2026 ASSET MANAGEMENT PROGRESS REPORT

WOOLWICH TOWNSHIP

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Introduction

Introduction to Asset Management

Asset management is an approach to help municipalities make decisions on infrastructure. It focuses on deriving value from municipal infrastructure assets in a structured and predictable way to provide services to residents, businesses and the community. The Township manages a range of infrastructure assets from roads, bridges, underground sewer and watermains, parks and facilities. These assets help us serve the community and add to the quality of life in Woolwich.

The Township's asset management approach focuses on building alignment with the Township of Woolwich's 2024-2034 Community Strategic Plan vision and goals by connecting service delivery objectives with asset performance and activities.

Purpose

The annual report will highlight the Township's progress in implementing the latest AMP by:

- Identifying factors impeding progress;
- Outline continuous improvement activities and solutions to enable the Township to grow its asset management approach; and,
- Provide a snapshot of how each service is performing.

Ontario Regulation 588/17

Asset management plans (AMP) provide a high-level overview of strategies and activities to help achieve the organization's objectives in a way that balances cost, risk and service delivery.

All municipalities in Ontario are required to meet Ontario Regulation (O. Reg.) 588/17: Asset Management Planning for Municipal Infrastructure, as amended by O. Reg. 193/21. The regulation aims to help municipalities work towards a more sustainable position regarding the funding and managing of their infrastructure. O. Reg. 588/17 introduced a phased approach since 2019 for municipalities to produce specific asset management requirements which the Township has completed. As we look to the future, there is a commitment for municipal councils to complete an annual review of the Township's progress in implementing the asset management plan every year and have a comprehensive asset management plan completed at least every five years.

The continuous review and improvement of the Township's asset management planning approach will help to standardize strategies and frameworks to realize value and deliver services from new and existing infrastructure in a way that achieves the lowest total lifecycle cost. As more information is gathered or specific assessments are completed regarding condition rating

Introduction

and service delivery, the plan will inherently change, becoming more accurate and lead to improved predictable and data-driven decision-making related to how and when we operate, maintain, replace or repair our assets.

Relationship to the Asset Management Plan

The annual report will provide a valuable tool for staff and Council to assess the changing state of the Township's infrastructure and provide an update on the progress from the last Council-approved Asset Management Plan. Therefore, the annual report will help to monitor existing practices and improvements to ensure the Township delivers expected services.

The Township's most recent asset management plan (2024/2025) is used as the foundation for the annual progress report. Many of the previous assumptions are maintained unless otherwise noted. This includes methods developed for assessing performance, service levels, the asset hierarchy and lifecycle strategies. New or expanded asset classes and strategies will be included with the Township's next update of the AMP anticipated for 2030. The Service Summaries section highlights key changes from the previous reported inventory, completed projects from 2025, and items identified for improvement in future updates. The current replacement costs have been estimated based on a review of current unit rates (e.g. tenders, cost estimates) and/or inflation, where relevant. Tables including detailed information on all level of service metrics can be found in Appendix A. The Continuous Improvement section outlines specific activities to improve the Township's asset management planning approach that build on the recommendations from the AMP.

Financial Strategy

Understanding the Financial Strategy within the Asset Management Plan

The 2025 Asset Management Plan contains a financial strategy that outlines the funding required to provide the identified proposed levels of service, and potential strategies to work towards delivering them over a 10-year forecast period. To develop the financial strategy, the 2025 AMP leveraged the 2024 Development Charges (DC) Background Study and 2025 10-year Capital Budget as the main inputs to outline the growth and non-growth related projects identified to support tax-supported assets (e.g. transportation, fleet and equipment, fire, outdoor and indoor recreation facilities) and rate-supported assets (e.g. water and wastewater). The initial growth-related portions of the projects were assumed to be funded through development charges and were not included; however, the benefit to existing shares and future repair and replacement of growth projects identified in the DC Background Study were added as part of the total lifecycle cost. Additional budgeted costs were also layered into the 2025 AMP to cover the needs identified in the 2023 State of the Infrastructure and Asset Management Plan for Roads and costs attributed to proposed levels of service.

Based on these inputs, total tax-supported spending of $158.5 million was identified for capital related lifecycle needs over the 10-year forecast period. However, $72.0 million was expected to be available, demonstrating a funding gap of $86.5 million. If a funding strategy was adopted to fully eliminate this funding gap, then the 2025 Council-approved Infrastructure Levy Fund of 2.5% would need to be 8.4% annually over the next 10 years.

For rate-supported assets, a total 10-year capital need of $46.1 million is required over the 10-year period. With approximately $22.6 million of funding expected to be available, leaving a funding gap of about $23.5 million. This funding gap would require 4.5% combined increase to the water and wastewater rate per year over the next 10-years. In 2025, the capital infrastructure allocations were increased by 6.3% for water and 10.2% for wastewater.

Limitations of Updating the Financial Strategy

There are a few challenges with the 2025 AMP financial strategy when considering the assumptions made and the direction of the Township's budgeting and capital planning approach. To reconcile the 2025 AMP financial strategy with actual spending, a large assumption of the 2025 AMP assumes that projects within the 2024 DC Background Study and 2025 Capital Budget are

Financial Strategy

completed at the projected time and estimated costs; however, the Township does not currently implement projects in the same fashion. Some factors that impeded the municipality's ability to implement the 2025 AMP are as follows:

- The 2024 DC Background Study uses large time ranges (up to 25 years) which is not how capital projects, on average, are completed. This generated issues in the 2025 AMP as accurate timelines are required to be able to reconcile between the AMP and to report on progress annually.
- The 2025 Capital Budget rarely materializes as it was planned. In most years, the Township does not complete all projects within the capital program which causes reconciliation issues with the AMP. For example, the 2025 Capital Budget included a 10-year forecast; however, each year the capital plan changes when the new budget cycle begins. As a result, 2026-2034 of the 2025 Capital Budget is expected to change significantly through new capital budgets (e.g. 2026 Capital Budget, 2027 Capital Budget, etc.).
- The Township allows prior-year, underspent projects to be re-budgeted in future years and does not currently employ standardized project management within the capital program. This can be improved by working towards implementing consistent project management approach such as project charters, regular cost tracking as a percentage of budget and formal close-out processes. As a result, budgeted projects from previous years were expensed in 2025, resulting in AMP discrepancies.

Ideas to help address the factors identified above have been included in the Continuous Improvement section of this report and align with other efficiencies identified during the annual budget process.

Service Summary

Service Summary Overview

This annual report provides an overview of the current state of the infrastructure of the assets used to support each service area. The summary provides a snapshot of how well the infrastructure is performing, and the current and future improvements to service offerings. Due to concerted efforts to expand inventories and improve data quality, there have been enhancements to asset inventories, including changes to better reflect ownership and responsibilities (e.g. Region or private) for services like roads and utilities, which makes it difficult to directly compare results to previous asset management reporting. The overall condition of the Township's assets have been updated to reflect asset inventories and condition assessments where the information was available as of December 31, 2025. The condition performance graphs show the distribution of assets in each condition rating as a percentage, weighted by replacement costs. Overall, the Township's asset portfolio is estimated to have a replacement cost of $1.26 billion and an average condition of "good", with approximately 87% of the portfolio in poor or better condition.

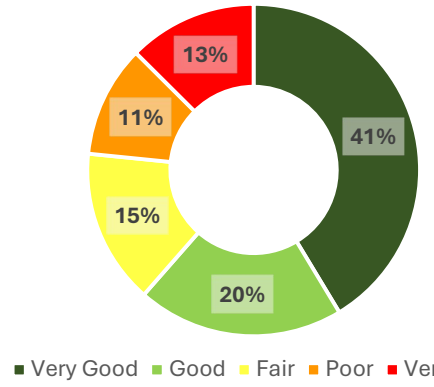
The estimated replacement cost is the amount to replace an asset with the same capacity and function at the present time and includes costs related to removal, installation, design, engineering, labour and materials. Estimated replacement costs have been calculated using either updated unit rates or an inflation factor has been applied to reflect the previous replacement cost in today's dollars. An inflation rate using Statistics Canada's Non-Residential Building Construction Price Index has been applied to infrastructure and facility assets as it is more reflective of the cost of construction municipalities experience when constructing these assets, while the Consumer Price Index has been applied on park, fleet and equipment assets as this is more reflective of broad inflation for consumer goods, like fuel and transportation.

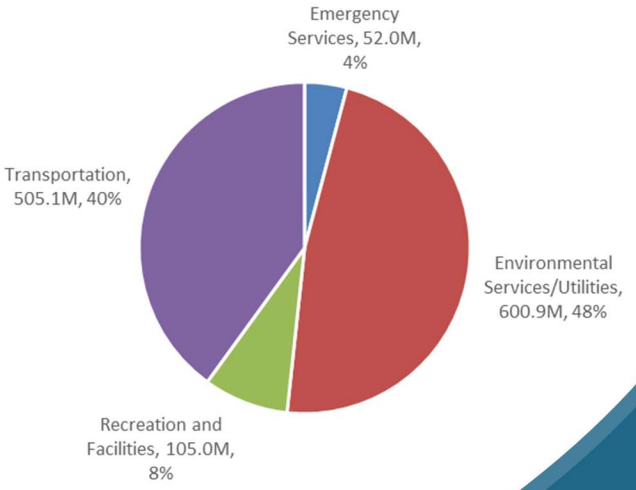
Total Estimated Replacement Cost

$1.263 B

Overall Condition

Good





Transportation Services

Replacement Cost

Estimated Replacement Cost	$505.1 Million
2024 AMP	$475.8 Million
Inventory and Inflationary Changes	$29.3 Million

Overall Condition

Good

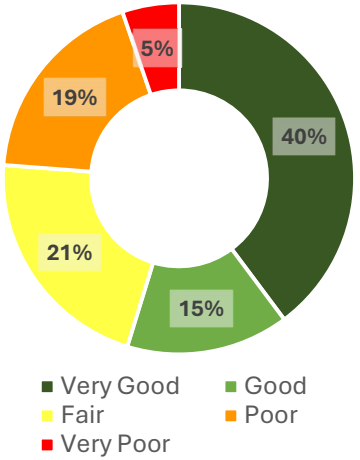
Quantity

355.26 centreline km of roads
142.1 km of sidewalks
8 footbridges
4,259 streetlight assets
5 municipal parking lots
55 bridges and culverts
1,700 m of retaining walls
39 equipment assets
34 fleet assets
10 machinery assets

Transportation Service Summary: The Township's paved and gravel roads connect our community. Every day we work to keep a safe, reliable road network to help people get around easily. We do regular road maintenance (such as pothole repair and gravel road grading) in accordance with O. Reg. 239/02, winter maintenance (such as snow removal), pavement resurfacing and reconstruction projects. Our roads also promote various types of transportation with bridges, culverts and sidewalks.

Key Highlights:

- There was 3.87 centreline kilometres of roads added to the inventory from subdivision developments.
- The 2025 Paving Program included asphalt resurfacing, culvert replacements, new sign installations and site restoration that resulted in a total of 8km of roads re-surfaced.
- In-house condition inspection of the entire road network was completed, meeting our two year inspection frequency objective.
- Improvements were made on utilizing our work order management system to track and report on deficiencies arising from our road patrols.
- Completed the creation of a dedicated inventory of Township owned streetlight poles and cleaned up the data tables for streetlights.



Future Focus:

- Further analysis on determining which gravel roads are suitable candidates for conversion that will result in improved efficiencies over the road asset's lifecycle.

Drinking Water Distribution System

Replacement Cost	
Estimated Replacement Cost	$163.1 Million
2024 AMP	$141.9 Million
Inventory and Inflationary Changes	$21.2 Million

Overall Condition

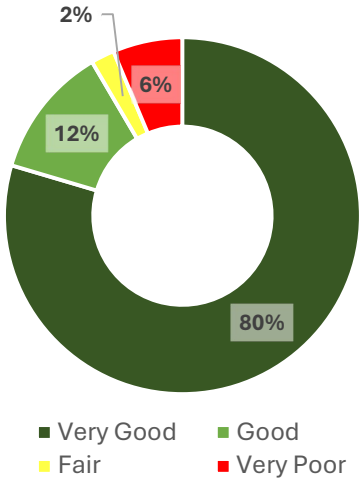
Very Good

★★★★★

Quantity

137.4 km of watermains
2,195 valves
7,703 water services
819 hydrants and appurtenances

Drinking Water Distribution System Service Summary: The Township ensures that all residents and businesses have access to clean drinking water and water for fire services in accordance with the Safe Drinking Water Act. We are committed to providing a safe, secure, and reliable water distribution system with minimal service interruptions. Drinking water services in the Township are a shared responsibility with the Region of Waterloo. The Region handles the supply, including treatment, pressure, and transmission of drinking water. The Township distributes drinking water to residents, businesses, and other properties through a network of pipes, valves, and fire hydrants.



Key Highlights:

- There was 4.1 kilometres of watermain added to the inventory from subdivision developments.
- Addressed non-reporting meters found during billing cycles and took action as required to mitigate revenue loss.

Future Focus:

- Collaboration with the Region to determine an allocation based approach and to find efficiencies related to the Region's water capacity limitations, specifically conservation efforts.
- Improve the water loss program to more accurately account for loss in the system.
- Implementation of a Cathodic Protection Program to monitor and protect the water distribution system from corrosion by extending the useful life of the water system and reducing pipe failure.

Note: The condition of watermains is represented by mainline assets as they compose the majority of the replacement value and drive capital planning. Associated mainline assets (e.g. valves, services, hydrants) are included in the per metre linear unit rate and are bundled within replacements.

Sanitary Wastewater Collection

Replacement Cost

Estimated Replacement Cost	$166.8 Million
2024 AMP	$148.3 Million
Inventory and Inflationary Changes	$18.5 Million

Overall Condition

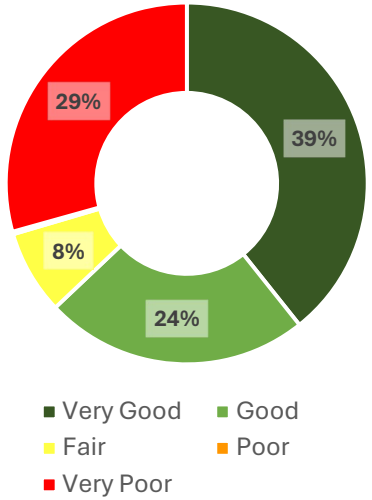
Fair

★★★☆☆

Quantity

100.7 km of sewers
6,979 service laterals
1,619 maintenance holes
4.3 km of forcemains
6 pumping stations

Sanitary Wastewater Collection Service Summary: The Township owns and operates a sanitary collection system consisting of pipes and local pumping stations that collect sewage (wastewater) from homes and businesses governed by the Ontario Water Resources Act. This system takes the Township's wastewater to Region of Waterloo wastewater treatment facilities. The Township is dedicated to providing a functional, efficient, and reliable wastewater system that protects public health and the environment.



Key Highlights:

- There was 4.3 kilometres of sanitary sewer mains added to the inventory from subdivision developments.
- Completion of a comprehensive review of existing CCTV condition information to fill missing data gaps and create data links to tie condition information to individual assets in the GIS.
- An inflow & infiltration program focused in the St. Jacobs sanitary sewer collection system was completed to eliminate extraneous flow and repair structural and operational defects using full-length trenchless rehabilitation of existing sewer laterals, from mainline to house/building, using a cured in place pipe (CIPP) tube.

Future Focus:

- Continue to complete additional CCTV condition assessments focusing on areas where information may be missing or outdated, including applying a condition rating system using NASSCO's sewer condition scores.
- Continue to expand inflow and infiltration monitoring program and integrate results to better inform the condition of the system.
- Expand asset inventories and condition assessments for pumping station facility assets.

Note: The condition of sanitary mains is represented by mainline assets as they compose the majority of the replacement value and drive capital planning. Associated mainline assets (e.g. laterals and maintenance holes) are included in the per metre linear unit rate and are bundled within replacements.

Stormwater Management

Replacement Cost

Estimated Replacement Cost	$252.9 Million
2024 AMP	$201.8 Million
Inventory and Inflationary Changes	$51.1 Million

Overall Condition

Fair

★★★☆☆

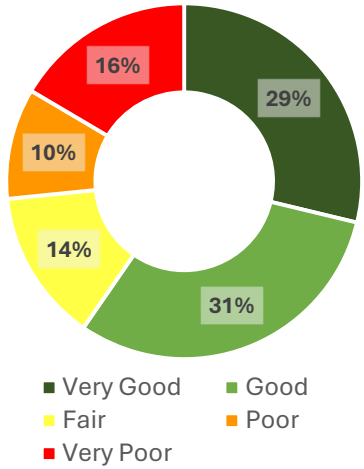
Quantity

8.8 km of culverts
13.3 km of groundwater management systems
636 maintenance holes
113.7 km of storm sewer mains
3,342 storm sewer structures
4,119 service laterals
8 oil grit separators
369 m of retaining walls
28 SWM ponds

Stormwater Management Service Summary: The Township of Woolwich is responsible for providing a well-maintained and environmentally friendly stormwater network that mitigates flooding, improves quality and ensures roadways drain properly during storm events. The goal of stormwater management (SWM) is to protect the community and the environment by controlling the quality and quantity of stormwater runoff caused by urbanization as it relates to the hydrologic cycle, including increased runoff, and decreased infiltration, of rain and snowmelt.

Key Highlights:

- There was 6.3 kilometres of stormwater sewer mains added to the inventory from subdivision developments.
- Four new stormwater facilities added to the inventory from new development areas.
- Completion of a comprehensive review of existing CCTV condition information to fill missing data gaps and create data links to tie condition information to individual assets in the GIS.
- Sediment removal from the Weigel Storm Water Management Pond in Elmira was completed to restore capacity and improve water quality (e.g. total suspended solid removal), functionality, and replacement of an aging headwall on the Weigel Drain to restore drainage capacity.



Future Focus:

- Expand condition assessments and bathymetric surveys for all SWM ponds to assess sediment accumulation.
- Complete condition assessments for rural culverts less than 3m starting in 2026.
- Further compliance with the Ministry of Environment, Conservation and Parks (MECP) for Consolidated Linear Infrastructure and Environmental Compliance Approval (CLI ECA) monitoring and reporting.

Note: The condition of stormwater mains is represented by mainline assets as they compose the majority of the replacement value and drive capital planning. Associated mainline assets (e.g. laterals, sewer structures and maintenance holes) are included in the per metre linear unit rate and are bundled within replacements.

Cellar Drain Collection System

Replacement Cost

Estimated Replacement Cost	$18.1 Million
2024 AMP	$16.9 Million
Inventory and Inflationary Changes	$1.2 Million

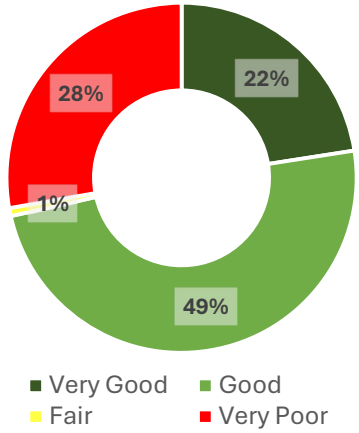
Overall Condition

Fair

Quantity

16.0 km of mains
1004 service laterals
95 maintenance holes

Cellar Drain Collection System Service Summary: To provide cellar drain collection services that minimize impacts from groundwater on basements. The cellar drain collection system is only found in the settlement of Elmira and was originally installed in the early 1900s to promote home construction due to tight soil conditions and groundwater.



Key Highlights:

- Completion of a comprehensive review of existing CCTV condition information to fill missing data gaps and create data links to tie condition information to individual assets in the GIS.

Future Focus:

- Continue to complete additional CCTV condition assessments focusing on areas where information may be missing or outdated, including applying a condition rating system using NASSCO's sewer condition scores.
- Refine the service category to incorporate other third pipe collection systems and/or groundwater management systems.

Note: The condition of cellar mains is represented by mainline assets as they compose the majority of the replacement value and drive capital planning. Associated mainline assets (e.g. laterals and maintenance holes) are included in the per metre linear unit rate and are bundled within replacements.

Emergency Services

Replacement Cost

Estimated Replacement Cost	$52.0 Million
2024 AMP	$44.6 Million
Inventory and Inflationary Changes	$7.4 Million

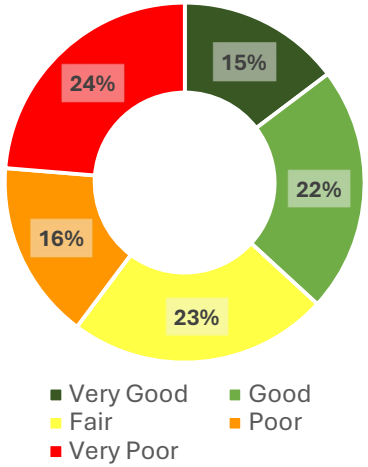
Overall Condition

Fair

Quantity

6 fire stations
15 fire reservoir assets
710 equipment assets
24 fleet assets

Emergency Services Summary: The Woolwich Fire Department is a volunteer fire department that strives to protect and enhance the community by focusing on public education, fire prevention, and harm reduction, while providing a rapid and effective response to emergencies, including fires, medical calls, and other hazardous situations.



Key Highlights:

- Replaced existing natural gas furnaces and rooftop units with dedicated heat pumps or hybrid systems at the St. Jacobs Fire Station and Elmira Fire Station.
- Ordered a replacement rescue for Elmira Fire Station.

Future Focus:

- Develop and complete condition assessment inspections for fire reservoirs.
- Complete a Fire Master Plan in 2026 to help inform long-term strategic planning.
- Complete Building Condition Assessments (BCAs) for all facilities in 2026 and 2027 to support long-term lifecycle planning and capital forecasting.

Recreation and Facilities

Replacement Cost

Estimated Replacement Cost	$105 Million
2024 AMP	$90.9 Million
Inventory and Inflationary Changes	$14.1 Million

Overall Condition

Good

★★★★☆

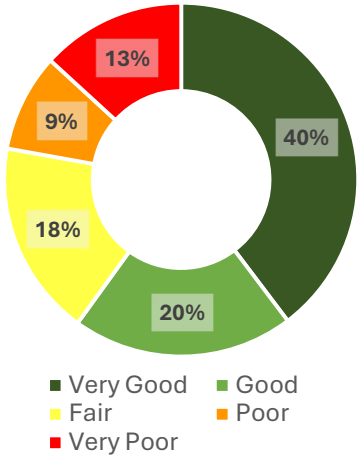
Quantity

7 administration & operation facilities
8 equipment assets
41 fleet & machinery assets
290 IT equipment assets
2 libraries
2 multi use/event spaces
7 recreation centres/arenas
320 outdoor recreation assets
27.2 km of trails

Recreation and Facilities Service Summary: To provide recreation amenities and facilities that are clean, safe, protect the end user, and are accessible for all. They include arenas, pools, community centres, parks and amenities, trails, cemeteries, fleet, and information technology. The Township is focused on providing recreational spaces that meet the needs of our users.

Key Highlights:

- Switched the St. Jacobs Arena to cold-water ice resurfacing and converted dressing room hot water heaters to on-demand tankless systems, resulting in annual natural gas savings of approximately 8,000 m^3.
- Replaced capital facility assets at the Breslau Community Centre, Breslau Memorial Park, and completed park asset replacements at Heidelberg Park.
- Added three new hybrid vehicles to the corporate fleet. The Township now operates four hybrid vehicles and one fully electric vehicle within Recreation and Community Services and Development Services.
- Reviewed and updated the IT asset inventory to better reflect current production systems.



Future Focus:

- Complete Building Condition Assessments (BCAs) for all facilities in 2026 and 2027 to support long-term lifecycle planning and capital forecasting.
- Update outdoor park and cemetery asset records to establish a comprehensive baseline dataset.
- Expand asset inventories to include green infrastructure assets, such as trees, natural areas, and other environmental features.

Growth and Development

Impacts of Growth and Development

Infrastructure assets such as roads, sidewalks, watermains, stormwater systems, and parks are often provided and constructed by developers as part of new developments. Although these assets enhance community services, they also create long-term operational and financial obligations for the Township. While initial construction costs are borne by developers, the Township is responsible for ongoing maintenance, rehabilitation, and eventual replacement of these assets. The Township's population and demand for services is expected to grow, with a forecasted population estimated to increase by approximately 7,933 to a total of around 36,433 by mid-2034 (according to the 2024 Development Charges Background Study).

Key Risk

As we look to the future, areas of uncertainty and factors that may limit the Township's ability to grow include the economic homebuilding slowdown, future funding assumptions regarding growth timing or legislative changes, and the recent water capacity constraints identified by the Region of Waterloo in the Mannheim Service Area. This area affects the supply of potable water where future growth is planned in areas of the Township, including Breslau, Conestogo, Elmira, St. Jacobs, and West Montrose. All the area municipalities continue to work closely with the Region of Waterloo to address the water capacity issue, and important updates are expected throughout 2026 and 2027 by the Region of Waterloo.

New Subdivision Infrastructure

An exercise was completed to estimate the quantity of linear infrastructure originating from subdivision areas where infrastructure is being constructed or planned. There are two main categories that have been identified: infrastructure that is currently in the process of development (e.g. in construction or maintenance period) and those that have been approved by Council and are still in the planning period (e.g. Draft Plan Approved). Where the data is *readily available, a portion of these* infrastructure assets have already been added to the inventories for each service area, while others are based on estimated quantities from servicing reports and drawings.

Growth and Development

Figure 1 below provides a summary of the linear infrastructure that is expected to be transferred to the Township from the development of subdivisions in the next 5 to 10 years, after construction has been inspected and approved by the Township and the maintenance period has been completed. This includes approximately 31 centreline km of roads, 17 km of sanitary sewers, 20 km of stormwater sewers, 17 km of watermains and 11 km of trails. Of the linear infrastructure not currently captured in the inventory, the estimated replacement cost is about $66 million (with inflation applied) with the Environmental Services/Utilities Service making up 63% of the replacement cost, followed by Transportation Service at 32% (Figure 2).

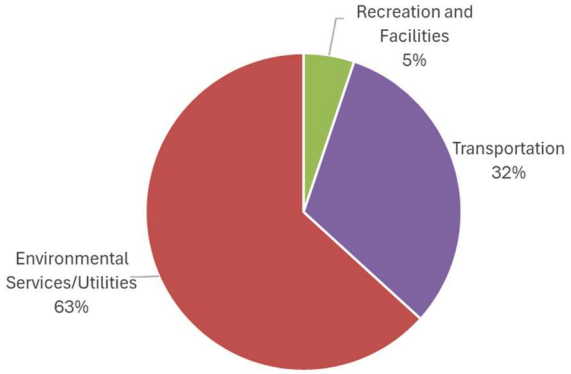


Figure 2 Distribution of linear infrastructure in new subdivisions not currently captured in asset inventories by replacement cost and service area

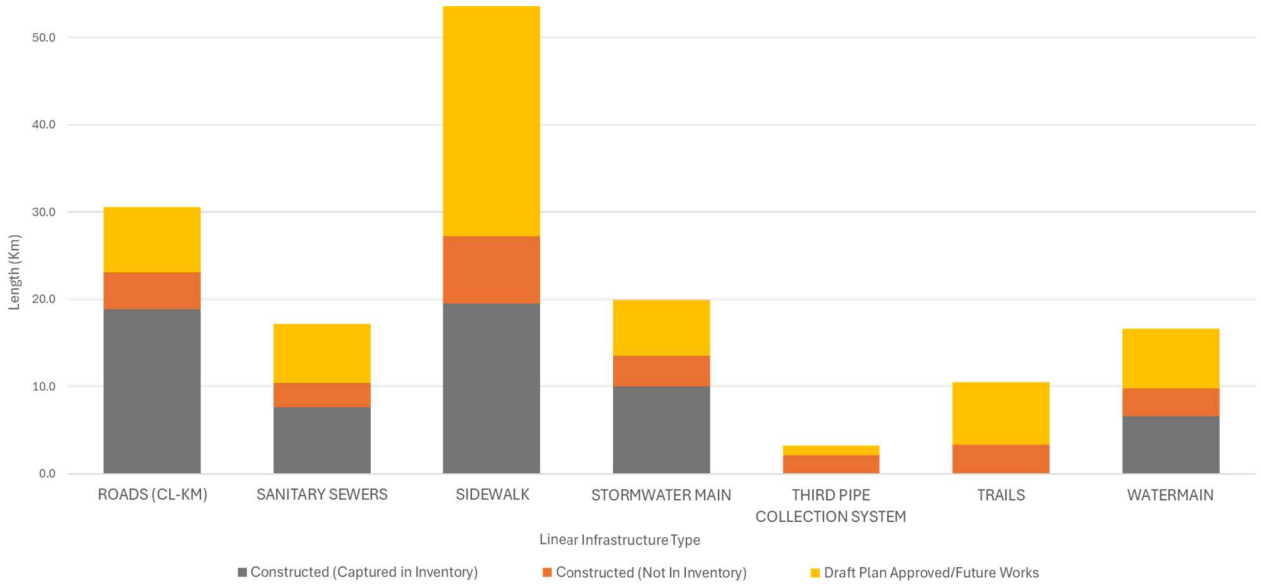


Figure 1 Estimated linear infrastructure lengths from subdivision development (not assumed by the Township as of Dec 31, 2025)

Continuous Improvement Activities

The Journey of Continuous Improvement

The Township is at the beginning of its asset management journey and improvements to its asset management approach will provide benefits for long-term service delivery, quality of life and the sustainability of the Township. This includes improvements in data quality and condition assessments, regular updates to the asset register, reviewing risk and lifecycle management strategies, and a commitment to continuous improvement. Continued efforts to integrate asset management planning into long-term financial and capital planning will help ensure an asset management lens is used in decision making moving forward.

Barriers and Mitigating Actions

There are a variety of factors that may impede or delay progress for implementing these activities which have been identified below, along with corresponding actions to address it. These include:

1. Asset management governance, frameworks and strategies are not sufficiently advanced to provide appropriate direction and guidance.
   - ➲ Mitigating Measure:
     - Develop and refine strategies and processes by collaborating across the organization with the Asset Management Working Group.
2. The asset management system does not achieve the intended outcomes.
   - ➲ Mitigating Measures:
     - Create, review and update processes and frameworks;
     - Clarify asset management objectives and maintain alignment with strategic priorities; and,
     - Review existing software uses and implement strategies for data integration.

Continuous improvement in asset management planning helps to:

- Support informed decisions about maintaining and upgrading essential infrastructure to prioritize investments that preserves services that matter most;
- Balance infrastructure needs and risk with financial capacity ensuring responsible use of tax-payer dollars;
- Set realistic service levels that are aligned with the Strategic Plan and informed by community engagement;
- Develop lifecycle management strategies that deliver services at the lowest cost over the asset's life;
- Promote evidence-based decisions that are integrated with financial strategies and long-term infrastructure planning; and,
- Understand opportunities for adaptation and mitigation to address vulnerabilities that may be caused by climate change.

Continuous Improvement Activities

3. Reduced asset management progress due to pressure from project timing, staff workloads, software limitations, and budget constraints.
    - ➲ Mitigating Measures:
        - Review priorities and adjust time scales and processes to identify areas for improved efficiency with the use of technology; and,
        - Corporate review of processes for efficiencies and review existing software uses, limitations and opportunities for improved data integration and workflows.
4. Timing and integration of asset information with new financial software and future budgeting tool overlaps with ongoing asset management activities.
    - ➲ Mitigating Measure:
        - Begin to create capital project numbers, identify and link assets to each project, and align project costs with asset information.

Long-Term Commitment

Many of the activities identified are intended to improve the Township's asset management approach and the systems and processes that form it. Some examples of long-term, continuous improvement activities are:

- Continued compliance with O. Reg. 588/17 by completing an asset management plan update at least every five years and annual progress updates in the intervening years.
- Developing and refining a Corporate Asset Management Strategy that provides direction and guidance to develop asset management objectives, systems, and plans aligned with the organization's strategic goals, including developing new frameworks such as for asset management governance and asset data information management.
- Complete a formal maturity assessment of asset management capabilities against common industry standards and implement recommended activities to help bridge identified gaps.

The success of the implementation of these recommendations and solutions will benefit from developing a detailed asset management workplan, essentially a road map, that outlines key priorities, resourcing requirements, and timelines to report on

Continuous Improvement Activities

progress which will be started in 2026. The development of a road map will be complemented by completing a maturity assessment to identify current gaps, strengths, and opportunities for improvement that are aligned with organizational priorities and is guided by industry best practices.

The Township's 2024 and 2025 asset management plans identified various improvement recommendations which have been refined to highlight actions and tasks to form the short-term targets (1-5 years) in Table 1 below. The short-term actions have been grouped in three general categories:

1) Capital Investment Decision-Making: Identifies actions to strengthen the relationship and use of asset information with long-term financial planning;
2) Information Management and Lifecycle Delivery: Identifies actions to improve asset information and performance modelling, and support a whole lifecycle approach; and,
3) Asset Costing and Valuation: Identifies actions to improve the methods and processes for quantifying asset values and better inform asset investment decisions.

Table 1 Short-Term Actions and Tasks

Capital Investment Decision-Making 	Start to integrate asset management information with budgets and capital planning. This includes working towards implementing standardized project management for the capital program, eliminating carry-forwarding projects and tracking reserve and reserve fund balances with more scrutiny.
	Start to use the outputs from the asset management modelling to develop a capital project list for further prioritization based on asset conditions, risk and service level needs by developing a project prioritization framework.
	Improve links between asset data, lifecycle models and budget forecasts to better support lifecycle forecasting analysis.

Continuous Improvement Activities

	Implement the Decision Support System (DSS) tool developed for forecasting rehabilitation needs and calibrate results to better align forecasts with realities of decision making including use of risk-based prioritization and consideration of an integrated corridor analysis tool.
	Develop a fully funded 10 year Capital Budget to create more structure and consistency to be used as an improved input for the next AMP.
Information Management and Lifecyle Delivery	Continue to develop and update the asset register with alignment between databases to reduce redundancies and build a 'single source of truth' so information is readily available to support asset management analyses.
	Improve asset data by expanding and formalizing condition assessment programs, developing frameworks to consistently rate data maturity (i.e. data quality and data confidence), and continue to document assumptions for gap filling key fields.
	Develop, refine and implement standard operating procedures to support ongoing asset management processes, like annual inventory updates and documenting asset workflows (e.g. asset data handover, condition assessments, etc.).
	Complete climate change risk assessments to assess the vulnerability of infrastructure to climate impacts and integrate results into asset management planning.
	Refine work order management processes to promote data integrity, efficiencies, and optimize reporting.
Asset Costing and Valuation	Reconcile the asset register with the Tangible Capital Asset reporting register to ensure alignment and consistency of data.
	Review and develop consistent methods for documenting, calculating and updating replacement costs.

Appendix A: Levels of Service Tables

Table A-1 Transportation Services Technical Levels of Service

TRANSPORTATION SERVICES					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Scope	Number of lane-kilometres of each of arterial roads, collector roads and local roads as a proportion of square kilometres of land area of the municipality. *	Arterial – N/A Collector – 128.5% Local – 98.2%	N/A - inspections occur every 2 years	Arterial - N/A Collector - 116% Local - 112%	Maintain
Reliable	For paved roads in the municipality, the average pavement condition index value. *	65.1		65.4	Maintain
Reliable	For unpaved roads in the municipality, the average surface condition (e.g. excellent, good, fair or poor). *	44.8		45.2	Maintain
Reliable	Overall weighted average physical condition (structural adequacy)	58.3		58.8	Increase
Reliable	Percentage of roads classified as "now need"	35%		33%	Maintain
Reliable	Percentage of roads Good to Very Good when measured by structural adequacy metric by centreline km (per Roads SOTI AMP)	48.2%		49.6%	Increase
Reliable	Road network system adequacy score by centerline km	65.3%		67.5%	Maintain
Reliable	Percentage of bridges in the municipality with loading or dimensional restrictions. *	38% Note: For Road Bridges		30% Note: For Road Bridges	Decrease

TRANSPORTATION SERVICES					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Reliable	For bridges in the municipality, the average bridge condition index value. * [a]	63		61	Maintain
Reliable	For structural culverts in the municipality, the average bridge condition index value. *	77		73	Maintain
Reliable	For all municipal structures, the average bridge condition index value (includes footbridges). [a]	61		66	Maintain
Accessible	Number of municipal parking lots that have accessibility parking spots.	2/5	2/5	2/5	Increase
Accessible	Percentage of urban roads that have sidewalks	n/a	82%	82%	Increase
Available	Number of graders by gravel road lane km	2:233.7	N/A - inspections occur every 2 years	2:229.3	Maintain
Available	Number of IS service vehicles by population [1,2,3]	13:28,310	17:28,530	17:28,960	Maintain
Available	Number of plow trucks per linear centreline km of hardtop roads maintained by the Township	8: 228.6	N/A - inspections occur every 2 years	10:233.3	Maintain
Reliable	Percentage of total Transportation Network assets (excluding roads) in poor or better condition	N/A	80%	84%	Increase
Reliable	Percentage of active transportation assets in poor or better condition	N/A	100%	99%	Decrease
Reliable	Percentage of total municipal structures in poor or better condition	N/A	76%	79%	Increase

TRANSPORTATION SERVICES					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Reliable	Percentage of fleet and equipment assets that are in poor or better condition	N/A	67%	71%	Maintain
Reliable	Percentage of traffic management assets in poor or better	N/A	93%	93%	Decrease

* indicates technical levels of service required by O. Reg. 588/17

[1] Year-End 2022 Population and House Estimates, Region of Waterloo

[2] Year-End 2023 Population and House Estimates, Region of Waterloo

[3] Year-End 2024 Population and House Estimates, Region of Waterloo

[a] The average BCI includes footbridges

Table A-2 Drinking Water Distribution Technical Levels of Service

DRINKING WATER DISTRIBUTION					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Scope	Percentage of properties connected to the municipal water system. *	70.4%[†]	70.6%[†]	70.7%	Maintain
Scope	Percentage of properties where fire flow is available. *	65.8%	67.4%	67.4%	Maintain
Reliable	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 municipal water system. *	0	0	0	Maintain
Reliable	The number of connection-days per year due to watermain breaks compared to the total number of properties connected to the municipal water system. *	7.5:7,259	7.5:7,373	12.5:7,507	Maintain

DRINKING WATER DISTRIBUTION					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Reliable	Annual number of watermain breaks per 100 km	0.023	0.023	0.036	Maintain
Safe	Approximate length of system potentially containing lead joint mains and/or services	2.3 km	2.1 km	2.1 km	Decrease
Safe, Quality	The number of annual major infractions (nonconforming) Drinking Water Quality Management Standard (DWQMS) incidences	0	0	0	Maintain
Reliable	Percentage of watermains in poor or better condition	N/A	93%	94%	Maintain

* indicates technical levels of service required by O. Reg. 588/17

† Metric was adjusted to reflect updated methodology from previous report.

Table A-3 Sanitary Wastewater Collection Technical Levels of Service

SANITARY WASTEWATER COLLECTION					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Scope	Percentage of properties connected to the municipal wastewater system. *	62.8%†	63.1%†	63.2%	Maintain
Scope	The number of events per year where combined sewer flow in the municipal wastewater system exceeds system capacity compared to the total number of properties connected to the municipal wastewater system. *	0	0	0	Maintain
Scope	The number of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal wastewater system. *	0.38:6,475	1.4:6,589	0.13:6,713	Maintain

SANITARY WASTEWATER COLLECTION					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Scope	The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system. *	N/A (Regional Jurisdiction)	N/A (Regional Jurisdiction)	N/A (Regional Jurisdiction)	N/A
Operational	Annual number of unplanned flushing events for sanitary sewers	2	2	4	Maintain
Reliable	Percentage of total Sanitary Wastewater Collection Assets in poor or better condition	N/A	67%	71%	Increase
Reliable	Percentage of linear sanitary sewers in poor or better condition	N/A	63%	67%	Increase
Reliable	Percentage of sanitary pumping station assets (including forcemains) in poor or better condition	N/A	90%	100%	Maintain

* indicates technical levels of service required by O. Reg. 588/17

† Metric was adjusted to reflect updated methodology from previous report.

Table A-4 Stormwater Management Technical Levels of Service

STORMWATER MANAGEMENT					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Scope	Percentage of properties in municipality resilient to a 100-year storm. *	39.4%	41%	41%	Maintain
Scope	Percentage of the municipal stormwater management system resilient to a 5-year storm. *	71%	72%	74%	Maintain
Reliable	Percentage of total SWM assets in poor or better condition	N/A	79%	84%	Increase

STORMWATER MANAGEMENT					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Reliable	Percentage of storm sewer mains that are in poor or better condition	N/A	98%	98%	Maintain
Reliable	Percentage of culverts that are in poor or better condition	N/A	84%	92%	Maintain
Reliable	Percentage of groundwater management mains that are in poor or better condition	N/A	98%	99%	Maintain
Reliable	Percentage of SWM facilities that are in poor or better condition	N/A	53%	63%	Increase

* indicates technical levels of service required by O. Reg. 588/17

Table A-5 Cellar Drain Collection Technical Levels of Service

CELLAR DRAIN COLLECTION					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Reliable	Percentage of cellar mains that are in poor or better condition.	N/A	76%	72%	Maintain

Table A-6 Emergency Services Technical Levels of Service

EMERGENCY SERVICES					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Prevention, Safe	Under NFPA 1720, Rural Fire Departments are defined as having a population of less than 500 people per square mile. (Woolwich has 214 people/square mile) The recommended response for rural departments is 6 firefighters within 14 minutes travel time 80% of incidents.[1]	n/a	n/a	96%	Maintain

EMERGENCY SERVICES					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Reliable	Annual average response time.	9 minutes and 17 seconds	9 minutes and 10 seconds	11 minutes, 36 seconds	Maintain
Availability (Prevention)	Annual number of fire incidents/1000 people. [2,3,4]	2.20%	2.24%	2.20%	Maintain
Reliable	Fire services has the certified tanker shuttle certification (6 tankers - 1 per station).	100%	100%	100%	Maintain
Accessible	Percent of fire stations that are AODA compliant.	N/A	100%	100%	Maintain
Environmental Stewardship	Annual facility water consumption per square foot	0.01 m^3	0.01 m^3	0.01 m^3	Maintain
Environmental Stewardship	Annual facility natural gas consumption per square foot	1.37 m^3	1.22 m^3	1.11 m^3	Decrease
Environmental Stewardship	Annual facility hydro consumption per square foot	3.77 KWH	4.17 KWH	4.19 KWH	Maintain
Reliable	Percentage of fire services facilities assets in poor or better condition.	N/A	86%	86%	Increase
Reliable	Percentage of fire apparatus and emergency response vehicles in poor or better condition.	N/A	87%	72%	Maintain
Reliable	Percentage of emergency equipment in poor or better condition.	N/A	80%	67%	Maintain

[1] Metric has been updated to align with current NFPA standards for rural fire departments.

[2] Year-End 2022 Population and House Estimates, Region of Waterloo

[3] Year-End 2023 Population and House Estimates, Region of Waterloo

[4] Year-End 2024 Population and House Estimates, Region of Waterloo

Table A-7 Recreation and Facilities Technical Levels of Service

RECREATION AND FACILITIES					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Available	Number of indoor ice rinks per 15,000 residents	N/A	1.42:15,000	N/A	Maintain
Available	Number of ball diamonds per 3,000 residents	N/A	1.56:3,000	N/A	Maintain
Available	Number of soccer fields per 2,000-4,000 residents	N/A	1.706:4,000	N/A	Maintain
Available	Number of playgrounds per 100-300 children (0-9 yrs)	N/A	1.35:300	N/A	Maintain
Available	Number of splash pads per 3,000 children (0-9 yrs)	N/A	1.35:3,000	N/A	Maintain
Available	Number of tennis courts per 5,000 residents	N/A	1.10:5,000	N/A	Maintain
Available	Number of indoor aquatic centres per 50,000 residents	N/A	1.59:50,000	N/A	Maintain
Available	Registration rate for programs: Aquatic Programs (includes drop-in and registration programs)	10,024	11,830	12,650	Increase
Available	Registration rate for programs: Ice rental hour totals (during prime hours)	6,945	6,945	6,945	Maintain
Available	Registration rate for programs: Community Center rental totals	489	482	520	Increase
Available	Registration rate for programs: Fitness Center memberships	721	722	725	Increase
Available	Number of Bookings: "A" Rated Ball Diamonds	586	694	547	Maintain
Available	Number of Bookings: "B" Rated Ball Diamonds	108	55	302	Maintain

RECREATION AND FACILITIES					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Available	Number of Bookings: "A" Rated Soccer Pitches	65	63	128	Maintain
Available	Number of Bookings: "B" Rated Soccer Pitches	365	366	298	Maintain
Accessible	Percent of facilities that are AODA compliant.	N/A	100%	100%	Maintain
Accessible	Percentage of Priority Items implemented.	N/A	0%	2%	Increase
Environmental Stewardship	Annual facility water consumption per square foot	0.09 m^3	0.16 m^3	0.32 m^3	Maintain
Environmental Stewardship	Annual facility natural gas consumption per square foot	3.01 m^3	3.01 m^3	2.99 m^3	Decrease
Environmental Stewardship	Annual facility hydro consumption per square foot	10.33 KWH	14.45 KWH	14.91 KWH	Increase
Environmental Stewardship	Annual facility propane consumption per square foot	0.01 BTU	0.02 BTU	0.02 BTU	Decrease
Environmental Stewardship	Percentage of electric or hybrid light duty fleet vehicles for Recreation and Community Services	8.3%	7.1%	7.7%	Increase
Available	Number of Recreation and Community Services light duty vehicles per population [1,2,3]	11:28,310	14:28,530	13:28,960	Maintain
Available	Number of by-law service vehicles per population [1 2,3]	1:28,310	1:28,530	2:28,960	Increase
Reliable	Percentage of administration and operations facility assets in poor or better condition	N/A	93%	89%	Maintain
Reliable	Percentage of libraries, recreation centres/arenas and multi use/event spaces in poor or better condition	N/A	96%	96%	Decrease

RECREATION AND FACILITIES					
Service Attributes	**Technical Measures**	**2023 Performance**	**2024 Performance**	**2025 Performance**	**Proposed Performance**
Reliable	Percentage of outdoor recreation assets in poor or better condition	N/A	62%	59%	Increase
Reliable	Percentage of fleet and equipment assets in poor or better condition	N/A	70%	72%	Maintain
Reliable	Percentage of IT equipment in poor or better condition	N/A	85%[4]	65%	Increase

[1] Year-End 2022 Population and House Estimates, Region of Waterloo

[2] Year-End 2023 Population and House Estimates, Region of Waterloo

[3] Year-End 2024 Population and House Estimates, Region of Waterloo

[4] Condition was estimated from a draft inventory