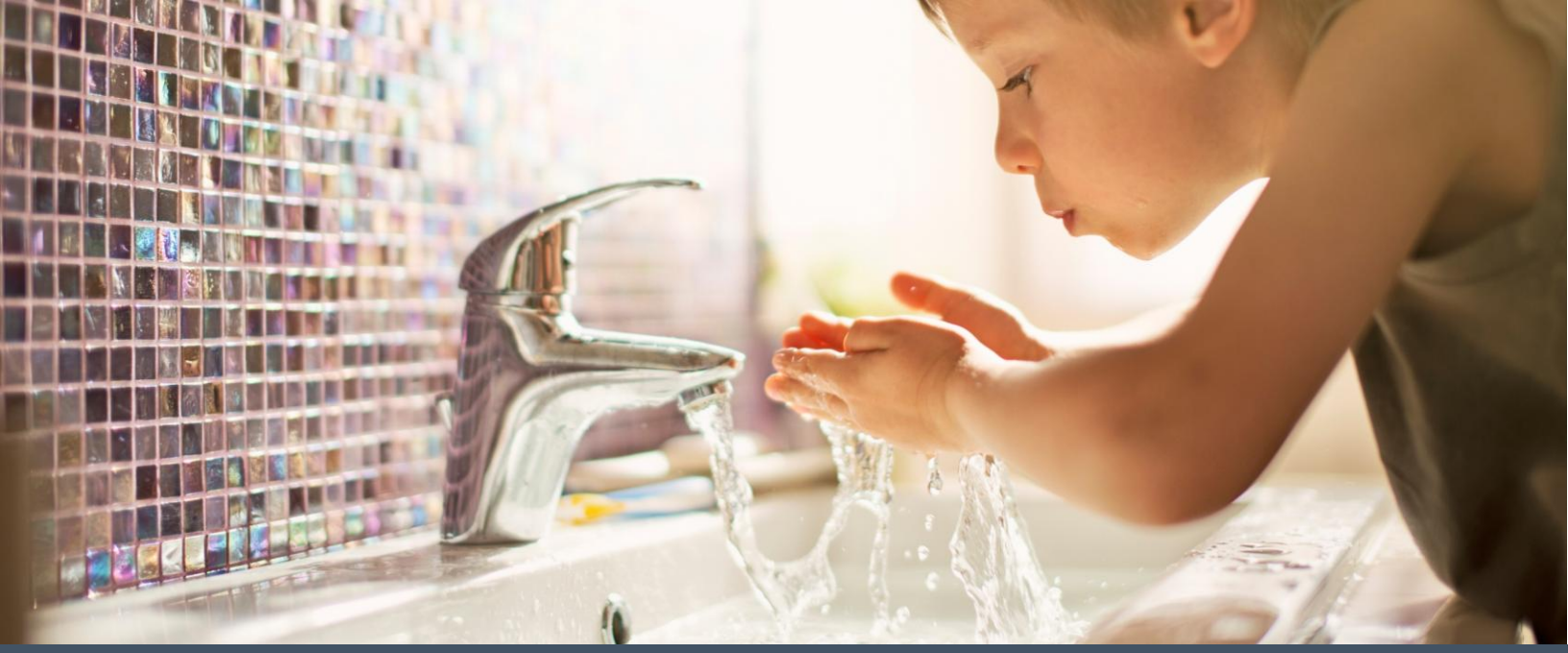

Water and Wastewater Asset Management Plan and Rate Study

Village of Merrickville-Wolford

Draft Report

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July 9, 2025

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List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
C.P.I.	Consumer Price Index
D.C.	Development Charges
O. Reg.	Ontario Regulation

Report

Chapter 1
Introduction

1. Introduction

1.1 Overview

The Village of Merrickville-Wolford (Village) retained Watson & Associates Economists Ltd. (Watson) to:

- Update the water and wastewater components of the Village's 2021 Asset Management Plan for core infrastructure assets; and
- Prepare a water and wastewater rate study.

To that end, this report incorporates these traditionally separate documents under one cover in order to provide a comprehensive view of the long-term asset management planning decisions and any resultant financial impacts. The following sections detail the overall purpose and objectives of both components.

1.1.1 Asset Management Plan Overview

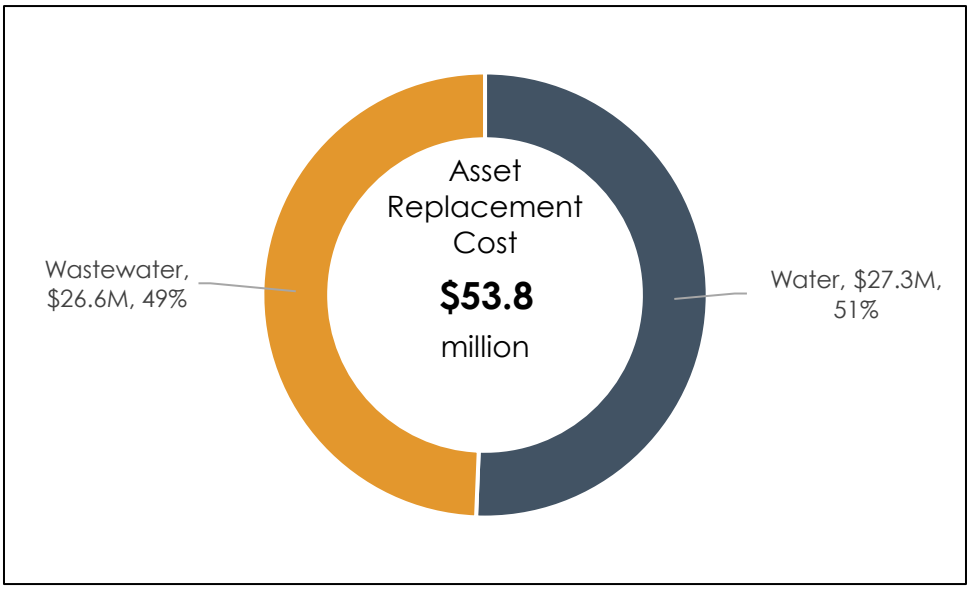
The main purpose of this update is to update the water and wastewater components of the Village's asset management plan, in order to bring the Village into compliance with the July 1, 2025 requirements of Ontario Regulation (O. Reg.) 588/17. This asset management plan update provides updated replacement cost valuations, updated information on current levels of service, identifies proposed levels of service, and includes a detailed financial strategy.

The Village's water supply system comprises a network of distribution mains, in addition to three wells and associated treatment and pumping facilities. The Village's wastewater system comprises a network of collection mains, a pumping station, and a wastewater treatment facility. The estimated current replacement cost for the Village's water and wastewater infrastructure is approximately $53.8 million. Water and wastewater assets represent similar shares of this total replacement cost at approximately $27.3 million (51%) for water assets and $26.6 million (49%) for wastewater assets The distribution of replacement cost by asset class is provided in Table 1-1 and is presented graphically in Figure 1-1.

Table 1-1
Distribution of Replacement Cost by Asset Class

Asset Class	Current Replacement Cost	Percentage of Total
Water	$27,260,000	51%
Wastewater	$26,570,000	49%
Total	**$53,830,000**	**100%**

Figure 1-1
Distribution of Replacement Cost by Asset Class



1.1.2 Rate Study Overview

The Village operates and maintains a municipal water supply system that currently services approximately 485 customers and a wastewater collection system that currently services approximately 426 customers.

The Village recovers all costs related to operating, maintaining, and rehabilitating its water and wastewater systems through user fees. Customers are billed a monthly base charge differentiated by service type (i.e., residential units and non-residential units) for both water and wastewater. Additionally, a consumptive charge is applied to metered water consumption and is billed for both water and wastewater. Lastly, bills are imposed on a bi-monthly basis and the base charge includes 15 m^3 and 30 m^3 of water consumption per billing cycle for residential units and non-residential units, respectively.

A summary of the water and wastewater rates that are currently in effect is provided in Table 1-2.

Table 1-2
Village of Merrickville-Wolford
2025 Water and Wastewater Rates

Service Type	Water		Wastewater		Consumption included in Base Rate (per 2 months)
	Base Rate (per month)	Metered Rate (per m^3)	Base Rate (per month)	Metered Rate (per m^3)	
Residential Unit	$55.92	$2.97	$111.84	$5.97	15
Non-Residential Unit	$85.79	$2.97	$171.58	$5.97	30

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

- Update water and wastewater service demand assumptions based on analysis of the current customer profile, historical consumption, and recent trends;
- Estimate future consumption levels by applying demand assumptions to forecast customer growth;
- Identify current and future water and wastewater system capital needs to assess the immediate and longer-term implications;
- Build a capital program that blends lifecycle needs arising from the Village's capital budget, Asset Management Plan, and specific needs identified by staff;
- Identify potential methods of cost recovery with respect to the capital needs listing. These recovery methods may include other statutory authorities (e.g., *Development Charges Act, 1997*, *Municipal Act*, etc.) as an offset to recovery through the water and wastewater rates;
- Forecast annual operating costs and rate-based funding requirements;
- Develop a long-term water and wastewater rate forecast;
- Provide an impact assessment on the rate payers; and
- Present findings to staff and Council for their consideration.

1.2 Legislative Context

1.2.1 Legislative Context for Asset Management Plans

Asset management planning in Ontario has evolved significantly over the past decade.

Prior to 2009, it was common municipal practice to expense capital assets in the year of their acquisition or construction. Consequently, this meant that many municipalities did not have comprehensive tracking of their capital assets, especially as it related to any changes that capital assets may have undergone throughout their lifecycles (i.e. betterments, disposals, etc.). Furthermore, this also meant that many municipalities had not yet established inventories of their capital assets, both in their accounting structures and financial statements. As a result of revisions to *Section 3150 – Tangible Capital Assets of the Public Sector Accounting Board* (PSAB) handbook, which came into effect for the 2009 fiscal year, municipalities were forced to change this long-standing practice and capitalize their tangible capital assets over the term of the asset's expected useful service life. In order to comply with this revision, municipalities needed to establish asset inventories, if none previously existed.

In 2012, the Province launched the Municipal Infrastructure Strategy, which required municipalities and local service boards seeking provincial funding to demonstrate how any proposed project fits within a broader asset management plan. In addition, asset management plans encompassing all municipal assets needed to be prepared by the end of 2016 to meet Federal Gas Tax (now the Canada Community-Building Fund) agreement requirements. To help define the components of municipal asset management plans, the Province produced a document *entitled Building Together: Guide for Municipal Asset Management Plans*. This document outlined the information and analyses that were required to be included in municipal asset management plans under this initiative.

The *Province's Infrastructure for Jobs and Prosperity Act, 2015* (IJPA) was proclaimed on May 1, 2016. This legislation detailed principles for evidence-based and sustainable long-term infrastructure planning. The IJPA also gave the Province the authority to guide municipal asset management planning by way of regulation. In late 2017, the Province introduced O. Reg. 588/17 under the IJPA. The intent of O. Reg. 588/17 is to establish standard content for municipal asset management plans. Specifically, the regulation requires that asset management plans be developed that define levels of

service, identify the lifecycle activities that will be undertaken to achieve those levels of service, and provide a financial strategy to support the levels of service and lifecycle activities.

1.2.2 Legislative Context for Water and Wastewater

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

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

The following sections describe significant applicable regulatory areas.

1.2.2.1 Sustainable Water and Sewage Systems Act

The *Sustainable Water and Sewage Systems Act* 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. In total, there were 40 areas within the Act to which the Minister may make regulations; however regulations were never issued. On December 31, 2012, the *Sustainable Water and Sewage Systems Act* was repealed.

1.2.2.2 Safe Drinking Water Act

The *Safe Drinking Water Act* was passed in December 2002. The *Safe Drinking Water Act* provides for 50 of the 93 Walkerton Part II recommendations. It focuses on the administrative and operational aspects of the provision of water.

The purposes of the *Safe Drinking Water Act* are to "recognize that the people of Ontario are entitled to expect their drinking water to be safe and to provide for the protection of human health and the prevention of drinking water health hazards through

the control and regulation of drinking water systems and drinking water testing. 2002, c. 32, s. 1."

The following is a brief summary of the key elements included in the *Safe Drinking Water Act*:

- Mandatory licensing and accreditation of testing laboratories;
- New standards for treatment, distribution quality and testing;
- Mandatory operator training and certification;
- Mandatory licensing of municipal water providers;
- Stronger enforcement and compliance provisions; and
- "Standard of care" requirements for municipalities.

This legislation impacts the costs of operating a water system with the need for higher skilled operators including increased training costs, increased reporting protocols and requirements, continuing enhancements to quality standards, and the costs to license each water system.

1.2.2.3 Financial Plans Regulation

On August 16, 2007, the Ministry of Environment introduced Ontario Regulation (O. Reg.) 453/07 which requires the preparation of financial plans for water systems (and municipalities are encouraged to prepare plans for wastewater systems). The Ministry of Environment has also provided a Financial Plan Guideline to assist municipalities with 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 to obtain a Drinking Water Licence.
- The plan is to be completed, approved by Council Resolution, and submitted to the Ministry of Municipal Affairs and Housing as part of the application for receiving approval of a 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*, the preparation of the plan is mandatory for water services and encouraged for wastewater services.

- The plan is considered a living document (i.e., it can be updated if there are significant changes to budgets) but an update will need to be undertaken at a minimum every five years.
- The plans generally require the forecasting of capital, operating and reserve fund positions, and providing detailed capital inventories. In addition, Public Sector Accounting Board full accrual 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, net debt, etc.).
- The financial plans must be made available to the public (at no charge) upon request and be available on the municipality's web site. The availability of this information must also be advertised.

In general, the financial principles of this regulation follow the intent of the *Sustainable Water and Sewage Systems Act*, *2002* to move municipalities towards financial sustainability for water services. 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-Water and Wastewater Systems") has been developed to assist municipalities in understanding the Province's direction and provides 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 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: 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.

1.2.2.4 Water Opportunities Act

The *Water Opportunities Act* received Royal Assent on November 29, 2010. The Act provides for the following elements:

- Foster innovative water, wastewater, and stormwater technologies, services, and practices in the private and public sectors;
- Prepare water conservation plans to achieve water conservation targets established by the regulations; and
- Prepare 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 plan and requires a more detailed review of the water financial plan, and requires a full plan for wastewater and stormwater services; and
- Regulations (when issued) 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;
- Financial Plan;
- For water, a water conservation plan;
- 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 that:

- May relate to the financing, operation, or maintenance of a municipal service or to any other matter in respect of which information may be required to be included in a plan; and
- 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;
- Portions of the plan that will require certification;
- Public consultation process; and
- Limitations, updates, refinements, etc.

1.3 Asset Management Plan Development

The development of this asset management plan was guided by asset management strategies identified through discussions with the Village's asset managers, information gleaned through reviews of long-term planning documents and studies, service-level objectives and their impacts on the management of assets identified through engagements with Council and staff, and detailed analyses of the Village's capital asset

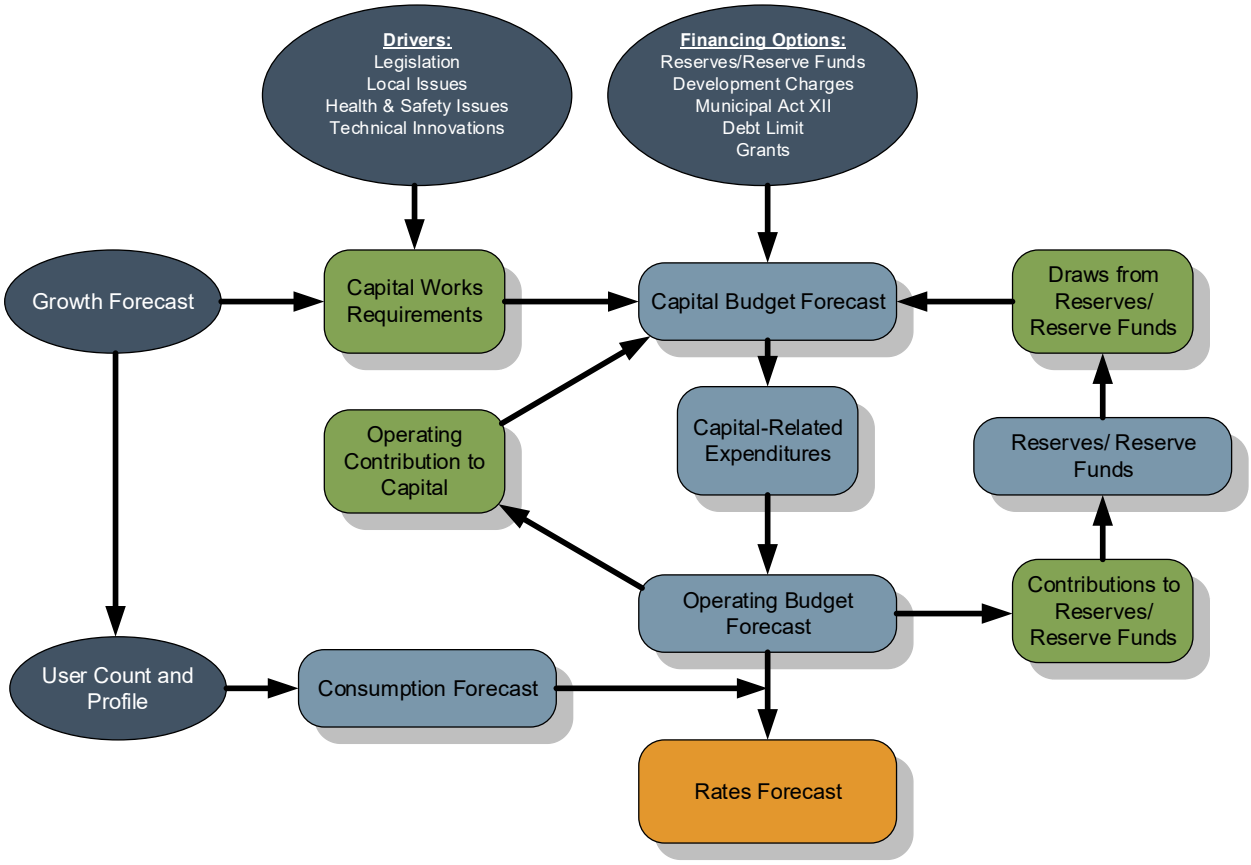
and financial data. The key steps in the development process of this asset management plan are summarized below:

1. Update underlying asset data such as quantities, ages, condition ratings, useful service life expectations, replacement cost valuations, lifecycle activity costing, etc.
2. Define and assess the current condition of assets using a combination of staff input, existing background reports and studies, and age-based condition analysis.
3. Update current levels of service based on analyses of available data and review of various background reports and identify proposed levels of service through discussions with the Village's staff.
4. Compile a lifecycle expenditure forecast to address known capital needs across the water and wastewater systems to inform the financial strategy considered as part of the rate study.
5. Document the asset management plan in a formal report to inform future decision-making and to communicate planning to the public.

1.4 Water and Wastewater Rate Calculation Methodology

Figure 1-2 illustrates the general methodology used in determining the full cost recovery water and wastewater rate forecast.

Figure 1-2
Water and Wastewater Rate Calculation Methodology



The methodology employed generally consists of five major elements:

1.4.1 Customer Demands and Consumption Forecast

As noted in Section 1.1.2, the Village employs a rate structure consisting of a monthly base charge in addition to a consumptive rate. The consumptive rate is imposed at a constant rate based on metered water consumption.

This first step in the analysis is important as it produces the current base revenue by source and assumptions for forecasting purposes. The annual base charge revenues are forecast with customer growth. The customer profile forecast is modeled based on anticipated residential development, as identified through discussions with the Village's planning consultants and staff.

The water consumption forecast is prepared by applying average annual consumption estimates to the number of residential units expected to connect to the water and

wastewater systems in each year of the forecast period. Average annual consumption estimates are based on average consumption levels over the two-year period from November 2022 to October 2024.

1.4.2 Capital Needs Forecast

The capital needs forecast is developed to measure program/service level adjustments, lifecycle requirements, and growth-related needs. Various sources of information were considered in developing the capital needs forecast, as discussed in further detail within section 3.2.

Capital expenditures are forecast with inflationary adjustments based on capital cost indexes (i.e., the Statistics Canada Building Construction Price Index for non-residential buildings).

1.4.3 Capital Funding Plan

The capital funding plan considers the potential funding sources available to address the capital needs forecast. The sources of capital funding include rate-based support, reserves/reserve funds, grant funding, development charge revenues, and debt for program/service level improvements. The use of rate-based funding is measured against the revenue projections and affordability impacts. The reserve/reserve fund sources are measured against the sustainability of these funds, relative to lifecycle demands, revenue projections, and affordability impacts. Debt financing is considered for significant capital expenditures where funding is required beyond long-term lifecycle needs or to facilitate rate transition policies. Debt financing is measured against annual repayment limits to ensure a practical and sustainable funding mix.

1.4.4 Operating Budget Forecast

The operating budget forecast considers adjustments to the Village's base budget reflecting program/service level changes, operating fund impacts associated with infrastructure, and financing for capital needs. The operating expenditures are forecast with inflationary adjustments and growth in service demand, based on fixed and variable cost characteristics. The operating budget forecast ties the capital funding plan and reserve/reserve fund continuity forecast to the rate-based revenue projections. This ensures sufficient funding for both the ongoing annual operation and maintenance of the water and wastewater systems, as well as the capital cost requirements to ensure

service sustainability. Operating revenues are projected to identify the billing revenues net of anticipated operating revenues.

1.4.5 Rate Forecast and Structure

The rate forecast and structure component of the analysis considers various rate structures to recover the forecast rate-based revenue from the projected customer demands. At this stage in the analysis, the full costs of service are measured against the customer growth and consumption demands to determine full cost recovery rates. The analysis may consider alternative structures, consistent with municipal policies/strategies, industry practice, and customer affordability. Providing context to the rate forecast, the results are quantified to measure the impacts on a range of customer types and in relation to other municipalities.

Chapter 2
Forecast Growth and Service Demands

2. Forecast Growth and Service Demands

2.1 Current Service Demands

In preparing the demand forecast for water and wastewater services, detailed billing records were analyzed. These records were used to develop a profile of existing customers. Based on analysis of this information, as of October 2024, the Village was providing service to approximately 485 water customers and 426 wastewater customers.

Under the Village's current rate structure, the base charge is imposed on each individual unit. Therefore, it is important to understand the number of individual units that base charges apply to (billing units). As of October 2024, there were a total of 600 water billing units (including individual units in residential/mixed-use buildings and non-residential buildings) and 533 wastewater billing units.

2.2 Forecast Service Demands

Over the next ten years (i.e., to 2035), the number of water and wastewater billing units is anticipated to increase by 204. This is based on the number committed units including infill vacant properties and approved registered subdivisions, and future development potential. It has been assumed that some of the current wastewater treatment capacity constraints will be mitigated by addressing existing inflow and infiltration issues. Table 2-1 provides the detailed billing unit forecast for the 2025 to 2035 period, showing the number of billing units for water and wastewater.

Consumption records spanning a two-year period from November 2022 to October 2024 were analyzed and used to develop a forecast of water demands for the period from 2025 to 2035. Annual billable consumption levels were analyzed from these consumption records and utilized to calculate an annual billable average per billing unit. Average annual billable water consumption per residential billing unit was approximately 37 m^3.

Applying this estimate to the forecast of new customers results in an estimated increase in billable metered water consumption (for water customers) from approximately 30,300 m^3 in 2024 to 37,900 m^3 by 2035. The annual water consumption associated with wastewater customers is approximately 3,300 m^3 lower in each year. Table 2-2

presents the forecast of annual billable water consumption for water and wastewater customers.

Table 2-1
Village of Merrickville-Wolford
Water and Wastewater Customer Forecast (Billing Units)

Water Customers Forecast	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Billing Units											
Residential Units - Existing	522	522	522	522	522	522	522	522	522	522	522
Residential Units - New	12	36	57	76	95	114	132	150	168	186	204
Total Residential Units	534	558	579	598	617	636	654	672	690	708	726
Non-residential Units - Existing	78	78	78	78	78	78	78	78	78	78	78
Non-residential Units - New	-	-	-	-	-	-	-	-	-	-	-
Total Non-residential Units	78	78	78	78	78	78	78	78	78	78	78

Wastewater Customers Forecast	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Billing Units											
Residential Units - Existing	466	466	466	466	466	466	466	466	466	466	466
Residential Units - New	12	36	57	76	95	114	132	150	168	186	204
Total Residential Units	478	502	523	542	561	580	598	616	634	652	670
Non-residential Units - Existing	67	67	67	67	67	67	67	67	67	67	67
Non-residential Units - New	-	-	-	-	-	-	-	-	-	-	-
Total Non-residential Units	67	67	67	67	67	67	67	67	67	67	67

Table 2-2
Village of Merrickville-Wolford
Billable Water Consumption Forecast (m^3) – Water and Wastewater Customers

Water Customers Forecast	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Billable Consumption (m^3)											
Billable Consumption - existing customers	30,255	30,255	30,255	30,255	30,255	30,255	30,255	30,255	30,255	30,255	30,255
Billable Consumption - new customers	449	1,346	2,132	2,842	3,553	4,264	4,937	5,610	6,283	6,956	7,630
Total Billable Consumption	30,704	31,601	32,387	33,097	33,808	34,519	35,192	35,865	36,538	37,211	37,885

Wastewater Customers Forecast	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Billable Consumption (m^3)											
Billable Consumption - existing customers	26,924	26,924	26,924	26,924	26,924	26,924	26,924	26,924	26,924	26,924	26,924
Billable Consumption - new customers	449	1,346	2,132	2,842	3,553	4,264	4,937	5,610	6,283	6,956	7,630
Total Billable Consumption	27,373	28,270	29,056	29,766	30,477	31,188	31,861	32,534	33,207	33,880	34,554

Chapter 3
Capital Infrastructure Needs

3. Capital Infrastructure Asset Management

3.1 State of Local Infrastructure and Levels of Service

3.1.1 Wastewater

3.1.1.1 State of Local Infrastructure

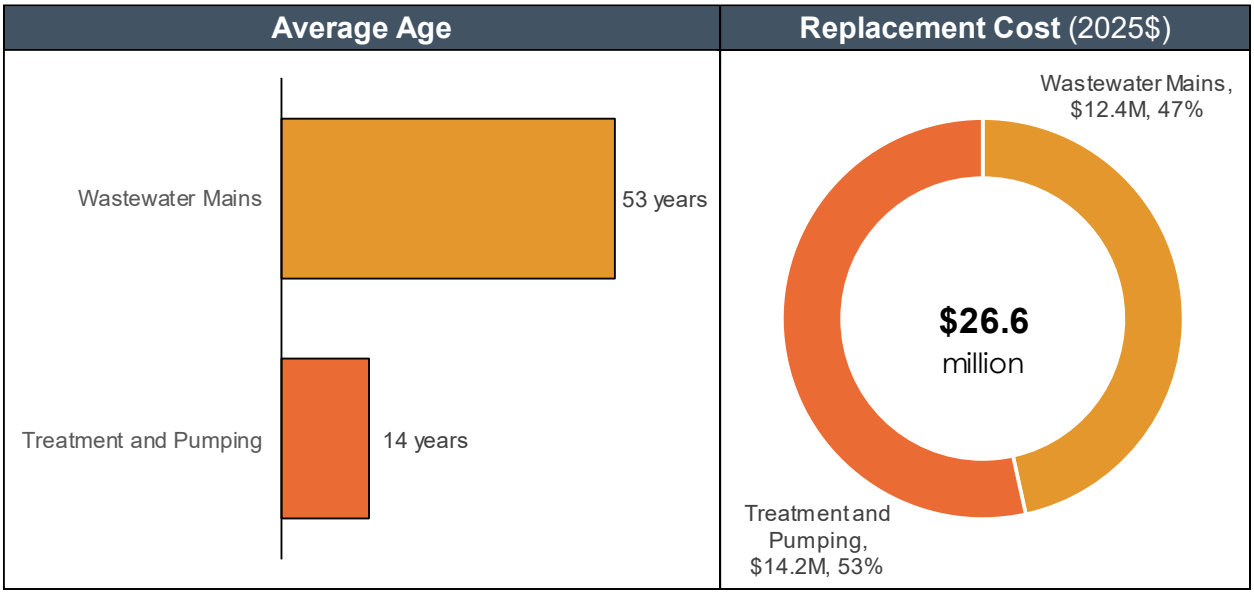
The Village owns and manages a wastewater system servicing customers in the urban areas of the Village of Merrickville that are south of the Rideau River. The Village's wastewater infrastructure comprises approximately 7.3 kilometres of wastewater mains, a wastewater treatment plant, and a pumping station. The combined replacement cost of this infrastructure is estimated at approximately $26.6 million. Table 3-1 provides summary information for the Village's wastewater infrastructure, including quantities, average ages, and replacement costs by asset category. This information is presented graphically in Figure 3-1.

Table 3-1
Wastewater Infrastructure – Summary of Quantity, Age, and Replacement Cost by Asset Category

Asset Category	Quantity	Average Age[1]	Replacement Cost (2025$)
Wastewater Mains	7.3 km	53 years	$12,370,000
Treatment and Pumping	1 treatment facility 1 pumping ttation	14 years[2]	$14,200,000
Total			**$26,570,000**

[1] Average age for linear assets weighted based upon length of pipe segments.
[2] The wastewater treatment plant was replaced in 2011. Data on replacement dates for facility components replaced over the past 14 years is incomplete.

Figure 3-1
Summary Information – Wastewater



3.1.1.2 Condition

The condition of the Village's wastewater assets has not been directly assessed through a physical condition assessment. For the purposes of this asset management plan, the condition of wastewater assets has been evaluated based on age relative to the expected useful life (i.e., based on the percentage of useful life consumed (U.L.C.%)). A brand-new asset would have a U.L.C.% of 0%, indicating that zero percent of the asset's life expectancy has been utilized. Conversely, an asset that has reached its life expectancy would have a U.L.C.% of 100%. It is possible for assets to have a U.L.C.% greater than 100%, which occurs if an asset has exceeded its typical life expectancy but continues to be in service. This is not necessarily a cause for concern; however, it must be recognized that assets that are near or beyond their typical life expectancy are likely to require replacement or rehabilitation in the near term.

To better communicate the condition of the age-based condition ratings, the U.L.C.% ratings have been segmented into qualitative condition states as summarized in Table 3-2. The scale is set to show that if assets are replaced around the expected useful life, they would be in the Fair condition state. The Fair condition state extends to 100% of expected useful life. Beyond 100% of useful life, the probability of failure is assumed to have increased to a point where performance would be characterized as Poor or Very Poor.

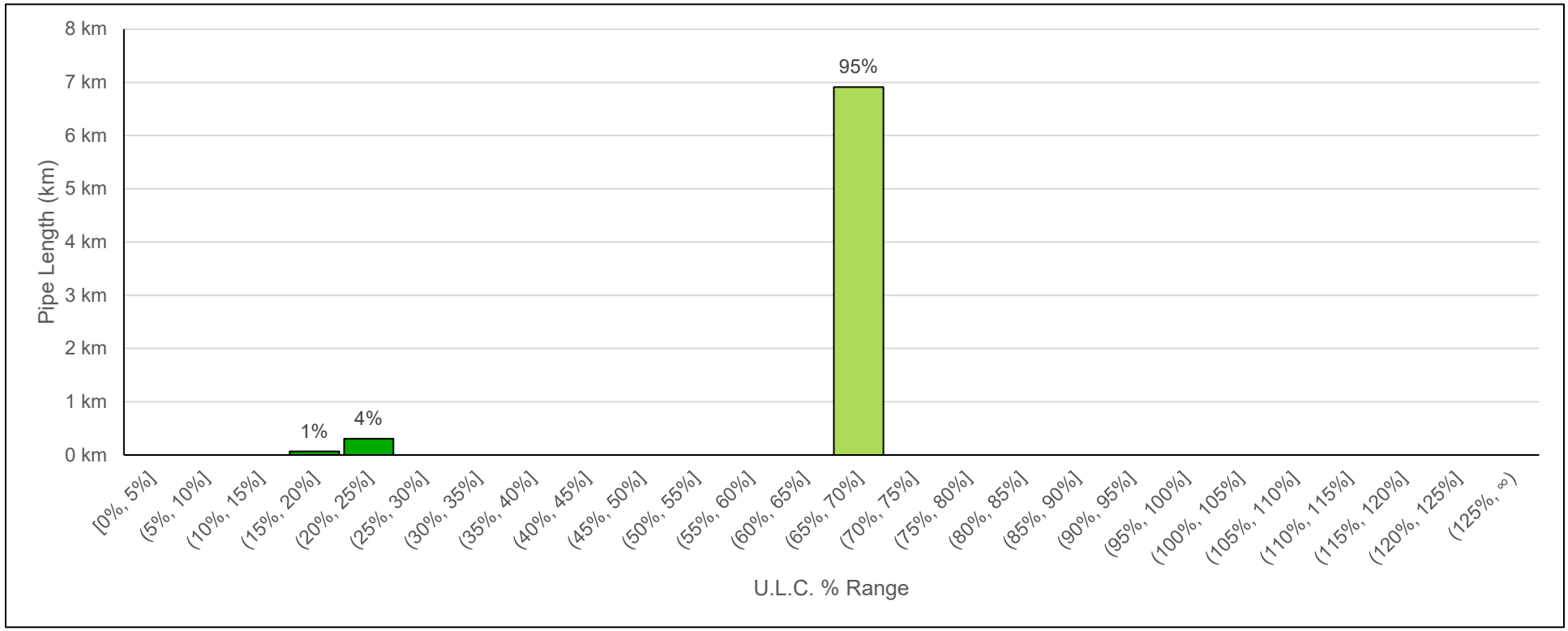
Table 3-2
Condition States Defined with Respect to U.L.C.% – Wastewater Assets

Condition State	U.L.C.%
Very Good	0% ≤ U.L.C.% ≤ 45%
Good	45% < U.L.C.% ≤ 90%
Fair	90% < U.L.C.% ≤ 100%
Poor	100% < U.L.C.% ≤ 125%
Very Poor	125% < U.L.C.%

Figure 3-2 illustrates the distribution of wastewater main length by condition (U.L.C.%). On average, the Village's wastewater mains are in the Good condition state. Most of the Village's wastewater collection system was installed in 1970. Based on an estimated useful life of 80 years, most of the wastewater mains (95% or 6.9 km) are approximately two-thirds of the way through their useful life. The remaining 5% (0.4 km) of wastewater mains are rated Very Good due to replacements that occurred in 2008 and 2010.

Data on component ages of treatment and pumping assets are incomplete. It is known, however, that no components are older than 14 years because the wastewater treatment plant was replaced in 2011. As a preliminary estimate, these assets have been assessed as being in the Very Good condition state by comparing the maximum age of 14 years to the accounting lifespan of 40 years currently being utilized by the Village. Based on the accounting useful life of 40 years, wastewater treatment assets are in the first half of their expected life, which would indicate they are expected to be in an overall average condition of "Very Good". It is noted that individual components of wastewater treatment asset may have shorter useful life expectancies and may be in different condition states than indicated by the overall average.

Figure 3-2
Distribution of Wastewater Mains by Condition



3.1.1.3 Levels of Service

The levels of service currently provided by the Village's wastewater infrastructure are, in part, a result of the state of local infrastructure identified above. The levels of service framework presented in this subsection identifies both the levels of service that assets are currently providing as well as the proposed levels of service (target performance) that the Village is striving for.

The levels of service framework is presented as follows:

- The Service Attribute headings and columns indicate the high-level attribute being addressed;
- The Community Levels of Service column in Table 3-3 explains the Village's intent in plain language and provides additional information about the service being provided;
- The Performance Measure column in Table 3-4 describes the performance measure(s) connected to the identified service attribute;
- The Current Performance column in Table 3-4 identifies the current level of service with respect to each performance measure based on the best available data; and
- The Target Performance column in Table 3-4 identifies the proposed level of service with respect to each performance measure.

Table 3-3
Community Levels of Service – Wastewater

Service Attribute	Community Levels of Service
Scope	Wastewater service is provided to customers in the urban areas of the Village of Merrickville that are south of the Rideau River.
Reliability	The Village does not have combined sewers (sewers designed to carry both sanitary and storm water in a single pipe). Despite this, stormwater can enter the wastewater system through numerous sources (e.g., openings on maintenance hole covers, cracks, holes, failed joints, and incorrect or faulty connections). As part of its asset management efforts, the Village has budgeted for wastewater main replacements to reduce inflow and infiltration.

Service Attribute	Community Levels of Service
	The Village's facilities are operated in accordance with Environmental Compliance Approvals (E.C.A.) as issued by the Ministry of Environment, Conservation and Parks. A description of the effluent that is discharged from the wastewater treatment facility is provided in the E.C.A. No. 1121-7YRQLF, dated January 18, 2010.

Table 3-4
Technical Levels of Service – Wastewater

Service Attribute	Performance Measure	2024 Performance	Proposed Performance
Scope	Percentage of properties connected to the Village's wastewater system.	21.4%	N/A[1]
Reliability	The number of connection-days per year lost due to wastewater backups compared to the total number of properties connected to the Village's wastewater system.	0	Minimize
	The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the Village's wastewater system.	0	0

[1] The Village is not setting an explicit target for this performance measure. The number of properties connected to the Village's wastewater system is expected to increase as development occurs and existing properties get subdivided.

3.1.2 Water

3.1.2.1 State of Local Infrastructure

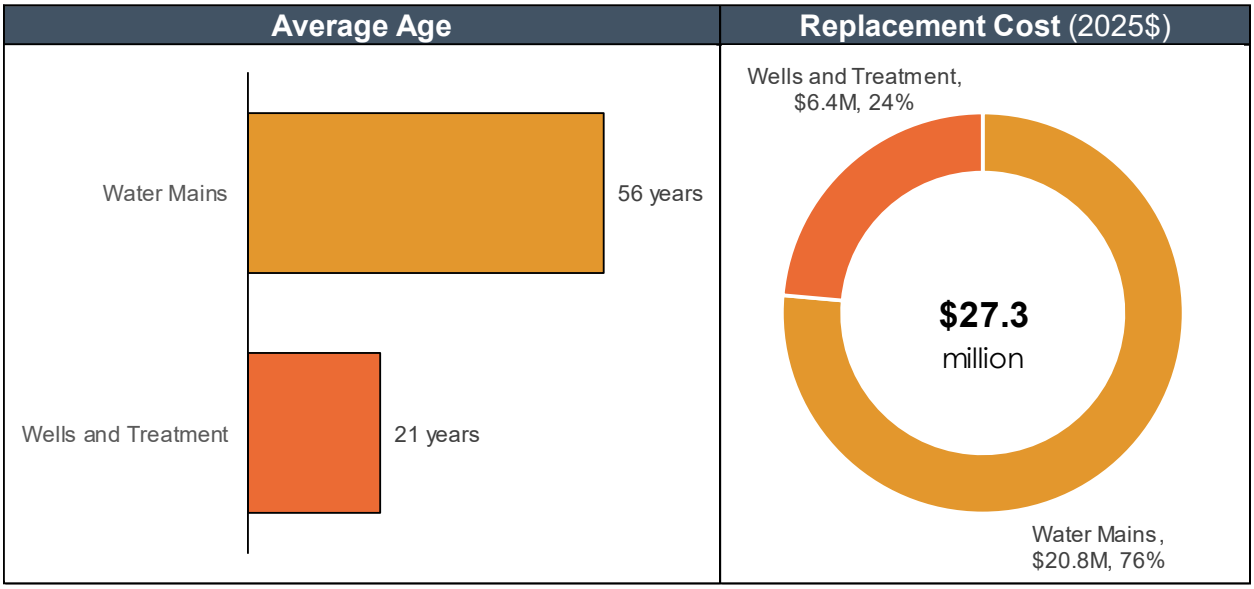
The Village owns and manages a water system servicing customers in the Village of Merrickville. The Village's water infrastructure comprises approximately 9.1 kilometres of water mains and a facility comprised of three wells with associated treatment and pumping infrastructure. The combined replacement cost of this infrastructure is estimated at $27.3 million. Table 3-5 provides summary information for the Village's water infrastructure, including quantities, average ages, and replacement costs by asset category. This information is presented graphically in Figure 3-3.

Table 3-5
Water Infrastructure – Summary of Quantity, Age, and Replacement Cost by Asset Category

Asset Category	Quantity	Average Age[1]	Replacement Cost (2025$)
Water Mains	9.1 km	56 years	$20,830,000
Wells and Treatment	1 facility	21 years[2]	$6,430,000
Total			**$27,260,000**

[1] Average age for linear assets weighted based upon length of pipe segments.
[2] The age estimate for wells and treatment is based on the Village's 2019 Tangible Capital Asset schedule. This data captures the date of initial construction of the wells and treatment assets but does not account for components that have been replaced since construction.

Figure 3-3
Summary Information – Water

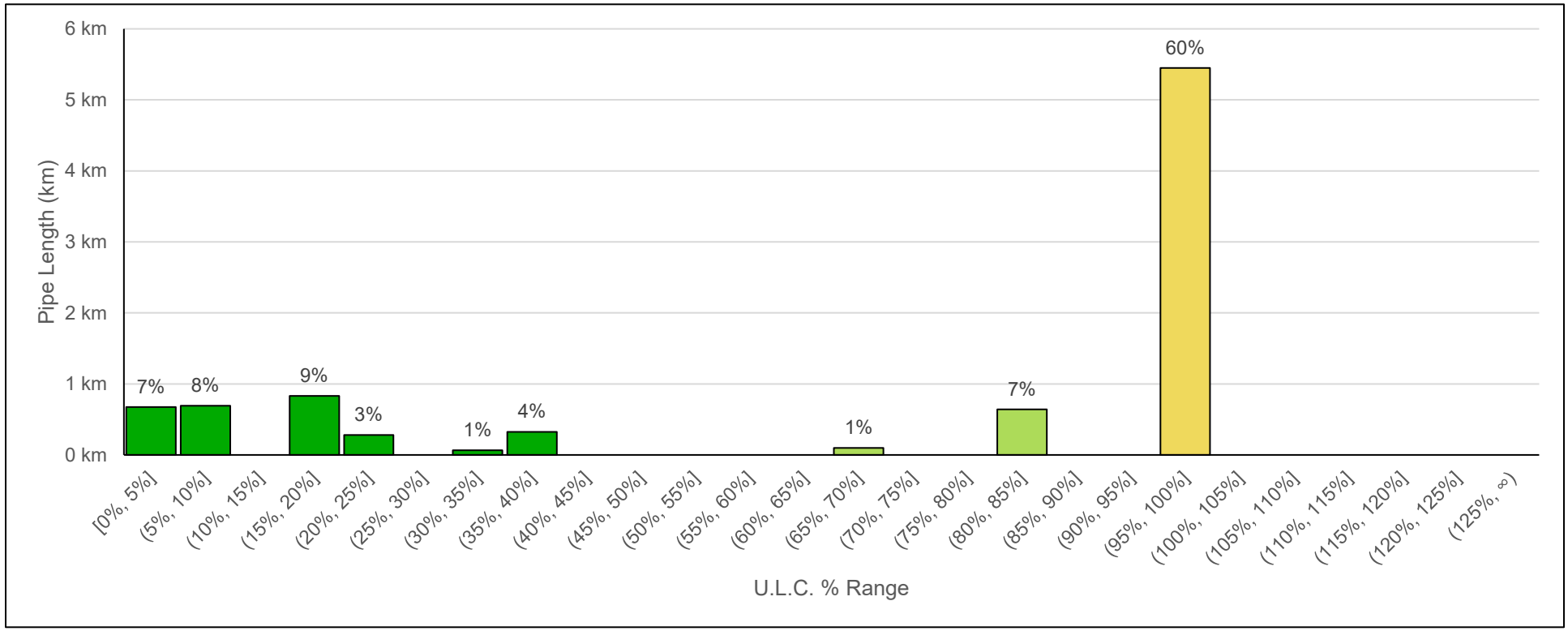


3.1.2.2 Condition

The condition of the Village's water assets have not been directly assessed through a physical condition assessment. For the purposes of this asset management plan, the condition of water assets have been evaluated based on age relative to the expected useful life in the same manner as wastewater assets, as described in subsection 3.1.1.2.

Figure 3-4 illustrates the distribution of water main length by condition (U.L.C.%). Based on an estimated useful life of 80 years, a majority of water mains (60% or 5.5 km) are nearing the end of their useful life and have been assigned a condition state of Fair. Approximately 8% (0.7 km) of the water distribution system was installed between 1960 and 1970 and therefore have been assigned a condition rating of Good. The remaining 32% (2.9 km) of water mains are rated as Very Good due to replacements that have occurred over the last 30 years.

Figure 3-4
Distribution of Water Mains by Condition



Data on component ages of wells and treatment assets are incomplete. It is known, however, that no components are older than 21 years because the facilities were installed on or after 2004. As a preliminary estimate, these assets have been assessed as being in the Good condition state by comparing the maximum age of 21 years to the accounting lifespan of 40 years currently being utilized by the Village. Based on the accounting useful life of 40 years the water facility assets are in the second half of their expected useful life. It is noted that individual facility components may have shorter useful life expectancies and may be in different condition states than indicated by the overall average.

3.1.2.3 Levels of Service

This section provides an overview of the Village's level of service framework for water services. Table 3-6 presents the Service Attributes and Community Levels of Service while Table 3-7 presents the Technical Levels of Service (i.e., performance measures), including current and target performance. Please refer to subsection 3.1.1.3 for further details on the Village's levels of service framework.

Table 3-6
Community Levels of Service – Water

Service Attribute	Community Levels of Service
Scope	Water service is provided to customers in the urban areas of the Village of Merrickville, both north and south of the Rideau River. All areas that are connected to the water system have fire flow available.
Reliability	The Village has developed and implements a Drinking Water Quality Management System (DWQMS) to enhance the management and operation of its drinking water system, ensuring a continual supply of safe drinking water to all consumers. Boil water advisories can be caused by adverse water quality test results or problems in the water treatment and distribution system. Service interruptions can occur as a result of routine water system maintenance or asset failure. Both boil water advisories and service interruptions are handled in accordance with the Village's DWQMS.

Table 3-7
Technical Levels of Service – Water

Service Attribute	Performance Measure	2025 Performance	Proposed Performance
Scope	Percentage of properties connected to the Village's water system.	24.3%	N/A[1]
	Percentage of properties where fire flow is available.	24.3%	N/A[1]
Reliability	The number of connection-days per year where a boil water advisory notice is in place compared to the total number of properties connected to the Village's water system.	0	0
	The number of connection-days per year lost due to water main breaks compared to the total number of properties connected to the Village's water system.	0.0285	Minimize

3.2 Lifecycle Management Strategy

The lifecycle management strategies in this asset management plan identify the lifecycle activities that would need to be undertaken to provide the proposed levels of service presented above. Within the context of this asset management plan, lifecycle activities are the specific actions that need to be performed on an asset in order to ensure it is performing as expected and/or to prolong its remaining service life. These actions can be carried out on a planned schedule in a prescriptive manner or through a dynamic approach where the lifecycle activities are only carried out when specified conditions are met. In accordance with O. Reg. 588/17, the lifecycle activities and associated costs presented in this chapter consider the full lifecycle of assets. In general terms, an asset's lifecycle starts with its initial planning and acquisition (or construction), includes both the capital and significant operating/maintenance activities the asset is expected to undergo throughout its life, and ends with its eventual disposal.

[1] The Village is not setting an explicit target for this performance measure. The number of properties connected to the Village's water system is expected to increase as development occurs and existing properties get subdivided.

Additionally, O. Reg. 588/17 requires that all potential lifecycle activity options be assessed, with the aim of identifying the set of lifecycle activities that can be undertaken at the lowest cost to provide the proposed levels of service. Asset management plans must include a ten-year capital forecast, identifying the lifecycle activities resulting from the lifecycle management strategy. The 10-year lifecycle expenditure forecasts are estimates developed using the best available information at a point in time. The Village should plan to regularly update the underlying data informing the forecasts presented in this chapter to ensure continual alignment with the Village's evolving asset management environment.

3.2.1 Lifecycle Funding Requirements

An annual lifecycle funding target represents the level of funding that would be required annually to fully finance a lifecycle management strategy over the long term. By planning to achieve this annual funding level, the Village would theoretically be able to fully fund capital works as they arise. In practice, however, capital expenditures often fluctuate year-to-year based on the specific lifecycle activities being undertaken in a given year. By planning to achieve the lifecycle funding target over the long term, the periods of relatively low capital needs would allow for the building up of lifecycle reserve funds that could be drawn upon in times of relatively high capital needs.

Table 3-8 summarizes the annual lifecycle funding targets for the Village's water and wastewater infrastructure portfolio as of today (in 2025$) and expected by the end of the forecast period (in 2035$). The 2035 estimates reflect inflationary adjustments based on capital cost indexes (see Section 1.4.2 for more detail).

The annual lifecycle funding targets for water and wastewater mains have been based on typical life expectancies, as detailed in section 3.1. For all other assets, the annual lifecycle funding targets have been estimated using annual reinvestment rates identified in the 2016 Canadian Infrastructure Report Card[1] (2016 C.I.R.C.). Because the C.I.R.C provides a range of annual reinvestment rates for each infrastructure category, the midpoint of the applicable range was used to calculate the annual lifecycle funding target.

[1] Canadian Infrastructure Report Card: Informing the Future. (The Canadian Council for Public-Private Partnerships, 2016). Accessed from https://www.pppcouncil.ca/web/pdf/infra_report_card_2016.pdf

Table 3-8
Annual Lifecycle Funding Targets by Asset Category

Asset Category	Annual Lifecycle Funding Target (2025$)	Annual Lifecycle Funding Target (2035$)
Water		
Water Mains	$260,400	$400,500
Wells and Treatment	$135,000	$207,700
Total Water	**$395,400**	**$608,200**
Wastewater		
Wastewater Mains	$154,600	$237,800
Treatment and Pumping	$298,200	$458,700
Total Wastewater	**$452,800**	**$696,500**
Total	**$848,200**	**$1,304,700**

3.2.2 Capital Expenditure Forecast

Ten-year capital forecasts were developed to address known capital needs across the water and wastewater systems. The forecast reflects the anticipated replacement of underground infrastructure identified through asset inventory analysis and major maintenance and recommended capital projects for facility assets identified by the Ontario Clean Water Agency (OCWA).

The most significant works identified for the forecast period comprise replacement of approximately 3 km of water mains and approximately 2.6 km of wastewater mains. The total capital forecast from 2026 to 2035—in current dollars—includes approximately $13.6 million in capital needs, with approximately 58% of that related to the water system and the remaining 42% related to the wastewater system.

The average annual value of the capital program is approximately $1.4 million in today's dollars (i.e., 2025$). This level of expenditure is slightly greater than the forecasted annual lifecycle costs of $1.3 million identified in Section 3.2.1. This suggests that the 10-year forecast of infrastructure renewal and replacement needs identified in this study are greater than the longer-term capital funding requirements.

The listing of water and wastewater capital needs are presented in Table 3-9 and Table 3-10, respectively. For rate determination purposes, the capital needs forecast has been indexed as described in Section 1.4.2. This is reflective of the average annual

capital cost inflation witnessed in the Statistics Canada Building Construction Price Index over the past 20 years.

Table 3-9
Village of Merrickville-Wolford
Water Capital Budget Forecast (Uninflated $)

Description	Budget 2025	Total	Forecast									
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Capital Expenditures												
WTP - Major Maintenance		631,100	63,700	50,000	87,000	55,700	64,500	46,500	70,700	82,000	48,000	63,000
WTP - Recommended Capital	115,000	202,500	3,000	6,000	46,500	6,500	56,500	15,000	29,000	5,000	15,000	20,000
WTP - SCADA Replacement		100,000										100,000
Water Main Lifecycle Replacement		7,003,500	700,350	700,350	700,350	700,350	700,350	700,350	700,350	700,350	700,350	700,350
Total Capital Expenditures	**115,000**	**7,937,100**	**767,050**	**756,350**	**833,850**	**762,550**	**821,350**	**761,850**	**800,050**	**787,350**	**763,350**	**883,350**

Table 3-10
Village of Merrickville-Wolford
Wastewater Capital Budget Forecast (Uninflated $)

Description	Budget 2025	Total	Forecast									
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
WWTP & SPS - Major Maintenance		418,300	51,200	39,200	31,700	50,200	21,200	51,700	48,200	45,200	37,700	42,000
WWTP Capital	60,200	334,000	25,000	80,000	1,000	13,000	21,000	31,000	10,000	30,000	90,000	33,000
WWTP - UV Control Panel and UV Banks		100,000	-	-	-	-	-	-	-	-	-	100,000
WWTP - SCADA Replacement		170,000	-	-	-	-	-	-	-	-	-	170,000
SPS Capital		178,000	41,500	5,000	6,000	40,000	5,000	6,000	5,000	46,500	5,000	18,000
Wastewater Main Lifecycle Replacement		4,410,225	441,023	441,023	441,023	441,023	441,023	441,023	441,023	441,023	441,023	441,023
Collection Work		80,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Studies - STP Capacity & Master Plan	100,000	-										
Contingencies	25,000	-										
Forcemain Testing	15,000	-										
Capital - WS Sanitary Sewer Grouting	50,000	-										
Total Capital Expenditures	**250,200**	**5,690,525**	**566,723**	**573,223**	**487,723**	**552,223**	**496,223**	**537,723**	**512,223**	**570,723**	**581,723**	**812,023**

Chapter 4
Capital Cost Financing Options

4. Capital Cost Financing Options

Historically, the powers that municipalities have had to raise alternative revenues to taxation to fund capital services have been restrictive. Over the past number of years, legislative reforms have been introduced. Some of these have expanded municipal powers (e.g., Bill 130 providing for natural person powers for fees and charges by-laws); while others appear to restrict them (Bill 98 in 1997 providing amendments to the *Development Charges Act*).

The most recent *Municipal Act* came into force on January 1, 2003, with significant amendments in 2006 through the *Municipal Statute Law Amendment Act*. Part XII of the Act and O. Reg. 584/06 govern a municipality's ability to impose fees and charges. This Act provides municipalities with broadly defined powers and provides the ability to impose fees for both operating and capital purposes. Under s. 484 of the *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*.

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

Recovery Methods	Section Reference
Development Charges Act, *1997*	4.1
Municipal Act, *2001*	
○ Fees and Charges	4.2
○ Local Improvements	
Grant Funding	4.3
Reserves/Reserve Funds	4.4
Debenture Financing	4.5

4.1 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*, as amended, municipalities may pass by-laws to impose charges to recover the capital costs associated with development and redevelopment.

The Village does not currently recover capital costs through development charges imposed under the *Development Charges Act*. However, the Village is currently undertaking a development charges study to identify whether any of the planned capital upgrades would be eligible for development charge funding.

4.2 Municipal Act

Part XII of the *Municipal Act*, gives municipalities the statutory authority to recover the costs of services, including capital costs, through by-law. Municipalities have used these types of charges to recover infrastructure costs associated with the extension of municipal services to private service users, to recover capital improvement costs from existing developments, and to recover growth-related costs of service extensions. These by-laws are typically used where D.C.s would not be applicable (e.g., recovery from existing developments) or where existing and growth-related cost recovery would be simplified under the administration of one by-law.

The Village does not recover capital costs through capital charges imposed under the *Municipal Act*.

4.3 Grant Funding Availability

No capital grant has been identified as a funding source for the Village's water or wastewater systems. To the extent that the Village is successful in securing grant funding for future infrastructure needs and the financial impacts are material, the rate forecast may be revisited.

4.4 Existing Reserves/Reserve Funds

The Village has established reserves and reserve funds for water and wastewater capital costs. These reserves have been used in the capital funding forecast for rate-based needs. The following table summarizes the water and wastewater reserves utilized in this analysis and the uncommitted January 1, 2025 opening balances.

Table 4-1
Village of Merrickville-Wolford
Water and Wastewater Reserve/Reserve Fund Balances

Reserve	Jan. 1, 2025
Water Capital Reserve	$622,776
Wastewater Capital Reserve	$622,776

4.5 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.

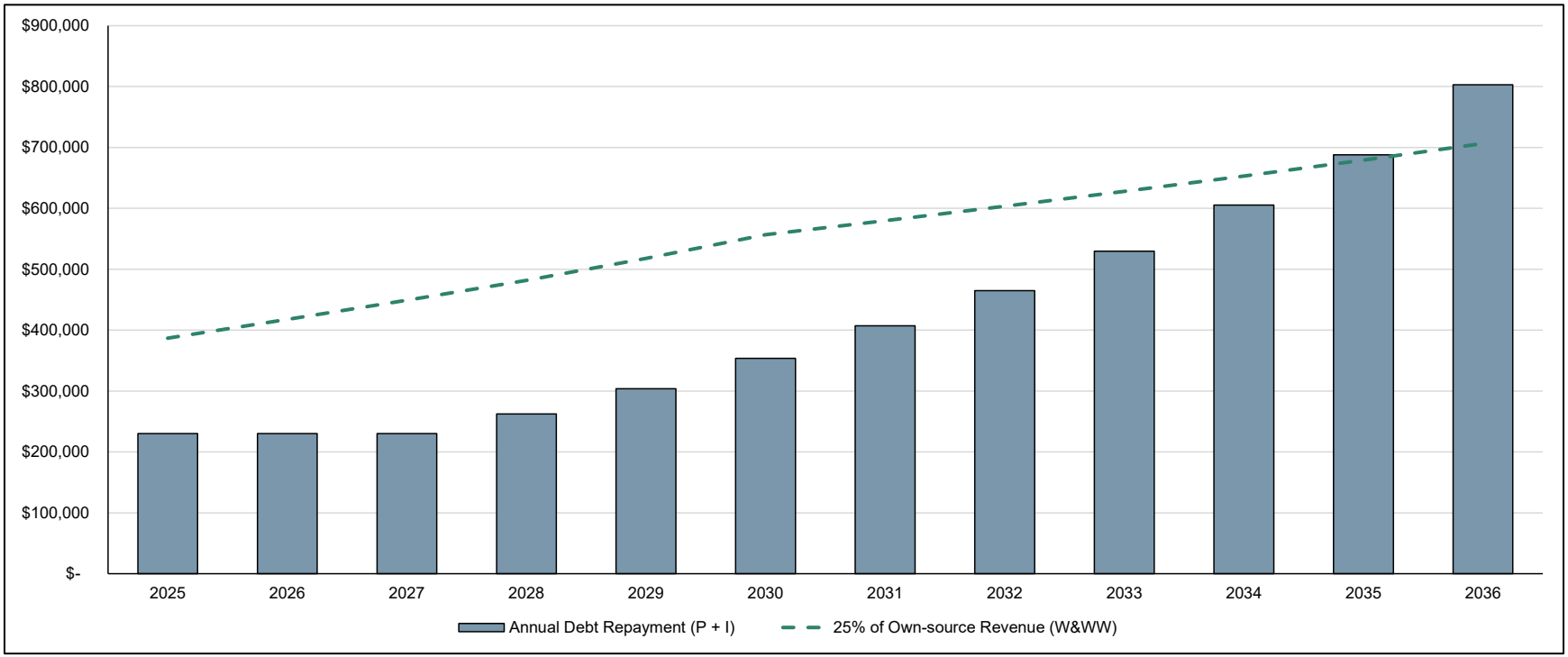
The Ministry of Municipal Affairs and Housing regulates the level of debt incurred by Ontario municipalities through its powers established under the *Municipal Act*. O. Reg. 403/02 provides the current rules respecting municipal debt and financial obligations. Through the rules established under these regulations, a municipality's debt capacity is capped at a level where no more than 25% of the municipality's own-source revenue may be allotted for servicing the debt (i.e., debt charges).

The Village has outstanding external debt for water and wastewater services. The existing water debt has a current total outstanding principal balance of $276,100, which is scheduled to be fully repaid by 2036. The existing wastewater debt has a current total outstanding principal balance of $2.7 million, which is scheduled to be fully repaid by 2044.

The capital forecast proposes additional debt financing for the water system of $6.4 million and the wastewater system of $2.7 million, totaling $9.1 million over the forecast period. It is noted that while the annual debt servicing costs associated with this amount of debt would not put the Village in exceedance of the provincially mandated

limit noted above, the costs would exceed 25% of water and wastewater revenues. Figure 4-1 presents the debt load forecast for the Village over the 10-year forecast horizon. Please note that this forecast is confined to water/wastewater for illustrative purposes (i.e., it does not include any tax-supported revenues or debt servicing costs).

Figure 4-1
Debt Servicing Costs and Annual Repayment Limit Forecast



4.6 Recommended Approach

The following table summarizes the capital funding sources for the capital needs forecast, for consideration by the Village.

Table 4-2
Village of Merrickville-Wolford
2026 to 2035 Water and Wastewater Capital Funding Program (Inflated $)

Funding Source	Water	Wastewater	Total Funding Amount (2026-2035)
Non-growth-related Debt	$6,444,562	$2,696,009	$9,140,571
Capital Reserve	$3,717,438	$4,646,991	$8,364,429
Total	**$10,162,000**	**$7,343,000**	**$17,505,000**

Table 4-3 and Table 4-4 provides the full 10-year capital expenditure and funding programs for Water and Wastewater, respectively. The capital funding plan is provided in inflated dollars.

Table 4-3
Village of Merrickville-Wolford
Water Service Capital Budget Forecast (Inflated $)

Description	Budget 2025	Total	Forecast									
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Capital Expenditures												
WTP - Major Maintenance	-	806,000	67,000	54,000	99,000	66,000	80,000	60,000	96,000	116,000	71,000	97,000
WTP - Recommended Capital	115,000	259,000	3,000	7,000	53,000	8,000	70,000	19,000	39,000	7,000	22,000	31,000
WTP - SCADA Replacement	-	154,000	-	-	-	-	-	-	-	-	-	154,000
Water Main Lifecycle Replacement	-	8,943,000	731,000	763,000	797,000	832,000	869,000	907,000	947,000	988,000	1,032,000	1,077,000
Total Capital Expenditures	**115,000**	**10,162,000**	**801,000**	**824,000**	**949,000**	**906,000**	**1,019,000**	**986,000**	**1,082,000**	**1,111,000**	**1,125,000**	**1,359,000**
Capital Financing												
Provincial/Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-
Non-Growth Related Debenture Requirements	-	6,444,562	-	502,062	653,372	576,267	638,880	624,661	737,418	790,036	829,971	1,091,894
Water Reserve	115,000	3,717,438	801,000	321,938	295,628	329,733	380,120	361,339	344,582	320,964	295,029	267,106
Total Capital Financing	**115,000**	**10,162,000**	**801,000**	**824,000**	**949,000**	**906,000**	**1,019,000**	**986,000**	**1,082,000**	**1,111,000**	**1,125,000**	**1,359,000**

Table 4-4
Village of Merrickville-Wolford
Wastewater Service Capital Budget Forecast (Inflated $)

Description	Budget 2025	Total	Forecast									
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Capital Expenditures												
WWTP & SPS - Major Maintenance	-	535,000	53,000	43,000	36,000	60,000	26,000	67,000	65,000	64,000	56,000	65,000
WWTP Capital	60,200	435,000	26,000	87,000	1,000	15,000	26,000	40,000	14,000	42,000	133,000	51,000
WWTP - UV Control Panel and UV Banks	-	154,000	-	-	-	-	-	-	-	-	-	154,000
WWTP - SCADA Replacement	-	261,000	-	-	-	-	-	-	-	-	-	261,000
SPS Capital	-	225,000	43,000	5,000	7,000	48,000	6,000	8,000	7,000	66,000	7,000	28,000
Wastewater Main Lifecycle Replacement	-	5,631,000	460,000	481,000	502,000	524,000	547,000	571,000	596,000	622,000	650,000	678,000
Collection Work	-	102,000	8,000	9,000	9,000	10,000	10,000	10,000	11,000	11,000	12,000	12,000
Studies - STP Capacity & Master Plan	100,000	-	-	-	-	-	-	-	-	-	-	-
Contingencies	25,000	-	-	-	-	-	-	-	-	-	-	-
Forcemain Testing	15,000	-	-	-	-	-	-	-	-	-	-	-
Capital - WS Sanitary Sewer Grouting	50,000	-	-	-	-	-	-	-	-	-	-	-
Total Capital Expenditures	**250,200**	**7,343,000**	**590,000**	**625,000**	**555,000**	**657,000**	**615,000**	**696,000**	**693,000**	**805,000**	**858,000**	**1,249,000**
Capital Financing												
Provincial/Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-
Non-Growth Related Debenture Requirements	-	2,696,009	-	-	-	203,869	201,809	280,719	280,689	396,866	461,936	870,121
Wastewater Reserve	250,200	4,646,991	590,000	625,000	555,000	453,131	413,191	415,281	412,311	408,134	396,064	378,879
Total Capital Financing	**250,200**	**7,343,000**	**590,000**	**625,000**	**555,000**	**657,000**	**615,000**	**696,000**	**693,000**	**805,000**	**858,000**	**1,249,000**

Chapter 5
Operating Expenditure Forecast

5. Operating Expenditure Forecast

5.1 Operating Expenditures

The Village provided its 2025 Operating Budget, which formed the basis for the water and wastewater services operating expenditure forecast. The operating expenditure estimates were generally inflated at 2.2% annually, reflecting historical Consumer Price Index (C.P.I.) rates. Additionally, specific operating expenditures were indexed at higher rates based on discussions with the Village's staff, as follows:

- OCWA contract costs increased by 5% annually; and
- Insurance costs increased by 10% annually.

The operating budget forecast generally includes two components – operating expenditures and capital-related expenditures. The former is based on the Village's projected annual spending for ongoing operations and maintenance, while the latter is based on the capital funding plan decisions (i.e., transfers to reserve funds, debt repayment, and capital fund transfers) presented earlier.

Capital-related annual expenditures in the forecast include annual debt repayments and contributions to reserves and reserve funds to support the forecast and future needs. While operating aspects identified above generally increase with inflation and service demands over the period, the capital-related aspects tend to increase more specifically with the increase in capital funding requirements.

As a result, gross operating expenditures for water and wastewater services combined are projected to increase from approximately $835,400 in 2025 to $1.4 million by 2035. Capital-related costs (i.e., debt servicing costs and contributions to reserves) are projected to increase from approximately $711,400 in 2025 to $1.3 million by 2035.

5.2 Operating Revenues

The Village has operating revenue sources such as well sampling, interest charges, and other miscellaneous revenues that offset some of the annual operating costs. These operating revenues have been maintained over the forecast period with general inflation of 2.2% annually.

The ongoing annual operating revenues are forecast to increase from approximately $74,200 in 2025 to $85,200 by 2035.

Table 5-1 and Table 5-2 provide the operating budget forecast for the water and wastewater systems, respectively. The operating budget forecasts are presented in inflated dollars.

Table 5-1
Village of Merrickville-Wolford
Water Service Operating Budget Forecast (Inflated $)

Description	Budget 2025		Forecast 2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Expenditures												
Operating Costs												
17-4126 Ontario clean water agency	362,011		380,100	399,100	419,100	440,000	462,000	485,100	509,400	534,900	561,600	589,700
17-4160 Line break repairs	15,000		15,300	15,700	16,000	16,400	16,700	17,100	17,500	17,900	18,200	18,600
Shared Costs (50% Water Share)												
17-4130 Neptune (meter reading program)	2,000		2,000	2,100	2,100	2,200	2,200	2,300	2,300	2,400	2,400	2,500
17-4135 Administrative costs	5,000		5,100	5,200	5,300	5,500	5,600	5,700	5,800	6,000	6,100	6,200
17-4136 Payment in lieu taxation	1,200		1,200	1,300	1,300	1,300	1,300	1,400	1,400	1,400	1,500	1,500
17-4140 Office supplies	250		300	300	300	300	300	300	300	300	300	300
17-4142 Utilities	4,000		4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000
17-4158 Insurance	13,500		14,900	16,300	18,000	19,800	21,700	23,900	26,300	28,900	31,800	35,000
17-4190 Depot utilities	750		800	800	800	800	800	900	900	900	900	900
Regulatory Costs	-		5,100	5,200	5,300	5,500	5,600	5,700	5,800	6,000	6,100	6,200
Sub Total Operating	**403,711**		**428,900**	**450,200**	**472,500**	**496,200**	**520,700**	**547,000**	**574,400**	**603,500**	**633,800**	**665,900**
Capital-Related												
Existing Debt (Principal) - Non-Growth Related	19,368		20,083	20,824	21,593	22,390	23,217	24,073	24,962	25,883	26,839	27,829
Existing Debt (Interest) - Non-Growth Related	9,704		8,989	8,248	7,479	6,682	5,856	4,999	4,110	3,189	2,234	1,243
New Non-Growth Related Debt (Principal)			-	-	7,793	18,311	28,139	39,413	51,009	64,914	80,307	97,061
New Non-Growth Related Debt (Interest)			-	-	24,199	55,316	82,210	111,647	139,856	172,941	207,892	244,026
Transfer to Capital	-		-	-	-	-	-	-	-	-	-	-
Transfer to Capital Reserve	152,532		201,556	261,075	295,628	329,733	380,120	361,339	344,582	320,964	295,029	267,106
Sub Total Capital Related	**181,604**		**230,628**	**290,147**	**356,694**	**432,433**	**519,541**	**541,471**	**564,520**	**587,892**	**612,300**	**637,265**
Total Expenditures	**585,315**		**659,528**	**740,347**	**829,194**	**928,633**	**1,040,241**	**1,088,471**	**1,138,920**	**1,191,392**	**1,246,100**	**1,303,165**
Revenues												
Operating Revenues												
16-1919 Library well sampling	3,427		3,500	3,600	3,700	3,700	3,800	3,900	4,000	4,100	4,200	4,300
16-1920 Connect/Disconnects	900		900	900	1,000	1,000	1,000	1,000	1,000	1,100	1,100	1,100
16-1921 EC hall well sampling	3,427		3,500	3,600	3,700	3,700	3,800	3,900	4,000	4,100	4,200	4,300
16-1928 Main St capital replacement	29,072		29,072	29,072	29,072	29,072	29,072	29,072	29,072	29,072	29,072	29,072
16-1910 Interest charges	17,500		17,900	18,300	18,700	19,100	19,500	19,900	20,400	20,800	21,300	21,800
16-1917 Cost recovery (building dept)	1,164		1,200	1,200	1,200	1,300	1,300	1,300	1,400	1,400	1,400	1,400
Contributions from Reserves / Reserve Funds	-		-	-	-	-	-	-	-	-	-	-
Total Operating Revenue	**55,490**		**56,072**	**56,672**	**57,372**	**57,872**	**58,472**	**59,072**	**59,872**	**60,572**	**61,272**	**61,972**
Billing Revenues												
Base Charge Revenue	438,635		500,214	567,286	640,985	723,750	816,659	850,331	884,912	920,423	956,886	994,323
Metered Rate Revenue	91,190		103,242	116,388	130,836	147,010	165,110	179,068	194,136	210,396	227,942	246,870
Total Billing Revenue	**529,825**		**603,456**	**683,675**	**771,821**	**870,760**	**981,769**	**1,029,399**	**1,079,047**	**1,130,819**	**1,184,828**	**1,241,193**
Total Revenue	**585,315**		**659,528**	**740,347**	**829,194**	**928,633**	**1,040,241**	**1,088,471**	**1,138,920**	**1,191,392**	**1,246,100**	**1,303,165**

Table 5-2
Village of Merrickville-Wolford
Wastewater Service Operating Budget Forecast (Inflated $)

Description	Budget 2025		Forecast 2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Expenditures												
Operating Costs												
17-4127 Ontario clean water agency	405,034		425,300	446,500	468,900	492,300	516,900	542,800	569,900	598,400	628,300	659,800
Shared Costs (50% Wastewater Share)			-	-	-	-	-	-	-	-	-	-
17-4130 Neptune (meter reading program)	2,000		2,000	2,100	2,100	2,200	2,200	2,300	2,300	2,400	2,400	2,500
17-4135 Administrative costs	5,000		5,100	5,200	5,300	5,500	5,600	5,700	5,800	6,000	6,100	6,200
17-4136 Payment in lieu taxation	1,200		1,200	1,300	1,300	1,300	1,300	1,400	1,400	1,400	1,500	1,500
17-4140 Office supplies	250		300	300	300	300	300	300	300	300	300	300
17-4142 Utilities	4,000		4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000
17-4158 Insurance	13,500		14,900	16,300	18,000	19,800	21,700	23,900	26,300	28,900	31,800	35,000
17-4190 Depot utilities	750		800	800	800	800	800	900	900	900	900	900
Regulatory Costs	-		5,100	5,200	5,300	5,500	5,600	5,700	5,800	6,000	6,100	6,200
Sub Total Operating	**431,734**		**458,800**	**481,900**	**506,300**	**532,100**	**558,900**	**587,600**	**617,400**	**649,100**	**682,300**	**717,400**
Capital-Related												
Existing Debt (Principal) - Non-Growth Related	94,254		98,043	101,983	106,083	110,347	114,782	119,396	124,195	129,188	134,380	139,782
Existing Debt (Interest) - Non-Growth Related	107,001		103,212	99,271	95,172	90,908	86,472	81,858	77,059	72,067	66,874	61,472
New Non-Growth Related Debt (Principal)			-	-	-	-	3,165	6,450	11,118	16,011	22,943	31,220
New Non-Growth Related Debt (Interest)			-	-	-	-	9,826	19,401	32,621	45,614	63,971	85,131
Transfer to Capital	-		-	-	-	-	-	-	-	-	-	-
Transfer to Capital Reserve	328,556		350,405	372,362	390,683	408,550	413,191	415,281	412,311	408,134	396,064	378,879
Sub Total Capital Related	**529,810**		**551,659**	**573,617**	**591,938**	**609,805**	**627,437**	**642,386**	**657,305**	**671,014**	**684,233**	**696,484**
Total Expenditures	**961,544**		**1,010,459**	**1,055,517**	**1,098,238**	**1,141,905**	**1,186,337**	**1,229,986**	**1,274,705**	**1,320,114**	**1,366,533**	**1,413,884**
Revenues												
Operating Revenues												
16-1910 Interest charges	17,500		17,900	18,300	18,700	19,100	19,500	19,900	20,400	20,800	21,300	21,800
16-1917 Cost recovery (building dept)	1,164		1,200	1,200	1,200	1,300	1,300	1,300	1,400	1,400	1,400	1,400
Contributions from Reserves / Reserve Funds	-		-	-	-	-	-	-	-	-	-	-
Total Operating Revenue	**18,664**		**19,100**	**19,500**	**19,900**	**20,400**	**20,800**	**21,200**	**21,800**	**22,200**	**22,700**	**23,200**
Billing Revenues												
Base Charge Revenue	779,465		817,933	852,860	885,530	918,653	952,234	984,873	1,017,959	1,051,496	1,085,490	1,119,946
Metered Rate Revenue	163,416		173,426	183,157	192,808	202,852	213,303	223,913	234,946	246,418	258,343	270,738
Wastewater Billing Recovery - Operating	**942,880**		**991,359**	**1,036,017**	**1,078,338**	**1,121,505**	**1,165,537**	**1,208,786**	**1,252,905**	**1,297,914**	**1,343,833**	**1,390,684**
Wastewater Billing Recovery - Total	**961,544**		**1,010,459**	**1,055,517**	**1,098,238**	**1,141,905**	**1,186,337**	**1,229,986**	**1,274,705**	**1,320,114**	**1,366,533**	**1,413,884**

Chapter 6
Forecast Water and Wastewater Rates

6. Forecast Water and Wastewater Rates

To summarize the analysis presented thus far, Chapter 3 reviewed capital-related needs for all customers within the water and wastewater systems and responds to the lifecycle needs of the Village's infrastructure. Chapter 4 provided a review of capital financing options of which internal sources (i.e., reserve fund transfers) and external sources (i.e., debt) will be the predominant basis for financing future capital needs. Chapter 5 established the 10-year operating expenditure forecast for the Village's water and wastewater systems. This chapter presents the calculated rates for the next 10-year period. These calculations are based on the net operating expenditures identified in Chapter 5 and the customer counts and metered water consumption identified in Chapter 2.

The calculated rate forecast is provided to address full costs of the water and wastewater systems, including annual operating and capital expenditures from a lifecycle perspective. The rate forecast is presented in Table 6-1 below. The detailed financial forecast and rate calculations for water and wastewater services are provided in Appendices A and B to this report, respectively.

6.1 Forecast Water and Wastewater Rate Impacts

Table 6-2 summarizes the impacts of the calculated rates on an average residential customer. For an average residential customer using 127 m^3 of water annually, the total water and wastewater bill in 2025 with current rates would be approximately $2,344. The proposed 2026 rates would result in a bill of $2,438, which represents a $95 (4.0%) increase relative to what the bill would be at current rates. Annual increases would then range from 4.2% to 4.8% from 2027 to 2030, with annual increases thereafter ranging from 1.6% to 1.7%.

Table 6-3 summarizes the impacts of the calculated rates on an average non-residential customer. For an average residential customer using 330 m^3 of water annually, the total water and wastewater bill in 2025 with current rates would be approximately $4,429. The proposed 2026 rates would result in a bill of $4,617, which represents a $188 (4.2%) increase relative to what the bill would be at current rates. Annual increases would then range from 4.4% to 4.9% from 2027 to 2030, with annual increases thereafter ranging from 2.1% to 2.3%.

Table 6-1
Village of Merrickville-Wolford
Water and Wastewater Rate Forecast

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Water											
Monthly Base Rate - Residential	$ 55.92	$ 61.51	$ 67.66	$ 74.43	$ 81.87	$ 90.06	$ 91.59	$ 93.15	$ 94.73	$ 96.34	$ 97.98
	n/a	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*1.7%*	*1.7%*	*1.7%*	*1.7%*	*1.7%*
Monthly Base Rate - Non-residential	$ 85.79	$ 94.37	$103.81	$114.19	$125.61	$138.17	$140.52	$142.90	$145.34	$147.81	$150.32
	n/a	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*1.7%*	*1.7%*	*1.7%*	*1.7%*	*1.7%*
Metered Service Rate (per m^3)	$ 2.97	$ 3.27	$ 3.59	$ 3.95	$ 4.35	$ 4.78	$ 5.09	$ 5.41	$ 5.76	$ 6.13	$ 6.52
	n/a	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*10.0%*	*6.4%*	*6.4%*	*6.4%*	*6.4%*	*6.4%*
Wastewater											
Monthly Base Rate - Residential	$111.84	$112.70	$113.57	$114.45	$115.33	$116.22	$117.11	$118.02	$118.93	$119.84	$120.77
	n/a	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*
Monthly Base Rate - Non-residential	$171.58	$172.90	$174.24	$175.58	$176.93	$178.30	$179.67	$181.06	$182.45	$183.86	$185.28
	n/a	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*
Metered Service Rate (per m^3)	$ 5.97	$ 6.13	$ 6.30	$ 6.48	$ 6.66	$ 6.84	$ 7.03	$ 7.22	$ 7.42	$ 7.63	$ 7.84
	n/a	*2.8%*	*2.8%*	*2.8%*	*2.8%*	*2.8%*	*2.8%*	*2.8%*	*2.8%*	*2.8%*	*2.8%*

Table 6-2
Village of Merrickville-Wolford
Annual Water and Wastewater Bill Impact
Average Residential Customer (127 m^3 Annually)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Water											
Water Base Charges	$ 671	$ 738	$ 812	$ 893	$ 982	$ 1,081	$ 1,099	$ 1,118	$ 1,137	$ 1,156	$ 1,176
Water Metered Service Charges	$ 110	$ 121	$ 133	$ 146	$ 161	$ 177	$ 188	$ 200	$ 213	$ 227	$ 241
Wastewater											
Wastewater Base Charges	$ 1,342	$ 1,352	$ 1,363	$ 1,373	$ 1,384	$ 1,395	$ 1,405	$ 1,416	$ 1,427	$ 1,438	$ 1,449
Wastewater Metered Service Charges	$ 221	$ 227	$ 233	$ 240	$ 246	$ 253	$ 260	$ 267	$ 275	$ 282	$ 290
Total	**$ 2,344**	**$ 2,438**	**$ 2,541**	**$ 2,652**	**$ 2,774**	**$ 2,905**	**$ 2,953**	**$ 3,001**	**$ 3,052**	**$ 3,103**	**$ 3,156**

Table 6-3
Village of Merrickville-Wolford
Annual Water and Wastewater Bill Impact
Average Non-Residential Customer (330 m^3 Annually)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Water											
Water Base Charges	$ 1,029	$ 1,132	$ 1,246	$ 1,370	$ 1,507	$ 1,658	$ 1,686	$ 1,715	$ 1,744	$ 1,774	$ 1,804
Water Metered Service Charges	$ 446	$ 490	$ 539	$ 593	$ 652	$ 717	$ 763	$ 812	$ 864	$ 919	$ 977
Wastewater											
Wastewater Base Charges	$ 2,059	$ 2,075	$ 2,091	$ 2,107	$ 2,123	$ 2,140	$ 2,156	$ 2,173	$ 2,189	$ 2,206	$ 2,223
Wastewater Metered Service Charges	$ 896	$ 920	$ 946	$ 972	$ 998	$ 1,026	$ 1,054	$ 1,083	$ 1,113	$ 1,144	$ 1,175
Total	**$ 4,429**	**$ 4,617**	**$ 4,821**	**$ 5,042**	**$ 5,281**	**$ 5,541**	**$ 5,660**	**$ 5,783**	**$ 5,910**	**$ 6,043**	**$ 6,180**

Chapter 7
Recommendations

7. Recommendations

The following recommendations are provided for the Village's consideration:

- That the Village of Merrickville-Wolford Water and Wastewater Asset Management Plan and Rate Study be received and approved by Council;
- That consideration be made as part of the annual budgeting process to ensure sufficient capital funding is available to implement the asset management plan; and
- That Council approve the water and wastewater rates as shown in Chapter 6 and direct staff to prepare and bring forward a new Water and Wastewater Rate By-law for adoption.

Appendices

Appendix A
Water Service

Table A-1
Village of Merrickville-Wolford
Water Service
Capital Budget Forecast
Inflated $

Description	Budget 2025	Total	Forecast									
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Capital Expenditures												
WTP - Major Maintenance	-	806,000	67,000	54,000	99,000	66,000	80,000	60,000	96,000	116,000	71,000	97,000
WTP - Recommended Capital	115,000	259,000	3,000	7,000	53,000	8,000	70,000	19,000	39,000	7,000	22,000	31,000
WTP - SCADA Replacement	-	154,000	-	-	-	-	-	-	-	-	-	154,000
Water Main Lifecycle Replacement	-	8,943,000	731,000	763,000	797,000	832,000	869,000	907,000	947,000	988,000	1,032,000	1,077,000
Total Capital Expenditures	**115,000**	**10,162,000**	**801,000**	**824,000**	**949,000**	**906,000**	**1,019,000**	**986,000**	**1,082,000**	**1,111,000**	**1,125,000**	**1,359,000**
Capital Financing												
Provincial/Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-
Non-Growth Related Debenture Requirements	-	6,444,562	-	502,062	653,372	576,267	638,880	624,661	737,418	790,036	829,971	1,091,894
Water Reserve	115,000	3,717,438	801,000	321,938	295,628	329,733	380,120	361,339	344,582	320,964	295,029	267,106
Total Capital Financing	**115,000**	**10,162,000**	**801,000**	**824,000**	**949,000**	**906,000**	**1,019,000**	**986,000**	**1,082,000**	**1,111,000**	**1,125,000**	**1,359,000**

Table A-2
Village of Merrickville-Wolford
Water Service
Schedule of Non-Growth Related Debenture Repayments
Inflated $

Debenture Year	2025	Principal (Inflated)	Forecast									
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
2026		-		-	-	-	-	-	-	-	-	-
2027		502,062			31,993	31,993	31,993	31,993	31,993	31,993	31,993	31,993
2028		653,372				41,635	41,635	41,635	41,635	41,635	41,635	41,635
2029		576,267					36,721	36,721	36,721	36,721	36,721	36,721
2030		638,880						40,711	40,711	40,711	40,711	40,711
2031		624,661							39,805	39,805	39,805	39,805
2032		737,418								46,990	46,990	46,990
2033		790,036									50,343	50,343
2034		829,971										52,888
2035		1,091,894										
Total Annual Debt Charges	-	**6,444,562**	-	-	31,993	73,627	110,349	151,060	190,865	237,856	288,199	341,087

Table A-3
Village of Merrickville-Wolford
Water Service
Water Reserves/ Reserve Funds Continuity
Inflated $

Description	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Opening Balance	622,776		660,308	60,863	-	-	-	-	-	-	-	-
Transfer from Operating	152,532		201,556	261,075	295,628	329,733	380,120	361,339	344,582	320,964	295,029	267,106
Transfer to Capital	115,000		801,000	321,938	295,628	329,733	380,120	361,339	344,582	320,964	295,029	267,106
Transfer to Operating	-		-	-	-	-	-	-	-	-	-	-
Closing Balance	**660,308**		**60,863**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest												

Table A-4
Village of Merrickville-Wolford
Water Services
Operating Budget Forecast
Inflated $

Description	Budget 2025		Forecast 2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Expenditures												
Operating Costs												
17-4126 Ontario clean water agency	362,011		380,100	399,100	419,100	440,000	462,000	485,100	509,400	534,900	561,600	589,700
17-4160 Line break repairs	15,000		15,300	15,700	16,000	16,400	16,700	17,100	17,500	17,900	18,200	18,600
Shared Costs (50% Water Share)												
17-4130 Neptune (meter reading program)	2,000		2,000	2,100	2,100	2,200	2,200	2,300	2,300	2,400	2,400	2,500
17-4135 Administrative costs	5,000		5,100	5,200	5,300	5,500	5,600	5,700	5,800	6,000	6,100	6,200
17-4136 Payment in lieu taxation	1,200		1,200	1,300	1,300	1,300	1,300	1,400	1,400	1,400	1,500	1,500
17-4140 Office supplies	250		300	300	300	300	300	300	300	300	300	300
17-4142 Utilities	4,000		4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000
17-4158 Insurance	13,500		14,900	16,300	18,000	19,800	21,700	23,900	26,300	28,900	31,800	35,000
17-4190 Depot utilities	750		800	800	800	800	800	900	900	900	900	900
Regulatory Costs	-		5,100	5,200	5,300	5,500	5,600	5,700	5,800	6,000	6,100	6,200
Sub Total Operating	**403,711**		**428,900**	**450,200**	**472,500**	**496,200**	**520,700**	**547,000**	**574,400**	**603,500**	**633,800**	**665,900**
Capital-Related												
Existing Debt (Principal) - Non-Growth Related	19,368		20,083	20,824	21,593	22,390	23,217	24,073	24,962	25,883	26,839	27,829
Existing Debt (Interest) - Non-Growth Related	9,704		8,989	8,248	7,479	6,682	5,856	4,999	4,110	3,189	2,234	1,243
New Non-Growth Related Debt (Principal)			-	-	7,793	18,311	28,139	39,413	51,009	64,914	80,307	97,061
New Non-Growth Related Debt (Interest)			-	-	24,199	55,316	82,210	111,647	139,856	172,941	207,892	244,026
Transfer to Capital	-		-	-	-	-	-	-	-	-	-	-
Transfer to Capital Reserve	152,532		201,556	261,075	295,628	329,733	380,120	361,339	344,582	320,964	295,029	267,106
Sub Total Capital Related	**181,604**		**230,628**	**290,147**	**356,694**	**432,433**	**519,541**	**541,471**	**564,520**	**587,892**	**612,300**	**637,265**
Total Expenditures	**585,315**		**659,528**	**740,347**	**829,194**	**928,633**	**1,040,241**	**1,088,471**	**1,138,920**	**1,191,392**	**1,246,100**	**1,303,165**
Revenues												
Operating Revenues												
16-1919 Library well sampling	3,427		3,500	3,600	3,700	3,700	3,800	3,900	4,000	4,100	4,200	4,300
16-1920 Connect/Disconnects	900		900	900	1,000	1,000	1,000	1,000	1,000	1,100	1,100	1,100
16-1921 EC hall well sampling	3,427		3,500	3,600	3,700	3,700	3,800	3,900	4,000	4,100	4,200	4,300
16-1928 Main St capital replacement	29,072		29,072	29,072	29,072	29,072	29,072	29,072	29,072	29,072	29,072	29,072
16-1910 Interest charges	17,500		17,900	18,300	18,700	19,100	19,500	19,900	20,400	20,800	21,300	21,800
16-1917 Cost recovery (building dept)	1,164		1,200	1,200	1,200	1,300	1,300	1,300	1,400	1,400	1,400	1,400
Contributions from Reserves / Reserve Funds	-		-	-	-	-	-	-	-	-	-	-
Total Operating Revenue	**55,490**		**56,072**	**56,672**	**57,372**	**57,872**	**58,472**	**59,072**	**59,872**	**60,572**	**61,272**	**61,972**
Billing Revenues												
Base Charge Revenue	438,635		500,214	567,286	640,985	723,750	816,659	850,331	884,912	920,423	956,886	994,323
Metered Rate Revenue	91,190		103,242	116,388	130,836	147,010	165,110	179,068	194,136	210,396	227,942	246,870
Total Billing Revenue	**529,825**		**603,456**	**683,675**	**771,821**	**870,760**	**981,769**	**1,029,399**	**1,079,047**	**1,130,819**	**1,184,828**	**1,241,193**
Total Revenue	**585,315**		**659,528**	**740,347**	**829,194**	**928,633**	**1,040,241**	**1,088,471**	**1,138,920**	**1,191,392**	**1,246,100**	**1,303,165**

Table A-5
Village of Merrickville-Wolford
Water Services
Water Rate Forecast
Inflated $

Description	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Monthly Base Charge												
Residential	$ 55.92		$ 61.51	$ 67.66	$ 74.43	$ 81.87	$ 90.06	$ 91.59	$ 93.15	$ 94.73	$ 96.34	$ 97.98
Non-residential	$ 85.79		$ 94.37	$ 103.81	$ 114.19	$ 125.61	$ 138.17	$ 140.52	$ 142.90	$ 145.34	$ 147.81	$ 150.32
Annual Increase (%)			10.0%	10.0%	10.0%	10.0%	10.0%	1.7%	1.7%	1.7%	1.7%	1.7%
Metered Rate (per m³)	$ 2.97		$ 3.27	$ 3.59	$ 3.95	$ 4.35	$ 4.78	$ 5.09	$ 5.41	$ 5.76	$ 6.13	$ 6.52
Annual Increase (%)			10.0%	10.0%	10.0%	10.0%	10.0%	6.4%	6.4%	6.4%	6.4%	6.4%

Appendix B
Wastewater Service

Table B-1
Village of Merrickville-Wolford
Wastewater Service
Capital Budget Forecast
Inflated $

Description	Budget 2025	Total	Forecast									
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Capital Expenditures												
WWTP & SPS - Major Maintenance	-	535,000	53,000	43,000	36,000	60,000	26,000	67,000	65,000	64,000	56,000	65,000
WWTP Capital	60,200	435,000	26,000	87,000	1,000	15,000	26,000	40,000	14,000	42,000	133,000	51,000
WWTP - UV Control Panel and UV Banks	-	154,000	-	-	-	-	-	-	-	-	-	154,000
WWTP - SCADA Replacement	-	261,000	-	-	-	-	-	-	-	-	-	261,000
SPS Capital	-	225,000	43,000	5,000	7,000	48,000	6,000	8,000	7,000	66,000	7,000	28,000
Wastewater Main Lifecycle Replacement	-	5,631,000	460,000	481,000	502,000	524,000	547,000	571,000	596,000	622,000	650,000	678,000
Collection Work	-	102,000	8,000	9,000	9,000	10,000	10,000	10,000	11,000	11,000	12,000	12,000
Studies - STP Capacity & Master Plan	100,000	-	-	-	-	-	-	-	-	-	-	-
Contingencies	25,000	-	-	-	-	-	-	-	-	-	-	-
Forcemain Testing	15,000	-	-	-	-	-	-	-	-	-	-	-
Capital - WS Sanitary Sewer Grouting	50,000	-	-	-	-	-	-	-	-	-	-	-
Total Capital Expenditures	**250,200**	**7,343,000**	**590,000**	**625,000**	**555,000**	**657,000**	**615,000**	**696,000**	**693,000**	**805,000**	**858,000**	**1,249,000**
Capital Financing												
Provincial/Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-
Non-Growth Related Debenture Requirements	-	2,696,009	-	-	-	203,869	201,809	280,719	280,689	396,866	461,936	870,121
Wastewater Reserve	250,200	4,646,991	590,000	625,000	555,000	453,131	413,191	415,281	412,311	408,134	396,064	378,879
Total Capital Financing	**250,200**	**7,343,000**	**590,000**	**625,000**	**555,000**	**657,000**	**615,000**	**696,000**	**693,000**	**805,000**	**858,000**	**1,249,000**

Table B-2
Village of Merrickville-Wolford
Wastewater Service
Schedule of Non-Growth Related Debenture Repayments
Inflated $

Debenture Year	2025	Principal (Inflated)	Forecast									
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
2026		-		-	-	-	-	-	-	-	-	-
2027		-			-	-	-	-	-	-	-	-
2028		-				-	-	-	-	-	-	-
2029		203,869					12,991	12,991	12,991	12,991	12,991	12,991
2030		201,809						12,860	12,860	12,860	12,860	12,860
2031		280,719							17,888	17,888	17,888	17,888
2032		280,689								17,886	17,886	17,886
2033		396,866									25,289	25,289
2034		461,936										29,436
2035		870,121										
Total Annual Debt Charges	-	**2,696,009**	-	-	-	-	12,991	25,851	43,739	61,625	86,915	116,351

Table B-3
Village of Merrickville-Wolford
Wastewater Service
Wastewater Reserves/ Reserve Funds Continuity
Inflated $

Description	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Opening Balance	622,776		701,131	461,536	208,898	44,581	-	-	-	-	-	-
Transfer from Operating	328,556		350,405	372,362	390,683	408,550	413,191	415,281	412,311	408,134	396,064	378,879
Transfer to Capital	250,200		590,000	625,000	555,000	453,131	413,191	415,281	412,311	408,134	396,064	378,879
Transfer to Operating	-		-	-	-	-	-	-	-	-	-	-
Closing Balance	**701,131**		**461,536**	**208,898**	**44,581**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Interest												

Table B-4
Village of Merrickville-Wolford
Wastewater Services
Operating Budget Forecast
Inflated $

Description	Budget 2025		Forecast 2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Expenditures												
Operating Costs												
17-4127 Ontario clean water agency	405,034		425,300	446,500	468,900	492,300	516,900	542,800	569,900	598,400	628,300	659,800
Shared Costs (50% Wastewater Share)			-	-	-	-	-	-	-	-	-	-
17-4130 Neptune (meter reading program)	2,000		2,000	2,100	2,100	2,200	2,200	2,300	2,300	2,400	2,400	2,500
17-4135 Administrative costs	5,000		5,100	5,200	5,300	5,500	5,600	5,700	5,800	6,000	6,100	6,200
17-4136 Payment in lieu taxation	1,200		1,200	1,300	1,300	1,300	1,300	1,400	1,400	1,400	1,500	1,500
17-4140 Office supplies	250		300	300	300	300	300	300	300	300	300	300
17-4142 Utilities	4,000		4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000
17-4158 Insurance	13,500		14,900	16,300	18,000	19,800	21,700	23,900	26,300	28,900	31,800	35,000
17-4190 Depot utilities	750		800	800	800	800	800	900	900	900	900	900
Regulatory Costs	-		5,100	5,200	5,300	5,500	5,600	5,700	5,800	6,000	6,100	6,200
Sub Total Operating	**431,734**		**458,800**	**481,900**	**506,300**	**532,100**	**558,900**	**587,600**	**617,400**	**649,100**	**682,300**	**717,400**
Capital-Related												
Existing Debt (Principal) - Non-Growth Related	94,254		98,043	101,983	106,083	110,347	114,782	119,396	124,195	129,188	134,380	139,782
Existing Debt (Interest) - Non-Growth Related	107,001		103,212	99,271	95,172	90,908	86,472	81,858	77,059	72,067	66,874	61,472
New Non-Growth Related Debt (Principal)			-	-	-	-	3,165	6,450	11,118	16,011	22,943	31,220
New Non-Growth Related Debt (Interest)			-	-	-	-	9,826	19,401	32,621	45,614	63,971	85,131
Transfer to Capital	-		-	-	-	-	-	-	-	-	-	-
Transfer to Capital Reserve	328,556		350,405	372,362	390,683	408,550	413,191	415,281	412,311	408,134	396,064	378,879
Sub Total Capital Related	**529,810**		**551,659**	**573,617**	**591,938**	**609,805**	**627,437**	**642,386**	**657,305**	**671,014**	**684,233**	**696,484**
Total Expenditures	**961,544**		**1,010,459**	**1,055,517**	**1,098,238**	**1,141,905**	**1,186,337**	**1,229,986**	**1,274,705**	**1,320,114**	**1,366,533**	**1,413,884**
Revenues												
Operating Revenues												
16-1910 Interest charges	17,500		17,900	18,300	18,700	19,100	19,500	19,900	20,400	20,800	21,300	21,800
16-1917 Cost recovery (building dept)	1,164		1,200	1,200	1,200	1,300	1,300	1,300	1,400	1,400	1,400	1,400
Contributions from Reserves / Reserve Funds	-		-	-	-	-	-	-	-	-	-	-
Total Operating Revenue	**18,664**		**19,100**	**19,500**	**19,900**	**20,400**	**20,800**	**21,200**	**21,800**	**22,200**	**22,700**	**23,200**
Billing Revenues												
Base Charge Revenue	779,465		817,933	852,860	885,530	918,653	952,234	984,873	1,017,959	1,051,496	1,085,490	1,119,946
Metered Rate Revenue	163,416		173,426	183,157	192,808	202,852	213,303	223,913	234,946	246,418	258,343	270,738
Wastewater Billing Recovery - Operating	**942,880**		**991,359**	**1,036,017**	**1,078,338**	**1,121,505**	**1,165,537**	**1,208,786**	**1,252,905**	**1,297,914**	**1,343,833**	**1,390,684**
Wastewater Billing Recovery - Total	**961,544**		**1,010,459**	**1,055,517**	**1,098,238**	**1,141,905**	**1,186,337**	**1,229,986**	**1,274,705**	**1,320,114**	**1,366,533**	**1,413,884**

Table B-5
Village of Merrickville-Wolford
Wastewater Services
Wastewater Rate Forecast
Inflated $

Description	2025		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Monthly Base Charge												
Residential	$ 111.84		$ 112.70	$ 113.57	$ 114.45	$ 115.33	$ 116.22	$ 117.11	$ 118.02	$ 118.93	$ 119.84	$ 120.77
Non-residential	$ 171.58		$ 172.90	$ 174.24	$ 175.58	$ 176.93	$ 178.30	$ 179.67	$ 181.06	$ 182.45	$ 183.86	$ 185.28
Annual Increase (%)			0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
Metered Rate (per m³)	$ 5.97		$ 6.13	$ 6.30	$ 6.48	$ 6.66	$ 6.84	$ 7.03	$ 7.22	$ 7.42	$ 7.63	$ 7.84
Annual Increase (%)			2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%