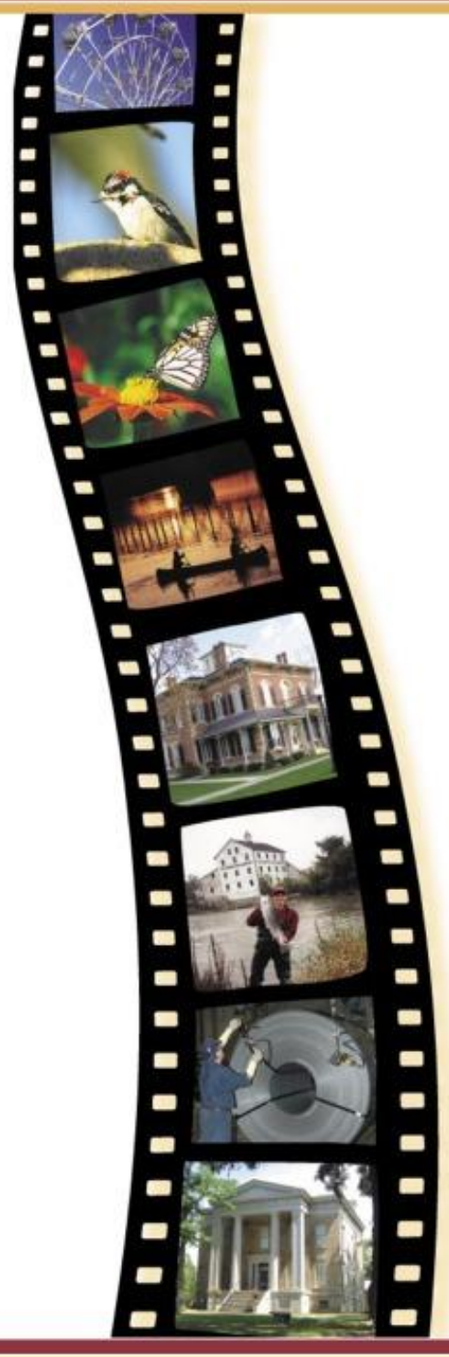


A GRAND EXPERIENCE

HALDIMAND COUNTY

2017

DRAFT RATE SUPPORTED WATER & WASTEWATER CAPITAL FORECAST AND OPERATING BUDGET

2017 Draft Rate Supported Water & Wastewater
Capital Forecast and Operating Budget
Table of Contents

Appendices

Capital

Operating

THE CORPORATION OF HALDIMAND COUNTY
2017 Draft Rate Supported Capital Forecast and Operating Budget

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.

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

- Rate Supported – includes Water and Wastewater Operating Budget and Capital Budget (including 9 year forecast)
- Tax Supported Capital Budget (including 9 year forecast)
- Tax Supported Operating Budget.

Council has approved the following 2017 Budget Timetable:

Draft Budget	**Review Date(s)**	**Additional/Conditional Dates**
Rate Supported Capital and Operating Budget	December 1, 2016	n/a
Tax Supported Capital Budget	January 23, 2017	January 24, 2017 (if required)
Tax Supported Operating Budget	March 7, 2017	March 8 and 9, 2017 (if required)

The review and approval of the 2017 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 2017 Draft Tax Supported Operating Budget will provide the basis for the 2017 levy impacts for tax supported operations.

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.

Although more than fifteen years have transpired since the tragic events of a tainted water supply in Walkerton, continued legislative changes have been enacted to ensure safe, clean and affordable potable water is available to people in every community. While there have been a series of legislative changes over this period, many of the principles have remained the same. More recently, with the passing of the Water Opportunities Act in late 2010, this legislation also focuses on water conservation. These continual changes to regulatory requirements have significantly impacted the water and wastewater operations 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 the exception of the regulations under the Safe Drinking Water Act, there are limited legislative requirements to develop long range financial plans.

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. A recent study estimates that more than 50% of all public infrastructure is provided by local municipal governments. This is a significant change from the early 50's when local municipal governments represented just over 20% of all public infrastructure. 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".

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 9,000 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.

Economic Environment

The financial pressures currently being faced on a global, national and provincial basis will undoubtedly have impacts on the local economy. Based on the National Bank's November 2016 Economic Forecast, Canada's annualized rate of change in key financial areas is projected as follows:

Annualized Rate of Change	***2013 Actual***	***2014 Actual***	***2015 Actual***	***2016 Forecast***	***2017 Forecast***
Gross Domestic Product	2.2%	2.5%	1.1%	1.2%	**1.8%**
Residential Construction	(0.4)%	2.5%	3.8%	2.9%	**(2.4)%**
Unemployment Rate	7.1%	6.9%	6.9%	7.1%	**7.1%**
Inflation	0.9%	1.9%	1.1%	1.4%	**1.8%**
Bank of Canada Prime Lending rate	Currently at 2.7% (major banks = 2.85%)				

Recent economists' reports indicate limited economic growth, modest inflation and continued low interest rates for an extended period of time (into 2018). It is anticipated these impacts will financially affect residents and businesses to varying degrees, such as through wage/hiring restraints, cost reductions and cut-backs. Accordingly, these potential impacts have influenced the guidelines and recommendations contained within the 2017 Draft Rate Supported Operating Budget. The affordability of the County's investments in water and wastewater infrastructure has been heavily weighed against the need to provide safe, sustainable and reliable services to our customers.

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, continue to be utilized for preparation of the 2017 Draft Rate Supported (Water and Wastewater) Capital and Operating Budget, including:

- Full cost recovery of all operating and capital costs;
- 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);
- Elimination of reduced Block 2 consumption rate (the phase out ended in 2016);
- Leachate costs to be allocated based on relative loading at the treatment plant and recovered 50% from fixed revenues and 50% from variable revenues;
- Blended Holding and Septic tank treatment costs to be allocated based on loading and revenues will include a fixed monthly charge and annual consumption charges to be indexed annually;
- 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 December 1st, 2016. It is recommended that the required rate increases take effect January 1, 2017, upon approval of the draft budget by Council.

A. 2017 Draft Rate Supported Capital Budget and Forecast to 2026

Capital Budget Process/Principles

Similar to the Tax Supported Capital Budget, the County's Rate Supported 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 2017 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. Several of these recommended improvements are included in the 2017 to 2026 capital budget. 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 with limited growth funded projects (i.e. approximately 18% of the required funding over the ten year forecast is budgeted from development charges).

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 $70.1 million for the period 2017 to 2026. Relative to the approved forecast in 2016, this represents a **decrease** of approximately $700,000 over the ten year forecast. As gross capital costs decline significantly in the later part of the forecast (i.e. 2021 to 2026), some non-specific capital costs have been identified in these years. 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 2017 Capital Budget and Forecast). As indicated below, there are consistent average gross costs relative to the prior year's approved budget over the 10 year forecasted period. As identified through the rate study, average gross capital costs were projected in excess of the costs included in the current forecast period and projected additional costs into the future (i.e. 25 year plan).

Gross Expenditures	**2016 Budget Average Annual Gross Expenditures**	**2017 Draft Budget Average Annual Gross Expenditures**	**10 Year Forecast from 2013 Rate Study (average annual gross expenditures)**
Water System	$3.3 Million	$3.4 Million	$4.7 Million
Wastewater System	$3.8 Million	$3.6 Million	$4.3 Million
Total	**$7.1 Million**	**$7.0 Million**	**$9.0 Million**

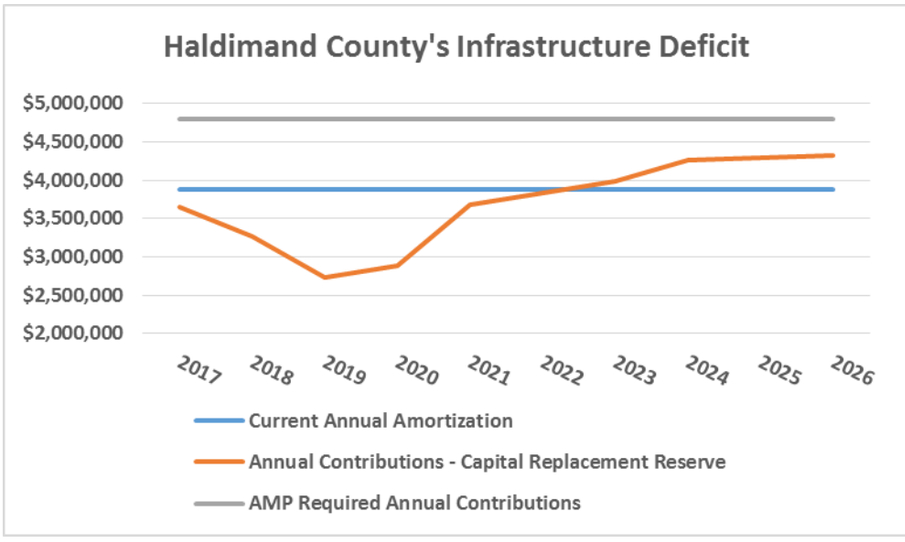
Estimated Haldimand County Water/Wastewater "Infrastructure Deficit"

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 2015 financial statements, the County's net book value of assets for water and wastewater only (excludes tax supported infrastructure) was as follows:

2015 Net Book Value ***(water and wastewater assets only)***	**Haldimand**
Historical Cost	$196,497,129
Net Book value	$126,127,487
Percentage	**64.2%**

The County's NBV as a % of historical cost has remained relatively constant from 2009 to 2015 albeit trending down over this period (this information has only been reported in the County's financial statements since 2009). This is a good indicator that capital asset investments have kept pace with the utilization of existing assets in relative terms. In comparison to other single tier municipalities in southern Ontario (the Province completes a annual "Financial Indicator Review" of Ontario municipalities – Haldimand is grouped with 28 single tier municipalities in southern Ontario, ranging in size, but excluding Toronto), their average NBV as a % of historical cost (based on all asset categories) is approximately 61% over the same time period (Haldimand's tax supported NBV is approximately 50%). 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.



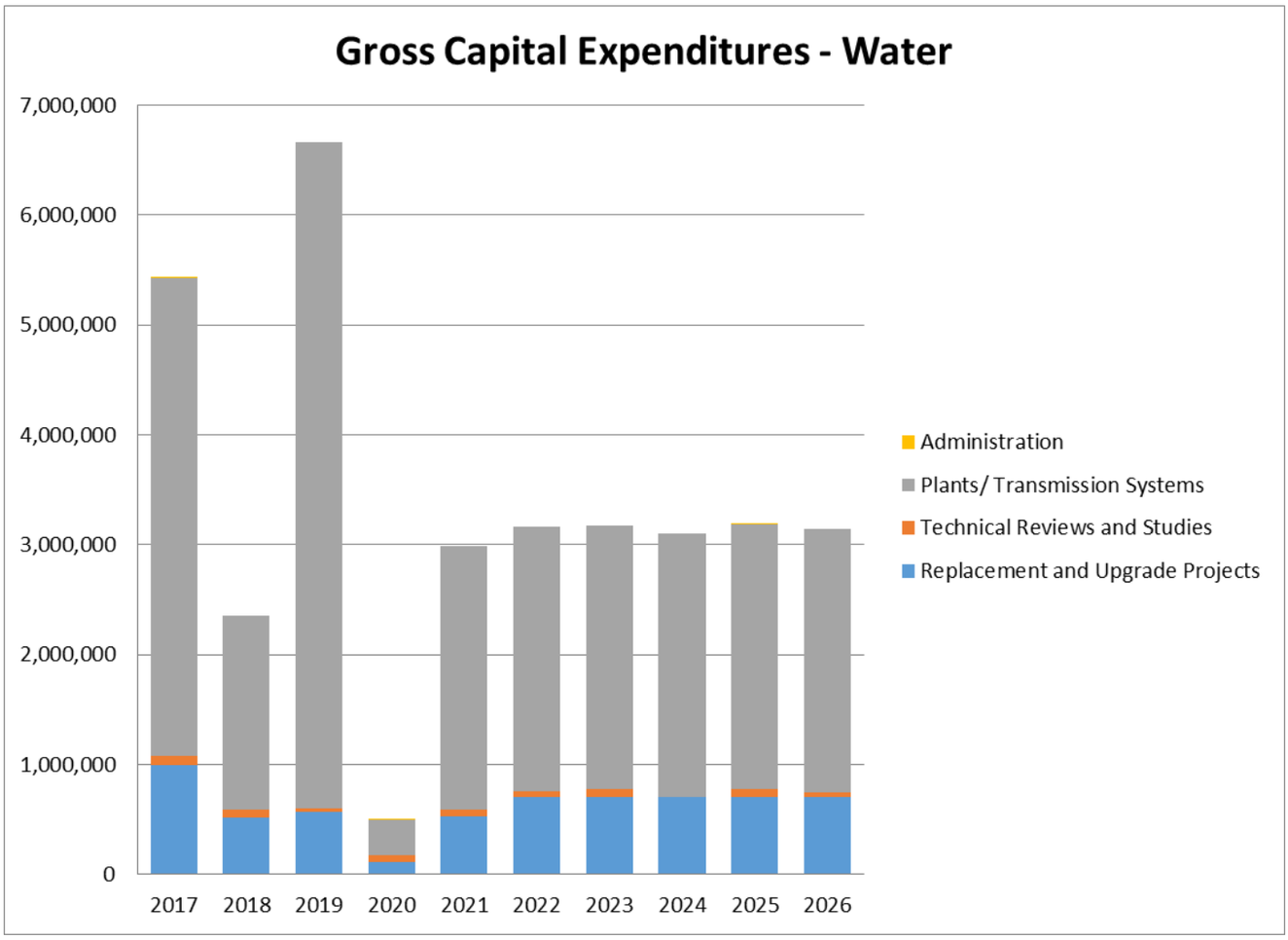
Although the above information is based on several assumptions (i.e. rate of inflation, interest earnings on applicable reserves, estimated useful life, anticipated debenture issuances, etc.), it is a good indication that there are definitely future funding issues to be addressed in order to fully finance 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. The "draft" asset management plan for water and wastewater also indicates a funding shortfall averaging approximately $600,000 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 next chart. 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 – 2017 to 2019). 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, by major category, are as follows.

Average annual costs for replacement of watermains are approximately $620,000. Annual fluctuations reflect timing of planned replacements with spikes for major replacement/growth related projects (i.e. $700,000 for Hagersville Main Street in 2017, coordinated with road works; Dunnville Alder Street for $400,000 and $450,000 in 2018 and 2019 respectively; and Caledonia Caithness Street in 2021 for $411,000 partially funded from Development Charges). Technical studies and reviews are a key component in maintaining system efficiencies and determining optimal replacement of existing infrastructure. As a result, a consistent and comprehensive multi-year plan has been established over the forecasted period (averaging approximately $58,000 annually). Water plants/transmission system expenditures represent replacement of existing infrastructure over the forecasted period. Average annual costs for replacement/upgrades to plants/transmission are approximately $2.7 million – annual fluctuations would reflect growth related projects funded from Development Charges or one-time significant replacements; as well, there are significant expenditures in 2017 related to the new Canada/Ontario Clean Water and Wastewater grant fund - approximately $2.1 million in aggregate. Also, there are some significant projects at the Dunnville water treatment plant totaling approximately $1.4 million in 2017. The replacement of the existing water standpipe in Caledonia is planned in 2019 at an estimated cost of $5 million, funded primarily by development Charges ($3 million). Administrative costs represent one-half (50%) of the administrative capital cost (including any planned meter replacements). As all urban communities have had their meters replaced over the last 3 years, there are limited administrative projects over the 10 year forecast period.

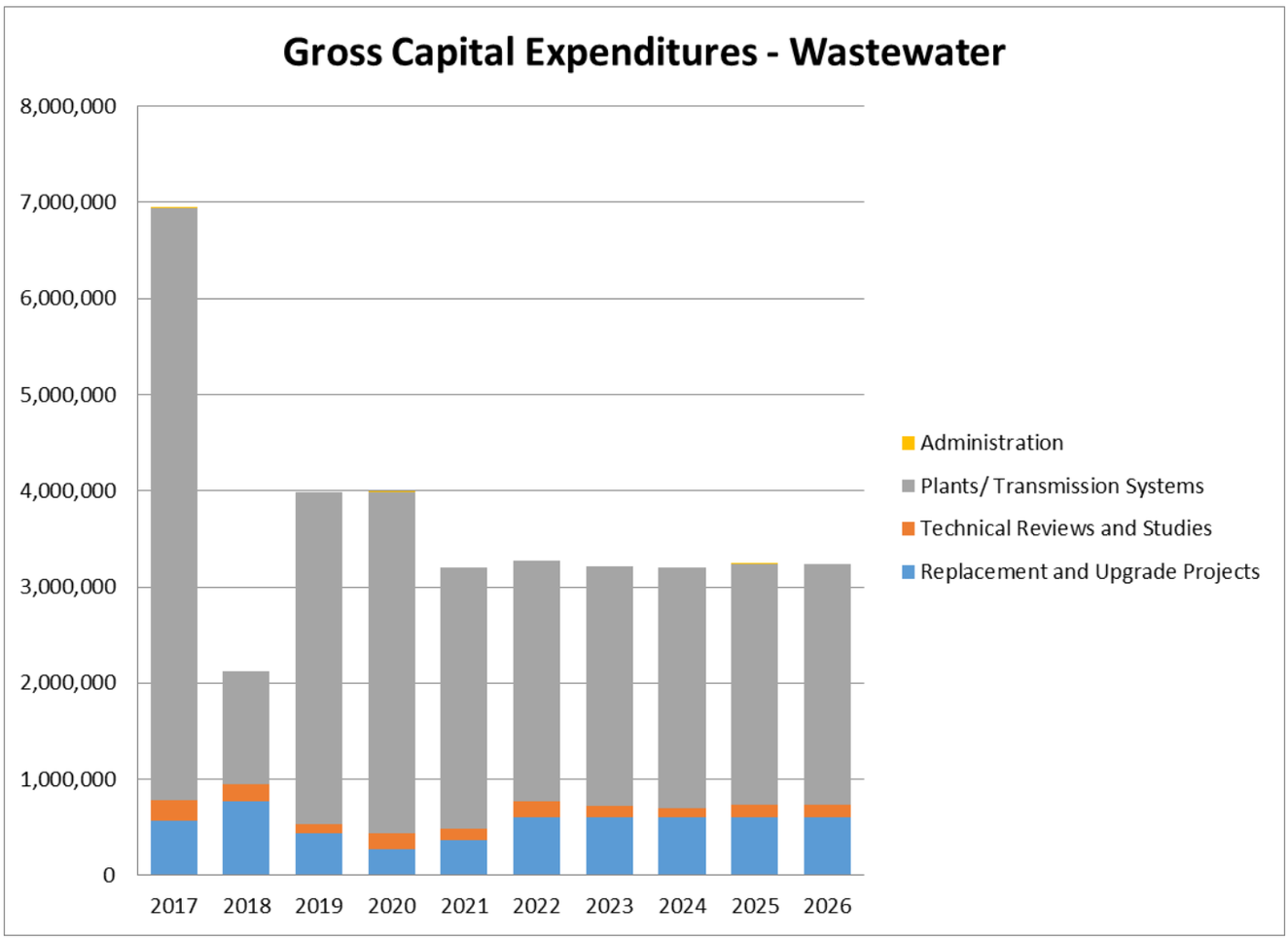


Wastewater Gross Capital Costs – As depicted in the chart below, there is also a consistent focus on replacement and upgrades to existing wastewater infrastructure over the forecasted period. Average annual wastewater replacement and upgrade costs is approximately $540,000. Annual fluctuations reflect timing of planned replacements with spikes for major growth related projects (there are no major fluctuations over the forecasted period).

The details of some of the wastewater capital projects, by major category, are as follows.

Technical studies and reviews are a key component in maintaining system efficiencies and determining optimal replacement of existing infrastructure. As a result, a comprehensive, multi-year plan has been established over the forecasted period (averaging approximately $140,000 annually). Wastewater plants/transmission system expenditures represent replacement of existing infrastructure over the forecasted period. There are major plant repairs/upgrades planned within the first 4 years of the forecast, averaging $3.6 million including the Caledonia Wet Well Expansion, totaling $1.4 million over the years 2018 to 2020; enhancements to the Jarvis lagoon, totaling $2.5 million over the years 2018 to 2019; and major upgrades at the Dunnville treatment plant (totaling $5.2 million in 2017). Administrative costs represent one-half (50%) of the administrative capital

cost (including planned meter replacements). As all urban communities have had their meters replaced over the last 3 years, there are limited administrative projects over the forecast period.



Financing Methodology

As with the Tax Supported Capital Budget, there are limited financing sources available to the County to fund the necessary infrastructure replacements. As the water and wastewater systems are self-funded from the users, there are limited customers to spread the burden of expensive project expenditures across (approximately 9,000 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. Similar to the Tax Supported Capital Budget, 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 2017 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.

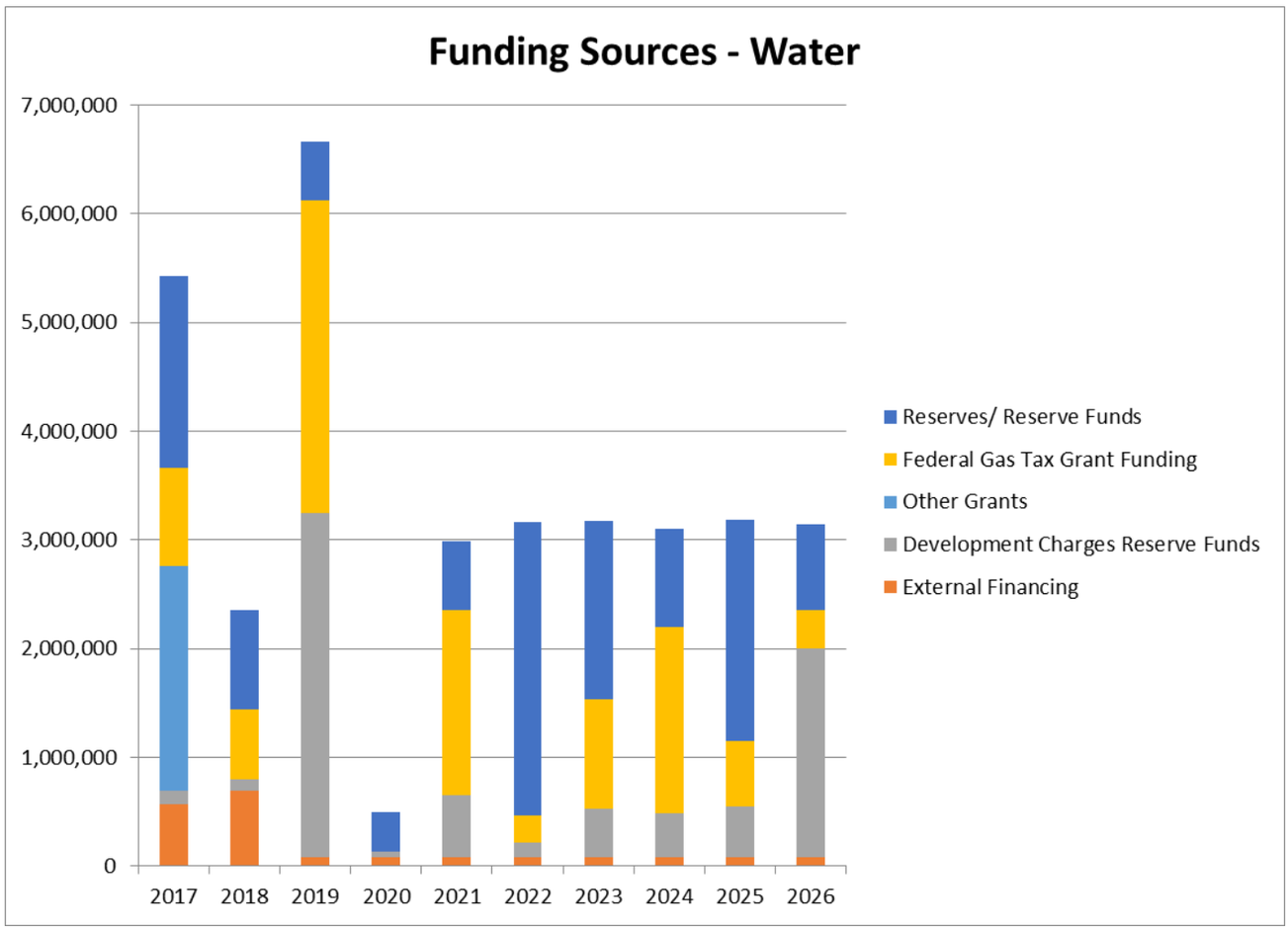
Typically, water and wastewater capital projects are funded in specific ways, depending mainly on whether the expenditure is for replacement or enhancement, as follows:

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 (Appendix A) 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 planned new debt for replacement/upgrades related to major water/wastewater treatment plant capital projects over the forecasted period (the magnitude of these projects met the financing principles related to debt financing and could not be accommodated from the existing capital replacement reserve funds).

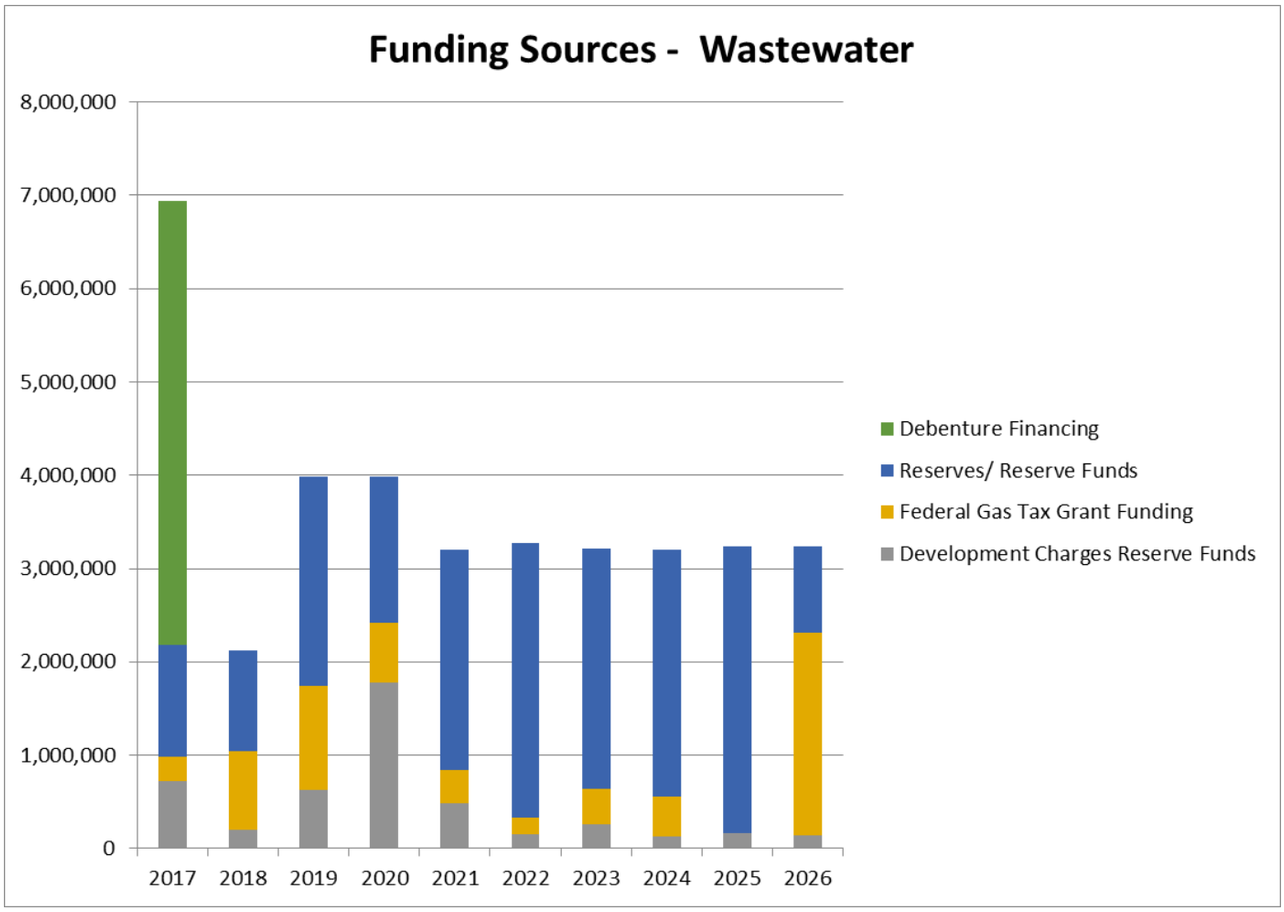
Plant Upgrades/Enhancement Projects: Typically, these projects are financed from external revenue sources. Enhancements to existing services/processes, not growth related, are internally financed. Development charges are collected for specifically identified projects. External sources of funds may be 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 36% of total funding over the forecast period). Federal Gas Tax grant funding represents the next largest portion totaling 30%. 2017 also includes grant funding from the new Canada/Ontario Clean Water and Wastewater Fund totaling $2,070,050 or 6.1%. There is limited use of development charges (approximately 22% 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. Total external funding is approximately 6%.



Funding Sources – Wastewater: As depicted below, the majority of funding for wastewater capital projects is from the wastewater capital replacement reserve fund (in aggregate, approximately 57% of total funding over the forecasted period). Grant funding (i.e. Federal Gas Tax) represents approximately 17.5% of the annual funding. The proposed new debt over the forecast period represents approximately 13% of the total funding (new debt relates to the plant upgrades in Dunnville in 2017 totaling $4.8 million). Use of Development Charges is approximately 13% related to growth driven projects.



Grant Funding

As indicated above, the only predictable grant funding is the County's annual Federal Gas Tax Allocation (our current allocation is approximately $2.8 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 $16.4 million allocated to water/wastewater capital projects over the forecast period, $10.1 million is allocated to water replacements/plant upgrades and $6.4 million is allocated to wastewater replacements/plant upgrades. As there are currently large scale plant upgrades planned in water and due to the current funding deficit in water; more Gas Tax funds have been allocated to the water system.

In September 2016, the governments of Canada and Ontario announced the establishment of the Clean Water and Wastewater Fund (CWWF). The CWWF will provide Ontario municipalities with up to $569.6 million in infrastructure funding in 2016/17 to accelerate the rehabilitation and modernization of drinking water, wastewater and stormwater infrastructure. The CWWF funds are intended to foster economic growth and support a cleaner and healthier environment for communities. Municipal allocations are based on the amount of water, wastewater and stormwater assets owned by municipalities and their economic conditions.

Based on the CWWF formula, Haldimand County is eligible to receive a maximum federal allocation of $1,380,033 and a maximum provincial allocation of $690,017 for a combined amount of $2,070,050 of new grant funding. In order to fully utilize the available funding, the recommended project list is just over the eligible $2.76 million threshold. In order to meet the funding eligibility, the County will be required to fund the new or accelerated programs to at least 25% of their total cost.

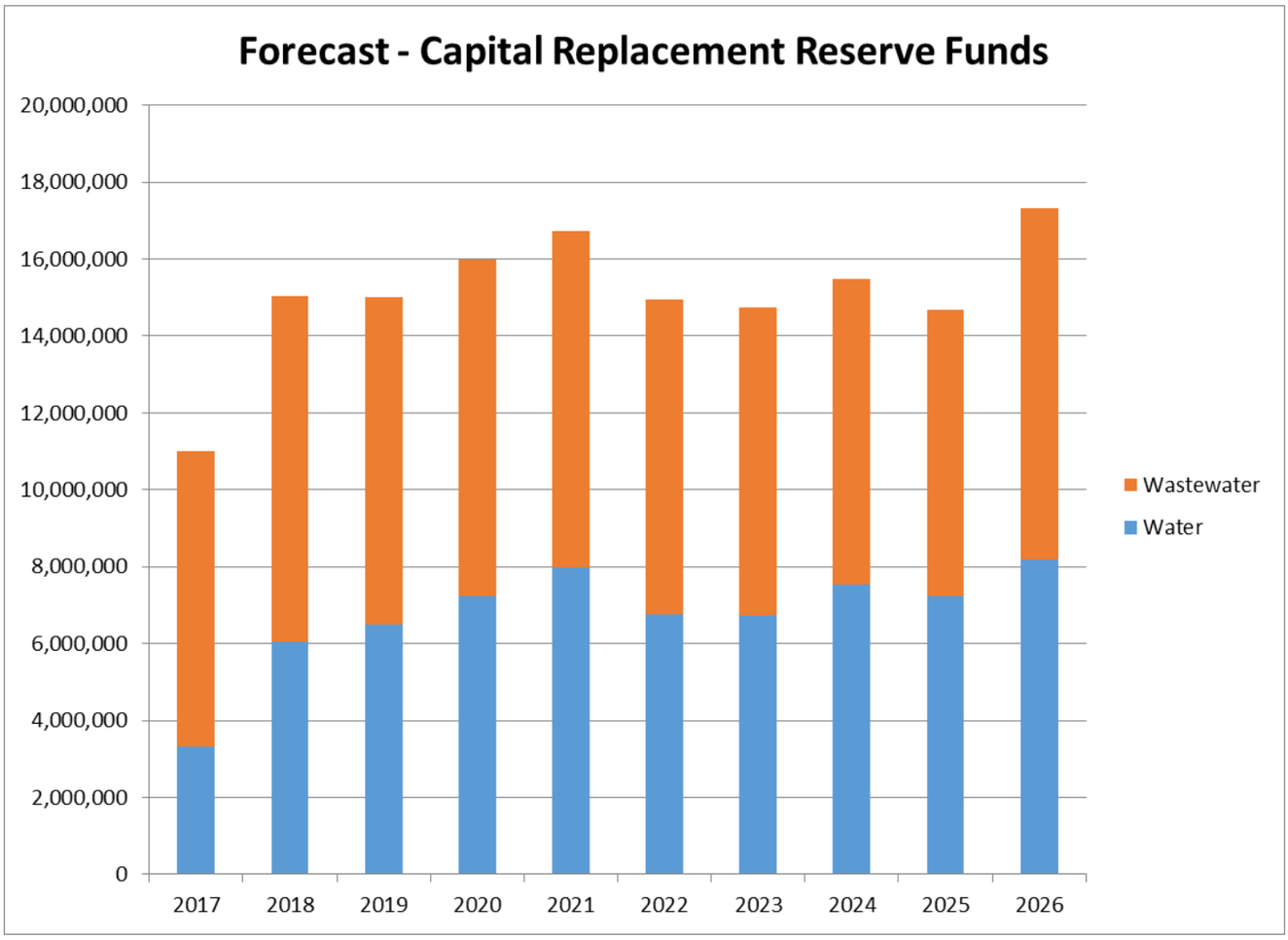
This budget includes the following projects, with allocated CWWF funding, as per PW-ES-32-2016:

Project Name	Incrementally Criteria	Total Project Cost	Provincial Funding	Federal Funding	Total Grants	County Funding
Hagersville Watermain Replacement	Not previously budgeted	$700,000	$175,000	$350,000	$525,000	$175,000
Cayuga Standpipe Rehabilitation	Accelerate 2018 to 2017	$950,000	$237,500	$475,000	$712,500	$237,500
Rehabilitate Dunnville Backwash Filter Room	Accelerate 2019 to 2017	$550,000	$137,500	$275,000	$412,500	$137,500
Nanticoke West Reservoir Rehabilitation	Accelerate 2018 to 2017	$110,000	$27,500	$55,000	$82,500	$27,500
Nanticoke Reservoir Baffling System	Accelerate 2018 to 2017	$350,000	$87,500	$175,000	$262,500	$87,500
Nanticoke Disinfection Feed Replacements	Project will not proceed without federal funding	$141,000	$25,017	$50,033	$75,050	$65,950
	Total	**$2,801,000**	**$690,017**	**$1,380,033**	**$2,070,050**	**$730,950**

If additional CWWF 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 outlined 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 2017 Draft Rate Supported Capital Budget and Forecast to 2026. 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 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 there are new debt requirements to fund water related capital infrastructure starting in 2018, and wastewater related capital infrastructure starting in 2019, the increased debt payments reduce the ability to transfer funds to the applicable capital replacement reserve. Although this is not an issue for 2017, 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 (this shift is identified in Appendix B). Overall, annual capital related impacts on the user rates were held to approximately $113,000 or 1.0% of combined rates revenue per year. The impact in 2016 specific to water is $73,000 or 1.3% and for wastewater is $42,000 or 0.7%.

Capital related impacts include the combination of annual capital replacement reserve fund contributions and debt repayments. As outlined in Appendix B, It is recommended that increases to these capital replacement reserve funds continue until 2024 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

During the comprehensive update to the Development Charges By-law in 2014, 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 2017 Rate Supported Capital Budget and Forecast include the projects outlined in the 2014 Development Charges Background Study, as adjusted for revisions, if any, to the originally estimated costs.

In aggregate, there is $7.4 million of growth related water capital projects to be financed from development charges (Caledonia Elevated Tank – approximately $3,100,000; Dunnville WTP reservoir expansion – approximately $1,750,000, and the majority of the balance, approximately $2.6 million, represents estimated costs related to future replacements/plant upgrades yet to be identified). Wastewater capital projects includes approximately $4.7 million funded from development charges (the majority of which represents enhancements in Caledonia totaling $1.7 million; the next largest balance, of approximately $412,000, represents estimated costs related to future replacements/plant upgrades yet to be identified).

During the setting of the development charges rates in 2014, 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 ("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 Appendix F (which includes the impacts of any required "DC debt").

Impact on Long Term Debt

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

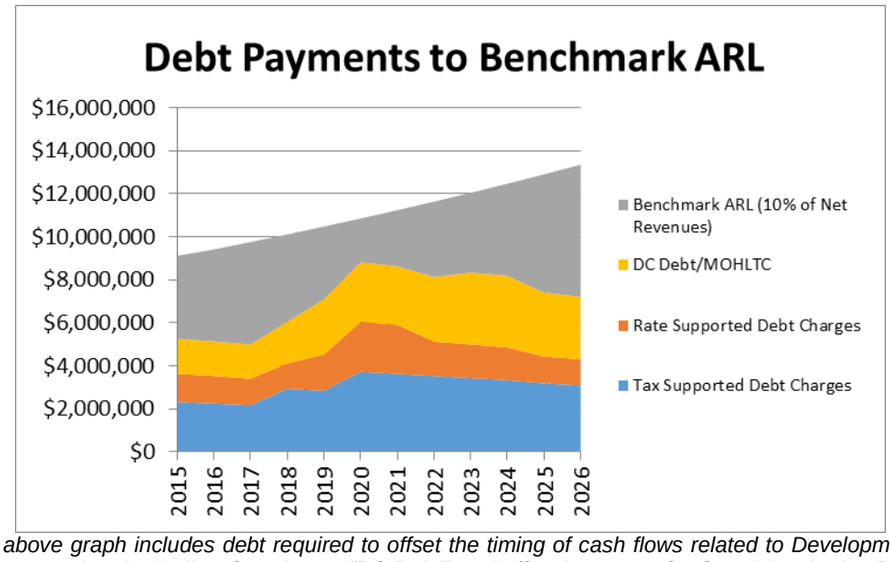
Existing Debt: Currently the County has outstanding debt related to water and wastewater projects, with total remaining principal payments of approximately $6.3 million. The annual debt repayments (interest and principal) are committed over the forecast term and are included in the Net Capital Financing page in Appendix B as part of the overall capital financing.

Proposed New Debt: Over the ten year forecast, there is approximately $4.8 million of new debt issuances required to fund specifically identified projects. New debt financed projects in wastewater relate to replacements/upgrades at the Dunnville wastewater treatment facility in 2017, totaling approximately $4.8 million. New debt to be issued over the forecast term also includes existing projects where construction is to be completed and debt financed in 2017 or beyond. In addition, there are new repayments required for debt to be issued in 2017 on previously approved projects, totaling approximately $6.3 million, for which payments will not commence until 2018.

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"). It is anticipated that total new DC debt totaling approximately $14.0 million will be issued over the forecast period. 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 Appendix B 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 2016-2025 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") 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 well 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 $8.8 million (tax supported $3.7 million; rate supported $2.3 million, DC debt $2.8 million) or 8.1% of annual net revenues in 2019. 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.

B. 2017 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 2017 Draft Rate Supported Operating Budget that are, to some degree, beyond Council's control.

In addition to the aforementioned 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 9,000 users, the County operates four wastewater treatment facilities, four wastewater lagoons, two water treatment facilities, seven water distribution systems and eight wastewater collection systems. Although the majority of the population growth projected during the forecasted period is in these serviced urban communities, the growth will be phased over the forecast period and primarily concentrated in Caledonia where water is purchased from Hamilton. 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.

2016 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 Appendix M). 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 2017 operating budget document, the combined water/wastewater forecasted year end 2016 operating **surplus** is approximately $516,600.

The following chart outlines the forecasted 2016 surplus/(deficit) for water operations:

2016 Projected Operating Variance	
Water Operations	
	Surplus/ (Deficit)
Revenues:	
Residential Rates Revenue basic and consumption – mainly due to basic charges	$ 48,982
Commercial/Industrial basic and consumption – surplus from large industrial users	$ 125,096
Large Industrial Potable Water (see note below)	$ 217,652
New Credit Water (mainly due to surplus in depot consumption)	$ 46,043
Bulk Water Sales (deficit in Hagersville, offset by surplus in both Jarvis and Dunnville)	$ 111,551
Industrial Pumping Station – mainly hydro (offset)	$ 294,439
Miscellaneous Fees & Recoveries	$ 24,763
Sub-total Revenues	**$ 894,526**
Expenditures:	
Salaries & Wages - shift in distributed wages based on additional hours allocated to water operations and council approved change in Manager position subsequent to budget (total deficit of $25,125)	$ (43,162)
Industrial Pumping Station - mainly hydro (offset)	$ (294,439)
Miscellaneous Supplies & Services	$ 34,914
Sub-total Expenditures	**$ (302,687)**
Total Projected Water Surplus/(Deficit)	**$ 591,839**

The following chart outlines the forecasted 2016 surplus/(deficit) for wastewater operations:

2016 Projected Operating Variance	
Wastewater Operations	
	Surplus/ (Deficit)
Revenues:	
Commercial Basic Charges (budget based on overestimated number of customer – revised for 2017 draft budget)	$ (57,019)
Commercial/Industrial Consumption – increase in large industrial partially offset by lower commercial consumption	$ 34,897
Septic/Holding Charges	$ (33,683)
Miscellaneous Fees & Recoveries	$ 15,407
Sub-total Revenues	**$ (40,398)**
Expenditures:	
Salaries & Wages - shift in distributed wages based on fewer hours allocated to wastewater operations and council approved change in Manager position subsequent to budget (total deficit of $25,125)	$ 18,037
Hydro	$ (51,855)
Miscellaneous Supplies & Services	$ (992)
Sub-total Expenditures	**$ (34,810)**
Total Projected Wastewater Surplus/(Deficit)	**$ (75,208)**

There were several items with significant 2016 variances that impact the 2017 operations as follows:

- Fluctuating annual consumption (particularly industrial and commercial water users);
- Unbudgeted potable water billings to industries supplied by the Nanticoke Water Treatment facilities for use of potable water for their dedicated pumps;
- A dry summer season resulting in higher than budgeted bulk water usage (including New Credit);
- Variable (increased) hydro costs at treatment facilities;
- Lower septic and holding volumes being treated at Dunnville location.

2017 Draft Rate Supported Operating Budget Overview

The 2017 Draft Rate Supported Operating Budget, as outlined in this document, represents an overall net **increase** in total rate revenue requirements of $464,540 or 4.03% compared to the 2016 budget: the water system requires an increase of $112,320 or 2.01% in rates revenue; the wastewater system reflects an increase of $352,220 or 5.94% 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 $59,000.

The budget summary by major function is outlined below. The impact on the revenues required to be recovered by rates is a function of a change in operational expenditures and a change in miscellaneous revenues (some of which are consumption driven). The applicable rates are impacted by the recovery methodologies and anticipated consumption for the year.

2017 Budget Drivers – Water Operations

WATER OPERATIONS

	2016 Budget	2017 Budget	Increase/(Decrease)	
	$	$	$	%
Expenditures				
Salaries, Wages & Benefits	1,564,890	1,783,980	219,090	14.00%
Supplies & Materials	127,240	127,770	460	0.36%
Hamilton Water Supply	2,348,400	2,346,200	(2,200)	-0.09%
Services	3,118,210	3,403,740	285,530	9.16%
Veolia Operating Services Charges	2,042,170	2,100,430	58,260	2.85%
Interdepartmental Charges	364,540	357,950	(6,590)	-1.81%
Long Term Debt Charges	344,260	337,300	(6,960)	-2.02%
Transfers to Reserves/Reserve Funds	1,591,630	1,870,600	278,970	17.53%
Total Expenditures	**11,501,340**	**12,327,900**	**826,560**	**7.19%**
Revenues				
Recoveries from New Credit	189,100	210,600	21,500	11.37%
Fees & Recoveries	5,713,750	6,406,490	692,740	12.12%
Total Revenues	**5,902,850**	**6,617,090**	**714,240**	**12.10%**
Net Revenues Required from User Rates	**5,598,490**	**5,710,810**	**112,320**	**2.01%**

As noted above, the overall 2017 rates revenue requirement from water users has increased by $112,320 or 2.01%.

Driver	***Net Rate Revenues Impact***	***% Impact***
A. Base Budget (net)	($115,020)	(2.05%)
B. New Initiatives	$154,560	2.76%
C. Water Additional Capital Contribution	$72,780	1.30%
Total	**$112,320**	**2.01%**

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 decreased by approximately $115,020. This net change is driven primarily by increased bulk water revenues (water haulers, New Credit and fire protection charges), increased capital related costs, increased Veolia operating costs and offsetting decreased contributions to the water rate stabilization reserve. In 2017, the contribution to the water rate stabilization reserve is being reduced by $100,000 with an equally offsetting increase being applied to the wastewater rate stabilization reserve. It is projected that a complete shift in contributions from the water rate stabilization reserve to the wastewater rate stabilization reserve will be required over the next two years. After 2018, it is anticipated that the balance in both reserves should be adequate to cease annual contributions entirely, assuming financial operating results are on budget. However, staff will continue to monitor the annual operational requirements in these reserves to ensure the balances remain at an acceptable level (see Appendix L).

As outlined in Appendix L, it is anticipated that, in the absence of any changes in future costs or consumption trends, there will be an ability to transfer excess funds of approximately $2.8 million from the rate stabilization reserve to the water Capital Replacement Reserve Fund. This transfer will have a positive impact on the long term capital financing plan for water infrastructure. It should be noted that any major loss of revenues (i.e. major industrial water user) will instead need to be offset from this reserve to mitigate annual impacts on the users.

The major detailed net operational impacts are outlined below:

2017 Draft Water Operating Budget	
Summary of Impact of Budget Drivers on Rate Revenue Requirements	
Base Budget:	**Increase/ (Decrease)**
Revenues (excludes rate revenues):	
New Credit Water Depot - 3 year average consumption	$ (21,500)
Bulk Water Sales - 3 year average consumption	$ (28,900)
Fire Hydrant Fees - estimated 2% increase	$ (41,760)
Dunnville Microstrainer Reserve Fund (offset)	$ (299,220)
Industrial Pumping Station (offset)	$ (285,950)
Miscellaneous Fees & Recoveries	$ (28,680)
Sub-total Revenues	**$ (706,010)**
Expenditures:	
Salaries & Wages - Regular economic Increases and shift in distributed wages	$ 67,700
Hamilton Water Supply - wholesale water purchase (based on rates per agreements and 2 year average consumption)	$ (2,200)
Veolia Water Contract (Haldimand share)	$ 65,180
Reduced Contribution to Water Rate Stabilization Reserve	$ (100,000)
Dunnville Microstrainer (offset) – increased recoverable capital for Port Maitland	$ 299,220
Industrial Pumping Station (offset) (Hydro = $177,150; Veolia $34,660)	$ 285,950
Miscellaneous Supplies & Services	$ (24,860)
Sub-total Expenditures	**$ 590,980**
Total Base Budget Impact on Rate Revenue Requirements	**$ (115,020)**

B. New Initiatives

New initiatives are identified in two categories: Council Approved Initiatives and New Initiatives. There are four Council approved Initiatives for 2017, as outlined in Appendix J. In addition, there are three New Initiatives proposed for Council's consideration for 2017, as outlined in Appendix K. The proposed New Initiatives have an ongoing annual operating budget impact. Overall, the net rate revenue impact of these initiatives in water operations is an increase of $154,560 as outlined bellow:

Description	**Rate Revenue Increase/ (Decrease)**
Council Approved Initiatives	
Director of Engineering – Water Portion	$ 1,830
Manager of Water and Wastewater – Water Portion	$ 29,140
Student Wage Increase	$ 720
Supplied Clothing (Footwear)	$ 210
Sub-total	$ 31,900
New Initiatives	
Additional staff: Water and Wastewater Operator – Water Portion	$ 76,190
Additional staff: Water and Wastewater Project Technologist – Water Portion (net of additional anticipated revenues)	$ 47,200
Disconnection Permit Revenues	$ (730)
Sub-total	$ 122,660
Total Initiatives Impact on Rate Revenue Requirements	**$ 154,560**

C. Infrastructure Capital Financing Requirements

Overall, water annual capital financing related impacts on the user rates were held to **1.30%** in 2017. Capital related impacts include the combination of annual capital replacement reserve fund contributions and debt repayments (as outlined in Appendix B). Essentially, the combined water reserve fund contributions and changes to debt repayments for 2017 increased by $72,780. 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 continue until 2024 to offset the anticipated future disbursements, particularly for water. This plan will be revisited on an annual basis based on projected sources of capital financing and relative capital replacement reserves.

2017 Budget Drivers – Wastewater Operations

WASTEWATER OPERATIONS

	2016 Budget	2017 Budget	Increase(Decrease)	
	$	$	$	%
Expenditures				
Salaries, Wages & Benefits	638,240	690,660	52,420	8.21%
Supplies & Materials	22,140	20,060	(2,080)	-9.39%
Services	1,526,170	1,608,540	82,370	5.40%
Veolia Operating Services Charges	2,356,730	2,406,180	49 450	2.10%
Interdepartmental Charges	269,890	268,720	(1,170)	-0.43%
Long Term Debt Charges	1,297,680	1,245,270	(52,410)	-4.04%
Transfers to Reserves/Reserve Funds	2,257,150	2,378,520	121,370	5.38%
Total Expenditures	**8,368,000**	**8,617,950**	**249,950**	**2.99%**
Revenues				
Municipal Recoveries	77,900	74,100	(3,800)	-4.88%
Fees & Recoveries	1,951,590	1,860,360	(91,230)	-4.66%
Transfers from Reserves/Reserve Funds	410,380	403,140	(7,240)	-1.76%
Total Revenues	**2,439,870**	**2,337,600**	**(102,270)**	**-4.19%**
Net Revenues Required from User Rates	**5,928,130**	**6,280,350**	**352,220**	**5.94%**

As noted above, the overall 2017 rates revenue requirement from wastewater users has increased by $352,220 or 5.94%. Detailed budget drivers are outlined below.

Driver	***Net Rate Revenues Impact***	***% Impact***
A. Base Budget (net)	$249,260	4.20%
B. New Initiatives	$60,970	1.03%
C. Wastewater Additional Capital Contribution	$41,990	0.71%
Total	**$352,220**	**5.94%**

A. Base Budget Drivers (net)

As indicated above, total net expenditures increased by approximately $249,260. The major net operational impacts are reduced leachate revenues, Veolia operating impacts, and hydro increases at treatment plants. The major detailed net operational impacts are outlined below:

2017 Draft Wastewater Operating Budget

Summary of Impact of Base Budget Drivers on Rate Revenue Requirements

Base Budget:	***Rate Impact Increase/ (Decrease)***
Revenues (excludes rate revenues):	
Septic/Holding Charges - based on estimated actual flows with an proposed 2% increase to rates	$ 30,100
Leachate	$ 30,200
Overstrength (offset)	$ 65,800
Miscellaneous Fees & Recoveries	$ (16,350)
Sub-total Revenues	**$ 109,750**
Expenditures:	
Salaries & Wages - Regular economic Increases and shift in distributed wages	$ (8,560)
Veolia Operations	$ 49,450
Hydro - 3 year average consumption with LAS provided rate increase	$ 110,490
Increased contribution to Rate Stabilization Reserve	$ 100,000
Overstrength (contribution to RSR) (offset)	$ (65,800)
Miscellaneous Supplies & Services	$ (46,070)
Sub-total Expenditures	**$ 139,510**
Total Base Budget Impact on Rate Revenue Requirements	**$ 249,260**

B. New Initiatives

New initiatives are identified in two categories: Council Approved Initiatives and New Initiatives. There are four Council approved Initiatives for 2017, as outlined in Appendix J. In addition, there are three New Initiatives proposed for 2017 as outlined in Appendix K The proposed New Initiatives have an ongoing operating budget impact. Overall, the net rate revenue impact of these initiatives in water operations is an increase of $60,970 as outlined bellow:

Description	**Rate Revenue Increase/ (Decrease)**
Council Approved Initiatives	
Director of Engineering – Wastewater Portion	$ 980
Manager of Water and Wastewater – Wastewater Portion	$ 15,350
Student Wage Increase	$ 330
Supplied Clothing (Footwear)	$ 210
Sub-total	$ 16,870
New Initiatives	
Additional staff: Water and Wastewater Operator – Wastewater Portion	$ 20,270
Additional staff: Water and Wastewater Project Technologist – Wastewater Portion (net of additional anticipated revenues)	$ 24,560
Disconnection Permit Revenues	$ (730)
Sub-total	$ 44,100
Total New Initiatives Impact on Rate Revenue Requirements	**$ 60,970**

C. Infrastructure Capital Financing Requirements

Overall, wastewater annual capital financing related impacts on the user rates were **0.71%** in 2017. Capital related impacts include the combination of annual capital replacement reserve fund contributions and debt repayments (as outlined in Appendix B). Essentially, the combined wastewater reserve fund contributions and changes to debt repayments for 2017 increased by $41,990. 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 continue until 2024 to offset the anticipated future disbursements, particularly for water. 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 Appendices N – Schedules B-D. The intent is to pass a comprehensive water and wastewater by-law that includes all water and wastewater fees, with an effective date of January 1, 2017.

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 Appendix M 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. As outlined and approved in the budget guidelines, there are no planned changes to the underlying recovery methodologies in 2017.

Water Miscellaneous Revenues

Miscellaneous revenues represent approximately $6.6 million in annual revenues for the water system, reducing the user rates revenue by a corresponding amount. Of these fees approximately $2.5 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. An additional $327,000 relates to industry recoveries from Port Maitland. Bulk water recoveries represent total revenues of approximately $1.2 million, with the impacts on the end user outlined below. Fire protection charges represent approximately $2.1 million which includes an increase of $41,760 or 2.0%. The remaining miscellaneous fees total approximately $469,000 and include: water supply charges to New Credit of $210,600 (which is established by agreement as a percentage of the County's block 1 water rate and includes increased consumption related to usage of the bulk water depot in New Credit); property tax recoveries from industry of approximately $109,000; and miscellaneous charges of approximately $149,400. 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 2.0% (rounded where applicable), based on the underlying increase in the associated costs to provide these services (subject to the annual budget review).

As an additional consideration for the 2017 budget, is a substantially increased meter tampering charge. This fee is intended to be implemented in instances where evident tampering has occurred with a water meter or water service, resulting in unbilled consumption. This fee has traditionally been set at a relatively low value (approved in the 2016 Water and Wastewater Fees and Charges By-law at $144 per incident plus any cost to repair the meter or service.) Although there is no direct budgeted revenue included for these charges, as they incur infrequently, the County has found occurrences of blatant tampering during the 2016 meter installation projects. As the intent of this fee is to act as a financial deterrent and penalty related to tampering, it is felt that the current fee is not substantial enough to prevent tempering nor recover lost revenue from such tampering. Staff have completed a review of the tampering fees charged at other municipalities, and, as a result, have found the County's fee to be much lower in comparison. It is being recommended (through Schedule D of Appendix N) that this charge be increased to $500 per incident plus any cost to repair/service. This fee is the equivalent of approximately 200 cubic meters of consumption based on the proposed combined water/wastewater rates and is equal to the average annual residential home consumption charges for the same volume. It is expected that a fee of this magnitude will deter users from tampering with water meters in the future.

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 Appendix M, Bulk Water charges are based on the methodology outlined in the County's 2013 rate study as approved by Council. The methodology includes both a "fixed" component and a variable component. The proposed 2017 monthly fee is $16.52 which represents a 2.0% **increase**, while the volumetric charge is recommended to **decrease** to $2.89 per cubic meter or a 2.37% decrease. 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 (approximately 85% to 90% of the water consumption is billed directly to approximately 21 large haulers).

The resulting charges represent the sum of the costs to produce the potable water, plus the annual replacement costs of the required capital (both the treatment plants and the specific depots). The rate is determined based on the total consumption from the County's three dispensing stations. The proposed per load impact on a "typical end user", based on the assumptions noted below, is as follows:

Bulk Water Rate	**2016**	**2017 Proposed**	**Change**	
(per cubic metre)			*($)*	*(%)*
Controlled by Haldimand County:				
Bulk Water Rate (charged to hauler)	$2.96	$2.89	-$0.07	-2.4%
Monthly Administration Fee (charged to hauler)	$16.19	$16.52	$0.33	2.0%
Per Load Impact on "Typical End User" (3,000 gallon load)				
Water Commodity (determined by Haldimand County)	40.34	39.41	-$0.93	-2.3%
Estimated hauler delivery charge (determined by hauler)	$72.60	$72.60	$0.00	0.0%
Total "End User" estimated cost	**$112.94**	**$112.01**	**-$0.93**	**-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 2016 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.

It should be noted that bulk water rates have been fluctuating (up and down) since the implementation of the revised rate model in 2013. As mentioned previously, the bulk water rate is based on the depots' share of related costs, allocated on a cubic metre basis for total bulk water consumption. This charge can further be impacted by changes in consumption by other users as well, which has lead to much of the volatility in the rate. These fluctuations will be monitored by staff with a review of the underlying assumptions within the model for the 2018 draft rate supported budget in order to ensure a more reliable, predictable bulk water rate is being calculated.

Wastewater Miscellaneous Revenues

Miscellaneous revenues represent approximately $2.3 million in annual income for the wastewater system which helps reduce the impact on user rates revenue. Of these fees, approximately $1.6 million relates to the leachate treatment cost recovery. The 2017 estimate reflects a decrease in this revenue source of approximately $30,200 due to decreased volumes and relative treatment strength. 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 continue to 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 $141,100. This is a decrease of $30,100 in aggregate due to declining volumes despite a proposed increase of 2% in the per cubic meter rate (see analysis of impact on end user below). The remaining miscellaneous fees total approximately $601,510 and include: "overstrength" charges established under the Sewer Use By-law of $79,900; sludge storage charges to Norfolk County of approximately $74,100; transfer from Development Charges Reserve Fund – Sewer of approximately $403,100 for the growth share of debenture charges; and miscellaneous charges of approximately $44,410. The miscellaneous fees reflect an annual inflationary increase of 2.0% (rounded as required), based on the underlying increase in the associated costs to provide these services (subject to the annual budget review).

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

As outlined in Appendix M 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 $16.52 or 2.0%. 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 2017 holding/septic tank rates have been increased by 2.0% similar to other miscellaneous fees. Despite the increase in volumetric rates, the annual revenues are expected to decrease by $30,100 due to steadily declining volumes. Holding/septic volumes treated on an annual basis have declined steadily since 2010 (from a high of 24,000 cubic meters to a projected volume of 10,200 cubic metres in 2017).

The impact on the holding/septic tank rates for 2017 is as follows:

Holding/Septic/Portable Toilet Tank Treatment Charge	**2016 Approved**	**2017 Proposed**	**Change**	
(per cubic metre)			*($)*	*(%)*
Controlled by Haldimand County:				
Proposed Rate (charged to hauler)	$13.52	$13.79	$0.27	2.1%
Monthly Administration Fee (charged to hauler)	$16.19	$16.52	$0.33	2.1%
Per Load Impact on "Typical End User" (2,000 gallon load)				
Treatment Cost (determined by Haldimand County)	$122.90	$125.35	$2.45	2.1%
Estimated hauler delivery charge (determined by Hauler)	$87.70	$87.70	$0.00	0.0%
Total "End User" estimated cost	**$210.60**	**$213.05**	**$2.45**	**1.2%**

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 5) 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 no change in the hauler's 2016 delivery charge. 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 200 water only customers and approximately 100 wastewater only customers), the funding of these two systems must remain autonomous. The rate revenue consumption assumptions are outlined in Appendix M.

For 2017, the water users are required to generate approximately $5.7 million, which represents an increase in water rate revenue requirements of 2.01%. These revenues are collected by a combination of base water fixed fees and volumetric consumption charges per cubic metre consumed. As outlined in Appendix M, 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 $6.3 million in 2017, representing an increased requirement of 5.94%. 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 2017:

Water Customers and Consumption Comparison

	2016				2017			
	Actual		Budget		BUDGET			
	Users	%	Consumption	%	Users	%	Consumption	%
Residential	8,231	89.60%	1,335,143	42.48%	8,284	89.45%	1,335,143	40.67%
Regular Commercial/Industrial	654	7.12%	414,225	13.18%	667	7.20%	406,613	12.39%
Large Commercial/Industrial	12	0.13%	232,843	7.41%	11	0.12%	203,953	6.21%
Large Industrial	4	0.04%	669,848	21.31%	4	0.04%	669,848	24.95%
Subtotal	**8,901**	**96.90%**	**2,652,059**	**84.38%**	**8,966**	**96.81%**	**2,764,882**	**84.22%**
Bulk Water	285	3.10%	380,648	12.11%	296	3.19%	398,119	12.13%
New Credit Wholesale			70,771	2.25%			71,247	2.17%
New Credit Depot			39,622	1.26%			48,783	1.49%
Total	**9,186**	**100.00%**	**3,143,100**	**100.00%**	**9,261**	**100.00%**	**3,283,030**	**100.00%**

The number of customer for budgeting purposes reflects the totals from our in-year review. Any new customers during the year should result in favourable variance in basic charges (average "new services" has been 75 new customers per year over the past 4 years).

Large industrial consumption can fluctuate significantly based on changing operations (i.e. closures/labour disputes) and possible conversion of operations to different water sources (i.e. potable water to raw water). Given the current reliance on these industries and potential negative impacts of uncontrolled reductions in water consumption, the estimated useage projected for large industrial customers for 2017 is equal to the 2016 budgeted consumption. This will ensure the rates are not impacted by changes in estimates in consumption for these industries. This methodology will also help offset any potential large consumption changes in the future. The consumption of these industries will be closely monitored on a go-forward basis. The balance in the current Water Rate Stabilization Reserve (Appendix L) will provide some relief to offset any negative consumption impacts as they become known.

Wastewater Customers and Consumption Comparison

	2016				2017			
	Actual		Budget		BUDGET			
	Users	%	Consumption	%	Users	%	Consumption	%
Residential	8,172	92.80%	1,309,129	62,12%	8,177	94.19%	1,309,129	61.54%
Regular Commercial/Industrial (*)	617	7.01%	400,982	19.03%	490	5.64%	398,765	18.74%
Large Commercial/Industrial	7	0.08%	106,038	5.03%	6	0.07%	90,494	4.25%
Large Industrial	3	0.03%	253,335	12.03%	3	0.03%	294,108	13.83%
Subtotal	**8,799**	**99.92%**	**2,069,484**	**98.21%**	**8,676**	**99.94%**	**2,092,496**	**98.36%**
Septic	7	0.08%	1,780	0.08%	7	0.06%	1,626	0.08%
Holding			10,920	0.52%			8,624	0.41%
Leachate			25,101	1.19%			24,568	1.15%
Total	**8,806**	**100.00%**	**2,107,285**	**100.0%**	**8,681**	**100.00%**	**2,107,286**	**100.0%**

(*) – An in-house review of the regular commercial/industrial wastewater customers was undertaken in 2016. From this review, it was noted there were several customers with water only services that were previously assumed to have wastewater as well (which has resulted in budget deficits in previous years). The customer numbers have been updated for 2017 budget.

The number of customer for budgeting purposes reflects the totals from our in-year review. Any new customers during the year should result in favourable variance in basic charges (average ”new services” has been 75 new customers per year over the past 4 years).

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 2017 water and wastewater user rates are included in Appendix N in this budget document. The proposed rates would be effective on all billings for consumption **effective January 1, 2017**. 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.

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		2016	2017	$ Change	% Change
	Monthly Services				
Residential (15 m³)	Water	$37.29	$37.27	-$0.02	-0.1%
	Sewer	$45.22	$47.95	$2.74	6.1%
	Total	**$82.51**	**$85.22**	**$2.71**	**3.3%**
Commercial (2" 500 m³)	Water	$791.12	$783.81	-$7.31	-0.9%
	Sewer	$1,007.58	$1,062.78	$55.20	5.5%
	Total	**$1,798.70**	**$1,846.58**	**$47.89**	**2.7%**
Industrial (4" 4,000 m³)	Water	$5,142.69	$5,066.99	-$75.70	-1.5%
	Sewer	$6,749.04	$7,096.09	$347.05	5.1%
	Total	**$11,891.73**	**$12,163.08**	**$271.35**	**2.3%**
	Bulk Services (per use basis)				
Bulk Water (3,000 gallons)	Potable Water Costs (County)	$40.34	$39.41	-$0.93	-2.3%
	Estimated Delivery Charges (Private Hauler)	$72.60	$72.60	$0.00	0.0%
	Total	**$112.94**	**$112.01**	**-$0.93**	**-0.8%**
Septic/Holding (2,000 gallons)	Treatment Costs (County)	$122.90	$125.35	$2.45	2.0%
	Estimated Delivery Charges (Private Hauler)	$87.70	$87.70	$0.00	0.0%
	Total	**$210.60**	**$213.05**	**$2.45**	**1.2%**

The majority of the County's customers have both water and wastewater services and, for residential users, will see a modest increase in their overall monthly costs as a result of the proposed 2017 rates. Overall bulk water rates have remained fairly constant on a per use basis. Holding/septic tank customers will experience overall increases relative to the inflationary increase of 2% on treatment costs for 2017.

Future Impacts/Budget Constraints

Although the County has consistently established the Rate Supported Operating Budget as full cost recovery from the users of these systems (i.e. no property tax revenues support the water or wastewater operations), 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 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 16% of total water rates revenues and 8% of wastewater revenues in 2016. 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 – As the County transitions 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.
- 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 2017 Draft Rate Supported Capital Forecast and Operating Budget 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.

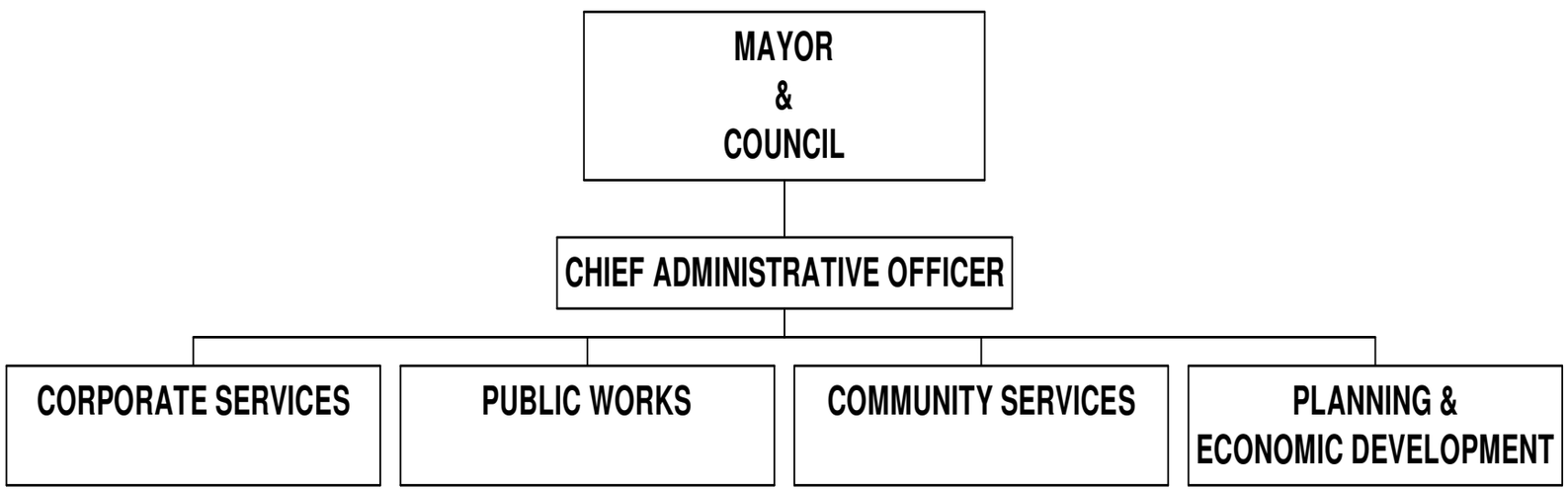
It is, therefore, recommended that Council adopt the 2017 Draft Rate Supported Capital Forecast and Operating Budget and associated revisions to user rates and miscellaneous fees and charges.

Respectfully Submitted by,

Mark Merritt, CPA, CA
Treasurer

Karen General, CPA, CGA
CFO & General Manager, Corporate Services

GOVERNANCE


MAYOR
&
COUNCIL
CHIEF ADMINISTRATIVE OFFICER
CORPORATE SERVICES
PUBLIC WORKS
COMMUNITY SERVICES
PLANNING &
ECONOMIC DEVELOPMENT

HALDIMAND COUNTY
COUNCIL
2014 - 2018

MAYOR ----------KEN HEWITT

WARD 1 ----------LEROY BARTLETT

WARD 2 ---------- FRED MORISON

WARD 3 ---------- CRAIG GRICE

WARD 4 ----------TONY DALIMONTE

WARD 5 ----------ROB SHIRTON

WARD 6 ---------- BERNIE CORBETT

HALDIMAND COUNTY
SENIOR STAFF

CHIEF ADMINISTRATIVE OFFICER ---------- DON BOYLE

GENERAL MANAGER
CORPORATE SERVICES ---------- KAREN GENERAL

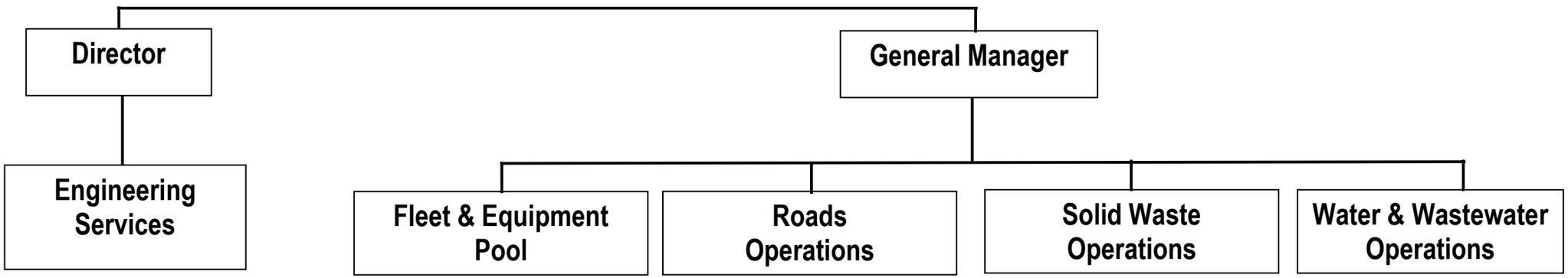
GENERAL MANAGER
COMMUNITY SERVICES ---------- HUGH HANLY

GENERAL MANAGER
PUBLIC WORKS ---------- PAUL MUNGAR

DIRECTOR
ENGINEERING SERVICES ----------TYSON HAEDRICH

GENERAL MANAGER
PLANNING & ECONOMIC DEVELOPMENT----------CRAIG MANLEY

PUBLIC WORKS DEPARTMENT



WATER & WASTEWATER CAPITAL FORECAST


A GRAND EXPERIENCE
HALDIMAND
COUNTY

Haldimand County

2017 to 2026 DRAFT CAPITAL FORECAST

Version: **Draft Budget**

Division: **Summary - Water and Wastewater**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
SUMMARY-Water & Wastewater Administration																	
Water & Wastewater Administration	350			5,500					5,500		**11,350**					(11,350)	
Total SUMMARY-Water & Wastewater Administration	350			5,500					5,500		**11,350**					(11,350)	
SUMMARY-Water																	
Water - Replacement and Upgrade Projects	992,000	515,000	565,000	115,000	526,000	700,000	700,000	700,000	700,000	700,000	**6,213,000**	(1,425,000)		(684,600)		(4,103,400)	
Water - Technical Reviews and Studies	86,160	76,160	31,160	56,160	66,160	61,160	76,160	6,160	81,160	41,160	**581,600**			(189,700)		(391,900)	
Water - Plants/Transmission Systems	4,349,500	1,767,500	6,065,000	321,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	**26,903,000**	(10,703,950)	(1,903,570)	(6,517,630)		(7,777,850)	
Total SUMMARY-Water	5,427,660	2,358,660	6,661,160	492,160	2,992,160	3,161,160	3,176,160	3,106,160	3,181,160	3,141,160	**33,697,600**	(12,128,950)	(1,903,570)	(7,391,930)		(12,273,150)	
SUMMARY-Wastewater																	
Wastewater - Replacement and Upgrade Projects	573,000	775,000	433,000	275,000	370,000	600,000	600,000	600,000	600,000	600,000	**5,426,000**	(1,850,000)		(532,350)		(3,043,650)	
Wastewater - Technical Reviews and Studies	205,590	167,590	102,590	162,590	112,590	167,590	117,590	102,590	137,590	137,590	**1,413,900**			(251,800)		(1,162,100)	
Wastewater - Plants	6,162,100	1,183,000	3,447,300	3,547,500	2,715,100	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	**29,555,000**	(4,530,820)		(3,873,820)		(16,390,360)	(4,760,000)
Total SUMMARY-Wastewater	6,940,690	2,125,590	3,982,890	3,985,090	3,197,690	3,267,590	3,217,590	3,202,590	3,237,590	3,237,590	**36,394,900**	(6,380,820)		(4,657,970)		(20,596,110)	(4,760,000)
Total SUMMARY-Water and Wastewater	**12,368,700**	**4,484,250**	**10,644,050**	**4,482,750**	**6,189,850**	**6,428,750**	**6,393,750**	**6,308,750**	**6,424,250**	**6,378,750**	**70,103,850**	**(18,509,770)**	**(1,903,570)**	**(12,049,900)**		**(32,880,610)**	**(4,760,000)**
Funding																	
Water & Wastewater Administration																	
Grants																	
External Financing																	
Development charges reserve Funds																	
Community Vibrancy Reserve Funds																	
Reserves/Reserve Funds	(350)			(5,500)					(5,500)		**(11,350)**						
Debenture Financing																	
Total SUMMARY-Water & Wastewater Administration	**(350)**	**0**	**0**	**(5,500)**	**0**	**0**	**0**	**0**	**(5,500)**	**0**	**(11,350)**						
Water																	
Grants	(2,971,700)	(646,000)	(2,875,000)		(1,712,750)	(250,000)	(1,004,000)	(1,712,750)	(604,000)	(352,750)	**(12,128,950)**						
External Financing	(572,020)	(691,550)	(80,000)	(80,000)	(80,000)	(80,000)	(80,000)	(80,000)	(80,000)	(80,000)	**(1,903,570)**						
Development charges reserve Funds	(118,720)	(108,490)	(3,164,700)	(57,670)	(567,650)	(133,480)	(449,770)	(404,700)	(464,700)	(1,922,050)	**(7,391,930)**						
Community Vibrancy Reserve Funds																	
Reserves/Reserve Funds	(1,765,220)	(912,620)	(541,460)	(354,490)	(631,760)	(2,697,680)	(1,642,390)	(908,710)	(2,032,460)	(786,360)	**(12,273,150)**						
Debenture Financing											**0**						
Total SUMMARY-Water	**(5,427,660)**	**(2,358,660)**	**(6,661,160)**	**(492,160)**	**(2,992,160)**	**(3,161,160)**	**(3,176,160)**	**(3,106,160)**	**(3,181,160)**	**(3,141,160)**	**(33,697,600)**						
Wastewater																	
Grants	(262,500)	(837,500)	(1,114,110)	(646,990)	(360,000)	(170,000)	(380,000)	(430,320)		(2,179,400)	**(6,380,820)**						
External Financing																	
Development charges reserve Funds	(719,670)	(205,250)	(622,870)	(1,775,270)	(485,650)	(157,360)	(264,250)	(127,650)	(162,450)	(137,550)	**(4,657,970)**						
Community Vibrancy Reserve Funds																	
Reserves/Reserve Funds	(1,198,520)	(1,082,840)	(2,245,910)	(1,562,830)	(2,352,040)	(2,940,230)	(2,573,340)	(2,644,620)	(3,075,140)	(920,640)	**(20,596,110)**						
Debenture Financing	(4,760,000)										**(4,760,000)**						
Total SUMMARY-Wastewater	**(6,940,690)**	**(2,125,590)**	**(3,982,890)**	**(3,985,090)**	**(3,197,690)**	**(3,267,590)**	**(3,217,590)**	**(3,202,590)**	**(3,237,590)**	**(3,237,590)**	**(36,394,900)**						
Total SUMMARY-Water and Wastewater	**(12,368,700)**	**(4,484,250)**	**(10,644,050)**	**(4,482,750)**	**(6,189,850)**	**(6,428,750)**	**(6,393,750)**	**(6,308,750)**	**(6,424,250)**	**(6,378,750)**	**(70,103,850)**						

Version: Draft Budget

Division: SUMMARY-Water & Wastewater Administration

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Water & Wastewater Administration																	
Replacement/State of Good Repair																	
WWW Financial Plan Update (O. Reg. 453/07)				5,500					5,500		**11,000**					(11,000)	
Total Replacement/State of Good Repair				5,500					5,500		**11,000**					(11,000)	
New/Enhanced Service																	
Water and Wastewater Municipal Technologist - Cell P	350										**350**					(350)	
Total New/Enhanced Service	350										**350**					(350)	
Total Water & Wastewater Administration	350			5,500					5,500		**11,350**					(11,350)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Version: Draft Budget

Division: SUMMARY-Water

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Water - Replacement and Upgrade Projects	992,000	515,000	565,000	115,000	526,000	700,000	700,000	700,000	700,000	700,000	**6,213,000**	(1,425,000)		(684,600)		(4,103,400)	
Water - Technical Reviews and Studies	86,160	76,160	31,160	56,160	66,160	61,160	76,160	6,160	81,160	41,160	**581,600**			(189,700)		(391,900)	
Water - Plants/Transmission Systems	4,349,500	1,767,500	6,065,000	321,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	**26,903,000**	(10,703,950)	(1,903,570)	(6,517,630)		(7,777,850)	
Total SUMMARY-Water	5,427,660	2,358,660	6,661,160	492,160	2,992,160	3,161,160	3,176,160	3,106,160	3,181,160	3,141,160	**33,697,600**	(12,128,950)	(1,903,570)	(7,391,930)		(12,273,150)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Run Date: 11/22/16 2:57 PM

Version: Draft Budget

Division: Water - Replacement and Upgrade Projects

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Water - Replacement and Upgrade Projects																	
Water Operations Administration																	
Replacement/State of Good Repair																	
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)	
Distribution System - Annual Repair & Replac't	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	**750,000**					(750,000)	
Future Watermain Replacements						585,000	585,000	585,000	585,000	585,000	**2,925,000**			(438,750)		(2,486,250)	
Distribution Leak Detection Program	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	**300,000**					(300,000)	
Total Replacement/State of Good Repair	115,000	115,000	115,000	115,000	115,000	700,000	700,000	700,000	700,000	700,000	**4,075,000**			(438,750)		(3,636,250)	
Total Water Operations Administration	115,000	115,000	115,000	115,000	115,000	700,000	700,000	700,000	700,000	700,000	**4,075,000**			(438,750)		(3,636,250)	
Caledonia Water																	
Replacement/State of Good Repair																	
CaithnessW Recons-Firehall-Ross [R][WW][SS]					411,000						**411,000**			(234,600)		(176,400)	
Argyle Bridge Watermain Relocation	82,000										**82,000**					(82,000)	
Total Replacement/State of Good Repair	82,000				411,000						**493,000**			(234,600)		(258,400)	
Total Caledonia Water	82,000				411,000						**493,000**			(234,600)		(258,400)	
Hagersville Water																	
Replacement/State of Good Repair																	
Main Street - Railway to Oneida [R]	700,000										**700,000**	(525,000)				(175,000)	
Total Replacement/State of Good Repair	700,000										**700,000**	(525,000)				(175,000)	
New/Enhanced Service																	
Operations Control Building Expansion [WW]	45,000										**45,000**			(11,250)		(33,750)	
Total New/Enhanced Service	45,000										**45,000**			(11,250)		(33,750)	
Total Hagersville Water	745,000										**745,000**	(525,000)		(11,250)		(208,750)	
Dunnville Water																	
Replacement/State of Good Repair																	
Alder St - Cedar to West (WW S R)	50,000	400,000	450,000								**900,000**	(900,000)					
Total Replacement/State of Good Repair	50,000	400,000	450,000								**900,000**	(900,000)					
Total Dunnville Water	50,000	400,000	450,000								**900,000**	(900,000)					
Total Water - Replacement and Upgrade Projects	992,000	515,000	565,000	115,000	526,000	700,000	700,000	700,000	700,000	700,000	**6,213,000**	(1,425,000)		(684,600)		(4,103,400)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Version: Draft Budget

Division: Water - Technical Reviews and Studies

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Water - Technical Reviews and Studies																	
Water Operations Administration																	
Replacement/State of Good Repair																	
Facility Condition Assessment [WW]	25,000	25,000	25,000		25,000		25,000		25,000		**150,000**					(150,000)	
SCADA Master Plan					35,000					35,000	**70,000**			(14,700)		(55,300)	
Asbestos Annual Inspection and Remediation [WW]	6,160	6,160	6,160	6,160	6,160	6,160	6,160	6,160	6,160	6,160	**61,600**					(61,600)	
Total Replacement/State of Good Repair	31,160	31,160	31,160	6,160	66,160	6,160	31,160	6,160	31,160	41,160	**281,600**			(14,700)		(266,900)	
Total Water Operations Administration	31,160	31,160	31,160	6,160	66,160	6,160	31,160	6,160	31,160	41,160	**281,600**			(14,700)		(266,900)	
Caledonia Water																	
Replacement/State of Good Repair																	
MSP - Update [WW][R][SS]				50,000					50,000		**100,000**			(75,000)		(25,000)	
Total Replacement/State of Good Repair				50,000					50,000		**100,000**			(75,000)		(25,000)	
Total Caledonia Water				50,000					50,000		**100,000**			(75,000)		(25,000)	
Hagersville Water																	
Replacement/State of Good Repair																	
MSP - Update [WW][R][SS]	25,000					25,000					**50,000**			(25,000)		(25,000)	
Total Replacement/State of Good Repair	25,000					25,000					**50,000**			(25,000)		(25,000)	
Total Hagersville Water	25,000					25,000					**50,000**			(25,000)		(25,000)	
Jarvis Water																	
Replacement/State of Good Repair																	
MSP Update [WW][R][SS]		20,000					20,000				**40,000**			(20,000)		(20,000)	
Total Replacement/State of Good Repair		20,000					20,000				**40,000**			(20,000)		(20,000)	
Total Jarvis Water		20,000					20,000				**40,000**			(20,000)		(20,000)	
Cayuga Water																	
Replacement/State of Good Repair																	
MSP Update [WW][R][SS]		25,000					25,000				**50,000**			(25,000)		(25,000)	
Total Replacement/State of Good Repair		25,000					25,000				**50,000**			(25,000)		(25,000)	
Total Cayuga Water		25,000					25,000				**50,000**			(25,000)		(25,000)	
Dunnville Water																	
Replacement/State of Good Repair																	
MSP - Update [WW][R][SS]	30,000					30,000					**60,000**			(30,000)		(30,000)	
Total Replacement/State of Good Repair	30,000					30,000					**60,000**			(30,000)		(30,000)	
Total Dunnville Water	30,000					30,000					**60,000**			(30,000)		(30,000)	
Total Water - Technical Reviews and Studies	86,160	76,160	31,160	56,160	66,160	61,160	76,160	6,160	81,160	41,160	**581,600**			(189,700)		(391,900)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Version: Draft Budget

Division: Water - Plants/Transmission Systems

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Water - Plants/Transmission Systems																	
Water Operations Administration																	
Replacement/State of Good Repair																	
Plant Optimization Program Implementation	60,000										**60,000**			(9,000)		(51,000)	
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)	
Plant Capital Improvements					2,015,000	1,895,500	2,139,000	2,015,000	2,165,000	415,000	**10,644,500**	(5,386,250)		(1,312,350)		(3,945,900)	
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)	
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)	
Total Replacement/State of Good Repair	170,000	110,000	110,000	110,000	2,125,000	2,005,500	2,249,000	2,125,000	2,275,000	525,000	**11,804,500**	(5,386,250)		(1,468,350)		(4,949,900)	
Total Water Operations Administration	170,000	110,000	110,000	110,000	2,125,000	2,005,500	2,249,000	2,125,000	2,275,000	525,000	**11,804,500**	(5,386,250)		(1,468,350)		(4,949,900)	
Caledonia Water																	
Replacement/State of Good Repair																	
Reservoir Roof Replacement	35,000										**35,000**					(35,000)	
Reservoir-SCADA Computer & Network Replmt				16,500							**16,500**			(3,470)		(13,030)	
Online Analyzer Replacements			30,000								**30,000**					(30,000)	
Chemical Dosing Equipment Replacement					25,000						**25,000**					(25,000)	
Elevated Tank		115,000	5,000,000								**5,115,000**	(2,046,000)		(3,069,000)			
Chloramination Feasibility Study					35,000						**35,000**			(8,750)		(26,250)	
Total Replacement/State of Good Repair	35,000	115,000	5,030,000	16,500	60,000						**5,256,500**	(2,046,000)		(3,081,220)		(129,280)	
Total Caledonia Water	35,000	115,000	5,030,000	16,500	60,000						**5,256,500**	(2,046,000)		(3,081,220)		(129,280)	
Hagersville Water																	
Replacement/State of Good Repair																	
Booster Stn Roof Replacement		33,000									**33,000**					(33,000)	
Standpipe Coating Maintenance						250,000					**250,000**	(250,000)					
Total Replacement/State of Good Repair		33,000				250,000					**283,000**	(250,000)				(33,000)	
Total Hagersville Water		33,000				250,000					**283,000**	(250,000)				(33,000)	
Cayuga Water																	
Replacement/State of Good Repair																	
Standpipe Rehab'n & Mix Sytm	950,000										**950,000**	(712,500)				(237,500)	
Reservoir Roof Replacement			58,000								**58,000**					(58,000)	
Reservoir Pump Rebuild/Replacement		20,000	20,000								**40,000**					(40,000)	
Reservoir-SCADA Computer & Network Replmt				6,500							**6,500**			(1,370)		(5,130)	
Online Analyzer Replacements		25,000									**25,000**					(25,000)	
Chemical Dosing Equipment						10,000					**10,000**					(10,000)	
Total Replacement/State of Good Repair	950,000	45,000	78,000	6,500		10,000					**1,089,500**	(712,500)		(1,370)		(375,630)	
Total Cayuga Water	950,000	45,000	78,000	6,500		10,000					**1,089,500**	(712,500)		(1,370)		(375,630)	
Dunnville Water																	
Replacement/State of Good Repair																	
Filters 1 and 2, Air Scour, underdrain	408,000										**408,000**	(408,000)					
Granular Activated Carbon change out		90,000			90,000			90,000			**270,000**					(270,000)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Version: Draft Budget

Division: Water - Plants/Transmission Systems

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Rehabilitate Backwash Filter Room	550,000										**550,000**	(412,500)				(137,500)	
Pt Maitland Transmission Main Valve Chamber Rpr Pgm	35,000	35,000									**70,000**		(2,220)			(67,780)	
Pt Maitland Genset Replacement	200,000										**200,000**	(193,650)	(6,350)				
WTP SCADA Computer & Network Replmt				3,000			9,000				**12,000**			(2,520)		(9,480)	
Structural Repairs		130,000									**130,000**					(130,000)	
Dunv WTP Reservoir Clean Out	15,000										**15,000**					(15,000)	
Lab Equipment and Lab Ware Replacements	10,000										**10,000**					(10,000)	
WTP Lab Refurbishment	20,000										**20,000**					(20,000)	
Port Maitland Transformer Replacement	45,000										**45,000**		(1,430)			(43,570)	
WTP Window Replacements			30,000								**30,000**					(30,000)	
Filter 3, 4 & 5 Effluent Valve Replacements	27,000										**27,000**					(27,000)	
Pt Maitland Industrial Pump Replacements	285,000										**285,000**		(285,000)				
Safety Rail Replacements	5,000										**5,000**					(5,000)	
High Lift Pumps 1&3 Check Valve Replacement	32,500										**32,500**					(32,500)	
Flow Meter Replacement/Repairs	10,000										**10,000**					(10,000)	
Backwash Pump 2 Rebuild	35,000										**35,000**					(35,000)	
Total Replacement/State of Good Repair	1,677,500	255,000	30,000	3,000	90,000		9,000	90,000			**2,154,500**	(1,014,150)	(295,000)	(2,520)		(842,830)	
New/Enhanced Service																	
Clarifier Cleaning System	10,000										**10,000**					(10,000)	
Pre-Treatment Upgrades		200,000									**200,000**	(200,000)					
WTP Reservoir Expansion										1,750,000	**1,750,000**			(1,750,000)			
Total New/Enhanced Service	10,000	200,000								1,750,000	**1,960,000**	(200,000)		(1,750,000)		(10,000)	
Total Dunnville Water	1,687,500	455,000	30,000	3,000	90,000		9,000	90,000		1,750,000	**4,114,500**	(1,214,150)	(295,000)	(1,752,520)		(852,830)	
Townsend Water																	
Replacement/State of Good Repair																	
Townsend Standpipe Coating Maintenance	250,000										**250,000**	(250,000)					
Total Replacement/State of Good Repair	250,000										**250,000**	(250,000)					
Total Townsend Water	250,000										**250,000**	(250,000)					
Nanticoke Water																	
Replacement/State of Good Repair																	
Filter Media Replacement				60,000				60,000			**120,000**					(120,000)	
Replace Air Handling Units-Indus Pump'g Stn	75,000										**75,000**		(50,000)			(25,000)	
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)	
US Steel 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)				
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)				
Transmission Main Valve Chamber Repr Pgm	35,000	35,000	35,000								**105,000**					(105,000)	
Turbidity Meter Replmt			12,000								**12,000**					(12,000)	
Lowlift Pump Replmt			375,000								**375,000**	(225,000)		(150,000)			
US Steel Transmission Main Leak Detection		65,000									**65,000**		(65,000)				
SCADA Computer & Network Replmt	12,000	11,000				9,500	17,000				**49,500**			(10,390)		(39,110)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Version: Draft Budget

Division: Water - Plants/Transmission Systems

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Safety Railing Replmts	5,000	5,000									**10,000**		(2,220)			(7,780)	
Primary Disinfection Chem Feed System Replmt	141,000										**141,000**	(75,050)				(65,950)	
Operations Room Refurbishment	55,000										**55,000**					(55,000)	
Exterior Lighting Replacements	18,000										**18,000**		(4,000)			(14,000)	
Structural Repairs	30,000	50,000									**80,000**		(71,080)			(8,920)	
Decommissioning of Interim WTP & Bldg Rehab	115,000										**115,000**					(115,000)	
West Reservoir Rehab	110,000										**110,000**	(82,500)				(27,500)	
Buried Diesel Tank Removal	18,000										**18,000**					(18,000)	
Automatic Front Gate	55,000										**55,000**		(48,870)			(6,130)	
Reservoir Baffling and Transfer System	350,000										**350,000**	(262,500)		(52,500)		(35,000)	
IPS Travelling Screen Refurbishment		48,000									**48,000**		(42,650)			(5,350)	
Low Lift Online Analyzer Replacements		25,000									**25,000**					(25,000)	
Lagoon Outfall Inspection & Repairs	10,000										**10,000**					(10,000)	
Reservoir Tracer Study (Post WTP Upgrades)	8,500										**8,500**			(1,280)		(7,220)	
IPS Water Main Condition Assessment	22,500										**22,500**		(22,500)				
IPS Automation Improvements	45,000										**45,000**		(45,000)				
IPS Automation Improvements Ph 2		35,000									**35,000**		(35,000)				
Concrete Curb & Sidewalk Repairs		15,000									**15,000**					(15,000)	
IPS Roof Access Hatch Replacements		320,500									**320,500**		(284,750)			(35,750)	
WTP Residuals Lagoon Structural Repairs			70,000								**70,000**					(70,000)	
Total Replacement/State of Good Repair	1,230,000	734,500	617,000	185,000	125,000	134,500	142,000	185,000	125,000	125,000	**3,603,000**	(645,050)	(1,471,070)	(214,170)		(1,272,710)	
New/Enhanced Service																	
Filter Building Hoist	27,000										**27,000**					(27,000)	
OPG Forebay Isolation Baffle		275,000									**275,000**		(137,500)			(137,500)	
Pre-Treatment Upgrades			200,000								**200,000**	(200,000)					
Total New/Enhanced Service	27,000	275,000	200,000								**502,000**	(200,000)	(137,500)			(164,500)	
Total Nanticoke Water	1,257,000	1,009,500	817,000	185,000	125,000	134,500	142,000	185,000	125,000	125,000	**4,105,000**	(845,050)	(1,608,570)	(214,170)		(1,437,210)	
Total Water - Plants/Transmission Systems	4,349,500	1,767,500	6,065,000	321,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	**26,903,000**	(10,703,950)	(1,903,570)	(6,517,630)		(7,777,850)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Version: Draft Budget

Division: SUMMARY-Wastewater

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Wastewater - Replacement and Upgrade Projects	573,000	775,000	433,000	275,000	370,000	600,000	600,000	600,000	600,000	600,000	**5,426,000**	(1,850,000)		(532,350)		(3,043,650)	
Wastewater - Technical Reviews and Studies	205,590	167,590	102,590	162,590	112,590	167,590	117,590	102,590	137,590	137,590	**1,413,900**			(251,800)		(1,162,100)	
Wastewater - Plants	6,162,100	1,183,000	3,447,300	3,547,500	2,715,100	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	**29,555,000**	(4,530,820)		(3,873,820)		(16,390,360)	(4,760,000)
Total SUMMARY-Wastewater	6,940,690	2,125,590	3,982,890	3,985,090	3,197,690	3,267,590	3,217,590	3,202,590	3,237,590	3,237,590	**36,394,900**	(6,380,820)		(4,657,970)		(20,596,110)	(4,760,000)

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Run Date: 11/22/16 3:11 PM

Version: Draft Budget

Division: Wastewater - Replacement and Upgrade Projects

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Wastewater - Replacement and Upgrade Projects																	
Sewer Operations Administration																	
Replacement/State of Good Repair																	
Collection System - Annual Repair & Replac't	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	**750,000**					(750,000)	
Future Wastewater Main Projects						325,000	412,000	325,000	412,000	325,000	**1,799,000**			(269,850)		(1,529,150)	
Composite Sampler-Replacement Program	38,000		38,000		38,000		38,000		38,000		**190,000**					(190,000)	
Sewer Manhole Repairs (I&I)	75,000		75,000		75,000		75,000		75,000		**375,000**			(56,250)		(318,750)	
Sanitary Sewer Rehabilitations (I&I)	250,000	250,000		200,000		200,000		200,000		200,000	**1,300,000**	(1,105,000)		(195,000)			
Total Replacement/State of Good Repair	438,000	325,000	188,000	275,000	188,000	600,000	600,000	600,000	600,000	600,000	**4,414,000**	(1,105,000)		(521,100)		(2,787,900)	
Total Sewer Operations Administration	438,000	325,000	188,000	275,000	188,000	600,000	600,000	600,000	600,000	600,000	**4,414,000**	(1,105,000)		(521,100)		(2,787,900)	
Caledonia Sewer																	
Replacement/State of Good Repair																	
Caithness W Recons-Firehall-Ross [R][W][SS]					182,000						**182,000**					(182,000)	
Argyle Street North Sewer Repair (MTO)	35,000										**35,000**					(35,000)	
Argyle Bridge Sanitary Sewer Relocation [W]	5,000										**5,000**					(5,000)	
Total Replacement/State of Good Repair	40,000				182,000						**222,000**					(222,000)	
Total Caledonia Sewer	40,000				182,000						**222,000**					(222,000)	
Hagersville Sewer																	
New/Enhanced Service																	
Operations Control Building Expansion [W]	45,000										**45,000**			(11,250)		(33,750)	
Total New/Enhanced Service	45,000										**45,000**			(11,250)		(33,750)	
Total Hagersville Sewer	45,000										**45,000**			(11,250)		(33,750)	
Dunnville Sewer																	
Replacement/State of Good Repair																	
Alder St - Cedar to West (W S R)	50,000	450,000	245,000								**745,000**	(745,000)					
Total Replacement/State of Good Repair	50,000	450,000	245,000								**745,000**	(745,000)					
Total Dunnville Sewer	50,000	450,000	245,000								**745,000**	(745,000)					
Total Wastewater - Replacement and Upgrade Projects	573,000	775,000	433,000	275,000	370,000	600,000	600,000	600,000	600,000	600,000	**5,426,000**	(1,850,000)		(532,350)		(3,043,650)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Version: Draft Budget

Division: Wastewater - Technical Reviews and Studies

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Wastewater - Technical Reviews and Studies																	
Sewer Operations Administration																	
Replacement/State of Good Repair																	
Inflow & Infiltration Program Support	45,000	45,000	20,000	30,000	20,000	30,000	20,000	20,000	30,000	20,000	**280,000**			(42,000)		(238,000)	
Facility Condition Assessment [W]	25,000	25,000	25,000	25,000		25,000		25,000		25,000	**175,000**					(175,000)	
SCADA Master Plan Optimization					35,000					35,000	**70,000**			(16,800)		(53,200)	
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)	
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)	
Asbestos Annual Inspection and Remediation [W]	7,590	7,590	7,590	7,590	7,590	7,590	7,590	7,590	7,590	7,590	**75,900**					(75,900)	
Total Replacement/State of Good Repair	127,590	127,590	102,590	112,590	112,590	112,590	77,590	102,590	87,590	137,590	**1,100,900**			(58,800)		(1,042,100)	
New/Enhanced Service																	
Effluent Water Quality & Impact Assessment	23,000										**23,000**			(23,000)			
Total New/Enhanced Service	23,000										**23,000**			(23,000)			
Total Sewer Operations Administration	150,590	127,590	102,590	112,590	112,590	112,590	77,590	102,590	87,590	137,590	**1,123,900**			(81,800)		(1,042,100)	
Caledonia Sewer																	
Replacement/State of Good Repair																	
MSP - Update [W][R][SS]				50,000					50,000		**100,000**			(75,000)		(25,000)	
Total Replacement/State of Good Repair				50,000					50,000		**100,000**			(75,000)		(25,000)	
Total Caledonia Sewer				50,000					50,000		**100,000**			(75,000)		(25,000)	
Hagersville Sewer																	
Replacement/State of Good Repair																	
MSP - Update [W][R][SS]	25,000					25,000					**50,000**			(25,000)		(25,000)	
Total Replacement/State of Good Repair	25,000					25,000					**50,000**			(25,000)		(25,000)	
Total Hagersville Sewer	25,000					25,000					**50,000**			(25,000)		(25,000)	
Jarvis Sewer																	
Replacement/State of Good Repair																	
MSP Update [W][R][SS]		15,000					15,000				**30,000**			(15,000)		(15,000)	
Total Replacement/State of Good Repair		15,000					15,000				**30,000**			(15,000)		(15,000)	
Total Jarvis Sewer		15,000					15,000				**30,000**			(15,000)		(15,000)	
Cayuga Sewer																	
Replacement/State of Good Repair																	
MSP Update [W][R][SS]		25,000					25,000				**50,000**			(25,000)		(25,000)	
Total Replacement/State of Good Repair		25,000					25,000				**50,000**			(25,000)		(25,000)	
Total Cayuga Sewer		25,000					25,000				**50,000**			(25,000)		(25,000)	
Dunnville Sewer																	
Replacement/State of Good Repair																	
MSP - Update [W][R][SS]	30,000					30,000					**60,000**			(30,000)		(30,000)	
Total Replacement/State of Good Repair	30,000					30,000					**60,000**			(30,000)		(30,000)	
Total Dunnville Sewer	30,000					30,000					**60,000**			(30,000)		(30,000)	
Total Wastewater - Technical Reviews and Studies	205,590	167,590	102,590	162,590	112,590	167,590	117,590	102,590	137,590	137,590	**1,413,900**			(251,800)		(1,162,100)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Version: Draft Budget

Division: Wastewater - Plants

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Wastewater - Plants																	
Sewer Operations Administration																	
Replacement/State of Good Repair																	
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)	
Plant Capital Improvements						1,729,000	1,744,000	1,940,000	2,040,000	2,040,000	**9,493,000**	(2,269,720)		(142,400)		(7,080,880)	
Plant Optimization Program Implementation	35,000										**35,000**			(5,250)		(29,750)	
SCADA Technical Support	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	**500,000**			(120,000)		(380,000)	
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)	
Total Replacement/State of Good Repair	145,000	110,000	110,000	110,000	110,000	1,839,000	1,854,000	2,050,000	2,150,000	2,150,000	**10,628,000**	(2,269,720)		(315,650)		(8,042,630)	
New/Enhanced Service																	
Pump Station Repairs/Replacement		250,000	250,000	250,000							**750,000**			(75,000)		(675,000)	
Total New/Enhanced Service		250,000	250,000	250,000							**750,000**			(75,000)		(675,000)	
Total Sewer Operations Administration	145,000	360,000	360,000	360,000	110,000	1,839,000	1,854,000	2,050,000	2,150,000	2,150,000	**11,378,000**	(2,269,720)		(390,650)		(8,717,630)	
Caledonia Sewer																	
Replacement/State of Good Repair																	
Effluent Water System				75,000							**75,000**					(75,000)	
Blower Replmts				300,000							**300,000**					(300,000)	
Filter Building Ventiliation	115,000										**115,000**					(115,000)	
Remotes – Control Equipment Replmt							45,000				**45,000**					(45,000)	
WWTP – SCADA Computer & Network Replmt		20,000					20,000				**40,000**			(9,600)		(30,400)	
Primary Sludge Pump Replacements	36,000	36,000									**72,000**					(72,000)	
Filter Media Replacement	60,000										**60,000**					(60,000)	
Total Replacement/State of Good Repair	211,000	56,000		375,000			65,000				**707,000**			(9,600)		(697,400)	
New/Enhanced Service																	
Aeration Diffuser Head Upgrades	325,000										**325,000**			(325,000)			
Sludge Storage Tank Retrofit				175,000							**175,000**			(87,500)		(87,500)	
WWTP Wet Well Expansion		20,000	150,000	1,200,000							**1,370,000**			(1,370,000)			
Caustic Soda Storage Tank	8,500										**8,500**					(8,500)	
Total New/Enhanced Service	333,500	20,000	150,000	1,375,000							**1,878,500**			(1,782,500)		(96,000)	
Total Caledonia Sewer	544,500	76,000	150,000	1,750,000			65,000				**2,585,500**			(1,792,100)		(793,400)	
Hagersville Sewer																	
Replacement/State of Good Repair																	
Secondary Clarifier Refurbishment	80,000										**80,000**					(80,000)	
Safety Grating Replacements	10,000										**10,000**					(10,000)	
Remotes–Control Equipment Replacement(SCADA)			135,000				90,000				**225,000**			(54,000)		(171,000)	
WWTP SCADA Computer & Network Replmt		90,000					16,000				**106,000**			(25,440)		(80,560)	
Digester Inspection	8,000										**8,000**					(8,000)	
Total Replacement/State of Good Repair	98,000	90,000	135,000				106,000				**429,000**			(79,440)		(349,560)	
New/Enhanced Service																	
Grit Removal System					1,015,100						**1,015,100**			(322,600)		(692,500)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Version: Draft Budget

Division: Wastewater - Plants

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Digester Covers and Insulation					450,000						**450,000**	(360,000)		(90,000)			
Total New/Enhanced Service					1,465,100						**1,465,100**	(360,000)		(412,600)		(692,500)	
Total Hagersville Sewer	98,000	90,000	135,000		1,465,100		106,000				**1,894,100**	(360,000)		(492,040)		(1,042,060)	
Jarvis Sewer																	
Replacement/State of Good Repair																	
Jarvis Lagoon Clean Out								450,000			**450,000**					(450,000)	
Total Replacement/State of Good Repair								450,000			**450,000**					(450,000)	
New/Enhanced Service																	
Jarvis PS EQ Tank and Pretreatment Ph 2		175,000	2,350,000								**2,525,000**	(1,025,000)		(300,000)		(1,200,000)	
Total New/Enhanced Service		175,000	2,350,000								**2,525,000**	(1,025,000)		(300,000)		(1,200,000)	
Total Jarvis Sewer		175,000	2,350,000					450,000			**2,975,000**	(1,025,000)		(300,000)		(1,650,000)	
Cayuga Sewer																	
Replacement/State of Good Repair																	
Ouse St PS Replacements			100,000	800,000							**900,000**			(306,000)		(594,000)	
PS SCADA Replacements			130,000								**130,000**			(31,200)		(98,800)	
WWTP SCADA Computer & Network Replmt	15,000					16,000					**31,000**			(7,440)		(23,560)	
Equalization Tank Clean Out & Inspection	15,000										**15,000**					(15,000)	
McKay Pump Stn Level Control Replacement	23,000										**23,000**					(23,000)	
Chemical Storage Improvements	25,000										**25,000**					(25,000)	
Total Replacement/State of Good Repair	78,000		230,000	800,000		16,000					**1,124,000**			(344,640)		(779,360)	
New/Enhanced Service																	
Ouse St Forcemain Twinning			34,300	300,000							**334,300**	(221,100)		(113,200)			
Twinning of Headworks Screen				275,000							**275,000**	(275,000)					
Total New/Enhanced Service			34,300	575,000							**609,300**	(496,100)		(113,200)			
Total Cayuga Sewer	78,000		264,300	1,375,000		16,000					**1,733,300**	(496,100)		(457,840)		(779,360)	
Dunnville Sewer																	
Replacement/State of Good Repair																	
WWTP Replacements	5,215,600										**5,215,600**			(251,800)		(203,800)	(4,760,000)
WWTP SCADA Replacements		220,000		16,500							**236,500**			(56,760)		(179,740)	
PS SCADA Replacements					140,000						**140,000**			(33,600)		(106,400)	
Blower Replacement					600,000						**600,000**					(600,000)	
Secondary Clarifier Repairs		125,000	125,000								**250,000**					(250,000)	
WWTP SCADA Computer & Network Replmt			17,000								**17,000**			(4,030)		(12,970)	
Hauled Waste Tank Clean Out/Inspection		12,000									**12,000**					(12,000)	
Digester Clean Out & Inspection		18,000									**18,000**					(18,000)	
Odour Control Media Replacement	16,000										**16,000**					(16,000)	
Aeration Diffuser System Replacement					400,000						**400,000**					(400,000)	
Oswego Lagoon Pump Replacements	35,000										**35,000**					(35,000)	
Low Lift Pump Replacements		46,000	46,000	46,000							**138,000**					(138,000)	
Aeration Tanks Clean Out & Inspection		18,000									**18,000**					(18,000)	

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

Version: Draft Budget

Division: Wastewater - Plants

Haldimand County

2017 to 2026 CAPITAL FORECAST

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total Expenditures**	Grants Subsidies	External Financing	Development Charges Rsve Funds	Community Vibrancy Rsve Fund	Reserves/ Reserve Funds	Debenture Financing
Broad St. Pump Station Replacements		21,000									**21,000**					(21,000)	
Total Replacement/State of Good Repair	5,266,600	460,000	188,000	62,500	1,140,000						**7,117,100**			(346,190)		(2,010,910)	(4,760,000)
New/Enhanced Service																	
Digester Cover & Insulation							475,000				**475,000**	(380,000)		(95,000)			
Hauled Waste Pump VFD's		22,000									**22,000**					(22,000)	
Total New/Enhanced Service		22,000					475,000				**497,000**	(380,000)		(95,000)		(22,000)	
Total Dunnville Sewer	5,266,600	482,000	188,000	62,500	1,140,000		475,000				**7,614,100**	(380,000)		(441,190)		(2,032,910)	(4,760,000)
Townsend Sewer																	
Replacement/State of Good Repair																	
Townsend Lagoon Clean Out						370,000				350,000	**720,000**					(720,000)	
Effluent Discharge Crib Replacements	30,000										**30,000**					(30,000)	
Total Replacement/State of Good Repair	30,000					370,000				350,000	**750,000**					(750,000)	
Total Townsend Sewer	30,000					370,000				350,000	**750,000**					(750,000)	
Oswego Park Sewer																	
Replacement/State of Good Repair																	
Oswego Lagoon Clean Out						275,000					**275,000**					(275,000)	
Total Replacement/State of Good Repair						275,000					**275,000**					(275,000)	
Total Oswego Park Sewer						275,000					**275,000**					(275,000)	
Nanticoke Sewer																	
Replacement/State of Good Repair																	
LEIP Lagoon Clean Out									350,000		**350,000**					(350,000)	
Total Replacement/State of Good Repair									350,000		**350,000**					(350,000)	
Total Nanticoke Sewer									350,000		**350,000**					(350,000)	
Total Wastewater - Plants	6,162,100	1,183,000	3,447,300	3,547,500	2,715,100	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	**29,555,000**	(4,530,820)		(3,873,820)		(16,390,360)	(4,760,000)

Note: (W) Water; (WW) Wastewater; (SS) Storm Sewer; (R) Roads

WATER & WASTEWATER OPERATING

Haldimand County 2017 Draft Rate Supported Operating Budget

Water and Wastewater Summary

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

Services:
The Water & Waste Water Operations Division is committed to providing safe, efficient, effective and environmentally responsible operation of the county's Water, Waste Water 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 seven water distribution systems, including fire hydrants and water meters
- Contract administration for the eight Waste Water Treatment Facilities within the County
- Operation and maintenance of the County's seven waste water collection systems
- Operation and maintenance of the County's seven 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, waste water and storm facilities
- Assessment of short term and long term capital requirements for the water and waste water and urban storm sewer requirements in conjunction with the Engineering and Infrastructure Division

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 Waste Water Treatment Facilities. Continuation of upgrade projects in the water and wastewater treatment facilities and enhanced operations for the newly constructed Nanticoke Water Treatment Facility to ensure capable production of safe reliable water in sufficient quantity to meet system requirements.

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

Haldimand County 2017 Rate Supported Operating Budget

Water and Wastewater Summary

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
Salaries, Wages & Benefits	2,228,256	2,203,130	2,262,270	48,350	164,020	2,474,640	271,510	12.32
Supplies & Materials	172,038	149,380	147,020	420	320	147,760	(1,620)	(1.08)
Hamilton Water Supply	2,348,400	2,348,400	2,346,200			2,346,200	(2,200)	(0.09)
Services	4,966,653	4,644,380	5,007,960		4,320	5,012,280	367,900	7.92
Veolia Operating Services Charges	4,398,900	4,398,900	4,506,610			4,506,610	107,710	2.45
Interdepartmental Charges	596,671	634,430	612,860		13,810	626,670	(7,760)	(1.22)
Long Term Debt Charges	1,641,886	1,641,940	1,582,570			1,582,570	(59,370)	(3.62)
Transfers to Reserves/Reserve Funds	3,854,034	3,848,780	4,249,120			4,249,120	400,340	10.40
TOTAL EXPENDITURES	**20,206,838**	**19,869,340**	**20,714,610**	**48,770**	**182,470**	**20,945,850**	**1,076,510**	**5.42**
REVENUES:								
Revenue Required from User Rates	(11,917,613)	(11,526,620)	(11,775,630)	(48,770)	(166,760)	(11,991,160)	(464,540)	4.03
Municipal Recoveries	(73,434)	(77,900)	(74,100)			(74,100)	3,800	(4.88)
Recoveries from New Credit	(235,539)	(189,400)	(210,900)			(210,900)	(21,500)	11.35
Fees & Recoveries	(8,086,998)	(7,665,040)	(8,250,840)		(15,710)	(8,266,550)	(601,510)	7.85
Transfers from Reserves/Reserve Funds	(409,884)	(410,380)	(403,140)			(403,140)	7,240	(1.76)
TOTAL REVENUES	**(20,723,468)**	**(19,869,340)**	**(20,714,610)**	**(48,770)**	**(182,470)**	**(20,945,850)**	**(1,076,510)**	**5.42**
NET REVENUE Required from User Rates	**(516,630)**							
STAFFING (stated in FTE)								
Full Time		**24.08**	**24.25**	**0.30**	**2.00**	**26.55**		
Part Time &/or Temporary F/T		**0.29**	**0.26**			**0.26**		

Haldimand County 2017 Rate Supported Operating Budget

Water Summary

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
Salaries, Wages & Benefits	1,608,052	1,564,890	1,632,590	31,690	119,700	1,783,980	219,090	14.00
Supplies & Materials	146,373	127,240	127,280	210	210	127,700	460	0.36
Hamilton Water Supply	2,348,400	2,348,400	2,346,200			2,346,200	(2,200)	(0.09)
Services	3,382,848	3,118,210	3,401,180		2,560	3,403,740	285,530	9.16
Veolia Operating Services Charges	2,042,170	2,042,170	2,100,430			2,100,430	58,260	2.85
Interdepartmental Charges	340,311	364,540	349,530		8,420	357,950	(6,590)	(1.81)
Long Term Debt Charges	344,243	344,260	337,300			337,300	(6,960)	(2.02)
Transfers to Reserves/Reserve Funds	1,591,630	1,591,630	1,870,600			1,870,600	278,970	17.53
TOTAL EXPENDITURES	**11,804,027**	**11,501,340**	**12,165,110**	**31,900**	**130,890**	**12,327,900**	**826,560**	**7.19**
REVENUES:								
Revenue Required from User Rates	(5,990,220)	(5,598,490)	(5,556,250)	(31,900)	(122,660)	(5,710,810)	(112,320)	2.01
Recoveries from New Credit	(235,143)	(189,100)	(210,600)			(210,600)	(21,500)	11.37
Fees & Recoveries	(6,170,503)	(5,713,750)	(6,398,260)		(8,230)	(6,406,490)	(692,740)	12.12
TOTAL REVENUES	**(12,395,866)**	**(11,501,340)**	**(12,165,110)**	**(31,900)**	**(130,890)**	**(12,327,900)**	**(826,560)**	**7.19**
NET REVENUE Required from User Rates	**(591,839)**							
STAFFING (stated in FTE)								
Full Time		**17.14**	**17.72**	**0.20**	**1.44**	**19.36**		
Part Time &/or Temporary F/T		**0.19**	**0.17**			**0.17**		

Haldimand County 2017 Rate Supported Operating Budget

Water Administration

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
Salaries, Wages & Benefits	684,041	669,790	701,970	31,690	53,340	787,000	117,210	17.50
Supplies & Materials	3,700	4,000	3,540	30	210	3,780	(220)	(5.50)
Services	234,572	257,120	261,810		1,360	263,170	6,050	2.35
Interdepartmental Charges	104,960	105,110	107,100			107,100	1,990	1.89
TOTAL EXPENDITURES	**1,027,273**	**1,036,020**	**1,074,420**	**31,720**	**54,910**	**1,161,050**	**125,030**	**12.07**
REVENUES:								
TOTAL REVENUES								
NET REVENUE Required from User Rates	**1,027,273**	**1,036,020**	**1,074,420**	**31,720**	**54,910**	**1,161,050**	**125,030**	**12.07**
STAFFING (stated in FTE)								
Full Time		**6.62**	**6.62**	**0.20**	**0.65**	**7.47**		
Part Time &/or Temporary F/T		**0.19**	**0.17**			**0.17**		

Haldimand County 2017 Rate Supported Operating Budget

Water Financial Administration

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
Services	231,382	219,490	214,670			214,670	(4,820)	(2.20)
Interdepartmental Charges	137,460	136,010	140,270			140,270	4,260	3.13
Long Term Debt Charges	344,243	344,260	337,300			337,300	(6,960)	(2.02)
Transfers to Reserves/Reserve Funds	1,569,560	1,569,560	1,549,310			1,549,310	(20,250)	(1.29)
TOTAL EXPENDITURES	**2,282,645**	**2,269,320**	**2,241,550**			**2,241,550**	**(27,770)**	**(1.22)**
REVENUES:								
Fees & Recoveries	(11,517)	(30)	(9,350)			(9,350)	(9,320)	31,066.67
TOTAL REVENUES	**(11,517)**	**(30)**	**(9,350)**			**(9,350)**	**(9,320)**	**31,066.67**
NET REVENUE Required from User Rates	**2,271,128**	**2,269,290**	**2,232,200**			**2,232,200**	**(37,090)**	**(1.63)**
STAFFING (stated in FTE)								

Haldimand County 2017 Rate Supported Operating Budget

Direct Water Operations

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
Salaries, Wages & Benefits	924,011	895,100	930,620		66,360	996,980	101,880	11.38
Supplies & Materials	142,673	123,240	123,740	180		123,920	680	0.55
Hamilton Water Supply	2,348,400	2,348,400	2,346,200			2,346,200	(2,200)	(0.09)
Services	1,167,335	1,186,480	1,170,390		1,200	1,171,590	(14,890)	(1.25)
Veolia Operating Services Charges	1,315,050	1,315,050	1,378,190			1,378,190	63,140	4.80
Interdepartmental Charges	97,891	123,420	102,160		8,420	110,580	(12,840)	(10.40)
Transfers to Reserves/Reserve Funds	22,070	22,070	321,290			321,290	299,220	1,355.78
TOTAL EXPENDITURES	**6,017,430**	**6,013,760**	**6,372,590**	**180**	**75,980**	**6,448,750**	**434,990**	**7.23**
REVENUES:								
TOTAL REVENUES								
NET REVENUE Required from User Rates	**6,017,430**	**6,013,760**	**6,372,590**	**180**	**75,980**	**6,448,750**	**434,990**	**7.23**
STAFFING (stated in FTE)								
Full Time		**10.52**	**11.10**		**0.79**	**11.89**		

Haldimand County 2017 Rate Supported Operating Budget

Nanticoke Industrial Pumping Station

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
Services	1,749,559	1,455,120	1,754,310			1,754,310	299,190	20.56
Veolia Operating Services Charges	727,120	727,120	722,240			722,240	(4,880)	(0.67)
TOTAL EXPENDITURES	**2,476,679**	**2,182,240**	**2,476,550**			**2,476,550**	**294,310**	**13.49**
REVENUES:								
Fees & Recoveries	(2,526,536)	(2,223,710)	(2,526,550)			(2,526,550)	(302,840)	13.62
TOTAL REVENUES	**(2,526,536)**	**(2,223,710)**	**(2,526,550)**			**(2,526,550)**	**(302,840)**	**13.62**
NET REVENUE Required from User Rates	**(49,857)**	**(41,470)**	**(50,000)**			**(50,000)**	**(8,530)**	**20.57**
STAFFING (stated in FTE)								

Haldimand County 2017 Rate Supported Operating Budget

Water User Fees

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
TOTAL EXPENDITURES								
REVENUES:								
Recoveries from New Credit	(235,143)	(189,100)	(210,600)			(210,600)	(21,500)	11.37
Fees & Recoveries	(3,632,450)	(3,490,010)	(3,862,360)		(8,230)	(3,870,590)	(380,580)	10.90
TOTAL REVENUES	**(3,867,593)**	**(3,679,110)**	**(4,072,960)**		**(8,230)**	**(4,081,190)**	**(402,080)**	**10.93**
NET REVENUE Required from User Rates	**(3,867,593)**	**(3,679,110)**	**(4,072,960)**		**(8,230)**	**(4,081,190)**	**(402,080)**	**10.93**
STAFFING (stated in FTE)								

Haldimand County 2017 Rate Supported Operating Budget

Water User Rates Revenue

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
REVENUES:								
Revenue Required from User Rates								
Base Charge - Residential	(2,174,101)	(2,108,760)	(2,010,190)	(31,900)	(122,660)	(2,164,750)	(55,990)	2.66
Consumption - Residential	(1,393,491)	(1,409,850)	(1,378,900)			(1,378,900)	30,950	(2.20)
Base Charge - Commercial	(646,008)	(690,520)	(690,560)			(690,560)	(40)	0.01
Consumption - Commercial	(1,776,620)	(1,389,360)	(1,476,600)			(1,476,600)	(87,240)	6.28
TOTAL REVENUES	**(5,990,220)**	**(5,598,490)**	**(5,556,250)**	**(31,900)**	**(122,660)**	**(5,710,810)**	**(112,320)**	**2.01**
NET REVENUE Required from User Rates	**(5,990,220)**	**(5,598,490)**	**(5,556,250)**	**(31,900)**	**(122,660)**	**(5,710,810)**	**(112,320)**	**2.01**
STAFFING (stated in FTE)								

Haldimand County 2017 Rate Supported Operating Budget

WasteWater Summary

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
Salaries, Wages & Benefits	620,203	638,240	629,680	16,660	44,320	690,660	52,420	8.21
Supplies & Materials	25,665	22,140	19,740	210	110	20,060	(2,080)	(9.39)
Services	1,583,805	1,526,170	1,606,780		1,760	1,608,540	82,370	5.40
Veolia Operating Services Charges	2,356,730	2,356,730	2,406,180			2,406,180	49,450	2.10
Interdepartmental Charges	256,360	269,890	263,330		5,390	268,720	(1,170)	(0.43)
Long Term Debt Charges	1,297,643	1,297,680	1,245,270			1,245,270	(52,410)	(4.04)
Transfers to Reserves/Reserve Funds	2,262,404	2,257,150	2,378,520			2,378,520	121,370	5.38
TOTAL EXPENDITURES	**8,402,810**	**8,368,000**	**8,549,500**	**16,870**	**51,580**	**8,617,950**	**249,950**	**2.99**
REVENUES:								
Revenue Required from User Rates	(5,927,393)	(5,928,130)	(6,219,380)	(16,870)	(44,100)	(6,280,350)	(352,220)	5.94
Municipal Recoveries	(73,434)	(77,900)	(74,100)			(74,100)	3,800	(4.88)
Recoveries from New Credit	(396)	(300)	(300)			(300)		
Fees & Recoveries	(1,916,495)	(1,951,290)	(1,852,580)		(7,480)	(1,860,060)	91,230	(4.68)
Transfers from Reserves/Reserve Funds	(409,884)	(410,380)	(403,140)			(403,140)	7,240	(1.76)
TOTAL REVENUES	**(8,327,602)**	**(8,368,000)**	**(8,549,500)**	**(16,870)**	**(51,580)**	**(8,617,950)**	**(249,950)**	**2.99**
NET REVENUE Required from User Rates	**75,208**							
STAFFING (stated in FTE)								
Full Time		**6.94**	**6.53**	**0.10**	**0.56**	**7.19**		
Part Time &/or Temporary F/T		**0.10**	**0.09**			**0.09**		

Haldimand County 2017 Rate Supported Operating Budget

Wastewater Administration

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
Salaries, Wages & Benefits	418,741	412,010	428,880	16,660	30,050	475,590	63,580	15.43
Supplies & Materials	2,905	2,300	2,600	30	110	2,740	440	19.13
Services	183,566	179,210	177,450		1,260	178,710	(500)	(0.28)
Interdepartmental Charges	56,440	56,330	57,620			57,620	1,290	2.29
TOTAL EXPENDITURES	**661,652**	**649,850**	**666,550**	**16,690**	**31,420**	**714,660**	**64,810**	**9.97**
REVENUES:								
TOTAL REVENUES								
NET REVENUE Required from User Rates	**661,652**	**649,850**	**666,550**	**16,690**	**31,420**	**714,660**	**64,810**	**9.97**
STAFFING (stated in FTE)								
Full Time		**4.13**	**4.13**	**0.10**	**0.35**	**4.58**		
Part Time &/or Temporary F/T		**0.10**	**0.09**			**0.09**		

Haldimand County 2017 Rate Supported Operating Budget

Wastewater Financial Administration

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
Services	231,306	218,890	214,060			214,060	(4,830)	(2.21)
Interdepartmental Charges	137,450	136,080	140,330			140,330	4,250	3.12
Long Term Debt Charges	1,297,643	1,297,680	1,245,270			1,245,270	(52,410)	(4.04)
Transfers to Reserves/Reserve Funds	2,262,404	2,257,150	2,378,520			2,378,520	121,370	5.38
TOTAL EXPENDITURES	**3,928,803**	**3,909,800**	**3,978,180**			**3,978,180**	**68,380**	**1.75**
REVENUES:								
Fees & Recoveries	(9,457)	(30)	(9,350)			(9,350)	(9,320)	31,066.67
TOTAL REVENUES	**(9,457)**	**(30)**	**(9,350)**			**(9,350)**	**(9,320)**	**31,066.67**
NET REVENUE Required from User Rates	**3,919,346**	**3,909,770**	**3,968,830**			**3,968,830**	**59,060**	**1.51**
STAFFING (stated in FTE)								

Haldimand County 2017 Rate Supported Operating Budget

Direct Wastewater Operations

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
Salaries, Wages & Benefits	201,462	226,230	200,800		14,270	215,070	(11,160)	(4.93)
Supplies & Materials	22,760	19,840	17,140	180		17,320	(2,520)	(12.70)
Services	1,168,933	1,128,070	1,215,270		500	1,215,770	87,700	7.77
Veolia Operating Services Charges	2,356,730	2,356,730	2,406,180			2,406,180	49,450	2.10
Interdepartmental Charges	62,470	77,480	65,380		5,390	70,770	(6,710)	(8.66)
TOTAL EXPENDITURES	**3,812,355**	**3,808,350**	**3,904,770**	**180**	**20,160**	**3,925,110**	**116,760**	**3.07**
REVENUES:								
TOTAL REVENUES								
NET REVENUE Required from User Rates	**3,812,355**	**3,808,350**	**3,904,770**	**180**	**20,160**	**3,925,110**	**116,760**	**3.07**
STAFFING (stated in FTE)								
Full Time		**2.81**	**2.40**		**0.21**	**2.61**		

Haldimand County 2017 Rate Supported Operating Budget

Wastewater User Fees

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
EXPENDITURES:								
TOTAL EXPENDITURES								
REVENUES:								
Municipal Recoveries	(73,434)	(77,900)	(74,100)			(74,100)	3,800	(4.88)
Recoveries from New Credit	(396)	(300)	(300)			(300)		
Fees & Recoveries	(1,907,038)	(1,951,260)	(1,843,230)		(7,480)	(1,850,710)	100,550	(5.15)
Transfers from Reserves/Reserve Funds	(409,884)	(410,380)	(403,140)			(403,140)	7,240	(1.76)
TOTAL REVENUES	**(2,390,752)**	**(2,439,840)**	**(2,320,770)**		**(7,480)**	**(2,328,250)**	**111,590**	**(4.57)**
NET REVENUE Required from User Rates	**(2,390,752)**	**(2,439,840)**	**(2,320,770)**		**(7,480)**	**(2,328,250)**	**111,590**	**(4.57)**
STAFFING (stated in FTE)								

Haldimand County 2017 Rate Supported Operating Budget

Wastewater User Rates Revenue

	2016 Current Forecast	2016 Revised Budget	2017 Base Budget	2017 Cncl. Appr. Initiatives	2017 New Initiatives	2017 Total Budget	2017 Budget $ Incr / (Decr)	2017 Budget % Incr / (Decr)
REVENUES:								
Revenue Required from User Rates								
Base Charge - Residential	(2,351,996)	(2,314,680)	(2,435,600)	(16,870)	(40,730)	(2,493,200)	(178,520)	7.71
Consumption - Residential	(1,857,318)	(1,875,060)	(1,964,580)		(3,370)	(1,967,950)	(92,890)	4.95
Base Charge - Commercial	(594,172)	(649,380)	(643,670)			(643,670)	5,710	(0.88)
Consumption - Commercial	(1,123,907)	(1,089,010)	(1,175,530)			(1,175,530)	(86,520)	7.94
TOTAL REVENUES	**(5,927,393)**	**(5,928,130)**	**(6,219,380)**	**(16,870)**	**(44,100)**	**(6,280,350)**	**(352,220)**	**5.94**
NET REVENUE Required from User Rates	**(5,927,393)**	**(5,928,130)**	**(6,219,380)**	**(16,870)**	**(44,100)**	**(6,280,350)**	**(352,220)**	**5.94**
STAFFING (stated in FTE)								

WATER & WASTEWATER APPENDICES


A GRAND EXPERIENCE
HALDIMAND
COUNTY

HALDIMAND COUNTY

2017 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, based on $650/light
	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 for 2015. 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 (50%) and development (50%) 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


A GRAND EXPERIENCE
HALDIMAND
COUNTY

APPENDIX B

HALDIMAND COUNTY
2017 RATE SUPPORTED BUDGET
Net Capital Financing from Water and Wastewater Rates

	2016			2017			2018			2019			2020			2021			2022			2023			2024			2025			2026		
	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	344,260	887,300	1,231,560	337,290	842,120	1,179,410	249,950	670,140	920,090	247,300	664,880	912,180	244,670	659,700	904,370	86,290	170,530	256,820	83,630	165,300	248,930	80,980	160,050	241,030	0	0	0	0	0	0	0	0	0
- Development related debt repayments	0	410,380	410,380	0	403,140	403,140	0	397,030	397,030	0	390,430	390,430	0	383,890	383,890	0	214,720	214,720	0	208,110	208,110	0	201,500	201,500	0	0	0	0	0	0	0	0	0
- Less funding from:																																	
- Develop. Charges Reserve Fund	0	(410,380)	(410,380)	0	(403,140)	(403,140)	0	(397,030)	(397,030)	0	(390,430)	(390,430)	0	(383,890)	(383,890)	0	(214,720)	(214,720)	0	(208,110)	(208,110)	0	(201,500)	(201,500)	0	0	0	0	0	0	0	0	0
Net Existing Debt Charges	344,260	887,300	1,231,560	337,290	842,120	1,179,410	249,950	670,140	920,090	247,300	664,880	912,180	244,670	659,700	904,370	86,290	170,530	256,820	83,630	165,300	248,930	80,980	160,050	241,030	0	0	0	0	0	0	0	0	0
DEBT CHARGES (Proposed Debt for Active Projects)	0	0	0	0	0	0	762,670	0	762,670	744,970	53,380	798,350	728,410	52,230	780,640	709,210	50,880	760,090	691,580	49,640	741,220	674,170	48,430	722,600	656,630	47,200	703,830	638,810	45,950	684,760	621,230	44,730	665,960
DEBT CHARGES (Proposed Debt for Development Related Ac	0	0	0	0	0	0	536,110	130,950	667,060	523,670	304,020	827,690	512,030	297,390	809,420	498,530	289,610	788,140	486,140	282,510	768,650	473,900	275,520	749,420	461,570	268,470	730,040	449,040	261,280	710,320	436,690	254,230	690,920
OFFSETTING FUNDING for Development Related Active Proje	0	0	0	0	0	0	(536,110)	(130,950)	(667,060)	(523,670)	(304,020)	(827,690)	(512,030)	(297,390)	(809,420)	(498,530)	(289,610)	(788,140)	(486,140)	(282,510)	(768,650)	(473,900)	(275,520)	(749,420)	(461,570)	(268,470)	(730,040)	(449,040)	(261,280)	(710,320)	(436,690)	(254,230)	(690,920)
DEBT CHARGES (Proposed New Debt)	0	0	0	0	0	0	0	0	0	0	615,260	615,260	0	602,020	602,020	0	586,370	586,370	0	572,150	572,150	0	558,140	558,140	0	544,040	544,040	0	529,620	529,620	0	515,510	515,510
DEBT CHARGES (Proposed New Debt for Development Relate	0	0	0	0	0	0	0	0	0	0	73,030	73,030	0	71,460	71,460	396,420	108,350	504,770	387,250	336,330	723,580	407,160	368,330	775,490	397,460	359,620	757,080	387,460	350,610	738,070	377,780	341,960	719,740
OFFSETTING FUNDING for Development Related New Project	0	0	0	0	0	0	0	0	0	0	(73,030)	(73,030)	0	(71,460)	(71,460)	(396,420)	(108,350)	(504,770)	(387,250)	(336,330)	(723,580)	(407,160)	(368,330)	(775,490)	(397,460)	(359,620)	(757,080)	(387,460)	(350,610)	(738,070)	(377,780)	(341,960)	(719,740)
DEBT CHARGES SUB-TOTAL	0	0	0	0	0	0	762,670	0	762,670	744,970	668,640	1,413,610	728,410	654,250	1,382,660	709,210	637,250	1,346,460	691,580	621,790	1,313,370	674,170	606,570	1,280,740	656,630	591,240	1,247,870	638,810	575,570	1,214,380	621,230	560,240	1,181,470
TOTAL DEBT CHARGES	**344,260**	**887,300**	**1,231,560**	**337,290**	**842,120**	**1,179,410**	**1,012,620**	**670,140**	**1,682,760**	**992,270**	**1,333,520**	**2,325,790**	**973,080**	**1,313,950**	**2,287,030**	**795,500**	**807,780**	**1,603,280**	**775,210**	**787,090**	**1,562,300**	**755,150**	**766,620**	**1,521,770**	**656,630**	**591,240**	**1,247,870**	**638,810**	**575,570**	**1,214,380**	**621,230**	**560,240**	**1,181,470**
CAPITAL REPLACEMENT RESERVE FUND																																	
- Budgeted annual contribution	1,399,560	2,084,310	3,483,870	1,479,310	2,171,480	3,650,790	882,360	2,378,530	3,260,890	986,690	1,744,790	2,731,480	1,095,460	1,788,070	2,883,530	1,368,220	2,312,020	3,680,240	1,489,290	2,344,570	3,833,860	1,615,730	2,370,970	3,986,700	1,714,250	2,546,350	4,260,600	1,732,070	2,562,020	4,294,090	1,749,650	2,577,350	4,327,000
TOTAL CAPITAL-RELATED FINANCING:	1,743,820	2,971,610	4,715,430	1,816,600	3,013,600	4,830,200	1,894,980	3,048,670	4,943,650	1,978,960	3,078,310	5,057,270	2,068,540	3,102,020	5,170,560	2,163,720	3,119,800	5,283,520	2,264,500	3,131,660	5,396,160	2,370,880	3,137,590	5,508,470	2,370,880	3,137,590	5,508,470	2,370,880	3,137,590	5,508,470	2,370,880	3,137,590	5,508,470
IMPACT ON USER RATES:																																	
% INCREASE - YEAR TO YEAR	4.30%	-2.71%	-0.23%	4.17%	1.41%	2.43%	4.31%	1.16%	2.35%	4.43%	0.97%	2.30%	4.53%	0.77%	2.24%	4.60%	0.57%	2.18%	4.66%	0.38%	2.13%	4.70%	0.19%	2.08%	0.00%	0.00%	0.00%	0.00%	0.00%	75.56%	0.00%	0.00%	75.56%
$ INCREASE - YEAR TO YEAR	71,910	(82,780)	(10,870)	72,780	41,990	114,770	78,380	35,070	113,450	83,980	29,640	113,620	89,580	23,710	113,290	95,180	17,780	112,960	100,780	11,860	112,640	106,380	5,930	112,310	0	0	0	0	0	0	0	0	0
Net Revenue from User Rates				**5,598,490**	**5,928,130**	**11,526,620**	**5,598,490**	**5,928,130**	**11,526,620**	**5,598,490**	**5,928,130**	**11,526,620**	**5,598,490**	**5,928,130**	**11,526,620**	**5,598,490**	**5,928,130**	**11,526,620**	**5,598,490**	**5,928,130**	**11,526,620**	**5,598,490**	**5,928,130**	**11,526,620**	**5,598,490**	**5,928,130**	**11,526,620**	**5,598,490**	**5,928,130**	**11,526,620**	**5,598,490**	**5,928,130**	**11,526,620**
Estimated Impact of Proposed Capital Related Expenditures on User Rates	**1.3%**	**0.7%**	**1.0%**	**1.3%**	**0.7%**	**1.0%**	**1.4%**	**0.6%**	**1.0%**	**1.5%**	**0.5%**	**1.0%**	**1.6%**	**0.4%**	**1.0%**	**1.7%**	**0.3%**	**1.0%**	**1.8%**	**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%**

NOTE: Existing Debt made up of debenture payments required for: WATER - Nanticoke Water Treatment Plant, Caledonia-Orkney Street, Caledonia - Caithness, Argyle to McClung, Dunnville-Cast Iron Watermains. WASTEWATER - Dunnville Water Pollution Control Upgrade; Townsend Sewage Pumping Station & Lagoon Flow Monitoring; Cayuga Equalization Tank, Cayuga WPCP; and Hagersville WPCP upgrades; Caledonia-Caithness, Argyle to McClung, and refinancing of balloon debt for Caledonia Water Pollution Control Upgrade.

Proposed New Debt includes debenture payments required for the following existing capital projects: WATER - Nanticoke Pre-Treatment Process, Nanticoke Filter Replacement and Nanticoke High Rate Sedimentation Capacity Expansion, Jarvis Watermain Replacement-Main St and Talbot St to Town Limits; WASTEWATER Dunnville WWTP Replacements.
New Debt requirements for Wastewater Development Related Projects within the 2017 - 2026 Capital Forecast include: Dunnville WWTP Replacements, Hagersville Grit Removal System, Caledonia Aeration Head Diffusers, Cayuga Ouse St. Forcemain Twinning, Caledonia WWTP Wet Well Expansion, Jarvis PS Equalization Tank & Pre-Treatment Phase 2, and Cayuga Ouse St Pumping Station.
New Debt requirements for Water Development Related Projects within the 2017 - 2026 Capital Forecast include: Caledonia Caithness St. Reconstruction, Caledonia Elevated Tank and Dunnville WTP Reservoir Expansion.


A GRAND EXPERIENCE
HALDIMAND
COUNTY

2017 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, 2016)	2017 Annual Payments	offsetting funding	Net County Responsibility	Outstanding Principal (as at December 31, 2017)	Maturity
Lowbanks - Firehall and Community Centre	1392/13	IO	PAD	October 1, 2013	$898,500	3.36%	$89,850	$628,950	$110,226	0	$110,226	$539,100	2023
Cayuga Fire Station	1711/16	IO	PAD	October 3, 2016	$1,502,800	2.07%	$150,280	$1,502,800	$180,608	(123,714)	$56,894	$1,352,520	2026
Hagersville Fire Station	1711/16	IO	PAD	October 3, 2016	$1,747,700	2.07%	$174,770	$1,747,700	$210,040	(28,050)	$181,990	$1,572,930	2026
South Haldimand Fire Station	1711/16	IO	PAD	October 3, 2016	$1,236,300	2.07%	$123,630	$1,236,300	$148,580	(48,577)	$100,003	$1,112,670	2026
Cayuga EMS Station	1711/16	IO	PAD	October 3, 2016	$512,900	2.07%	$51,290	$512,900	$61,641	(9,194)	$52,447	$461,610	2026
Hagersville EMS Station	1711/16	IO	PAD	October 3, 2016	$710,400	2.07%	$71,040	$710,400	$85,377	(11,453)	$73,923	$639,360	2026
Grandview	824/07	IO	PAD	July 16, 2007	$17,000,000	5.27%	$850,000	$9,350,000	$1,331,638	(483,552)	$848,086	$8,500,000	2027
Grandview - New Debt	1393/13	IO	PAD	October 1, 2013	$1,686,000	3.82%	$112,453	$1,349,440	$162,925	0	$162,925	$1,236,987	2028
HCCC - Balloon & New Debt	1392/13	IO	PAD	October 1, 2013	$3,658,000	3.36%	$365,800	$2,560,600	$448,755	(183,990)	$264,765	$2,194,800	2023
Cayuga Arena	1394/13	IO	PAD	October 1, 2013	$6,620,400	4.11%	$331,020	$5,627,340	$558,893	(296,584)	$262,309	$5,296,320	2033
Dunnville Arena	1394/13	IO	PAD	October 1, 2013	$7,656,900	4.11%	$382,845	$6,508,365	$646,394	(194,605)	$451,790	$6,125,520	2033
Caledonia Lions Hall	1711/16	IO	PAD	October 3, 2016	$1,653,000	2.07%	$165,300	$1,653,000	$198,659	0	$198,659	$1,487,700	2026
Total Tax Supported								**$33,387,795**	**$4,143,737**	**-$1,379,719**	**$2,764,018**	**$30,519,517**	

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, 2016)	2017 Annual Payments	offsetting funding	Net County Responsibility	Outstanding Principal (as at December 31, 2017)	Maturity
Water projects													
Nanticoke WTP - Lake Erie Industrial Park	825/07	IO		July 16, 2007	$319,000	5.19%	$31,900	$31,900	$33,145		$33,145	$0	2017
Nanticoke WTP - Nanticoke System Water Improvements	825/07	IO		July 16, 2007	$496,000	5.19%	$49,600	$49,600	$51,536		$51,536	$0	2017
Cast Iron Watermain - Orkney Street, Caledonia	CMHC Loans	CMHC	PAD	October 1, 2010	$228,000	2.87%	$22,800	$99,002	$26,552		$26,552	$75,292	2020
Cast Iron Watermain - Dunnville	CMHC Loans	CMHC	PAD	October 1, 2010	$1,109,900	2.87%	$110,900	$481,550	$129,148		$129,148	$366,223	2020
Caithness Street - Argyle to McClung, Caledonia	1392/13	IO	PAD	October 1, 2013	$789,900	3.36%	$78,990	$552,930	$96,903		$96,903	$473,940	2023
Wastewater Projects													
Townsend Sewer Pumping Station	656/05	IO		January 1, 2006	$625,000	4.35%	$62,500	$0	$0		$0	$0	2016
Cayuga Water Pollution Control Plan Equal Tank	825/07	IO		July 16, 2007	$1,600,000	5.19%	$160,000	$160,000	$166,245		$166,245	$0	2017
Upgrade WTP - Cayuga	CMHC Loans	CMHC	PAD	October 1, 2010	$2,404,300	2.87%	$240,430	$1,043,996	$279,991		$279,991	$793,968	2020
Upgrade WTP - Hagersville	CMHC Loans	CMHC	PAD	October 1, 2010	$3,146,000	2.87%	$314,600	$1,366,057	$366,365	(162,000)	$204,365	$1,038,898	2020
Caithness Street - Argyle to McClung	1392/13	IO	PAD	October 1, 2013	$502,800	3.36%	$50,280	$351,960	$61,682		$61,682	$301,680	2023
Caledonia Water Polution Control Upgrade Balloon	1392/13	IO	PAD	October 1, 2013	$3,024,000	3.36%	$302,400	$2,116,800	$370,977	(241,135)	$129,842 $0	$1,814,400	2023
Total Rate Supported Water and Wastewater								**$6,253,795**	**$1,582,543**	**-$403,135**	**$1,179,408**	**$4,864,401**	

Total Debt:	**$39,641,590**	**$5,726,280**	**-$1,782,854**	**$3,943,426**	**$35,383,918**

HALDIMAND COUNTY

FORECAST OF CAPITAL REPLACEMENT RESERVE FUND - WATER
FOR THE YEARS 2017 TO 2026

	2016 WATER $	2017 WATER $	2018 WATER $	2019 WATER $	2020 WATER $	2021 WATER $	2022 WATER $	2023 WATER $	2024 WATER $	2025 WATER $	2026 WATER $
Opening Balance January 1st	**5,436,769**	**3,566,272**	**3,325,192**	**6,044,932**	**6,490,162**	**7,228,382**	**7,964,842**	**6,756,452**	**6,729,792**	**7,535,332**	**7,232,192**
Source of Funds:											
Budgeted Annual Contribution	1,399,560	1,479,310	882,360	986,690	1,095,460	1,368,220	1,489,290	1,615,730	1,714,250	1,732,070	1,749,650
Contribution from Rate Stabilization Reserve			2,750,000								
Interest Earned											
Total Source of Funds	1,399,560	1,479,310	3,632,360	986,690	1,095,460	1,368,220	1,489,290	1,615,730	1,714,250	1,732,070	1,749,650
Use of Funds:											
Commitment for Active Projects	3,270,057										
New Initiative/Enhanced Service		70,920	137,500								
Replacement/State of Good Repair		1,649,470	775,120	541,460	357,240	631,760	2,697,680	1,642,390	908,710	2,035,210	786,360
Total Use of Funds	3,270,057	1,720,390	912,620	541,460	357,240	631,760	2,697,680	1,642,390	908,710	2,035,210	786,360
Closing Balance December 31st	**3,566,272**	**3,325,192**	**6,044,932**	**6,490,162**	**7,228,382**	**7,964,842**	**6,756,452**	**6,729,792**	**7,535,332**	**7,232,192**	**8,195,482**

FORECAST OF CAPITAL REPLACEMENT RESERVE FUND - SEWER
FOR THE YEARS 2017 TO 2026

	2016 SEWER $	2017 SEWER $	2018 SEWER $	2019 SEWER $	2020 SEWER $	2021 SEWER $	2022 SEWER $	2023 SEWER $	2024 SEWER $	2025 SEWER $	2026 SEWER $
Opening Balance January 1st	**9,369,424**	**6,664,126**	**7,664,046**	**8,986,876**	**8,512,896**	**8,762,526**	**8,749,646**	**8,181,126**	**8,005,896**	**7,934,766**	**7,446,036**
Source of Funds:											
Budgeted Annual Contribution	2,084,310	2,171,480	2,378,530	1,744,790	1,788,070	2,312,020	2,344,570	2,370,970	2,546,350	2,562,020	2,577,350
Contribution: Leachate Leachate Norfolk Capital component											
Leachate Haldimand Capital componen	27,140	27,140	27,140	27,140	27,140	27,140	27,140	27,140	27,140	27,140	27,140
Interest Earned											
Total Source of Funds	2,111,450	2,198,620	2,405,670	1,771,930	1,815,210	2,339,160	2,371,710	2,398,110	2,573,490	2,589,160	2,604,490
Use of Funds:											
Commitment for Active Projects	4,816,748										
New Initiative/Enhanced Service		42,430	247,000	1,425,000	312,500	692,500					
Replacement/State of Good Repair		1,156,270	835,840	820,910	1,253,080	1,659,540	2,940,230	2,573,340	2,644,620	3,077,890	920,640
Total Use of Funds	4,816,748	1,198,700	1,082,840	2,245,910	1,565,580	2,352,040	2,940,230	2,573,340	2,644,620	3,077,890	920,640
Closing Balance December 31st	**6,664,126**	**7,664,046**	**8,986,876**	**8,512,896**	**8,762,526**	**8,749,646**	**8,181,126**	**8,005,896**	**7,934,766**	**7,446,036**	**9,129,886**

HALDIMAND COUNTY

FORECAST OF FEDERAL GAS TAX REVENUE RESERVE FUND
FOR THE YEARS 2017 TO 2026

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	$	$	$	$	$	$	$	$	$	$	$
Opening Balance January 1st	**4,110,152**	**1,352,690**	**1,773,927**	**2,175,764**	**(16,749)**	**1,092,268**	**785,245**	**1,031,132**	**527,439**	**138,486**	**1,004,483**
Source of Funds:											
Budgeted Contribution	2,728,747	2,728,747	2,858,687	2,858,687	2,858,687	2,858,687	2,858,687	2,858,687	2,858,687	2,858,687	2,858,687
Interest Earned											
Total Source of Funds	2,728,747	2,728,747	2,858,687	2,858,687	2,858,687	2,858,687	2,858,687	2,858,687	2,858,687	2,858,687	2,858,687
Use of Funds:											
Commitment for Active Projects (Tax)	1,575,330										
Commitment for Active Projects (Water/Wastewater)	3,910,878										
Contribution to State of Good Repair Projects (Tax Supported)							1,120,000	900,000	0	260,000	260,000
Contribution to New Initiatives/Enhanced Service Projects (Tax Supported)		1,143,360	973,350	1,062,090	1,102,680	1,092,960	1,072,800	1,078,380	1,104,570	1,128,690	1,008,890
Contribution to New Initiatives/Enhanced Service Projects (Water)			200,000	200,000							
Contribtuion to New Initiatives/Enhanced Service Projects (Wastewater)			175,000	869,110	476,990	360,000		380,000			
Contribution to State of Good Repair Projects (Water)		901,650	446,000	2,675,000		1,712,750	250,000	1,004,000	1,712,750	604,000	352,750
Contribution to State of Good Repair Projects (Wastewater)		262,500	662,500	245,000	170,000		170,000		430,320		2,179,400
Total Use of Funds	5,486,208	2,307,510	2,456,850	5,051,200	1,749,670	3,165,710	2,612,800	3,362,380	3,247,640	1,992,690	3,801,040
Closing Balance December 31st	**1,352,690**	**1,773,927**	**2,175,764**	**(16,749)**	**1,092,268**	**785,245**	**1,031,132**	**527,439**	**138,486**	**1,004,483**	**62,130**

HALDIMAND COUNTY

DEVELOPMENT CHARGES RESERVE FUND - WATER
FOR THE YEARS 2017 TO 2026

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	$	$	$	$	$	$	$	$	$	$	$
Opening Balance January 1st	**79,002**	**(101,890)**	**176,369**	**(3,339)**	**(194,346)**	**(259,172)**	**(990,802)**	**(1,490,075)**	**(2,325,713)**	**(3,088,698)**	**(3,893,228)**
Source of Funds:											
Actual Receipts to September 30th	180,621										
Receipts expected per DC study (prorated if part year)	86,985	395,520	403,430	499,270	509,250	519,440	531,550	542,180	553,030	564,090	575,370
Interest Earned	(1,543)	1,459	2,614	(1,909)	(4,379)	(12,070)	(23,955)	(36,845)	(52,281)	(67,416)	(79,927)
Total Source of Funds	266,064	396,979	406,044	497,361	504,871	507,370	507,595	505,335	500,749	496,674	495,443
Use of Funds:											
DC debt repayment			536,112	523,669	512,027	498,527	486,135	473,897	461,573	449,045	436,687
Forecasted DC debt repayment						396,422	387,253	407,156	397,461	387,458	377,783
Proposed Projects-Capital Forecast (Tax)	4,659		10,150					10,150			
Proposed Projects-Capital Forecast (WWW)	442,296	118,720	39,490	164,700	57,670	344,050	133,480	449,770	404,700	464,700	172,050
Total Use of Funds	446,955	118,720	585,752	688,369	569,697	1,239,000	1,006,868	1,340,973	1,263,734	1,301,203	986,520
Closing Balance December 31st	**(101,890)**	**176,369**	**(3,339)**	**(194,346)**	**(259,172)**	**(990,802)**	**(1,490,075)**	**(2,325,713)**	**(3,088,698)**	**(3,893,228)**	**(4,384,304)**

Debt repayment includes annual repayments for the following open/active projects in 2016; Nanticoke New Pre-Treatment Process, Nanticoke High Rate Sedimentation Capacity Expansion, Nanticoke Filter Building Expansion, Nanticoke Filter Replacements, Nanticoke Electrical Servicing Upgrades and Jarvis Main St and Talbot St to Town Limits (Engineering)
Forecasted debt repayment includes estimates for the following projects budgeted for completion between 2017 - 2026; Caledonia Caithness St. Reconstruction, Caledonia Elevated Tank and Dunnville WTP Reservoir Expansion.

HALDIMAND COUNTY

DEVELOPMENT CHARGES RESERVE FUND - WASTEWATER
FOR THE YEARS 2017 TO 2026

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	$	$	$	$	$	$	$	$	$	$	$
Opening Balance January 1st	**(2,107,695)**	**(2,529,468)**	**(2,695,226)**	**(3,022,466)**	**(3,418,845)**	**(3,874,768)**	**(4,159,226)**	**(4,630,794)**	**(5,236,242)**	**(5,473,637)**	**(5,721,878)**
Source of Funds:											
Actual Receipts to September 30th	207,513										
Receipts expected per DC study (prorated if part year)	97,013	442,500	451,350	561,280	572,500	583,950	597,620	609,570	621,760	634,200	646,880
Interest Earned	(46,779)	(50,449)	(55,209)	(62,196)	(70,426)	(77,575)	(84,875)	(95,275)	(103,413)	(108,102)	(112,423)
Total Source of Funds	257,746	392,051	396,141	499,084	502,074	506,375	512,745	514,295	518,347	526,098	534,457
Use of Funds:											
DC debt repayment	410,380	403,140	527,981	694,453	681,279	504,332	490,624	477,016	268,468	261,281	254,226
Forecasted DC debt repayment				73,030	71,458	108,351	336,330	368,327	359,624	350,607	341,963
Proposed Projects-Capital Forecast (Tax)	4,659		10,150					10,150			
Proposed Projects-Capital Forecast (WWW)	264,479	154,670	185,250	127,980	205,260	178,150	157,360	264,250	127,650	162,450	137,550
Total Use of Funds	679,519	557,810	723,381	895,463	957,996	790,833	984,314	1,119,743	755,742	774,339	733,738
Closing Balance December 31st	**(2,529,468)**	**(2,695,226)**	**(3,022,466)**	**(3,418,845)**	**(3,874,768)**	**(4,159,226)**	**(4,630,794)**	**(5,236,242)**	**(5,473,637)**	**(5,721,878)**	**(5,921,160)**

Debt repayment includes Caledonia WPCP until 2023, Hagersville WPCP until 2020, as well as annual repayments for the following open/active projects in 2016; Caledonia Nairne St. Forcemain, Caledonia WWTP Upgrades, Townsend Lagoon Upgrades and Jarvis Lagoon Upgrades

Forecasted debt repayment includes estimates for the following projects budgeted for completion between 2017 - 2026; Dunnville WWTP Replacements, Hagersville Grit Removal System, Caledonia Aeration Head Diffusers Cayuga Ouse St Forcemain Twinning, Caledonia WWTP Wet Well Expansion, Jarvis PS EQ Tank and Pretreatment Ph 2 and Cayuga Ouse St Pumping Station.

HALDIMAND COUNTY

2017 to 2026 RATE SUPPORTED CAPITAL FORECAST

CO-ORDINATED PROJECTS

		TAX CAPITAL (preliminary information)						WATER AND WASTEWATER CAPITAL						
		Roads			Storm			Water			Wastewater			
Project	Timing	Project Number	2016 Open Projects	10 Year Forecast	Project Number	2016 Open Projects	10 Year Forecast	Project Number	2016 Open Projects	10 Year Forecast	Project Number	2016 Open Projects	10 Year Forecast	Project Total
Dunnville														
Master Servicing Plan	2017; 2022	C.377.0005	0	60,000	C.495.0012	0	60,000	C.476.0026	0	60,000	C.456.0007	0	60,000	**240,000**
Alder St- Cedar to West	2017-2019	C.372.0017	0	2,170,000	C.495.0032	0	2,855,000	C.476.0093	0	900,000	C.456.0039	0	745,000	**6,670,000**
Caledonia														
Master Servicing Plan	2020; 2025	C.377.0003	50,000	100,000	C.495.0010	30,000	60,000	C.472.0006	50,000	100,000	C.452.0007	50,000	100,000	**540,000**
Caithness St. W. - Firehall to Ross (Includes reconstruction)	2020-2021	C.372.0004	0	2,550,000	C.495.0003	0	147,000	C.472.0004	0	411,000	C.452.0006	0	182,000	**3,290,000**
Argyle Bridge Watermain and Sanitary Sewer Relocation	2017							C.472.0023	0	82,000	C.452.0077	0	5,000	**87,000**
Cayuga														
Master Servicing Plan	2018; 2023	C.377.0002	0	60,000	C.495.0015	0	30,000	C.475.0001	0	50,000	C.455.0002	0	50,000	**190,000**
Jarvis														
Master Servicing Plan	2018; 2023	C.377.0001	0	30,000	C.495.0014	0	30,000	C.474.0001	0	40,000	C.454.0002	0	30,000	**130,000**
Hagersville														
Master Servicing Plan	2017; 2022	C.377.0004	0	60,000	C.495.0013	0	30,000	C.473.0001	0	50,000	C.453.0002	0	50,000	**190,000**
Main Street Hagersville	2017	C.373.0051	0	1,200,000				C.473.0015	60,000	700,000				**1,960,000**
Operations Control Building Expansion	2017							C.473.0014	0	45,000	C.453.0041	0	45,000	**90,000**
Townsend														-
County-wide														
CCTV Inspection Program - Structural Assess'ts	2017-2026				C.495.0016	25,000	250,000				C.451.0006/ C.451.0042	110,300	500,000	**885,300**
Facility Condition Assessments	2017-2026							C.471.0004	44,350	150,000	C.451.0004	78,500	175,000	**447,850**
SCADA Master Plan	2021							C.471.0005	35,000	35,000	C.451.0005	35,000	35,000	**140,000**
SCADA Maintenance	2017-2026							C.471.0013	40,000	300,000	C.451.0008	50,000	200,000	**590,000**
SCADA Technical Support	2017-2026							C.471.0025	74,300	400,000	C.451.0021	105,000	500,000	**1,079,300**
Asbestos Annual Inspection and Remediation	2017-2026							C.471.0020	6,520	61,600	C.451.0043	7,940	75,900	**151,960**
Plant Optimization Program Implementation	2017							C.471.0010	245,000	60,000	C.451.0016	235,000	35,000	**575,000**
TOTAL			**50,000**	**6,230,000**		**55,000**	**3,462,000**		**555,170**	**3,444,600**		**671,740**	**2,787,900**	**17,256,410**

Note - does not include prior year closed projects or prior year open projects with no impact in 2017-2026

HALDIMAND COUNTY

2017 to 2026 RATE SUPPORTED CAPITAL FORECAST

New Projects Added or Projects Deleted

Gross Expenditures

DIVISIONS	Repair/Replacement of Existing Assets	New/Enhanced SOGR	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Projects Added - EXCLUDING ADDITION OF 2026 YEAR													
WATER													
Water Replacement/Upgrades	Hagersville Main St. - Watermain Replacement - Engineering approved in 2016 through report PW-ES-19-2016, required after review of infrastructure and records determined that these sections of watermain were not included in the 1999 project that replaced all other watermain along Main Street. It was also determined that these two sections are 65 year old cast iron watermain.	SOGR	700,000										700,000
Water Plants/Transmission Systems	Caledonia Elevated Tank - Municipal Class EA to examine feasibility for a new elevated tank and identify a preferred option to provide additional water storage and pressure in Caledonia and proposed work to complete the design and construction of a new elevated tank should it be identified as the preferred option from the Municipal Class EA process.	SOGR		115,000	5,000,000								5,115,000
Water Plants/Transmission Systems	Port Maitland Industrial Pump Replacements - For the replacement of industrial dedicated pumps sized to operate efficiently in the current demand ranges. - NOTE 100% funded from Industries	SOGR	285,000										285,000
Water Plants/Transmission Systems	Dunnville Pre-Treatment Upgrades - This project is for the design and installation of a new chemical storage and dosing system for a pre-oxidation agent as well as equipment to enhance the clarification process through the introduction of an adsorptive agent when raw water quality requires enhanced treatment.	New/Enhanced		200,000									200,000
Water Plants/Transmission Systems	Dunnville WTP Reservoir Expansion - For an expansion of reservoir volume to provide additional retention time to enhance disinfection.	New/Enhanced										1,750,000	1,750,000
Water Plants/Transmission Systems	Nanticoke Primary Disinfection Chemical Feed System Replacement - added to the forecast in 2017 due to eligibility of the Clean Water and Wastewater Fund grant opportunity. In order to adhere to the incrementality conditions of the grant, projects must not have been budgeted to take place prior to 2018 or would otherwise not have taken place at all as a result of competing funding priorities. (Project will only be completed if funding is available)	SOGR	141,000										141,000
Water Plants/Transmission Systems	Nanticoke Industrial Pumping Station Roof Access Hatch Replacements - Identified as a need by roof consultant because of leaks; skylights used for removal of pumps - NOTE share funding with Industries	SOGR		320,500									320,500
Water Plants/Transmission Systems	Nanticoke OPG Forebay Isolation Baffle - For the design and installation of a removable baffle wall that would hydraulically separate the two intakes. - NOTE share funding with Industries.	New/Enhanced		275,000									275,000
Water Plants/Transmission Systems	Nanticoke Pre-Treatment Upgrades - This project is for the design and installation of a new chemical storage and dosing system for a pre-oxidation agent, on demand when raw water quality requires enhanced treatment.	New/Enhanced			200,000								200,000
TOTAL WATER - Projects Added			**$ 1,126,000**	**$ 910,500**	**$ 5,200,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,750,000**	**$ 8,986,500**
WASTE WATER													
Wastewater Plants	Cayuga Twinning of Headworks Screen - For the design and installation of a second screen to provide pre-treatment redundancy at the Cayuga WWTP.	New/Enhanced				275,000							275,000
Wastewater Plants	Dunnville Low Lift Pump Replacements - For the systematic replacement of the low lift chopper pumps with new regular pumps over a 3 year period.	SOGR		46,000	46,000	46,000							138,000
TOTAL WASTE WATER - Projects Added			**$ -**	**$ 46,000**	**$ 46,000**	**$ 321,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 413,000**
Projects Removed - EXCLUDING 2016 Open/Active Projects													
WASTE WATER													
Wastewater Plants	Dunnville Hauled Waste/WWTP Road Repairs - Work has been incorporated into upgrade project.	SOGR	115,000										115,000
Wastewater Plants	Dunnville Secondary Clarifier Repairs - Removed as necessary minor work was completed through M&R in 2016.	SOGR		125,000									125,000
TOTAL WASTE WATER Projects Removed			**$ 115,000**	**$ 125,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 240,000**

HALDIMAND COUNTY

2017 to 2026 RATE SUPPORTED CAPITAL FORECAST

Projects Moved - Shifts in Timing

PROJECTS GREATER THAN $100,000:

DIVISIONS		State of Good Repair/ New	Gross Expenditures 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
WATER													
Water Replacement/Upgrades	Caledonia - Caithness St. W Reconstruction Firehall to Ross [R][WW][SS] - shifted to 2021 due to timing of Argyle St. bridge replacement.	SOGR					→ 411,000						411,000
Water Plants/Transmission Systems	Cayuga Standpipe Rehabilitation & Mix System - shifted to 2017 due to eligibility of the Clean Water and Wastewater Fund grant opportunity.	SOGR	950,000 ←										950,000
Water Plants/Transmission Systems	Dunnville Rehabilitate Backwash Filter Room - shifted to 2017 due to eligibility of the Clean Water and Wastewater Fund grant opportunity.	SOGR	550,000 ←										550,000
Water Plants/Transmission Systems	Nanticoke Lowlift Pump Replacement- change in project timing reflects estimated time of need.	SOGR			→ 375,000								375,000
Water Plants/Transmission Systems	Nanticoke Reservoir Baffling System - shifted to 2017 due to eligibility of the Clean Water and Wastewater Fund grant opportunity.	SOGR	350,000 ←										350,000
WASTEWATER													
Wastewater Replacement/Upgrades	Caledonia - Caithness St. W Reconstruction Firehall to Ross [R][W][SS] - shifted to 2021 due to timing of Argyle St. bridge replacement.	SOGR					→ 182,000						182,000
Wastewater Plants	Pump Station Repairs/Replacement - deferred for completion and review of Comprehensive Pump Station Condition Assessments.	SOGR		→ 250,000	→ 250,000	→ 250,000							750,000
Wastewater Plants	Hagersville Digester Covers & Insulation - change in timing reflects estimated time of need.	New/Enhanced			→ 450,000								450,000
Wastewater Plants	Jarvis Lagoon Clean Out - change in project timing reflects estimated time of need.	SOGR				→ 450,000							450,000
Wastewater Plants	Jarvis Pumping Station Equalization Tank and Pretreatment Phase 2 - project deferred to 2019 to allow for completion of Environmental Assessment.	New/Enhanced		→ 175,000	→ 2,350,000								2,525,000
Wastewater Plants	Dunnville WWTP SCADA Replacements - deferred to allow completion of Dunnville WWTP upgrades prior to PLC replacements.	SOGR		→ 220,000									220,000
Wastewater Plants	Dunnville Blower Replacement - change in project timing reflects estimated time of need.	SOGR			→ 600,000								600,000
Wastewater Plants	Dunnville Aeration Diffuser System Replacement - change in project timing reflects estimated time of need.	SOGR			→ 400,000								400,000
Wastewater Plants	Dunnville Digester Cover & Insulation - change in project timing reflects estimated time of need.	New/Enhanced					→ 475,000						475,000
Wastewater Plants	Oswego Lagoon Clean Out - change in project timing reflects estimated time of need.	SOGR					→ 275,000						275,000

HALDIMAND COUNTY

2017 to 2026 RATE SUPPORTED CAPITAL FORECAST

Scope/Price Increase/(Decrease)

PROJECTS GREATER THAN $100,000 FOR SCOPE INCREASE/DECREASE GREATER THAN $25,000:

DIVISIONS	DESCRIPTION	State of Good Repair/ New	Gross Expenditures 2016 to 2025	Gross Expenditures 2017 to 2026	Increase/ (Decrease)
WATER					
Water Technical Reviews/Studies	Facility Condition Assessments [WW] - reduced due to change from annual project to bi-annual project starting in 2019	SOGR	250,000	150,000	(100,000)
Water Plants/Transmission Systems	Cayuga Standpipe Rehabilitation & Mix System - Revised project costs reflect anticipated additional remediation costs associated with containment and disposal of lead paint coating the exterior of the standpipe.	SOGR	850,000	950,000	100,000
Water Plants/Transmission Systems	Dunnville Filters 1 and 2, Air Scour, Underdrain - Revised project costs are based on pricing received on similar work within the County.	SOGR	315,000	408,000	93,000
Water Plants/Transmission Systems	Nanticoke Replace Air Handling Units at Industrial Pumping Station - Revised project costs reflect a change in work scope from replacement to repair of existing.	SOGR	275,000	75,000	(200,000)
Water Plants/Transmission Systems	Nanticoke WTP Lagoon Clean Out - annual project increased from $38,000 per year to $45,000 per year due to increase in contract cost	SOGR	377,000	450,000	73,000
Water Plants/Transmission Systems	Nanticoke Decommissioning of Interim Water Treatment Plant & Building Rehabilitation - based on an estimated scope of work and costs incurred for similar work by County.	SOGR	85,000	115,000	30,000
TOTAL Water					**-$ 4,000**
WASTE WATER					
Wastewater Replacement/Upgrades	Composite Sampler Replacement Program - increased from $20,000 to $38,000 every two years due to increase cost of samplers	SOGR	100,000	190,000	90,000
Wastewater Replacement/Upgrades	Sanitary Sewer Manhole Repairs - Multi-year sewer manhole rehab program expanded to an ongoing program (alternating years with sewer main rehab program) to reflect that sewer manhole rehab work is an ongoing requirement to ensure this asset is maintained in a state of good repair.	SOGR	225,000	375,000	150,000
Wastewater Replacement/Upgrades	Sanitary Sewer Rehabilitations (I&I) - ($225,000 open/active in 2016), an additional $200,000 was added to the program every two years from 2020 on (alternating years with sewer manhole rehab program) to reflect that sanitary sewer rehab work is an ongoing requirement to ensure this asset is maintained in a state of good repair.	SOGR	725,000	1,300,000	575,000
Wastewater Technical Reviews/Studies	Facility Condition Assessments [W] - reduced due to change from annual project to bi-annual project starting in 2020	SOGR	250,000	175,000	(75,000)
Wastewater Plants	Caledonia Aeration Diffuser Head Upgrades - 2016 project open/active, budget insufficient project to be closed December 2016, reidentified in 2017	New/Enhanced	80,000	325,000	245,000
Wastewater Plants	Hagersville Grit Removal System - change in funding strategy reduced temporary financing costs.	New/Enhanced	1,049,000	1,015,100	(33,900)
Wastewater Plants	Dunnville WWTP Replacements - increased based on detailed drawings and updated cost estimates	SOGR	5,015,600	5,215,600	200,000
Wastewater Plants	Townsend Lagoon Clean Out - Revised project costs reflect the deferral of Cell #2 work beyond the 10 year forecast.	SOGR	1,145,000	720,000	(425,000)
Wastewater Plants	LEIP Lagoon Clean Out - Revised project costs reflect the deferral of Cell #3 work beyond the 10 year forecast.	SOGR	600,000	350,000	(250,000)
TOTAL Wastewater					**$ 476,100**

2017 Draft Rate Supported Water and Wastewater Council Approved New Initiatives

	Council Approved Ongoing	Council Approved One Time	2017 Total New Initiatives
Water			
Water share of costs related to Director of Engineering position, Salaries, Benefits, Administration Charges		1,830	1,830
Water share of costs related to Manager of Water and Wastewater position, Salaries, Benefits, Administration Charges as per report PW-GM-03-2016	29,140		29,140
Water share of costs related to Student Wage increase as per report CS-HR-08-16	720		720
Water share of costs related to Supplied Clothing (Footwear) as per CS-HR-06-2016	210		210
Total Water New Initiatives	**$30,070**	**$1,830**	**$31,900**
Wastewater			
Wastewater share of costs related to Director of Engineering position, Salaries, Benefits, Administration Charges		980	980
Wastewater share of costs related to Manager of Water and Wastewater position, Salaries, Benefits, Administration Charges as per report PW-GM-03-2016	15,350		15,350
Wastewater share of costs related to Student Wage increase as per report CS-HR-08-16	330		330
Wastewater share of costs related to Supplied Clothing (Footwear) as per CS-HR-06-2016	210		210
Total Wastewater New Initiatives	**$15,890**	**$980**	**$16,870**

2017 Draft Rate Supported Water and Wastewater New Initiatives

	New Initiative Ongoing	New Initiative One Time	2017 Total New Initiatives
Water			
Water share of costs related to the addition of a W&WW Operator, Salaries, Benefits, Administration charges	76,190		76,190
Water share of costs related to the addition of a W&WW Projects Technologist position, Salaries, Benefits, Administration charges ($54,700): partially offset by water portion of engineering and inspection fees ($7,500)	47,200		47,200
Water share of Disconnection Permit Fee Revenues related to inspections for demolished buildings	(730)		(730)
			0
Total Water New Initiatives	**$122,660**	**$0**	**$122,660**
Wastewater			
Wastewater share of costs related to the addition of a W&WW Operator, Salaries, Benefits, Administration charges	20,270		20,270
Wastewater share of costs related to the addition of a W&WW Projects Technologist position, Salaries, Benefits, Administration charges ($31,310): partially offset by wastewater portion of engineering and inspection fees ($6,750)	24,560		24,560
Wastewater share of Disconnection Permit Fee Revenues related to inspections for demolished buildings	(730)		(730)
			0
Total Wastewater New Initiatives	**$44,100**	**$0**	**$44,100**

NEW INITIATIVES

DEPARTMENT: Public Works
DIVISION: Environmental Services

Type of New Initiative: Enhancement to Existing Service

PROGRAM DESCRIPTION:

Addition of a W&WW Operator.

JUSTIFICATION: Operational Efficiencies | **If Other - please specify:** | **Choose Ongoing or One-Time** | **On-going**

BUSINESS CASE:

If the Type of New Initiative is an "Enhancement to Existing Service; a "Change in Service Delivery"; or a "New Service/program", include additional Business Case information.

In 2001 the Environmental Services W&WW division consisted of twelve W&WW Operators for all water and wastewater operations in the entire County. This staff number has not been increased since the inception of the County resulting in the request for an additional Operator for the following increased requirements within the Division:

1. The systems have expanded resulting in substantially more infrastructure to operate and maintain (Water Distribution & Wastewater Collection system increases of 17% overall). This system growth will continue and becomes even more impactful with respect to the new Empire Homes Development in Caledonia of approximately 3,200 homes to be constructed with full build out; phase one has just been registered for building. New development water and sanitary main infrastructure requires involvement of Operations with respect to pressure testing, temporary water supply, sampling and inspections for connections into existing infrastructure. All new properties will also require sewer and water permits to be issued and inspections to take place alonng with meter installations and the ongoing system requirements already mentioned.
2. Environmental Services assumed the municipal storm systems from Roads Operations in 2004, with no additional staff and with no system inventory or maintenance records. The system maps and inventories had to be built and a maintenance/repair plan had to be implemented (system growth from 2011 to present alone was 48% due to a more comprehensive understanding of the systems).
3. MOE regulations have become more stringent over the years and continue to do so resulting in increased demands on Operators with respect to training requirements, reporting requirements, log books, data recording, system operational requirements (changes in procedures for main repairs, sampling, annual MH inspections, annual valve operations, DWQMS, etc.), testing (lead sampling, chlorine residual sampling, Bacti samples, etc.).
4. In 2010 Environmental Services operations assumed operation of the Cayuga & Caledonia Reservoirs, valve and meter chambers, transmission mains and standpipes from OCWA who was the contract operator at the time and who had two full-time staff associated with the operational needs of these facilities/systems. Report PW-WW-07-2009 Operation of Water Treatment Plant and Supply Systems – Service Agreement made mention of the fact that staff would review workload and report back with the required number of staff to perform the work once in the facilities/systems for a period of time to assess what was required.
5. In 2014 ON1CALL began dispatching of all water, wastewater & storm system locate requests to our operators increasing the number of locates by approximately 350% including additional paper locate requirements and website sign off on all locates.
6. In addition to regular system requirements, Operations staff now include system optimization procedures into daily operational tasks including area wide system leak detection programs, sanitary flushing and televising, SCADA operations at the reservoirs, Uni-Directional hydrant flushing, etc.

EXPENDITURES:	2015 Current Costs	ESTIMATED COSTS 2016 PART YEAR	2016 ANNUALIZED	2017	Additional details of Expenditures, Revenues
Salaries & Benefits: Start Date:					**Salaries & Benefits:**
Water Costs					
W.471.4711.3100.3193 - Distributed Wages Water & Sewer			51,920	51,920	
W.471.4711.3200.3293 - Distributed Wages Water & Sewer			14,440	14,440	**Supplies:**
W.471.4410.5100.5130 - Professional Development			800	800	
W.471.4410.5100.5140 - Staff Training			400	400	
W.441.4710.4200.4215 - Supplied Clothing			210	210	**Services:**
W.471.4711.7100.7110 - Fleet Charges			8,420	8,420	
Total Water Costs:			**76,190**	**76,190**	
Wastewater Costs					
W.451.4511.3100.3193 - Distributed Wages Water & Sewer			11,170	11,170	
W.451.4511.3200.3293 - Distributed Wages Water & Sewer			3,100	3,100	
W.451.4410.5100.5130 - Professional Development			400	400	
W.451.4410.5100.5140 - Staff Training			100	100	
W.441.4510.4200.4215 - Supplied Clothing			110	110	**Revenues:**
W.451.4511.7100.7110 - Fleet Charges			5,390	5,390	
Total Wastewater Costs:			**20,270**	**20,270**	
Net User Rate Impacts	**$ -**	**$ -**	**$ 96,460**	**$ 96,460**	

NEW INITIATIVES

DEPARTMENT: Public Works
DIVISION: Engineering Services
Type of New Initiative: Enhancement to Existing Service

PROGRAM DESCRIPTION:

Water & Wastewater Projects Technologist

JUSTIFICATION:	Operational Efficiencies	**If Other - please specify:**	**Choose Ongoing or One-Time**	**On-going**
	Growth			

BUSINESS CASE:

If the Type of New Initiative is an "Enhancement to Existing Service; a "Change in Service Delivery"; or a "New Service/program", include additional Business Case information.

Please refer to attached Business Case.

EXPENDITURES:	**Current Costs**	**2017 PART YEAR**	**2017 ANNUALIZED**	**2018**	**Additional details of Expenditures, Revenues**
Salaries & Benefits: Full-Time / Permanent / Start Date: 27-Feb-17					**Salaries & Benefits:**
40 hrs/wk:					
Water Costs					
Expenditures:					
W.441.4710.3100.3110 Salaries			44,500	44,500	**Supplies:**
W.441.4710.3200.3240-3249 Benefits			8,840	8,840	
W.441.4710.5100.5120 Cell Phone			250	250	
W.441.4710.5100.5125 Membership			110	110	**Services:**
W.441.4710.5100.5137 Professional Development			500	500	
W.441.4710.5100.5117 Travel			500	500	
Total Water Expenditures			**54,700**	**54,700**	
Revenues					
W.441.4710.2200.2245 Engineering and Inspection Fees - Water Portion			**(7,500)**	**(7,500)**	
Net Impact, Water			**47,200**	**47,200**	
Wastewater Costs					
Expenditures:					
W.441.4510.3100.3110 Salaries			25,080	25,080	
W.441.4510.3200.3240-3249 Benefits			4,970	4,970	
W.441.4510.5100.5120 Cell Phone			250	250	
W.451.4510.5100.5125 Membership			110	110	
W.451.4510.5100.5137 Professional Developmnet			500	500	
W.441.4710.5100.5117 Travel			400	400	
Total Wastewater Expenditures			**31,310**	**31,310**	
Revenues					
W.441.4510.2200.2245 Engineering and Inspection Fees - Wastewater Portion			**(6,750)**	**(6,750)**	**Revenues:**
Net Impact, Wastewater			**24,560**	**24,560**	
NET IMPACT, WATER AND WASTEWATER	**$ -**	**$ -**	**$ 71,760**	**$ 71,760**	

BUSINESS CASE FOR
WATER AND WASTEWATER PROJECT TECHNOLOGIST

Problem Statement:

The current approach of having one staff position (Project Manager – Water and Wastewater Infrastructure) responsible for program management and delivery of capital projects associated with the County's water and wastewater treatment facilities and associated infrastructure is impacting project delivery, restricting development of long term capital planning and jeopardizing program sustainability. The addition of a Water and Wastewater Project Technologist to support capital project delivery will provide the necessary staff resources to address current concerns with project delivery and assist long term capital planning. The new position will also facilitate succession planning and knowledge transfer thereby reducing risk to the County.

Current Situation:

The County relies on the Project Manager – Water and Wastewater Infrastructure, a permanent, full-time position to provide program and project management for its Water and Wastewater Capital Program which includes the SCADA system. A program review of the Engineering Services water and wastewater infrastructure program completed in 2014 identified that the workload associated with project management of planned capital projects, ongoing development and refinement of the capital plan and budget, and water and wastewater infrastructure management activities has increased significantly since the position's inception in 2007.

The Project Manager – Water and Wastewater Infrastructure works closely with the Water and Waster Operations Division, leading and supporting Optimization Program activities. While supporting these activities are critical to effective management of the County's water and wastewater infrastructure, the ongoing involvement with the Optimization Program has also contributed to the position's workload.

The water and wastewater capital project planning and prioritization process takes into consideration the staffing resources available to support project delivery. Each year planned projects and program initiatives are reviewed and prioritized with direction from the Senior Management Team. Activities that can be deferred are, until staff resources become available. The 2014 program review identified delivery of some important, time sensitive projects were at risk of falling more than two years behind schedule.

In February 2015, in cooperation with the Water and Wastewater Division a job sharing arrangement was created that had one of the Technologists from the Compliance group work part-time (three days per week) to support capital project delivery in the Engineering Services Division (internally the position was referred to as the Water and Wastewater Capital Project Technologist). The arrangement was established for a trial period of eighteen months to assess the effectiveness and longer term need of the position. In March 2016, the temporary position was extended for an additional 5 months (to the end of 2016) to provision for continued additional program support and allow for completion of assigned projects.

Over the duration of the temporary position, two significant capital projects were completed that had fallen behind schedule, the water and wastewater infrastructure management program was able to respond to a Council directive and take a lead role in the implementation of a Basement Flooding Mitigation Pilot Program and efficiencies between inter-departmental processes were achieved.

Based on what was achieved through the additional staff support over the approximate two year period and review of planned capital projects and program initiatives, it is believed that the creation of a full time Water and Wastewater Project Technologist to support the water and wastewater infrastructure management program is necessary.

Position Objective:

The principal objective for hiring a Water and Wastewater Project Technologist is to acquire additional capital project management support and address the resource gap resulting from the current approach the County is using to manage its water and wastewater infrastructure program. Secondary objectives of this position are to collaborate with Engineering Services and Water and Wastewater Operations with the review of development proposals, to act as the custodian of the County's water distribution and wastewater collection models and to mitigate the potential risk to program sustainability as a result of having the bulk of the program carried by a single individual.

Proposed Activities:

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

- Project management and coordination functions
- Contract administration
- Capital project budget development
- Request for Proposal development and tendering of construction projects
- Development proposal review
- Assisting Planning and Development with responding to servicing inquiries
- Building/Updating/Running County owned water and wastewater modelling programs

Position Rationale:

The 2014 program review of the Engineering Services water and wastewater infrastructure management program identified that a significant amount of the Project Manager's time was allocated to strategic initiatives such as long range planning studies, supporting large scale development and providing leadership to W&WW Optimization Program activities such as the Hagersville WWTP Re-Rating initiative. As a result, the water and wastewater infrastructure management program was struggling to meet capital project delivery needs. Providing additional capital project delivery support will allow the Project Manager to continue their support of key program management activities.

Engineering Services provides support for water and wastewater servicing review for new development proposals through the water and wastewater infrastructure management program. An opportunity to enhance this review process and be able to better support an increase in applications has been identified and proven through the trial position.

The County's current practice of having the water and wastewater modeling reside with consultants is not ideal. This approach promotes the retention of information and knowledge outside of County staff. In addition, responding to development modelling requests is costly with response times not in control of staff. For these reasons, it is desirable to have the ability to bring the water and wastewater modelling "in-house".

The approach for obtaining the additional support to deliver capital projects, support new development proposal review and bring water and wastewater modeling "in-house" is the creation of a Water and Wastewater Project Technologist position.

The program review in 2014 also identified a risk to the sustainability of the water and wastewater infrastructure management program due to a potential significant loss of program knowledge since the core of the program is carried by one person. Having a supporting position within the program will facilitate the transfer of knowledge and skills and promote program sustainability.

Expected Benefits:

By hiring a Water and Wastewater Project Technologist, the County will acquire the resources to support capital project delivery based on timing of project need instead of availability of staffing to support project activities. The Water and Wastewater Project Technologist position will also act as an additional resource to support the increasing work load associated with the Development Proposal Review process. In addition, the Water and Wastewater Project Technologist position will allow the County to bring the water and wastewater modelling "in-house" so that the following benefits can be realized:

- Enhanced understanding (by staff) of flow dynamics associated with the County's collection and distribution systems, enhancing County's ability to support development and optimize systems.
- Improved response time to developer modelling requests.
- Model version control and management of model updates.
- Revenue generation instead of flow through costs to consultant to conduct modelling.

Additionally, the Water and Wastewater Project Technologist ability to support capital project delivery will allow the Project Manager of Water & Wastewater Infrastructure to continue their support and leadership of the following key strategic initiatives:

- Long range planning studies e.g. Hwy 6 Corridor W&WW Servicing Study.
- County's Optimization Program e.g. Hagersville WWTP Re-Rating.
- Collaboration with large scale development e.g. McClung Properties.

- Building/maintaining relationships with large industry.
- Enhancing asset management and capital planning for County W&WW infrastructure.

Furthermore, historically the Engineering Inspection Fees associated with a subdivision/condominium agreement review have been allocated completely to the tax supported operating budget. Upon staff review, it has be determined that a percentage of these costs are specifically related to water and wastewater activities, and as such, staff are including an allocation of these fees to the water and wastewater revenues as part of this staffing initiative. Given the recent increase in development in the County, staff anticipate the overall engineering fees to increase, and as such this reallocation of funds to the water and wastewater revenues are not expected to negatively impact the tax supported component.

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 Water and Wastewater Project Technologist will be completed by the end of the first quarter in 2017.

Performance Measures:

The following will be key performance measures associated with the hiring of Water and Wastewater Project Technologist:

- Improved capability to deliver capital projects in a timely manner so that Council approved projects can be initiated on schedule. The queue of previously approved capital projects waiting to be initiated will be eliminated within two years of filling the position.
- Improved inter-departmental collaboration in the review of new development proposals that will support the “one window” planning approach and result in maintaining a smooth development review process as the volume of applications increases.
- Internal capability to bring the water and wastewater modelling “in-house” within 18 months of filling the position.

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.

New Initiative Budget:

Refer to Water and Wastewater Project Technologist New Initiative form included in budget for a breakdown of annual costs.

NEW INITIATIVES

DEPARTMENT: Public Works
DIVISION: Water and Wastewater Division
Type of New Initiative: New Service/Program

PROGRAM DESCRIPTION:

Disconnection Permit Fee related to inspections for demolished buildings.

JUSTIFICATION:	Operational Efficiencies	**If Other - please specify:**	**Choose Ongoing or One-Time**	**On-going**

BUSINESS CASE:

If the Type of New Initiative is an "Enhancement to Existing Service; a "Change in Service Delivery"; or a "New Service/program", include additional Business Case information.

Staff have recently revisiting our protocol for responding to demolition requests. County Operations staff will conduct an inspection to confirm that water and wastewater services were disconnected at the property line or mains. Historically we have never charged a fee for this inspeciton. There have been a number of issues with property owners demolishing buildings without staff inspecting the disconnection or not doing the disconnections. To assist in rectifying this, staff are proposing the implementation of a permit fee for these requests using the existing connection permit process and updating it to include disconnection inspections. Though it is difficult to pinpoint the number occurences per year, it is predicted that approximately 8 inspections will occur on an annual basis.

EXPENDITURES:	**2016**	**ESTIMATED COSTS**			**Additional details of Expenditures, Revenues**
	Current Costs	**2017 PART YEAR**	**2017 ANNUALIZED**	**2018**	
Salaries & Benefits: Start Date:					**Salaries & Benefits:**
Salaries **hrs/wk:**					
Benefits					
Supplies & Materials:					**Supplies:**
Services:					**Services:**
REVENUES:					**Revenues:**
W.471.1110.2300.2352 Connection Permits - 8 permits x $91			(730)	(730)	
W.451.1110.2300.2352 Connection Permits - 8 permits x $91			(730)	(730)	
NET LEVY IMPACT	**$ -**	**$ -**	**$ (1,460)**	**$ (1,460)**	

HALDIMAND COUNTY RATE SUPPORTED BUDGET

FORECAST OF RATE STABILIZATION RESERVE - WATER
FOR THE YEARS 2013 TO 2021

	2013 ACTUALS $	2014 ACTUALS $	2015 ACTUALS $	2016 FORECAST $	2017 BUDGET $	2018 FORECAST $	2019 FORECAST $	2020 FORECAST $	2021 FORECAST $
Opening Balance January 1st	**(46,410)**	**1,455,466**	**2,213,008**	**2,966,310**	**3,813,585**	**3,991,346**	**1,296,591**	**1,332,896**	**1,370,217**
Source of Funds:									
Budgeted Annual Contribution	572,000	470,000	470,000	170,000	70,000				
Surplus/(Deficit) from Operations	925,380	250,743	233,877	591,839					
Interest Earned	4,496	36,799	49,424	85,437	107,760	55,245	36,305	37,321	38,366
Total Source of Funds	1,501,876	757,542	753,301	847,276	177,760	55,245	36,305	37,321	38,366
Use of Funds:									
Commitment for Active Projects									
Potential Contribution to CRRF - Water						2,750,000			
Total Use of Funds	0	0	0	0	0	2,750,000	0	0	0
Closing Balance December 31st	**1,455,466**	**2,213,008**	**2,966,310**	**3,813,585**	**3,991,346**	**1,296,591**	**1,332,896**	**1,370,217**	**1,408,583**
Balance in Reserve as a Percentage of Rates Revenue	23.35%	37.28%	51.71%	63.38%	69.41%	22.55%	23.18%	23.83%	24.50%
Rates Revenue	6,231,944	5,936,206	5,736,032	6,016,653	5,750,140	5,750,140	5,750,140	5,750,140	5,750,140
Budgeted Annual Contribution as a % of Rates Revenue		7.92%	8.19%	2.83%	1.22%	0.00%	0.00%	0.00%	0.00%

FORECAST OF RATE STABILIZATION RESERVE - WASTE WATER
FOR THE YEARS 2013 TO 2021

	2013 ACTUALS $	2014 ACTUALS $	2015 ACTUALS $	2016 FORECAST $	2017 BUDGET $	2018 FORECAST $	2019 FORECAST $	2020 FORECAST $	2021 FORECAST $
Opening Balance January 1st	**934,929**	**1,142,240**	**1,316,933**	**1,023,840**	**1,122,999**	**1,335,743**	**1,444,124**	**1,484,560**	**1,526,127**
Source of Funds:									
Budgeted Annual Contribution					100,000	70,000			
Leachate/Overstrength contributions	112,960	155,237	164,298	145,700	79,900				
Surplus/(Deficit) from Operations	74,712	(7,427)	(484,810)	(75,208)					
Interest Earned	19,640	26,883	27,419	28,668	32,844	38,381	40,435	41,568	42,732
Total Source of Funds	207,312	174,693	(293,093)	99,160	212,744	108,381	40,435	41,568	42,732
Use of Funds:									
Commitment for Active Projects									
Potential Contribution to CRRF - Wastewater									
Total Use of Funds	0	0	0	0	0	0	0	0	0
Closing Balance December 31st	**1,142,240**	**1,316,933**	**1,023,840**	**1,122,999**	**1,335,743**	**1,444,124**	**1,484,560**	**1,526,127**	**1,568,859**
Balance in Reserve as a Percentage of Rates Revenue	21.77%	24.86%	19.32%	18.91%	21.55%	23.29%	24.99%	24.62%	25.31%
Rates Revenue	5,246,767	5,297,809	5,300,479	5,939,630	6,199,680	6,199,680	5,939,630	6,199,680	6,199,680
Budgeted Annual Contribution as a % of Rates Revenue		2.93%	3.10%	2.45%	2.90%	1.13%	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 4 year plan to ensure the annual contribution is approximately 3% of rates revenue starting in 2014. Historical trending now indicates the requirement for a shift in contributions from the water rate stabilization reserve to the wastewater stabilization reserve. This transition in funding allocation is planned to occur in 2017 and 2018 with contributions ceasing 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.

For Wastewater, the anticipated ramp up is not expected to occur until 2017.

HALDIMAND COUNTY

WATER AND WASTEWATER RATE ASSUMPTIONS

	Approved 2014 Budget	*Approved 2015 Budget*	*Approved 2016 Budget*	*Draft 2017 Budget*
Effective Date of Rate Change	Saturday, March 01, 2014	Sunday, March 01, 2015	Monday, February 01, 2016	Friday, January 01, 2016
WATER				
Consumption Assumptions				
Residential Users				
Annual Water Consumption	Two Year Rolling Average	Two Year Rolling Average	Two Year Rolling Average	Three Year Average Consumption with Three year Average Decline; Offset by Anticipated Growth
Anticipated Growth	Based on expected residential growth, as revised Development Charges study currently in progress	Based on expected residential growth, as revised Development Charges study currently in progress	Minimal Growth Projections	Slight Increase in Growth Projections
"Regular" Commercial/Industrial Customers				
Annual Water Consumption	Normalized Two Year Rolling Average	Normalized Two Year Rolling Average	Normalized Two Year Rolling Average	Normalized 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	Two Year Rolling Average	Two Year Rolling Average	Normalized Three Year Rolling Average	*Large Commercial* : Three Year Average Consumption; *Large Industrial* : Normalized Two Year Average Consumption
New Credit (Wholesale Rate)				
Annual Water Consumption	Two Year Rolling Average	Two Year Rolling Average	Three Year Rolling Average	Three Year Rolling Average
Water Depot	Two Year Rolling Average	Two Year Rolling Average	Two 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
	0.04% increase in rates	0.98% increase in rates	2.76% decrease in rates	2.52% decrease in rates
Block 1 Rate Increases	6.62% decrease	4.51% Increase	1.20% Decrease	1.01% Increase
Block 2 Rate Assumptions	Ten Year Phase-out (starting in 2006); based on a set percentage in relation to Block 1 (ending in 2016)	Ten Year Phase-out (starting in 2006); based on a set percentage in relation to Block 1 (ending in 2016)	Ten Year Phase-out (starting in 2006); based on a set percentage in relation to Block 1 (ending in 2016)	N/A
Rate Increase	2.37 % decrease	9.05% increase	2.92% increase	N/A
WASTEWATER				
Consumption Assumptions				
Residential Users				
Wastewater Consumption	Two Year Rolling Average	Two Year Rolling Average	Two Year Rolling Average	Three Year Average Consumption with Three Year Average Decline; Offset by Anticipated Growth
"Regular" Commercial/Industrial Customers				
Wastewater Consumption	Normalized Two Year Rolling Average	Normalized Two Year Rolling Average	Normalized Two Year Rolling Average	Normalized Two Year Rolling Average
Large Commercial/Industrial				
Wastewater Consumption	Two Year Rolling Average	Two Year Rolling Average	Normalized Three Year Rolling Average	Large Commercial: Three Year Average Consumption; Large Industrial: Normalized Two Year Average Consumption
Wastewater Rates				
Basic Charges	50%/50% fixed/variable share	50%/50% fixed/variable share	50%/50% fixed/variable share	50%/50% fixed/variable share
	2.35% increase in rates	7.37% increase in rates	5.31% increase in rates	4.77% increase in rates
Block 1 Rate Increases	2.62% increase	5.81% increase	13.94% increase	7.21% increase
Block 2 Rate Assumptions	Ten Year Phase-out (starting in 2006); based on a set percentage in relation to Block 1 (ending in 2016)	Ten Year Phase-out (starting in 2006); based on a set percentage in relation to Block 1 (ending in 2016)	Ten Year Phase-out (starting in 2006); based on a set percentage in relation to Block 1 (ending in 2016)	N/A
Rate Increase	7.28% increase	10.41% increase	18.69% increase	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

		Approved 2014 Budget	*Approved 2015 Budget*	*Approved 2016 Budget*	*Draft 2017 Budget*
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	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
	Annual Water Consumption	Four Year Rolling Average	Two Year Rolling Average	Two Year Rolling Average	Three Year Rolling Average
	Increases	2.11% decrease, consumption rate	1.17% decrease, consumption rate	1.11% increase, consumption rate	3.07% decrease, consumption rate
	Bulk Water Administration Fee	2.00% increase	3.01% increase	2.99% increase	2.00% increase
	Bulk Water Activation Fee	no increase	3.20% increase	3.00% increase	2.00% increase
	Bulk Water Re-Activation Fee		Based on Full Cost Recovery - New Fee in 2015	3.00% increase	2.00% increase
Fire Protection					
	Assumption	Based on industry standard allocation for flows allocated to fire protection (including specific capital/operating related hydrant costs)	Based on industry standard allocation for flows allocated to fire protection (including specific capital/operating related hydrant costs)	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	2.05% $1,969,360	2.91% $2,027,410	2.91% $2,088,230	2.00% $2,129,990
Miscellaneous Fees					
	Leachate	Full Cost Recovery (based on loading and capital/operating cost allocation methodology, as well as 50%/50% fixed/variable recovery) 68.38% increase in consumption rate, but slight decrease in overall cost	Full Cost Recovery (based on loading and capital/operating cost allocation methodology, as well as 50%/50% fixed/variable recovery) 4.29% increase in consumption rate	Full Cost Recovery (based on loading and capital/operating cost allocation methodology, as well as 50%/50% fixed/variable recovery) 19.42% increase in consumption rate	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
	Holding Tank	Blended Septic/Holding Rate based on relative loading and flows received	Blended Septic/Holding Rate based on relative loading and flows received	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	21.1% increase	26.37% increase	2.97% increase	2.00% increase
	Septic Hauler Administration Fee	Monthly fee to recover direct administration costs 2.00% increase	Monthly fee to recover direct administration costs 3.00% increase	Monthly fee to recover direct administration costs 3.00% increase	Monthly fee to recover direct administration costs 2.00% increase
	Sludge Storage	Full Cost Recovery 2.00% increase	Full Cost Recovery 3.10% increase	Full Cost Recovery 2.91% increase	Full Cost Recovery 2.00% increase
	Overstrength Charge (R-Value)	Full Cost Recovery 2.00% increase	Full Cost Recovery 3.20% increase	Full Cost Recovery 3.00% increase	Full Cost Recovery 2.00% increase
	All Other Miscellaneous Fees	Based on increase in direct operating costs 2.00% increase	Based on increase in direct operating costs 3.20% increase	Based on increase in direct operating costs 3.00% increase	Based on increase in direct operating costs 2.00% increase

USER FEES AND SERVICE CHARGES BYLAW
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

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	2016 Charge	2017 Charge	% Increase
Water				
Consumption Charges	$/m3	$1.0550	$1.0327	-2.11%
Basic Charges:	$/m based on domestic service size requirements	see below	see below	n/a
R1/C1	Service size: 16 & 19 mm; 5/8 & 3/4 inches	$21.47	$21.78	1.44%
R2/C2	Service size: 25 mm; 1 inch	$21.47	$21.78	1.44%
R3/C3	Service size: 37 mm; 1.5 inches	$121.27	$123.05	1.47%
R4/C4	Service size: 50 mm; 2 inches	$263.61	$267.44	1.45%
C5	Service size: 75 mm; 3 inches	$463.89	$470.63	1.45%
C6	Service size: 100 mm; 4 inches	$922.63	$936.03	1.45%
C7	Service size: 150 mm; 6 inches	$1,716.25	$1,741.16	1.45%
C8	Service size: 200 mm; 8 inches	$2,931.48	$2,974.03	1.45%
Flat Rate	*Consumption charge: 20 m3/month*	*$21.10*	*$20.65*	*-2.11%*
	R1/C1 Basic Charge	*$21.47*	*$21.78*	*1.44%*
	Total Flat Rate	**$42.57**	**$42.43**	**-0.32%**
Standby Charge	When a property temporarily discontinues the supply of water, a standby charge is billed based on the basic rate for the applicable service size. The standby charge represents the Basic Water charge			
Wastewater				
Consumption Charges	$/m3	$1.4322	$1.5006	4.78%
Basic Charges:	$/m based on domestic service size requirements	see below	see below	n/a
R1/C1	Service size: 16 & 19 mm; 5/8 & 3/4 inches	$23.73	$25.45	7.23%
R2/C2	Service size: 25 mm; 1 inch	$23.73	$25.45	7.23%
R3/C3	Service size: 37 mm; 1.5 inches	$134.10	$143.77	7.21%
R4/C4	Service size: 50 mm; 2 inches	$291.47	$312.47	7.21%
C5	Service size: 75 mm; 3 inches	$512.91	$549.88	7.21%
C6	Service size: 100 mm; 4 inches	$1,020.13	$1,093.65	7.21%
C7	Service size: 150 mm; 6 inches	$1,897.61	$2,034.37	7.21%
C8	Service size: 200 mm; 8 inches	$3,241.25	$3,474.83	7.21%
Flat Rate	*Consumption charge: 20 m3/month*	*$28.64*	*$30.01*	*4.78%*
	R1/C1 Basic Charge	*$23.73*	*$25.45*	*7.23%*
	Total Flat Rate	**$52.37**	**$55.46**	**5.89%**
Standby Charge	When a property temporarily discontinues the use of the wastewater system, a standby charge is billed based on the basic rate for the applicable service size. 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 property owners tax account within 60 days.			
Transfer to Taxes - Tenants	Non-payment by a tenant after will result in the oustanding 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	2016 Charge	2017 Charge	% Increase
Water				
Bulk Water Consumption Rate	$/m3	$2.96	$2.89	-2.37%
Bulk Water Administration Fee	for months with billable consumption	$16.19	$16.52	2.02%
Bulk Water	Account Activation Fee (note: accounts will be deactivated if there is no consumption in the prior twelve month calendar year)	$26.57	$27.10	2.00%
Bulk Water	Re-Activation Fee	$26.57	$27.10	2.00%
New Credit Wholesale Rate	$/m3	$0.93	$0.95	2.00%
Wastewater				
Bulk Wastewater Disposal	Leachate - Local Volumetric Charge ($/m3)	$31.22	$31.71	1.58%
Bulk Wastewater Disposal	Leachate - Base Charge	$783,550	$779,100	-0.57%
Bulk Wastewater Disposal	Leachate - Haldimand Leachate Capital Charge (annual)	$27,137	$27,137	0.00%
Bulk Wastewater Disposal	Blended Septic/Holding Toilet Waste (per m3)	$13.52	$13.79	2.00%
Bulk Wastewater Disposal	Septic/Holding Tank/Portable Toilet Hauler Administration Fee (per month) for months with billable disposable volumes	$16.19	$16.52	2.02%

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	2016 Charge	2017 Charge	% Increase
Connection Permits and Fees				
Water Connection	Street Line to House: Inspection Only	$89	$91	2.25%
Water Connection	Main to Street Line: Includes Inspection and Material. 19 mm (3/4") service	$700	$714	2.00%
Water Connection	Main to Street Line: Includes Inspection and Material. 25 mm (1" service)	$813	$829	1.97%
Water Connection	Main to House: Includes Inspection and Material to Street Line. 19 mm (3/4") service	$788	$804	2.03%
Water Connection	Main to House: Includes Inspection and Material to Street Line. 25 mm (1" service)	$900	$918	2.00%
Water Connection	Water Meter: Service requiring and meter size ~~in excess of 50 mm (2")~~	100% Cost Recovery	100% Cost Recovery	n/a
Water Main Taps 40mm to 50mm (3/4" to 2" Diameter)	Inspection Only (contractor to supply all materials)	$89	$91	2.25%
Water Main Taps 40mm to 50mm (3/4" to 2" Diameter)	Includes Main Tap and Inspection to Street Line (contractor to supply all materials)	$240	$245	2.08%
Water Main Taps 40mm to 50mm (3/4" to 2" Diameter)	Includes Main Tap and Inspection to House (contractor to supply all materials)	$325	$332	2.15%
Water Main Service Connection 100mm (4") Diameter and Longer	Inspection includes: operating valves to isolate main, installation inspection and verification of pressure test (contractor to tap main and supply all materials)	$467	$476	1.93%
Bacteriological Testing for New 100mm (4") Diameter & Larger	Water Mains or Services - includes sampling and transport to accredited laboratory	$160	$163	1.88%
Disconnection Requests	Inspection Only (contractor to supply all materials)	n/a	$91	n/a
Sanitary Sewer Service Connection 100mm (4") Diameter	Street Line to House: Inspection Only	$89	$91	2.25%
Sanitary Sewer Service Connection 100mm (4") Diameter	Main to Street Line - includes inspection, 100mm (4") main tap and 100mm (4") Saddle - Contractor supplies rest of materials	$240	$245	2.08%
Sanitary Sewer Service Connection 100mm (4") Diameter	Main to House - includes inspection, 100mm (4") main tap and 100mm (4") Saddle - Contractor supplies rest of materials	$325	$332	2.15%
Other Sanitary Sewer Service Connection Diameters	Main to Street Line: 150mm (6") Diameter (includes inspection and main tap)	$196	$200	2.04%
Other Sanitary Sewer Service Connection Diameters	Main to Street Line: 200 mm (8") Diameter (includes inspection and main tap)	$196	$200	2.04%
Other Sanitary Sewer Service Connection Diameters	Main to Street Line: 250mm & 300mm (10" & 12") Diameter (includes inspection and main tap)	$196	$200	2.04%
Other Sanitary Sewer Service Connection Diameters	Main to House: Contractor supplies all materials	$279	$285	2.15%
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

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	2016 Charge	2017 Charge	% Increase
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	$54	$55	1.85%
During Normal Working Hours	Water Turn Off	$54	$55	1.85%
During Normal Working Hours	Water Turn On/Off Same Day for Fix and Repair	$72	$73	1.39%
During Normal Working Hours	Water Turn On and Meter Reconnection	$72	$73	1.39%
During Normal Working Hours	Water Turn Off and Meter Disconnection	$72	$73	1.39%
Outside of Normal Working Hours	Water Turn On	$121	$123	1.65%
Outside of Normal Working Hours	Water Turn Off	$121	$123	1.65%
Outside of Normal Working Hours	Water Turn On/Off Same Day for Fix and Repair	$160	$163	1.88%
Outside of Normal Working Hours	Water Turn On and Meter Reconnection	$160	$163	1.88%
Outside of Normal Working Hours	Water Turn Off and Meter Disconnection	$160	$163	1.88%
Winter Control Service Calls				
Thawing Frozen Water Service Lines	During Normal Working Hours (per hour)	$121	$123	1.65%
Thawing Frozen Water Service Lines	Outside of Normal Working Hours (per hour)	$196	$200	2.04%
~~Replacement of Frost Pate on Water Meter~~	~~During Normal Working Hours (per hour)~~	~~$133~~	~~$135.66~~	~~2.00%~~
~~Replacement of Frost Pate on Water Meter~~	~~Outside of Normal Working Hours (per hour)~~	~~$206.00~~	~~$210.12~~	~~2.00%~~
Replacement of Water Meter due to Frost Plate damage	During Normal Working Hours	100% Cost recovery	100% Cost Recovery	n/a
Replacement of Water Meter due to Frost Plate damage	Outside of Normal Working Hours	100% Cost recovery	100% Cost Recovery	n/a

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	2016 Charge	2017 Charge	% Increase
Sanitary Sewer Rodding/Teley Video				
If County staff determine that a sewer line blockage is the property owner's responsibility, the following charges will be billed (with the exception that services provided outside of normal working hours will be charged 1 hour minimum)				
Sanitary Sewer Rodding/Teley Video	During Normal Working Hours - each full or additional hours	$121	$123	1.65%
Sanitary Sewer Rodding/Teley Video	Outside of Normal Working Hours - each full or additional hours	$196	$200	2.04%
Sewer Video	Sewers will be videoed during normal working hours only. Rate is per hour with a minimum of a one (1) hour charge	$121	$123	1.65%
Dye Testing	During normal working hours	$104	$106	1.92%
Dye Testing	Outside of normal working hours	$169	$172	1.78%
Vactor Charge	During normal working hours	$272	$277	1.84%
Vactor Charge	Outside of normal working hours	$422	$430	1.90%
NOTE: All charges above require a minimum of one (1) hour charge				
Wastewater Charges				
Sewer Sludge Storage Costs	Sludge Storage - Tonwsend Lagoon per Cubic Meter (m3)	$4.37	$4.46	2.00%
Sanitary Discharge Agreement	Over-strength discharge fee formula "R" value ("R" means the rate for sewage treatment in$/m3 of sewage flow as set out from time to time by the County)	$0.96	$0.98	2.00%
Sanitary Discharge Agreement	New discharger information report administrative fee	$232	$237	2.16%
Sanitary Discharge Agreement	Existing discharger information report administration fee	$232	$237	2.16%
Sanitary Discharge Agreement	Sanitary discharge agreement annual administration fee	$1,395	$1,423	2.01%
Sanitary Discharge Agreement	Sanitary discharge agreement amendment request application processing fee	$232	$237	2.16%
Sanitary Discharge Agreement	Application for a hauled sewage discharge permit processing fee	$232	$237	2.16%
Sanitary Discharge Agreement	Annual hauled sewage discharge permit processing fee	$232	$237	2.16%
Sanitary Discharge Agreement	Haldimand County assistance with all other additional requests	100% Cost Recovery	100% Cost Recovery	n/a
Wastewater Discharge Program	Application fee	$232	$237	2.16%
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	$2,543	$2,594	2.01%
Installation of Communication Antennae System on County Facilities	Private Enterprises	Per Contract	Per Contract	n/a

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	2016 Charge	2017 Charge	% Increase
Refusal of Entry for Inspection, Installation, Repair or Replacement of Meters/Equipment				
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 acess 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 fee~~	~~1.25 x consumption charge~~	~~n/a~~	~~n/a~~
Refuse Access	Monthly meter read estimate	n/a	$30.00	
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
Charge for tampering with Water Meter and/or Water Service	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.	$144.00	$500.00	247.22%
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:

Consumer & Consumption Statistics

Residential & Commercial/Industrial Water Consumers (#)

	2011	2012	2013	2014	2015	2016	2017 estimate
Residential	8,011	8,147	8,217	8,186	8,231	8,284	8,284
Commercial	660	706	705	658	670	682	682
Total	8,671	8,853	8,922	8,844	8,901	8,966	8,966
Growth	-0.01%	2.10%	0.78%	-0.87%	0.64%	0.73%	0.00%

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)

	2011	2012	2013	2014	2015	2016	Adjusted 3 Year Ave.	Ave m^3/mo
Total	1,418,977	1,422,245	1,368,552	1,322,031	1,348,254	1,326,237	1,335,143	13.4

Commercial/Industrial Water Consumption (m^3)

	2011	2012	2013	2014	2015	2016	Adjusted 2 Year Ave.
Total	1,633,827	1,500,682	1,550,611	1,694,822	1,531,123	1,715,212	1,429,740

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-16	Proposed for 2017	1-Jan-16	1-Jan-16	1-Jan-16	1-Jan-16	1-Jan-16	1-Jan-16	1-Jan-16	1-Jan-16	1-Jan-16
Demographics											
Population	44,876	44,876	63,175	93,650	102,075	37,754	35,638	73,214	121,668	519,949	22,487
Water Customers	8,901	8,966	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	3,083	87	1,117	163
Customers / (Km^2)	**7.1**	**7.2**	**8.9**	**453.9**	**16.1**	**288.6**	**8.5**	**4.0**	**472.9**	**127.1**	**34.2**
Metered Rates:											
Residential (15 m^3)											
Water ($)	37.30	37.27	39.69	38.02	37.40	28.78	60.48	67.59	31.65	23.10	34.58
Sewer ($)	45.21	47.95	46.68	27.15	37.75	18.58	41.27	44.97	35.55	24.40	40.42
Combined ($)	**82.51**	**85.22**	**86.36**	**65.17**	**75.15**	**47.36**	**101.75**	**112.56**	**67.20**	**47.50**	**75.00**
Commercial (2" 500 m^3)											
Water ($)	791.11	783.81	798.22	971.32	645.00	609.19	915.77	1,418.78	854.70	764.40	1,068.04
Sewer ($)	1,007.57	1,062.78	938.04	905.00	574.00	571.00	862.17	795.05	957.70	816.80	1,262.16
Combined ($)	**1,798.68**	**1,846.58**	**1,736.26**	**1,876.32**	**1,219.00**	**1,180.19**	**1,777.94**	**2,213.83**	**1,812.40**	**1,581.20**	**2,330.20**
Industrial (4" 4,000 m^3)											
Water ($)	5,142.63	5,066.99	5,583.60	7,704.56	3,708.40	4,284.09	5,086.20	11,117.43	6,577.80	5,752.50	8,440.52
Sewer ($)	6,748.93	7,096.09	6,559.64	7,240.00	3,280.00	4,537.03	5,944.61	6,154.93	7,256.60	6,160.00	9,992.76
Combined ($)	**11,891.56**	**12,163.08**	**12,143.24**	**14,944.56**	**6,988.40**	**8,821.12**	**11,030.81**	**17,272.36**	**13,834.40**	**11,912.50**	**18,433.28**
Miscellaneous Fees:											
Bulk Water Rate $/$m^3$	**2.96**	**2.89**	**3.100**	**3.840**	**2.320**	**1.500**	**2.330**	**2.691**	**3.180**	**2.070**	**2.102**
Holding Tank Waste $/$m^3$			**6.340**	**20.000**	**8.800**	**n/a**	**n/a**	**6.260**	**n/a**	**8.500**	
Blended Septic/Holding $/m3	**13.52**	**13.79**									**8.811**
Septic Rate $/$m^3$			**33.820**	**20.000**	**15.400**	**n/a**	**n/a**	**12.090**	**n/a**	**10.198**	

AVERAGE CUSTOMER IMPACTS					
User		**2016**	**2017**	**$ Change**	**% Change**
Monthly Services					
Residential (15 m3)	Water	$37.29	$37.27	-$0.02	-0.1%
	Sewer	$45.22	$47.95	$2.74	6.1%
	Total	**$82.51**	**$85.22**	**$2.71**	**3.3%**
Commercial (2" 500 m3)	Water	$791.12	$783.81	-$7.31	-0.9%
	Sewer	$1,007.58	$1,062.78	$55.20	5.5%
	Total	**$1,798.70**	**$1,846.58**	**$47.89**	**2.7%**
Industrial (4" 4,000 m3)	Water	$5,142.69	$5,066.99	-$75.70	-1.5%
	Sewer	$6,749.04	$7,096.09	$347.05	5.1%
	Total	**$11,891.73**	**$12,163.08**	**$271.35**	**2.3%**
Bulk Services (per use basis)					
Bulk Water (3,000 gallons)	Potable Water Costs (County)	$40.34	$39.41	-$0.93	-2.3%
	Estimated Delivery Charges (Private Hauler)	$72.60	$72.60	$0.00	0.0%
	Total	**$112.94**	**$112.01**	**-$0.93**	**-0.8%**
Septic/Holding (2,000 gallons)	Treatment Costs (County)	$122.90	$125.35	$2.45	2.0%
	Estimated Delivery Charges (Private Hauler)	$87.70	$87.70	$0.00	0.0%
	Total	**$210.60**	**$213.05**	**$2.45**	**1.2%**