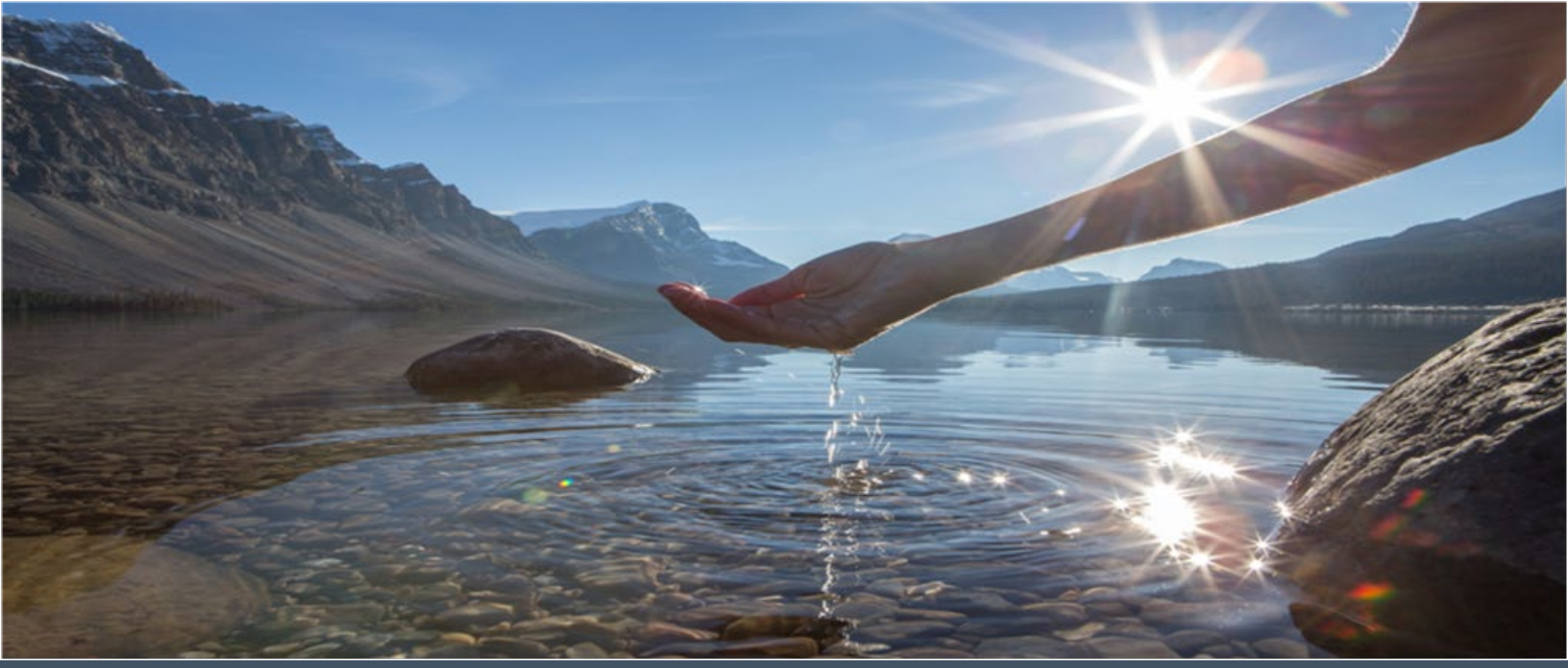

Water and Wastewater Rate Study

Haldimand County

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List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
A.M.O.	Association of Municipalities of Ontario
cu.m.	Cubic metre
C.W.W.F.	Clean Water and Wastewater Fund
D.C.A.	Development Charges Act, 1997
F.I.R.	Financial Information Return
I.J.P.A.	Infrastructure for Jobs and Prosperity Act, 2015
I.O.	Infrastructure Ontario
LPAT	Local Planning Appeal Tribunal
M.O.E.	Ministry of Environment
O.C.I.F.	Ontario Community Infrastructure Fund
O.L.T.	Ontario Land Tribunal
O.M.B.	Ontario Municipal Board
O.Reg.	Ontario Regulation
O.S.I.F.A.	Ontario Strategic Infrastructure Financing Authority
P.S.A.B.	Public Sector Accounting Board
P.T.I.F.	Public Transit Infrastructure Fund
S.C.A.D.A.	Supervisory Control and Data Acquisition
S.W.S.S.A.	Sustainable Water and Sewage Systems Act, 2002

Executive Summary

Executive Summary

Haldimand County (County) retained Watson & Associates Economists Ltd. (Watson) to undertake a Water and Wastewater Rate Study. This study aims to prepare an analysis of the County's water and wastewater rate forecast based on current volumes and customer profiles, current capital and operating forecasts, and costing for lifecycle requirements. The results of this analysis provide updated water and wastewater base charges and volume rates for customers within Haldimand County. The rate analysis contained herein continues to provide fiscally responsible practices that align with current provincial legislation at a level of rate increases that are reasonable.

The analysis presented herein provides the following:

- The present rate structure for water and wastewater is a monthly base charge which varies by meter size in addition to a constant volumetric charge based on total usage;
- The 2026 to 2034 capital spending program for water and wastewater is $58.55 million and $98.92 million (inflated), respectively;
- A significant portion (approximately 34%) of the water spending program is related to three (3) projects:
    - Plant capital improvements from 2029-2032 and 2034;
    - Replacement of the elevated storage tank in 2032 and 2033; and
    - Expansion of the Caledonia North Water Storage in 2026;
- For wastewater, a significant portion (approximately 58%) of the capital spending program is related to the Caledonia wastewater treatment plant anticipated to occur in two stages in 2030 and 2033;
- The operating costs related to wholesale water purchases from the City of Hamilton are increasing at a rate of 10% per year from 2026 to 2033 and 2% in 2034. In 2025, this cost represents 34% of the total operating expenditures (i.e. excluding capital-related debt payments and reserve transfers) and given the annual rate increase, this cost is anticipated to grow to comprise 46% of the total operating expenditures by 2034.
- Annual operating expenditures related to wages and salaries are increasing by 2% per annum over the forecast, while expenditures related to utilities, fuels, chemicals and other materials are increasing at 5% per annum. Other operating expenditures related to components such as legal fees and office supplies have

been assumed to remain constant over the forecast period. Additional operating costs have been factored into the wastewater operating budget to account for costs related to the new Caledonia wastewater treatment plant;
- Existing water customers total 11,439; it is anticipated the County will see an increase of approximately 3,762 new customers over the next 10-year period;
- Existing wastewater customers total 11,178. The same level of increase as water customers (approximately 3,762) is assumed over the forecast period; and
- The present rate structure for water and wastewater (base charge and a constant volume rate) is continued.

Based on the above information, rate increases have been balanced for the combined water/wastewater user to experience, on average, a 3.69% increase on the combined bill over the forecast period. This is achieved by providing the following changes to water and wastewater:

- To meet the needs of the water forecast, the charges are anticipated to increase, on average, by 5.47% annually.
- To meet the needs of the wastewater forecast, the charges are anticipated to increase, on average, by 1.69% annually
- As noted, the combined impact of the water and wastewater rates above is equal to, on average, a 3.69% increase on the combined bill every year over the forecast period.

The following summaries provide the water and wastewater rates and average annual bills based on the analysis provided herein over the forecast period to 2034. The recommended water rates and annual bill (for residential customers), assuming an annual volume of 166 cu.m (based on the average annual usage), are provided in table ES-1. Table ES-2 provides the annual wastewater bill and recommended wastewater rates for residential customers, assuming an annual volume of 169 cu.m, over the forecast period. Table ES-3 provides the average annual combined bill for both water and wastewater for residential customers over the forecast period to 2035.

Note, the County is currently undertaking an exercise to update their asset management inventory. For the purposes of this analysis, a review of municipalities with similar volumes of treated water and/or kilometres of watermains was conducted. On average the surveyed municipalities have annual lifecycle requirements of $6.45 million for water and $7.45 million for wastewater. In review of the County's current expenditures on

asset management over the forecast period ($4.81 million annually for water and $3.12 million annually for wastewater), it would appear that the expenditures on lifecycle may not be adequate. It is important that the County continue to monitor asset management needs and set aside funds for future replacement costs. Not setting aside adequate funds in the short term, will lead to higher rate increases in the future. As shown in the report, although the reserves for wastewater appear to be healthy, annual contributions appear to be lagging lifecycle requirements. Once updated replacement cost information is available, it is recommended the County review their lifecycle contributions.

Table ES-1
Haldimand County
Water Rate Summary
Average Residential Customer Water Bill based on 166 cu.m of usage

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Monthly Base Rate	$27.36	$28.70	$30.09	$31.67	$33.24	$34.99	$36.72	$38.65	$40.78	$42.88
Volume Rate	1.29	1.36	1.44	1.53	1.62	1.72	1.82	1.93	2.05	2.17
Annual Base Rate Bill	**$328.32**	**$344.38**	**$361.07**	**$380.06**	**$398.83**	**$419.84**	**$440.62**	**$463.79**	**$489.30**	**$514.57**
Volume	166	166	166	166	166	166	166	166	166	166
Annual Volume Bill	**$213.54**	**$225.76**	**$239.04**	**$253.98**	**$268.92**	**$285.52**	**$302.12**	**$320.38**	**$340.30**	**$360.22**
Total Annual Bill	**$541.86**	**$570.14**	**$600.11**	**$634.04**	**$667.75**	**$705.36**	**$742.74**	**$784.17**	**$829.60**	**$874.79**
% Increase - Base Rate		**4.89%**	**4.85%**	**5.26%**	**4.94%**	**5.27%**	**4.95%**	**5.26%**	**5.50%**	**5.16%**
% Increase - Volume Rate		**5.72%**	**5.88%**	**6.25%**	**5.88%**	**6.17%**	**5.81%**	**6.04%**	**6.22%**	**5.85%**
% Increase - Total Annual Bill		**5.22%**	**5.26%**	**5.65%**	**5.32%**	**5.63%**	**5.30%**	**5.58%**	**5.79%**	**5.45%**

Table ES-2
Haldimand County
Wastewater Rate Summary
Average Residential Customer Wastewater Bill based on 169 cu.m of usage

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Monthly Base Rate	$25.06	$25.64	$26.03	$26.41	$26.80	$27.18	$27.57	$27.97	$28.37	$28.78
Volume Rate	$1.50	$1.53	$1.56	$1.59	$1.62	$1.65	$1.68	$1.71	$1.74	$1.77
Annual Base Rate Bill	**$300.72**	**$307.73**	**$312.31**	**$316.92**	**$321.56**	**$326.22**	**$330.90**	**$335.66**	**$340.50**	**$345.34**
Volume	169	169	169	169	169	169	169	169	169	169
Annual Volume Bill	**$253.52**	**$258.57**	**$263.64**	**$268.71**	**$273.78**	**$278.85**	**$283.92**	**$288.99**	**$294.06**	**$299.13**
Total Annual Bill	**$554.24**	**$566.30**	**$575.95**	**$585.63**	**$595.34**	**$605.07**	**$614.82**	**$624.65**	**$634.56**	**$644.47**
% Increase - Base Rate		**2.33%**	**1.49%**	**1.48%**	**1.46%**	**1.45%**	**1.43%**	**1.44%**	**1.44%**	**1.42%**
% Increase - Volume Rate		**1.99%**	**1.96%**	**1.92%**	**1.89%**	**1.85%**	**1.82%**	**1.79%**	**1.75%**	**1.72%**
% Increase - Total Annual Bill		**2.18%**	**1.70%**	**1.68%**	**1.66%**	**1.63%**	**1.61%**	**1.60%**	**1.59%**	**1.56%**

Table ES-3
Haldimand County
Water and Wastewater Combined Bill Summary
Average Residential Customer Water and Wastewater Combined Bill

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Water										
Base Charge	$328.32	$344.38	$361.07	$380.06	$398.83	$419.84	$440.62	$463.79	$489.30	$514.57
Volume (166 cu.m)	$213.54	$225.76	$239.04	$253.98	$268.92	$285.52	$302.12	$320.38	$340.30	$360.22
Total Water Bill	**$541.86**	**$570.14**	**$600.11**	**$634.04**	**$667.75**	**$705.36**	**$742.74**	**$784.17**	**$829.60**	**$874.79**
Wastewater										
Base Charge	$300.72	$307.73	$312.31	$316.92	$321.56	$326.22	$330.90	$335.66	$340.50	$345.34
Volume (169 cu.m)	$253.52	$258.57	$263.64	$268.71	$273.78	$278.85	$283.92	$288.99	$294.06	$299.13
Total Wastewater Bill	**$554.24**	**$566.30**	**$575.95**	**$585.63**	**$595.34**	**$605.07**	**$614.82**	**$624.65**	**$634.56**	**$644.47**
Total Combined Bill	**$1,096.10**	**$1,136.44**	**$1,176.06**	**$1,219.67**	**$1,263.09**	**$1,310.43**	**$1,357.56**	**$1,408.83**	**$1,464.16**	**$1,519.26**
% Increase - Combined Bill		**3.68%**	**3.49%**	**3.71%**	**3.56%**	**3.75%**	**3.60%**	**3.78%**	**3.93%**	**3.76%**

Report

Chapter 1
Introduction

1. Introduction

1.1 Background

Haldimand County (County) is located on the Niagara Peninsula with a population of approximately 49,000. The County has three distinct water systems, the Dunville water system, the Caledonia & Cayuga water system, and the Nanticoke water system. The County also operates 8 wastewater treatment facilities to treat sewage water. Currently, there are 11,439 water customers and 11,178 wastewater customers. These are both residential and non-residential customers which utilize meter sizes ranging from 5/8" to 8".

The County utilizes a rate structure with a monthly base charge, as well as a volume charge on a per cubic metre basis. For wastewater customers, the charges follow the same structure with a monthly base charge, as well as a volume charge on a per cubic metre basis. For non-metered customers in the water and wastewater systems, a flat rate is applied (equivalent to a consumption of 15 cu.m per month and the base charge equivalent to a 5/8" meter). The rates for both water and wastewater are in place to recover capital and operating costs related to the respective systems. Table 1-1 provides the existing rates currently in effect for the County.

Table 1-1
Haldimand County
Water and Wastewater Rates – 2025

2025 - Water Billing Rates	
Base Charge	
R1/C1 (5/8" and 3/4")	$27.36
R2/C2 (1")	$27.36
R3/C3 (1 ½")	$154.57
R4/C4 (2")	$335.95
C5 (3")	$591.19
C6 (4")	$1,175.81
C7 (6")	$2,187.20
C8 (8")	$3,735.89
Volume Charge	
$ 1.2864	per m^3
Flat Rate*	
$ 46.65	Total flat rate

* Consumption charge of 15 m^3/month + R1/C1 Base Charge

2025 - Wastewater Billing Rates	
Base Charge	
R1/C1 (5/8" and 3/4")	$25.06
R2/C2 (1")	$25.06
R3/C3 (1 ½")	$141.60
R4/C4 (2")	$307.76
C5 (3")	$541.59
C6 (4")	$1,077.16
C7 (6")	$2,003.70
C8 (8")	$3,422.45
Volume Charge	
$ 1.5001	per m^3
Flat Rate*	
$ 47.56	Total flat rate

* Consumption charge of 15 m^3/month + R1/C1 Base Charge

Since the Walkerton crisis, the Province has continued to make legislative changes for municipal water and wastewater systems. Noted below are the historical changes along with pending legislation anticipated to be implemented in the future. Watson & Associates Economists Ltd. (Watson) was retained by Haldimand County to assist in addressing these changes in a proactive manner as they relate to the water and wastewater systems. The assessment provided herein addresses changes recommended to the water and wastewater rates based on the most current information and forecasts the implications over the next 10-year period.

1.2 Study Process

The objectives of the study and the steps involved in carrying out this assignment are summarized below:

- Identify all current and future water and wastewater system capital needs to assess the immediate and longer-term implications;
- Identify potential methods of cost recovery from the capital needs listing. These recovery methods may include other statutory authorities (e.g. *Development Charges Act, 1997* (D.C.A.), *Municipal Act*, etc.) as an offset to recovery through the water and wastewater rates;
- Identify existing operating costs by component and estimate future operating costs over the next ten years. This assessment identifies fixed and variable costs in order to project those costs sensitive to changes to the existing infrastructure inventory, as well as costs which may increase commensurate with growth; and
- Provide staff and Committee/Council the findings to assist in gaining approval of the rates for 2026 and future years.

1.3 Regulatory Changes in Ontario

Resulting from the water crisis in Walkerton, significant regulatory changes have been made in Ontario. These changes arise as a result of the Walkerton Commission and the 93 recommendations made by the Walkerton Inquiry Part II report. Areas of recommendation include:

- watershed management and source protection;

- quality management;
- preventative maintenance;
- research and development;
- new performance standards;
- sustainable asset management; and
- lifecycle costing.

The legislation which would have most impacted municipal water and wastewater rates was the *Sustainable Water and Sewage Systems Act* (S.W.S.S.A.) which would have required municipalities to implement **full cost pricing**. The legislation was enacted in 2002, however, it had not been implemented pending the approval of its regulations. The Act was repealed as of January 1, 2013. It is expected that the provisions of the *Water Opportunities Act* will implement the fundamental requirements of S.W.S.S.A. Furthermore, on December 27, 2017, O. Reg. 588/17 was released under the *Infrastructure for Jobs and Prosperity Act, 2015* (I.J.P.A.), which outlines the requirements for asset management for municipalities. The results of the asset management review under this Act will need to be considered in light of the recent investments undertaken by the County and the capital spending plan provided herein. The following sections describe these various resulting changes.

1.4 Sustainable Water and Sewage Systems Act

As noted earlier, the S.W.S.S.A. was passed on December 13, 2002. The intent of the Act was to introduce the requirement for municipalities to undertake an assessment of the "full cost" of providing their water and wastewater services. It is noted, however, that this Act has been repealed. To provide broader context and understanding to other legislation discussed herein, a description of the Act is provided below.

Full costs for water service was defined in subsection 3(7) of the Act and included "…source protection costs, operating costs, financing costs, renewal and replacement costs and improvement costs associated with extracting, treating or distributing water to the public and such other costs which may be specified by regulation." Similar provisions were made for wastewater services in subsection 4(7) with respect to "…collecting, treating or discharging wastewater."

The Act would have required the preparation of two reports for submission to the Ministry of the Environment (or such other member of the Executive Council as may be assigned the administration of this Act under the *Executive Council Act*). The first report was on the "full cost of services" and the second was the "cost recovery plan." Once these reports were reviewed and approved by the Ministry, the municipality would have been required to implement the plans within a specified time period.

In regard to the **full cost of services** report, the municipality (deemed a regulated entity under the Act) would prepare and approve a report concerning the provision of water and sewage services. This report was to include an inventory of the infrastructure, a management plan providing for the long-term integrity of the systems, and would address the full cost of providing the services (other matters may be specified by the regulations) along with the revenue obtained to provide them. A professional engineer would certify the inventory and management plan portion of the report. The municipality's auditor would be required to provide a written opinion on the report. The report was to be approved by the municipality and then be forwarded to the Ministry along with the engineer's certification and the auditor's opinion. The regulations would stipulate the timing for this report.

The second report was referred to as a **cost recovery plan** and would address how the municipality intended to pay for the full costs of providing the service. The regulations were to specify limitations on what sources of revenue the municipality may use. The regulations may have also provided limits as to the level of increases any customer or class of customer may experience over any period of time. Provision was made for the municipality to implement increases above these limits; however, ministerial approval would be required first. Similar to the first report, the municipal auditor would provide a written opinion on the report prior to Council's adoption, and this opinion must accompany the report when submitted to the Province.

The Act provided the Minister the power to approve or not approve the plans. If the Minister was not satisfied with the report or if a municipality did not submit a plan, the Minister may have a plan prepared. The cost to the Crown for preparing the plan would be recovered from the municipality. As well, the Minister may direct two or more regulated municipalities to prepare a joint plan. This joint plan may be directed at the onset or be directed by the Minister after receiving the individual plans from the municipalities.

The Minister also had the power to order a municipality to generate revenue from a specific revenue source or in a specified manner. The Minister may have also ordered a regulated entity to do or refrain from doing such things as the Minister considered advisable to ensure that the entity pays the full cost of providing the services to the public.

Once the plans were approved and in place, the municipality would be required to submit progress reports. The timing of these reports and the information to be contained therein would be established by the regulations. A municipal auditor's opinion must be provided with the progress report. Municipalities would also revise the plans if they deem the estimate does not reflect the full cost of providing the services, as a result of a change in circumstances, regulatory or other changes that affect their plan, etc. The municipality would then revise its prior plan, provide an auditor's opinion, and submit the plan to the Minister.

1.5 Financial Plans Regulation

On August 16, 2007, the M.O.E. passed O.Reg 453/07 which requires the preparation of financial plans for water (and wastewater) systems. The M.O.E. has also provided a Financial Plan Guidance Document to assist in preparing the plans. A brief summary of the key elements of the regulation is provided below:

- The financial plan will represent one of the key elements for the municipality to obtain its Drinking Water Licence;
- The financial plans shall be for a period of at least six years, but longer planning horizons are encouraged;
- As the regulation is under the *Safe Drinking Water Act, 2002*, the preparation of the plan is mandatory for water and encouraged for wastewater;
- The plan is considered a living document (i.e. will be updated as annual budgets are prepared) but will need to be undertaken, at a minimum, every five years;
- The plans generally require the forecasting of capital, operating and reserve fund positions, providing detailed inventories, forecasting future users and volume usage and corresponding calculation of rates. In addition, P.S.A.B. information on the system must be provided for each year of the forecast (i.e. total non-financial assets, tangible capital asset acquisitions, tangible capital asset construction, betterments, write-downs, disposals, total liabilities and net debt);

- The financial plans must be made available to the public (at no charge) upon request and be available on the municipality's website. The availability of this information must also be advertised; and
- The financial plans are to be approved by Resolution of the Council or governing body indicating that the drinking water system is financially viable.

In general, the financial principles of the draft regulations follow the intent of S.W.S.S.A. to move municipalities towards financial sustainability. Many of the prescriptive requirements, however, have been removed (e.g. preparation of two separate documents for provincial approval, auditor opinions, engineer certifications, etc.).

A Guideline ("Towards Financially Sustainable Drinking Shores – Water and Wastewater Systems") had been developed to assist municipalities in understanding the Province's direction and provided a detailed discussion on possible approaches to sustainability. The Province's Principles of Financially Sustainable Water and Wastewater Services are provided below:

Principle #1: Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.

Principle #2: An integrated approach to planning among water, wastewater, and stormwater systems is desirable given the inherent relationship among these services.

Principle #3: Revenues collected for the provision of water and wastewater services should ultimately be used to meet the needs of those services.

Principle #4: Lifecycle planning with mid-course corrections is preferable to planning over the short term, or not planning at all.

Principle #5: An asset management plan is a key input to the development of a financial plan.

Principle #6: A sustainable level of revenue allows for reliable service that meets or exceeds environmental protection standards, while providing sufficient resources for future rehabilitation and replacement needs.

Principle #7: Ensuring users pay for the services they are provided leads to equitable outcomes and can improve conservation. In general, metering and the use of rates can help ensure users pay for services received.

Principle #8: Financial plans are "living" documents that require continuous improvement. Comparing the accuracy of financial projections with actual results can lead to improved planning in the future.

Principle #9: Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff, and municipal Council.

1.6 Water Opportunities Act, 2010

As noted earlier, since the passage of the *Safe Drinking Water Act, 2002*, continuing changes and refinements to the legislation have been introduced. Some of these Bills have found their way into law, while others have not been approved. Bill 72, the *Water Opportunities Act, 2010*, was introduced into legislation on May 18, 2010 and received Royal Assent on November 29, 2010.

The Act provides for the following elements:

- The fostering of innovative water, wastewater and stormwater technologies, services and practices in the private and public sectors;
- Preparation of water conservation plans to achieve water conservation targets established by the regulations; and
- Preparation of sustainability plans for municipal water services, municipal wastewater services and municipal stormwater services.

With regard to the sustainability plans:

- The Act extends from the water financial plans and requires a more detailed review of the water financial plan and requires a full plan for wastewater and stormwater services; and
- Regulations will provide performance targets for each service – these targets may vary based on the jurisdiction of the regulated entity or the class of entity.

The financial plan shall include:

- An asset management plan for the physical infrastructure;
- A financial plan;
- For water, a water conservation plan;
- An assessment of risks that may interfere with the future delivery of the municipal service, including, if required by the regulations, the risks posed by climate change and a plan to deal with those risks; and
- Strategies for maintaining and improving the municipal service, including strategies to ensure the municipal service can satisfy future demand, consider technologies, services and practices that promote the efficient use of water and reduce negative impacts on Ontario's water resources, and increase co-operation with other municipal service providers.

Performance indicators will be established by service, with the following considerations:

- May relate to the financing, operation or maintenance of a municipal service or to any other matter in respect of what information may be required to be included in a plan;
- May be different for different municipal service providers or for municipal services in different areas of the Province.

Regulations will prescribe:

- Timing;
- Contents of the plans;
- Which identified portions of the plan will require certification;
- Public consultation process; and
- Limitations, updates, refinements, etc.

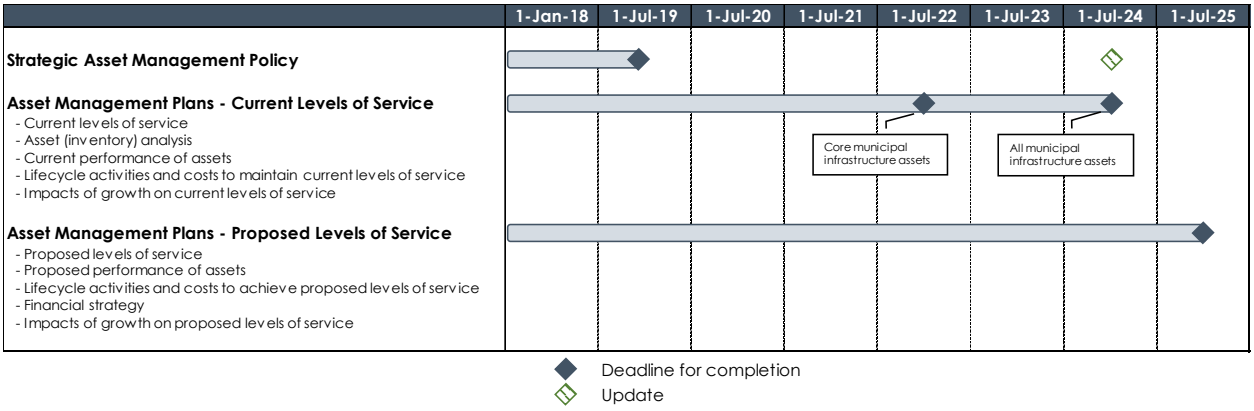
As noted earlier, it is expected that this Act will implement the principles of the S.W.S.S.A. once all regulations are put in place.

1.7 Infrastructure for Jobs and Prosperity Act, 2015 (I.J.P.A.)

On June 4, 2015, the Province of Ontario passed the I.J.P.A. which, over time, will require municipalities to undertake and implement asset management plans for all

infrastructure they own. On December 27, 2017, the Province released Ontario Regulation 588/17 under the I.J.P.A. which has three phases that municipalities must meet:

Figure 1-1
Legislative Timelines set out by the Jobs and Prosperity Act
Legislation related to Asset Management Plans



Note: on March 15, 2021, the Province filed Regulation 193/21 to extend all of the timelines of Regulation 588/17 by one year (reflected in the table above).

Every municipality in Ontario was required to prepare a strategic asset management policy by July 1, 2019. Municipalities will be required to review their strategic asset management policies at least every five years and make updates as necessary. The subsequent phases are as follows:

- Phase 1 – Asset Management Plan (by July 1, 2022):
    - For core assets, municipalities must have the following:
        - Inventory of assets;
        - Current levels of service measured by standard metrics; and
        - Costs to maintain levels of service.
- Phase 2 – Asset Management Plan (by July 1, 2024):
    - Same steps as Phase 1 but for all assets.
- Phase 3 – Asset Management Plan (by July 1, 2025):
    - Builds on Phase 1 and 2 by adding:
        - Proposed levels of service; and
        - Lifecycle management and financial strategy.

In relation to water and wastewater (which is considered a core asset), municipalities will need to have an asset management plan that addresses the related infrastructure by July 1, 2022 (Phase 1). O.Reg. 588/17 specifies that the municipality's asset management plan must include the following for each asset category:

- The current levels of service being provided, determined in accordance with the following qualitative descriptions and technical metrics and based on data from at most the two calendar years prior to the year in which all information required under this section is included in the asset management plan;
- The current performance of each asset category, including:
    - a summary of the assets in the category;
    - the replacement cost of the assets in the category;
    - the average age of the assets in the category, determined by assessing the average age of the components of the assets;
    - the information available on the condition of the assets in the category;
    - a description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate; and
- The lifecycle activities that would need to be undertaken to maintain the current levels of service.

1.8 Forecast Growth and Servicing Requirements

Haldimand County currently services 11,439 water customers (10,758 residential and 681 non-residential), and 11,178 wastewater customers (10,483 residential and 695 non-residential). Information on the existing number of customers and existing billable water volumes was obtained from the County.

For forecasting future water volumes in the County, an average volume per customer amount of 166 cu.m has been assumed for new water customers. For forecasting future billable wastewater volumes in the County, an average volume per residential customer of 169 cu.m has been used based on historical wastewater volumes billed per customer.

For future water customers to be added to the systems, consideration has been given to development potential within the County over the forecast period of 2026 to 2034. The future development estimates are based on the growth forecast utilized in the County's

2024 Growth Study as well as discussions with staff. For wastewater, the same information has been used for new customers in the County.

Table 1-2 provides for the forecast of water users and volumes in Haldimand County, while Table 1-3 provides the forecast of wastewater users and volumes.

Table 1-2
Haldimand County
2026 to 2034 Water System Forecast

Water Users Forecast

Year	Total Users	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2026	407		204	407	407	407	407	407	407	407	407
2027	407			204	407	407	407	407	407	407	407
2028	407				204	407	407	407	407	407	407
2029	407					204	407	407	407	407	407
2030	407						204	407	407	407	407
2031	407							204	407	407	407
2032	364								182	364	364
2033	365									183	365
2034	365										183
Total	**3,536**	**-**	**204**	**611**	**1,018**	**1,425**	**1,832**	**2,239**	**2,624**	**2,989**	**3,354**
m^3/user	166	166	166	166	166	166	166	166	166	166	166
Annual Flow		**-**	**33,864**	**101,426**	**168,988**	**236,550**	**304,112**	**371,674**	**435,584**	**496,174**	**556,764**

Water Customer Forecast	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Existing	11,439	11,439	11,439	11,439	11,439	11,439	11,439	11,439	11,439	11,439
New - Growth	-	204	611	1,018	1,425	1,832	2,239	2,624	2,989	3,354
Total	**11,439**	**11,643**	**12,050**	**12,457**	**12,864**	**13,271**	**13,678**	**14,063**	**14,428**	**14,793**

Water Volume Forecast (m^3)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Volumes										
Existing	3,491,190	3,491,190	3,491,190	3,491,190	3,491,190	3,491,190	3,491,190	3,491,190	3,491,190	3,491,190
New	-	33,864	101,426	168,988	236,550	304,112	371,674	435,584	496,174	556,764
Total	**3,491,190**	**3,525,054**	**3,592,616**	**3,660,178**	**3,727,740**	**3,795,302**	**3,862,864**	**3,926,774**	**3,987,364**	**4,047,954**

Table 1-3
Haldimand County
2026 to 2034 Wastewater System Forecast

Wastewater Users Forecast

Year	Total Users	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2026	407		204	407	407	407	407	407	407	407	407
2027	407			204	407	407	407	407	407	407	407
2028	407				204	407	407	407	407	407	407
2029	407					204	407	407	407	407	407
2030	407						204	407	407	407	407
2031	407							204	407	407	407
2032	364								182	364	364
2033	365									183	365
2034	365										183
Total	**3,536**	**-**	**204**	**611**	**1,018**	**1,425**	**1,832**	**2,239**	**2,624**	**2,989**	**3,354**
m^3/user	169	169	169	169	169	169	169	169	169	169	169
Annual Flow		**-**	**34,476**	**103,259**	**172,042**	**240,825**	**309,608**	**378,391**	**443,456**	**505,141**	**566,826**

Wastewater Customer Forecast	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Existing	11,178	11,178	11,178	11,178	11,178	11,178	11,178	11,178	11,178	11,178
New - Growth	-	204	611	1,018	1,425	1,832	2,239	2,624	2,989	3,354
Total	**11,178**	**11,382**	**11,789**	**12,196**	**12,603**	**13,010**	**13,417**	**13,802**	**14,167**	**14,532**

Wastewater Flows Forecast (m^3)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Volumes										
Existing	2,714,275	2,714,275	2,714,275	2,714,275	2,714,275	2,714,275	2,714,275	2,714,275	2,714,275	2,714,275
New	-	34,476	103,259	172,042	240,825	309,608	378,391	443,456	505,141	566,826
Total	**2,714,275**	**2,748,751**	**2,817,534**	**2,886,317**	**2,955,100**	**3,023,883**	**3,092,666**	**3,157,731**	**3,219,416**	**3,281,101**

Chapter 2
Capital Infrastructure Needs

2. Capital Infrastructure Needs

2.1 Capital Forecast

Capital forecasts have been provided for the water and wastewater systems and are presented on Tables 2-1 through 2-2 (note: the costs are provided in inflated dollars). The basis for these forecasts is the County's water and wastewater Capital Budgets. The capital plan addresses works related to growth and asset management.

A summary of the capital works related to the water and wastewater services is provided on the following tables. Table 2-1 presents the water capital forecast summary and Table 2-2 presents the wastewater capital forecast summary.

Table 2-1
Haldimand County
2026 to 2034 Water Capital Forecast Summary (Inflated $)

Description	Total 2026 to 2034	Years Undertaken
Capital Expenditures		
222303 - Nant WTP Facility Security Perimeter Fencing & Gate Repairs	43,700	2026-2027
222407 - Nanticoke WTP Reservoir Exterior Wall Repairs	275,000	2026
322015 - Caledonia Reservoir Roof Rehab	6,900	2027
322017 - Booster Stn Roof Replacement	7,000	2028
322018 - Hagersville Tuscarora St Operations Building Roof	3,500	2028
322020 - Hagersville Standpipe Building Roof Repairs	7,000	2028
322021 - Jarvis Bulk Water Depot Roof Repairs	6,100	2026
322022 - Dunnville Bulk Water Depot Roof Repairs	6,900	2027
322026 - Nanticoke WTP Facility Building Roof Repairs	31,800	2028
322404 - Hagersville Standpipe Coating Maintenance	400,000	2026
322500 - Nanticoke WTP Internal Service Road Repairs	230,700	2028-2030
421805 - Reservoir–SCADA Computer & Network Replmt	14,700	2030
421809 - Granular Activated Carbon change out	485,400	2028-2031
421831 - Stelco IPS Operating Capital	429,300	2026-2034
421832 - Imperial Oil IPS Operating Capital	429,400	2026-2034
421837 - SCADA Computer & Network Replmt	28,300	2027
421919 - Caledonia Meter Replacement	2,009,000	2030
421920 - Dunnville Meter Replacement	930,000	2030
421991 - Water Operating Capital	429,000	2026-2034
421998 - Reservoir–SCADA Computer & Network Replmt	24,400	2030
422108 - Depot Software for Pay-at-the-Pump	80,000	2026
422128 - Booster Station Pumping Upgrades	1,655,700	2026
422216 - Chem Feed System Replacements	91,700	2028, 2031, 2034
422221 - Industry Raw Water Supply Valve and Chamber Refurb	91,900	2028, 2033
422224 - Reservoir Valvehouse AHU	143,500	2026
422231 - Stelco Raw Watermain Valve and Chamber Refurb	41,000	2026
422304 - Billing Software Upgrade	203,000	2026, 2029, 2032
422334 - Dunn WTP Filter Turbidity Analyzer Replacements	111,200	2027, 2030-2032
422336 - Dunnville Raw Water Supply Valve and Chamber Refurb	137,700	2028, 2033
422348 - Nant IPS Hydro Transformers/Substations Refurbishment	132,500	2026, 2028
422350 - Nant Transmission Line Chamber Refurbishment	60,000	2026
422351 - Nant IPS Main MV MCP Sections Refurbishment (2)	205,000	2026
422440 - Hagersville Booster Station Chlorine Analyzer Replacement	14,700	2032
422441 - Dunnville WTP Port Maitland Chlorine System Replacement	20,500	2026
422442 - Dunnville Port Maitland Raw Water Supply Line Relining	1,146,000	2028-2033
422443 - Dunnville WTP Raw Water Turbidity Analyzer Equipment Replacements	42,300	2026, 2032-2033
422445 - Dunnville Chlorine Analyzer Replacements	24,600	2026, 2028
422446 - Nanticoke WTP Highlift Clearwell Chlorine Analyzer Replacement	14,700	2032
422447 - Townsend Distribution Elevated Tank Chlorine Analyzer Installation	14,700	2032
422451 - Nanticoke WTP Raw Water Turbididty Meter Replacement	14,300	2031
422452 - Nanticoke WTP Settled Water Turbidity Meter Replacement	29,000	2031-2032
422456 - Nanticoke IPS MCC1 and MCC2 Refurbishments	354,400	2027-2028
422457 - Nanticoke Reservoir Chlorine Analyzer Replacements	25,300	2032-2033

Table 2-1 (Cont'd)
Haldimand County
2026 to 2034 Water Capital Forecast Summary (Inflated $)

Description	Total 2026 to 2034	Years Undertaken
422459 - Nanticoke Reservoir Transfer System	345,000	2026
422502 - Jarvis water depot maintenance	30,000	2029
422503 - Dunnville WTP Filter Tanks Relining and Media Replacements	140,000	2026
422505 - Dunnville WTP Sodium Hypochlorite Tank & Equipment Replacement	80,000	2026
422509 - Nanticoke WTP Actiflo Lamella and Air Scour Replacements	355,000	2027
422511 - Nanticoke WTP Clearwell Refurbishment	45,000	2027
422512 - Nanticoke WTP Valvehouse Valve Replacements	325,000	2027
422513 - Nanticoke WTP Filter Media Replacements	461,300	2030-2032
422514 - Nanticoke WTP Highlift Building Refurbishment	60,000	2027
422517 - Nanticoke WTP Highlift Valve Replacements	283,800	2026-2031
422519 - Nanticoke IPS Sump Pump Rebuild	10,000	2027
422520 - Nanticoke IPS Pump 5 Geardrive and Diesel Engine Rebuild	320,000	2026
422521 - Nanticoke IPS Pump 2 Motor Replacement	250,000	2026
422522 - Nanticoke IPS Potable Water Supply Line Valve and Pipe Replacement	60,000	2027
422525 - Nanticoke WTP Filter Backwash Flow Control Meter	10,000	2026
422528 - Hagersville Booster Station Main Electrical Switchboard Replacement	260,000	2026, 2031
422567 - Dunnville water depot maintenance	30,000	2026
631901 - Distribution System - Annual Repair & Replac't	911,000	2026-2034
632201 - Cast Iron Watermain Engineering	50,000	2034
632401 - Townsend Distribution Transmission Watermain Upsizing - Nanticoke Creek Pkwy to Stone Quarry Rd	670,000	2026-2027
632402 - Townsend Distribution Transmission Watermain Upsizing - Stone Quarry Rd to Townsend Elevated Tank	2,050,000	2029-2030
822123 - Cay - Mohawk St W - Ottawa St N to Munsee St N [CIW] [R]	166,800	2026, 2028
822124 - Cay - Norton St W - Ottawa St N to Munsee St N [CIW] [R]	161,600	2026, 2028
822126 - Dun - Cross Street E - Pine St to Tamarac St [CIW] [R] [SS]	656,000	2026-2027
822210 - Dun - Cross St W - Elizabeth Cr to Pine St [CIW] [R] [SS]	168,000	2026-2027
822211 - Dun - George St - Cross St W to End [CIW] [R]	982,500	2026-2027
822215 - Cay - Cayuga St - Alleyway Water Relocation [CIW] [R]	156,900	2026, 2028
822216 - Hag - Fairfield Dr - Elm Ave to Hunter St [CIW] [R]	398,800	2028, 2030
822217 - Hag - Hunter St - Church St E to King St E [CIW] [R]	400,200	2028, 2030
822218 - Hag - Elm Ave - Sherring St S to Hunter St [CIW] [R]	467,300	2028, 2030
822219 - Cal - Caithness Street W - Cameron St to Argyle St N [CIW] [WW] [R]	1,066,500	2027, 2029
822220 - Cal - Shetland St - Caithness St W to Sutherland St W [CIW] [R]	218,300	2027, 2029
822221 - Cal - Nairne St - Sutherland St E to Orkney St E [CIW] [R]	293,200	2027, 2029
822222 - Dun - Chestnut St - Alder St E to South Cayuga St E [CIW] [R]	187,600	2029, 2031
822223 - Dun - Lock St - Cedar to Queen [CIW] [R]	265,500	2029, 2031
822224 - Dun - Bridge Street - Main St E to Queen St [CIW] [R]	93,300	2029, 2031
822225 - Dun - Queen St - Chestnut St to Maple St [CIW] [R]	151,900	2029, 2031
822226 - Dun - Main St W - George St west 275m to Cemetery [CIW] [R]	415,900	2029, 2031
822242 - Cay - Mohawk St E - Munsee to Winnet [CIW] [R]	163,500	2026, 2028
822254 - Cay - Ottawa St N - Talbot St W to Mohawk St W [CIW] [R]	260,700	2034
822302 - Dun - Taylor Rd - Broad St E to Main St E [CIW] [R]	387,000	2026-2027
822304 - Hag - Sherring St N - King St E to Marathon St [CIW] [R]	370,100	2030, 2032
822402 - Cay - Winnett St N - Kerr St E to Echo St E [R] [CIW]	440,300	2026, 2028

Table 2-1 (Cont'd)
Haldimand County
2026 to 2034 Water Capital Forecast Summary (Inflated $)

Description	Total 2026 to 2034	Years Undertaken
822403 - Cal - Forfar St W - Argyle St to Peebles [R] [W]	648,500	2031, 2033
822404 - Cal - Selkirk St - Renfrew St W to Forfar St W [R] [W]	253,400	2031, 2033
822405 - Cal - Fife St E - Argyle St S to Wigton St [R] [W]	320,500	2031, 2033
822406 - Hag - Parkview Rd - Main St S to King St E [R] [WW] [CIW]	325,000	2026
822500 - Hag - Harris Street [CIW] [WW] [R]	207,200	2026
822501 - Dun - John St - Fairview Ave W to Jarret Place [W] [WW] [R]	429,900	2031, 2033
822502 - Quarry St - Sarah St to Porter St [CIW] [R]	143,000	2032, 2034
822503 - Hag - Porter St - Quarry St to Jane St [CIW] [R]	132,600	2032, 2034
822504 - Hag - Sarah St - End to King St W [CIW] [R]	323,700	2032, 2034
822505 - Hag - Jane St - End to Porter St [CIW] [R]	486,200	2032, 2034
822506 - Dun - Jim Gregory Drive [CIW] [WW] [SS] [R]	275,000	2026
931930 - Asbestos Annual Inspection and Remediation [WW]	34,200	2026-2034
931935 - Nant - WTP Lagoon Clean Out	1,033,200	2026-2034
931987 - Distribution Leak Detection Program	214,400	2026-2034
932110 - Nanticoke WTP Intake Inspections	174,450	2028, 2031, 2034
932504 - Optimization Program Support - Water	20,800	2026-2027
Studies:		
931910 - Water Financial Plan Update (O. Reg. 453/07)	6,100	2030
931926 - Facility Condition Assessment [WW]	122,000	2027, 2029, 2031, 2033
932108 - WWW Rate Study	34,000	2030
932404 - Nanticoke WTP Digitize Operation and Maintenance Manuals	22,000	2027
932500 - Transmission Main Condition Assessments	750,000	2027, 2029, 2031
Growth Related:		
931927 - SCADA Master Plan	83,600	2026, 2032
821962 - Cay - Master Servicing Plan Update [WW][R][SS]	29,000	2030
931978 - Cal - Master Servicing Plan Update [WW][R][SS]	89,200	2032
931979 - Hag - Master Servicing Plan Update [WW][R][SS]	34,000	2028
931980 - Jar - Master Servicing Plan Update [WW][R][SS]	46,500	2026, 2031
931981 - Dun - Master Servicing Plan Update [WW][R][SS]	34,800	2029
931984 - Development Charges Study Update	9,200	2030
932012 - LEIP - Master Servicing Plan [WW][R][S]	108,000	2027, 2033
321922 - Plant Capital Improvements	5,536,700	2029-2032, 2034
321923 - Elevated Storage Tank Replacement	8,654,600	2032-2033
421826 - WTP SCADA Computer & Network Replmt	30,400	2030
322014 - Caledonia North Water Storage Expansion	5,688,600	2026
421830 - WTP Reservoir Expansion	2,035,300	2028
422233 - Project Management Support [WW]	751,000	2026-2034
632102 - Twinning of 450mm Water Main on Hwy 6	1,661,200	2026
632103 - Twinning of 350mm Water Main on Hald Rd 66	1,833,700	2030
931929 - SCADA Maintenance	329,800	2026-2034
421862 - WTP PLC Replacements	132,700	2026-2028
421992 - SCADA Technical Support	439,600	2026-2034
Total Capital Expenditures	**58,553,850**	

Table 2-2
Haldimand County
2026 to 2034 Wastewater Capital Forecast Summary (Inflated $)

Description	Total 2026 to 2034	Years Undertaken
Capital Expenditures		
221999 - Jarvis Lagoon Clean Out	505,000	2030
222401 - Dunnville WWTP Storage Lagoon Sampling Platform	20,000	2027
222402 - Townsend Lagoon Access Lane Restoration	32,000	2026, 2031
222406 - Lake Erie Industrial Park (LEIP) Lagoon Access Lane Restoration	11,300	2030
321912 - Forfar St. Storage Building Roof Replacement	3,600	2029
321920 - Main Pump Station Roof Replacement	7,100	2029
322007 - Hagersville Tuscarora St Operations Building Roof	3,500	2028
322010 - Jarvis/Talbot Pump Station Roof	6,900	2027
322402 - Dunnville Broad Street Pump Station Building Exterior Restoration	35,000	2026
322506 - Caledonia WWTP Sludge Building VFD Replacements	70,000	2027
322508 - Hagersville WWTP Return Bldg Roof Access Upgrades and HVAC Repairs	50,000	2029
322509 - Hagersville WWTP Administration Bldg HVAC Replacement	80,000	2027
322512 - Jarvis Lagoon Access Lane Restoration	21,300	2027, 2032
322513 - Oswego Park Lagoon Access Lane Restoration	17,100	2028, 2033
421922 - Collection System - Annual Repair	643,200	2026-2034
421923 - Composite Sampler-Replacement Program	185,600	2027, 2029, 2031, 2033
421925 - Wastewater Operating Capital	442,100	2026-2034
421928 - Confined Space Entry Equipment Replacements	37,600	2028, 2031, 2034
421931 - WWTP – SCADA Computer & Network Replmt	23,200	2028
421941 - WTP Electrical Panels and VFD Inspection/Maintenance	11,600	2028
421943 - Remotes–Control Equipment Replacement(SCADA)	90,500	2027
421956 - WWTP Electrical Panel and VFD Inspection/Maintenance	11,600	2028
421968 - Twinning of Headworks Screen	455,000	2029
421969 - WTP Electrical Panel and VFD Inspection/Maintenance	5,800	2028
421971 - WWTP SCADA Computer & Network Replmt	21,500	2027
421979 - Blower Replacement - High Efficiency & VFD	220,800	2026
421982 - Odour Control Media Replacement	39,900	2029, 2033
421984 - Sludge Storage Cell #4 Upgrades and Screen	496,700	2026
421985 - WWTP SCADA Computer & Network Replmt	18,100	2027
422123 - Clarifiers 3 & 4 Rebuild	125,000	2026
422304 - Billing Software Upgrade	203,000	2026, 2029, 2032
422406 - Caledonia McClung Road Pump Station Grinder Replacement	75,000	2026
422407 - Caledonia Orkney Street Pump Station Pump Replacement	70,000	2026, 2031
422408 - Caledonia Paisley Street Pump Station Backup Generator Replacement	150,000	2026
422410 - Caledonia WWTP Dechlorination Chemical Feed Pump Replacement	15,400	2026
422412 - Caledonia WWTP Sand Filter Backwash Pump Replacements	30,000	2026
422418 - Hagersville WWTP Filter Backwash Pumps Refurbish/Replacement	17,000	2026-2027
422419 - Hagersville WWTP UV Disinfection Bulb Replacement	209,500	2026-2034
422420 - Hagersville WWTP High Voltage Assessment and Repairs	17,000	2026
422421 - Hagersville WWTP Supernatant Slip Pipe Actuator Valve	40,000	2027
422424 - Cayuga WWTP UV Disinfection Bulb Replacement	122,500	2026-2034
422425 - Cayuga WWTP Digester Clean-out and Inspection	34,000	2030
422426 - Cayuga WWTP Clarifier Mechanical Replacements	100,000	2027
422427 - Cayuga WWTP Oxidation Ditch Rotor #2 Repairs	10,000	2026

Table 2-2 (Cont'd)
Haldimand County
2026 to 2034 Wastewater Capital Forecast Summary (Inflated $)

Description	Total 2026 to 2034	Years Undertaken
422432 - Dunnville WWTP Ferris Chemical Feed Pump Replacement	10,500	2026
422436 - Townsend Pump station MCC Refurbishments	55,000	2026
422535 - Caledonia Paisley Street Pump Station Pump and Piping Replacements	170,000	2028
422538 - Caledonia Nairne Street Pump Station Odour Control	250,000	2032
422541 - Hagersville Mary Street Pump Station Equipment Repalcements	300,000	2029
422542 - Oswego Park Pump Station Electrical and Pumping Upgrades	250,000	2028
422543 - Townsend Pump Station Flow Meter Replacement	15,000	2027
422544 - Caledonia WWTP Chlorine Pump Replacements	30,000	2027
422545 - Caledonia WWTP Coagulant Pump Replacements	25,000	2026
422548 - Caledonia WWTP Primary Flight and Chain Replacement	253,100	2026-2027
422549 - Caledonia WWTP Secondary Flight and Chain Replacement	253,100	2028-2029
422551 - Cayuga WWTP Clarifier V-Notch Weir Replacements	50,000	2026
422554 - Cayuga WWTP Digester Blower VFD Replacements	25,000	2026
422555 - Cayuga WWTP Coagulant Pump Replacements	15,000	2028
422556 - Dunnville WWTP Sludge Storage Lagoon Berm and Slip Pipe Repairs	31,200	2026-2027
422558 - Dunnville WWTP Digester Compressor Replacements	70,000	2027
422559 - Dunnville WWTP Headworks Screen Maintenance and Repairs	20,000	2032
422560 - Hagersville WWTP Filter Underdrain Repairs and Media Replacements	192,400	2026-2027
422562 - Hagersville WWTP Secondary Clarifier Refurbishments	100,000	2028
422563 - Hagersville WWTP Headworks Bldg Roof Access Upgrades and HVAC Repairs	50,000	2028
422564 - Hagersville WWTP Coagulant Pump Replacements	20,000	2026
822113 - Sanitary Sewer Relining/Repair [CIW][W][R]	1,680,000	2026-2034
822219 - Cal - Caithness Street W - Cameron St to Argyle St N [CIW] [WW] [R] [SS]	120,000	2029
822401 - Dunn - Tamarac St - Forest St to Concession Rd E [R] [WW]	325,000	2029, 2031
822406 - Hag - Parkview Rd - Main St S to King St E [R] [WW] [CIW]	475,000	2026
822407 - Dunn - Niagara St - Broad St E to Main St E [R] [WW]	403,600	2030, 2032
822408 - Dunn - Main Street E - Niagara St to Dunnville WW Treatment Plant [R] [WW]	213,000	2030, 2032
822500 - Hag - Harris Street [CIW] [WW] [R]	227,200	2026
822501 - Dun - John St - Fairview Ave W to Jarret Place [W] [WW] [R]	101,900	2031, 2033
822506 - Dun - Jim Gregory Drive [CIW] [WW] [SS] [R]	255,000	2026
931903 - Facility Condition Assessment [W]	153,100	2026, 2028, 2030, 2032, 2034
931914 - CCTV Inspections - Structural Ass'ments [SS] - Engineering	274,700	2026-2034
931918 - CCTV Inspections - Operations	410,200	2026-2034
931919 - Asbestos Annual Inspection and Remediation [W]	43,900	2026-2034
931921 - Townsend Lagoon Clean Out	663,400	2027, 2032
931922 - Oswego Lagoon Clean Out	290,000	2028
931924 - LEIP Lagoon Clean Out	390,000	2029
932503 - Optimization Program Support - Wastewater	31,200	2026-2027
Studies:		
932108 - WWW Rate Study	34,000	2030

Table 2-2 (Cont'd)
Haldimand County
2026 to 2034 Wastewater Capital Forecast Summary (Inflated $)

Description	Total 2026 to 2034	Years Undertaken
Growth Related:		
931904 - Cay - Master Servicing Plan Update [W][R][SS]	29,000	2030
931905 - Dun - Master Servicing Plan Update [W][R][SS]	34,800	2029
931913 - SCADA Master Plan Updates	82,000	2026, 2031
931975 - Cal - Master Servicing Plan Update [W][R][SS]	89,200	2032
931976 - Hag - Master Servicing Plan Update [W][R][SS]	34,000	2028
931977 - Jar - Master Servicing Plan Update [W][R][SS]	35,000	2026, 2031
931984 - Development Charges Study Update	27,400	2030
932011 - LEIP - Master Servicing Plan [W][R][S]	108,000	2027, 2033
421921 - SCADA Maintenance	219,800	2026-2034
421924 - SCADA Technical Support	439,600	2026-2034
421929 - Plant Capital Improvements	8,068,000	2029, 2031-2034
421946 - WWTP PLC Replacements	133,400	2028
421947 - WWTP SCADA Computer & Network Replmt	25,600	2028
421955 - Remotes–Control Equipment Replacement(SCADA)	63,700	2028
321913 - Caledonia Wastewater Treatment Plant	57,000,000	2030, 2033
422111 - McClung SPS Upgrades	800,000	2027
422211 - Project Management Support [W]	751,000	2026-2034
642500 - McClung Forcemain River Crossing to New WWTP	6,906,000	2026
421958 - Grit Removal System	4,000,000	2028-2029
421959 - WWTP PLC Replacements	332,900	2027-2028
421963 - Ouse St PS Replacements	3,100,000	2028, 2030
421965 - McKay St. Pump Station Upgrades and Pump Replacements	625,000	2028
641901 - Sewer Manhole Repairs (I&I)	366,200	2027, 2029, 2031, 2033
641902 - Sanitary Sewer Rehabilitations (I&I)	998,500	2028, 2030, 2032, 2034
641906 - Ouse St Forcemain Twinning	895,000	2028, 2030
931911 - Inflow & Infiltration Program Support	309,400	2026-2034
931916 - Effluent Water Quality & Impact Assessment	384,500	2026-2034
Total Capital Expenditures	**98,918,900**	

Chapter 3
Lifecycle Costing

3. Lifecycle Costing

3.1 Overview of Lifecycle Costing

3.1.1 Definition

For many years, lifecycle costing has been used in the field of maintenance engineering and to evaluate the advantages of using alternative materials in construction or production design. The method has gained wider acceptance and use in the areas of industrial decision-making and the management of physical assets.

By definition, lifecycle costs are all the costs which are incurred during the lifecycle of a physical asset, from the time its acquisition is first considered to the time it is taken out of service for disposal or redeployment. The stages which the asset goes through in its lifecycle are specification, design, manufacture (or build), install, commission, operate, maintain and disposal. Figure 3-1 depicts these stages in a schematic form.

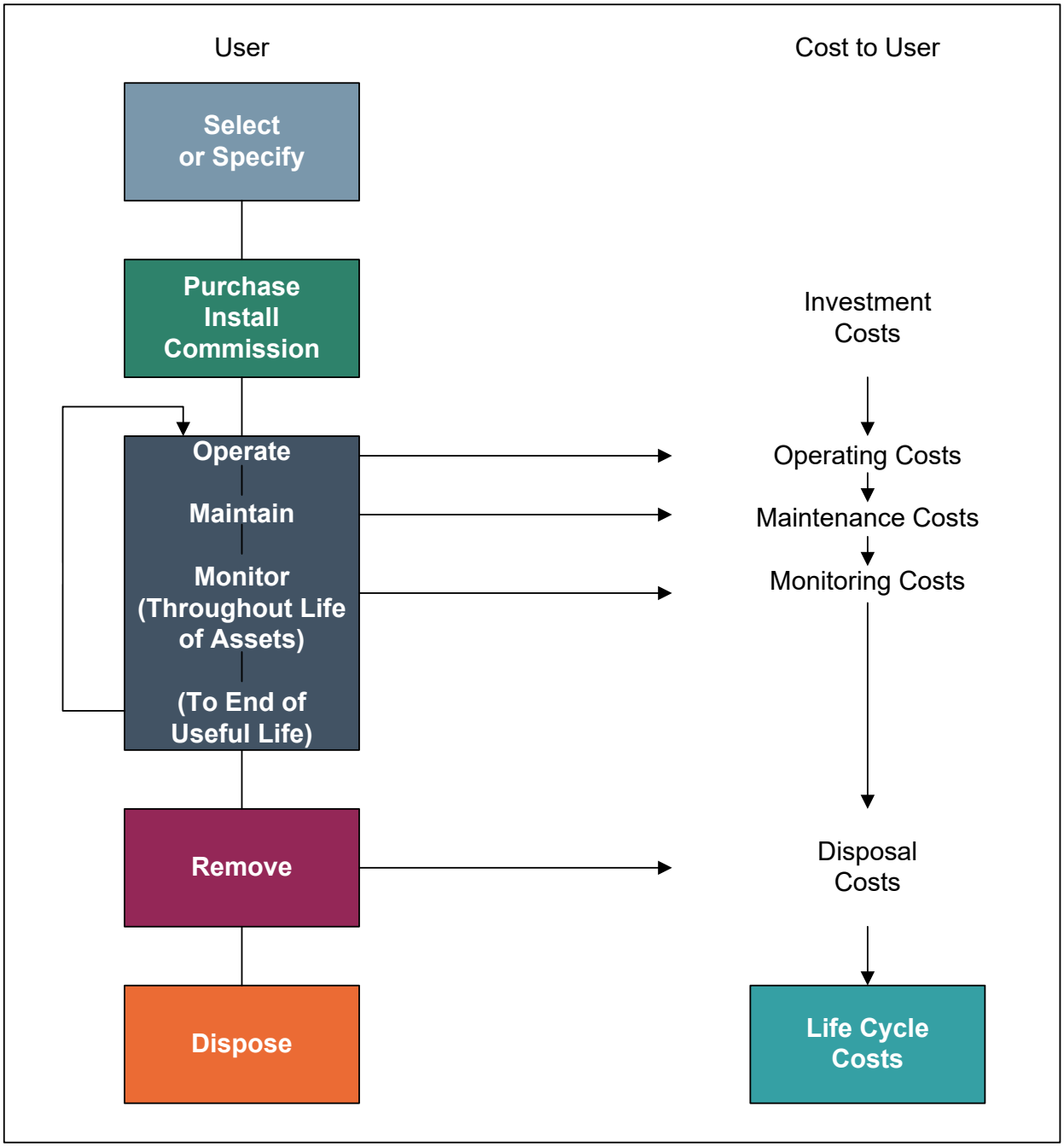
3.1.2 Financing Costs

This section will focus on financing mechanisms in place to fund the costs incurred throughout the asset's life.

In a municipal context, services are provided to benefit tax/rate payers. Acquisition of assets is normally timed in relation to direct needs within the community. At times, economies of scale or technical efficiencies will lead to oversizing an asset to accommodate future growth within the County. Over the past few decades, new financing techniques such as development charges have been employed based on the underlying principle of having tax/rate payers who benefit directly from the service paying for that service. Operating costs which reflect the cost of the service for that year are charged directly to all existing tax/rate payers who have received the benefit. Operating costs are normally charged through the tax base or user rates.

Capital expenditures are recouped through several methods, with operating budget contributions, development charges, reserves, developer contributions and debentures, being the most common.

Figure 3-1
Lifecycle Costing



New construction related to growth could produce development charges and developer contributions (e.g. works internal to a subdivision which are the responsibility of the developer to construct) to fund a significant portion of projects, where new assets are

being acquired to allow growth within the County to continue. As well, debentures could be used to fund such works, with the debt charge carrying costs recouped from rate/taxpayers in the future.

Capital construction to replace existing infrastructure, however, is largely not growth-related and will therefore not leverage development charges or developer contributions to assist in financing these works. Hence, a municipality will be dependent upon debentures, reserves and contributions from the operating budget to fund these works.

Figure 3-2 depicts the costs of an asset from its initial conception through to replacement and then continues to follow the associated costs through to the next replacement.

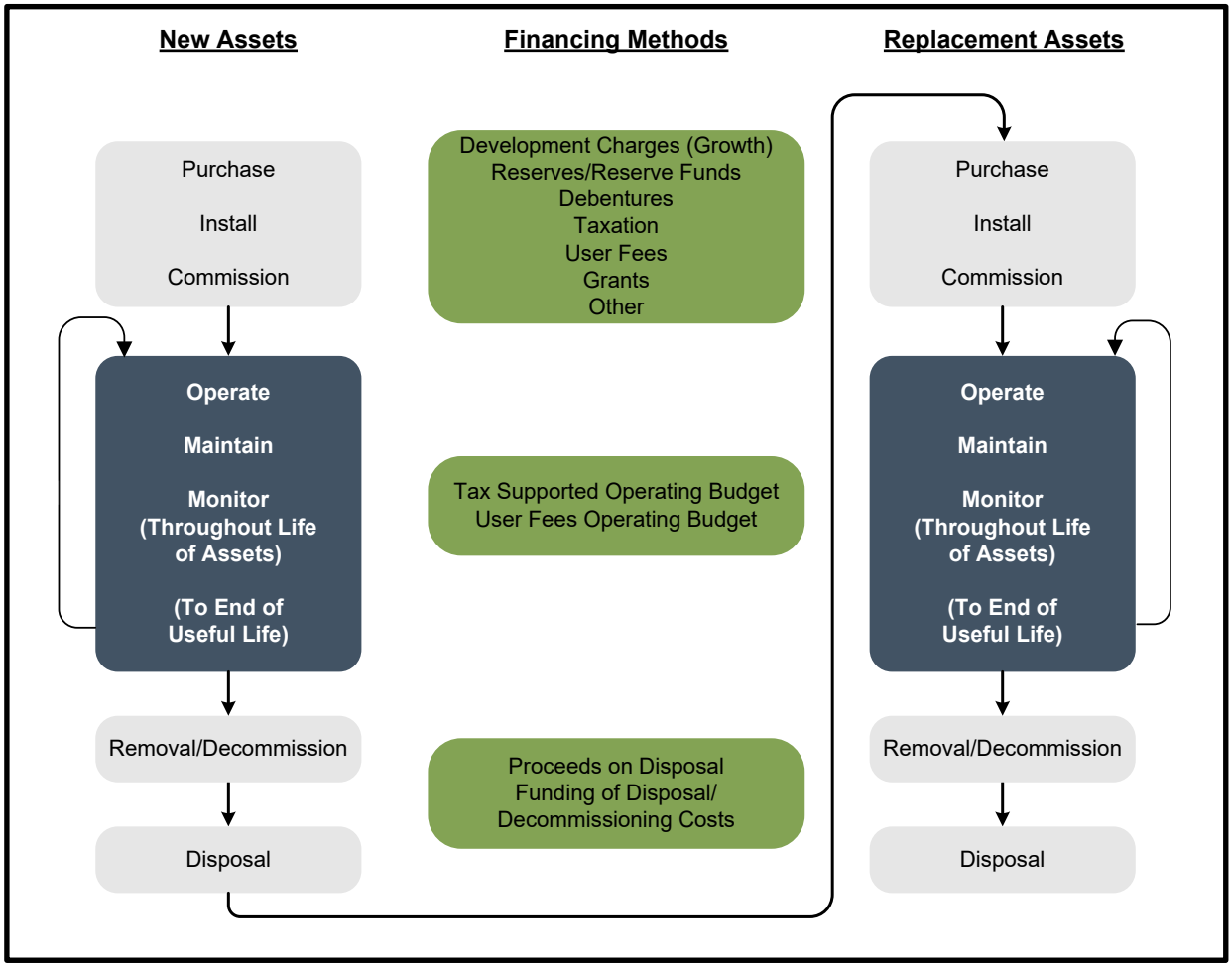
As referred to earlier, growth-related financing methods such as development charges and developer contributions could be utilized to finance the growth-related component of the new asset. These revenues are collected (indirectly) from the new homeowner who benefits directly from the installation of this asset. Other financing methods may be used as well to finance the non-growth-related component of this project, such as reserves which have been collected from past tax/rate payers, operating budget contributions which are collected from existing tax/rate payers and debenturing which will be carried by future tax/rate payers. Ongoing costs for monitoring, operating and maintaining the asset will be charged annually to the existing tax/rate payer.

When the asset requires replacement, the sources of financing will be limited to reserves, debentures and contributions from the operating budget. At this point, the question is raised: "If the cost of replacement is to be assessed against the tax/rate payer who benefits from the replacement of the asset, should the past tax/rate payer pay for this cost or should future rate payers assume this cost?" If the position is taken that the past user has used up the asset, hence they should pay for the cost of replacement, then a charge should be assessed annually through the life of the asset, to have funds available to replace it when the time comes. If the position is taken that the future tax/rate payer should assume this cost, then debenturing and, possibly, a contribution from the operating budget should be used to fund this work.

Charging for the cost of using up an asset is the fundamental concept behind depreciation methods utilized by the private sector. This concept allows for expending the asset as it is used up in the production process. The tracking of these costs forms

part of the product's selling price and, hence, end-users are charged for the asset's depreciation. The same concept can be applied in a municipal setting to charge existing users for the asset's use and set those funds aside in a reserve to finance the cost of replacing the asset in the future.

Figure 3-2
Financing Lifecycle Costs



3.1.3 Costing Methods

There are two fundamental methods of calculating the cost of the usage of an asset and for the provision of the revenue required when the time comes to retire and replace it. The first method is the Depreciation Method. This method recognizes the reduction in the value of the asset through wear and tear and aging. There are two commonly used

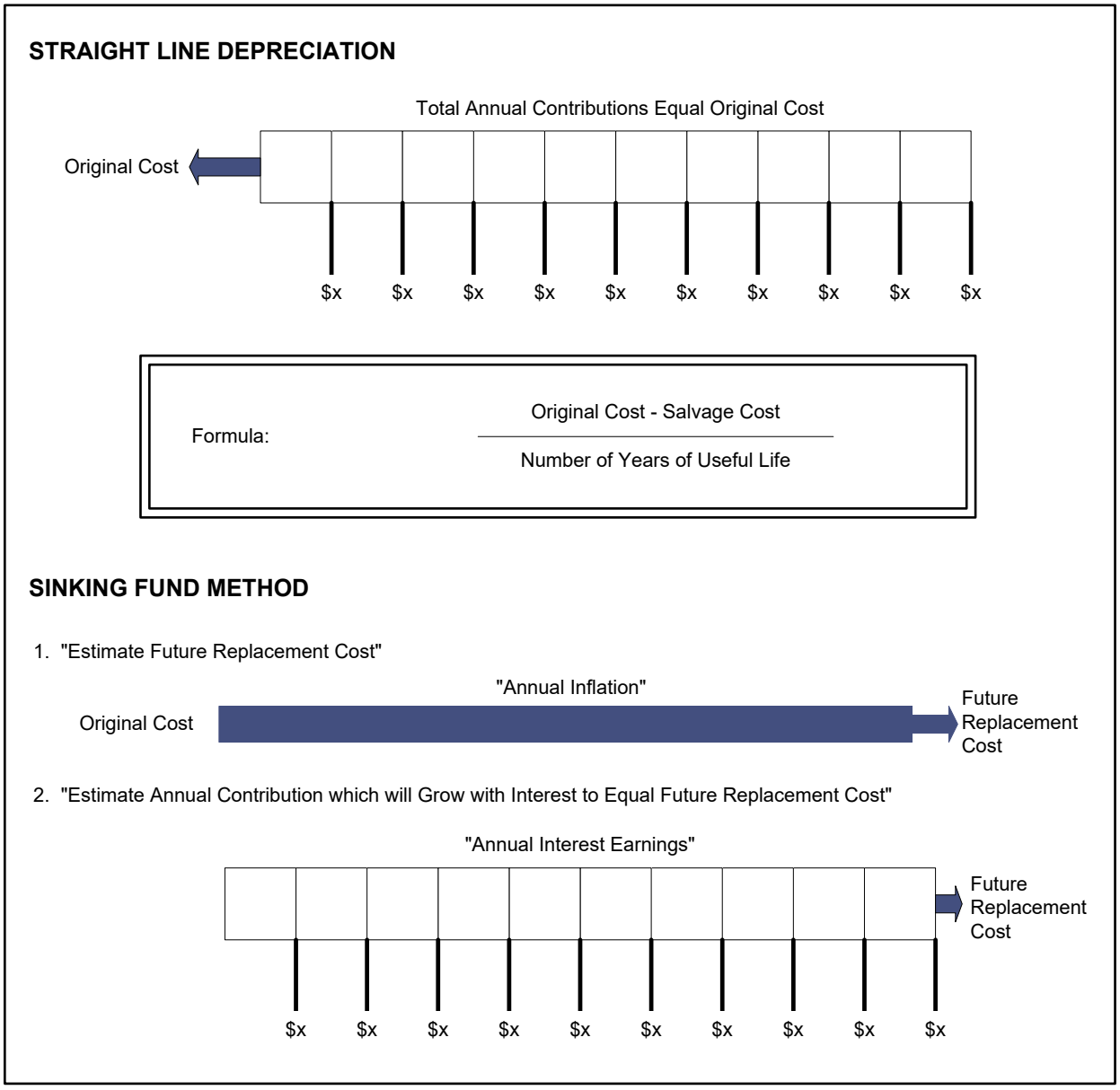
forms of depreciation: the straight-line method and the reducing balance method (shown graphically in Figure 3-3).

The straight-line method is calculated by taking the original cost of the asset, subtracting its estimated salvage value (estimated value of the asset at the time it is disposed of) and dividing this by the estimated number of years of useful life. The reducing balance method is calculated by utilizing a fixed percentage rate and this rate is applied annually to the undepreciated balance of the asset value.

The second method of lifecycle costing is the sinking fund method. This method first estimates the future value of the asset at the time of replacement. This is done by inflating the original cost of the asset at an assumed annual inflation rate. A calculation is then performed to determine annual contributions (equal or otherwise) which, when invested, will grow with interest to equal the future replacement cost.

The preferred method used herein for forecasting purposes is the sinking fund method of lifecycle costing.

Figure 3-3



3.2 Impact on Budgets

The County is currently undertaking an exercise to update their asset management inventory. Based on the County's most recent Asset Management Plan, there is a total replacement value of approximately $1.03 billion for water (including facilities, storage, and watermains). For wastewater, the total replacement value (including sewer mains, treatment plants, lagoons, and pumping stations), is approximately $391.51 million.

Based on these figures, the average annual level of investment recommended in the Asset Management Plan was $15.59 million for water and $7.43 million for wastewater.

Various asset management related works have been incorporated into the capital forecast. In addition, the balance in the capital replacement reserve funds are forecasted to increase over the study period, however, the forecasted increases are less than the recommended annual amounts set out in the Asset Management Plan. As the County is undertaking a review and update of their replacement cost information, the figures in the Asset Management Plan may be revised.

To estimate the adequacy of asset management expenditures over the forecast period, a review of municipalities with similar volumes of treated water and/or kilometres of watermains was conducted. On average, Belleville, New Tecumseth, Bradford West Gwillimbury, and Norfolk County have annual lifecycle requirements of $6.45 million for water and $7.45 million for wastewater. In review of the County's current expenditures on asset management over the forecast period ($4.81 million annually for water and $3.12 million annually for wastewater), it would appear that the expenditures on lifecycle may not be adequate.

It is important that the County continue to monitor asset management needs and set aside funds for future replacement needs. Once updated asset management data is available, the County should consider reviewing their lifecycle contributions.

Chapter 4
Capital Cost Financing Options

4. Capital Cost Financing Options

4.1 Summary of Capital Cost Financing Alternatives

Historically, the powers that municipalities had to raise alternative revenues to taxation to fund capital services have been restrictive. Over the past decade, legislative reforms have been introduced. Some of these have expanded municipal powers (e.g. Bill 26 introduced in 1996 to provide for expanded powers for imposing fees and charges), while others appear to restrict them (e.g. Bill 23 in 2022 providing amendments to the D.C.A.).

The Province passed a new *Municipal Act* which came into force on January 1, 2003. Part XII of the Act and O.Reg. 584/06 govern a municipality's ability to impose fees and charges. In contrast to the previous *Municipal Act*, this Act provides municipalities with broadly defined powers and does not differentiate between fees for operating and capital purposes. It is anticipated that the powers to recover capital costs under the previous *Municipal Act* will continue within the new Statutes and Regulations, as indicated by s.9(2) and s.452 of the new *Municipal Act*.

Under s.484 of *Municipal Act, 2001*, the *Local Improvement Act* was repealed with the in-force date of the *Municipal Act* (January 1, 2003). The municipal powers granted under the *Local Improvement Act* now fall under the jurisdiction of the *Municipal Act*. To this end, on December 20, 2002, O.Reg. 390/02 was filed, which allowed for the *Local Improvement Act* to be deemed to remain in force until April 1, 2003. O.Reg. 119/03 was enacted on April 19, 2003, which restored many of the previous *Local Improvement Act* provisions; however, the authority is now provided under the *Municipal Act*.

The methods of capital cost recovery available to municipalities are provided as follows:

Recovery Methods	Section Reference
• *Development Charges Act, 1997*	4.2
• *Municipal Act*	4.3
○ Fees and Charges	
○ Sewer and Water Area Charges	
○ Connection Fees	
○ Local Improvements	

Recovery Methods	Section Reference
• Historical Grant Funding Availability	4.4
• Existing Reserves/Reserve Funds	4.5
• Debenture Financing	4.6
• Infrastructure Ontario	4.7

4.2 Development Charges Act, 1997

Development charges are a revenue tool used by municipalities to recover the capital costs associated with new development and redevelopment. These costs are in addition to what a developer/builder normally constructs as part of their subdivision (i.e. Local Services). Empowered by the *Development Charges Act, 1997*, municipalities may pass by-laws to impose charges to recover the capital costs associated with development and redevelopment.

The County currently imposes Development Charges via by-law 2042-19. For projects that are growth-related, this rate study has identified Development Charges as the funding source. The *Development Charges Act* includes a number of mandatory exemptions from the charges and as such, some level of funding from the water rates will be required for financing the growth-related capital projects.

Since the inception of the revised *Development Charges Act*, in 1997, the province has expanded the number of mandatory exemptions and discounts required for new development. Should the mandatory exemptions and discounts continue to change with new legislation, the County may need to reexamine timing of capital projects to ensure adequate funding is available.

4.3 Municipal Act

Part XII of the *Municipal Act* provides municipalities with broad powers to impose fees and charges via passage of a by-law. These powers, as presented in s.391(1), include imposing fees or charges:

- "for services or activities provided or done by or on behalf of it;
- for costs payable by it for services or activities provided or done by or on behalf of any other municipality or local board; and

- for the use of its property including property under its control."

Restrictions are provided to ensure that the form of the charge is not akin to a poll tax. Any charges not paid under this authority may be added to the tax roll and collected in a like manner. The fees and charges imposed under this part are not appealable to the Ontario Land Tribunal (OLT) (formerly Local Planning Appeal Tribunal (LPAT), formerly O.M.B.).

Section 221 of the previous *Municipal Act* permitted municipalities to impose charges, by by-law, on owners or occupants of land who would or might derive benefit from the construction of sewage (storm and sanitary) or water works being authorized (in a specific benefit area). For a by-law imposed under this section of the previous Act:

- A variety of different means could be used to establish the rate and recovery of the costs and could be imposed by a number of methods at the discretion of Council (i.e. lot size, frontage, number of benefiting properties, etc.);
- Rates could be imposed with respect to costs of major capital works, even though an immediate benefit was not enjoyed;
- Non-abutting owners could be charged;
- Recovery was authorized against existing works, where a new water or sewer main was added to such works, "notwithstanding that the capital costs of existing works has in whole or in part been paid;"
- Charges on individual parcels could be deferred;
- Exemptions could be established;
- Repayment was secured; and
- OLT approval was not required.

While under the new *Municipal Act* no provisions are provided specific to the previous s.221, the intent to allow capital cost recovery through fees and charges is embraced within s.391. The new *Municipal Act* also maintains the ability of municipalities to impose capital charges for water and sewer services on landowners not receiving an immediate benefit from the works. Under s.391(2) of the Act, "a fee or charge imposed under subsection (1) for capital costs related to sewage or water services or activities may be imposed on persons not receiving an immediate benefit from the services or activities but who will receive a benefit at some later point in time." Also, capital charges imposed under s.391 are not appealable to the OLT on the grounds that the charges are "unfair or unjust."

Section 222 of the previous *Municipal Act* permitted municipalities to pass a by-law requiring buildings to connect to the municipality's sewer and water systems, charging the owner for the cost of constructing services from the mains to the property line. Under the new *Municipal Act*, this power still exists under Part II, General Municipal Powers (s.9 (3) b of the *Municipal Act*). Enforcement and penalties for this use of power are contained in s.427 (1) of the *Municipal Act*.

Under the previous *Local Improvement Act*:

- A variety of different types of works could be undertaken, such as watermain, storm and sanitary sewer projects, supply of electrical light or power, bridge construction, sidewalks, road widening and paving;
- Council could pass a by-law for undertaking such work on petition of a majority of benefiting taxpayers, on a 2/3 vote of Council and on sanitary grounds, based on the recommendation of the Minister of Health. The by-law was required to go to the OLT, which might hold hearings and alter the by-law, particularly if there were objections;
- The entire cost of a work was assessed only upon the lots abutting directly on the work, according to the extent of their respective frontages, using an equal special rate per metre of frontage; and
- As noted, this Act was repealed as of April 1, 2003; however, O.Reg. 119/03 was enacted on April 19, 2003 which restores many of the previous *Local Improvement Act* provisions; however, the authority is now provided under the *Municipal Act*.

4.4 Historical and Current Grant Funding Availability

Phase 1 (April 1, 2016 to March 31, 2018)

Funding was provided by the Government of Canada to expressly help municipalities with repair and rehabilitation projects. Funding was mainly provided through the Clean Water and Wastewater Fund (C.W.W.F.) and Public Transit Infrastructure Fund (P.T.I.F.) in Federal Phase 1 projects. The C.W.W.F. was announced in Ontario on September 15, 2016. The Fund was $1.1 billion for water, wastewater, and storm water systems in Ontario. The federal government provided $569 million and Ontario and municipal governments provided $275 million each.

Over 1,300 water, wastewater, and storm water projects have been approved in Ontario through the C.W.W.F. In Ontario, P.T.I.F. accounted for nearly $1.5 billion of the national total of $3.4 billion. The program was allocated by ridership numbers from the Canadian Urban Transit Association. The Association of Municipalities of Ontario (A.M.O.) understands that $1 billion of Ontario's share has been approved.

Phase 2: Next Steps

The federal government announced Phase 2 of its infrastructure funding plan with a total of $180 billion spent over 11 years. In addition to the balance of funding for previous green, social, and public transit infrastructure funds ($20 billion each, including Phase 1), the government added $10.1 billion for trade and transportation infrastructure and $2 billion for rural and northern communities.

In Phase 2, Ontario was eligible for $11.8 billion including $8.3 billion for transit, $2.8 billion for green infrastructure, $407 million for community, culture and recreation and $250 million for rural and northern communities.

Canada Community-Building Fund

The Canada Community-Building Fund is a permanent source of funding provided up front, twice-a-year, to Provinces and Territories, who in turn flow this funding to their municipalities to support local infrastructure priorities. Municipalities can pool, bank and borrow against this funding, providing significant financial flexibility. Every year, the Canada Community-Building Fund provides over $2 billion and supports approximately 2,500 projects in communities across Canada. Each municipality selects how best to direct the funds with the flexibility provided to make strategic investments across 18 different project categories, which include other water and wastewater servicing.

Ontario Government

The Province has taken steps to increase municipal infrastructure funding. The Ontario Community Infrastructure Fund (O.C.I.F.) was increased in 2016 with formula-based support growing to $200 million, and application funding growing to $100 million annually by 2018/2019. As well, $15 million annually will go to the new Connecting Links program to help pay for the construction and repair costs of municipal roads that connect communities to provincial highways. This is on top of the Building Ontario Up investment of $130 billion in public infrastructure over 10 years starting in 2015.

Recently the Province announced funding through a new Ontario Infrastructure Bank. This new, arms-length, board-governed agency will assist investors and institutions to further participate in large-scale infrastructure projects. Ontario is providing $825 million over three years towards the Housing-Enabling Water Systems Fund, which will help municipalities repair, rehabilitate and expand drinking water, wastewater and stormwater infrastructure needed to build more homes.

4.5 Existing Reserves/Reserve Funds

The County has established reserves and reserve funds for water and wastewater costs. The following table summarizes the water and wastewater reserves utilized in this analysis and their respective estimated balances at December 31, 2024:

Table 4-1
Water and Wastewater Reserves and Reserve Funds
As of December 31, 2024

Reserve	Dec. 31 2024
Water	
Development Charges Reserve Fund	**909,789**
Dunnville Microstrainer	**47,736**
Rate Stabilization	**2,441,062**
Capital Replacement Reserve	**960,784**
Wastewater	
Capital Replacement Reserve	**12,984,009**
Development Charges Reserve Fund	**(12,908,380)**
Rate Stabilization	**3,619,713**

4.6 Debenture Financing

Although it is not a direct method of minimizing the overall cost to the ratepayer, debentures are used by municipalities to assist in cash flowing large capital expenditures.

The Ministry of Municipal Affairs regulates the level of debt incurred by Ontario municipalities, through its powers established under the *Municipal Act*. Ontario Regulation 403/02 provides the current rules respecting municipal debt and financial obligations. Through the rules established under these regulations, a municipality's debt capacity is capped at a level where no more than 25% of the municipality's own

purpose revenue may be allotted for servicing the debt (i.e. debt charges). Haldimand County's calculation on Debt Capacity is shown on Schedule 81 of the County's most recent Financial Information Return (F.I.R.). This calculates to the County's estimated annual repayment limit of approximately $22.77 million. Based upon 10-year financing at an assumed rate of 4%, the available debt for the County is approximately $184.72 million.

4.7 Infrastructure Ontario

Infrastructure Ontario (I.O.) is an arms-length crown corporation, which supports the Ontario government's goals of modernizing and maximizing the value of public infrastructure. Its lending program was established as a tool to offer low-cost and longer-term financing to assist municipalities in modernizing and renewing their infrastructure. I.O. combines the infrastructure renewal needs of municipalities into an infrastructure investment "pool." I.O. will raise investment capital to finance loans to the public sector by selling Infrastructure Renewal Bonds to individual and institutional investors.

I.O. provides access to infrastructure capital that would not otherwise be available to smaller borrowers. Larger borrowers receive longer loan terms than they could get in the financial markets. They can also save on costs such as legal fees and underwriting commissions. Under the I.O. approach, all borrowers receive the same low interest rate. I.O. will enter into a financial agreement with each municipality, subject to technical and credit reviews, for a loan up to the maximum amount of the loan request.

To be eligible to receive these loans, municipalities must submit a formal application along with pertinent financial information. Allotments are prioritized and distributed based upon the Province's assessment of need.

4.7.1 Housing-Enabling Water Infrastructure Lending Stream

On November 28, 2024, the Province and I.O. announced the Housing-Enabling Water Infrastructure (H.E.W.I.) lending stream. This lending stream will provide up to $1.0 billion in loans to municipalities for projects to construct, expand, and rehabilitate drinking water, wastewater, and stormwater infrastructure to enable new housing development. Eligible projects under this stream include:

- Potable Water Assets: Treatment plants, reservoirs, local pipes, distribution system watermains, municipal service lines, and pump stations.
- Wastewater Assets: Lagoon systems, pump stations, lift stations, linear assets, treatment plants, storage tanks, and collection systems.
- Stormwater Assets: Management facilities and linear assets such as conveyance piping, ditches, and culverts.

Key features of this lending stream include lower interest rates, the option to defer interest payments during the construction phase of a project, and extended amortization periods (up to 40 years). Additionally, municipalities have the flexibility to issue multiple debentures in sequence over the 40-year period (i.e., split terms during debentures) and to pay down the principal between sequential debentures. This program started accepting applications on December 2, 2024, and is being administered on a "first-come-first-served" basis until the maximum program amount is reached.

4.8 Recommended Capital Financing Approach

Of the various funding alternatives provided in this section, the following are recommended for further consideration by Haldimand County for the capital expenditures (inflated) provided in Chapter 2:

Table 4-2
Haldimand County
Capital Forecasting Financing Sources
Inflated $

Description	Water	Wastewater
Capital Financing		
Provincial/Federal Grants	-	-
Recoveries from Norfolk	622,800	-
Other Recoveries	3,912,800	-
Development Charges Reserve Fund	1,887,700	3,351,900
Non-Growth Related Debenture Requirements	-	-
Growth Related Debenture Requirements	15,073,900	66,923,400
Operating Contributions	-	-
Lifecycle Reserve Fund	-	-
Water Rate Stabilization	-	-
Canada Community Building Fund Reserve Fund	6,654,200	-
Water Capital Replacement Reserve	30,402,450	-
Wastewater Capital Replacement Reserve Fund	-	28,643,600
Total Capital Financing	**58,553,850**	**98,918,900**

Tables 4-3 and 4-4 provide for the full capital expenditure and funding programs by year for the water and wastewater, respectively.

Table 4-3
Haldimand County
Capital Budget Forecast – Water (inflated $)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital Expenditures											
222303 - Nant WTP Facility Security Perimeter Fencing & Gate Repairs	-	43,700	21,600	22,100	-	-	-	-	-	-	-
222407 - Nanticoke WTP Reservoir Exterior Wall Repairs	-	275,000	275,000	-	-	-	-	-	-	-	-
222500 - Soils management containment	50,000	-	-	-	-	-	-	-	-	-	-
322015 - Caledonia Reservoir Roof Rehab	-	6,900	-	6,900	-	-	-	-	-	-	-
322017 - Booster Stn Roof Replacement	-	7,000	-	-	7,000	-	-	-	-	-	-
322018 - Hagersville Tuscarora St Operations Building Roof	-	3,500	-	-	3,500	-	-	-	-	-	-
322020 - Hagersville Standpipe Building Roof	-	7,000	-	-	7,000	-	-	-	-	-	-
322021 - Jarvis Bulk Water Depot Roof Repairs	-	6,100	6,100	-	-	-	-	-	-	-	-
322022 - Dunnville Bulk Water Depot Roof Repairs	-	6,900	-	6,900	-	-	-	-	-	-	-
322026 - Nanticoke WTP Facility Building Roof	-	31,800	-	-	31,800	-	-	-	-	-	-
322404 - Hagersville Standpipe Coating	-	400,000	400,000	-	-	-	-	-	-	-	-
322406 - Nanticoke WTP Actiflo Building Dehumidifier Replacement	75,000	-	-	-	-	-	-	-	-	-	-
322500 - Nanticoke WTP Internal Service Road	-	230,700	-	-	75,000	76,900	78,800	-	-	-	-
322501 - Nanticoke Electrical Safety Authority Identified Deficiencies	40,000	-	-	-	-	-	-	-	-	-	-
322503 - Cay - Standpipe Repairs	35,000	-	-	-	-	-	-	-	-	-	-
322504 - Nanticoke WTP Highlift Concrete Structural Integrity Testing	35,000	-	-	-	-	-	-	-	-	-	-
421805 - Reservoir–SCADA Computer & Network Replmt	12,900	14,700	-	-	-	-	14,700	-	-	-	-
421809 - Granular Activated Carbon change out	-	485,400	-	-	200,000	92,800	95,100	97,500	-	-	-
421831 - Stelco IPS Operating Capital	42,000	429,300	43,100	44,200	45,300	46,400	47,600	48,700	50,000	51,300	52,700
421832 - Imperial Oil IPS Operating Capital	42,000	429,400	43,100	44,200	45,300	46,400	47,600	48,800	50,000	51,300	52,700
421837 - SCADA Computer & Network Replmt	-	28,300	-	28,300	-	-	-	-	-	-	-
421919 - Caledonia Meter Replacement	-	2,009,000	-	-	-	-	2,009,000	-	-	-	-
421920 - Dunnville Meter Replacement	-	930,000	-	-	-	-	930,000	-	-	-	-
421991 - Water Operating Capital	42,000	429,000	43,100	44,200	45,300	46,400	47,600	48,700	50,000	51,200	52,500
421998 - Reservoir–SCADA Computer & Network Replmt	21,600	24,400	-	-	-	-	24,400	-	-	-	-

Table 4-3
Haldimand County
Capital Budget Forecast – Water (inflated $) (Cont'd)

Description	Budget	Total	Forecast								
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034
422108 - Depot Software for Pay-at-the-Pump	-	80,000	80,000	-	-	-	-	-	-	-	-
422128 - Booster Station Pumping Upgrades	-	1,655,700	1,655,700	-	-	-	-	-	-	-	-
422216 - Chem Feed System Replacements	26,300	91,700	-	-	28,300	-	-	30,500	-	-	32,900
422221 - Industry Raw Water Supply Valve and Chamber Refurb	43,000	91,900	-	-	43,100	-	-	-	-	48,800	-
422224 - Reservoir Valvehouse AHU	-	143,500	143,500	-	-	-	-	-	-	-	-
422231 - Stelco Raw Watermain Valve and Chamber Refurb	15,000	41,000	41,000	-	-	-	-	-	-	-	-
422304 - Billing Software Upgrade	-	203,000	62,500	-	-	67,500	-	-	73,000	-	-
422334 - Dunn WTP Filter Turbidity Analyzer Replacements	25,000	111,200	-	26,300	-	-	27,600	28,300	29,000	-	-
422336 - Dunnville Raw Water Supply Valve and Chamber Refurb	50,000	137,700	-	-	64,600	-	-	-	-	73,100	-
422346 - Nant IPS Intake Screen Refurbishment	25,600	-	-	-	-	-	-	-	-	-	-
422347 - Nant IPS Pump #8 Motor Refurbishment	35,000	-	-	-	-	-	-	-	-	-	-
422348 - Nant IPS Hydro Transformers/Substations Refurbishment	-	132,500	64,600	-	67,900	-	-	-	-	-	-
422350 - Nant Transmission Line Chamber Refurbishment	15,000	60,000	60,000	-	-	-	-	-	-	-	-
422351 - Nant IPS Main MV MCP Sections Refurbishment (2)	200,000	205,000	205,000	-	-	-	-	-	-	-	-
422440 - Hagersville Booster Station Chlorine Analyzer Replacement	-	14,700	-	-	-	-	-	-	14,700	-	-
422441 - Dunnville WTP Port Maitland Chlorine System Replacement	20,000	20,500	20,500	-	-	-	-	-	-	-	-
422442 - Dunnville Port Maitland Raw Water Supply Line Relining	-	1,146,000	-	-	179,400	183,900	188,500	193,200	198,000	203,000	-
422443 - Dunnville WTP Raw Water Turbidity Analyzer Equipment Replacements	12,300	42,300	12,600	-	-	-	-	-	14,700	15,000	-
422444 - Dunnville WTP Digitize Operation and Maintenance Manuals	20,000	-	-	-	-	-	-	-	-	-	-
422445 - Dunnville Chlorine Analyzer	-	24,600	12,000	-	12,600	-	-	-	-	-	-
422446 - Nanticoke WTP Highlift Clearwell Chlorine Analyzer Replacement	-	14,700	-	-	-	-	-	-	14,700	-	-
422447 - Townsend Distribution Elevated Tank Chlorine Analyzer Installation	-	14,700	-	-	-	-	-	-	14,700	-	-

Table 4-3
Haldimand County
Capital Budget Forecast – Water (inflated $) (Cont'd)

Description	Budget	Total	Forecast								
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034
422448 - Nanticoke WTP Reservoir Level Meter, PLC and SCADA Communication Upgrades	50,000	-	-	-	-	-	-	-	-	-	-
422450 - Nanticoke WTP Yard Fire Hydrant Replacements	20,000	-	-	-	-	-	-	-	-	-	-
422451 - Nanticoke WTP Raw Water Turbididty Meter Replacement	-	14,300	-	-	-	-	-	14,300	-	-	-
422452 - Nanticoke WTP Settled Water Turbidity Meter Replacement	12,300	29,000	-	-	-	-	-	14,300	14,700	-	-
422456 - Nanticoke IPS MCC1 and MCC2 Refurbishments	-	354,400	-	175,000	179,400	-	-	-	-	-	-
422457 - Nanticoke Reservoir Chlorine Analyzer Replacements	-	25,300	-	-	-	-	-	-	12,500	12,800	-
422458 - Nanticoke Reservoir Baffling Phase 2	900,000	-	-	-	-	-	-	-	-	-	-
422459 - Nanticoke Reservoir Transfer System	-	345,000	345,000	-	-	-	-	-	-	-	-
422501 - Dunnville water depot boiler replacement	40,000	-	-	-	-	-	-	-	-	-	-
422502 - Jarvis water depot maintenance	-	30,000	-	-	-	30,000	-	-	-	-	-
422503 - Dunnville WTP Filter Tanks Relining and Media Replacements	185,000	140,000	140,000	-	-	-	-	-	-	-	-
422504 - Dunnville WTP Distribution Meter and Valve Replacement	65,000	-	-	-	-	-	-	-	-	-	-
422505 - Dunnville WTP Sodium Hypochlorite Tank & Equipment Replacement	-	80,000	80,000	-	-	-	-	-	-	-	-
422506 - Dunnville WTP Clarifier Valve and Actuator Replacements	30,000	-	-	-	-	-	-	-	-	-	-
422507 - Dunnville WTP Paint Exterior Finishes and Railings	55,000	-	-	-	-	-	-	-	-	-	-
422508 - Port Maitland UVA Conductivity Analyzer	25,000	-	-	-	-	-	-	-	-	-	-
422509 - Nanticoke WTP Actiflo Lamella and Air Scour Replacements	-	355,000	-	355,000	-	-	-	-	-	-	-
422511 - Nanticoke WTP Clearwell Refurbishment	-	45,000	-	45,000	-	-	-	-	-	-	-
422512 - Nanticoke WTP Valvehouse Valve Replacements	-	325,000	-	325,000	-	-	-	-	-	-	-
422513 - Nanticoke WTP Filter Media	-	461,300	-	-	-	-	150,000	153,800	157,500	-	-
422514 - Nanticoke WTP Highlift Building Refurbishment	-	60,000	-	60,000	-	-	-	-	-	-	-
422515 - Nanticoke WTP Primary Disinfection (Chlorine) System Replacement	40,000	-	-	-	-	-	-	-	-	-	-
422516 - Nanticoke WTP Clarifier Canopy	35,000	-	-	-	-	-	-	-	-	-	-

Table 4-3
Haldimand County
Capital Budget Forecast – Water (inflated $) (Cont'd)

Description	Budget	Total	Forecast								
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034
422517 - Nanticoke WTP Highlift Valve Replacements	-	283,800	60,000	30,000	63,000	31,500	66,200	33,100	-	-	-
422518 - Nanticoke IPS Pump 8 Air Relief and Valve Replacements	55,000	-	-	-	-	-	-	-	-	-	-
422519 - Nanticoke IPS Sump Pump Rebuild	-	10,000	-	10,000	-	-	-	-	-	-	-
422520 - Nanticoke IPS Pump 5 Geardrive and Diesel Engine Rebuild	-	320,000	320,000	-	-	-	-	-	-	-	-
422521 - Nanticoke IPS Pump 2 Motor	-	250,000	250,000	-	-	-	-	-	-	-	-
422522 - Nanticoke IPS Potable Water Supply Line Valve and Pipe Replacement	-	60,000	-	60,000	-	-	-	-	-	-	-
422523 - Nanticoke IPS Lighting Replacements (High Efficiency)	20,000	-	-	-	-	-	-	-	-	-	-
422524 - Nanticoke Forebay UVA Conductivity	30,000	-	-	-	-	-	-	-	-	-	-
422525 - Nanticoke WTP Filter Backwash Flow Control Meter	-	10,000	10,000	-	-	-	-	-	-	-	-
422526 - Nanticoke WTP Highlift Flowmeter Replacement	110,000	-	-	-	-	-	-	-	-	-	-
422527 - Cay - Reservoir Pump 1 MCC Upgrades and SCADA Control	75,000	-	-	-	-	-	-	-	-	-	-
422528 - Hagersville Booster Station Main Electrical Switchboard Replacement	-	260,000	20,000	-	-	-	-	240,000	-	-	-
422567 - Dunnville water depot maintenance	-	30,000	30,000	-	-	-	-	-	-	-	-
422573 - Nanticoke WTP Interim High Lift Generator Replacement	325,000	-	-	-	-	-	-	-	-	-	-
631901 - Distribution System - Annual Repair &	89,300	911,000	91,500	93,800	96,200	98,600	101,000	103,500	106,100	108,800	111,500
632201 - Cast Iron Watermain Engineering	-	50,000	-	-	-	-	-	-	-	-	50,000
632302 - Parkview/Concession 12 - Watermain Upsizing	751,000	-	-	-	-	-	-	-	-	-	-
632401 - Townsend Distribution Transmission Watermain Upsizing - Nanticoke Creek Pkwy to Stone Quarry Rd	-	670,000	95,000	575,000	-	-	-	-	-	-	-
632402 - Townsend Distribution Transmission Watermain Upsizing - Stone Quarry Rd to Townsend Elevated Tank	-	2,050,000	-	-	-	250,000	1,800,000	-	-	-	-
822123 - Cay - Mohawk St W - Ottawa St N to Munsee St N [CIW] [R]	-	166,800	8,000	-	158,800	-	-	-	-	-	-
822124 - Cay - Norton St W - Ottawa St N to Munsee St N [CIW] [R]	-	161,600	4,800	-	156,800	-	-	-	-	-	-

Table 4-3
Haldimand County
Capital Budget Forecast – Water (inflated $) (Cont'd)

Description	Budget	Total	Forecast								
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034
822126 - Dun - Cross Street E - Pine St to Tamarac St [CIW] [R] [SS]	-	656,000	28,000	628,000	-	-	-	-	-	-	-
822205 - Cal - Aberdeen St - Sutherland St E to Burke Drive [CIW] [R]	147,600	-	-	-	-	-	-	-	-	-	-
822206 - Cal - Gypsum Ave - Argyle St N to End [CIW] [R] [SS]	171,800	-	-	-	-	-	-	-	-	-	-
822207 - Cal - Inverness St - Caithness St W to Orkney St W [CIW] [R] [SS]	443,600	-	-	-	-	-	-	-	-	-	-
822208 - Cal - Sutherland St W - Inverness St to Shetland St [CIW] [R]	230,500	-	-	-	-	-	-	-	-	-	-
822210 - Dun - Cross St W - Elizabeth Cr to Pine St [CIW] [R] [SS]	-	168,000	10,000	158,000	-	-	-	-	-	-	-
822211 - Dun - George St - Cross St W to End [CIW] [R]	-	982,500	50,000	932,500	-	-	-	-	-	-	-
822215 - Cay - Cayuga St - Alleyway Water Relocation [CIW] [R]	-	156,900	6,000	-	150,900	-	-	-	-	-	-
822216 - Hag - Fairfield Dr - Elm Ave to Hunter St [CIW] [R]	-	398,800	-	-	21,600	-	377,200	-	-	-	-
822217 - Hag - Hunter St - Church St E to King St E [CIW] [R]	-	400,200	-	-	22,400	-	377,800	-	-	-	-
822218 - Hag - Elm Ave - Sherring St S to Hunter St [CIW] [R]	-	467,300	-	-	26,400	-	440,900	-	-	-	-
822219 - Cal - Caithness Street W - Cameron St to Argyle St N [CIW] [WW] [R] [SS]	-	1,066,500	-	56,000	-	1,010,500	-	-	-	-	-
822220 - Cal - Shetland St - Caithness St W to Sutherland St W [CIW] [R]	-	218,300	-	12,000	-	206,300	-	-	-	-	-
822221 - Cal - Nairne St - Sutherland St E to Orkney St E [CIW] [R]	-	293,200	-	16,000	-	277,200	-	-	-	-	-
822222 - Dun - Chestnut St - Alder St E to South Cayuga St E [CIW] [R]	-	187,600	-	-	-	9,600	-	178,000	-	-	-
822223 - Dun - Lock St - Cedar to Queen [CIW]	-	265,500	-	-	-	14,400	-	251,100	-	-	-
822224 - Dun - Bridge Street - Main St E to Queen St [CIW] [R]	-	93,300	-	-	-	6,400	-	86,900	-	-	-
822225 - Dun - Queen St - Chestnut St to Maple St [CIW] [R]	-	151,900	-	-	-	9,600	-	142,300	-	-	-
822226 - Dun - Main St W - George St west 275m to Cemetery [CIW] [R]	-	415,900	-	-	-	20,800	-	395,100	-	-	-
822242 - Cay - Mohawk St E - Munsee to Winnet [CIW] [R]	-	163,500	9,600	-	153,900	-	-	-	-	-	-

Table 4-3
Haldimand County
Capital Budget Forecast – Water (inflated $) (Cont'd)

Description	Budget	Total	Forecast								
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034
822254 - Cay - Ottawa St N - Talbot St W to Mohawk St W [CIW] [R]	-	260,700	-	-	-	-	-	-	-	-	260,700
822302 - Dun - Taylor Rd - Broad St E to Main St E [CIW] [R]	-	387,000	20,000	367,000	-	-	-	-	-	-	-
822303 - Hag - Athens St - Sherring St N to Cedar St [CIW] [R]	225,000	-	-	-	-	-	-	-	-	-	-
822304 - Hag - Sherring St N - King St E to Marathon St [CIW] [R]	-	370,100	-	-	-	-	29,600	-	340,500	-	-
822305 - Hag - Tuscarora St - King St W to Oneida St [CIW] [R] [WW]	841,000	-	-	-	-	-	-	-	-	-	-
822306 - Hag - King St W - Rail Line to Tuscarora St [CIW] [R]	221,000	-	-	-	-	-	-	-	-	-	-
822402 - Cay - Winnett St N - Kerr St E to Echo St E [R] [CIW]	-	440,300	24,800	-	415,500	-	-	-	-	-	-
822403 - Cal - Forfar St W - Argyle St to Peebles [R] [W]	-	648,500	-	-	-	-	-	36,000	-	612,500	-
822404 - Cal - Selkirk St - Renfrew St W to Forfar St W [R] [W]	-	253,400	-	-	-	-	-	14,400	-	239,000	-
822405 - Cal - Fife St E - Argyle St S to Wigton St [R] [W]	-	320,500	-	-	-	-	-	20,000	-	300,500	-
822406 - Hag - Parkview Rd - Main St S to King St E [R] [WW] [CIW]	40,000	325,000	325,000	-	-	-	-	-	-	-	-
822500 - Hag - Harris Street [CIW] [WW] [R]	12,800	207,200	207,200	-	-	-	-	-	-	-	-
822501 - Dun - John St - Fairview Ave W to Jarret Place [W] [WW] [R]	-	429,900	-	-	-	-	-	18,400	-	411,500	-
822502 - Quarry St - Sarah St to Porter St [CIW]	-	143,000	-	-	-	-	-	-	8,000	-	135,000
822503 - Hag - Porter St - Quarry St to Jane St [CIW] [R]	-	132,600	-	-	-	-	-	-	7,200	-	125,400
822504 - Hag - Sarah St - End to King St W [CIW]	-	323,700	-	-	-	-	-	-	17,600	-	306,100
822505 - Hag - Jane St - End to Porter St [CIW] [R]	-	486,200	-	-	-	-	-	-	27,200	-	459,000
822506 - Dun - Jim Gregory Drive [CIW] [WW]	10,000	275,000	275,000	-	-	-	-	-	-	-	-
931930 - Asbestos Annual Inspection and Remediation [WW]	3,300	34,200	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200
931935 - Nant - WTP Lagoon Clean Out	70,000	1,033,200	71,800	110,000	112,800	115,600	118,600	121,400	124,600	127,600	130,800
931987 - Distribution Leak Detection Program	21,000	214,400	21,500	22,100	22,600	23,200	23,800	24,400	25,000	25,600	26,200
932110 - Nanticoke WTP Intake Inspections	50,000	174,450	-	-	53,900	-	-	58,050	-	-	62,500
932504 - Optimization Program Support - Water	10,000	20,800	10,300	10,500	-	-	-	-	-	-	-

Table 4-3
Haldimand County
Capital Budget Forecast – Water (inflated $) (Cont'd)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
Studies:		-	-	-	-	-	-	-	-	-	-
931910 - Water Financial Plan Update (O. Reg.	10,000	-	-	-	-	-	-	-	-	-	-
931926 - Facility Condition Assessment [WW]	26,900	6,100	-	-	-	-	6,100	-	-	-	-
932108 - WWW Rate Study	30,000	122,000	-	28,300	-	29,700	-	31,200	-	32,800	-
932404 - Nanticoke WTP Digitize Operation and Maintenance Manuals	-	34,000	-	-	-	-	34,000	-	-	-	-
932500 - Transmission Main Condition	-	22,000	-	22,000	-	-	-	-	-	-	-
932501 - Nanticoke WTP Highlift Electrical Vault and Wire Condition Assessment	20,000	750,000	-	250,000	-	350,000	-	150,000	-	-	-
932502 - Nanticoke Energy Management Study	35,000	-	-	-	-	-	-	-	-	-	-
Growth Related:		-	-	-	-	-	-	-	-	-	-
931927 - SCADA Master Plan	-	83,600	38,600	-	-	-	-	-	45,000	-	-
821962 - Cay - Master Servicing Plan Update [WW][R][SS]	-	29,000	-	-	-	-	29,000	-	-	-	-
931978 - Cal - Master Servicing Plan Update [WW][R][SS]	75,000	89,200	-	-	-	-	-	-	89,200	-	-
931979 - Hag - Master Servicing Plan Update [WW][R][SS]	-	34,000	-	-	34,000	-	-	-	-	-	-
931980 - Jar - Master Servicing Plan Update [WW][R][SS]	-	46,500	21,500	-	-	-	-	25,000	-	-	-
931981 - Dun - Master Servicing Plan Update [WW][R][SS]	-	34,800	-	-	-	34,800	-	-	-	-	-
931984 - Development Charges Study Update	-	9,200	-	-	-	-	9,200	-	-	-	-
932012 - LEIP - Master Servicing Plan [WW][R][S]	-	108,000	-	50,000	-	-	-	-	-	58,000	-
321922 - Plant Capital Improvements	-	5,536,700	-	-	-	680,300	1,029,700	398,300	376,100	-	3,052,300
321923 - Elevated Storage Tank Replacement	-	8,654,600	-	-	-	-	-	-	480,600	8,174,000	-
421802 - Booster Station PLC Replacements	40,900	-	-	-	-	-	-	-	-	-	-
421826 - WTP SCADA Computer & Network	26,900	30,400	-	-	-	-	30,400	-	-	-	-
322014 - Caledonia North Water Storage	1,500,000	5,688,600	5,688,600	-	-	-	-	-	-	-	-
421830 - WTP Reservoir Expansion	-	2,035,300	-	-	2,035,300	-	-	-	-	-	-
422233 - Project Management Support [WW]	73,600	751,000	75,400	77,400	79,300	81,200	83,300	85,300	87,500	89,700	91,900
632102 - Twinning of 450mm Water Main on Hwy	-	1,661,200	1,661,200	-	-	-	-	-	-	-	-
632103 - Twinning of 350mm Water Main on Hald	-	1,833,700	-	-	-	-	1,833,700	-	-	-	-
931929 - SCADA Maintenance	32,400	329,800	33,200	34,000	34,800	35,600	36,600	37,400	38,400	39,400	40,400
421862 - WTP PLC Replacements	16,200	132,700	60,700	43,000	29,000	-	-	-	-	-	-
421992 - SCADA Technical Support	43,100	439,600	44,200	45,300	46,400	47,500	48,700	50,000	51,200	52,500	53,800
Total Capital Expenditures	**8,222,900**	**58,553,850**	**13,329,700**	**4,817,500**	**4,752,700**	**3,926,800**	**10,140,500**	**3,181,850**	**2,521,700**	**10,782,500**	**5,100,600**

Table 4-3
Haldimand County
Capital Budget Forecast – Water (inflated $) (Cont'd)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital Financing											
Provincial/Federal Grants		-									
Recoveries from Norfolk	480,500	622,800	203,800	47,900	49,200	50,400	51,700	52,900	54,300	55,600	57,000
Other Recoveries	1,910,500	3,912,800	1,001,200	578,400	437,300	237,200	1,013,900	170,100	119,600	172,800	182,300
Development Charges Reserve Fund	172,300	1,887,700	132,400	141,600	130,500	189,400	242,400	155,800	235,400	257,000	403,200
Non-Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-
Growth Related Debenture Requirements	1,498,900	15,073,900	7,339,900	-	2,029,500	-	1,827,600	-	215,300	3,661,600	-
Operating Contributions	-	-	-	-	-	-	-	-	-	-	-
Water Rate Stabilization	-	-	-	-	-	-	-	-	-	-	-
Canada Community Building Fund Reserve Fund	993,500	6,654,200	1,816,900	2,141,500	1,071,500	1,010,500	613,800	-	-	-	-
Water Capital Replacement Reserve	3,167,200	30,402,450	2,835,500	1,908,100	1,034,700	2,439,300	6,391,100	2,803,050	1,897,100	6,635,500	4,458,100
Total Capital Financing	**8,222,900**	**58,553,850**	**13,329,700**	**4,817,500**	**4,752,700**	**3,926,800**	**10,140,500**	**3,181,850**	**2,521,700**	**10,782,500**	**5,100,600**

Table 4-4
Haldimand County
Capital Budget Forecast – Wastewater (inflated $)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital Expenditures											
221999 - Jarvis Lagoon Clean Out	-	505,000	-	-	-	-	505,000	-	-	-	-
222301 - Oswego Park WWT Lagoons Cell #1 Discharge Pipe Repair	10,000	-	-	-	-	-	-	-	-	-	-
222401 - Dunnville WWTP Storage Lagoon Sampling Platform	-	20,000	-	20,000	-	-	-	-	-	-	-
222402 - Townsend Lagoon Access Lane Restoration	-	32,000	15,000	-	-	-	-	17,000	-	-	-
222406 - Lake Erie Industrial Park (LEIP) Lagoon Access Lane Restoration	10,000	11,300	-	-	-	-	11,300	-	-	-	-
321912 - Forfar St. Storage Building Roof Replacement	-	3,600	-	-	-	3,600	-	-	-	-	-
321920 - Main Pump Station Roof Replacement	-	7,100	-	-	-	7,100	-	-	-	-	-
322007 - Hagersville Tuscarora St Operations Building Roof	-	3,500	-	-	3,500	-	-	-	-	-	-
322010 - Jarvis/Talbot Pump Station Roof	-	6,900	-	6,900	-	-	-	-	-	-	-
322402 - Dunnville Broad Street Pump Station Building Exterior Restoration	-	35,000	35,000	-	-	-	-	-	-	-	-
322505 - Caledonia WWTP Sludge Pump Building Refurbishments	15,000	-	-	-	-	-	-	-	-	-	-
322506 - Caledonia WWTP Sludge Building VFD Replacements	-	70,000	-	70,000	-	-	-	-	-	-	-
322507 - Dunnville WWTP Headworks Roof Fall Restraint	20,000	-	-	-	-	-	-	-	-	-	-
322508 - Hagersville WWTP Return Bldg Roof Access Upgrades and HVAC Repairs	-	50,000	-	-	-	50,000	-	-	-	-	-
322509 - Hagersville WWTP Administration Bldg HVAC Replacement	-	80,000	-	80,000	-	-	-	-	-	-	-
322510 - Hagersville WWTP Service Access Road Refurbishment	110,000	-	-	-	-	-	-	-	-	-	-
322511 - Hagersville WWTP Filter Building Fan and Ventilation Replacements	40,000	-	-	-	-	-	-	-	-	-	-
322512 - Jarvis Lagoon Access Lane Restoration	-	21,300	-	10,000	-	-	-	-	11,300	-	-
322513 - Oswego Park Lagoon Access Lane Restoration	-	17,100	-	-	8,000	-	-	-	-	9,100	-
322514 - Townsend Lagoon Security Fence Repairs	18,000	-	-	-	-	-	-	-	-	-	-
322515 - Facility Emergency Shower and Eyewash Station Audit	25,000	-	-	-	-	-	-	-	-	-	-

Table 4-4
Haldimand County
Capital Budget Forecast – Wastewater (inflated $) (Cont'd)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
421922 - Collection System - Annual Repair	63,000	643,200	64,600	66,200	67,900	69,600	71,300	73,100	75,000	76,800	78,700
421923 - Composite Sampler-Replacement Program	40,900	185,600	-	43,000	-	45,200	-	47,500	-	49,900	-
421925 - Wastewater Operating Capital	43,100	442,100	44,200	45,400	46,600	47,800	49,000	50,300	51,600	52,900	54,300
421928 - Confined Space Entry Equipment Replacements	10,800	37,600	-	-	11,600	-	-	12,500	-	-	13,500
421931 - WWTP – SCADA Computer & Network Replmt	-	23,200	-	-	23,200	-	-	-	-	-	-
421941 - WTP Electrical Panels and VFD Inspection/Maintenance	-	11,600	-	-	11,600	-	-	-	-	-	-
421943 - Remotes–Control Equipment Replacement(SCADA)	-	90,500	-	90,500	-	-	-	-	-	-	-
421945 - WWTP GENSET Replacement	242,300	-	-	-	-	-	-	-	-	-	-
421956 - WWTP Electrical Panel and VFD Inspection/Maintenance	-	11,600	-	-	11,600	-	-	-	-	-	-
421968 - Twinning of Headworks Screen	-	455,000	-	-	-	455,000	-	-	-	-	-
421969 - WTP Electrical Panel and VFD Inspection/Maintenance	-	5,800	-	-	5,800	-	-	-	-	-	-
421971 - WWTP SCADA Computer & Network Replmt	-	21,500	-	21,500	-	-	-	-	-	-	-
421979 - Blower Replacement - High Efficiency & VFD	-	220,800	220,800	-	-	-	-	-	-	-	-
421982 - Odour Control Media Replacement	17,200	39,900	-	-	-	19,000	-	-	-	20,900	-
421984 - Sludge Storage Cell #4 Upgrades and Screen	102,300	496,700	496,700	-	-	-	-	-	-	-	-
421985 - WWTP SCADA Computer & Network Replmt	-	18,100	-	18,100	-	-	-	-	-	-	-
422123 - Clarifiers 3 & 4 Rebuild	150,000	125,000	125,000	-	-	-	-	-	-	-	-
422304 - Billing Software Upgrade	-	203,000	62,500	-	-	67,500	-	-	73,000	-	-
422313 - Hag Walpole Sewage Pump Station Valve Replacement	30,000	-	-	-	-	-	-	-	-	-	-
422316 - Cay WWTP Clarifier Isolation Valve Replacements	25,600	-	-	-	-	-	-	-	-	-	-
422322 - Dun John St Sewage Pump Station Backup Pump Replacement	25,000	-	-	-	-	-	-	-	-	-	-
422325 - Oswego Park Sewage Pump Station Backup Pump Rebuild/Replacement	15,000	-	-	-	-	-	-	-	-	-	-
422326 - Oswego Park WWT Lagoons Level Measurement Equipment Installation	15,000	-	-	-	-	-	-	-	-	-	-
422404 - Caledonia Paisley Street Pump Station Property Grading	35,000	-	-	-	-	-	-	-	-	-	-
422406 - Caledonia McClung Road Pump Station Grinder Replacement	-	75,000	75,000	-	-	-	-	-	-	-	-
422407 - Caledonia Orkney Street Pump Station Pump Replacement	-	70,000	30,000	-	-	-	-	40,000	-	-	-

Table 4-4
Haldimand County
Capital Budget Forecast – Wastewater (inflated $) (Cont'd)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
422408 - Caledonia Paisley Street Pump Station Backup Generator Replacement	-	150,000	150,000	-	-	-	-	-	-	-	-
422410 - Caledonia WWTP Dechlorination Chemical Feed Pump Replacement	15,000	15,400	15,400	-	-	-	-	-	-	-	-
422411 - Caledonia WWTP MCC Room Vent Fan Replacement	40,000	-	-	-	-	-	-	-	-	-	-
422412 - Caledonia WWTP Sand Filter Backwash Pump Replacements	-	30,000	30,000	-	-	-	-	-	-	-	-
422413 - Caledonia WWTP Main Wet Well Exhause Vent Fan Replacement	60,000	-	-	-	-	-	-	-	-	-	-
422416 - Hagersville Walpole Street Pump Station Pump Repairs	30,000	-	-	-	-	-	-	-	-	-	-
422418 - Hagersville WWTP Filter Backwash Pumps Refurbish/Replacement	8,200	17,000	8,400	8,600	-	-	-	-	-	-	-
422419 - Hagersville WWTP UV Disinfection Bulb Replacement	20,500	209,500	21,100	21,600	22,100	22,700	23,200	23,800	24,400	25,000	25,600
422420 - Hagersville WWTP High Voltage Assessment and Repairs	-	17,000	17,000	-	-	-	-	-	-	-	-
422421 - Hagersville WWTP Supernatant Slip Pipe Actuator Valve	-	40,000	-	40,000	-	-	-	-	-	-	-
422423 - Cayuga Ouse Street Equalization Tank Pump Replacement	18,000	-	-	-	-	-	-	-	-	-	-
422424 - Cayuga WWTP UV Disinfection Bulb Replacement	12,000	122,500	12,300	12,600	13,000	13,200	13,600	13,900	14,300	14,600	15,000
422425 - Cayuga WWTP Digester Clean-out and Inspection	30,000	34,000	-	-	-	-	34,000	-	-	-	-
422426 - Cayuga WWTP Clarifier Mechanical Replacements	-	100,000	-	100,000	-	-	-	-	-	-	-
422427 - Cayuga WWTP Oxidation Ditch Rotor #2 Repairs	-	10,000	10,000	-	-	-	-	-	-	-	-
422430 - Dunnville WWTP Dechlorination Chemical Feed Pump Replacement	8,200	-	-	-	-	-	-	-	-	-	-
422431 - Dunnville WWTP CL2 Chemical Feed Pump Replacement	8,200	-	-	-	-	-	-	-	-	-	-
422432 - Dunnville WWTP Ferris Chemical Feed Pump Replacement	10,300	10,500	10,500	-	-	-	-	-	-	-	-
422434 - Dunnville WWTP Backup Generator New Access Platform	20,000	-	-	-	-	-	-	-	-	-	-
422436 - Townsend Pump station MCC	-	55,000	55,000	-	-	-	-	-	-	-	-
422438 - Oswego Park Pump Station MCC and Wet Well Vent Fan Replacement	25,000	-	-	-	-	-	-	-	-	-	-
422534 - Caledonia Paisley Street Pump Station Impeller Replacements	20,000	-	-	-	-	-	-	-	-	-	-

Table 4-4
Haldimand County
Capital Budget Forecast – Wastewater (inflated $) (Cont'd)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
422535 - Caledonia Paisley Street Pump Station Pump and Piping Replacements	-	170,000	-	-	170,000	-	-	-	-	-	-
422536 - Caledonia Paisley Street Pump Station Flow Meter Replacement	35,000	-	-	-	-	-	-	-	-	-	-
422538 - Caledonia Nairne Street Pump Station Odour Control	-	250,000	-	-	-	-	-	-	250,000	-	-
422540 - Hagersville Tuscarora Street Pump Station Pump Repairs	50,000	-	-	-	-	-	-	-	-	-	-
422541 - Hagersville Mary Street Pump Station Equipment Repalcements	-	300,000	-	-	-	300,000	-	-	-	-	-
422542 - Oswego Park Pump Station Electrical and Pumping Upgrades	-	250,000	-	-	250,000	-	-	-	-	-	-
422543 - Townsend Pump Station Flow Meter Replacement	-	15,000	-	15,000	-	-	-	-	-	-	-
422544 - Caledonia WWTP Chlorine Pump Replacements	-	30,000	-	30,000	-	-	-	-	-	-	-
422545 - Caledonia WWTP Coagulant Pump Replacements	-	25,000	25,000	-	-	-	-	-	-	-	-
422547 - Caledonia WWTP RAS and WAS Pump Refurbishment	30,000	-	-	-	-	-	-	-	-	-	-
422548 - Caledonia WWTP Primary Flight and Chain Replacement	-	253,100	125,000	128,100	-	-	-	-	-	-	-
422549 - Caledonia WWTP Secondary Flight and Chain Replacement	-	253,100	-	-	125,000	128,100	-	-	-	-	-
422550 - Caledonia WWTP Primary Gate Actuator Replacements	30,000	-	-	-	-	-	-	-	-	-	-
422551 - Cayuga WWTP Clarifier V-Notch Weir Replacements	-	50,000	50,000	-	-	-	-	-	-	-	-
422552 - Cayuga WWTP Digester Blower Rebuilds	80,000	-	-	-	-	-	-	-	-	-	-
422554 - Cayuga WWTP Digester Blower VFD Replacements	12,000	25,000	25,000	-	-	-	-	-	-	-	-
422555 - Cayuga WWTP Coagulant Pump Replacements	-	15,000	-	-	15,000	-	-	-	-	-	-
422556 - Dunnville WWTP Sludge Storage Lagoon Berm and Slip Pipe Repairs	15,000	31,200	15,400	15,800	-	-	-	-	-	-	-
422557 - Dunnville WWTP Main Gate Access System Replacement	5,000	-	-	-	-	-	-	-	-	-	-
422558 - Dunnville WWTP Digester Compressor Replacements	-	70,000	-	70,000	-	-	-	-	-	-	-
422559 - Dunnville WWTP Headworks Screen Maintenance and Repairs	15,000	20,000	-	-	-	-	-	-	20,000	-	-

Table 4-4
Haldimand County
Capital Budget Forecast – Wastewater (inflated $) (Cont'd)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
422560 - Hagersville WWTP Filter Underdrain Repairs and Media Replacements	-	192,400	95,000	97,400	-	-	-	-	-	-	-
422561 - Hagersville WWTP Digester Air Valve Replacements	18,000	-	-	-	-	-	-	-	-	-	-
422562 - Hagersville WWTP Secondary Clarifier Refurbishments	-	100,000	-	-	100,000	-	-	-	-	-	-
422563 - Hagersville WWTP Headworks Bldg Roof Access Upgrades and HVAC Repairs	-	50,000	-	-	50,000	-	-	-	-	-	-
422564 - Hagersville WWTP Coagulant Pump Replacements	-	20,000	20,000	-	-	-	-	-	-	-	-
422565 - Hagersville WWTP Storm Tank Valve Control Automation	28,000	-	-	-	-	-	-	-	-	-	-
822113 - Sanitary Sewer Relining/Repair [CIW][W][R]	148,600	1,680,000	155,300	162,400	169,800	177,500	185,600	194,100	203,000	212,300	220,000
822219 - Cal - Caithness Street W - Cameron St to Argyle St N [CIW] [WW] [R] [SS]	-	120,000	-	-	-	120,000	-	-	-	-	-
822305 - Hag - Tuscarora St - King St W to Oneida St [CIW] [R] [WW]	380,000	-	-	-	-	-	-	-	-	-	-
822401 - Dunn - Tamarac St - Forest St to Concession Rd E [R] [WW]	-	325,000	-	-	-	60,000	-	265,000	-	-	-
822406 - Hag - Parkview Rd - Main St S to King St E [R] [WW] [CIW]	30,000	475,000	475,000	-	-	-	-	-	-	-	-
822407 - Dunn - Niagara St - Broad St E to Main St E [R] [WW]	-	403,600	-	-	-	-	17,600	-	386,000	-	-
822408 - Dunn - Main Street E - Niagara St to Dunnville WW Treatment Plant [R] [WW]	-	213,000	-	-	-	-	19,800	-	193,200	-	-
822500 - Hag - Harris Street [CIW] [WW] [R]	12,800	227,200	227,200	-	-	-	-	-	-	-	-
822501 - Dun - John St - Fairview Ave W to Jarret Place [W] [WW] [R]	-	101,900	-	-	-	-	-	18,400	-	83,500	-
822506 - Dun - Jim Gregory Drive [CIW] [WW] [SS] [R]	5,000	255,000	255,000	-	-	-	-	-	-	-	-
931903 - Facility Condition Assessment [W]	-	153,100	27,600	-	29,000	-	30,500	-	32,000	-	34,000
931914 - CCTV Inspections - Structural Ass'ments [SS] - Engineering	26,900	274,700	27,600	28,300	29,000	29,700	30,500	31,200	32,000	32,800	33,600
931918 - CCTV Inspections - Operations	40,000	410,200	41,000	42,100	43,200	44,300	45,500	46,700	47,900	49,100	50,400
931919 - Asbestos Annual Inspection and Remediation [W]	4,300	43,900	4,400	4,500	4,600	4,800	4,900	5,000	5,100	5,200	5,400
931921 - Townsend Lagoon Clean Out	-	663,400	-	215,400	-	-	-	-	448,000	-	-
931922 - Oswego Lagoon Clean Out	-	290,000	-	-	290,000	-	-	-	-	-	-
931924 - LEIP Lagoon Clean Out	-	390,000	-	-	-	390,000	-	-	-	-	-
932403 - Dunnville WWTP Discharge Pipe Inspection	15,000	-	-	-	-	-	-	-	-	-	-
932407 - Hagersville WWTP East Aeration Basin Cleanout and Inspection	14,000	-	-	-	-	-	-	-	-	-	-
932503 - Optimization Program Support - Wastewater	15,000	31,200	15,400	15,800	-	-	-	-	-	-	-

Table 4-4
Haldimand County
Capital Budget Forecast – Wastewater (inflated $) (Cont'd)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
Studies:		-									
932108 - WWW Rate Study	30,000	34,000	-	-	-	-	34,000	-	-	-	-
932505 - Caledonia WWTP Energy Management Study	8,000	-	-	-	-	-	-	-	-	-	-
932506 - Cayuga WWTP Energy Management Study	8,000	-	-	-	-	-	-	-	-	-	-
932507 - Dunnville WWTP Energy Management Study	8,000	-	-	-	-	-	-	-	-	-	-
932508 - Hagersville WWTP Energy Management Study	8,000	-	-	-	-	-	-	-	-	-	-
932509 - Hagersville WWTP UV Disinfection System Operational study	20,000	-	-	-	-	-	-	-	-	-	-
		-									
Growth Related:		-									
931904 - Cay - Master Servicing Plan Update [W][R][SS]	-	29,000	-	-	-	-	29,000	-	-	-	-
931905 - Dun - Master Servicing Plan Update [W][R][SS]	-	34,800	-	-	-	34,800	-	-	-	-	-
931913 - SCADA Master Plan Updates	-	82,000	38,600	-	-	-	-	43,400	-	-	-
931975 - Cal - Master Servicing Plan Update [W][R][SS]	75,000	89,200	-	-	-	-	-	-	89,200	-	-
931976 - Hag - Master Servicing Plan Update [W][R][SS]	-	34,000	-	-	34,000	-	-	-	-	-	-
931977 - Jar - Master Servicing Plan Update [W][R][SS]	-	35,000	16,200	-	-	-	-	18,800	-	-	-
931984 - Development Charges Study Update	-	27,400	-	-	-	-	27,400	-	-	-	-
932011 - LEIP - Master Servicing Plan [W][R][S]	-	108,000	-	50,000	-	-	-	-	-	58,000	-
421921 - SCADA Maintenance	21,500	219,800	22,100	22,600	23,200	23,800	24,400	25,000	25,600	26,200	26,900
421924 - SCADA Technical Support	43,100	439,600	44,200	45,300	46,400	47,500	48,700	50,000	51,200	52,500	53,800
421929 - Plant Capital Improvements	-	8,068,000	-	-	-	1,963,000	-	1,256,300	1,028,800	3,128,500	691,400
421946 - WWTP PLC Replacements	-	133,400	-	-	133,400	-	-	-	-	-	-
421947 - WWTP SCADA Computer & Network Replmt	-	25,600	-	-	25,600	-	-	-	-	-	-
421955 - Remotes–Control Equipment Replacement(SCADA)	-	63,700	-	-	63,700	-	-	-	-	-	-
321913 - Caledonia Wastewater Treatment Plant		57,000,000					32,000,000			25,000,000	
422111 - McClung SPS Upgrades	-	800,000	-	800,000	-	-	-	-	-	-	-
422211 - Project Management Support [W]	73,500	751,000	75,400	77,300	79,300	81,200	83,300	85,300	87,500	89,700	92,000
422537 - Nairne Street Pump Station Pump P3 Replacement and Upsizing	245,000	-	-	-	-	-	-	-	-	-	-
642500 - McClung Forcemain River Crossing to New WWTP	350,000	6,906,000	6,906,000	-	-	-	-	-	-	-	-
421958 - Grit Removal System	-	4,000,000	-	-	500,000	3,500,000	-	-	-	-	-
421959 - WWTP PLC Replacements	-	332,900	-	135,800	197,100	-	-	-	-	-	-
421963 - Ouse St PS Replacements	30,000	3,100,000	-	-	350,000	-	2,750,000	-	-	-	-
421965 - McKay St. Pump Station Upgrades and Pump Replacements	-	625,000	-	-	625,000	-	-	-	-	-	-
641901 - Sewer Manhole Repairs (I&I)	-	366,200	-	84,900	-	89,200	-	93,700	-	98,400	-
641902 - Sanitary Sewer Rehabilitations (I&I)	-	998,500	-	-	231,900	-	243,700	-	255,900	-	267,000
641906 - Ouse St Forcemain Twinning	-	895,000	-	-	95,000	-	800,000	-	-	-	-
931911 - Inflow & Infiltration Program Support	-	309,400	38,600	28,300	40,600	29,700	42,600	31,200	32,000	32,800	33,600
931916 - Effluent Water Quality & Impact Assessment	37,700	384,500	38,600	39,600	40,600	41,600	42,600	43,700	44,800	45,900	47,100
		-									
		-									
		-									
Total Capital Expenditures	**3,356,000**	**98,918,900**	**10,262,100**	**2,763,000**	**3,986,300**	**7,865,900**	**37,167,500**	**2,485,900**	**3,481,800**	**29,164,100**	**1,742,300**

Table 4-4
Haldimand County
Capital Budget Forecast – Wastewater (inflated $) (Cont'd)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital Financing											
Provincial/Federal Grants		-									
Development Charges Reserve Fund	451,200	3,351,900	179,900	257,800	458,800	427,400	323,300	350,900	446,500	571,500	335,800
Non-Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-
Growth Related Debenture Requirements	356,800	66,923,400	6,900,300	797,800	263,900	1,057,500	32,903,900	-	-	25,000,000	-
Operating Contributions	-	-	-	-	-	-	-	-	-	-	-
Lifecycle Reserve Fund	-	-	-	-	-	-	-	-	-	-	-
Water Capital Replacement Reserve	80,000	-	-	-	-	-	-	-	-	-	-
Wastewater Capital Replacement Reserve Fund	2,468,000	28,643,600	3,181,900	1,707,400	3,263,600	6,381,000	3,940,300	2,135,000	3,035,300	3,592,600	1,406,500
Total Capital Financing	**3,356,000**	**98,918,900**	**10,262,100**	**2,763,000**	**3,986,300**	**7,865,900**	**37,167,500**	**2,485,900**	**3,481,800**	**29,164,100**	**1,742,300**

Chapter 5
Overview of Expenditures and Revenues

5. Overview of Expenditures and Revenues

5.1 Water Operating Expenditures

In this report, the forecast water budget figures (2026 to 2034) are based on the 2025 operating budgets. The costs for each component of the operating budget have been reviewed with staff to establish inflationary adjustments. The costs related to wholesale water purchase from the City of Hamilton have been inflated 10% annually from 2026 to 2033 and 2% in 2034, in line with the anticipated rate increases set out in the City's rate study. This line item represents the largest portion of the operating expenditures and is anticipated to grow from 34% to 46% of the total operating expenditures. Other annual water operating expenditures generally related to staffing and wages are assumed to increase by 2% per annum, while expenditures related to utilities, fuels, chemicals and other materials are assumed to increase by 5% per annum. Note, certain expenditures, such as legal fees, travel expenses, etc. are assumed to remain constant over the forecast period.

5.2 Water Operating Revenues

The County has various revenue sources to help contribute towards operating expenditures. These revenues include recoveries from industry partners in Nanticoke for the Industrial Pump Station and other user fees such as water activation fees, connection permits, and meter installations, which have been assumed to increase at a rate of 2.0% annually.

The County also collects revenues for bulk water sales and recovers costs related to fire hydrants through the tax-supported budget (i.e. fire hydrant fees). These charges are further discussed in Appendix C. As data related to asset management needs and operating costs related to these components of the water service is provided through other studies, these special charges will be reconsidered in the future.

Table 5-1 provides for the operating budget for the water system.

Table 5-1
Haldimand County
Operating Budget Forecast – Water (inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Expenditures										
Operating Costs										
4370 - Wholesale Water Purchase	4,674,900	5,142,400	5,656,600	6,222,300	6,844,500	7,529,000	8,281,900	9,110,100	10,021,100	10,221,500
4700 - Insurance Charges	270,860	276,300	281,800	287,400	293,100	299,000	305,000	311,100	317,300	323,600
4725 - Licences and Permits	100	100	100	100	100	100	100	100	100	100
5430 - Domain WAN Charges	35,910	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900
5440 - SCADA License and Updates	47,260	47,300	47,300	47,300	47,300	47,300	47,300	47,300	47,300	47,300
5450 - Unplanned SCADA Support	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
5100 - Legal Fees	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
5105 - Consulting Fees and Svcs	8,700	8,700	8,700	8,700	8,700	8,700	8,700	8,700	8,700	8,700
5125 - Medical Physician Fees	80	80	80	80	80	80	80	80	80	80
5560 - Maintenance Contract	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670
5640 - Operations Contract	1,060,760	1,113,800	1,169,500	1,228,000	1,289,400	1,353,900	1,421,600	1,492,700	1,567,300	1,645,700
5650 - Ops Cont Annual Fixed Fee	1,690,010	1,723,800	1,758,300	1,793,500	1,829,400	1,866,000	1,903,300	1,941,400	1,980,200	2,019,800
4600 - Hydro	1,775,280	1,864,000	1,957,200	2,055,100	2,157,900	2,265,800	2,379,100	2,498,100	2,623,000	2,754,200
4610 - Natural Gas and Propane	34,000	35,700	37,500	39,400	41,400	43,500	45,700	48,000	50,400	52,900
4640 - Taxes and Local Improv	239,400	244,200	249,100	254,100	259,200	264,400	269,700	275,100	280,600	286,200
7405 - Water Financial Charges	70	70	70	70	70	70	70	70	70	70
7450 - Admin Facilities Charges	33,440	34,100	34,800	35,500	36,200	36,900	37,600	38,400	39,200	40,000
7455 - Engineering Admin Charges	3,450	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300
7460 - Public Works Admin Charges	8,690	8,900	9,100	9,300	9,500	9,700	9,900	10,100	10,300	10,500
7480 - Planning Charges	36,350	37,100	37,800	38,600	39,400	40,200	41,000	41,800	42,600	43,500
2205 - Full-Time Non-Stat Benf	210,700	214,900	219,200	223,600	228,100	232,700	237,400	242,100	246,900	251,800
2210 - Full-Time Stat Benefits	179,730	183,300	187,000	190,700	194,500	198,400	202,400	206,400	210,500	214,700
2140 - Overtime	49,480	50,500	51,500	52,500	53,600	54,700	55,800	56,900	58,000	59,200
2100 - Full-Time Salaries Wages	2,162,760	2,206,000	2,250,100	2,295,100	2,341,000	2,387,800	2,435,600	2,484,300	2,534,000	2,584,700
2215 - Full-Time OMERS Premiums	234,640	239,300	244,100	249,000	254,000	259,100	264,300	269,600	275,000	280,500
2220 - Full-Time WSIB Premiums	10,820	11,000	11,200	11,400	11,600	11,800	12,000	12,200	12,400	12,600
2110 - Part-Time Salaries Wages	23,580	24,100	24,600	25,100	25,600	26,100	26,600	27,100	27,600	28,200
2230 - Part-Time Stat Benefits	900	920	940	960	980	1,000	1,020	1,040	1,060	1,080
2240 - Part-Time WSIB Premiums	50	51	52	53	54	55	56	57	58	59
4150 - Memberships and Assoc	3,640	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600
4155 - Professional Development	27,820	27,800	27,800	27,800	27,800	27,800	27,800	27,800	27,800	27,800
4100 - Safety Wear and Supplies	5,180	5,200	5,200	5,200	5,200	5,200	5,200	5,200	5,200	5,200
4140 - Travel Expenses	15,400	15,400	15,400	15,400	15,400	15,400	15,400	15,400	15,400	15,400
4145 - Cellular Telephone Charges	4,870	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900

Table 5-1 (Cont'd)
Haldimand County
Operating Budget Forecast – Water (inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2183 - Distributed Wages WWW	(274,170)	(279,700)	(285,300)	(291,000)	(296,800)	(302,700)	(308,800)	(315,000)	(321,300)	(327,700)
2252 - Distributed Benefits WWW	(79,830)	(81,400)	(83,000)	(84,700)	(86,400)	(88,100)	(89,900)	(91,700)	(93,500)	(95,400)
4010 - Office Supplies	950	950	950	950	950	950	950	950	950	950
4240 - Janitorial Supplies	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
4110 - Uniforms	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900
4335 - Aggregate	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500
4375 - Chemicals	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
4400 - M and R Supplies	93,200	93,200	93,200	93,200	93,200	93,200	93,200	93,200	93,200	93,200
4130 - Meeting Expenses	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650
4135 - Meal Expenses	550	550	550	550	550	550	550	550	550	550
4115 - Staff Training Expenses	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
4650 - Telephone	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
5510 - Courier Delivery	100	100	100	100	100	100	100	100	100	100
5660 - Lab Services	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
5500 - Contracted Services	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
5530 - Grass Cutting	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800
5540 - Snow Removal	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
5700 - Waste Disposal	150	150	150	150	150	150	150	150	150	150
6000 - Equipment Rental	800	816	832	849	866	883	901	919	937	956
6020 - Land Rental	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800
6010 - Portable Washroom Rental	6,480	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
4630 - Water and Wastewater	2,800	2,900	3,000	3,200	3,400	3,600	3,800	4,000	4,200	4,400
5200 - M and R - Services	223,000	223,000	223,000	223,000	223,000	223,000	223,000	223,000	223,000	223,000
7400 - Fleet Equipment Charges	178,760	182,300	185,900	189,600	193,400	197,300	201,200	205,200	209,300	213,500
4105 - Supplied Clothing	370	370	370	370	370	370	370	370	370	370
7445 - ITS Charges	76,070	77,600	79,200	80,800	82,400	84,000	85,700	87,400	89,100	90,900
7440 - Human Resources Charges	41,910	42,700	43,600	44,500	45,400	46,300	47,200	48,100	49,100	50,100
7435 - Support Services Charges	11,940	12,200	12,400	12,600	12,900	13,200	13,500	13,800	14,100	14,400
7430 - Financial Services Charges	67,260	68,600	70,000	71,400	72,800	74,300	75,800	77,300	78,800	80,400
7425 - Clerks Charges	8,960	9,100	9,300	9,500	9,700	9,900	10,100	10,300	10,500	10,700
5110 - Auditing and Accounting	7,490	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
4500 - Write Off of AR	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
6100 - Bank Service Charges	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300
4540 - Small Balance Write Offs	500	500	500	500	500	500	500	500	500	500
5580 - Meter Reading Contract	22,700	-	-	-	-	-	-	-	-	-
5630 - Billing and Collectn Cost	299,900	314,900	330,600	347,100	364,500	382,700	401,800	421,900	443,000	465,200
4000 - Gen Materials and Supplies	6,710	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700
		-	-	-	-	-	-	-	-	-
Sub Total Operating	**13,732,950**	**14,439,977**	**15,226,614**	**16,075,252**	**16,991,490**	**17,981,428**	**19,051,367**	**20,208,906**	**21,462,045**	**22,018,585**

Table 5-1 (Cont'd)
Haldimand County
Operating Budget Forecast – Water (inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital-Related										
Existing Debt (Principal) - Growth Related	527,906	538,511	549,116	59,101	59,101	59,101	59,101	-	-	-
Existing Debt (Interest) - Growth Related	40,246	29,073	16,953	4,111	3,006	1,913	819	-	-	-
New Growth Related Debt (Principal)		47,879	284,483	297,227	375,371	392,188	468,137	489,110	517,899	658,063
New Growth Related Debt (Interest)		67,151	393,833	381,088	458,694	441,878	506,184	485,212	472,945	613,783
Existing Debt (Principal) - Non-Growth Related	645,189	659,784	674,379	-	-	-	-	-	-	-
Existing Debt (Interest) - Non-Growth Related	45,232	31,360	16,185	-	-	-	-	-	-	-
New Non-Growth Related Debt (Principal)		-	-	-	-	-	-	-	-	-
New Non-Growth Related Debt (Interest)		-	-	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-	-	-	-
Transfer to Rate Stabilization Reserve								1,000,000	1,000,000	1,000,000
Transfer to Dunville Microstrainer Reserve										
Transfer to Capital Replacement Reserve Fund	2,075,004	3,187,880	2,065,055	3,081,405	3,387,566	3,743,967	4,073,872	3,435,620	3,821,283	4,735,516
Sub Total Capital Related	**3,333,577**	**4,561,638**	**4,000,004**	**3,822,933**	**4,283,738**	**4,639,047**	**5,108,114**	**5,409,941**	**5,812,127**	**7,007,362**
Total Expenditures	**17,066,527**	**19,001,615**	**19,226,618**	**19,898,185**	**21,275,228**	**22,620,475**	**24,159,481**	**25,618,847**	**27,274,172**	**29,025,947**

Table 5-1 (Cont'd)
Haldimand County
Operating Budget Forecast – Water (inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Revenues										
9186 - New Credit	130,900	248,816	266,846	284,876	304,709	326,346	349,785	375,027	396,663	420,102
9188 - New Credit Water Depot	295,400	560,426	590,956	623,893	659,453	697,873	739,398	784,323	832,958	854,558
9025 - Bulk Water Reactivatn Fee	1,700	1,730	1,760	1,800	1,840	1,880	1,920	1,960	2,000	2,040
9020 - Administration Fees	66,500	67,800	69,200	70,600	72,000	73,400	74,900	76,400	77,900	79,500
9026 - Bulk Water Activation Fee	1,500	1,530	1,560	1,590	1,620	1,650	1,680	1,710	1,740	1,770
9090 - Engineering Inspection Fee	34,600	35,300	36,000	36,700	37,400	38,100	38,900	39,700	40,500	41,300
9600 - Rental of Municipal Prop	4,400	4,500	4,600	4,700	4,800	4,900	5,000	5,100	5,200	5,300
9110 - Recoveries	19,050	19,400	19,800	20,200	20,600	21,000	21,400	21,800	22,200	22,600
9190 - Bulk Water Sales	1,609,900	1,244,370	1,313,836	1,386,176	1,465,651	1,550,794	1,643,201	1,742,970	1,851,087	1,899,070
7960 - Fire Hydrant Fees	2,607,660	2,347,496	2,475,379	2,613,341	2,762,293	2,923,227	3,097,166	3,285,346	3,489,068	3,579,544
9570 - Connection Permits	7,500	7,700	7,900	8,100	8,300	8,500	8,700	8,900	9,100	9,300
9198 - Water Turn On Off	15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700
9200 - Water Meter Installations	53,500	54,600	55,700	56,800	57,900	59,100	60,300	61,500	62,700	64,000
9210 - Industry Property Tax Recv	117,530	119,900	122,300	124,700	127,200	129,700	132,300	134,900	137,600	140,400
9212 - Industry Raw Water Revenue	25,700	26,200	26,700	27,200	27,700	28,300	28,900	29,500	30,100	30,700
9220 - Commercial Fixed Costs	15,280	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	18,100
9222 - Commercial Direct Costs	12,000	12,200	12,400	12,600	12,900	13,200	13,500	13,800	14,100	14,400
9224 - Commercial Variable Costs	1,830	1,870	1,910	1,950	1,990	2,030	2,070	2,110	2,150	2,190
9228 - Commercial Recoveries	2,343,300	2,390,200	2,438,000	2,486,800	2,536,500	2,587,200	2,638,900	2,691,700	2,745,500	2,800,400
9230 - Commercial Admin Fee	39,630	40,400	41,200	42,000	42,800	43,700	44,600	45,500	46,400	47,300
7805 - Transfer From Capital Fund	71,800	73,200	74,700	76,200	77,700	79,300	80,900	82,500	84,200	85,900
9035 - Account Setup Charge	27,300	27,800	28,400	29,000	29,600	30,200	30,800	31,400	32,000	32,600
9310 - NSF Cheque Penalty	1,500	1,530	1,560	1,590	1,620	1,650	1,680	1,710	1,740	1,770
9116 - Lawyers Certificates	210	214	218	222	226	231	236	241	246	251
7940 - Recov fr PortMait Low Lift	70	71	72	73	74	75	77	79	81	83
9300 - Accounts Recvble Interest	12,480	12,700	13,000	13,300	13,600	13,900	14,200	14,500	14,800	15,100
Contributions from Development Charges Reserve Fund	568,152	682,614	1,244,385	741,528	896,173	895,079	1,034,241	974,321	990,844	1,271,846
Contribution from Capital Replacement	-	-	-	-	-	-	-	-	-	-
Contributions from Dunnville Microstrainer	-	-	-	-	-	-	-	-	-	-
Contributions from Rate Stabilization Reserve	-	1,400,000	-	-	-	-	-	-	-	-
Total Operating Revenue	**8,084,392**	**9,413,467**	**8,879,882**	**8,698,039**	**9,197,349**	**9,564,634**	**10,098,654**	**10,461,498**	**10,925,978**	**11,457,824**
Water Billing Recovery - Total	**8,982,135**	**9,588,148**	**10,346,735**	**11,200,146**	**12,077,879**	**13,055,840**	**14,060,827**	**15,157,349**	**16,348,194**	**17,568,122**

5.3 Wastewater Operating Expenditures

Annual wastewater operating expenditures generally related to staffing and wages are assumed to increase by 2% per annum, while expenditures related to utilities, fuels, chemicals and other materials have been increased at 5% per annum. Other expenditures such as legal fees and office supplies are assumed to remain constant over the forecast period. Additional operating costs have been factored into the analysis for the new Caledonia wastewater treatment plant, anticipated to be in-service by 2030.

5.4 Wastewater Operating Revenues

The operating revenue for the wastewater program comes from various sources, including administration fees, service charges and recoveries. These revenues have been inflated at 2% per annum.

The County also provides for various services such as bulk processing of leachate, and Septic/Holding services. The special charges associated with these services are described in further detail in Appendix C. These charges will be revisited at a future date once more information is available with respect to future lifecycle costs, and allocations of operating costs.

Table 5-2 outlines the operating budget for the County's wastewater system.

Table 5-2
Haldimand County
Operating Budget Forecast – Wastewater (inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Expenditures										
Operating Costs										
2183 - Distributed Wages WWW	234,570	239,300	244,100	249,000	254,000	259,100	264,300	269,600	275,000	280,500
2252 - Distributed Benefits WWW	63,380	64,600	65,900	67,200	68,500	69,900	71,300	72,700	74,200	75,700
4010 - Office Supplies	950	950	950	950	950	950	950	950	950	950
4020 - Pre-printed Forms	350	350	350	350	350	350	350	350	350	350
4240 - Janitorial Supplies	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
4100 - Safety Wear and Supplies	5,130	5,100	5,100	5,100	5,100	5,100	5,100	5,100	5,100	5,100
4110 - Uniforms	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
4335 - Aggregate	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
4400 - M and R Supplies	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500
4130 - Meeting Expenses	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
4135 - Meal Expenses	50	50	50	50	50	50	50	50	50	50
4140 - Travel Expenses	10,300	10,300	10,300	10,300	10,300	10,300	10,300	10,300	10,300	10,300
4145 - Cellular Telephone Charges	3,840	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800
4150 - Memberships and Assoc	3,790	3,790	3,790	3,790	3,790	3,790	3,790	3,790	3,790	3,790
4155 - Professional Development	16,180	16,200	16,200	16,200	16,200	16,200	16,200	16,200	16,200	16,200
4115 - Staff Training Expenses	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
4650 - Telephone	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
5510 - Courier Delivery	50	50	50	50	50	50	50	50	50	50
5660 - Lab Services	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
5430 - Domain WAN Charges	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300
5500 - Contracted Services	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
5560 - Maintenance Contract	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670
5540 - Snow Removal	300	300	300	300	300	300	300	300	300	300
5700 - Waste Disposal	150	150	150	150	150	150	150	150	150	150
6000 - Equipment Rental	100	100	100	100	100	100	100	100	100	100
4600 - Hydro	845,660	887,900	932,300	978,900	1,027,800	1,079,200	1,133,200	1,189,900	1,249,400	1,311,900
4610 - Natural Gas and Propane	6,410	6,700	7,000	7,400	7,800	8,200	8,600	9,000	9,500	10,000
4630 - Water and Wastewater	1,200	1,220	1,240	1,260	1,290	1,320	1,350	1,380	1,410	1,440
4640 - Taxes and Local Improv	256,600	261,700	266,900	272,200	277,600	283,200	288,900	294,700	300,600	306,600
5200 - M and R - Services	47,500	48,500	49,500	50,500	51,500	52,500	53,600	54,700	55,800	56,900
7400 - Fleet Equipment Charges	102,920	105,000	107,100	109,200	111,400	113,600	115,900	118,200	120,600	123,000
2100 - Full-Time Salaries Wages	752,940	768,000	783,400	799,100	815,100	831,400	848,000	865,000	882,300	899,900
2205 - Full-Time Non-Stat Benf	77,090	78,600	80,200	81,800	83,400	85,100	86,800	88,500	90,300	92,100
2210 - Full-Time Stat Benefits	58,730	59,900	61,100	62,300	63,500	64,800	66,100	67,400	68,700	70,100
2215 - Full-Time OMERS Premiums	96,780	98,700	100,700	102,700	104,800	106,900	109,000	111,200	113,400	115,700
2220 - Full-Time WSIB Premiums	3,890	4,000	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800

Table 5-2 (Cont'd)
Haldimand County
Operating Budget Forecast – Wastewater (inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
7440 - Human Resources Charges	44,870	45,800	46,700	47,600	48,600	49,600	50,600	51,600	52,600	53,700
4700 - Insurance Charges	197,930	201,900	205,900	210,000	214,200	218,500	222,900	227,400	231,900	236,500
5440 - SCADA License and Updates	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000
5450 - Unplanned SCADA Support	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
5100 - Legal Fees	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
5125 - Medical Physician Fees	80	80	80	80	80	80	80	80	80	80
5530 - Grass Cutting	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
5640 - Operations Contract	1,780,310	1,869,300	1,962,800	2,060,900	2,163,900	2,272,100	2,385,700	2,505,000	2,630,300	2,761,800
5650 - Ops Cont Annual Fixed Fee	1,910,240	1,948,400	1,987,400	2,027,100	2,067,600	2,109,000	2,151,200	2,194,200	2,238,100	2,282,900
WWTP Operating Costs - Caledonia WWTP			-	-	-	347,255	442,750	541,926	921,275	1,033,671
7455 - Engineering Admin Charges	1,850	1,890	1,930	1,970	2,010	2,050	2,090	2,130	2,170	2,210
7460 - Public Works Admin Charges	4,680	4,800	4,900	5,000	5,100	5,200	5,300	5,400	5,500	5,600
7480 - Planning Charges	19,570	20,000	20,400	20,800	21,200	21,600	22,000	22,400	22,800	23,300
7450 - Admin Facilities Charges	13,130	13,400	13,700	14,000	14,300	14,600	14,900	15,200	15,500	15,800
2140 - Overtime	1,000	1,020	1,040	1,060	1,080	1,100	1,120	1,140	1,160	1,180
2110 - Part-Time Salaries Wages	4,230	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000	5,100
2230 - Part-Time Stat Benefits	410	420	430	440	450	460	470	480	490	500
2240 - Part-Time WSIB Premiums	20	20	21	21	22	22	23	23	23	24
5105 - Consulting Fees and Svcs	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400
4105 - Supplied Clothing	(70)	-	-	-	-	-	-	-	-	-
4000 - Gen Materials and Supplies	6,710	6,800	6,900	7,000	7,100	7,200	7,300	7,400	7,500	7,700
7425 - Clerks Charges	8,960	9,100	9,300	9,500	9,700	9,900	10,100	10,300	10,500	10,700
7430 - Financial Services Charges	67,260	68,600	70,000	71,400	72,800	74,300	75,800	77,300	78,800	80,400
7435 - Support Services Charges	11,940	12,200	12,400	12,600	12,900	13,200	13,500	13,800	14,100	14,400
7445 - ITS Charges	76,070	77,600	79,200	80,800	82,400	84,000	85,700	87,400	89,100	90,900
5110 - Auditing and Accounting	5,490	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500
4500 - Write Off of AR	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
6100 - Bank Service Charges	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300
4540 - Small Balance Write Offs	500	500	500	500	500	500	500	500	500	500
5580 - Meter Reading Contract	22,700	-	-	-	-	-	-	-	-	-
5630 - Billing and Collectn Cost	299,900	314,900	330,600	347,100	364,500	382,700	401,800	421,900	443,000	465,200
Sub Total Operating	**7,178,360**	**7,383,610**	**7,620,701**	**7,866,791**	**8,122,792**	**8,736,547**	**9,109,143**	**9,496,419**	**10,175,468**	**10,600,064**

Table 5-2 (Cont'd)
Haldimand County
Operating Budget Forecast – Wastewater (inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital-Related										
Existing Debt (Principal) - Growth Related	1,345,258	1,347,025	1,348,792	1,267,145	1,267,145	1,165,000	1,165,000	441,650	-	-
Existing Debt (Interest) - Growth Related	246,715	211,227	175,582	140,216	106,005	72,804	41,447	13,494	-	-
New Growth Related Debt (Principal)		11,397	232,324	268,216	288,662	335,374	1,401,447	1,464,232	1,529,829	2,396,940
New Growth Related Debt (Interest)		15,985	324,607	349,941	349,747	384,191	1,843,261	1,780,477	1,714,879	2,766,343
Existing Debt (Principal) - Non-Growth Related	872,000	872,000	872,000	872,000	872,000	-	-	-	-	-
Existing Debt (Interest) - Non-Growth Related	99,451	78,523	57,595	36,753	15,739	-	-	-	-	-
New Non-Growth Related Debt (Principal)		-	-	-	-	-	-	-	-	-
New Non-Growth Related Debt (Interest)		-	-	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-	-	-	-
Transfer to Rate Stabilization Reserve	106,250	108,400	110,550	112,750	115,000	117,300	119,650	122,050	124,500	127,000
Transfer to Capital Replacement Reserve Fund	2,181,574	2,234,143	2,463,028	2,693,476	2,924,970	3,762,927	3,902,688	4,027,116	3,928,606	4,028,666
Sub Total Capital Related	**4,851,249**	**4,878,700**	**5,584,479**	**5,740,497**	**5,939,268**	**5,837,596**	**8,473,493**	**7,849,018**	**7,297,814**	**9,318,948**
Total Expenditures	**12,029,609**	**12,262,311**	**13,205,180**	**13,607,289**	**14,062,060**	**14,574,143**	**17,582,636**	**17,345,437**	**17,473,282**	**19,919,013**
Revenues										
Flat Rate Revenues	3,567	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400
8710 - Recoveries - Norfolk	66,600	67,900	69,300	70,700	72,100	73,500	75,000	76,500	78,000	79,600
9186 - New Credit	500	510	520	530	540	550	560	570	580	590
9020 - Administration Fees	1,200	1,220	1,240	1,260	1,290	1,320	1,350	1,380	1,410	1,440
9090 - Engineering Inspection Fee	13,800	14,100	14,400	14,700	15,000	15,300	15,600	15,900	16,200	16,500
9110 - Recoveries	9,830	10,000	10,200	10,400	10,600	10,800	11,000	11,200	11,400	11,600
9182 - Bulk Processing Leachate	1,553,070	1,564,122	1,614,346	1,666,477	1,720,708	1,850,724	1,929,653	2,011,693	2,155,541	2,245,486
9184 - Bulk Processing Hldng Tank	252,800	276,602	285,484	294,703	304,293	327,286	341,244	355,752	381,190	397,096
9194 - Rodding Service Charges	8,900	9,100	9,300	9,500	9,700	9,900	10,100	10,300	10,500	10,700
9570 - Connection Permits	7,000	7,100	7,200	7,300	7,400	7,500	7,700	7,900	8,100	8,300
9200 - Water Meter Installations	51,600	52,600	53,700	54,800	55,900	57,000	58,100	59,300	60,500	61,700
9202 - Overstrength Charges	212,500	216,800	221,100	225,500	230,000	234,600	239,300	244,100	249,000	254,000
7805 - Transfer From Capital Fund	71,800									
9035 - Account Setup Charge	27,300	27,800	28,400	29,000	29,600	30,200	30,800	31,400	32,000	32,600
9310 - NSF Cheque Penalty	1,500	1,530	1,560	1,590	1,620	1,650	1,680	1,710	1,740	1,770
9116 - Lawyers Certificates	210	214	218	222	226	231	236	241	246	251
9300 - Accounts Recvble Interest	12,090	12,300	12,500	12,800	13,100	13,400	13,700	14,000	14,300	14,600
Contributions from Development Charges Reserve Fund	1,591,974	1,585,635	2,081,305	2,025,518	2,011,559	1,957,369	4,451,155	3,699,852	3,244,708	5,163,283
Contributions from Rate Stabilization Reserve	-	-	-	-	-	-	-	-	-	-
Contributions from Capital Replacement Reserve Fund	-	-	-	-	-	-	-	-	-	-
Total Operating Revenue	**3,886,241**	**3,851,133**	**4,414,474**	**4,428,801**	**4,487,536**	**4,595,330**	**7,191,278**	**6,545,998**	**6,269,715**	**8,303,916**
Wastewater Billing Recovery - Total	**8,143,368**	**8,411,178**	**8,790,706**	**9,178,488**	**9,574,524**	**9,978,814**	**10,391,357**	**10,799,440**	**11,203,567**	**11,615,097**

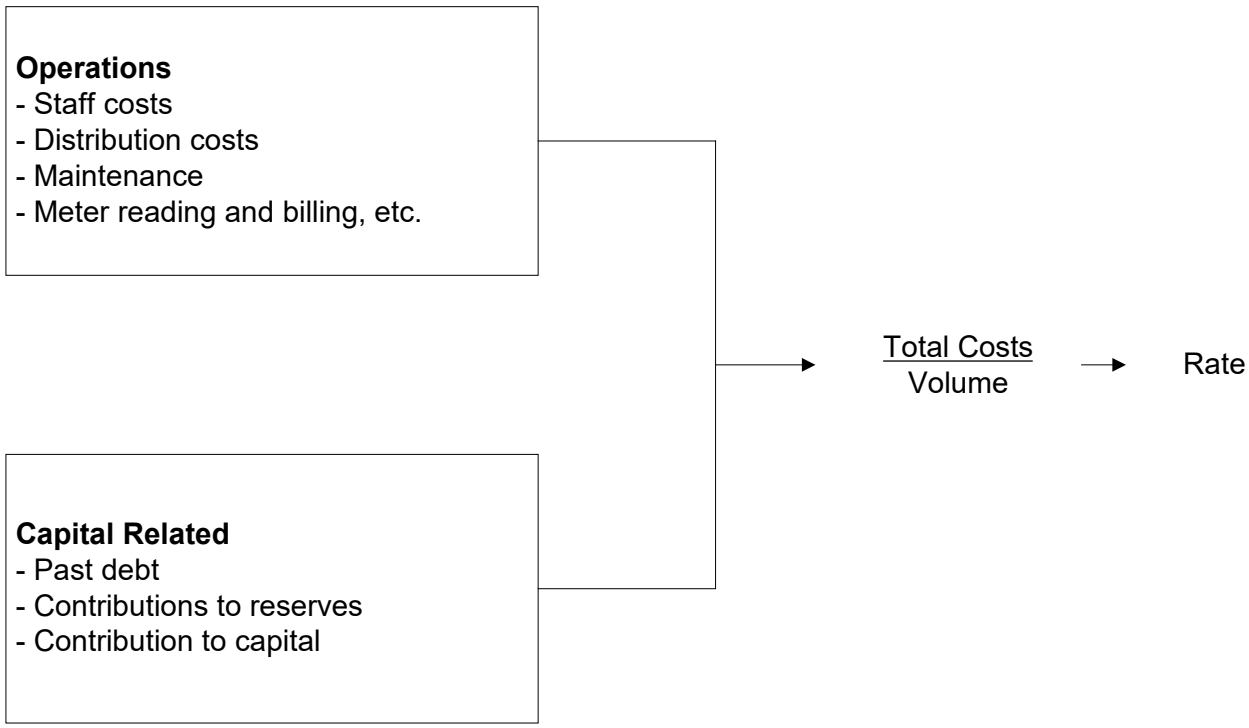
Chapter 6
Pricing Structures

6. Pricing Structures

6.1 Introduction

Rates, in their simplest form, can be defined as total costs to maintain the utility function divided by the total expected volume to be generated for the period. Total costs are usually a combination of operating costs (e.g. staff costs, distribution costs, maintenance, administration, etc.) and capital-related costs (e.g. past debt to finance capital projects, transfers to reserves to finance future expenditures, etc.). The schematic below provides a simplified illustration of the rate calculation for water.

"Annual Costs"



These operating and capital expenditures will vary over time. Examples of factors that will affect the expenditures over time are provided below.

Operations

- Inflation;

- Increased maintenance as system ages; and
- Changes to provincial legislation.

Capital Related

- New capital will be built as areas expand;
- Replacement capital needed as system ages; and
- Financing of capital costs are a function of policy regarding reserves and direct financing from rates (pay as you go), debt and user pay methods (development charges, *Municipal Act*).

6.2 Alternative Pricing Structures

Throughout Ontario, and as well, Canada, the use of pricing mechanisms varies between municipalities. The use of a particular form of pricing depends upon numerous factors, including Council preference, administrative structure, surplus/deficit system capacities, economic/demographic conditions, to name a few.

Municipalities within Ontario have two basic forms of collecting revenues for water purposes, those being through incorporation of the costs within the tax rate charged on property assessment and/or through the establishment of a specific water rate billed to the customer. Within the rate methods, there are five basic rate structures employed along with other variations:

- Flat Rate (non-metered customers);
- Constant Rate;
- Declining Block Rate;
- Increasing (or Inverted) Block Rate;
- Hump Back Block Rate; and
- Base Charges.

The definitions and general application of the various methods are as follows:

Property Assessment: This method incorporates the total costs of providing water into the general requisition or the assessment base of the municipality. This form of collection is a "wealth tax," as payment increases directly with the value of property owned and bears no necessary relationship to actual consumption. This form is easy to

administer as the costs to be recovered are incorporated in the calculation for all general services, normally collected through property taxes.

Flat Rate: This rate is a constant charge applicable to all customers served. The charge is calculated by dividing the total number of user households and other entities (e.g. businesses) into the costs to be recovered. This method does not recognize differences in actual consumption but provides for a uniform spreading of costs across all users. Some municipalities define users into different classes of similar consumption patterns, that is, a commercial user, residential user and industrial user, and charge a flat rate by class. Each user is then billed on a periodic basis. No meters are required to facilitate this method, but an accurate estimate of the number of users is required. This method ensures set revenue for the collection period but is not sensitive to consumption, hence may cause a shortfall or surplus of revenues collected.

Constant Rate: This rate is a volume-based rate, in which the consumer pays the same price per unit consumed, regardless of the volume. The price per unit is calculated by dividing the total cost of the service by the total volume used by total consumers. The bill to the consumer climbs uniformly as the consumption increases. This form of rate requires the use of meters to record the volume consumed by each user. This method closely aligns the revenue recovery with consumption. Revenue collected varies directly with the consumption volume.

Declining Block Rates: This rate structure charges a successively lower price for set volumes, as consumption increases through a series of "blocks." That is to say that within set volume ranges, or blocks, the charge per unit is set at one rate. Within the next volume range, the charge per unit decreases to a lower rate, and so on. Typically, the first, or first and second blocks cover residential and light commercial uses. Subsequent blocks normally are used for heavier commercial and industrial uses. This rate structure requires the use of meters to record the volume consumed by each type of user. This method requires the collection and analysis of consumption patterns by user classification to establish rates at a level which does not over or under collect revenue from rate payers.

Increasing or Inverted Block Rates: The increasing block rate works essentially the same way as the declining block rate, except that the price of water in successive blocks increases rather than declines. Under this method the consumer's bill rises faster with higher volumes used. This rate structure also requires the use of meters to

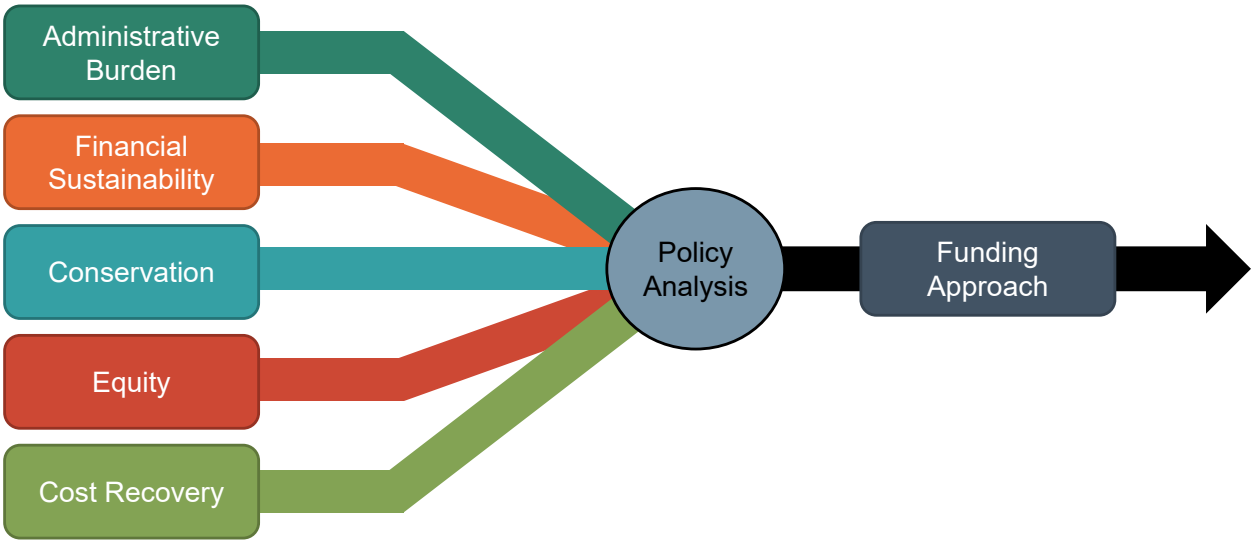
record the volume consumed by each user. This method requires, as with the declining block structure, the collection and analysis of consumption patterns by user classification to establish rates at a level which does not over or under collect from rate payers.

The Hump Back Rate: The hump back rate is a combination of an increasing block rate and the declining block rate. Under this method the consumer's bill rises with higher volumes used up to a certain level and then begins to fall for volumes in excess of levels set for the increasing block rate.

6.3 Assessment of Alternative Pricing Structures

The adoption by a municipality or utility of any one particular pricing structure is normally a function of a variety of administrative, social, demographic and financial factors. The number of factors, and the weighting each particular factor receives, can vary between municipalities. The following is a review of some of the more prevalent factors.

Figure 6-1
Factors in Assessing Rate Structures and Funding Approaches



Cost Recovery

Cost recovery is a prime factor in establishing a particular pricing structure. Costs can be loosely defined into different categories: operations, maintenance, capital, financing

and administration. These costs often vary between municipalities and even within a municipality, based on consumption patterns, infrastructure age, economic growth, etc.

The pricing alternatives defined earlier can all achieve the cost recovery goal, but some do so more precisely than others. Fixed pricing structures, such as Property Assessment and Flat Rate, are established on the value of property or on the number of units present in the municipality, but do not adjust in accordance with consumption. Thus, if actual consumption for the year is greater than projected, the municipality incurs a higher cost of production, but the revenue base remains static (since it was determined at the beginning of the year), thus potentially providing a funding shortfall. Conversely, if the consumption level declines below projections, fixed pricing structures will produce more revenue than actual costs incurred.

The other pricing methods (declining block, constant rate, increasing block) are consumption-based and generally will generate revenues in proportion to actual consumption.

Administration

Administration is defined herein as the staffing, equipment and supplies required to support the undertaking of a particular pricing strategy. This factor not only addresses the physical tangible requirements to support the collection of the revenues, but also the intangible requirements, such as policy development.

The easiest pricing structure to support is the Property Assessment structure. As municipalities undertake the process of calculating property tax bills and the collection process for their general services, the incorporation of the water costs into this calculation would have virtually no impact on the administrative process and structure.

The Flat Rate pricing structure is relatively easy to administer as well. It is normally calculated to collect a set amount, either on a monthly, quarterly, semi-annual or annual basis, and is billed directly to the customer. The impact on administration centres mostly on the accounts receivable or billing area of the municipality, but normally requires minor additional staff or operating costs to undertake.

The three remaining methods, those being Increasing Block Rate, Constant Rate and Declining Block Rate, have a more dramatic effect on administration. These methods are dependent upon actual consumption and hence involve a major structure in place to

administer. First, meters must be installed in all existing units in the municipality, and units to be subsequently built must be required to include these meters. Second, meter readings must be undertaken periodically. Hence staff must be available for this purpose or a service contract must be negotiated. Third, the billings process must be expanded to accommodate this process. Billing must be done per a defined period, requiring staff to produce the bills. Lastly, either through increased staffing or by service contract, an annual maintenance program must be set up to ensure meters are working effectively in recording consumed volumes.

The benefit derived from the installation of meters is that information on consumption patterns becomes available. This information provides benefit to administration in calculating rates which will ensure revenue recovery. Additionally, when planning what services are to be constructed in future years, the municipality or utility has documented consumption patterns distinctive to its own situation, which can be used to project sizing of growth-related works.

Equity

Equity is always a consideration in the establishment of pricing structures but its definition can vary depending on a municipality's circumstances and based on the subjective interpretation of those involved. For example: is the price charged to a particular class of rate payer consistent with those of a similar class in surrounding municipalities; through the pricing structure does one class of rate payer pay more than another class; should one pay based on ability to pay, or on the basis that a unit of water costs the same to supply no matter who consumes it; etc.? There are many interpretations. Equity therefore must be viewed broadly in light of many factors as part of achieving what is best for the municipality as a whole.

Conservation

In today's society, conservation of natural resources is increasingly being more highly valued. Controversy continuously focuses on the preservation of non-renewable resources and on the proper management of renewable resources. Conservation is also a concept which applies to a municipality facing physical limitations in the amount of water which can be supplied to an area. As well, financial constraints can encourage conservation in a municipality where the cost of providing each additional unit is increasing.

Pricing structures such as property assessment and flat rate do not, in themselves, encourage conservation. In fact, depending on the price which is charged, they may even encourage resource "squandering," either because consumers, without the price discipline, consume water at will, or the customer wants to get his money's worth and hence adopts more liberal consumption patterns. The fundamental reason for this is that the price paid for the service bears no direct relationship to the volume consumed and hence is viewed as a "tax," instead of being viewed as the price of a purchased commodity.

The Declining Block Rate provides a decreasing incentive towards conservation. By creating awareness of volumes consumed, the consumer can reduce his total costs by restricting consumption; however, the incentive lessens as more water is consumed, because the marginal cost per unit declines as the consumer enters the next block pricing range. Similarly, those whose consumption level is at the top end of a block have less incentive to reduce consumption.

The Constant Rate structure presents the customer with a linear relationship between consumption and the cost thereof. As the consumer pays a fixed cost per unit, his bill will vary directly with the amount consumed. This method presents tangible incentive for consumers to conserve water. As metering provides direct feedback as to usage patterns and the consumer has direct control over the total amount paid for the commodity, the consumer is encouraged to use only those volumes that are reasonably required.

The Inverted Block method presents the most effective pricing method for encouraging conservation. Through this method, the price per unit consumed increases as total volumes consumed grow. The consumer becomes aware of consumption through metering with the charges increasing dramatically with usage. Hence, there normally is awareness that exercising control over usage can produce significant savings. This method not only encourages conservation methods, but may also penalize legitimate high-volume users if not properly structured.

Figure 6-2 provides a schematic representation of the various rate structures (note property tax as a basis for revenue recovery has not been presented for comparison, as the proportion of taxes paid varies in direct proportion to the market value of the property). The graphs on the left-hand side of the figure present the cost per unit for each additional amount of water consumed. The right-hand side of the figure presents

the impact on the customer's bill as the volume of water increases. Following the schematic is a table summarizing each rate structure.

Figure 6-2

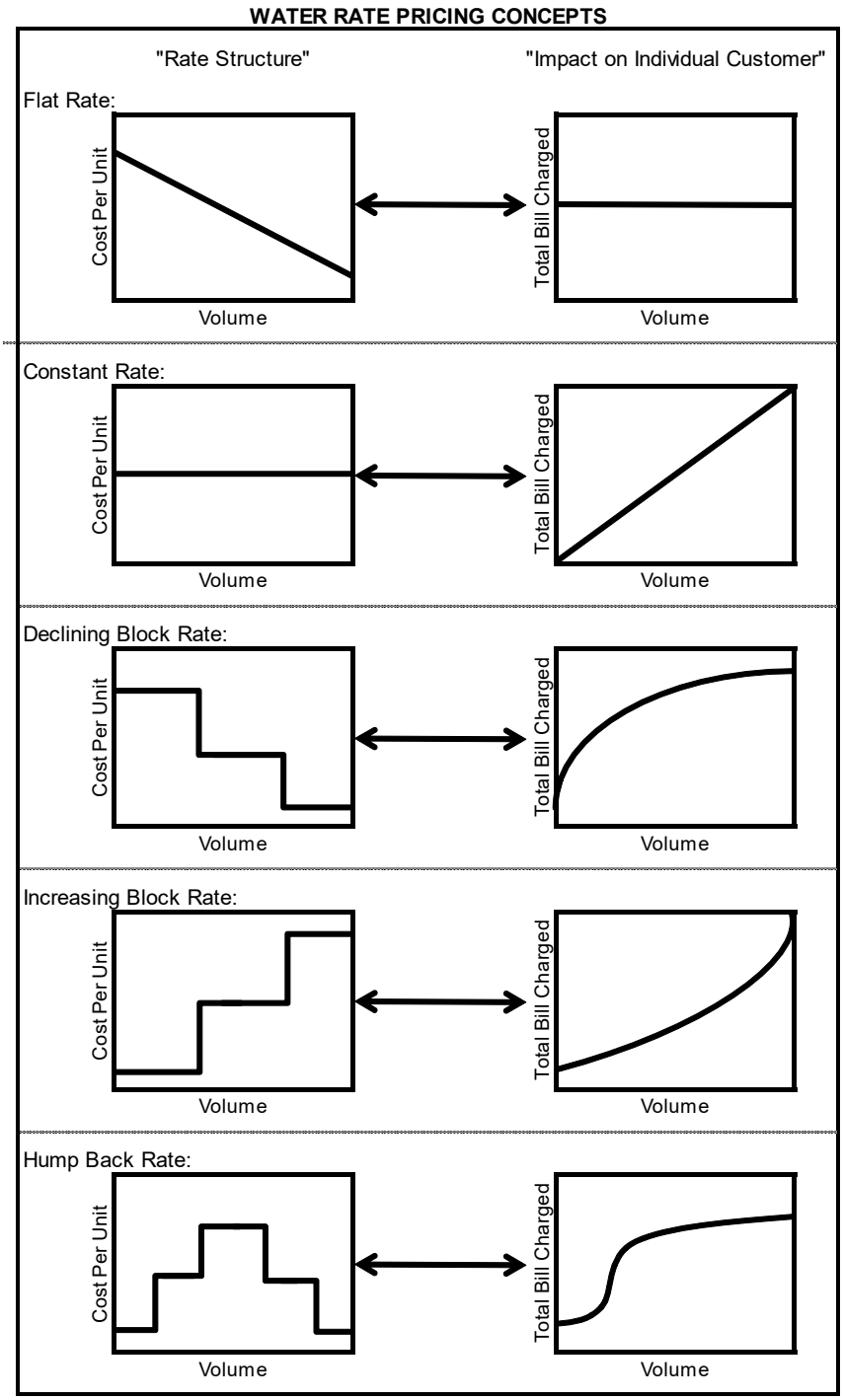


Figure 6-3
Summary of Various Rate Structures and their Impact on Customer Bills as Volume Usage Increases

Rate Structure	Cost Per Unit As Volume Increases	Impact On Customer Bill As Volume Increases
Flat Rate	Cost per unit decreases as more volume consumed	Bill remains the same no matter how much volume is consumed
Constant Rate	Cost per unit remains the same	Bill increases in direct proportion to consumption
Declining Block	Cost per unit decreases as threshold targets are achieved	Bill increases at a slower rate as volumes increase
Increasing Block	Cost per unit increases as threshold targets are achieved	Bill increases at a faster rate as volumes increase
Hump Back Rate	Combination of an increasing block at the lower consumption volumes and then converts to a declining block for the high consumption	Bill increases at a faster rate at the lower consumption amounts and then slows as volumes increase

6.4 Rate Structures in Ontario

In a past survey of over 170 municipalities (approximately half of the municipalities who provide water and/or sewer), all forms of rate structures are in use by Ontario municipalities. The most common rate structure is the constant rate (for metered municipalities). Most municipalities (approximately 92%) who have volume rate structures also impose a base monthly charge.

Historically, the development of a base charge often reflected either the recovery of meter reading/billing/collection costs, plus administration or those costs plus certain fixed costs (such as capital contributions or reserve contributions). More recently, many municipalities have started to establish base charges based on ensuring a secure portion of the revenue stream which does not vary with volume consumption. Selection

of the quantum of the base charge is a matter of policy selected by individual municipalities.

6.5 Recommended Rate Structures

Based on the foregoing, it is recommended that the County continue the same rate structure in the future (volume rate and base monthly charge varied by meter size).

The needs for both water and wastewater are significant over the forecast period. Additional operating expenditures and the requirement for significant capital expenditures create pressure on the financial sustainability of the water system. Hence rate increases have been balanced for the combined water/wastewater user to experience a 3.69% annual increase, on average, over the forecast period.

In order to meet the needs for water, it is recommended that the base charges increase, on average, by 5.12% annually over the forecast period.

In order to meet the needs for wastewater, it is recommended that the base charges increase, on average, by 1.55% annually over the forecast period.

Note: these base charges have been set such that 50% of the required revenues in each year are recovered from base charges, and the remaining 50% of revenues are recovered from the volume rate. The volume rate forecast is presented in Section 7.2 for water and Section 7.3 for wastewater.

The above increases are recommended to ensure that the County can fund the capital and operating costs while keeping the overall reserve fund balance in a positive position in accordance with Haldimand County's reserve fund principles. The forecast base charges are provided in Tables 6-1 and 6-2.

Table 6-1
Haldimand County
Base Charge Forecast – Water

Base Charge (Annual)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
R1/C1 (5/8" and 3/4")	327.42	344.38	361.07	380.06	398.83	419.84	440.62	463.79	489.30	514.57
R2/C2 (1")	327.42	344.38	361.07	380.06	398.83	419.84	440.62	463.79	489.30	514.57
R3/C3 (1 ½")	1,849.74	1,945.60	2,039.89	2,147.15	2,253.18	2,371.87	2,489.28	2,620.19	2,764.30	2,907.06
R4/C4 (2")	4,020.31	4,228.66	4,433.59	4,666.72	4,897.17	5,155.13	5,410.33	5,694.84	6,008.06	6,318.34
C5 (3")	7,074.76	7,441.41	7,802.04	8,212.28	8,617.82	9,071.77	9,520.87	10,021.53	10,572.72	11,118.74
C6 (4")	14,070.89	14,800.12	15,517.38	16,333.30	17,139.87	18,042.73	18,935.92	19,931.69	21,027.93	22,113.91
C7 (6")	26,174.17	27,530.66	28,864.88	30,382.63	31,882.98	33,562.45	35,223.93	37,076.22	39,115.42	41,135.51
C8 (8")	44,707.30	47,024.28	49,303.23	51,895.64	54,458.36	57,327.00	60,164.94	63,328.77	66,811.86	70,262.31

Table 6-2
Haldimand County
Base Charge Forecast – Wastewater

Base Charge (Annual)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
R1/C1 (5/8" and 3/4")	302.44	307.73	312.31	316.92	321.56	326.22	330.90	335.66	340.50	345.34
R2/C2 (1")	302.44	307.73	312.31	316.92	321.56	326.22	330.90	335.66	340.50	345.34
R3/C3 (1 ½")	1,708.93	1,738.78	1,764.69	1,790.74	1,816.94	1,843.27	1,869.72	1,896.65	1,923.97	1,951.35
R4/C4 (2")	3,714.26	3,779.15	3,835.45	3,892.09	3,949.03	4,006.26	4,063.75	4,122.26	4,181.64	4,241.14
C5 (3")	6,536.29	6,650.47	6,749.55	6,849.22	6,949.43	7,050.13	7,151.30	7,254.27	7,358.77	7,463.48
C6 (4")	12,999.93	13,227.02	13,424.08	13,622.30	13,821.61	14,021.90	14,223.11	14,427.91	14,635.74	14,844.01
C7 (6")	24,182.06	24,604.50	24,971.06	25,339.79	25,710.53	26,083.11	26,457.40	26,838.35	27,224.95	27,612.36
C8 (8")	41,304.54	42,026.09	42,652.19	43,282.01	43,915.26	44,551.66	45,190.95	45,841.64	46,501.98	47,163.71

Chapter 7
Analysis of Water and Wastewater Rates and Policy Matters

7. Analysis of Water and Wastewater Rates and Policy Matters

7.1 Introduction

To summarize the analysis undertaken thus far, Chapter 2 reviewed capital-related issues and responds to the provincial directives to maintain and upgrade infrastructure to required levels. Chapter 4 provided a review of capital financing options to which water and wastewater reserve contributions will be the predominant basis for financing future capital replacement. Chapter 5 established the 10-year operating forecast of expenditures including an annual capital reserve contribution. The base charges are based on recovering 50% of the total required revenues from the fixed portion of the charge, whereas the remaining 50% is based on recovery from volume rates. This chapter will provide for the calculation of the volume rates over the forecast period. These calculations will be based on the net operating expenditures (the variable costs) provided in Chapter 5, divided by the water consumption forecast and wastewater volumes provided in section 1.8.

7.2 Water Rates

Based on the discussion of rate structures provided in section 6.5 and the recommendation to continue with the present structure, the rates are calculated by taking the net recoverable amounts from Table 5-1 (the product of total expenditures less non-rate revenues and deduct the base charge amounts provided in section 6.5) and completes the calculation by dividing them by the volumes resulting in the forecasted rates.

Given the financial pressures on the water capital replacement reserve fund in the first half of the forecast, the volume rates are anticipated to increase by an average of 5.98% per year over the forecast period. The volume rates are presented in Table 7-1. Detailed calculations of the volume rates are provided in Appendix A. A summary of the recommended base charge and volume rates along with the total annual bill for an average residential user (166 cu.m) per year are as follows:

Table 7-1
Haldimand County
Average Annual Residential Water Bill
(Based on an Annual usage of 166 cu.m.)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Monthly Base Rate	$27.36	$28.70	$30.09	$31.67	$33.24	$34.99	$36.72	$38.65	$40.78	$42.88
Volume Rate	1.29	1.36	1.44	1.53	1.62	1.72	1.82	1.93	2.05	2.17
Annual Base Rate Bill	**$328.32**	**$344.38**	**$361.07**	**$380.06**	**$398.83**	**$419.84**	**$440.62**	**$463.79**	**$489.30**	**$514.57**
Volume	166	166	166	166	166	166	166	166	166	166
Annual Volume Bill	**$213.54**	**$225.76**	**$239.04**	**$253.98**	**$268.92**	**$285.52**	**$302.12**	**$320.38**	**$340.30**	**$360.22**
Total Annual Bill	**$541.86**	**$570.14**	**$600.11**	**$634.04**	**$667.75**	**$705.36**	**$742.74**	**$784.17**	**$829.60**	**$874.79**
% Increase - Base Rate		**4.89%**	**4.85%**	**5.26%**	**4.94%**	**5.27%**	**4.95%**	**5.26%**	**5.50%**	**5.16%**
% Increase - Volume Rate		**5.72%**	**5.88%**	**6.25%**	**5.88%**	**6.17%**	**5.81%**	**6.04%**	**6.22%**	**5.85%**
% Increase - Total Annual Bill		**5.22%**	**5.26%**	**5.65%**	**5.32%**	**5.63%**	**5.30%**	**5.58%**	**5.79%**	**5.45%**

7.3 Wastewater Rates

Similar to water, the calculation of the wastewater rates takes the net recoverable amounts (after deducting base charge revenues) from Table 5-2 and completes the calculation by dividing them by the volumes, resulting in the forecast rates. Detailed calculations are provided in Appendix B.

Given that the needs are relatively balanced over the forecast period, and the capital replacement reserve fund has an existing positive balance of $12.98 million, the wastewater volume rates are anticipated to increase by an average of 1.86% per year over the forecast period to 2034.

The following summarizes the recommended rates for wastewater and provides the average annual bill for a residential customer who uses 169 cu.m per year:

Table 7-2
Haldimand County
Average Annual Residential Wastewater Bill (Based on an Annual Usage of 169 cu.m)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Monthly Base Rate	$25.06	$25.64	$26.03	$26.41	$26.80	$27.18	$27.57	$27.97	$28.37	$28.78
Volume Rate	$1.50	$1.53	$1.56	$1.59	$1.62	$1.65	$1.68	$1.71	$1.74	$1.77
Annual Base Rate Bill	**$300.72**	**$307.73**	**$312.31**	**$316.92**	**$321.56**	**$326.22**	**$330.90**	**$335.66**	**$340.50**	**$345.34**
Volume	169	169	169	169	169	169	169	169	169	169
Annual Volume Bill	**$253.52**	**$258.57**	**$263.64**	**$268.71**	**$273.78**	**$278.85**	**$283.92**	**$288.99**	**$294.06**	**$299.13**
Total Annual Bill	**$554.24**	**$566.30**	**$575.95**	**$585.63**	**$595.34**	**$605.07**	**$614.82**	**$624.65**	**$634.56**	**$644.47**
% Increase - Base Rate		**2.33%**	**1.49%**	**1.48%**	**1.46%**	**1.45%**	**1.43%**	**1.44%**	**1.44%**	**1.42%**
% Increase - Volume Rate		**1.99%**	**1.96%**	**1.92%**	**1.89%**	**1.85%**	**1.82%**	**1.79%**	**1.75%**	**1.72%**
% Increase - Total Annual Bill		**2.18%**	**1.70%**	**1.68%**	**1.66%**	**1.63%**	**1.61%**	**1.60%**	**1.59%**	**1.56%**

7.4 Forecast of Combined Water and Wastewater Impact for the Average Residential Customer

Based on the foregoing information, the combined impact of the water and wastewater base charge and volume rate charges results in, on average, a 3.69% annual increase on the combined bill every year over the forecast period. Table 7-3 presents the forecast combined annual bill for residential customers.

Table 7-3
Haldimand County
Forecasted Annual Residential Water and Wastewater Bill (Based on an annual water usage of 166 cu.m and wastewater usage of 169 cu.m)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Water										
Base Charge	$328.32	$344.38	$361.07	$380.06	$398.83	$419.84	$440.62	$463.79	$489.30	$514.57
Volume (166 cu.m)	$213.54	$225.76	$239.04	$253.98	$268.92	$285.52	$302.12	$320.38	$340.30	$360.22
Total Water Bill	**$541.86**	**$570.14**	**$600.11**	**$634.04**	**$667.75**	**$705.36**	**$742.74**	**$784.17**	**$829.60**	**$874.79**
Wastewater										
Base Charge	$300.72	$307.73	$312.31	$316.92	$321.56	$326.22	$330.90	$335.66	$340.50	$345.34
Volume (169 cu.m)	$253.52	$258.57	$263.64	$268.71	$273.78	$278.85	$283.92	$288.99	$294.06	$299.13
Total Wastewater Bill	**$554.24**	**$566.30**	**$575.95**	**$585.63**	**$595.34**	**$605.07**	**$614.82**	**$624.65**	**$634.56**	**$644.47**
Total Combined Bill	**$1,096.10**	**$1,136.44**	**$1,176.06**	**$1,219.67**	**$1,263.09**	**$1,310.43**	**$1,357.56**	**$1,408.83**	**$1,464.16**	**$1,519.26**
% Increase - Combined Bill		**3.68%**	**3.49%**	**3.71%**	**3.56%**	**3.75%**	**3.60%**	**3.78%**	**3.93%**	**3.76%**

Chapter 8
Recommendations

8. Recommendations

As presented within this report, capital and operating expenditures have been identified and forecast over a ten-year period for water and wastewater services.

Based upon the foregoing, the following recommendations are identified for consideration by County's Council:

1. That Council provide for the recovery of all water and wastewater costs through full cost recovery rates.
2. That Council consider the Capital Plan for water and wastewater as provided in Tables 2-1 and 2-2 and the associated Capital Financing Plan as set out in Tables 4-3 and 4-4.
3. That Council consider the base charges provided in Table 6-1 for water and Table 6-2 for wastewater.
4. That Council consider the volume rates for water and wastewater as provided in Tables 7-1 and 7-2, respectively.

Appendices

Appendix A
Detailed Water Rate Calculations

Appendix A: Detailed Water Rate Calculations

Table A-1
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital Expenditures											
222303 - Nant WTP Facility Security Perimeter Fencing & Gate Repairs	-	43,700	21,600	22,100	-	-	-	-	-	-	-
222407 - Nanticoke WTP Reservoir Exterior Wall Repairs	-	275,000	275,000	-	-	-	-	-	-	-	-
222500 - Soils management containment	50,000	-	-	-	-	-	-	-	-	-	-
322015 - Caledonia Reservoir Roof Rehab	-	6,900	-	6,900	-	-	-	-	-	-	-
322017 - Booster Stn Roof Replacement	-	7,000	-	-	7,000	-	-	-	-	-	-
322018 - Hagersville Tuscarora St Operations Building Roof	-	3,500	-	-	3,500	-	-	-	-	-	-
322020 - Hagersville Standpipe Building Roof Repairs	-	7,000	-	-	7,000	-	-	-	-	-	-
322021 - Jarvis Bulk Water Depot Roof Repairs	-	6,100	6,100	-	-	-	-	-	-	-	-
322022 - Dunnville Bulk Water Depot Roof Repairs	-	6,900	-	6,900	-	-	-	-	-	-	-
322026 - Nanticoke WTP Facility Building Roof Repairs	-	31,800	-	-	31,800	-	-	-	-	-	-
322404 - Hagersville Standpipe Coating Maintenance	-	400,000	400,000	-	-	-	-	-	-	-	-
322406 - Nanticoke WTP Actiflo Building Dehumidifier Replacement	75,000	-	-	-	-	-	-	-	-	-	-
322500 - Nanticoke WTP Internal Service Road Repairs	-	230,700	-	-	75,000	76,900	78,800	-	-	-	-
322501 - Nanticoke Electrical Safety Authority Identified Deficiencies	40,000	-	-	-	-	-	-	-	-	-	-
322503 - Cay - Standpipe Repairs	35,000	-	-	-	-	-	-	-	-	-	-
322504 - Nanticoke WTP Highlift Concrete Structural Integrity Testing	35,000	-	-	-	-	-	-	-	-	-	-
421805 - Reservoir–SCADA Computer & Network Replmt	12,900	14,700	-	-	-	-	14,700	-	-	-	-
421809 - Granular Activated Carbon change out	-	485,400	-	-	200,000	92,800	95,100	97,500	-	-	-
421831 - Stelco IPS Operating Capital	42,000	429,300	43,100	44,200	45,300	46,400	47,600	48,700	50,000	51,300	52,700
421832 - Imperial Oil IPS Operating Capital	42,000	429,400	43,100	44,200	45,300	46,400	47,600	48,800	50,000	51,300	52,700
421837 - SCADA Computer & Network Replmt	-	28,300	-	28,300	-	-	-	-	-	-	-
421919 - Caledonia Meter Replacement	-	2,009,000	-	-	-	-	2,009,000	-	-	-	-
421920 - Dunnville Meter Replacement	-	930,000	-	-	-	-	930,000	-	-	-	-
421991 - Water Operating Capital	42,000	429,000	43,100	44,200	45,300	46,400	47,600	48,700	50,000	51,200	52,500
421998 - Reservoir–SCADA Computer & Network Replmt	21,600	24,400	-	-	-	-	24,400	-	-	-	-
422108 - Depot Software for Pay-at-the-Pump	-	80,000	80,000	-	-	-	-	-	-	-	-
422128 - Booster Station Pumping Upgrades	-	1,655,700	1,655,700	-	-	-	-	-	-	-	-
422216 - Chem Feed System Replacements	26,300	91,700	-	-	28,300	-	-	30,500	-	-	32,900
422221 - Industry Raw Water Supply Valve and Chamber Refurb	43,000	91,900	-	-	43,100	-	-	-	-	48,800	-
422224 - Reservoir Valvehouse AHU	-	143,500	143,500	-	-	-	-	-	-	-	-
422231 - Stelco Raw Watermain Valve and Chamber Refurb	15,000	41,000	41,000	-	-	-	-	-	-	-	-
422304 - Billing Software Upgrade	-	203,000	62,500	-	-	67,500	-	-	73,000	-	-
422334 - Dunn WTP Filter Turbidity Analyzer Replacements	25,000	111,200	-	26,300	-	-	27,600	28,300	29,000	-	-
422336 - Dunnville Raw Water Supply Valve and Chamber Refurb	50,000	137,700	-	-	64,600	-	-	-	-	73,100	-

Table A-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget	Total	Forecast								
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034
422346 - Nant IPS Intake Screen Refurbishment	25,600	-	-	-	-	-	-	-	-	-	-
422347 - Nant IPS Pump #8 Motor Refurbishment	35,000	-	-	-	-	-	-	-	-	-	-
422348 - Nant IPS Hydro Transformers/Substations Refurbishment	-	132,500	64,600	-	67,900	-	-	-	-	-	-
422350 - Nant Transmission Line Chamber Refurbishment	15,000	60,000	60,000	-	-	-	-	-	-	-	-
422351 - Nant IPS Main MV MCP Sections Refurbishment (2)	200,000	205,000	205,000	-	-	-	-	-	-	-	-
422440 - Hagersville Booster Station Chlorine Analyzer Replacement	-	14,700	-	-	-	-	-	-	14,700	-	-
422441 - Dunnville WTP Port Maitland Chlorine System Replacement	20,000	20,500	20,500	-	-	-	-	-	-	-	-
422442 - Dunnville Port Maitland Raw Water Supply Line Relining	-	1,146,000	-	-	179,400	183,900	188,500	193,200	198,000	203,000	-
422443 - Dunnville WTP Raw Water Turbidity Analyzer Equipment Replacements	12,300	42,300	12,600	-	-	-	-	-	14,700	15,000	-
422444 - Dunnville WTP Digitize Operation and Maintenance Manuals	20,000	-	-	-	-	-	-	-	-	-	-
422445 - Dunnville Chlorine Analyzer Replacements	-	24,600	12,000	-	12,600	-	-	-	-	-	-
422446 - Nanticoke WTP Highlift Clearwell Chlorine Analyzer Replacement	-	14,700	-	-	-	-	-	-	14,700	-	-
422447 - Townsend Distribution Elevated Tank Chlorine Analyzer Installation	-	14,700	-	-	-	-	-	-	14,700	-	-
422448 - Nanticoke WTP Reservoir Level Meter, PLC and SCADA Communication Upgrades	50,000	-	-	-	-	-	-	-	-	-	-
422450 - Nanticoke WTP Yard Fire Hydrant Replacements	20,000	-	-	-	-	-	-	-	-	-	-
422451 - Nanticoke WTP Raw Water Turbididty Meter Replacement	-	14,300	-	-	-	-	-	14,300	-	-	-
422452 - Nanticoke WTP Settled Water Turbidity Meter Replacement	12,300	29,000	-	-	-	-	-	14,300	14,700	-	-
422456 - Nanticoke IPS MCC1 and MCC2 Refurbishments	-	354,400	-	175,000	179,400	-	-	-	-	-	-
422457 - Nanticoke Reservoir Chlorine Analyzer Replacements	-	25,300	-	-	-	-	-	-	12,500	12,800	-
422458 - Nanticoke Reservoir Baffling Phase 2	900,000	-	-	-	-	-	-	-	-	-	-
422459 - Nanticoke Reservoir Transfer System	-	345,000	345,000	-	-	-	-	-	-	-	-
422501 - Dunnville water depot boiler replacement	40,000	-	-	-	-	-	-	-	-	-	-
422502 - Jarvis water depot maintenance	-	30,000	-	-	-	30,000	-	-	-	-	-
422503 - Dunnville WTP Filter Tanks Relining and Media Replacements	185,000	140,000	140,000	-	-	-	-	-	-	-	-
422504 - Dunnville WTP Distribution Meter and Valve Replacement	65,000	-	-	-	-	-	-	-	-	-	-
422505 - Dunnville WTP Sodium Hypochlorite Tank & Equipment Replacement	-	80,000	80,000	-	-	-	-	-	-	-	-

Table A-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget	Total	Forecast								
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034
422506 - Dunnville WTP Clarifier Valve and Actuator Replacements	30,000	-	-	-	-	-	-	-	-	-	-
422507 - Dunnville WTP Paint Exterior Finishes and Railings	55,000	-	-	-	-	-	-	-	-	-	-
422508 - Port Maitland UVA Conductivity Analyzer	25,000	-	-	-	-	-	-	-	-	-	-
422509 - Nanticoke WTP Actiflo Lamella and Air Scour Replacements	-	355,000	-	355,000	-	-	-	-	-	-	-
422511 - Nanticoke WTP Clearwell Refurbishment	-	45,000	-	45,000	-	-	-	-	-	-	-
422512 - Nanticoke WTP Valvehouse Valve Replacements	-	325,000	-	325,000	-	-	-	-	-	-	-
422513 - Nanticoke WTP Filter Media Replacements	-	461,300	-	-	-	-	150,000	153,800	157,500	-	-
422514 - Nanticoke WTP Highlift Building Refurbishment	-	60,000	-	60,000	-	-	-	-	-	-	-
422515 - Nanticoke WTP Primary Disinfection (Chlorine) System Replacement	40,000	-	-	-	-	-	-	-	-	-	-
422516 - Nanticoke WTP Clarifier Canopy Replacement	35,000	-	-	-	-	-	-	-	-	-	-
422517 - Nanticoke WTP Highlift Valve Replacements	-	283,800	60,000	30,000	63,000	31,500	66,200	33,100	-	-	-
422518 - Nanticoke IPS Pump 8 Air Relief and Valve Replacements	55,000	-	-	-	-	-	-	-	-	-	-
422519 - Nanticoke IPS Sump Pump Rebuild	-	10,000	-	10,000	-	-	-	-	-	-	-
422520 - Nanticoke IPS Pump 5 Geardrive and Diesel Engine Rebuild	-	320,000	320,000	-	-	-	-	-	-	-	-
422521 - Nanticoke IPS Pump 2 Motor Replacement	-	250,000	250,000	-	-	-	-	-	-	-	-
422522 - Nanticoke IPS Potable Water Supply Line Valve and Pipe Replacement	-	60,000	-	60,000	-	-	-	-	-	-	-
422523 - Nanticoke IPS Lighting Replacements (High Efficiency)	20,000	-	-	-	-	-	-	-	-	-	-
422524 - Nanticoke Forebay UVA Conductivity Analyzer	30,000	-	-	-	-	-	-	-	-	-	-
422525 - Nanticoke WTP Filter Backwash Flow Control Meter	-	10,000	10,000	-	-	-	-	-	-	-	-
422526 - Nanticoke WTP Highlift Flowmeter Replacement	110,000	-	-	-	-	-	-	-	-	-	-
422527 - Cay - Reservoir Pump 1 MCC Upgrades and SCADA Control	75,000	-	-	-	-	-	-	-	-	-	-
422528 - Hagersville Booster Station Main Electrical Switchboard Replacement	-	260,000	20,000	-	-	-	-	240,000	-	-	-
422567 - Dunnville water depot maintenance	-	30,000	30,000	-	-	-	-	-	-	-	-
422573 - Nanticoke WTP Interim High Lift Generator Replacement	325,000	-	-	-	-	-	-	-	-	-	-
631901 - Distribution System - Annual Repair & Replac't	89,300	911,000	91,500	93,800	96,200	98,600	101,000	103,500	106,100	108,800	111,500
632201 - Cast Iron Watermain Engineering	-	50,000	-	-	-	-	-	-	-	-	50,000
632302 - Parkview/Concession 12 - Watermain Upsizing	751,000	-	-	-	-	-	-	-	-	-	-
632401 - Townsend Distribution Transmission Watermain Upsizing - Nanticoke Creek Pkwy to Stone Quarry Rd	-	670,000	95,000	575,000	-	-	-	-	-	-	-
632402 - Townsend Distribution Transmission Watermain Upsizing - Stone Quarry Rd to Townsend Elevated Tank	-	2,050,000	-	-	-	250,000	1,800,000	-	-	-	-

Table A-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget	Total	Forecast								
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034
822123 - Cay - Mohawk St W - Ottawa St N to Munsee St N [CIW] [R]	-	166,800	8,000	-	158,800	-	-	-	-	-	-
822124 - Cay - Norton St W - Ottawa St N to Munsee St N [CIW] [R]	-	161,600	4,800	-	156,800	-	-	-	-	-	-
822126 - Dun - Cross Street E - Pine St to Tamarac St [CIW] [R] [SS]	-	656,000	28,000	628,000	-	-	-	-	-	-	-
822205 - Cal - Aberdeen St - Sutherland St E to Burke Drive [CIW] [R]	147,600	-	-	-	-	-	-	-	-	-	-
822206 - Cal - Gypsum Ave - Argyle St N to End [CIW] [R] [SS]	171,800	-	-	-	-	-	-	-	-	-	-
822207 - Cal - Inverness St - Caithness St W to Orkney St W [CIW] [R] [SS]	443,600	-	-	-	-	-	-	-	-	-	-
822208 - Cal - Sutherland St W - Inverness St to Shetland St [CIW] [R]	230,500	-	-	-	-	-	-	-	-	-	-
822210 - Dun - Cross St W - Elizabeth Cr to Pine St [CIW] [R] [SS]	-	168,000	10,000	158,000	-	-	-	-	-	-	-
822211 - Dun - George St - Cross St W to End [CIW] [R]	-	982,500	50,000	932,500	-	-	-	-	-	-	-
822215 - Cay - Cayuga St - Alleyway Water Relocation [CIW] [R]	-	156,900	6,000	-	150,900	-	-	-	-	-	-
822216 - Hag - Fairfield Dr - Elm Ave to Hunter St [CIW] [R]	-	398,800	-	-	21,600	-	377,200	-	-	-	-
822217 - Hag - Hunter St - Church St E to King St E [CIW] [R]	-	400,200	-	-	22,400	-	377,800	-	-	-	-
822218 - Hag - Elm Ave - Sherring St S to Hunter St [CIW] [R]	-	467,300	-	-	26,400	-	440,900	-	-	-	-
822219 - Cal - Caithness Street W - Cameron St to Argyle St N [CIW] [WW] [R] [SS]	-	1,066,500	-	56,000	-	1,010,500	-	-	-	-	-
822220 - Cal - Shetland St - Caithness St W to Sutherland St W [CIW] [R]	-	218,300	-	12,000	-	206,300	-	-	-	-	-
822221 - Cal - Nairne St - Sutherland St E to Orkney St E [CIW] [R]	-	293,200	-	16,000	-	277,200	-	-	-	-	-
822222 - Dun - Chestnut St - Alder St E to South Cayuga St E [CIW] [R]	-	187,600	-	-	-	9,600	-	178,000	-	-	-
822223 - Dun - Lock St - Cedar to Queen [CIW] [R]	-	265,500	-	-	-	14,400	-	251,100	-	-	-
822224 - Dun - Bridge Street - Main St E to Queen St [CIW] [R]	-	93,300	-	-	-	6,400	-	86,900	-	-	-
822225 - Dun - Queen St - Chestnut St to Maple St [CIW] [R]	-	151,900	-	-	-	9,600	-	142,300	-	-	-
822226 - Dun - Main St W - George St west 275m to Cemetery [CIW] [R]	-	415,900	-	-	-	20,800	-	395,100	-	-	-
822242 - Cay - Mohawk St E - Munsee to Winnet [CIW] [R]	-	163,500	9,600	-	153,900	-	-	-	-	-	-
822254 - Cay - Ottawa St N - Talbot St W to Mohawk St W [CIW] [R]	-	260,700	-	-	-	-	-	-	-	-	260,700
822302 - Dun - Taylor Rd - Broad St E to Main St E [CIW] [R]	-	387,000	20,000	367,000	-	-	-	-	-	-	-

Table A-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget	Total	Forecast								
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034
822303 - Hag - Athens St - Sherring St N to Cedar St [CIW] [R]	225,000	-	-	-	-	-	-	-	-	-	-
822304 - Hag - Sherring St N - King St E to Marathon St [CIW] [R]	-	370,100	-	-	-	-	29,600	-	340,500	-	-
822305 - Hag - Tuscarora St - King St W to Oneida St [CIW] [R] [WW]	841,000	-	-	-	-	-	-	-	-	-	-
822306 - Hag - King St W - Rail Line to Tuscarora St [CIW] [R]	221,000	-	-	-	-	-	-	-	-	-	-
822402 - Cay - Winnett St N - Kerr St E to Echo St E [R] [CIW]	-	440,300	24,800	-	415,500	-	-	-	-	-	-
822403 - Cal - Forfar St W - Argyle St to Peebles [R] [W]	-	648,500	-	-	-	-	-	36,000	-	612,500	-
822404 - Cal - Selkirk St - Renfrew St W to Forfar St W [R] [W]	-	253,400	-	-	-	-	-	14,400	-	239,000	-
822405 - Cal - Fife St E - Argyle St S to Wigton St [R] [W]	-	320,500	-	-	-	-	-	20,000	-	300,500	-
822406 - Hag - Parkview Rd - Main St S to King St E [R] [WW] [CIW]	40,000	325,000	325,000	-	-	-	-	-	-	-	-
822500 - Hag - Harris Street [CIW] [WW] [R]	12,800	207,200	207,200	-	-	-	-	-	-	-	-
822501 - Dun - John St - Fairview Ave W to Jarret Place [W] [WW] [R]	-	429,900	-	-	-	-	-	18,400	-	411,500	-
822502 - Quarry St - Sarah St to Porter St [CIW] [R]	-	143,000	-	-	-	-	-	-	8,000	-	135,000
822503 - Hag - Porter St - Quarry St to Jane St [CIW] [R]	-	132,600	-	-	-	-	-	-	7,200	-	125,400
822504 - Hag - Sarah St - End to King St W [CIW] [R]	-	323,700	-	-	-	-	-	-	17,600	-	306,100
822505 - Hag - Jane St - End to Porter St [CIW] [R]	-	486,200	-	-	-	-	-	-	27,200	-	459,000
822506 - Dun - Jim Gregory Drive [CIW] [WW] [SS] [R]	10,000	275,000	275,000	-	-	-	-	-	-	-	-
931930 - Asbestos Annual Inspection and Remediation [WW]	3,300	34,200	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200
931935 - Nant - WTP Lagoon Clean Out	70,000	1,033,200	71,800	110,000	112,800	115,600	118,600	121,400	124,600	127,600	130,800
931987 - Distribution Leak Detection Program	21,000	214,400	21,500	22,100	22,600	23,200	23,800	24,400	25,000	25,600	26,200
932110 - Nanticoke WTP Intake Inspections	50,000	174,450	-	-	53,900	-	-	58,050	-	-	62,500
932504 - Optimization Program Support - Water	10,000	20,800	10,300	10,500	-	-	-	-	-	-	-
Studies:		-	-	-	-	-	-	-	-	-	-
931910 - Water Financial Plan Update (O. Reg. 453/07)	10,000	-	-	-	-	-	-	-	-	-	-
931926 - Facility Condition Assessment [WW]	26,900	6,100	-	-	-	-	6,100	-	-	-	-
932108 - WWW Rate Study	30,000	122,000	-	28,300	-	29,700	-	31,200	-	32,800	-
932404 - Nanticoke WTP Digitize Operation and Maintenance Manuals	-	34,000	-	-	-	-	34,000	-	-	-	-
932500 - Transmission Main Condition Assessments	-	22,000	-	22,000	-	-	-	-	-	-	-
932501 - Nanticoke WTP Highlift Electrical Vault and Wire Condition Assessment	20,000	750,000	-	250,000	-	350,000	-	150,000	-	-	-
932502 - Nanticoke Energy Management Study	35,000	-	-	-	-	-	-	-	-	-	-

Table A-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget 2025	Total	Forecast 2026	2027	2028	2029	2030	2031	2032	2033	2034
Growth Related:		-	-	-	-	-	-	-	-	-	-
931927 - SCADA Master Plan	-	83,600	38,600	-	-	-	-	-	45,000	-	-
821962 - Cay - Master Servicing Plan Update [WW][R][SS]	-	29,000	-	-	-	-	29,000	-	-	-	-
931978 - Cal - Master Servicing Plan Update [WW][R][SS]	75,000	89,200	-	-	-	-	-	-	89,200	-	-
931979 - Hag - Master Servicing Plan Update [WW][R][SS]	-	34,000	-	-	34,000	-	-	-	-	-	-
931980 - Jar - Master Servicing Plan Update [WW][R][SS]	-	46,500	21,500	-	-	-	-	25,000	-	-	-
931981 - Dun - Master Servicing Plan Update [WW][R][SS]	-	34,800	-	-	-	34,800	-	-	-	-	-
931984 - Development Charges Study Update	-	9,200	-	-	-	-	9,200	-	-	-	-
932012 - LEIP - Master Servicing Plan [WW][R][S]	-	108,000	-	50,000	-	-	-	-	-	58,000	-
321922 - Plant Capital Improvements	-	5,536,700	-	-	-	680,300	1,029,700	398,300	376,100	-	3,052,300
321923 - Elevated Storage Tank Replacement	-	8,654,600	-	-	-	-	-	-	480,600	8,174,000	-
421802 - Booster Station PLC Replacements	40,900	-	-	-	-	-	-	-	-	-	-
421826 - WTP SCADA Computer & Network Replmt	26,900	30,400	-	-	-	-	30,400	-	-	-	-
322014 - Caledonia North Water Storage Expansion	1,500,000	5,688,600	5,688,600	-	-	-	-	-	-	-	-
421830 - WTP Reservoir Expansion	-	2,035,300	-	-	2,035,300	-	-	-	-	-	-
422233 - Project Management Support [WW]	73,600	751,000	75,400	77,400	79,300	81,200	83,300	85,300	87,500	89,700	91,900
632102 - Twinning of 450mm Water Main on Hwy 6	-	1,661,200	1,661,200	-	-	-	-	-	-	-	-
632103 - Twinning of 350mm Water Main on Hald Rd 66	-	1,833,700	-	-	-	-	1,833,700	-	-	-	-
931929 - SCADA Maintenance	32,400	329,800	33,200	34,000	34,800	35,600	36,600	37,400	38,400	39,400	40,400
421862 - WTP PLC Replacements	16,200	132,700	60,700	43,000	29,000	-	-	-	-	-	-
421992 - SCADA Technical Support	43,100	439,600	44,200	45,300	46,400	47,500	48,700	50,000	51,200	52,500	53,800
Total Capital Expenditures	**8,222,900**	**58,553,850**	**13,329,700**	**4,817,500**	**4,752,700**	**3,926,800**	**10,140,500**	**3,181,850**	**2,521,700**	**10,782,500**	**5,100,600**
Capital Financing											
Provincial/Federal Grants		-									
Recoveries from Norfolk	480,500	622,800	203,800	47,900	49,200	50,400	51,700	52,900	54,300	55,600	57,000
Other Recoveries	1,910,500	3,912,800	1,001,200	578,400	437,300	237,200	1,013,900	170,100	119,600	172,800	182,300
Development Charges Reserve Fund	172,300	1,887,700	132,400	141,600	130,500	189,400	242,400	155,800	235,400	257,000	403,200
Non-Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-
Growth Related Debenture Requirements	1,498,900	15,073,900	7,339,900	-	2,029,500	-	1,827,600	-	215,300	3,661,600	-
Operating Contributions	-	-	-	-	-	-	-	-	-	-	-
Water Rate Stabilization	-	-	-	-	-	-	-	-	-	-	-
Canada Community Building Fund Reserve Fund	993,500	6,654,200	1,816,900	2,141,500	1,071,500	1,010,500	613,800	-	-	-	-
Water Capital Replacement Reserve	3,167,200	30,402,450	2,835,500	1,908,100	1,034,700	2,439,300	6,391,100	2,803,050	1,897,100	6,635,500	4,458,100
Total Capital Financing	**8,222,900**	**58,553,850**	**13,329,700**	**4,817,500**	**4,752,700**	**3,926,800**	**10,140,500**	**3,181,850**	**2,521,700**	**10,782,500**	**5,100,600**

Table A-2
Haldimand County
Schedule of Non-Growth Related Debenture Repayments

Debenture Year	2025	Principal (Inflated)	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
2026		-		-	-	-	-	-	-	-	-
2027		-			-	-	-	-	-	-	-
2028		-				-	-	-	-	-	-
2029		-					-	-	-	-	-
2030		-						-	-	-	-
2031		-							-	-	-
2032		-								-	-
2033		-									-
2034		-									
Total Annual Debt Charges	-	**-**	-	-	-	-	-	-	-	-	-

Table A-3
Haldimand County
Schedule of Growth Related Debenture Repayments

Debenture Year	2025	Principal (Inflated)	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
2025		1,498,900	115,030	115,030	115,030	115,030	115,030	115,030	115,030	115,030	115,030
2026		7,339,900		563,286	563,286	563,286	563,286	563,286	563,286	563,286	563,286
2027		-			-	-	-	-	-	-	-
2028		2,029,500				155,750	155,750	155,750	155,750	155,750	155,750
2029		-					-	-	-	-	-
2030		1,827,600						140,255	140,255	140,255	140,255
2031		-							-	-	-
2032		215,300								16,523	16,523
2033		3,661,600									281,002
2034		-									
Total Annual Debt Charges	-	**15,073,900**	115,030	678,316	678,316	834,066	834,066	974,321	974,321	990,844	1,271,846

Table A-4
Haldimand County
Water Capital Replacement Reserve Continuity (Inflated $)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Opening Balance	960,784	(134,041)	222,706	387,254	2,482,638	3,499,522	869,437	2,183,064	3,796,016	1,001,435
Transfer from Operating	2,075,004	3,187,880	2,065,055	3,081,405	3,387,566	3,743,967	4,073,872	3,435,620	3,821,283	4,735,516
Transfer to Capital	3,167,200	2,835,500	1,908,100	1,034,700	2,439,300	6,391,100	2,803,050	1,897,100	6,635,500	4,458,100
Transfer to Operating	-	-	-	-	-	-	-	-	-	-
Closing Balance	**(131,413)**	**218,339**	**379,661**	**2,433,959**	**3,430,904**	**852,389**	**2,140,259**	**3,721,584**	**981,799**	**1,278,851**
Interest	(2,628)	4,367	7,593	48,679	68,618	17,048	42,805	74,432	19,636	25,577

Table A-5
Haldimand County
Water Development Charges Reserve Fund Continuity (Inflated $)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Opening Balance	909,789	986,858	1,706,776	1,889,227	2,630,644	3,201,025	3,801,558	4,291,559	4,821,960	5,357,702
Development Charge Proceeds	798,170	1,501,466	1,531,392	1,561,864	1,593,189	1,663,471	1,595,894	1,645,574	1,678,533	1,712,047
Transfer to Capital	172,300	132,400	141,600	130,500	189,400	242,400	155,800	235,400	257,000	403,200
Transfer to Operating	568,152	682,614	1,244,385	741,528	896,173	895,079	1,034,241	974,321	990,844	1,271,846
Closing Balance	**967,507**	**1,673,309**	**1,852,183**	**2,579,062**	**3,138,260**	**3,727,017**	**4,207,410**	**4,727,412**	**5,252,649**	**5,394,703**
Interest	19,350	33,466	37,044	51,581	62,765	74,540	84,148	94,548	105,053	107,894
Required from Development Charges	1,671,200	7,472,300	141,600	2,160,000	189,400	2,070,000	155,800	450,700	3,918,600	403,200

Table A-6
Haldimand County
Dunnville Microstrainer Reserve Continuity (Inflated $)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Opening Balance	47,736	48,691	49,665	50,658	51,671	52,704	53,758	54,834	55,930	57,049
Transfer from Operating	-	-	-	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-	-	-	-
Transfer to Operating	-	-	-	-	-	-	-	-	-	-
Closing Balance	**47,736**	**48,691**	**49,665**	**50,658**	**51,671**	**52,704**	**53,758**	**54,834**	**55,930**	**57,049**
Interest	955	974	993	1,013	1,033	1,054	1,075	1,097	1,119	1,141

Table A-7
Haldimand County
Water Rate Stabilization Reserve Fund Continuity (Inflated $)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Opening Balance	2,441,062	2,489,883	1,111,681	1,133,915	1,156,593	1,179,725	1,203,319	1,227,386	2,271,933	3,337,372
Transfer from Operating	-	-	-	-	-	-	-	1,000,000	1,000,000	1,000,000
Transfer to Capital	-	-	-	-	-	-	-	-	-	-
Transfer to Operating	-	1,400,000	-	-	-	-	-	-	-	-
Closing Balance	**2,441,062**	**1,089,883**	**1,111,681**	**1,133,915**	**1,156,593**	**1,179,725**	**1,203,319**	**2,227,386**	**3,271,933**	**4,337,372**
Interest	48,821	21,798	22,234	22,678	23,132	23,594	24,066	44,548	65,439	86,747

Table A-8
Haldimand County
Operating Budget Forecast (Inflated $)

Description	Budget 2025	Forecast 2026	2027	2028	2029	2030	2031	2032	2033	2034
Expenditures										
Operating Costs										
4370 - Wholesale Water Purchase	4,674,900	5,142,400	5,656,600	6,222,300	6,844,500	7,529,000	8,281,900	9,110,100	10,021,100	10,221,500
4700 - Insurance Charges	270,860	276,300	281,800	287,400	293,100	299,000	305,000	311,100	317,300	323,600
4725 - Licences and Permits	100	100	100	100	100	100	100	100	100	100
5430 - Domain WAN Charges	35,910	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900
5440 - SCADA License and Updates	47,260	47,300	47,300	47,300	47,300	47,300	47,300	47,300	47,300	47,300
5450 - Unplanned SCADA Support	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
5100 - Legal Fees	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
5105 - Consulting Fees and Svcs	8,700	8,700	8,700	8,700	8,700	8,700	8,700	8,700	8,700	8,700
5125 - Medical Physician Fees	80	80	80	80	80	80	80	80	80	80
5560 - Maintenance Contract	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670
5640 - Operations Contract	1,060,760	1,113,800	1,169,500	1,228,000	1,289,400	1,353,900	1,421,600	1,492,700	1,567,300	1,645,700
5650 - Ops Cont Annual Fixed Fee	1,690,010	1,723,800	1,758,300	1,793,500	1,829,400	1,866,000	1,903,300	1,941,400	1,980,200	2,019,800
4600 - Hydro	1,775,280	1,864,000	1,957,200	2,055,100	2,157,900	2,265,800	2,379,100	2,498,100	2,623,000	2,754,200
4610 - Natural Gas and Propane	34,000	35,700	37,500	39,400	41,400	43,500	45,700	48,000	50,400	52,900
4640 - Taxes and Local Improv	239,400	244,200	249,100	254,100	259,200	264,400	269,700	275,100	280,600	286,200
7405 - Water Financial Charges	70	70	70	70	70	70	70	70	70	70
7450 - Admin Facilities Charges	33,440	34,100	34,800	35,500	36,200	36,900	37,600	38,400	39,200	40,000
7455 - Engineering Admin Charges	3,450	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300
7460 - Public Works Admin Charges	8,690	8,900	9,100	9,300	9,500	9,700	9,900	10,100	10,300	10,500
7480 - Planning Charges	36,350	37,100	37,800	38,600	39,400	40,200	41,000	41,800	42,600	43,500
2205 - Full-Time Non-Stat Benf	210,700	214,900	219,200	223,600	228,100	232,700	237,400	242,100	246,900	251,800
2210 - Full-Time Stat Benefits	179,730	183,300	187,000	190,700	194,500	198,400	202,400	206,400	210,500	214,700
2140 - Overtime	49,480	50,500	51,500	52,500	53,600	54,700	55,800	56,900	58,000	59,200
2100 - Full-Time Salaries Wages	2,162,760	2,206,000	2,250,100	2,295,100	2,341,000	2,387,800	2,435,600	2,484,300	2,534,000	2,584,700
2215 - Full-Time OMERS Premiums	234,640	239,300	244,100	249,000	254,000	259,100	264,300	269,600	275,000	280,500
2220 - Full-Time WSIB Premiums	10,820	11,000	11,200	11,400	11,600	11,800	12,000	12,200	12,400	12,600
2110 - Part-Time Salaries Wages	23,580	24,100	24,600	25,100	25,600	26,100	26,600	27,100	27,600	28,200
2230 - Part-Time Stat Benefits	900	920	940	960	980	1,000	1,020	1,040	1,060	1,080
2240 - Part-Time WSIB Premiums	50	51	52	53	54	55	56	57	58	59
4150 - Memberships and Assoc	3,640	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600
4155 - Professional Development	27,820	27,800	27,800	27,800	27,800	27,800	27,800	27,800	27,800	27,800
4100 - Safety Wear and Supplies	5,180	5,200	5,200	5,200	5,200	5,200	5,200	5,200	5,200	5,200
4140 - Travel Expenses	15,400	15,400	15,400	15,400	15,400	15,400	15,400	15,400	15,400	15,400
4145 - Cellular Telephone Charges	4,870	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900

Table A-8 (Cont'd)
Haldimand County
Operating Budget Forecast (Inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2183 - Distributed Wages WWW	(274,170)	(279,700)	(285,300)	(291,000)	(296,800)	(302,700)	(308,800)	(315,000)	(321,300)	(327,700)
2252 - Distributed Benefits WWW	(79,830)	(81,400)	(83,000)	(84,700)	(86,400)	(88,100)	(89,900)	(91,700)	(93,500)	(95,400)
4010 - Office Supplies	950	950	950	950	950	950	950	950	950	950
4240 - Janitorial Supplies	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
4110 - Uniforms	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900
4335 - Aggregate	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500
4375 - Chemicals	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
4400 - M and R Supplies	93,200	93,200	93,200	93,200	93,200	93,200	93,200	93,200	93,200	93,200
4130 - Meeting Expenses	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650
4135 - Meal Expenses	550	550	550	550	550	550	550	550	550	550
4115 - Staff Training Expenses	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
4650 - Telephone	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
5510 - Courier Delivery	100	100	100	100	100	100	100	100	100	100
5660 - Lab Services	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
5500 - Contracted Services	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
5530 - Grass Cutting	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800
5540 - Snow Removal	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
5700 - Waste Disposal	150	150	150	150	150	150	150	150	150	150
6000 - Equipment Rental	800	816	832	849	866	883	901	919	937	956
6020 - Land Rental	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800
6010 - Portable Washroom Rental	6,480	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
4630 - Water and Wastewater	2,800	2,900	3,000	3,200	3,400	3,600	3,800	4,000	4,200	4,400
5200 - M and R - Services	223,000	223,000	223,000	223,000	223,000	223,000	223,000	223,000	223,000	223,000
7400 - Fleet Equipment Charges	178,760	182,300	185,900	189,600	193,400	197,300	201,200	205,200	209,300	213,500
4105 - Supplied Clothing	370	370	370	370	370	370	370	370	370	370
7445 - ITS Charges	76,070	77,600	79,200	80,800	82,400	84,000	85,700	87,400	89,100	90,900
7440 - Human Resources Charges	41,910	42,700	43,600	44,500	45,400	46,300	47,200	48,100	49,100	50,100
7435 - Support Services Charges	11,940	12,200	12,400	12,600	12,900	13,200	13,500	13,800	14,100	14,400
7430 - Financial Services Charges	67,260	68,600	70,000	71,400	72,800	74,300	75,800	77,300	78,800	80,400
7425 - Clerks Charges	8,960	9,100	9,300	9,500	9,700	9,900	10,100	10,300	10,500	10,700
5110 - Auditing and Accounting	7,490	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
4500 - Write Off of AR	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
6100 - Bank Service Charges	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300
4540 - Small Balance Write Offs	500	500	500	500	500	500	500	500	500	500
5580 - Meter Reading Contract	22,700	-	-	-	-	-	-	-	-	-
5630 - Billing and Collectn Cost	299,900	314,900	330,600	347,100	364,500	382,700	401,800	421,900	443,000	465,200
4000 - Gen Materials and Supplies	6,710	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700
		-	-	-	-	-	-	-	-	-
Sub Total Operating	**13,732,950**	**14,439,977**	**15,226,614**	**16,075,252**	**16,991,490**	**17,981,428**	**19,051,367**	**20,208,906**	**21,462,045**	**22,018,585**

Table A-8 (Cont'd)
Haldimand County
Operating Budget Forecast (Inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital-Related										
Existing Debt (Principal) - Growth Related	527,906	538,511	549,116	59,101	59,101	59,101	59,101	-	-	-
Existing Debt (Interest) - Growth Related	40,246	29,073	16,953	4,111	3,006	1,913	819	-	-	-
New Growth Related Debt (Principal)		47,879	284,483	297,227	375,371	392,188	468,137	489,110	517,899	658,063
New Growth Related Debt (Interest)		67,151	393,833	381,088	458,694	441,878	506,184	485,212	472,945	613,783
Existing Debt (Principal) - Non-Growth Related	645,189	659,784	674,379	-	-	-	-	-	-	-
Existing Debt (Interest) - Non-Growth Related	45,232	31,360	16,185	-	-	-	-	-	-	-
New Non-Growth Related Debt (Principal)		-	-	-	-	-	-	-	-	-
New Non-Growth Related Debt (Interest)		-	-	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-	-	-	-
Transfer to Rate Stabilization Reserve								1,000,000	1,000,000	1,000,000
Transfer to Dunville Microstrainer Reserve										
Transfer to Capital Replacement Reserve Fund	2,075,004	3,187,880	2,065,055	3,081,405	3,387,566	3,743,967	4,073,872	3,435,620	3,821,283	4,735,516
Sub Total Capital Related	**3,333,577**	**4,561,638**	**4,000,004**	**3,822,933**	**4,283,738**	**4,639,047**	**5,108,114**	**5,409,941**	**5,812,127**	**7,007,362**
Total Expenditures	**17,066,527**	**19,001,615**	**19,226,618**	**19,898,185**	**21,275,228**	**22,620,475**	**24,159,481**	**25,618,847**	**27,274,172**	**29,025,947**

Table A-8 (Cont'd)
Haldimand County
Operating Budget Forecast (Inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Revenues										
9186 - New Credit	130,900	248,816	266,846	284,876	304,709	326,346	349,785	375,027	396,663	420,102
9188 - New Credit Water Depot	295,400	560,426	590,956	623,893	659,453	697,873	739,398	784,323	832,958	854,558
9025 - Bulk Water Reactivatn Fee	1,700	1,730	1,760	1,800	1,840	1,880	1,920	1,960	2,000	2,040
9020 - Administration Fees	66,500	67,800	69,200	70,600	72,000	73,400	74,900	76,400	77,900	79,500
9026 - Bulk Water Activation Fee	1,500	1,530	1,560	1,590	1,620	1,650	1,680	1,710	1,740	1,770
9090 - Engineering Inspection Fee	34,600	35,300	36,000	36,700	37,400	38,100	38,900	39,700	40,500	41,300
9600 - Rental of Municipal Prop	4,400	4,500	4,600	4,700	4,800	4,900	5,000	5,100	5,200	5,300
9110 - Recoveries	19,050	19,400	19,800	20,200	20,600	21,000	21,400	21,800	22,200	22,600
9190 - Bulk Water Sales	1,609,900	1,244,370	1,313,836	1,386,176	1,465,651	1,550,794	1,643,201	1,742,970	1,851,087	1,899,070
7960 - Fire Hydrant Fees	2,607,660	2,347,496	2,475,379	2,613,341	2,762,293	2,923,227	3,097,166	3,285,346	3,489,068	3,579,544
9570 - Connection Permits	7,500	7,700	7,900	8,100	8,300	8,500	8,700	8,900	9,100	9,300
9198 - Water Turn On Off	15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700
9200 - Water Meter Installations	53,500	54,600	55,700	56,800	57,900	59,100	60,300	61,500	62,700	64,000
9210 - Industry Property Tax Recv	117,530	119,900	122,300	124,700	127,200	129,700	132,300	134,900	137,600	140,400
9212 - Industry Raw Water Revenue	25,700	26,200	26,700	27,200	27,700	28,300	28,900	29,500	30,100	30,700
9220 - Commercial Fixed Costs	15,280	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	18,100
9222 - Commercial Direct Costs	12,000	12,200	12,400	12,600	12,900	13,200	13,500	13,800	14,100	14,400
9224 - Commercial Variable Costs	1,830	1,870	1,910	1,950	1,990	2,030	2,070	2,110	2,150	2,190
9228 - Commercial Recoveries	2,343,300	2,390,200	2,438,000	2,486,800	2,536,500	2,587,200	2,638,900	2,691,700	2,745,500	2,800,400
9230 - Commercial Admin Fee	39,630	40,400	41,200	42,000	42,800	43,700	44,600	45,500	46,400	47,300
7805 - Transfer From Capital Fund	71,800	73,200	74,700	76,200	77,700	79,300	80,900	82,500	84,200	85,900
9035 - Account Setup Charge	27,300	27,800	28,400	29,000	29,600	30,200	30,800	31,400	32,000	32,600
9310 - NSF Cheque Penalty	1,500	1,530	1,560	1,590	1,620	1,650	1,680	1,710	1,740	1,770
9116 - Lawyers Certificates	210	214	218	222	226	231	236	241	246	251
7940 - Recov fr PortMait Low Lift	70	71	72	73	74	75	77	79	81	83
9300 - Accounts Recvble Interest	12,480	12,700	13,000	13,300	13,600	13,900	14,200	14,500	14,800	15,100
Contributions from Development Charges Reserve Fund	568,152	682,614	1,244,385	741,528	896,173	895,079	1,034,241	974,321	990,844	1,271,846
Contribution from Capital Replacement	-	-	-	-	-	-	-	-	-	-
Contributions from Dunnville Microstrainer	-	-	-	-	-	-	-	-	-	-
Contributions from Rate Stabilization Reserve	-	1,400,000	-	-	-	-	-	-	-	-
Total Operating Revenue	**8,084,392**	**9,413,467**	**8,879,882**	**8,698,039**	**9,197,349**	**9,564,634**	**10,098,654**	**10,461,498**	**10,925,978**	**11,457,824**
Water Billing Recovery - Total	**8,982,135**	**9,588,148**	**10,346,735**	**11,200,146**	**12,077,879**	**13,055,840**	**14,060,827**	**15,157,349**	**16,348,194**	**17,568,122**

Table A-9
Haldimand County
Water Rate Forecast (Inflated $)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Water Billing Recovery	8,982,135	9,588,148	10,346,735	11,200,146	12,077,879	13,055,840	14,060,827	15,157,349	16,348,194	17,568,122
Total Water Billing Recovery - Base Charge	4,491,067	4,794,074	5,173,368	5,600,073	6,038,940	6,527,920	7,030,413	7,578,675	8,174,097	8,784,061
Total Water Billing Recovery - Volume Charge	4,491,067	4,794,074	5,173,368	5,600,073	6,038,940	6,527,920	7,030,413	7,578,675	8,174,097	8,784,061
Total Volume (m^3)	3,491,190	3,525,054	3,592,616	3,660,178	3,727,740	3,795,302	3,862,864	3,926,774	3,987,364	4,047,954
Constant Rate	**1.29**	**1.36**	**1.44**	**1.53**	**1.62**	**1.72**	**1.82**	**1.93**	**2.05**	**2.17**
Annual Percentage Change		**6%**	**6%**	**6%**	**6%**	**6%**	**6%**	**6%**	**6%**	**6%**

Appendix B
Detailed Wastewater Rate Calculations

Appendix B: Detailed Wastewater Rate Calculations

Table B-1
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital Expenditures											
221999 - Jarvis Lagoon Clean Out	-	505,000	-	-	-	-	505,000	-	-	-	-
222301 - Oswego Park WWT Lagoons Cell #1 Discharge Pipe Repair	10,000	-	-	-	-	-	-	-	-	-	-
222401 - Dunnville WWTP Storage Lagoon Sampling Platform	-	20,000	-	20,000	-	-	-	-	-	-	-
222402 - Townsend Lagoon Access Lane Restoration	-	32,000	15,000	-	-	-	-	17,000	-	-	-
222406 - Lake Erie Industrial Park (LEIP) Lagoon Access Lane Restoration	10,000	11,300	-	-	-	-	11,300	-	-	-	-
321912 - Forfar St. Storage Building Roof Replacement	-	3,600	-	-	-	3,600	-	-	-	-	-
321920 - Main Pump Station Roof Replacement	-	7,100	-	-	-	7,100	-	-	-	-	-
322007 - Hagersville Tuscarora St Operations Building Roof	-	3,500	-	-	3,500	-	-	-	-	-	-
322010 - Jarvis/Talbot Pump Station Roof	-	6,900	-	6,900	-	-	-	-	-	-	-
322402 - Dunnville Broad Street Pump Station Building Exterior Restoration	-	35,000	35,000	-	-	-	-	-	-	-	-
322505 - Caledonia WWTP Sludge Pump Building Refurbishments	15,000	-	-	-	-	-	-	-	-	-	-
322506 - Caledonia WWTP Sludge Building VFD Replacements	-	70,000	-	70,000	-	-	-	-	-	-	-
322507 - Dunnville WWTP Headworks Roof Fall	20,000	-	-	-	-	-	-	-	-	-	-
322508 - Hagersville WWTP Return Bldg Roof Access Upgrades and HVAC Repairs	-	50,000	-	-	-	50,000	-	-	-	-	-
322509 - Hagersville WWTP Administration Bldg HVAC Replacement	-	80,000	-	80,000	-	-	-	-	-	-	-
322510 - Hagersville WWTP Service Access Road Refurbishment	110,000	-	-	-	-	-	-	-	-	-	-
322511 - Hagersville WWTP Filter Building Fan and Ventilation Replacements	40,000	-	-	-	-	-	-	-	-	-	-
322512 - Jarvis Lagoon Access Lane Restoration	-	21,300	-	10,000	-	-	-	-	11,300	-	-
322513 - Oswego Park Lagoon Access Lane Restoration	-	17,100	-	-	8,000	-	-	-	-	9,100	-
322514 - Townsend Lagoon Security Fence Repairs	18,000	-	-	-	-	-	-	-	-	-	-
322515 - Facility Emergency Shower and Eyewash Station Audit	25,000	-	-	-	-	-	-	-	-	-	-
421922 - Collection System - Annual Repair	63,000	643,200	64,600	66,200	67,900	69,600	71,300	73,100	75,000	76,800	78,700
421923 - Composite Sampler-Replacement Program	40,900	185,600	-	43,000	-	45,200	-	47,500	-	49,900	-
421925 - Wastewater Operating Capital	43,100	442,100	44,200	45,400	46,600	47,800	49,000	50,300	51,600	52,900	54,300

Table B-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget	Total	Forecast								
	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034
421928 - Confined Space Entry Equipment Replacements	10,800	37,600	-	-	11,600	-	-	12,500	-	-	13,500
421931 - WWTP – SCADA Computer & Network Replmt	-	23,200	-	-	23,200	-	-	-	-	-	-
421941 - WTP Electrical Panels and VFD Inspection/Maintenance	-	11,600	-	-	11,600	-	-	-	-	-	-
421943 - Remotes–Control Equipment Replacement(SCADA)	-	90,500	-	90,500	-	-	-	-	-	-	-
421945 - WWTP GENSET Replacement	242,300	-	-	-	-	-	-	-	-	-	-
421956 - WWTP Electrical Panel and VFD Inspection/Maintenance	-	11,600	-	-	11,600	-	-	-	-	-	-
421968 - Twinning of Headworks Screen	-	455,000	-	-	-	455,000	-	-	-	-	-
421969 - WTP Electrical Panel and VFD Inspection/Maintenance	-	5,800	-	-	5,800	-	-	-	-	-	-
421971 - WWTP SCADA Computer & Network Replmt	-	21,500	-	21,500	-	-	-	-	-	-	-
421979 - Blower Replacement - High Efficiency & VFD	-	220,800	220,800	-	-	-	-	-	-	-	-
421982 - Odour Control Media Replacement	17,200	39,900	-	-	-	19,000	-	-	-	20,900	-
421984 - Sludge Storage Cell #4 Upgrades and Screen	102,300	496,700	496,700	-	-	-	-	-	-	-	-
421985 - WWTP SCADA Computer & Network Replmt	-	18,100	-	18,100	-	-	-	-	-	-	-
422123 - Clarifiers 3 & 4 Rebuild	150,000	125,000	125,000	-	-	-	-	-	-	-	-
422304 - Billing Software Upgrade	-	203,000	62,500	-	-	67,500	-	-	73,000	-	-
422313 - Hag Walpole Sewage Pump Station Valve Replacement	30,000	-	-	-	-	-	-	-	-	-	-
422316 - Cay WWTP Clarifier Isolation Valve Replacements	25,600	-	-	-	-	-	-	-	-	-	-
422322 - Dun John St Sewage Pump Station Backup Pump Replacement	25,000	-	-	-	-	-	-	-	-	-	-
422325 - Oswego Park Sewage Pump Station Backup Pump Rebuild/Replacement	15,000	-	-	-	-	-	-	-	-	-	-
422326 - Oswego Park WWT Lagoons Level Measurement Equipment Installation	15,000	-	-	-	-	-	-	-	-	-	-
422404 - Caledonia Paisley Street Pump Station Property Grading	35,000	-	-	-	-	-	-	-	-	-	-
422406 - Caledonia McClung Road Pump Station Grinder Replacement	-	75,000	75,000	-	-	-	-	-	-	-	-
422407 - Caledonia Orkney Street Pump Station Pump Replacement	-	70,000	30,000	-	-	-	-	40,000	-	-	-
422408 - Caledonia Paisley Street Pump Station Backup Generator Replacement	-	150,000	150,000	-	-	-	-	-	-	-	-
422410 - Caledonia WWTP Dechlorination Chemical Feed Pump Replacement	15,000	15,400	15,400	-	-	-	-	-	-	-	-

Table B-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
422411 - Caledonia WWTP MCC Room Vent Fan Replacement	40,000	-	-	-	-	-	-	-	-	-	-
422412 - Caledonia WWTP Sand Filter Backwash Pump Replacements	-	30,000	30,000	-	-	-	-	-	-	-	-
422413 - Caledonia WWTP Main Wet Well Exhause Vent Fan Replacement	60,000	-	-	-	-	-	-	-	-	-	-
422416 - Hagersville Walpole Street Pump Station Pump Repairs	30,000	-	-	-	-	-	-	-	-	-	-
422418 - Hagersville WWTP Filter Backwash Pumps Refurbish/Replacement	8,200	17,000	8,400	8,600	-	-	-	-	-	-	-
422419 - Hagersville WWTP UV Disinfection Bulb Replacement	20,500	209,500	21,100	21,600	22,100	22,700	23,200	23,800	24,400	25,000	25,600
422420 - Hagersville WWTP High Voltage Assessment and Repairs	-	17,000	17,000	-	-	-	-	-	-	-	-
422421 - Hagersville WWTP Supernatant Slip Pipe Actuator Valve	-	40,000	-	40,000	-	-	-	-	-	-	-
422423 - Cayuga Ouse Street Equalization Tank Pump Replacement	18,000	-	-	-	-	-	-	-	-	-	-
422424 - Cayuga WWTP UV Disinfection Bulb Replacement	12,000	122,500	12,300	12,600	13,000	13,200	13,600	13,900	14,300	14,600	15,000
422425 - Cayuga WWTP Digester Clean-out and Inspection	30,000	34,000	-	-	-	-	34,000	-	-	-	-
422426 - Cayuga WWTP Clarifier Mechanical Replacements	-	100,000	-	100,000	-	-	-	-	-	-	-
422427 - Cayuga WWTP Oxidation Ditch Rotor #2	-	10,000	10,000	-	-	-	-	-	-	-	-
422430 - Dunnville WWTP Dechlorination Chemical Feed Pump Replacement	8,200	-	-	-	-	-	-	-	-	-	-
422431 - Dunnville WWTP CL2 Chemical Feed Pump Replacement	8,200	-	-	-	-	-	-	-	-	-	-
422432 - Dunnville WWTP Ferris Chemical Feed Pump Replacement	10,300	10,500	10,500	-	-	-	-	-	-	-	-
422434 - Dunnville WWTP Backup Generator New Access Platform	20,000	-	-	-	-	-	-	-	-	-	-
422436 - Townsend Pump station MCC Refurbishments	-	55,000	55,000	-	-	-	-	-	-	-	-
422438 - Oswego Park Pump Station MCC and Wet Well Vent Fan Replacement	25,000	-	-	-	-	-	-	-	-	-	-
422534 - Caledonia Paisley Street Pump Station Impeller Replacements	20,000	-	-	-	-	-	-	-	-	-	-
422535 - Caledonia Paisley Street Pump Station Pump and Piping Replacements	-	170,000	-	-	170,000	-	-	-	-	-	-
422536 - Caledonia Paisley Street Pump Station Flow Meter Replacement	35,000	-	-	-	-	-	-	-	-	-	-

Table B-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
422538 - Caledonia Nairne Street Pump Station Odour Control	-	250,000	-	-	-	-	-	-	250,000	-	-
422540 - Hagersville Tuscarora Street Pump Station Pump Repairs	50,000	-	-	-	-	-	-	-	-	-	-
422541 - Hagersville Mary Street Pump Station Equipment Repalcements	-	300,000	-	-	-	300,000	-	-	-	-	-
422542 - Oswego Park Pump Station Electrical and Pumping Upgrades	-	250,000	-	-	250,000	-	-	-	-	-	-
422543 - Townsend Pump Station Flow Meter Replacement	-	15,000	-	15,000	-	-	-	-	-	-	-
422544 - Caledonia WWTP Chlorine Pump Replacements	-	30,000	-	30,000	-	-	-	-	-	-	-
422545 - Caledonia WWTP Coagulant Pump Replacements	-	25,000	25,000	-	-	-	-	-	-	-	-
422547 - Caledonia WWTP RAS and WAS Pump Refurbishment	30,000	-	-	-	-	-	-	-	-	-	-
422548 - Caledonia WWTP Primary Flight and Chain Replacement	-	253,100	125,000	128,100	-	-	-	-	-	-	-
422549 - Caledonia WWTP Secondary Flight and Chain Replacement	-	253,100	-	-	125,000	128,100	-	-	-	-	-
422550 - Caledonia WWTP Primary Gate Actuator Replacements	30,000	-	-	-	-	-	-	-	-	-	-
422551 - Cayuga WWTP Clarifier V-Notch Weir Replacements	-	50,000	50,000	-	-	-	-	-	-	-	-
422552 - Cayuga WWTP Digester Blower Rebuilds	80,000	-	-	-	-	-	-	-	-	-	-
422554 - Cayuga WWTP Digester Blower VFD Replacements	12,000	25,000	25,000	-	-	-	-	-	-	-	-
422555 - Cayuga WWTP Coagulant Pump	-	15,000	-	-	15,000	-	-	-	-	-	-
422556 - Dunnville WWTP Sludge Storage Lagoon Berm and Slip Pipe Repairs	15,000	31,200	15,400	15,800	-	-	-	-	-	-	-
422557 - Dunnville WWTP Main Gate Access System Replacement	5,000	-	-	-	-	-	-	-	-	-	-
422558 - Dunnville WWTP Digester Compressor Replacements	-	70,000	-	70,000	-	-	-	-	-	-	-
422559 - Dunnville WWTP Headworks Screen Maintenance and Repairs	15,000	20,000	-	-	-	-	-	-	20,000	-	-
422560 - Hagersville WWTP Filter Underdrain Repairs and Media Replacements	-	192,400	95,000	97,400	-	-	-	-	-	-	-
422561 - Hagersville WWTP Digester Air Valve Replacements	18,000	-	-	-	-	-	-	-	-	-	-
422562 - Hagersville WWTP Secondary Clarifier Refurbishments	-	100,000	-	-	100,000	-	-	-	-	-	-

Table B-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
422563 - Hagersville WWTP Headworks Bldg Roof Access Upgrades and HVAC Repairs	-	50,000	-	-	50,000	-	-	-	-	-	-
422564 - Hagersville WWTP Coagulant Pump Replacements	-	20,000	20,000	-	-	-	-	-	-	-	-
422565 - Hagersville WWTP Storm Tank Valve Control Automation	28,000	-	-	-	-	-	-	-	-	-	-
822113 - Sanitary Sewer Relining/Repair [CIW][W][R]	148,600	1,680,000	155,300	162,400	169,800	177,500	185,600	194,100	203,000	212,300	220,000
822219 - Cal - Caithness Street W - Cameron St to Argyle St N [CIW] [WW] [R] [SS]	-	120,000	-	-	-	120,000	-	-	-	-	-
822305 - Hag - Tuscarora St - King St W to Oneida St [CIW] [R] [WW]	380,000	-	-	-	-	-	-	-	-	-	-
822401 - Dunn - Tamarac St - Forest St to Concession Rd E [R] [WW]	-	325,000	-	-	-	60,000	-	265,000	-	-	-
822406 - Hag - Parkview Rd - Main St S to King St E [R] [WW] [CIW]	30,000	475,000	475,000	-	-	-	-	-	-	-	-
822407 - Dunn - Niagara St - Broad St E to Main St E [R] [WW]	-	403,600	-	-	-	-	17,600	-	386,000	-	-
822408 - Dunn - Main Street E - Niagara St to Dunnville WW Treatment Plant [R] [WW]	-	213,000	-	-	-	-	19,800	-	193,200	-	-
822500 - Hag - Harris Street [CIW] [WW] [R]	12,800	227,200	227,200	-	-	-	-	-	-	-	-
822501 - Dun - John St - Fairview Ave W to Jarret Place [W] [WW] [R]	-	101,900	-	-	-	-	-	18,400	-	83,500	-
822506 - Dun - Jim Gregory Drive [CIW] [WW] [SS] [R]	5,000	255,000	255,000	-	-	-	-	-	-	-	-
931903 - Facility Condition Assessment [W]	-	153,100	27,600	-	29,000	-	30,500	-	32,000	-	34,000
931914 - CCTV Inspections - Structural Ass'ments [SS] - Engineering	26,900	274,700	27,600	28,300	29,000	29,700	30,500	31,200	32,000	32,800	33,600
931918 - CCTV Inspections - Operations	40,000	410,200	41,000	42,100	43,200	44,300	45,500	46,700	47,900	49,100	50,400
931919 - Asbestos Annual Inspection and Remediation	4,300	43,900	4,400	4,500	4,600	4,800	4,900	5,000	5,100	5,200	5,400
931921 - Townsend Lagoon Clean Out	-	663,400	-	215,400	-	-	-	-	448,000	-	-
931922 - Oswego Lagoon Clean Out	-	290,000	-	-	290,000	-	-	-	-	-	-
931924 - LEIP Lagoon Clean Out	-	390,000	-	-	-	390,000	-	-	-	-	-
932403 - Dunnville WWTP Discharge Pipe Inspection	15,000	-	-	-	-	-	-	-	-	-	-
932407 - Hagersville WWTP East Aeration Basin Cleanout and Inspection	14,000	-	-	-	-	-	-	-	-	-	-
932503 - Optimization Program Support - Wastewater	15,000	31,200	15,400	15,800	-	-	-	-	-	-	-

Table B-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
Studies:			-	-	-	-	-	-	-	-	-
932108 - WWW Rate Study	30,000	34,000	-	-	-	-	34,000	-	-	-	-
932505 - Caledonia WWTP Energy Management Study	8,000	-	-	-	-	-	-	-	-	-	-
932506 - Cayuga WWTP Energy Management Study	8,000	-	-	-	-	-	-	-	-	-	-
932507 - Dunnville WWTP Energy Management Study	8,000	-	-	-	-	-	-	-	-	-	-
932508 - Hagersville WWTP Energy Management Study	8,000	-	-	-	-	-	-	-	-	-	-
932509 - Hagersville WWTP UV Disinfection System Operational study	20,000	-	-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-
Growth Related:			-	-	-	-	-	-	-	-	-
931904 - Cay - Master Servicing Plan Update [W][R][SS]	-	29,000	-	-	-	-	29,000	-	-	-	-
931905 - Dun - Master Servicing Plan Update [W][R][SS]	-	34,800	-	-	-	34,800	-	-	-	-	-
931913 - SCADA Master Plan Updates	-	82,000	38,600	-	-	-	-	43,400	-	-	-
931975 - Cal - Master Servicing Plan Update [W][R][SS]	75,000	89,200	-	-	-	-	-	-	89,200	-	-
931976 - Hag - Master Servicing Plan Update [W][R][SS]	-	34,000	-	-	34,000	-	-	-	-	-	-
931977 - Jar - Master Servicing Plan Update [W][R][SS]	-	35,000	16,200	-	-	-	-	18,800	-	-	-
931984 - Development Charges Study Update	-	27,400	-	-	-	-	27,400	-	-	-	-
932011 - LEIP - Master Servicing Plan [W][R][S]	-	108,000	-	50,000	-	-	-	-	-	58,000	-
421921 - SCADA Maintenance	21,500	219,800	22,100	22,600	23,200	23,800	24,400	25,000	25,600	26,200	26,900
421924 - SCADA Technical Support	43,100	439,600	44,200	45,300	46,400	47,500	48,700	50,000	51,200	52,500	53,800
421929 - Plant Capital Improvements	-	8,068,000	-	-	-	1,963,000	-	1,256,300	1,028,800	3,128,500	691,400
421946 - WWTP PLC Replacements	-	133,400	-	-	133,400	-	-	-	-	-	-
421947 - WWTP SCADA Computer & Network Replmt	-	25,600	-	-	25,600	-	-	-	-	-	-
421955 - Remotes–Control Equipment Replacement(SCADA)	-	63,700	-	-	63,700	-	-	-	-	-	-
321913 - Caledonia Wastewater Treatment Plant	-	57,000,000	-	-	-	-	32,000,000	-	-	25,000,000	-
422111 - McClung SPS Upgrades	-	800,000	-	800,000	-	-	-	-	-	-	-
422211 - Project Management Support [W]	73,500	751,000	75,400	77,300	79,300	81,200	83,300	85,300	87,500	89,700	92,000
422537 - Nairne Street Pump Station Pump P3 Replacement and Upsizing	245,000	-	-	-	-	-	-	-	-	-	-
642500 - McClung Forcemain River Crossing to New WWTP	350,000	6,906,000	6,906,000	-	-	-	-	-	-	-	-
421958 - Grit Removal System	-	4,000,000	-	-	500,000	3,500,000	-	-	-	-	-
421959 - WWTP PLC Replacements	-	332,900	-	135,800	197,100	-	-	-	-	-	-
421963 - Ouse St PS Replacements	30,000	3,100,000	-	-	350,000	-	2,750,000	-	-	-	-
421965 - McKay St. Pump Station Upgrades and Pump Replacements	-	625,000	-	-	625,000	-	-	-	-	-	-
641901 - Sewer Manhole Repairs (I&I)	-	366,200	-	84,900	-	89,200	-	93,700	-	98,400	-
641902 - Sanitary Sewer Rehabilitations (I&I)	-	998,500	-	-	231,900	-	243,700	-	255,900	-	267,000
641906 - Ouse St Forcemain Twinning	-	895,000	-	-	95,000	-	800,000	-	-	-	-
931911 - Inflow & Infiltration Program Support	-	309,400	38,600	28,300	40,600	29,700	42,600	31,200	32,000	32,800	33,600
931916 - Effluent Water Quality & Impact Assessment	37,700	384,500	38,600	39,600	40,600	41,600	42,600	43,700	44,800	45,900	47,100
Total Capital Expenditures	**3,356,000**	**98,918,900**	**10,262,100**	**2,763,000**	**3,986,300**	**7,865,900**	**37,167,500**	**2,485,900**	**3,481,800**	**29,164,100**	**1,742,300**

Table B-1 (Cont'd)
Haldimand County
Capital Budget Forecast (Inflated $)

Description	Budget 2025	Total	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital Financing											
Provincial/Federal Grants		-									
Development Charges Reserve Fund	451,200	3,351,900	179,900	257,800	458,800	427,400	323,300	350,900	446,500	571,500	335,800
Non-Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-
Growth Related Debenture Requirements	356,800	66,923,400	6,900,300	797,800	263,900	1,057,500	32,903,900	-	-	25,000,000	-
Operating Contributions	-	-	-	-	-	-	-	-	-	-	-
Lifecycle Reserve Fund	-	-	-	-	-	-	-	-	-	-	-
Water Capital Replacement Reserve	80,000	-	-	-	-	-	-	-	-	-	-
Wastewater Capital Replacement Reserve Fund	2,468,000	28,643,600	3,181,900	1,707,400	3,263,600	6,381,000	3,940,300	2,135,000	3,035,300	3,592,600	1,406,500
Total Capital Financing	**3,356,000**	**98,918,900**	**10,262,100**	**2,763,000**	**3,986,300**	**7,865,900**	**37,167,500**	**2,485,900**	**3,481,800**	**29,164,100**	**1,742,300**

Table B-2
Haldimand County
Schedule of Non-Growth Related Debenture Repayments (Inflated $)

Debenture Year	2025	Principal (Inflated)	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
2026		-		-	-	-	-	-	-	-	-
2027		-			-	-	-	-	-	-	-
2028		-				-	-	-	-	-	-
2029		-					-	-	-	-	-
2030		-						-	-	-	-
2031		-							-	-	-
2032		-								-	-
2033		-									-
2034		-									
Total Annual Debt Charges	-	**-**	-	-	-	-	-	-	-	-	-

Table B-3
Haldimand County
Schedule of Growth-Related Debenture Repayments (Inflated $)

Debenture Year	2025	Principal (Inflated)	Forecast								
			2026	2027	2028	2029	2030	2031	2032	2033	2034
2025		356,800	27,382	27,382	27,382	27,382	27,382	27,382	27,382	27,382	27,382
2026		6,900,300		529,550	529,550	529,550	529,550	529,550	529,550	529,550	529,550
2027		797,800			61,226	61,226	61,226	61,226	61,226	61,226	61,226
2028		263,900				20,252	20,252	20,252	20,252	20,252	20,252
2029		1,057,500					81,156	81,156	81,156	81,156	81,156
2030		32,903,900						2,525,143	2,525,143	2,525,143	2,525,143
2031		-							-	-	-
2032		-								-	-
2033		25,000,000									1,918,574
2034		-									
Total Annual Debt Charges	-	**66,923,400**	27,382	556,931	618,157	638,409	719,565	3,244,708	3,244,708	3,244,708	5,163,283

Table B-4
Haldimand County
Wastewater Capital Replacement Reserve Fund Continuity (Inflated $)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Opening Balance	12,984,009	13,059,483	12,353,960	13,371,780	13,057,689	9,793,692	9,808,646	11,807,860	13,055,669	13,659,508
Transfer from Operating	2,255,989	2,234,143	2,463,028	2,693,476	2,924,970	3,762,927	3,902,688	4,027,116	3,928,606	4,028,666
Transfer to Capital	2,468,000	3,181,900	1,707,400	3,263,600	6,381,000	3,940,300	2,135,000	3,035,300	3,592,600	1,406,500
Transfer to Operating	-	-	-	-	-	-	-	-	-	-
Closing Balance	**12,771,998**	**12,111,725**	**13,109,588**	**12,801,656**	**9,601,659**	**9,616,319**	**11,576,333**	**12,799,676**	**13,391,675**	**16,281,674**
Interest	287,485	242,235	262,192	256,033	192,033	192,326	231,527	255,994	267,833	325,633

Table B-5
Haldimand County
Wastewater Development Charges Reserve Fund Continuity (Inflated $)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Opening Balance	(12,908,380)	(12,801,840)	(10,245,873)	(8,131,682)	(6,029,263)	(3,742,482)	(1,033,679)	(1,050,001)	(246,041)	1,011,852
Development Charge Proceeds	2,400,730	4,522,402	4,612,741	4,704,959	4,799,122	5,009,740	4,806,321	4,955,136	5,054,261	5,155,417
Transfer to Capital	451,200	179,900	257,800	458,800	427,400	323,300	350,900	446,500	571,500	335,800
Transfer to Operating	1,591,974	1,585,635	2,081,305	2,025,518	2,011,559	1,957,369	4,451,155	3,699,852	3,244,708	5,163,283
Closing Balance	**(12,550,824)**	**(10,044,973)**	**(7,972,237)**	**(5,911,042)**	**(3,669,100)**	**(1,013,411)**	**(1,029,413)**	**(241,217)**	**992,012**	**668,187**
Interest	(251,016)	(200,899)	(159,445)	(118,221)	(73,382)	(20,268)	(20,588)	(4,824)	19,840	13,364

Table B-6
Haldimand County
Wastewater Rate Stabilization Reserve Continuity (Inflated $)

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Opening Balance	3,619,713	3,725,963	3,834,363	3,944,913	4,057,663	4,172,663	4,289,963	4,409,613	4,531,663	4,656,163
Transfer from Operating	106,250	108,400	110,550	112,750	115,000	117,300	119,650	122,050	124,500	127,000
Transfer to Capital	-	-	-	-	-	-	-	-	-	-
Transfer to Operating	-	-	-	-	-	-	-	-	-	-
Closing Balance	**3,725,963**	**3,834,363**	**3,944,913**	**4,057,663**	**4,172,663**	**4,289,963**	**4,409,613**	**4,531,663**	**4,656,163**	**4,783,163**

Table B-7
Haldimand County
Wastewater Operating Budget Forecast (Inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Expenditures										
Operating Costs										
2183 - Distributed Wages WWW	234,570	239,300	244,100	249,000	254,000	259,100	264,300	269,600	275,000	280,500
2252 - Distributed Benefits WWW	63,380	64,600	65,900	67,200	68,500	69,900	71,300	72,700	74,200	75,700
4010 - Office Supplies	950	950	950	950	950	950	950	950	950	950
4020 - Pre-printed Forms	350	350	350	350	350	350	350	350	350	350
4240 - Janitorial Supplies	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
4100 - Safety Wear and Supplies	5,130	5,100	5,100	5,100	5,100	5,100	5,100	5,100	5,100	5,100
4110 - Uniforms	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
4335 - Aggregate	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
4400 - M and R Supplies	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500
4130 - Meeting Expenses	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
4135 - Meal Expenses	50	50	50	50	50	50	50	50	50	50
4140 - Travel Expenses	10,300	10,300	10,300	10,300	10,300	10,300	10,300	10,300	10,300	10,300
4145 - Cellular Telephone Charges	3,840	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800
4150 - Memberships and Assoc	3,790	3,790	3,790	3,790	3,790	3,790	3,790	3,790	3,790	3,790
4155 - Professional Development	16,180	16,200	16,200	16,200	16,200	16,200	16,200	16,200	16,200	16,200
4115 - Staff Training Expenses	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
4650 - Telephone	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
5510 - Courier Delivery	50	50	50	50	50	50	50	50	50	50
5660 - Lab Services	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
5430 - Domain WAN Charges	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300
5500 - Contracted Services	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
5560 - Maintenance Contract	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670
5540 - Snow Removal	300	300	300	300	300	300	300	300	300	300
5700 - Waste Disposal	150	150	150	150	150	150	150	150	150	150
6000 - Equipment Rental	100	100	100	100	100	100	100	100	100	100
4600 - Hydro	845,660	887,900	932,300	978,900	1,027,800	1,079,200	1,133,200	1,189,900	1,249,400	1,311,900
4610 - Natural Gas and Propane	6,410	6,700	7,000	7,400	7,800	8,200	8,600	9,000	9,500	10,000
4630 - Water and Wastewater	1,200	1,220	1,240	1,260	1,290	1,320	1,350	1,380	1,410	1,440
4640 - Taxes and Local Improv	256,600	261,700	266,900	272,200	277,600	283,200	288,900	294,700	300,600	306,600
5200 - M and R - Services	47,500	48,500	49,500	50,500	51,500	52,500	53,600	54,700	55,800	56,900
7400 - Fleet Equipment Charges	102,920	105,000	107,100	109,200	111,400	113,600	115,900	118,200	120,600	123,000
2100 - Full-Time Salaries Wages	752,940	768,000	783,400	799,100	815,100	831,400	848,000	865,000	882,300	899,900
2205 - Full-Time Non-Stat Benf	77,090	78,600	80,200	81,800	83,400	85,100	86,800	88,500	90,300	92,100
2210 - Full-Time Stat Benefits	58,730	59,900	61,100	62,300	63,500	64,800	66,100	67,400	68,700	70,100
2215 - Full-Time OMERS Premiums	96,780	98,700	100,700	102,700	104,800	106,900	109,000	111,200	113,400	115,700
2220 - Full-Time WSIB Premiums	3,890	4,000	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800

Table B-7 (Cont'd)
Haldimand County
Wastewater Operating Budget Forecast (Inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
7440 - Human Resources Charges	44,870	45,800	46,700	47,600	48,600	49,600	50,600	51,600	52,600	53,700
4700 - Insurance Charges	197,930	201,900	205,900	210,000	214,200	218,500	222,900	227,400	231,900	236,500
5440 - SCADA License and Updates	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000
5450 - Unplanned SCADA Support	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
5100 - Legal Fees	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
5125 - Medical Physician Fees	80	80	80	80	80	80	80	80	80	80
5530 - Grass Cutting	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
5640 - Operations Contract	1,780,310	1,869,300	1,962,800	2,060,900	2,163,900	2,272,100	2,385,700	2,505,000	2,630,300	2,761,800
5650 - Ops Cont Annual Fixed Fee	1,910,240	1,948,400	1,987,400	2,027,100	2,067,600	2,109,000	2,151,200	2,194,200	2,238,100	2,282,900
WWTP Operating Costs - Caledonia WWTP			-	-	-	347,255	442,750	541,926	921,275	1,033,671
7455 - Engineering Admin Charges	1,850	1,890	1,930	1,970	2,010	2,050	2,090	2,130	2,170	2,210
7460 - Public Works Admin Charges	4,680	4,800	4,900	5,000	5,100	5,200	5,300	5,400	5,500	5,600
7480 - Planning Charges	19,570	20,000	20,400	20,800	21,200	21,600	22,000	22,400	22,800	23,300
7450 - Admin Facilities Charges	13,130	13,400	13,700	14,000	14,300	14,600	14,900	15,200	15,500	15,800
2140 - Overtime	1,000	1,020	1,040	1,060	1,080	1,100	1,120	1,140	1,160	1,180
2110 - Part-Time Salaries Wages	4,230	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000	5,100
2230 - Part-Time Stat Benefits	410	420	430	440	450	460	470	480	490	500
2240 - Part-Time WSIB Premiums	20	20	21	21	22	22	23	23	23	24
5105 - Consulting Fees and Svcs	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400
4105 - Supplied Clothing	(70)	-	-	-	-	-	-	-	-	-
4000 - Gen Materials and Supplies	6,710	6,800	6,900	7,000	7,100	7,200	7,300	7,400	7,500	7,700
7425 - Clerks Charges	8,960	9,100	9,300	9,500	9,700	9,900	10,100	10,300	10,500	10,700
7430 - Financial Services Charges	67,260	68,600	70,000	71,400	72,800	74,300	75,800	77,300	78,800	80,400
7435 - Support Services Charges	11,940	12,200	12,400	12,600	12,900	13,200	13,500	13,800	14,100	14,400
7445 - ITS Charges	76,070	77,600	79,200	80,800	82,400	84,000	85,700	87,400	89,100	90,900
5110 - Auditing and Accounting	5,490	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500
4500 - Write Off of AR	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
6100 - Bank Service Charges	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300
4540 - Small Balance Write Offs	500	500	500	500	500	500	500	500	500	500
5580 - Meter Reading Contract	22,700	-	-	-	-	-	-	-	-	-
5630 - Billing and Collectn Cost	299,900	314,900	330,600	347,100	364,500	382,700	401,800	421,900	443,000	465,200
Sub Total Operating	**7,178,360**	**7,383,610**	**7,620,701**	**7,866,791**	**8,122,792**	**8,736,547**	**9,109,143**	**9,496,419**	**10,175,468**	**10,600,064**

Table B-7 (Cont'd)
Haldimand County
Wastewater Operating Budget Forecast (Inflated $)

Description	Budget	Forecast								
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital-Related										
Existing Debt (Principal) - Growth Related	1,345,258	1,347,025	1,348,792	1,267,145	1,267,145	1,165,000	1,165,000	441,650	-	-
Existing Debt (Interest) - Growth Related	246,715	211,227	175,582	140,216	106,005	72,804	41,447	13,494	-	-
New Growth Related Debt (Principal)		11,397	232,324	268,216	288,662	335,374	1,401,447	1,464,232	1,529,829	2,396,940
New Growth Related Debt (Interest)		15,985	324,607	349,941	349,747	384,191	1,843,261	1,780,477	1,714,879	2,766,343
Existing Debt (Principal) - Non-Growth Related	872,000	872,000	872,000	872,000	872,000	-	-	-	-	-
Existing Debt (Interest) - Non-Growth Related	99,451	78,523	57,595	36,753	15,739	-	-	-	-	-
New Non-Growth Related Debt (Principal)		-	-	-	-	-	-	-	-	-
New Non-Growth Related Debt (Interest)		-	-	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-	-	-	-
Transfer to Rate Stabilization Reserve	106,250	108,400	110,550	112,750	115,000	117,300	119,650	122,050	124,500	127,000
Transfer to Capital Replacement Reserve Fund	2,181,574	2,234,143	2,463,028	2,693,476	2,924,970	3,762,927	3,902,688	4,027,116	3,928,606	4,028,666
Sub Total Capital Related	**4,851,249**	**4,878,700**	**5,584,479**	**5,740,497**	**5,939,268**	**5,837,596**	**8,473,493**	**7,849,018**	**7,297,814**	**9,318,948**
Total Expenditures	**12,029,609**	**12,262,311**	**13,205,180**	**13,607,289**	**14,062,060**	**14,574,143**	**17,582,636**	**17,345,437**	**17,473,282**	**19,919,013**
Revenues										
Flat Rate Revenues	3,567	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400
8710 - Recoveries - Norfolk	66,600	67,900	69,300	70,700	72,100	73,500	75,000	76,500	78,000	79,600
9186 - New Credit	500	510	520	530	540	550	560	570	580	590
9020 - Administration Fees	1,200	1,220	1,240	1,260	1,290	1,320	1,350	1,380	1,410	1,440
9090 - Engineering Inspection Fee	13,800	14,100	14,400	14,700	15,000	15,300	15,600	15,900	16,200	16,500
9110 - Recoveries	9,830	10,000	10,200	10,400	10,600	10,800	11,000	11,200	11,400	11,600
9182 - Bulk Processing Leachate	1,553,070	1,564,122	1,614,346	1,666,477	1,720,708	1,850,724	1,929,653	2,011,693	2,155,541	2,245,486
9184 - Bulk Processing Hldng Tank	252,800	276,602	285,484	294,703	304,293	327,286	341,244	355,752	381,190	397,096
9194 - Rodding Service Charges	8,900	9,100	9,300	9,500	9,700	9,900	10,100	10,300	10,500	10,700
9570 - Connection Permits	7,000	7,100	7,200	7,300	7,400	7,500	7,700	7,900	8,100	8,300
9200 - Water Meter Installations	51,600	52,600	53,700	54,800	55,900	57,000	58,100	59,300	60,500	61,700
9202 - Overstrength Charges	212,500	216,800	221,100	225,500	230,000	234,600	239,300	244,100	249,000	254,000
7805 - Transfer From Capital Fund	71,800									
9035 - Account Setup Charge	27,300	27,800	28,400	29,000	29,600	30,200	30,800	31,400	32,000	32,600
9310 - NSF Cheque Penalty	1,500	1,530	1,560	1,590	1,620	1,650	1,680	1,710	1,740	1,770
9116 - Lawyers Certificates	210	214	218	222	226	231	236	241	246	251
9300 - Accounts Recvble Interest	12,090	12,300	12,500	12,800	13,100	13,400	13,700	14,000	14,300	14,600
Contributions from Development Charges Reserve Fund	1,591,974	1,585,635	2,081,305	2,025,518	2,011,559	1,957,369	4,451,155	3,699,852	3,244,708	5,163,283
Contributions from Rate Stabilization Reserve	-	-	-	-	-	-	-	-	-	-
Contributions from Capital Replacement Reserve Fund	-	-	-	-	-	-	-	-	-	-
Total Operating Revenue	**3,886,241**	**3,851,133**	**4,414,474**	**4,428,801**	**4,487,536**	**4,595,330**	**7,191,278**	**6,545,998**	**6,269,715**	**8,303,916**
Wastewater Billing Recovery - Total	**8,143,368**	**8,411,178**	**8,790,706**	**9,178,488**	**9,574,524**	**9,978,814**	**10,391,357**	**10,799,440**	**11,203,567**	**11,615,097**

Table B-8
Haldimand County
Wastewater Rate Forecast

Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Wastewater Billing Recovery	8,143,368	8,411,178	8,790,706	9,178,488	9,574,524	9,978,814	10,391,357	10,799,440	11,203,567	11,615,097
Total Wastewater Billing Recovery - Base Charge	4,071,684	4,205,589	4,395,353	4,589,244	4,787,262	4,989,407	5,195,679	5,399,720	5,601,784	5,807,549
Total Wastewater Billing Recovery - Volume Charge	4,071,684	4,205,589	4,395,353	4,589,244	4,787,262	4,989,407	5,195,679	5,399,720	5,601,784	5,807,549
Total Volume (m^3)	2,714,275	2,748,751	2,817,534	2,886,317	2,955,100	3,023,883	3,092,666	3,157,731	3,219,416	3,281,101
Constant Rate	**1.50**	**1.53**	**1.56**	**1.59**	**1.62**	**1.65**	**1.68**	**1.71**	**1.74**	**1.77**
Annual Percentage Change		**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**

Appendix C
Special Charges

Appendix C: Special Charges

C.1 Overview

To provide a higher level of equity in the calculation of the water and wastewater rates, Haldimand County utilizes a number of special charges. These charges include the following:

Water

- Fire Protection Charge
- Bulk Water Rate

Wastewater

- Septic-Holding Rate
- Leachate Rate

This appendix provides a summary explanation of the charges, the approach to the calculations, and the calculated rates used in the rate study analysis. The special charges have been prepared using the principles previously set out when the rates were established and updated with 2025 budget information. The calculation of these charges are in alignment with best practices used by municipalities throughout the Province as well as the principles set out by the American Water Works Association.

The proposed 2026 charges and resultant forecast rates and charges below have been estimated using existing principles and current budget information. These charges will be reviewed on a periodic basis and amended as required.

C.2 Fire Protection Charge

Overview

The fire protection charge is an internal chargeback to the fire services department for water used in fire services operations. The general water and wastewater rates are imposed on urban area residents. As fire protection services are provided to all residents of the County (i.e. rural and urban areas), the related water costs are applied to the fire services department and recovered through property taxes.

Approach to the Calculations

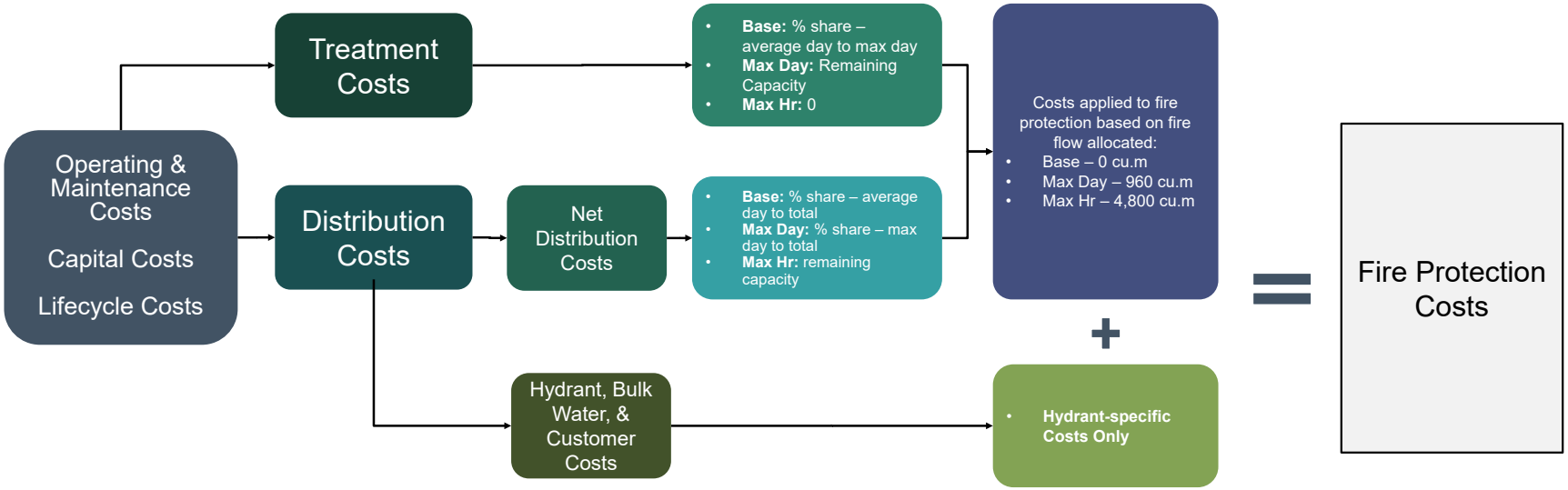
As noted above, the purpose of this charge is to recover the water-related costs attributable to fire protection services. To calculate the amount of the chargeback for 2026 onwards, 2025 budget information is utilized. The total fire protection costs are comprised of operating and maintenance, capital, and lifecycle costs. The calculations are undertaken based on the following approach:

- Water operating and maintenance costs, capital costs, and lifecycle costs are first allocated between Treatment versus Distribution related costs;
- The Distribution costs are then allocated between Hydrants, Bulk Water, and Other Customer Costs versus remaining net distribution costs;
    - Hydrant costs and the remaining net distribution costs are included in the fire protection charge - bulk water and other customer costs are not;
- The net distribution costs are allocated to base costs, max day costs, and max hour costs[1] based on the relative share of flows assumed for each category.
- The hydrant costs are allocated completely to the fire protection charge;
- The treatment costs are allocated to base costs and max day costs based on their relative share to the max day capacity. No costs are allocated to max hour costs;
- The costs are then calculated on a per cubic metre basis then allocated to the fire protection charge based on the base flows, maximum daily flows, and maximum hourly flows.

The approach to the calculations aligns with principles in rate setting established by the American Water Works Association. Further, the resultant fire protection costs are 13% of the net water system costs which is within the range recommended by the American Water Works Association.

[1] Base Costs – reflects average day flows in the system
Max Day Costs – reflect added capacity in the system to manage peak usage (e.g. fire protection)
Max HR (hour) Costs – reflects the difference between the ultimate capacity the system can handle and the max day capacity

Fire Protection Charge Schematic



- Base Costs – reflects average day flows in the system
- Max Day Costs – reflect added capacity in the system to manage peak usage (e.g. fire protection)
- Max HR Costs – reflects the difference between the ultimate capacity the system can handle and the max day capacity

Resultant Charges

Based on the calculations undertaken for 2025 and applying an inflation rate equal to the anticipated increase in overall operating costs, the forecasted fire protection charges are provided below. These figures are included in the operating revenue forecast presented in Table 5-1.

Revenue	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fire Hydrant Fees	$2.35M	$2.40M	$2.46M	$2.52M	$2.58M	$2.65M	$2.71M	$2.78M	$2.85M

C.3 Bulk Water Charges

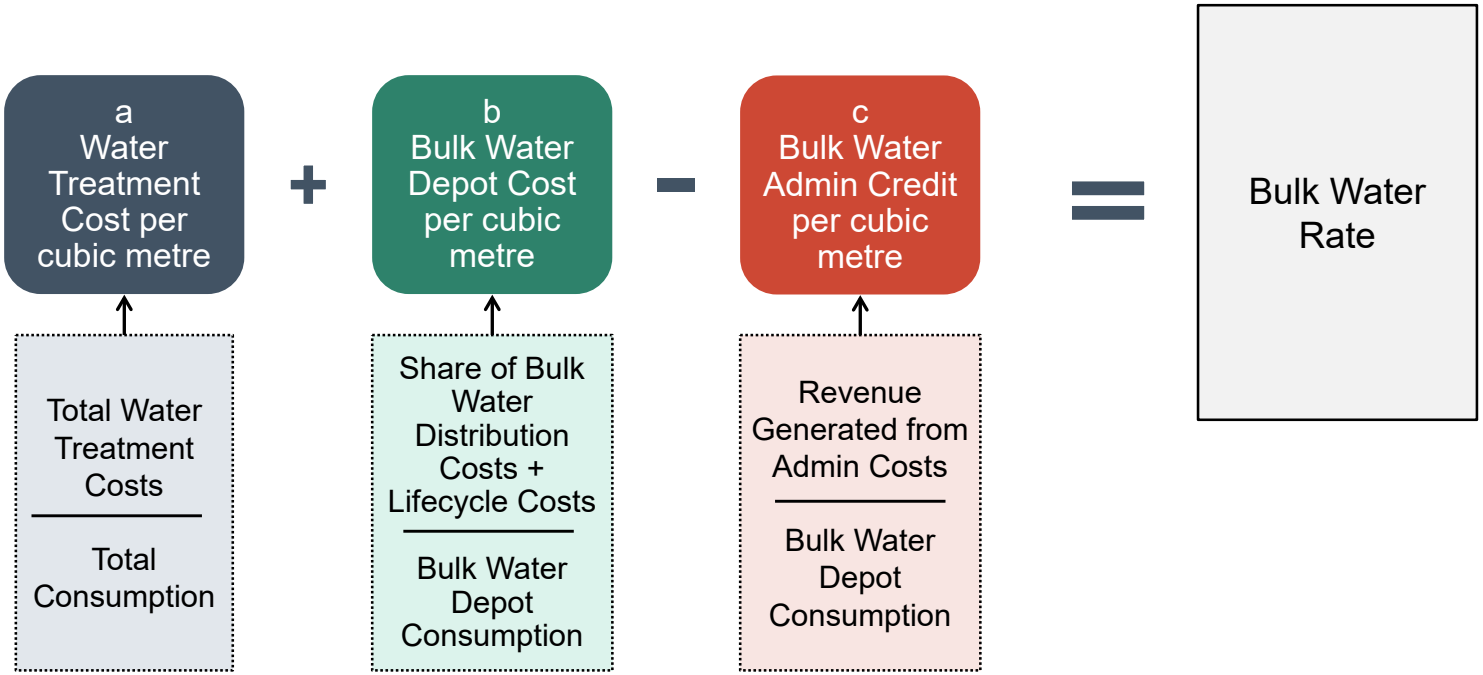
Overview

Haldimand County imposes a bulk water charge for the sale of water at the bulk water depots in Dunnville, Hagersville, and Jarvis. The charge seeks to recover the costs related to water supply and treatment, as well as the associated distribution costs.

Approach to the Calculations

The bulk water rate is calculated by taking the total water treatment costs per cubic metre, adding the bulk water costs per cubic metre (based on the proportionate share of distribution and lifecycle costs related to the bulk water system), and subtracting revenue generated from the related administrative costs. The following provides for a schematic of the calculations.

Bulk Water Charge Schematic



Historical Calculation of Bulk Water Rates

Bulk Water Rate = a+b-c

a = Water Treatment Cost per cubic metre

a = Total Water *Treatment* Costs (Operating Expenses, Capital Contributions, Debt Repayments) / Total Consumption (Metered+Bulk+New Credit)

b = Bulk Water Depot Cost per cubic metre

b = ((d*e)+f)/g

d = Total Water *Distribution* Costs (Operating Expenses & Capital Contributions)

e = % of d allocated to Bulk Water

f = Annual Capital Lifecycle Costs for Bulk Water Assets (Replacement Costs/Useful Life)

g = Bulk Water Depot consumption (cubic metres)

c = Bulk Water Admin Credit per cubic metre

c = Revenue generated from admin costs (Admin, Activation, Reactivation) / Bulk Water Depot consumption (cubic metres)

Resultant Charges

Based on the calculations undertaken for 2025 and applying an inflation rate equal to the anticipated increase in overall operating costs, the forecasted bulk water revenues are provided below. These figures are included in the operating revenue forecast presented in Table 5-1.

Revenue	2026	2027	2028	2029	2030	2031	2032	2033	2034
Bulk Water	$1.24M	$1.31M	$1.39M	$1.47M	$1.55M	$1.64M	$1.74M	$1.85M	$1.90M

The current bulk water rate for 2025 is $3.53 per cubic metre and the calculated bulk water rate for 2026 is $2.74 per cubic metre. Note, the decrease in the cost recovery required is due to the increase in volumes relative to inflation since 2013.

C.4 Septic/Holding Charge

Overview

For the wastewater system, Haldimand County imposes special charges for septic/holding tank waste as this waste has a larger impact on the wastewater system, relative to typical household waste.

Approach to the Calculations

The purpose of this charge is to recover the costs associated with the septic tank and holding tank flows. With respect to allocating lifecycle costs, as equipment is shared, the costs are allocated based on the relative flows. Note that lifecycle costs were not included in the previous rate calculation approach. However, the lifecycle costs have been included for the septage receiving station in Dunnville so that costs for Haldimand County residents can be minimized as haulers will be able to discharge within Haldimand County instead of having to travel elsewhere and incur significant costs.

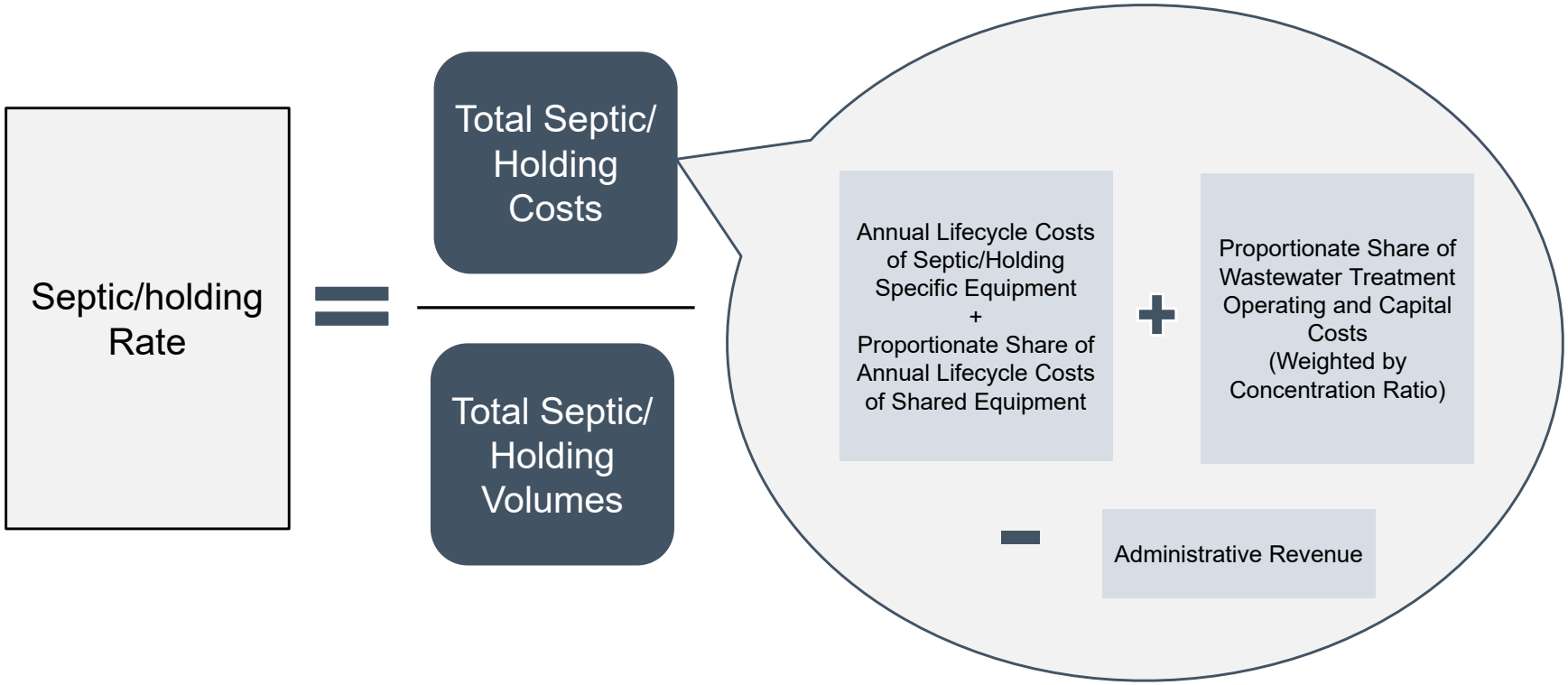
For the operating and capital costs of the wastewater treatment plant, the flows are weighted based on the relative concentration of septage and holding tank volumes

relative to typical sewage[1]. These concentration ratios are used to estimate the loading percentage (the share of the volume of wastewater that the plant can treat). The loading percentage related to septic/holding volumes is multiplied by the net wastewater treatment operating costs and capital costs.

A minor deduction for administrative revenue is applied and the net costs are divided by the total septic/holding volumes.

[1] Note, these ratios have been utilized since the analysis was first undertaken in 2013. Haldimand County is reviewing these ratios and will utilize updated information in the next rate review.

Septic/Holding Rate Schematic



Resultant Charges

Based on the calculations undertaken for 2025 and applying an inflation rate equal to the anticipated increase in overall operating costs, the forecasted septic/holding rate revenues are provided below. These figures are included in the operating revenue forecast presented in Table 5-2.

Revenue	2026	2027	2028	2029	2030	2031	2032	2033	2034
Septic/ Holding	$276k	$285k	$295k	$304k	$327k	$341k	$356k	$381k	$397k

The current septic/holding rate for 2025 is $16.88 per cubic metre. The calculated rate for 2026 is $18.95 per cubic metre.

C.5 Leachate Charge

Overview

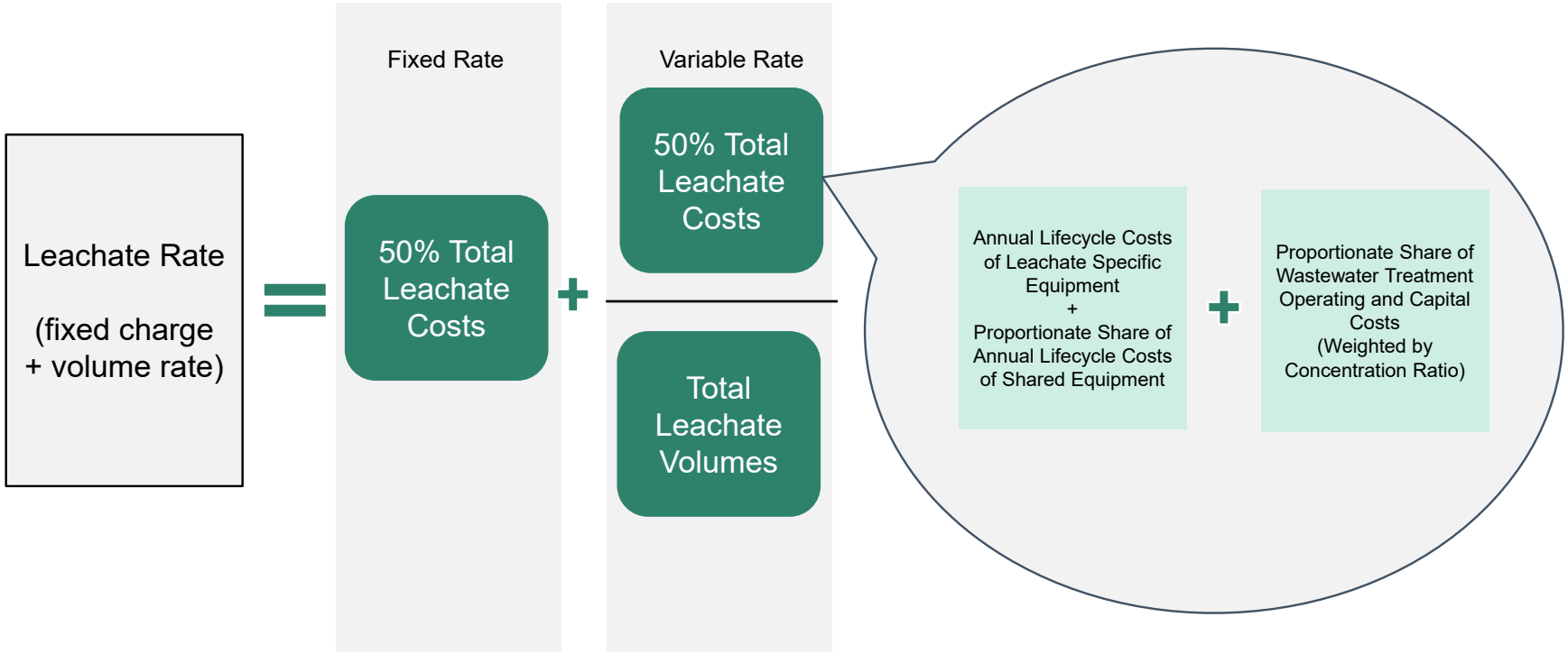
For the wastewater system, Haldimand County imposes special charges for treatment of leachate waste as this waste has a larger impact on the wastewater system, relative to typical household waste.

Approach to the Calculations

The purpose of this charge is to recover the costs associated with the leachate flows. With respect to allocating lifecycle costs, specific equipment for leachate is allocated 100% to this charge and shared equipment costs are allocated based on the relative flows. For the operating and capital costs of the wastewater treatment plant, the flows are weighted based on the relative concentration of leachate relative to typical sewage[1]. These concentration ratios are used to estimate the loading percentage (the share of the volume of wastewater that the plant can treat). The loading percentage related to leachate volumes is multiplied by the net wastewater treatment operating costs and capital costs. The resultant rate is separated 50% fixed and 50% variable.

[1] Note, these ratios have been utilized since the analysis was first undertaken in 2013. Haldimand County is reviewing these ratios and will utilize updated information in the next rate review.

Leachate Rate Schematic



Resultant Charges

Based on the calculations undertaken for 2025 and applying an inflation rate equal to the anticipated increase in overall operating costs, the forecasted leachate rate revenues are provided below. These figures are included in the operating revenue forecast presented in Table 5-2.

Revenue	2026	2027	2028	2029	2030	2031	2032	2033	2034
Leachate	$1.56M	$1.61M	$1.67M	$1.71M	$1.85M	$1.93M	$2.0M	$2.16M	$2.25M

The current rate for leachate is $19.54 per cubic metre with a fixed charge of $724,200. The calculated rate for 2026 is $19.56 per cubic metre with a fixed charge of $802,518.