



Water and Wastewater Rate Study and Long-Range Financial Plan

In Accordance with O.Reg. 453/07



Municipality of Strathroy-Caradoc

November 2019

Table of Contents

Introduction - Long Range Financial Plan and Rate Study	1	Water 10 Year Capital Budget	23
Report Introduction	2	Wastewater 10 Year Capital Budget	23
Key Challenges and Opportunities	2	Reserves and Revenue Stability Strategies	24
Review of Regulatory and Legislative Requirements	3	Capital Reserve as a % of Own Source Revenues	25
General Approach to Preparing the Municipality's LRFP	4	Capital Reserve Ending Balance	25
Required Statements	4	Debt Financing Strategies	26
Long Range Financial Plan - Guiding Principles	5	Debt Charges as a % of Own Source Revenues	27
Principles of Financial Sustainability	6	Water & Wastewater Debt Outstanding	27
The LRFP is Dynamic—Regular Updates Should Be Undertaken	7	Water Rates	28
		Wastewater Rates	29
		Combined Water & Wastewater Rates	30
		Customer Impact Analysis	31
Background Information Used to Prepare the Water and Wastewater Financial Plan and Rate Study	8		
Sources of Data to Prepare Long Range Financial Plan	9		
Water Historical Rates	10	Reporting Requirements O.Reg. 453/07	32
Wastewater Historical Rates	11	Water Financial Plan - O.Reg. 453/07	33
Cost of Service	12	Statement of Financial Operations - Water	35
Ratepayer Affordability	13	Statement of Cash Flow/Cash Receipts - Water	36
Rate Structure - Goals and Objectives	14	Statement of Financial Position - Water	37
Rate Structure Options - Fixed vs. Volumetric	15	Wastewater Financial Plan - O.Reg. 453/07	38
Rate Structure Options and Recommendations	16	Statement of Financial Operations - Wastewater	39
		Statement of Cash Flow/Cash Receipts - Wastewater	40
Summary of Financial Environment and Assumptions	18	Statement of Financial Position - Wastewater	41
Summary of Financial Environment and Assumptions	19		
Water Revenue and Expenditure Analysis	20	Appendix A - 10 Year Capital Budget	43
Wastewater Revenue and Expenditure Analysis	21	Water 10 Year Capital Budget	44
Water & Wastewater Rate Revenue Requirements	22	Wastewater 10 Year Capital Budget	45

*Introduction - Water and Wastewater Financial Plan and
Rate Study*



Report Introduction

The Municipality of Strathroy-Caradoc, along with other Ontario municipalities that are responsible for the provision of drinking water, is required to meet the requirements set out in the Financial Plans Regulations O.Reg. 453/07. The Municipality's O. Reg. update is in the fall of 2020.

The purpose of this report is to:

- Provide a 10 year forecast and the associated O. Reg. financial plans; and
- Make recommendations for future the water and wastewater rate structure and calculate water and wastewater rates for 2020.

Prior to finalizing the legislated Financial Plan, Council were provided with an overview of the current financial environment in November 2019. Also provided were options with respect to the most appropriate strategy to meet capital requirements and support financial sustainability, while at the same time, considering ratepayer affordability.

This report also includes the calculation of rates for 2020 and forecast rate increases over the next 10 years. Modifications to the rates and calculations should be undertaken on, an annual basis, as new information becomes available.

Key Challenges and Opportunities

As will be demonstrated in this report, the Municipality has many positive financial indicators, based on the current financial position that support a financially sustainable water and wastewater operation. These include the following:

- Healthy reserve position for water and wastewater
- Very low levels of debt
- Relatively low cost of service for water and wastewater
- Affordable water and wastewater costs in relation to income levels
- A rate structure that supports revenue stability

The Municipality is facing some future challenges that must be addressed in the long range financial plan. These include:

- Significant capital requirements over the next three years, particularly in the wastewater operations, resulting in a need to issue debt as there will be insufficient reserves available;
- Growth-related over the next 5-10 years will require additional resources to maintain the systems; and
- A need to increase rates over the next three years, beyond inflationary levels to ensure financial sustainability.

Review of Regulatory and Legislative Requirements

The Municipality of Strathroy-Caradoc, along with other Ontario municipalities that are responsible for the provision of drinking water, is required to meet the requirements set out in the Financial Plans Regulations O.Reg.453/07.

Although the Financial Plan regulation only requires a Water Financial Plan, a Wastewater Financial Plan has also been prepared to provide a more complete picture.

Ontario Reg. 453/07 provides the following parameters with regards to s.30 (1) part b of the Safe Drinking Water Act for municipal drinking water licence renewal:

- The financial plan must be approved by Council resolution (or governing body)
 - The financial plan must include details regarding lead service pipe replacement
 - The financial plan must include a statement that the financial impacts have been considered and apply for a minimum six year period commencing in the year in which the existing municipal drinking water licence expires
 - A copy of the financial plan must be submitted to the Ministry of Municipal Affairs and Housing
- For each year to which the financial plans apply, the financial plans must include the following:
 - Details of the proposed or projected financial position of the drinking water system itemized by:
 - total financial assets
 - total liabilities
 - net debt
 - non-financial assets that are tangible capital assets, tangible capital assets under construction, inventories of supplies and prepaid expenses
 - changes in tangible capital assets that are additions, donations, write downs and disposals
 - Details of the drinking water system's proposed or projected gross cash receipts and gross cash payments itemized by:
 - operating transactions that are cash received from revenues, cash paid for operating expenses and finance charges
 - capital transactions that are proceeds on the sale of tangible capital assets and cash used to acquire capital assets
 - investing transactions that are acquisitions and disposal of investments

- financing transactions that are proceeds from the issuance of debt and debt repayment
- changes in cash and cash equivalents during the year, and
- cash and cash equivalents at the beginning and end of the year.
- The financial plan must include detail regarding proposed or projected financial operations itemized by total revenues, total expenses, annual surplus/deficit and accumulated surplus/deficit (i.e. the components of a “Statement of Operations” as per PSAB) for each year in which the financial plans apply.
- The financial plan is to be made available to the public upon request and at no charge.

General Approach to Preparing the Municipality’s LRF

The LRF identifies the key financial strategies that will influence the building of a sustainable long-term financial future and takes into account:

- Expected expenses and capital outlays for each year of the plan
- Expected revenues for each year
- Financial performance measures

Required Statements

There are three statements that must be completed, in accordance with the O. Reg. 453/07. These include:

Statement of Operations

The **Statement of Operations** summarizes the revenues and operating expenses for a given period.

Statement of Cash Flows

The **Statement of Cash Flows** reports on how activities were financed for a given period which provides a measure of the changes in cash for that period.

Statement of Financial Position

The **Statement of Financial Position** reports on whether enough revenue was generated in a period to cover the expenses in the period and whether sufficient resources have been generated to support current and future activities.

The categories of financial information have been developed to ensure:

- that they provide a sound picture of the financial position of a drinking water system
- that they are aligned with municipal financial statements prepared on a full accrual accounting basis
- consistent financial planning for municipal water services

The goal of the financial plan is to provide the Municipality with a realistic and informed view of the water and wastewater operating and capital expenditures needed over time to maintain the integrity and health of its physical infrastructure and to accommodate growth and new environmental standards. As such, a Long Range Financial Plan (LRFP) creates a more purposeful approach to long-term financial management and helps align short term actions with long term financial strategies.



Guiding Principles—Financial Plan

The long range financial plan was prepared using the following guiding principles:

- ***Ensure a reasonable degree of stability and predictability in the rate burden;***
- ***Provide a fair sharing in the distribution of resources between current and future ratepayers;***
- ***Ensure sustainable cash flows;***
- ***Maximize financial flexibility;***
- ***Minimize financial vulnerability during economic downturns;***
- ***To protect and maintain the water and wastewater assets; and***
- ***Maintain programs and services at their current level.***

Principles of Financial Sustainability

The Ministry of the Environment released a guideline (“Towards Financially Sustainable Drinking-Water and Wastewater Systems”) that provides possible approaches to achieving 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 storm water 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:** Life-cycle 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.

The LRFP will be instrumental in the Municipality’s ability to meet the Provincial reporting requirements included in O.Reg. 453/07 for water and wastewater operations and has been developed in recognition of the above noted principles.



The LRFP is Dynamic—Regular Updates Should Be Undertaken

This document puts the Municipality's water & wastewater financial condition in perspective, discusses the current challenges and risks and provides a sustainable financial forecast. This plan also provides a framework for guiding the annual budget and the financial planning over a longer horizon and to meet the regulatory requirements. However, it does not represent a formal multi-year budget. The approval of the budget is undertaken annually.

Great effort has been made to present accurate financial projections, based upon the data available at this time. In accordance with the regulations, financial plans must be updated in conjunction with an application for licence renewal (i.e. every 5 years), however, there are many potential circumstances that could occur within the short to medium term that would affect the assumptions in the projections for operating and capital. Council priorities, planning policies, changes to service levels, consumption projections and infrastructure requirements, will certainly lead to changes and the LRFP should be adjusted to reflect these changes as they occur.

As a best practice, The Ministry of the Environment document entitled "Toward Financial Sustainability" suggests that Financial Plans should be updated on an annual forward looking basis. By doing so, continuous improvement will be fostered and results can be considered as part of the annual budget process.

It is well recognized that a Financial Plan is a **dynamic document** that should be updated and re-evaluated, on an **ongoing** basis to:

- Amend the assumptions, projections and strategies based on changes in the municipal environment
- Continue building awareness of the results of projections of current operating and capital spending and funding levels
- Assist the Municipality in determining the extent of its financial challenges
- Reconfirm the key financial goals and strategies that should guide future planning
- Spur the development of actions in future business plans that would respond to the long-term strategies

*Background Information Used to Prepare the
Water and Wastewater Financial Plan and Rate Study*



Sources of Data to Prepare Long Range Financial Plan

- **Reserves**—Water/WW Reserve projected opening balance 2019 which took into consideration any commitments from previous years.
- **Operating Budget**—The Municipality provided the 2020 Operating Budgets for Water and Wastewater which were used extensively and forecast assumptions were included for the remainder of the forecast period.
- **Capital Budget**—The proposed 10-year Capital Budget included sources of financing. Sources in funding from future development charges for growth related capital, rates through contributions from reserves and the issuance of some debt.
- **Financial Information Return 2018**—The Municipality’s FIR was used in the preparation of the O. Regs. with respect to amortization information.
- **Consumption**—Consumption trends were provided by the Municipality to determine an appropriate assumption with respect to rate setting.
- **Customer Accounts and Meters by Size**—The Municipality provided customer account information by meter size.
- **Historical Rates**—A review was undertaken of the historical rates to gain perspective into the strategies that have been deployed to support financial sustainability.
- **Debt Schedules**—Debt schedules were provided for existing debt in the water and wastewater operations.
- **Legislative Requirements**—A review of Provincial requirements governing water and wastewater operations.

Water Historical Rates

The following table reflects the water rates over the past four years:

		2016	2017	2018	2019
Water					
Total Fixed Monthly Water Charge		\$ 27.37	\$ 28.33	\$ 29.32	\$ 30.35
Water Usage Charge (Volumetric) per m3 - 0 to 11 m3		no additional charge	no additional charge	no additional charge	no additional charge
Water Usage Charge (Volumetric) per m3 - 12 to 2,284 m3		\$ 1.57	\$ 1.64	\$ 1.71	\$ 1.78
Water Usage Charge (Volumetric) per m3 - exceeding 2,284 m3		\$ 0.75	\$ 0.80	\$ 0.84	\$ 0.88
Water Charge based on Meter Size - Monthly	1.5" or less	\$ 27.37	\$ 28.33	\$ 29.32	\$ 30.35
	2"	\$ 33.96	\$ 35.15	\$ 36.38	\$ 37.65
	3"	\$ 40.19	\$ 41.60	\$ 43.06	\$ 44.57
	4"	\$ 105.45	\$ 109.14	\$ 112.96	\$ 116.91
	6"	\$ 133.67	\$ 138.35	\$ 174.66	\$ 180.77
	8"	\$ 163.04	\$ 168.75	\$ 250.30	\$ 259.06
Volumetric Rate Change (Tier 2)		5.5%	5.0%	4.0%	4.0%
Volumetric Rate Change (Tier 3)		6.5%	6.0%	5.0%	4.5%
Fixed Rate Change		3.5%	3.5%	3.5%	3.5%

- Over the past four years there has been a 3.5% annual increase in the fixed monthly rates and a 4.0-5.5% increase in the volumetric rates tier two and 4.5%-6.5% in tier three rates.

Wastewater Historical Rates

- The following table reflects the rates over the past four years:

		2016	2017	2018	2019
Wastewater					
Total Fixed Monthly Wastewater Charge		\$ 24.87	\$ 25.62	\$ 26.26	\$ 26.79
WW Usage Charge (Volumetric) per m3 - 0 to 11 m3		no additional charge	no additional charge	no additional charge	no additional charge
WW Usage Charge (Volumetric) per m3 - 12 to 2,284 m3		\$ 1.39	\$ 1.46	\$ 1.53	\$ 1.61
WW Usage Charge (Volumetric) per m3 - exceeding 2,284 m3		\$ 0.66	\$ 0.70	\$ 0.75	\$ 0.79
Wastewater Charge based on Meter Size - Monthly	1.5" or less	\$ 24.87	\$ 25.62	\$ 26.26	\$ 26.79
	2"	\$ 30.84	\$ 31.77	\$ 32.56	\$ 33.21
	3"	\$ 36.49	\$ 37.58	\$ 38.52	\$ 39.29
	4"	\$ 95.69	\$ 98.56	\$ 101.02	\$ 103.04
	6"	\$ 121.34	\$ 124.98	\$ 128.10	\$ 159.38
	8"	\$ 148.00	\$ 152.44	\$ 156.25	\$ 228.42
Volumetric Rate Change (Tier 2)		5.5%	5.5%	5.0%	5.0%
Volumetric Rate Change (Tier 3)		6.1%	6.0%	6.0%	6.0%
Fixed Rate Change		3.0%	3.0%	2.5%	2.0%

- Over the past four years there has been a 2.0%-3.0% annual increase in the fixed monthly rates and a 5.0-5.5% increase in the volumetric rates tier two and 6.0%-6.0% in tier three rates.

Cost of Service

- An analysis of the 2018 water and wastewater rates in Strathroy-Caradoc was undertaken against other peer municipalities in Southwest Ontario.
- As shown in the table, the customer cost of water/ww services in Strathroy-Caradoc is approximately 23% lower than the peer average for a residential customer that consumes 200 m³ per year. In Strathroy-Caradoc, a customer would pay \$916 annually compared with the peer average of \$1,190, a difference of \$273 annually.
- For non-residential customers, the cost of service in Strathroy-Caradoc ranges from 5% to 35% lower than the peer average.
- Differences in rates are impacted by the overall age of the system, the condition of the infrastructure, the complexity of the system and the strategies used to address infrastructure gaps.
- Further, the rate structures vary across the survey of peer municipalities which creates differences in terms of the relative position. For example, Strathroy-Caradoc has a significantly lower cost of service (35% lower) for customers larger quantities of water (100,000 m³ annually) due to its declining three tier rate structure.

Volume Meter Size	Residential 200 m ³ 5/8"	Commercial 10,000 m ³ 2"	Industrial 30,000 m ³ 3"	Industrial 100,000 m ³ 4"
Brantford	\$ 867	\$ 40,668	\$ 121,928	\$ 406,147
London	\$ 887	\$ 25,980	\$ 73,029	\$ 227,331
Tillsonburg	\$ 897	\$ 25,644	\$ 74,601	\$ 233,552
Sarnia	\$ 1,009	\$ 16,958	\$ 40,859	\$ 104,455
Haldimand	\$ 1,032	\$ 31,753	\$ 87,248	\$ 275,546
Chatham-Kent	\$ 1,120	\$ 26,996	\$ 71,948	\$ 171,984
Cambridge	\$ 1,132	\$ 48,122	\$ 143,076	\$ 471,299
North Middlesex	\$ 1,218	\$ 37,868	\$ 112,868	\$ 375,368
Wellesley	\$ 1,174	\$ 49,292	\$ 147,492	\$ 491,192
Woolwich	\$ 1,228	\$ 47,312	\$ 138,912	\$ 464,060
Grey Highlands	\$ 1,258	\$ 18,718	\$ 39,318	\$ 129,306
Centre Wellington	\$ 1,257	\$ 50,032	\$ 148,330	\$ 491,826
Ingersoll	\$ 1,239	\$ 26,803	\$ 78,293	\$ 237,555
Owen Sound	\$ 1,293	\$ 37,686	\$ 110,031	\$ 358,929
Brant	\$ 1,395	\$ 34,766	\$ 98,465	N/A
Lambton Shores	\$ 1,491	\$ 59,607	\$ 175,903	\$ 577,581
Middlesex Centre	\$ 1,725	\$ 68,392	N/A	N/A
Average	\$ 1,190	\$ 38,035	\$ 103,894	\$ 334,409
Median	\$ 1,218	\$ 37,686	\$ 104,248	\$ 358,929
Strathroy-Caradoc	\$ 916	\$ 34,745	\$ 98,298	\$ 217,419
Difference to Average	\$ (273)	\$ (3,290)	\$ (5,596)	\$ (116,990)
% Difference to Average	-23%	-9%	-5%	-35%

Ratepayer Affordability

- There are a number of sources which are used in the industry to establish a benchmark upon which affordability is measured. The most common approach is water/wastewater costs as a percentage of average income. The threshold value, which is expressed as a percent, is applied to a measure of income to determine the point at which the cost of water/wastewater becomes unaffordable.
- There is no one benchmark percentage established in the industry. Depending on the source used, the range typically is from 1.5%-3.0% of household income, beyond which, affordability is questionable.
- The following table compares the cost of water/ww services in relation to household income.
- As shown in the table, using this affordability metric, Strathroy-Caradoc is amongst the lowest in the survey of peer municipal comparators reflecting greater affordability.
- The water/ww costs as a percentage of income in Strathroy-Caradoc is 1.0% compared with the survey average of 1.2%.

Water/WW Affordability	2019 Est. Avg. Household Income	2019	
		Residential Water/WW Costs 200 m3	Affordability Metric
Wellesley	\$ 132,604	\$ 1,174	0.9%
Woolwich	\$ 133,307	\$ 1,228	0.9%
London	\$ 88,713	\$ 887	1.0%
Sarnia	\$ 98,536	\$ 1,009	1.0%
Haldimand	\$ 100,384	\$ 1,032	1.0%
Brantford	\$ 83,802	\$ 867	1.0%
Tillsonburg	\$ 79,904	\$ 897	1.1%
Cambridge	\$ 100,582	\$ 1,132	1.1%
Centre Wellington	\$ 110,275	\$ 1,257	1.1%
Middlesex Centre	\$ 146,025	\$ 1,725	1.2%
Grey Highlands	\$ 106,519	\$ 1,258	1.2%
Brant	\$ 115,707	\$ 1,395	1.2%
North Middlesex	\$ 96,495	\$ 1,218	1.3%
Ingersoll	\$ 93,590	\$ 1,239	1.3%
Chatham-Kent	\$ 79,302	\$ 1,120	1.4%
Lambton Shores	\$ 91,339	\$ 1,491	1.6%
Owen Sound	\$ 73,557	\$ 1,293	1.8%
Average	\$ 101,802	\$ 1,190	1.2%
Median	\$ 98,536	\$ 1,218	1.1%
Strathroy-Caradoc	\$ 91,954	\$ 916	1.0%

Source: 2019 rate by-laws, 2019 household income Manifold Data Mining.

Rate Structure - Goals and Objectives

The following provides a set of goals and objectives that were considered in developing changes to the water/wastewater rate structure:

- **Affordability**—The rate structure should incorporate policies that support affordable water and wastewater services for all customers while at the same time ensuring that the full cost of service are being recovered. Further, the allocation of costs to different customer groups must be rationalized.
- **Revenue Stability and Rate Predictability**—The rate structure should provide for a steady and predictable stream of revenues such that the City is capable of meeting its current financial requirements. To the extent possible, cash flows should be matched with expenditures. Any rate setting practice employed by the Municipality will consider the impact on revenue stability and take the appropriate actions to maintain/improve revenue stability.
- **Fairness and Equity**—The rate structure should ensure that customers are contributing equitably towards revenue requirements. Equity should be based on the user pay principle.
- **Conservation**—The rate structure should encourage the efficient and justifiable uses of water as well as assist in managing system demand. Programs that promote efficient water usage may reduce operating costs and capital investment needs over time. The less water consumed and hence less sewage generated will result in deferral of plant expansions, thereby avoiding capital expenditures for all customers.
- **Practical (Simple to Understand and Update)** - The rate structure should support principles of fairness and equity but at the same time it should be simple to understand, rational and easy to update and administer.
- **Economic Development** - The rate structure should align with other economic development initiatives and should consider the competitive positioning of commercial and industrial properties in Strathroy-Caradoc and the Municipality's ability to attract new business to the community.

Rate Structure Options—Fixed Vs. Volumetric

- As stated by the Canadian WaterWorks Association (CWWA) , at the heart of the methodology for setting water rates is the concept of a two-part rate structure; a volumetric charge and a fixed charge.
- Consistent with the approach in Strathroy-Caradoc approximately 90% of 100 Ontario municipalities surveyed have a fixed and volumetric rate structure.
- The extent to which the amount recovered from a fixed monthly fee varies considerably across Ontario based on the overall objectives of the municipality.
- For example, a high allocation to the fixed charge is not recommended if water efficiency is an important objective in rate setting. Although a high allocation to the volumetric rate will promote water efficiency, there is increased revenue risk brought about by the increased reliance on the volumetric charge to recover costs if consumption drops.

Strathroy-Caradoc/ Mount Brydges					
2020	Water	WW	Water %	WW %	Total %
Fixed	\$ 2,732,957	\$ 2,327,105	63%	65%	64%
Volumetric	\$ 1,591,488	\$ 1,243,630	37%	35%	36%
Total	\$ 4,324,445	\$ 3,570,735	100%	100%	100%

- As shown in the table, approximately 63% of the water costs are recovered from the fixed monthly charge and 65% of the wastewater costs are recovered from the monthly charge. Given that much of the operating costs are relatively fixed and do not vary based on consumption, maintaining a mid to high cost recovery from the fixed monthly fee to support revenue stability is appropriate.
- Any reduction in the fixed allocation would increase revenue instability and any increase in the fixed allocation would increase the cost of service to low volume customers. No change to the allocation of costs to fixed in Strathroy-Caradoc is recommended.

Rate Structure Options

The following summarizes the most common types of rate structures across Ontario municipalities:

- Uniform Rate Structure—The most common rate structure is the uniform rate for water and wastewater services. A uniform rate structure means that the price per unit remains constant despite consumption and despite the class of user. The cost is calculated by dividing the total cost of the service by the total volume used by customers.
- Declining Block Rate Structure —In a declining block rate structure, the unit price of water decreases as the volume consumed increases. This structure charges low volume users the highest rate, which is often residential consumers. Declining rate structures are the second most common type of rate structure.
- Inclining Rate Structure —The main objective of an increasing block structure is to encourage conservation. The rates in an inclining (progressive) rate structure increase as consumption increases by establishing thresholds or blocks at which the rate would change. For inclining block rate structures, the block (quantity) shift points are generally based upon the unique demand characteristics of each user class and are focused on user demand points to enhance water usage awareness. Customer awareness, combined with price incentives, are critical elements in modifying consumption behavior.

- Humpback Rate Structure —A humpback rate structure uses a combination of increasing and decreasing block rates: rates first increase, then decrease in steps as consumption increases. This approach targets high volume users, and then provides lower cost for very high volume users.
- The following table summarizes the approach used across over 100 Ontario municipalities.

Municipality	Water Residential	Water Non-Res.	WW Residential	WW Non-Res.
Uniform	70%	73%	71%	73%
Declining	11%	15%	11%	14%
Inclining	8%	5%	7%	5%
Humpback	6%	6%	8%	8%
Flat	4%	1%	3%	0%
Total	100%	100%	100%	100%

Strathroy-Caradoc has a declining rate structure using three blocks (tiers). Water consumption in excess of the first block (0-11 m³) is billed on a per m³. The block rate structure is as follows:

- 0-11 m³ – included in fixed charge which varies by meter size
- 12-2,284 m³ – volumetric rate charged
- Exceeding 2,284 m³ – 50% discount in volumetric rates

- The existing block rate structure which has a large discount on the third tier benefits primarily one customer and is being charged at a rate lower than the cost of service.
- The third tier block is also relatively low in relation to other municipalities surveyed.

Recommendations—Future Rate Structure

- *It is recommended that the Municipality consider for future rates the following:*
 - *Increase the threshold for the third tier from the existing 2,284 m³ monthly to 3,000 m³ monthly*
 - *Gradually reduce/eliminate the discount for the third tier.*
- Note: While the above noted recommendations have been made, the rates have been established based on the existing rate structure.

Summary of Financial Environment and Assumptions

Water and Wastewater Financial Plan



Summary of Financial Environment and Assumptions

The following summarizes the key challenges, risks and opportunities to long-term financial sustainability which have been addressed as part of the Financial Plan:

- **Expenditure Increases**—2% annually.
- **Growth Related Expenditures**—The forecast assumes the need for additional staff resources in water and wastewater to service growth over the next 10 years. Decisions on the timing of these required resources will be made on an annual basis in setting the rates.
- **Rate Revenue Requirements**—Water rate revenue requirement increases of 5.5% annually from 2020-2022 and inflationary increase thereafter. Wastewater rate revenue requirement increases of 21% annually from 2020-2022 and inflationary increase thereafter.
- **Other Revenues**— 2% annually
- **Sources of Financing**—Capital Reserves were used as the primary source of financing as defined in the Municipality's Capital Budget document.
- **Debt Issuance Interest Rates**—Debt financing in Wastewater operations of \$15 million where there was insufficient funding from Reserves for the replacement of assets. The debt has been issued over a period of 20 years at a term of 2.61%.
- **Capital Requirements**—The total capital replacement budget for the 10 year period is as follows (excludes Mount Brydges expansion):
 - Water—\$30.7 million
 - Wastewater—\$44.6 million
- **Customers**—7,240 water customers and 6,215 wastewater customers, with an average annual growth of 150 customers.
- **Consumption**—3 year average water consumption of 1.7 million m³.
- **Regulatory and Legislative Environment**—Municipalities across Ontario have consistently identified legislative and regulatory changes and requirements as a major factor driving the cost of service over the past 10 years and will continue to be a factor well into the future. Statutes and associated regulations that dictate service levels include:
 - Municipal Act;
 - Clean Water Act;
 - Water Opportunities Act;
 - Ontario Water Resources Act;
 - Safe Drinking Water Act (SDWA);
 - Federal Regs for effluent quality under the Fisheries Act;
 - Sustainable Water and Sewage Systems Act; and
 - PSAB 3150, Tangible Capital Assets Reporting

Water Revenue and Expenditure Analysis

The following summarizes the revenues and expenditures over the next 10 years.

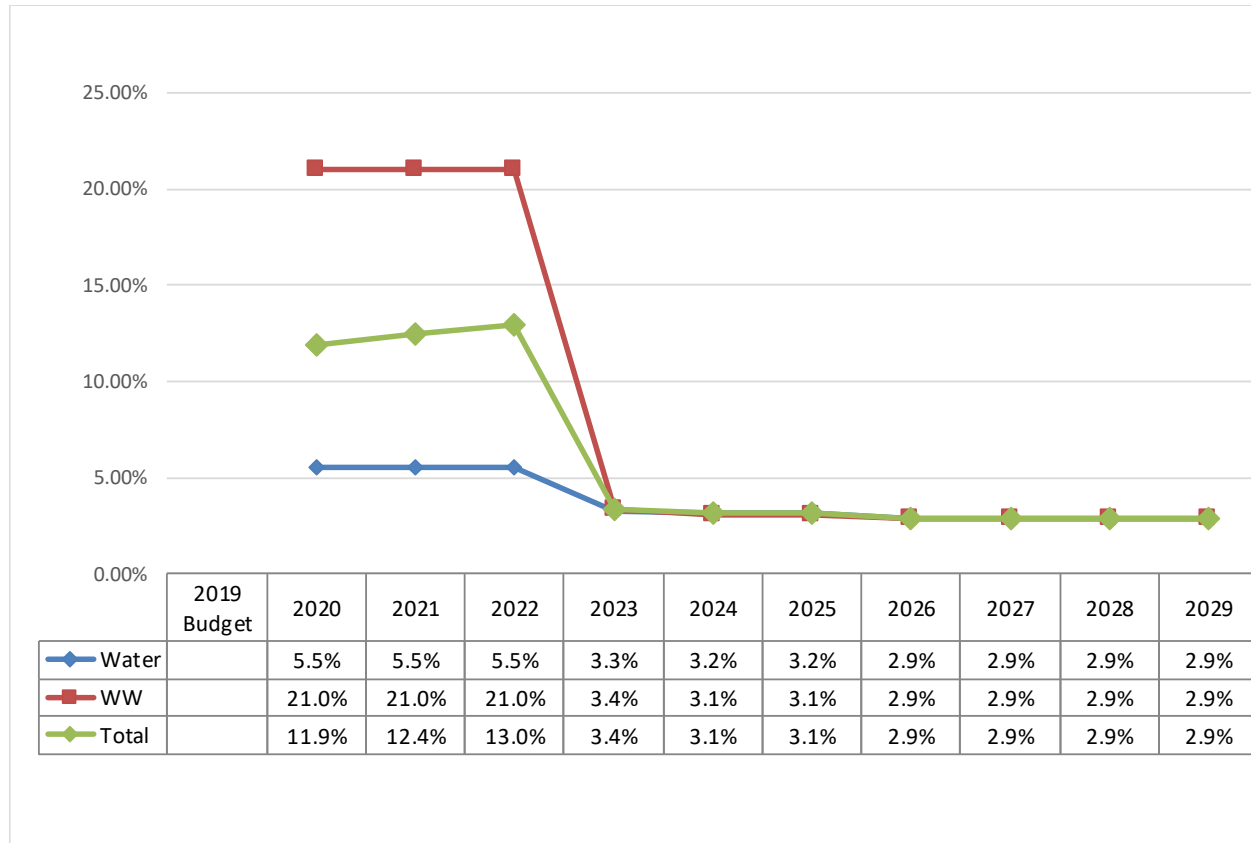
Water	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenues											
Rate Revenue Requirements	\$ 4,099,000	\$ 4,324,445	\$ 4,562,289	\$ 4,813,215	\$ 4,972,052	\$ 5,131,157	\$ 5,295,354	\$ 5,448,919	\$ 5,606,938	\$ 5,769,539	\$ 5,936,856
Billing Revenue - Adel - Metcalfe	\$ 97,200	\$ 102,546	\$ 108,186	\$ 114,136	\$ 117,903	\$ 121,676	\$ 125,569	\$ 129,211	\$ 132,958	\$ 136,814	\$ 140,781
Other Revenues	\$ 62,500	\$ 63,750	\$ 65,025	\$ 66,326	\$ 67,652	\$ 69,005	\$ 70,385	\$ 71,793	\$ 73,229	\$ 74,693	\$ 76,187
Total Revenues	\$ 4,258,700	\$ 4,490,741	\$ 4,735,501	\$ 4,993,677	\$ 5,157,606	\$ 5,321,838	\$ 5,491,309	\$ 5,649,923	\$ 5,813,125	\$ 5,981,046	\$ 6,153,824
Expenditures											
Salaries, Wages, Benefits	\$ 452,746	\$ 462,060	\$ 471,301	\$ 480,727	\$ 490,342	\$ 500,149	\$ 510,152	\$ 520,355	\$ 530,762	\$ 541,377	\$ 552,204
Operational Growth Projections		\$ 50,000	\$ 151,000	\$ 254,020	\$ 259,100	\$ 264,282	\$ 269,568	\$ 274,959	\$ 280,459	\$ 286,068	\$ 291,789
Admin OH Fee	\$ 135,000	\$ 137,700	\$ 140,454	\$ 143,263	\$ 146,128	\$ 149,051	\$ 152,032	\$ 155,073	\$ 158,174	\$ 161,337	\$ 164,564
Building/Plant - Maintenance	\$ 33,500	\$ 34,170	\$ 34,853	\$ 35,550	\$ 36,261	\$ 36,987	\$ 37,726	\$ 38,481	\$ 39,251	\$ 40,036	\$ 40,836
Contracted Services	\$ 379,000	\$ 386,580	\$ 394,312	\$ 402,198	\$ 410,242	\$ 418,447	\$ 426,816	\$ 435,352	\$ 444,059	\$ 452,940	\$ 461,999
Distribution System - Maintenance	\$ 86,200	\$ 87,924	\$ 89,682	\$ 91,476	\$ 93,306	\$ 95,172	\$ 97,075	\$ 99,017	\$ 100,997	\$ 103,017	\$ 105,077
Utilities	\$ 103,000	\$ 105,060	\$ 107,161	\$ 109,304	\$ 111,491	\$ 113,720	\$ 115,995	\$ 118,315	\$ 120,681	\$ 123,095	\$ 125,556
Other Expenses	\$ 244,500	\$ 249,390	\$ 254,378	\$ 259,465	\$ 264,655	\$ 269,948	\$ 275,347	\$ 280,854	\$ 286,471	\$ 292,200	\$ 298,044
Water Purchases	\$ 952,000	\$ 971,040	\$ 990,461	\$ 1,010,270	\$ 1,030,475	\$ 1,051,085	\$ 1,072,107	\$ 1,093,549	\$ 1,115,420	\$ 1,137,728	\$ 1,160,483
Transfer to Rates Stabilization Reserve	\$ 1,765,000	\$ 1,898,301	\$ 1,992,086	\$ 2,140,016	\$ 2,246,872	\$ 2,352,889	\$ 2,462,980	\$ 2,561,028	\$ 2,662,452	\$ 2,767,360	\$ 2,875,865
Transfer to Fleet Reserve	\$ 63,500	\$ 64,770	\$ 66,065	\$ 67,387	\$ 68,734	\$ 70,109	\$ 71,511	\$ 72,942	\$ 74,400	\$ 75,888	\$ 77,406
Debt Charges - Principal Existing & Pending	\$ 39,665	\$ 40,806	\$ 42,251	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Charges - Interest Existing & Pending	\$ 4,589	\$ 2,940	\$ 1,496	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses	\$ 4,258,700	\$ 4,490,741	\$ 4,735,501	\$ 4,993,677	\$ 5,157,606	\$ 5,321,838	\$ 5,491,309	\$ 5,649,923	\$ 5,813,125	\$ 5,981,046	\$ 6,153,824
NET Spending	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Revenue Requirements % Change		5.5%	5.5%	5.5%	3.3%	3.2%	3.2%	2.9%	2.9%	2.9%	2.9%

Wastewater Revenue and Expenditure Analysis

The following summarizes the revenues and expenditures over the next 10 years.

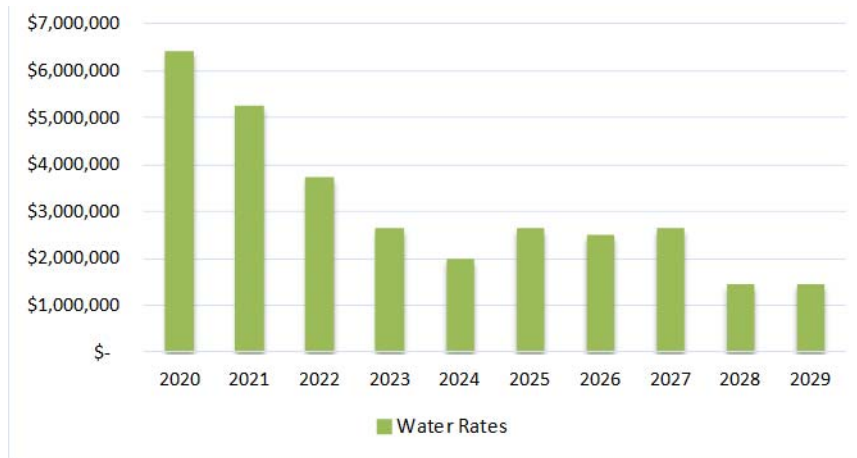
WW	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenues											
Rate Revenue Requirements	\$ 2,950,000	\$ 3,570,705	\$ 4,320,553	\$ 5,227,869	\$ 5,405,617	\$ 5,573,191	\$ 5,745,960	\$ 5,912,593	\$ 6,084,058	\$ 6,260,495	\$ 6,442,050
Billing Revenue - Adel - Metcalfe	\$ 12,400	\$ 15,009	\$ 18,161	\$ 21,975	\$ 22,722	\$ 23,426	\$ 24,153	\$ 24,853	\$ 25,574	\$ 26,315	\$ 27,078
Other Revenues	\$ 1,000	\$ 1,020	\$ 1,040	\$ 1,061	\$ 1,082	\$ 1,104	\$ 1,126	\$ 1,149	\$ 1,172	\$ 1,195	\$ 1,219
Total Revenues	\$ 2,963,400	\$ 3,586,734	\$ 4,339,754	\$ 5,250,905	\$ 5,429,421	\$ 5,597,721	\$ 5,771,238	\$ 5,938,594	\$ 6,110,803	\$ 6,288,006	\$ 6,470,347
Expenditures											
Salaries, Wages, Benefits	\$ 453,000	\$ 462,060	\$ 471,301	\$ 480,727	\$ 490,342	\$ 500,149	\$ 510,152	\$ 520,355	\$ 530,762	\$ 541,377	\$ 552,204
Operational Growth Projections		\$ 50,000	\$ 151,000	\$ 254,020	\$ 259,100	\$ 264,282	\$ 269,568	\$ 274,959	\$ 280,459	\$ 286,068	\$ 291,789
Admin OH Fee	\$ 135,000	\$ 137,700	\$ 140,454	\$ 143,263	\$ 146,128	\$ 149,051	\$ 152,032	\$ 155,073	\$ 158,174	\$ 161,337	\$ 164,564
Coll System - Maintenance	\$ 47,000	\$ 47,940	\$ 48,899	\$ 49,877	\$ 50,874	\$ 51,892	\$ 52,930	\$ 53,988	\$ 55,068	\$ 56,169	\$ 57,293
Contracted Services	\$ 45,500	\$ 46,410	\$ 47,338	\$ 48,285	\$ 49,251	\$ 50,236	\$ 51,240	\$ 52,265	\$ 53,311	\$ 54,377	\$ 55,464
Utilities	\$ 323,500	\$ 329,970	\$ 336,569	\$ 343,301	\$ 350,167	\$ 357,170	\$ 364,314	\$ 371,600	\$ 379,032	\$ 386,612	\$ 394,345
Other Expenses	\$ 655,764	\$ 668,880	\$ 682,257	\$ 695,902	\$ 709,820	\$ 724,017	\$ 738,497	\$ 753,267	\$ 768,332	\$ 783,699	\$ 799,373
Vactor Truck	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ 51,000	\$ 52,020	\$ 53,060	\$ 54,122	\$ 55,204	\$ 56,308
Transfer to WW Reserve Fund	\$ 1,283,036	\$ 1,822,762	\$ 2,310,872	\$ 3,019,222	\$ 2,944,955	\$ 2,973,472	\$ 2,973,947	\$ 2,837,762	\$ 2,932,398	\$ 3,031,125	\$ 3,134,070
Transfer to Fleet Reserve	\$ 20,600	\$ 21,012	\$ 21,432	\$ 21,861	\$ 22,298	\$ 22,744	\$ 23,199	\$ 23,663	\$ 24,136	\$ 24,619	\$ 25,111
Debt Charges - Principal New	\$ -	\$ -	\$ 77,431	\$ 118,168	\$ 218,041	\$ 281,805	\$ 366,591	\$ 531,021	\$ 564,239	\$ 598,323	\$ 633,297
Debt Charges - Interest New	\$ -	\$ -	\$ 52,200	\$ 76,279	\$ 138,445	\$ 171,904	\$ 216,749	\$ 311,581	\$ 310,771	\$ 309,095	\$ 306,528
Total Expenses	\$ 2,963,400	\$ 3,586,734	\$ 4,339,754	\$ 5,250,905	\$ 5,429,421	\$ 5,597,721	\$ 5,771,238	\$ 5,938,594	\$ 6,110,803	\$ 6,288,006	\$ 6,470,347
NET Spending	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Revenue Requirements % Change		21.0%	21.0%	21.0%	3.4%	3.1%	3.1%	2.9%	2.9%	2.9%	2.9%

Water and Wastewater Rate Revenue Requirements

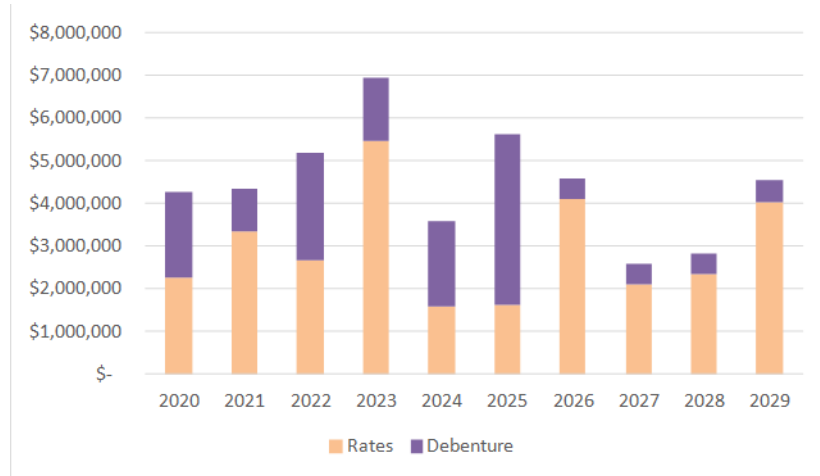


The graph above provides a summary of the rate revenue requirements over the next 10 years. Note that this is the rate revenue requirements and does not reflect the water and wastewater rate increases as the rate calculations also take into consideration consumption and growth in the number of customers.

Water 10 Year Capital Budget



Wastewater 10 Year Capital Budget



Includes \$30.7 million for Water over the next 10 years:

- Implementation of AMR technology in 2020 - \$3.2 million
- Strathroy Tower Rehab in 2021 - \$3.5 million
- Annual infrastructure renewal – approximately \$1 million a year
- York Street servicing in 2026 - \$1.2 million

Excludes Mount Brydges expansion projects in water of \$9.12 million.

Appendix A provides the 10 year details for water and wastewater capital budget.

Includes \$44.6 million for Wastewater over the next 10 years:

- Sewage facilities upgrades in 2021 - \$2 million
- Strathroy WWTP Sludge Tank Construction in 2025 - \$3 million
- Aeration Lagoon Replacement with Tank in 2026 - \$2 million
- Strathroy WWTP Lagoon Rehabilitation in 2029 - \$3 million
- Annual infrastructure renewal – approximately \$1 million a year
- Add vector truck expenditure in 2023 - \$700,000

Excludes Mount Brydges expansion projects in wastewater of \$9.12 million

Reserves and Revenue Stability Strategies

A Reserve is a financial provision or amount that is designated for a future purpose that extends beyond the current fiscal year. While its balance may vary over the course of a year, the Reserve is carried forward from one fiscal year to the next to facilitate multi-year financial planning. Reserves can be established to meet specific liabilities such as the replacement/acquisition of capital assets or to protect against known risks or unforeseen circumstances that may create financial difficulties.

The purpose for maintaining reserves includes:

- To provide for rate stabilization;
- To provide financing for one-time or short term requirements;
- To make provisions for replacements/renewals/acquisitions of assets/infrastructure that are currently being consumed;
- To avoid spikes in funding requirements for large capital projects by reducing their reliance on long-term debt borrowings;
- To provide a source of internal financing;
- To ensure adequate and sustainable cash flows; and
- To provide **financial sustainability**

- The following principles were used in preparing the Financial Plan:

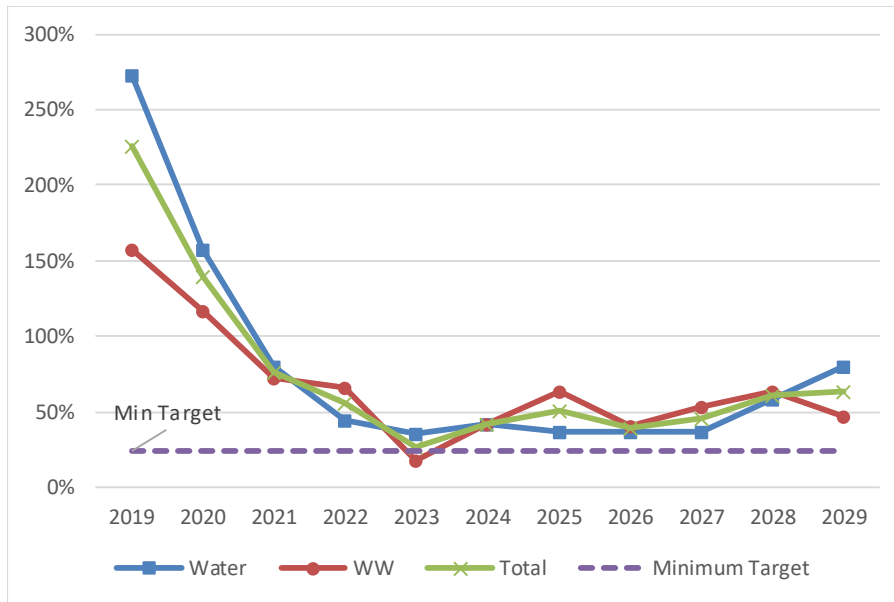
Reserve and Revenue Stability Strategies

- *The Municipality will maintain all infrastructure in a state of good repair by implementing life cycle costing and providing adequate annual contributions to the replacement reserves to fund the future rehabilitation/replacement of assets.*
- *The Municipality will target setting aside a contribution to the Water and Wastewater Reserve based on average annual capital spending requirements and in consideration of the annual amortization expense.*
- *Maintain a minimum reserve balance of 25% of annual rate revenue requirements to provide sufficient flexibility to deal with operating variances and emergency capital needs.*



Capital Reserve as a % of Own Source Revenues

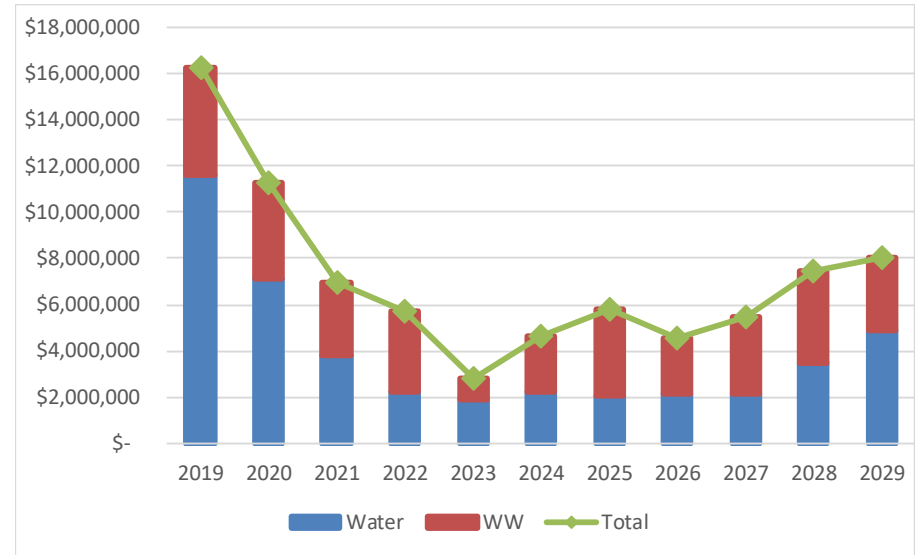
- The following graphs reflect the availability of capital reserves in relation to own source revenues.



- As shown above, the reserves are forecast to decline significantly over the next four years to fund the capital replacement requirements.
- Commencing in 2024, the consolidated reserves as a percentage of own source revenues remains above the minimum recommended threshold.

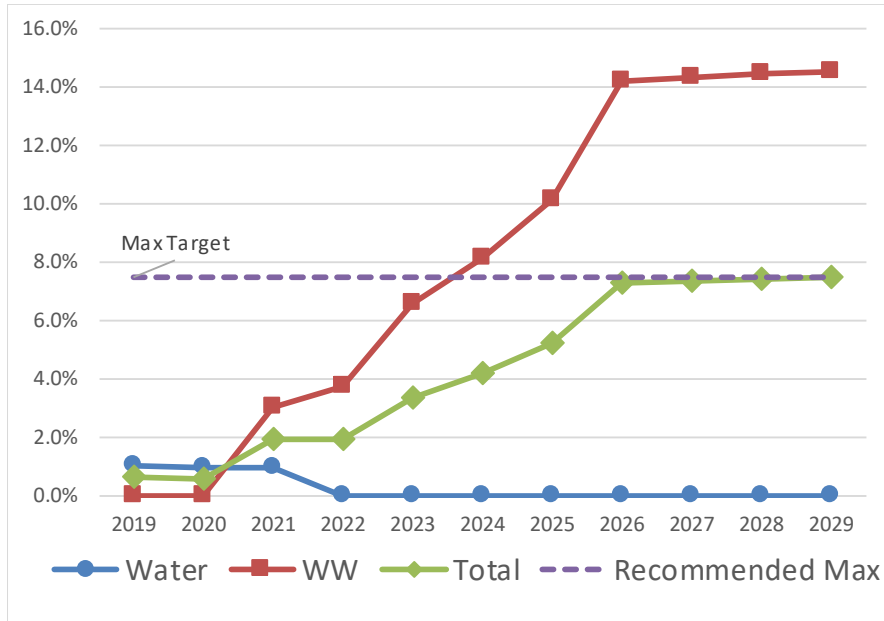
Capital Reserve Ending Balance

- The following graphs reflect the availability of capital reserves.



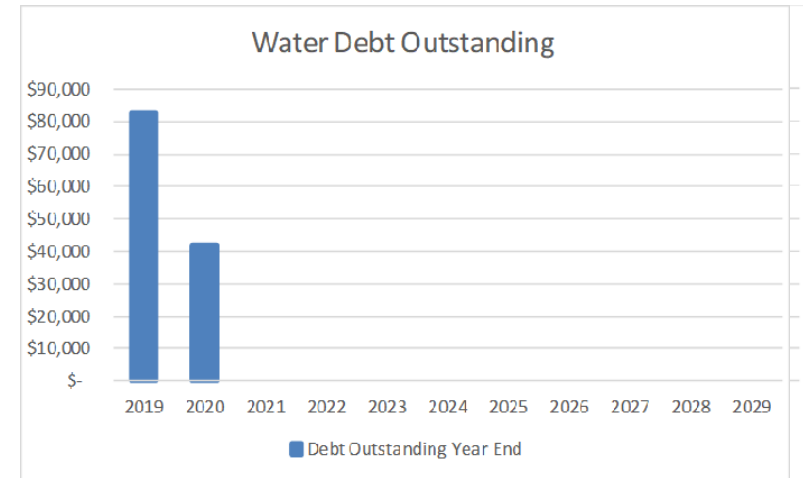
- As shown above, the total reserve position decreases from 2019 to 2023 and then gradually increases over the remainder of the forecast period.

Debt Charges as a % of Own Source Revenues

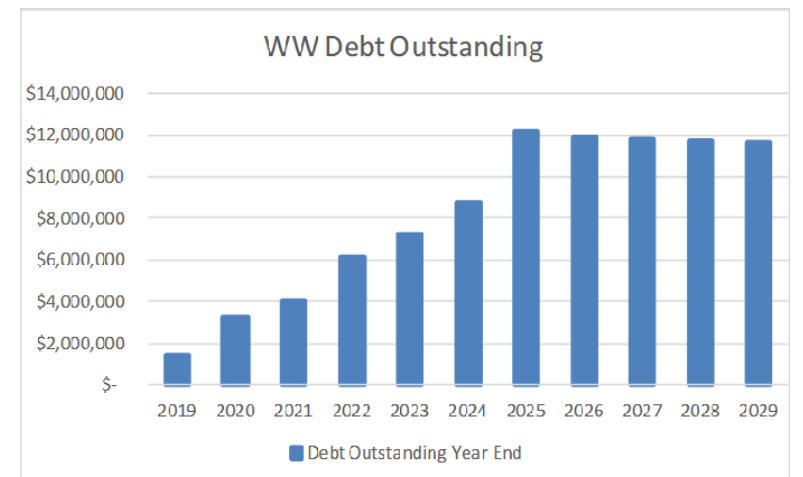


- As shown above, the debt charges as a percentage of own source revenues, on a consolidated basis remains below the maximum target of 7.5% throughout the forecast period.

Water & Wastewater Debt Outstanding



- No new debt is required in water over the next 10 years but there will be a requirement to issue \$15 million over the next 10 years for wastewater capital replacement requirements.



Water Rates

		2019	2020	2021	2022	2023
Water						
Total Fixed Monthly Water Charge		\$ 30.35	\$ 31.35	\$ 32.39	\$ 33.45	\$ 34.12
Water Usage Charge (Volumetric) per m3 - 0 to 11 m3		no additional charge				
Water Usage Charge (Volumetric) per m3 - 12 to 2,284 m3		\$ 1.78	\$ 1.84	\$ 1.90	\$ 1.96	\$ 2.00
Water Usage Charge (Volumetric) per m3 - exceeding 2,284 m3		\$ 0.88	\$ 0.90	\$ 0.93	\$ 0.96	\$ 0.98
Water Charge based on Meter Size - Monthly	1.5" or less	\$ 30.35	\$ 31.35	\$ 32.39	\$ 33.45	\$ 34.12
	2"	\$ 37.65	\$ 38.89	\$ 40.18	\$ 41.50	\$ 42.33
	3"	\$ 44.57	\$ 46.04	\$ 47.56	\$ 49.13	\$ 50.11
	4"	\$ 116.91	\$ 120.77	\$ 124.75	\$ 128.87	\$ 131.45
	6"	\$ 180.77	\$ 186.74	\$ 192.90	\$ 199.26	\$ 203.25
	8"	\$ 259.06	\$ 267.61	\$ 276.44	\$ 285.56	\$ 291.27
Volumetric Rate Change (Tier 2)		4.0%	3.3%	3.3%	3.3%	2.0%
Volumetric Rate Change (Tier 3)		4.5%	3.3%	3.3%	3.3%	2.0%
Fixed Rate Change		3.5%	3.3%	3.3%	3.3%	2.0%

- As shown above, the water rates are forecast to increase approximately 3.3% annually for an annual residential customer over the next three years and 2% in 2023.

Wastewater Rates

		2019	2020	2021	2022	2023
Wastewater						
Total Fixed Monthly Wastewater Charge		\$ 26.79	\$ 31.08	\$ 36.05	\$ 41.82	\$ 42.65
WW Usage Charge (Volumetric) per m3 - 0 to 11 m3		no additional charge				
WW Usage Charge (Volumetric) per m3 - 12 to 2,284 m3		\$ 1.61	\$ 1.87	\$ 2.17	\$ 2.51	\$ 2.56
WW Usage Charge (Volumetric) per m3 - exceeding 2,284 m3		\$ 0.79	\$ 0.92	\$ 1.06	\$ 1.23	\$ 1.26
Wastewater Charge based on Meter Size - Monthly	1.5" or less	\$ 26.79	\$ 31.08	\$ 36.05	\$ 41.82	\$ 42.65
	2"	\$ 33.21	\$ 38.55	\$ 44.72	\$ 51.87	\$ 52.91
	3"	\$ 39.29	\$ 45.64	\$ 52.94	\$ 61.41	\$ 62.64
	4"	\$ 103.04	\$ 119.71	\$ 138.86	\$ 161.08	\$ 164.30
	6"	\$ 159.38	\$ 185.10	\$ 214.71	\$ 249.07	\$ 254.05
	8"	\$ 228.42	\$ 265.26	\$ 307.70	\$ 356.93	\$ 364.07
Volumetric Rate Change (Tier 2)		5.0%	16.0%	16.0%	16.0%	2.0%
Volumetric Rate Change (Tier 3)		6.0%	16.0%	16.0%	16.0%	2.0%
Fixed Rate Change		2.0%	16.0%	16.0%	16.0%	2.0%

- As shown above, the wastewater rates are forecast to increase approximately 16% annually over the next three years and 2% in 2023.

Combined Water and Wastewater Rates

		2019	2020	2021	2022	2023
Water & Wastewater						
Total Fixed Monthly Charge		\$ 57.14	\$ 62.43	\$ 68.43	\$ 75.27	\$ 76.78
Usage Charge (Volumetric) per m3 - 0 to 11 m3		no additional charge				
Usage Charge (Volumetric) per m3 - 12 to 2,284 m3		\$ 3.39	\$ 3.71	\$ 4.07	\$ 4.47	\$ 4.56
Usage Charge (Volumetric) per m3 - exceeding 2,284 m3		\$ 1.67	\$ 1.82	\$ 2.00	\$ 2.20	\$ 2.24
Charge based on Meter Size - Monthly	1.5" or less	\$ 57.14	\$ 62.43	\$ 68.43	\$ 75.27	\$ 76.78
	2"	\$ 70.86	\$ 77.44	\$ 84.90	\$ 93.38	\$ 95.24
	3"	\$ 83.86	\$ 91.68	\$ 100.50	\$ 110.54	\$ 112.75
	4"	\$ 219.95	\$ 240.48	\$ 263.61	\$ 289.95	\$ 295.75
	6"	\$ 340.15	\$ 371.83	\$ 407.61	\$ 448.33	\$ 457.30
	8"	\$ 487.48	\$ 532.87	\$ 584.14	\$ 642.50	\$ 655.35
Volumetric Rate Change (Tier 2)		4.5%	9.3%	9.7%	10.1%	2.0%
Volumetric Rate Change (Tier 3)		5.2%	9.3%	9.7%	10.1%	2.0%
Fixed Rate Change		2.8%	9.3%	9.6%	10.0%	2.0%

- As shown above, the combined rates are forecast to increase approximately 9.3-10% annually for residential customers over the next three years and 2% in 2023.

Customer Impact Analysis

200 m ³ residential impact - 1.5" or less									
	Water		WW		Annual Cost of service				
Year	Fixed Monthly	Volumetric (Tier 2)	Fixed Monthly	Volumetric (Tier 2)	Water	WW	Total	Percentage Increase From Prior Year	
2019	\$ 30.35	\$ 1.78	\$ 26.79	\$ 1.61	\$ 485	\$ 431	\$ 916		
2020	\$ 31.35	\$ 1.84	\$ 31.08	\$ 1.87	\$ 501	\$ 500	\$ 1,001	9.3%	
2021	\$ 32.39	\$ 1.90	\$ 36.05	\$ 2.17	\$ 518	\$ 580	\$ 1,098	9.6%	
2022	\$ 33.45	\$ 1.96	\$ 41.82	\$ 2.51	\$ 535	\$ 673	\$ 1,208	10.0%	
2023	\$ 34.12	\$ 2.00	\$ 42.65	\$ 2.56	\$ 545	\$ 686	\$ 1,232	2.0%	
2024	\$ 34.81	\$ 2.04	\$ 43.51	\$ 2.62	\$ 556	\$ 700	\$ 1,256	2.0%	
2025	\$ 35.50	\$ 2.08	\$ 44.38	\$ 2.67	\$ 567	\$ 714	\$ 1,281	2.0%	
2026	\$ 36.21	\$ 2.12	\$ 45.26	\$ 2.72	\$ 579	\$ 728	\$ 1,307	2.0%	
2027	\$ 36.94	\$ 2.16	\$ 46.17	\$ 2.78	\$ 590	\$ 743	\$ 1,333	2.0%	
2028	\$ 37.68	\$ 2.21	\$ 47.09	\$ 2.83	\$ 602	\$ 758	\$ 1,360	2.0%	
2029	\$ 38.43	\$ 2.25	\$ 48.03	\$ 2.89	\$ 614	\$ 773	\$ 1,387	2.0%	

- As shown above, the water combined water and wastewater cost of service for a residential customer consuming 200 m³ annually is in the range of 9.3%-10% in the first three years, with inflationary increases thereafter. This is required to build the necessary base for the reserves to fund the capital replacement program.

**Reporting Requirements
O. Reg 453/07**

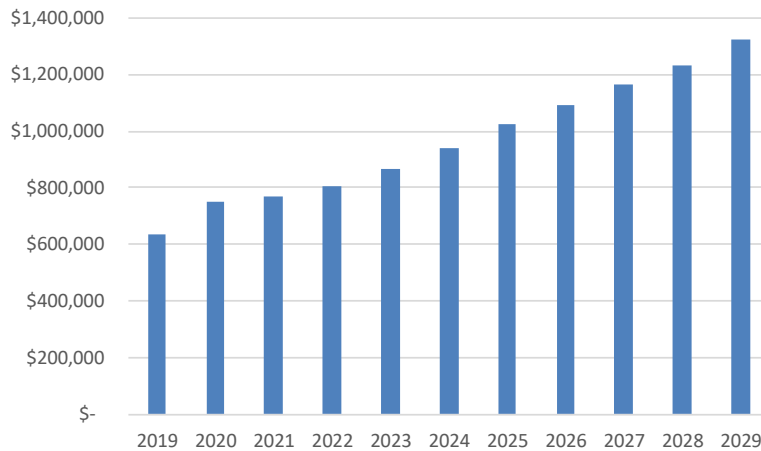


Water Financial Plan—O.Reg. 453/07

The Financial Plan has been prepared in accordance with the regulation (O.Reg. 453/07) made under the Safe Drinking Water Act. The Financial Plan regulation requires that the plans be updated every five years along with the request for the renewal of the drinking water licence. This ongoing update will assist in revisiting the assumptions made to develop the operating and funding plans as well as reassessing the needs for capital renewal and major maintenance expenses.

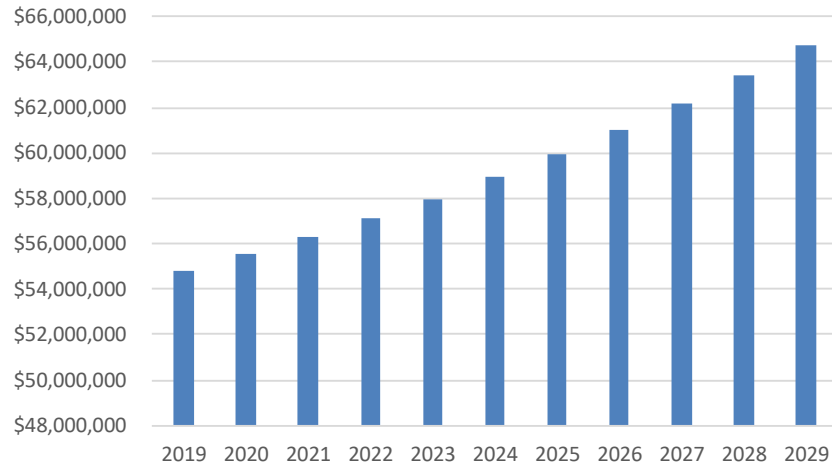
- Statement of Financial Operations**—This statement summarizes the revenues and expenditures. The expenditures include ongoing operating costs plus asset amortization. This statement indicates that the system and its asset base are projected to be maintained with funds being available each year for future capital renewal or major maintenance. As shown in the statement of financial operations and in the graph below, the Municipality is generating excess revenues over expenses including amortization for water, throughout the forecast period.
- Cash Receipts or Gross Cash Payments (Cash Flows)** —The cash flow statement summarizes how the water system is expected to generate and utilize cash resources. The transactions that generate and use cash include the projection of cash to be received from revenues, cash to be used for operating expenditures and financing charges, cash projected to be used to acquire capital assets and projected financial transactions that are the proceeds from debt or debt principal repayment. Cash balances are positive throughout the forecast period, as reflected in the Financial Statements.

Water Annual Surplus



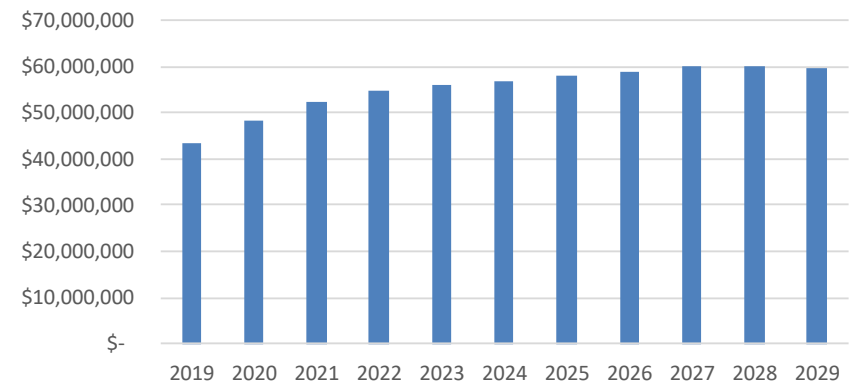
- Accumulated Surplus**—Another financial indicator that is reflected in the financial position statement is the accumulated surplus. This indicator represents cash on hand plus the net book value of tangible capital assets less debt. The accumulated surplus is forecast to increase from 2020 to 2029, as shown below and in the Statement of Financial Position.

Water Accumulated Surplus



- Tangible Capital Assets (Net Book Value)** - Water systems have a great deal of resources tied up in tangible capital assets and managing these assets is critical to maintaining current and future levels of service. An increase in net book value of tangible capital assets is an indication that assets have been renewed faster than they were used. A decrease in net book value indicates that assets are being used, or amortized, faster than they are renewed. The net book value is projected to increase for water, from \$43.2 million in 2019 to \$59.8 million in 2029.

Water Net Book Value



Statement of Financial Operations—Water

	Budget	Projected									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenues											
Rate Revenue Requirements	\$ 4,099,000	\$ 4,324,445	\$ 4,562,289	\$ 4,813,215	\$ 4,972,052	\$ 5,131,157	\$ 5,295,354	\$ 5,448,919	\$ 5,606,938	\$ 5,769,539	\$ 5,936,856
Adelaide - Metcalfe Revenues	\$ 97,200	\$ 102,546	\$ 108,186	\$ 114,136	\$ 117,903	\$ 121,676	\$ 125,569	\$ 129,211	\$ 132,958	\$ 136,814	\$ 140,781
Other Revenues	\$ 62,500	\$ 63,750	\$ 65,025	\$ 66,326	\$ 67,652	\$ 69,005	\$ 70,385	\$ 71,793	\$ 73,229	\$ 74,693	\$ 76,187
Interest Earnings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenues	\$ 4,258,700	\$ 4,490,741	\$ 4,735,501	\$ 4,993,677	\$ 5,157,606	\$ 5,321,838	\$ 5,491,309	\$ 5,649,923	\$ 5,813,125	\$ 5,981,046	\$ 6,153,824
Operating Expenses											
Salaries, Wages, Benefits	\$ 452,746	\$ 462,060	\$ 471,301	\$ 480,727	\$ 490,342	\$ 500,149	\$ 510,152	\$ 520,355	\$ 530,762	\$ 541,377	\$ 552,204
Admin OH Fee	\$ 135,000	\$ 137,700	\$ 140,454	\$ 143,263	\$ 146,128	\$ 149,051	\$ 152,032	\$ 155,073	\$ 158,174	\$ 161,337	\$ 164,564
Contracted Services	\$ 379,000	\$ 386,580	\$ 394,312	\$ 402,198	\$ 410,242	\$ 418,447	\$ 426,816	\$ 435,352	\$ 444,059	\$ 452,940	\$ 461,999
Other Expenses	\$ 467,200	\$ 526,544	\$ 637,075	\$ 749,816	\$ 764,813	\$ 780,109	\$ 795,711	\$ 811,625	\$ 827,858	\$ 844,415	\$ 861,303
Water Purchases	\$ 952,000	\$ 971,040	\$ 990,461	\$ 1,010,270	\$ 1,030,475	\$ 1,051,085	\$ 1,072,107	\$ 1,093,549	\$ 1,115,420	\$ 1,137,728	\$ 1,160,483
Transfer to Fleet Reserve	\$ 63,500	\$ 64,770	\$ 66,065	\$ 67,387	\$ 68,734	\$ 70,109	\$ 71,511	\$ 72,942	\$ 74,400	\$ 75,888	\$ 77,406
Total Operating expenses	\$ 2,449,446	\$ 2,548,694	\$ 2,699,668	\$ 2,853,661	\$ 2,910,734	\$ 2,968,949	\$ 3,028,328	\$ 3,088,895	\$ 3,150,673	\$ 3,213,686	\$ 3,277,960
Debt Charges											
Debt Charges - Interest Expenses	\$ 4,589	\$ 2,940	\$ 1,496	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization Expense											
Amortization of tangible capital assets	\$ 1,173,096	\$ 1,185,959	\$ 1,266,271	\$ 1,332,021	\$ 1,378,584	\$ 1,411,396	\$ 1,436,146	\$ 1,469,146	\$ 1,500,271	\$ 1,533,271	\$ 1,551,271
Total Expenses	\$ 3,627,131	\$ 3,737,593	\$ 3,967,435	\$ 4,185,682	\$ 4,289,318	\$ 4,380,345	\$ 4,464,474	\$ 4,558,041	\$ 4,650,944	\$ 4,746,957	\$ 4,829,231
Annual Surplus/Deficit	\$ 631,569	\$ 753,148	\$ 768,066	\$ 807,995	\$ 868,288	\$ 941,493	\$ 1,026,834	\$ 1,091,882	\$ 1,162,181	\$ 1,234,089	\$ 1,324,594

Statement of Cash Flow/Cash Receipts—Water

	Budget	Projected									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Revenues	\$ 4,258,700	\$ 4,490,741	\$ 4,735,501	\$ 4,993,677	\$ 5,157,606	\$ 5,321,838	\$ 5,491,309	\$ 5,649,923	\$ 5,813,125	\$ 5,981,046	\$ 6,153,824
Cash Paid For											
Operating Costs	\$ 2,449,446	\$ 2,548,694	\$ 2,699,668	\$ 2,853,661	\$ 2,910,734	\$ 2,968,949	\$ 3,028,328	\$ 3,088,895	\$ 3,150,673	\$ 3,213,686	\$ 3,277,960
Debt Repayment - Debt Interest	\$ 4,589	\$ 2,940	\$ 1,496	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Provided from Operating Transactions	\$ 1,804,665	\$ 1,939,107	\$ 2,034,337	\$ 2,140,016	\$ 2,246,872	\$ 2,352,889	\$ 2,462,980	\$ 2,561,028	\$ 2,662,452	\$ 2,767,360	\$ 2,875,865
Capital Transactions											
Acquisition of TCA	\$ 1,029,000	\$ 6,425,000	\$ 5,260,000	\$ 3,725,000	\$ 2,625,000	\$ 1,980,000	\$ 2,640,000	\$ 2,490,000	\$ 2,640,000	\$ 1,440,000	\$ 1,440,000
Finance Transactions											
DC Exemptions											
Proceeds from Debt Issuance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from DCs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Principal Repayment	\$ 39,411	\$ 40,806	\$ 42,251	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Increase/(Decrease) in Cash Equivalents	\$ 736,254	\$ (4,526,699)	\$ (3,267,914)	\$ (1,584,984)	\$ (378,128)	\$ 372,889	\$ (177,020)	\$ 71,028	\$ 22,452	\$ 1,327,360	\$ 1,435,865
Cash and Cash Equivalents at Beginning Balance	\$ 10,880,971	\$ 11,616,971	\$ 7,090,271	\$ 3,822,357	\$ 2,237,373	\$ 1,859,245	\$ 2,232,134	\$ 2,055,114	\$ 2,126,143	\$ 2,148,595	\$ 3,475,955
Cash and Cash Equivalents at Ending Balance	\$ 11,617,224	\$ 7,090,271	\$ 3,822,357	\$ 2,237,373	\$ 1,859,245	\$ 2,232,134	\$ 2,055,114	\$ 2,126,143	\$ 2,148,595	\$ 3,475,955	\$ 4,911,820

Statement of Financial Position—Water

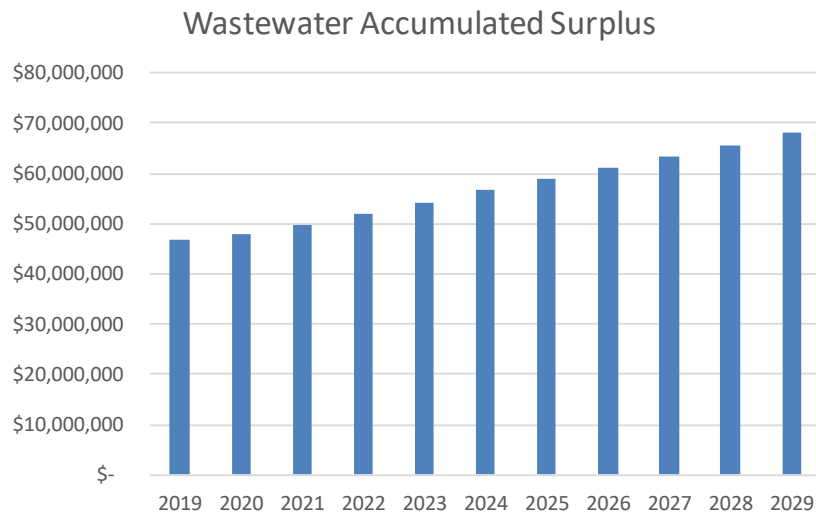
	Budget	Projected									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Financial Assets											
Cash	\$ 11,617,224	\$ 7,090,271	\$ 3,822,357	\$ 2,237,373	\$ 1,859,245	\$ 2,232,134	\$ 2,055,114	\$ 2,126,143	\$ 2,148,595	\$ 3,475,955	\$ 4,911,820
Liabilities											
Debt - Principal Outstanding	\$ 83,057	\$ 42,251	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Financial Assets	\$ 11,534,167	\$ 7,048,020	\$ 3,822,357	\$ 2,237,373	\$ 1,859,245	\$ 2,232,134	\$ 2,055,114	\$ 2,126,143	\$ 2,148,595	\$ 3,475,955	\$ 4,911,820
Non-Financial Assets											
Tangible Capital Assets	\$ 67,939,969	\$ 68,968,969	\$ 75,393,969	\$ 80,653,969	\$ 84,378,969	\$ 87,003,969	\$ 88,983,969	\$ 91,623,969	\$ 94,113,969	\$ 96,753,969	\$ 98,193,969
Additions to Tangible Capital Assets	\$ 1,029,000	\$ 6,425,000	\$ 5,260,000	\$ 3,725,000	\$ 2,625,000	\$ 1,980,000	\$ 2,640,000	\$ 2,490,000	\$ 2,640,000	\$ 1,440,000	\$ 1,440,000
Accumulated Amortization	\$ 25,727,683	\$ 26,913,642	\$ 28,179,913	\$ 29,511,934	\$ 30,890,517	\$ 32,301,913	\$ 33,738,059	\$ 35,207,205	\$ 36,707,476	\$ 38,240,747	\$ 39,792,018
Total Non-Financial Assets	\$ 43,241,286	\$ 48,480,328	\$ 52,474,057	\$ 54,867,036	\$ 56,113,452	\$ 56,682,056	\$ 57,885,910	\$ 58,906,764	\$ 60,046,493	\$ 59,953,222	\$ 59,841,951
Accumulated Surplus	\$ 54,775,453	\$ 55,528,348	\$ 56,296,414	\$ 57,104,409	\$ 57,972,697	\$ 58,914,190	\$ 59,941,024	\$ 61,032,907	\$ 62,195,088	\$ 63,429,177	\$ 64,753,771
Cash as a % of Non-Financial Assets	26.9%	14.6%	7.3%	4.1%	3.3%	3.9%	3.6%	3.6%	3.6%	5.8%	8.2%
Debt as a % of Non-Financial Assets	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Wastewater Financial Plan—O.Reg. 453/07

- Statement of Financial Operations**—This statement summarizes the revenues and expenditures. The expenditures include ongoing operating costs plus asset amortization. This statement indicates that the system and its asset base are projected to be maintained with funds being available each year for future capital renewal or major maintenance. As shown in the statement of financial operations and in the graph below, the Municipality is generating excess revenues throughout the forecast period.
- Cash Receipts or Gross Cash Payments (Cash Flows)** —The cash flow statement summarizes how the water system is expected to generate and utilize cash resources. The transactions that generate and use cash include the projection of cash to be received from revenues, cash to be used for operating expenditures and financing charges, cash projected to be used to acquire capital assets and projected financial transactions that are the proceeds from debt or debt principal repayment.



- Accumulated Surplus**—Another financial indicator that is reflected in the financial position statement is the accumulated surplus. This indicator represents cash on hand plus the net book value of tangible capital assets less debt. The accumulated surplus is forecast is shown below and in the Statement of Financial Position.



- Tangible Capital Assets (Net Book Value)** - Wastewater systems have a great deal of resources tied up in tangible capital assets and managing these assets is critical to maintaining current and future levels of service. An increase in net book value of tangible capital assets is an indication that assets have been renewed faster than they were used. A decrease in net book value indicates that assets are being used, or amortized, faster than they are renewed. The net book value is projected to increase for wastewater, from \$43.8 million in 2019 to \$76.6 million in 2029.



Statement of Financial Operations—Wastewater

	Budget	Projected									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenues											
Rate Revenue Requirements	\$ 2,950,000	\$ 3,570,705	\$ 4,320,553	\$ 5,227,869	\$ 5,405,617	\$ 5,573,191	\$ 5,745,960	\$ 5,912,593	\$ 6,084,058	\$ 6,260,495	\$ 6,442,050
Adelaide - Metcalfe Revenues	\$ 12,400	\$ 15,009	\$ 18,161	\$ 21,975	\$ 22,722	\$ 23,426	\$ 24,153	\$ 24,853	\$ 25,574	\$ 26,315	\$ 27,078
Other Revenues	\$ 1,000	\$ 1,020	\$ 1,040	\$ 1,061	\$ 1,082	\$ 1,104	\$ 1,126	\$ 1,149	\$ 1,172	\$ 1,195	\$ 1,219
Interest Earnings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total revenues	\$ 2,963,400	\$ 3,586,734	\$ 4,339,754	\$ 5,250,905	\$ 5,429,421	\$ 5,597,721	\$ 5,771,238	\$ 5,938,594	\$ 6,110,803	\$ 6,288,006	\$ 6,470,347
Operating Expenses											
Salaries, Wages, Benefits	\$ 453,000	\$ 462,060	\$ 471,301	\$ 480,727	\$ 490,342	\$ 500,149	\$ 510,152	\$ 520,355	\$ 530,762	\$ 541,377	\$ 552,204
Admin OH Fee	\$ 135,000	\$ 137,700	\$ 140,454	\$ 143,263	\$ 146,128	\$ 149,051	\$ 152,032	\$ 155,073	\$ 158,174	\$ 161,337	\$ 164,564
Contracted Services	\$ 45,500	\$ 46,410	\$ 47,338	\$ 48,285	\$ 49,251	\$ 50,236	\$ 51,240	\$ 52,265	\$ 53,311	\$ 54,377	\$ 55,464
Utilities	\$ 323,500	\$ 329,970	\$ 336,569	\$ 343,301	\$ 350,167	\$ 357,170	\$ 364,314	\$ 371,600	\$ 379,032	\$ 386,612	\$ 394,345
Other Expenses	\$ 702,764	\$ 766,820	\$ 882,156	\$ 999,799	\$ 1,069,795	\$ 1,091,191	\$ 1,113,015	\$ 1,135,275	\$ 1,157,981	\$ 1,181,140	\$ 1,204,763
Transfer to Fleet Reserve	\$ 20,600	\$ 21,012	\$ 21,432	\$ 21,861	\$ 22,298	\$ 22,744	\$ 23,199	\$ 23,663	\$ 24,136	\$ 24,619	\$ 25,111
Total Operating expenses	\$ 1,680,364	\$ 1,763,972	\$ 1,899,251	\$ 2,037,236	\$ 2,127,981	\$ 2,170,540	\$ 2,213,951	\$ 2,258,230	\$ 2,303,395	\$ 2,349,463	\$ 2,396,452
Debt Charges											
Debt Charges - Interest Expenses	\$ -	\$ -	\$ 52,200	\$ 76,279	\$ 138,445	\$ 171,904	\$ 216,749	\$ 311,581	\$ 310,771	\$ 309,095	\$ 306,528
Amortization Expense											
Amortization of tangible capital assets	\$ 859,390	\$ 896,828	\$ 950,265	\$ 1,004,765	\$ 1,069,453	\$ 1,156,515	\$ 1,201,265	\$ 1,271,765	\$ 1,329,140	\$ 1,361,515	\$ 1,397,015
Total Expenses	\$ 2,539,754	\$ 2,660,799	\$ 2,901,716	\$ 3,118,280	\$ 3,335,878	\$ 3,498,959	\$ 3,631,965	\$ 3,841,576	\$ 3,943,306	\$ 4,020,072	\$ 4,099,995
Annual Surplus/Deficit	\$ 423,646	\$ 925,935	\$ 1,438,038	\$ 2,132,625	\$ 2,093,543	\$ 2,098,762	\$ 2,139,273	\$ 2,097,018	\$ 2,167,497	\$ 2,267,933	\$ 2,370,352



Statement of Cash Flow/Cash Receipts—Wastewater

	Budget	Projected									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Revenues	\$ 2,963,400	\$ 3,586,734	\$ 4,339,754	\$ 5,250,905	\$ 5,429,421	\$ 5,597,721	\$ 5,771,238	\$ 5,938,594	\$ 6,110,803	\$ 6,288,006	\$ 6,470,347
Cash Paid For											
Operating Costs	\$ 1,680,364	\$ 1,763,972	\$ 1,899,251	\$ 2,037,236	\$ 2,127,981	\$ 2,170,540	\$ 2,213,951	\$ 2,258,230	\$ 2,303,395	\$ 2,349,463	\$ 2,396,452
Debt Repayment - Debt Interest	\$ -	\$ -	\$ 52,200	\$ 76,279	\$ 138,445	\$ 171,904	\$ 216,749	\$ 311,581	\$ 310,771	\$ 309,095	\$ 306,528
Cash Provided from Operating Transactions	\$ 1,283,036	\$ 1,822,762	\$ 2,388,303	\$ 3,137,390	\$ 3,162,995	\$ 3,255,277	\$ 3,340,538	\$ 3,368,783	\$ 3,496,637	\$ 3,629,448	\$ 3,767,367
Capital Transactions											
Acquisition of TCA	\$ 2,995,000	\$ 4,275,000	\$ 4,360,000	\$ 5,175,000	\$ 6,965,000	\$ 3,580,000	\$ 5,640,000	\$ 4,590,000	\$ 2,590,000	\$ 2,840,000	\$ 4,540,000
Finance Transactions											
DC Exemptions											
Proceeds from Debt Issuance	\$ -	\$ 2,000,000	\$ 1,000,000	\$ 2,500,000	\$ 1,500,000	\$ 2,000,000	\$ 4,000,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
Proceeds from DCs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Principal Repayment	\$ -	\$ -	\$ 77,431	\$ 118,168	\$ 218,041	\$ 281,805	\$ 366,591	\$ 531,021	\$ 564,239	\$ 598,323	\$ 633,297
Increase/(Decrease) in Cash Equivalents	\$ (1,711,964)	\$ (452,238)	\$ (1,049,128)	\$ 344,222	\$ (2,520,045)	\$ 1,393,472	\$ 1,333,947	\$ (1,252,238)	\$ 842,398	\$ 691,125	\$ (905,930)
Cash and Cash Equivalents at Beginning Balance	\$ 6,375,062	\$ 4,663,098	\$ 4,210,860	\$ 3,161,732	\$ 3,505,955	\$ 985,909	\$ 2,379,381	\$ 3,713,328	\$ 2,461,090	\$ 3,303,488	\$ 3,994,613
Cash and Cash Equivalents at Ending Balance	\$ 4,663,098	\$ 4,210,860	\$ 3,161,732	\$ 3,505,955	\$ 985,909	\$ 2,379,381	\$ 3,713,328	\$ 2,461,090	\$ 3,303,488	\$ 3,994,613	\$ 3,088,683

Statement of Financial Position—Wastewater

	Budget	Projected									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Financial Assets											
Cash	\$ 4,663,098	\$ 4,210,860	\$ 3,161,732	\$ 3,505,955	\$ 985,909	\$ 2,379,381	\$ 3,713,328	\$ 2,461,090	\$ 3,303,488	\$ 3,994,613	\$ 3,088,683
Liabilities											
Debt - Principal Outstanding	\$ 1,576,517	\$ 3,331,676	\$ 4,000,035	\$ 6,182,620	\$ 7,257,521	\$ 8,760,541	\$ 12,170,340	\$ 11,906,943	\$ 11,842,704	\$ 11,744,381	\$ 11,611,084
Net Financial Assets	\$ 3,086,581	\$ 879,184	\$ (838,303)	\$ (2,676,665)	\$ (6,271,612)	\$ (6,381,160)	\$ (8,457,012)	\$ (9,445,854)	\$ (8,539,217)	\$ (7,749,768)	\$ (8,522,401)
Non-Financial Assets											
Tangible Capital Assets	\$ 53,204,328	\$ 56,199,328	\$ 60,474,328	\$ 64,834,328	\$ 70,009,328	\$ 76,974,328	\$ 80,554,328	\$ 86,194,328	\$ 90,784,328	\$ 93,374,328	\$ 96,214,328
Additions to Tangible Capital Assets	\$ 2,995,000	\$ 4,275,000	\$ 4,360,000	\$ 5,175,000	\$ 6,965,000	\$ 3,580,000	\$ 5,640,000	\$ 4,590,000	\$ 2,590,000	\$ 2,840,000	\$ 4,540,000
Accumulated Amortization	\$ 12,521,165	\$ 13,417,993	\$ 14,368,258	\$ 15,373,023	\$ 16,442,475	\$ 17,598,990	\$ 18,800,255	\$ 20,072,020	\$ 21,401,160	\$ 22,762,675	\$ 24,159,690
Total Non-Financial Assets	\$ 43,678,163	\$ 47,056,336	\$ 50,466,071	\$ 54,636,306	\$ 60,531,853	\$ 62,955,338	\$ 67,394,073	\$ 70,712,308	\$ 71,973,168	\$ 73,451,653	\$ 76,594,638
Accumulated Surplus	\$ 46,764,744	\$ 47,935,520	\$ 49,627,767	\$ 51,959,640	\$ 54,260,241	\$ 56,574,178	\$ 58,937,061	\$ 61,266,454	\$ 63,433,951	\$ 65,701,885	\$ 68,072,237
Cash as a % of Non-Financial Assets	10.7%	8.9%	6.3%	6.4%	1.6%	3.8%	5.5%	3.5%	4.6%	5.4%	4.0%
Debt as a % of Non-Financial Assets	3.6%	7.1%	7.9%	11.3%	12.0%	13.9%	18.1%	16.8%	16.5%	16.0%	15.2%

Appendix A—10 Year Capital Budget

Appendix A—Water 10 Year Capital Budget

Capital Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Cost
Parkhouse Dr Reconstricton DC Works	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000
Ellor Street Phase 2 Design	\$ 7,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,500
Caradoc Street Reco nstruction Phase 2	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000
Mogg Street Extension Looping	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,000
Automated Water Meter Reading Installation	\$ 3,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,200,000
SCADA Upgrades Part 1 of 3 (plus MB WWTF Needs)	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
Water Facilities Upgrades (MB Res, MB tower, Strath Res)	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000
Albert St San Sewer & County Rd - Carrie to Town Limit Design	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,000
Pannell Lane Design - Joint with A.M.	\$ 22,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,500
Drury Lane Construction (Saulsbry to Albert)	\$ -	\$ 1,125,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,125,000
SCADA Upgrades Part 2 of 3	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,000
Strathroy Water Tower (Rehab/Replace)	\$ -	\$ 3,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,500,000
Oriole Drive MS3 Upgrades	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000
Ellor Street Phase 2 Construction	\$ -	\$ 360,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 360,000
Queen Street Reconstruction - English to Carroll	\$ -	\$ -	\$ 975,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 975,000
Queen Street Reconstruction - Metcalfe to High	\$ -	\$ -	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 600,000
Rougham Road Reconstruction - South of Glendon	\$ -	\$ -	\$ 1,050,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,050,000
SCADA Upgrades Part 3 of 3	\$ -	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,000
Albert St San Sewer & County Road - Carrie to Town Limit	\$ -	\$ -	\$ 975,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 975,000
Rougham Road Reconstruction - North of Glendon	\$ -	\$ -	\$ -	\$ 1,050,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,050,000
Infrastructure Renewal Annual Design Allocation	\$ -	\$ -	\$ -	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 630,000
Infrastructure Renewal Annual Reconstruction Allocation	\$ -	\$ -	\$ -	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 7,350,000
MT B To wer Upgrades	\$ -	\$ -	\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,000
Pump Station Controls Upgrades - Eliminate Bristols	\$ -	\$ -	\$ -	\$ 375,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 375,000
DC Municipal BTE Share Allowance	\$ -	\$ -	\$ -	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,800,000
Pannell Lane Reconstruction - Head to Centre	\$ -	\$ -	\$ -	\$ -	\$ 540,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 540,000
High St Reconstruction & PS Elimination	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000
York Street Servicing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,050,000	\$ -	\$ -	\$ -	\$ 1,050,000
Falconbridge Road Reconstruction - Rougham to Adelaide	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 900,000	\$ -	\$ -	\$ 900,000
MT B Reservoir Tanks, Drainage & Paving Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000	\$ -	\$ -	\$ 300,000
Computerized operations expansions	\$ -	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
TOTAL	\$ 6,425,000	\$ 5,260,000	\$ 3,725,000	\$ 2,625,000	\$ 1,980,000	\$ 2,640,000	\$ 2,490,000	\$ 2,640,000	\$ 1,440,000	\$ 1,440,000	\$ 30,665,000

Appendix A—Wastewater 10 Year Capital Budget

Capital Project	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total Cost
Parkhouse Dr Reconstruction DC Works	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000
Ellor Street Phase 2 Design	\$ 7,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,500
Caradoc Street Reconstruction Phase 2	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000
Mogg Street Extension Looping	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,000
Sewage Facilities Upgrades Part 1 of 3 - Screens and Blowers	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 750,000
SCADA Upgrades Part 1 of 3 (plus MB WWTF Needs)	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000
Aeration Lagoon Cleaning	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000
Albert St San Sewer & County Rd - Carrie to Town Limit Design	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,000
Pannell Lane Design - Joint with A.M.	\$ 22,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,500
Drury Lane Construction (Saulsbury to Albert)	\$ -	\$ 1,125,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,125,000
SCADA Upgrades Part 2 of 3	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,000
Sewage Facilities Upgrades Part 2 of 3 - second aeration tank	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000
Albert St Sewage PS upgrades and FM Carrie St Connection	\$ -	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 750,000
Ellor Street Phase 2 Construction	\$ -	\$ 360,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 360,000
Queen Street Reconstruction - English to Carroll	\$ -	\$ -	\$ 975,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 975,000
Queen Street Reconstruction - Metcalfe to High	\$ -	\$ -	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 600,000
Rougham Road Reconstruction - South of Glendon	\$ -	\$ -	\$ 1,050,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,050,000
SCADA Upgrades Part 3 of 3	\$ -	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,000
Albert St San Sewer & County Road - Carrie to Town Limit	\$ -	\$ -	\$ 975,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 975,000
Rougham Road Reconstruction - North of Glendon	\$ -	\$ -	\$ -	\$ 1,050,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,050,000
Infrastructure Renewal Annual Design Allocation	\$ -	\$ -	\$ -	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 630,000
Infrastructure Renewal Annual Reconstruction Allocation	\$ -	\$ -	\$ -	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 7,350,000
South Strathroy Drainage Outlet and Trunk Sanitary	\$ -	\$ -	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000
Pump Station Controls Upgrades - Eliminate Bristols	\$ -	\$ -	\$ -	\$ 375,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 375,000
DC Municipal BTE Share Allowance	\$ -	\$ -	\$ -	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,800,000
Pannell Lane Reconstruction - Head to Centre	\$ -	\$ -	\$ -	\$ -	\$ 540,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 540,000
High St Reconstruction & PS Elimination	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000
York Street Servicing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,050,000	\$ -	\$ -	\$ -	\$ 1,050,000
Falconbridge Road Reconstruction - Rougham to Adelaide	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 900,000	\$ -	\$ -	\$ 900,000
Strathroy WWTP Lagoon Rehabilitation Study	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000
Albert St Sewage PS & FM upgrade needs design	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,000
Pontoon Barge for Aeration Lagoon	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,000
Sewage Facilities Upgrades Part 3 of 3 - Filters and UV Upgrades	\$ -	\$ -	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 750,000
Albert St PS FM to Treatment Plant	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000
Head St Sanitary Sewer upsizing near Pannell Lane	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000
Strathroy WWTP Sludge Tank Design	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000
McNab PS Replacement	\$ -	\$ -	\$ -	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000
Mt B WWTP Equalization Tank	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000
Albert St Pump Station Controls Rebuild	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
Strathroy WWTP Sludge Tank Construction	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000
Aeration Lagoon Replacement with Tank	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ 2,000,000
Small Pump Station Rehabilitations - Bella	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000
Small Pump Station Rehabilitations - Ewart	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ 100,000
Mt B WWTP RBC Building	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,300,000	\$ -	\$ 1,300,000
Small Pump Station Rehabilitations - Amella	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ 100,000
Strathroy WWTP Lagoon Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ 3,000,000
Small Pump Station Rehabilitations - Mill Pond	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ 100,000
Vector truck	\$ -	\$ -	\$ -	\$ 700,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 700,000
Computerized operations expansions	\$ -	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
TOTAL	\$ 4,275,000	\$ 4,360,000	\$ 5,175,000	\$ 6,965,000	\$ 3,580,000	\$ 5,640,000	\$ 4,590,000	\$ 2,590,000	\$ 2,840,000	\$ 4,540,000	\$ 44,555,000