projects	
Nature of Project	***Hierarchy of Funding Source***
Replacements/SOGR	External Revenues Applicable Grants Development Charges (if applicable) Specific Capital Replacement Reserve/Reserve Funds Debt Financing
New Initiatives/Enhancements	External Revenues Applicable Grants Development Charges (if applicable) Specific Capital Replacement Reserve/Reserve Funds Debt Financing

2020 Debt History

TAX SUPPORTED

Project	ByLaw #	Payee	Pmt Method	date of issue	Original Principal	Current Interest rate	Annual Principal Payments (average)	Outstanding Principal (as at December 31, 2019)	2020 Annual Payments	offsetting funding	Net County Responsibility	Outstanding Principal (as at December 31, 2020)	Maturity
Central Administration Facility	2067/19	IO	PAD	July 2, 2019	$19,450,000	2.71%	$486,250	$19,450,000	1494468	0	$1,494,468	$18,477,500	2039
Lowbanks - Firehall and Community Centre	1392/13	IO	PAD	October 1, 2013	$898,500	3.36%	$89,850	$359,400	$101,202	0	$101,202	$269,550	2023
Cayuga Fire Station	1711/16	IO	PAD	October 3, 2016	$1,502,800	2.07%	$150,280	$1,051,960	$171,446	(117,439)	$54,008	$901,680	2026
Hagersville Fire Station	1711/16	IO	PAD	October 3, 2016	$1,747,700	2.07%	$174,770	$1,223,390	$199,386	(26,627)	$172,758	$1,048,620	2026
South Haldimand Fire Station	1711/16	IO	PAD	October 3, 2016	$1,236,300	2.07%	$123,630	$865,410	$141,043	(46,113)	$94,930	$741,780	2026
Cayuga EMS Station	1711/16	IO	PAD	October 3, 2016	$512,900	2.07%	$51,290	$359,030	$58,514	(8,727)	$49,786	$307,740	2026
Hagersville EMS Station	1711/16	IO	PAD	October 3, 2016	$710,400	2.07%	$71,040	$497,280	$81,046	(10,872)	$70,173	$426,240	2026
Grandview	824/07	IO	PAD	July 16, 2007	$17,000,000	5.27%	$850,000	$6,800,000	$1,198,174	(483,552)	$714,622	$5,950,000	2027
Grandview - New Debt	1393/13	IO	PAD	October 1, 2013	$1,686,000	3.82%	$112,453	$1,012,080	$150,144	0	$150,144	$899,627	2028
Conversion of CNR Bridge	2066-19	IO	PAD	July 2, 2019	$1,160,000	2.40%	$116,000	$1,160,000	$143,222	0	$143,222	$1,044,000	2029
HCCC - Balloon & New Debt	1392/13	IO	PAD	October 1, 2013	$3,658,000	3.36%	$365,800	$1,463,200	$412,017	(168,927)	$243,090	$1,097,400	2023
Cayuga Arena	1394/13	IO	PAD	October 1, 2013	$6,620,400	4.11%	$331,020	$4,634,280	$518,600	(275,202)	$243,398	$4,303,260	2033
Dunnville Arena	1394/13	IO	PAD	October 1, 2013	$7,656,900	4.11%	$382,845	$5,359,830	$599,793	(180,575)	$419,218	$4,976,985	2033
Cayuga Library	2066/19	IO	PAD	July 2, 2019	$2,299,800	2.40%	$229,980	$2,299,800	$283,950	(83,439)	$200,511	$2,069,820	2029
Dunnville Library	1829/17	CDS	PAD	July 5, 2017	$864,700	1.40%	$86,470	$702,306	$96,313	(96,313)	$0	$619,566	2027
Caledonia Lions Hall	1711/16	IO	PAD	October 3, 2016	$1,653,000	2.07%	$165,300	$1,157,100	$188,582	0	$188,582	$991,800	2026
Total Tax Supported								**$48,395,066**	**$5,837,899**	**-$1,497,786**	**$4,340,113**	**$44,125,568**	

RATE SUPPORTED WATER AND WASTEWATER

Project	ByLaw #	Payee	Pmt Method	date of issue	Original Principal	Current Interest rate	Annual Principal Payments (average)	Outstanding Principal (as at December 31, 2019)	2020 Annual Payments	offsetting funding	Net County Responsibility	Outstanding Principal (as at December 31, 2020)	Maturity
Water projects													
Cast Iron Watermain - Orkney Street, Caledonia	CMHC Loans	CMHC	PAD	October 1, 2010	$228,000	2.87%	$22,800	$25,811	$26,552		$26,552	$0	2020
Caithness Street - Argyle to McClung, Caledonia	1392/13	IO	PAD	October 1, 2013	$789,900	3.36%	$78,990	$315,960	$88,970		$88,970	$236,970	2023
Jarvis Watermain Replacement	1829/17	CDS	PAD	July 5, 2017	$2,250,000	1.40%	$225,000	$1,827,441	$250,611	(62,653)	$187,959	$1,612,147	2027
Cast Iron Watermain - Dunnville	CMHC Loans	CMHC	PAD	October 1, 2010	$1,109,900	2.87%	$110,900	$125,544	$129,148		$129,148	$0	2020
Nanticoke Electrical Servicing Upgrades	1829/17	CDS	PAD	July 5, 2017	$100,000	1.40%	$10,000	$81,220	$11,138	(11,138)	$0	$71,651	2027
Nanticoke Filter Building Expansion	1829/17	CDS	PAD	July 5, 2017	$1,704,400	1.40%	$170,440	$1,384,307	$189,841	(47,460)	$142,381	$1,221,219	2027
Nanticoke High Rate Sedimentation Capacity Expansion	1829/17	CDS	PAD	July 5, 2017	$1,337,400	1.40%	$133,740	$1,086,231	$148,963	(37,235)	$111,728	$958,260	2027
Nanticoke Water System Filter Replacement	1829/17	CDS	PAD	July 5, 2017	$2,340,900	1.40%	$234,090	$1,901,269	$260,736	(260,736)	$0	$1,677,278	2027
Nanticoke Water Treatment Process	1829/17	CDS	PAD	July 5, 2017	$2,983,200	1.40%	$298,320	$2,422,943	$332,277	(83,069)	$249,208	$2,137,492	2027
Wastewater Projects													
Caithness Street - Argyle to McClung	1392/13	IO	PAD	October 1, 2013	$502,800	3.36%	$50,280	$201,120	$56,633		$56,633	$150,840	2023
Caledonia Water Polution Control Upgrade Balloon	1392/13	IO	PAD	October 1, 2013	$3,024,000	3.36%	$302,400	$1,209,600	$340,607	(221,394)	$119,212	$907,200	2023
Caledonia WWTP Upgrades	1829/17	CDS	PAD	July 5, 2017	$628,700	1.40%	$62,870	$510,628	$70,026	(70,026)	$0	$450,470	2027
Dunnville WWTP	2066/19	IO	PAD	July 2, 2019	$9,178,950	2.40%	$917,895	$9,178,950	$1,133,301	(56,665)	$1,076,636	$8,261,055	2029
Upgrade WTP - Hagersville	CMHC Loans	CMHC	PAD	October 1, 2010	$3,146,000	2.87%	$314,600	$356,143	$366,365	(162,000)	$204,365	$0	2020
Jarvis Lagoon Upgrades	1829/17	CDS	PAD	July 5, 2017	$122,700	1.40%	$12,270	$99,656	$13,667	(13,667)	$0	$87,916	2027
Townsend Lagoon	2066/19	IO	PAD	July 2, 2019	$562,500	2.40%	$56,250	$562,500	$69,450	(69,450)	$0	$506,250	2029
Upgrade WTP - Cayuga	CMHC Loans	CMHC	PAD	October 1, 2010	$2,404,300	2.87%	$240,430	$272,179	$279,991		$279,991	$0	2020
Total Rate Supported Water and Wastewater								**$21,561,502**	**$3,768,276**	**-$1,095,495**	**$2,672,781**	**$18,278,749**	
Total Debt:								**$69,956,568**	**$9,606,175**	**-$2,593,282**	**$7,012,893**	**$62,404,317**	

HALDIMAND COUNTY

FORECAST OF CAPITAL REPLACEMENT RESERVE FUND - WATER
FOR THE YEARS 2020 TO 2029

	2018 WATER $	2019 WATER $	2020 WATER $	2021 WATER $	2022 WATER $	2023 WATER $	2024 WATER $	2025 WATER $	2026 WATER $	2027 WATER $	2028 WATER $	2029 WATER $
Opening Balance January 1st	**6,102,819**	**10,516,844**	**6,041,146**	**833,156**	**922,506**	**208,186**	**1,497,436**	**2,296,916**	**3,122,186**	**3,988,306**	**4,757,886**	**6,215,196**
Source of Funds:												
Budgeted Annual Contribution	955,350	1,043,570	1,132,620	1,393,350	1,504,080	1,616,050	1,696,960	1,697,540	1,696,820	1,697,400	2,387,960	2,387,960
Contribution from Rate Stabilization Reserve	4,416,624					800,000						
Interest Earned	104,969	100,000										
Total Source of Funds	5,476,944	1,143,570	1,132,620	1,393,350	1,504,080	2,416,050	1,696,960	1,697,540	1,696,820	1,697,400	2,387,960	2,387,960
Use of Funds:												
Commitment for Active Projects	1,062,919	5,619,268										
New Initiative/Enhanced Service			209,210	65,000	120,000							
Replacement/State of Good Repair			6,131,400	1,239,000	2,098,400	1,126,800	897,480	872,270	830,700	927,820	930,650	1,141,300
Total Use of Funds	1,062,919	5,619,268	6,340,610	1,304,000	2,218,400	1,126,800	897,480	872,270	830,700	927,820	930,650	1,141,300
Closing Balance December 31st	**10,516,844**	**6,041,146**	**833,156**	**922,506**	**208,186**	**1,497,436**	**2,296,916**	**3,122,186**	**3,988,306**	**4,757,886**	**6,215,196**	**7,461,856**

FORECAST OF CAPITAL REPLACEMENT RESERVE FUND - SEWER
FOR THE YEARS 2020 TO 2029

	2018 SEWER $	2019 SEWER $	2020 SEWER $	2021 SEWER $	2022 SEWER $	2023 SEWER $	2024 SEWER $	2025 SEWER $	2026 SEWER $	2027 SEWER $	2028 SEWER $	2029 SEWER $
Opening Balance January 1st	**11,325,960**	**12,169,793**	**11,243,680**	**10,982,810**	**12,847,740**	**11,369,130**	**11,801,700**	**11,356,870**	**12,609,550**	**12,357,420**	**14,066,060**	**13,802,500**
Source of Funds:												
Budgeted Annual Contribution	2,381,140	2,420,000	1,385,000	1,912,790	1,952,820	1,987,530	2,168,980	2,190,690	2,212,380	2,233,800	2,250,450	2,271,460
Contribution from Rate Stabilization Reserve				2,250,000								
Contribution: Leachate												
Leachate Norfolk Capital component												
Leachate Haldimand Capital component	27,140	27,140	27,140	27,140	27,140	27,140	27,140	27,140	27,140	27,140	27,140	27,140
Interest Earned	198,032	200,000										
Total Source of Funds	2,606,312	2,647,140	1,412,140	4,189,930	1,979,960	2,014,670	2,196,120	2,217,830	2,239,520	2,260,940	2,277,590	2,298,600
Use of Funds:												
Commitment for Active Projects	1,762,480	3,573,253										
New Initiative/Enhanced Service			117,210	375,000	500,000	87,500	58,200					
Replacement/State of Good Repair			1,555,800	1,950,000	2,958,570	1,494,600	2,582,750	965,150	2,491,650	552,300	2,541,150	2,364,300
Total Use of Funds	1,762,480	3,573,253	1,673,010	2,325,000	3,458,570	1,582,100	2,640,950	965,150	2,491,650	552,300	2,541,150	2,364,300
Closing Balance December 31st	**12,169,793**	**11,243,680**	**10,982,810**	**12,847,740**	**11,369,130**	**11,801,700**	**11,356,870**	**12,609,550**	**12,357,420**	**14,066,060**	**13,802,500**	**13,736,800**

HALDIMAND COUNTY

FORECAST OF FEDERAL GAS TAX REVENUE RESERVE FUND
FOR THE YEARS 2020 TO 2029

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	$	$	$	$	$	$	$	$	$	$	$
Opening Balance January 1st	**4,932,118**	**3,372,841**	**5,591**	**20,750**	**6,200**	**272,609**	**8,418**	**538,927**	**24,136**	**27,745**	**1,098,054**
Source of Funds:											
Budgeted Contribution	2,767,150	2,767,150	2,892,929	2,892,929	3,018,709	3,018,709	3,018,709	3,018,709	3,018,709	3,018,709	3,018,709
One Time Additional Contribution	2,911,928										
Interest Earned											
Total Source of Funds	5,679,078	2,767,150	2,892,929	2,892,929	3,018,709	3,018,709	3,018,709	3,018,709	3,018,709	3,018,709	3,018,709
Use of Funds:											
Commitment for Active Projects (Tax)	3,395,979										
Commitment for Active Projects (Water/Wastewater)	3,282,377										
Contribution to State of Good Repair Projects (Tax Supported)		700,000	1,000,000	500,000		100,000	180,000	700,000	1,070,000	1,200,000	1,400,000
Contribution to New Initiatives/Enhanced Service Projects (Tax Supported)		1,622,472	507,800	449,550	2,372,300	527,600	340,700				
Contribution to New Initiatives/Enhanced Service Projects (Water)			200,000								
Contribution to New Initiatives/Enhanced Service Projects (Wastewater)			720,570	205,730	380,000						
Contribution to State of Good Repair Projects (Water)		1,290,000	449,400	1,582,200		1,973,900	1,967,500	1,999,500	1,945,100		1,723,600
Contribution to State of Good Repair Projects (Wastewater)		170,000		170,000		681,400		834,000		748,400	988,600
Gravel Road Conversion One-Time Funding	560,000	2,351,928									
Total Use of Funds	7,238,355	6,134,400	2,877,770	2,907,480	2,752,300	3,282,900	2,488,200	3,533,500	3,015,100	1,948,400	4,112,200
Closing Balance December 31st	**3,372,841**	**5,591**	**20,750**	**6,200**	**272,609**	**8,418**	**538,927**	**24,136**	**27,745**	**1,098,054**	**4,563**

NOTE: Tax Supported Capital project funding is based on preliminary figures and will be finalized through the Tax Supported Capital Budget.

HALDIMAND COUNTY

DEVELOPMENT CHARGES RESERVE FUND - WATER
FOR THE YEARS 2020 TO 2029

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	$	$	$	$	$	$	$	$	$	$	$
Opening Balance January 1st	**693,435**	**(602)**	**(145,980)**	**(185,625)**	**(163,649)**	**(420,415)**	**(812,653)**	**(1,224,839)**	**(1,603,138)**	**(1,921,512)**	**(1,621,361)**
Source of Funds:											
Actual Receipts to December 31	217,531										
Receipts expected per DC study (prorated if part year)		586,230	695,460	709,370	723,560	738,030	752,790	793,680	809,560	825,750	842,260
Interest Earned	991	(1,638)	(3,705)	(3,984)	(6,526)	(13,778)	(22,766)	(31,599)	(39,384)	(40,649)	(37,096)
Total Source of Funds	218,522	584,592	691,755	705,386	717,034	724,252	730,024	762,081	770,176	785,101	805,164
Use of Funds:											
DC debt repayment (note 1)	502,370	502,320	502,100	501,910	502,040	502,100	501,670	502,200	501,780		
Forecasted DC debt repayment (note 2)					374,460	365,770	357,260	348,380	339,690	331,000	627,260
Proposed Projects-Capital Forecast (Tax)	28,290	17,850			13,500					13,500	
Proposed Projects-Capital Forecast (WWW) (note 3)	381,900	209,800	229,300	181,500	83,800	248,620	283,280	289,800	247,080	140,450	255,100
Total Use of Funds	912,560	729,970	731,400	683,410	973,800	1,116,490	1,142,210	1,140,380	1,088,550	484,950	882,360
Closing Balance December 31st	**(602)**	**(145,980)**	**(185,625)**	**(163,649)**	**(420,415)**	**(812,653)**	**(1,224,839)**	**(1,603,138)**	**(1,921,512)**	**(1,621,361)**	**(1,698,557)**

Note 1: Debt repayment includes Nanticoke Water Treatment Plant (2018-2027), Jarvis Watermain Replacement (2018-2017).

Note 2: Forecasted debt repayment includes estimates for the following projects budgeting for completion between 2020-2028: Caledonia Elevated Storage Tank (2023-2032), Caledonia North Water Storage Upgrades (2029-2038) and Dunnville WTP Reservoir Expansion (2029-2038).

Note 3: Proposed project expenditures are based on the 2020 10 year capital forecast (2020-2029). Additional projects have been added to the 10 year forecast that were not included in the Haldimand County Development Charge Background Study, March 5, 2019.

Note 4: Though the Development Charges Reserve Fund - Wastewater is currently projecting to be in a negative balance at the end of the 10 year forecasted period, all DC related expenditures are forecasted over a 20 year period, at which time the reserve fund will come to a zero balance. A comprehensive Development Charges study is completed every five years and will be completed again in 2023.

HALDIMAND COUNTY

DEVELOPMENT CHARGES RESERVE FUND - WASTEWATER
FOR THE YEARS 2020 TO 2029

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	$	$	$	$	$	$	$	$	$	$	$
Opening Balance January 1st	**(2,255,764)**	**(3,248,042)**	**(2,528,668)**	**(1,096,547)**	**(1,007,852)**	**(867,420)**	**(436,078)**	**(440,802)**	**240,273**	**(1,562,771)**	**(1,154,091)**
Source of Funds:											
Actual Receipts to December 31	564,458										
Receipts expected per DC study (prorated if part year)		1,763,510	2,091,800	2,133,640	2,176,310	2,219,840	2,264,230	2,387,160	2,434,910	2,483,610	2,533,280
Interest Earned	(67,805)	(66,997)	(45,108)	(23,865)	(21,458)	(15,958)	(9,814)	(4,376)	(16,274)	(31,729)	(68,279)
Total Source of Funds	496,652	1,696,513	2,046,692	2,109,775	2,154,852	2,203,882	2,254,416	2,382,784	2,418,636	2,451,881	2,465,001
Use of Funds:											
DC debt repayment (note 1)	473,640	530,540	361,070	1,504,010	1,469,940	1,241,810	1,213,830	1,186,690	1,159,180	1,048,650	1,021,040
Forecasted DC debt repayment (note 2)				225,540	259,080	253,080	246,810	240,670	686,900	670,600	4,999,330
Proposed Projects-Capital Forecast (Tax)	28,290	17,850			13,500					13,500	
Proposed Projects-Capital Forecast (WWW) (note 3)	987,000	428,750	253,500	291,530	271,900	277,650	798,500	274,350	2,375,600	310,450	247,100
Total Use of Funds	1,488,930	977,140	614,570	2,021,080	2,014,420	1,772,540	2,259,140	1,701,710	4,221,680	2,043,200	6,267,470
Closing Balance December 31st	**(3,248,042)**	**(2,528,668)**	**(1,096,547)**	**(1,007,852)**	**(867,420)**	**(436,078)**	**(440,802)**	**240,273**	**(1,562,771)**	**(1,154,091)**	**(4,956,560)**

Note 1: Debt repayment schedule includes Caledonia WPCP Refinancing (2014-2023), Hagersville WPCP (2011-2020), Caledonia WWTP (2014-2023), Jarvis Lagoon Upgrades (2018-2027), Townsend Lagoon Upgrades (2020-2029), Dunnville WWTP (2020-2029) as well as annual repayments for the following open/active projects in 2019; Caledonia Nairne St. Forcemain (2022-2031), and Caledonia WWTP Aeration Head Diffusers (2022-2031).

Note 2: Forecasted debt repayment includes estimates for the following projects budgeted for completion between 2020 - 2029; Hagersville Grit Removal System (2023-2032), Cayuga Ouse St. Forcemain Twinning (2022-2031), Caledonia WWTP Wet Well expansion (2022-2031), Jarvis Additional WW Treatment Capacity (2022-2031), Cayuga Ouse St Pump Station (2022-2031), Caledonia Wastewater Treatment Plant Phase 1 and 2 (2027-2036 and 2029-2048).

Note 3: Proposed project expenditures are based on the 2020 10 year capital forecast (2020-2029). Additional projects have been added to the 10 year forecast that were not included in the Haldimand County Development Charge Background Study, March 5, 2019.

Note 4: Though the Development Charges Reserve Fund - Wastewater is currently projecting to be in a negative balance at the end of the 10 year forecasted period, all DC related expenditures are forecasted over a 20 year period, at which time the reserve fund will come to a zero balance. A comprehensive Development Charges study is completed every five years and will be completed again in 2023.