Asset Management Plan 2025

TOWN OF ARNPRIOR

June 2025

This Asset Management Plan was prepared by:

psdcitywide

Empowering your organization through advanced asset management, budgeting & GIS solutions

Key Statistics

$614m	2024 Replacement Cost of Asset Portfolio
$138k	Replacement Cost of Infrastructure Per Household
66%	Percentage of Assets in Fair or Better Condition
38%	Percentage of Assets with Assessed Condition Data
$4.6m	Annual Capital Infrastructure Deficit
10 Years	Recommended Timeframe for Eliminating Annual Infrastructure Deficit
2.01%	Target Reinvestment Rate to meet Proposed Levels of Service
1.25%	Actual Reinvestment Rate

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1. Executive Summary

Municipal infrastructure delivers critical services that are foundational to the economic, social, and environmental health and growth of a community. The goal of asset management is to enable infrastructure to deliver an adequate level of service in the most cost-effective manner. This involves the ongoing review and update of infrastructure information and data alongside the development and implementation of asset management strategies and long-term financial planning.

1.1 Scope

This Asset Management Plan (AMP) identifies practices and strategies that are in place to manage public infrastructure and makes recommendations where they can be further refined. Through the implementation of sound asset management strategies, the Town can ensure that public infrastructure is managed to support the sustainable delivery of municipal services.

This AMP includes the following asset categories:

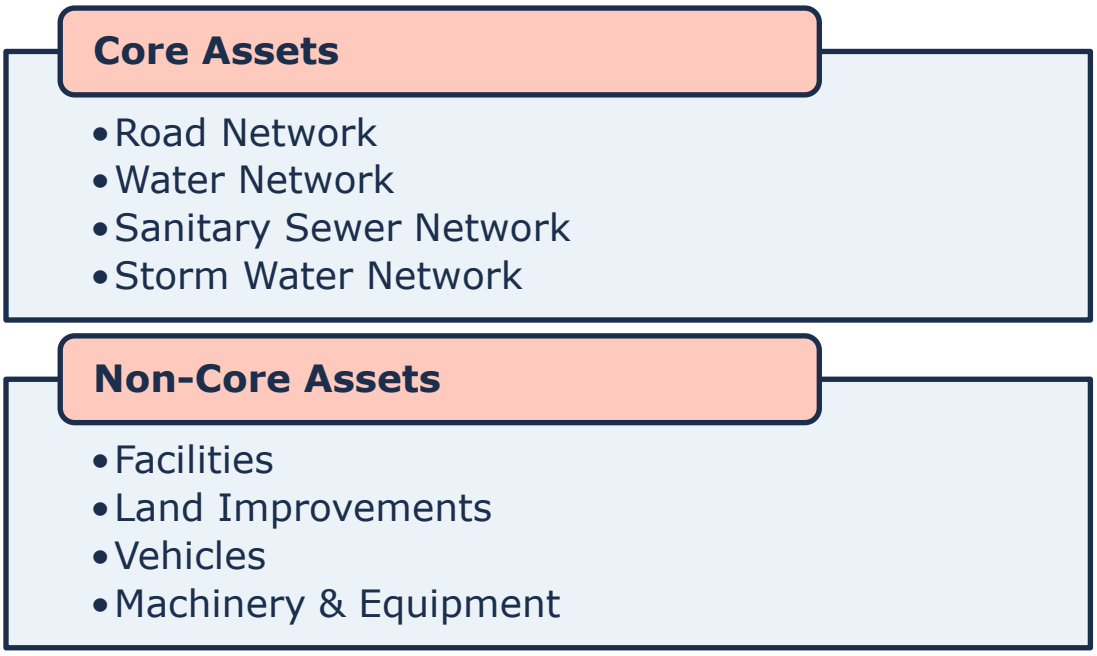


Figure 1 Core and Non-Core Asset Categories

1.2 O. Reg. 588/17 Compliance

With the development of this AMP the Municipality has achieved compliance with July 1, 2025, requirements under O. Reg. 588/17. This includes requirements for proposed levels of service and inventory reporting for all asset categories. More detail on compliance can be found in section 2.5.1 O. Reg. 588/17 Compliance Review.

1.3 Findings

The overall replacement cost of the asset categories included in this AMP totals $614 million. 66% of all assets analyzed in this AMP are in fair or better condition and the assessed condition data was available for 38% of assets. For the remaining 62% of assets, assessed condition data was unavailable, and asset age was used to approximate condition – a data gap that persists in most municipalities.[1]

To meet capital replacement and rehabilitation needs for existing infrastructure, prevent infrastructure backlogs, achieve long-term sustainability, and reach the proposed levels of service, the Town's average annual capital requirement (AACR) totals $12.3 million.[2] Based on a historical analysis of sustainable capital funding sources, the Town is committing approximately $7.7 million towards capital projects or reserves per year. As a result, there is currently an annual funding gap of $4.6 million.

It is important to note that this AMP represents a snapshot in time and is based on the best available processes, data, and information at the Town. Strategic asset management planning is an ongoing and dynamic process that requires continuous improvement and dedicated resources.

1.4 Recommendations

A financial strategy was developed to address the annual capital funding gap and to meet the Town's desired proposed levels of service. The following graphic shows the annual tax/rate change required to meet the proposed levels of service:

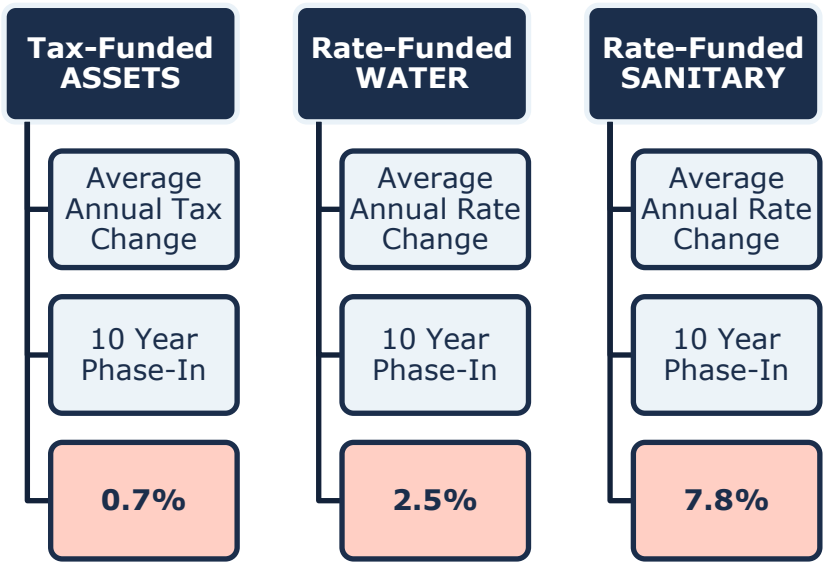


Figure 2 Proposed Tax/Rate Changes

[1] See section 3.2.3
[2] $12.3 million per year assuming all assets undergo an entire lifecycle (planning & acquisition, operations, maintenance, renewal/rehabilitation, and disposal/decommissioning)

2. Introduction & Context

2.1 Community Profile

The Town of Arnprior is a lower-tier municipality part of Renfrew County, which is located about 65 kilometers east of Ottawa, Ontario. Arnprior is situated on the south side of the Ottawa River.

Arnprior was first incorporated as a village in 1862 and as a town in 1892. The region is characterized by its beautiful natural landscape along the Ottawa River, a rich historical heritage tied to the lumber and railway industries, and a strong sense of community. The area's scenic beauty with forests, rivers, and abundant green spaces is a draw for outdoor enthusiasts and nature lovers. Arnprior's historical charm is evident in its well-preserved heritage buildings and landmarks, which tell the story of its roots in the lumber and railway industries. Arnprior benefits from its proximity to Ottawa, allowing residents to enjoy urban conveniences while maintaining its unique rural character.

Demand in the Arnprior region is driven by a variety of key factors. Employment opportunities play a crucial role, as the region boasts a thriving manufacturing sector attracting a skilled workforce seeking job stability and career growth. Arnprior's proximity to the Ottawa River and historical richness have made it a growing tourist attraction. Its appealing downtown, outdoor activities, and cultural events also attract visitors, driving demand for accommodation and local businesses. Additionally, the region's strong sense of community and quality of life entice families and retirees seeking a welcoming and peaceful environment.

The Town's infrastructure focus revolves around creating a comprehensive community, coordinating infrastructure with land use planning, planning and accommodating for growth, while maintaining financial sustainability of public services and facilities. Arnprior’s recent population changes, along with other key information, can be seen below.

Census Characteristic	Town of Arnprior
Population 2021	9,629
Population Change 2016-2021	9.5%
Total Private Dwellings	4,458
Population Density	738.5/km^2
Land Area	13.04 km^2

Table 1 Town of Arnprior Community Profile

2.2 Climate Change

Climate change can have a severe impact on human and natural systems around the world. The effects of climate change include increasing temperatures, higher levels of precipitation, droughts, and extreme weather events. In 2019, Canada's Changing Climate Report (CCCR 2019) was released by Environment and Climate Change Canada (ECCC).

The report revealed that between 1948 and 2016, the average temperature increase across Canada was 1.7°C; moreover, during this period, Northern Canada experienced a 2.3°C increase. The temperature increase in Canada has doubled that of the global average. If emissions are not significantly reduced, the temperature could increase by 6.3°C in Canada by the year 2100 compared to 2005 levels. Observed precipitation changes in Canada include an increase of approximately 20% between 1948 and 2012. By the late 21st century, the projected increase could reach an additional 24%. During the summer months, some regions in Southern Canada are expected to experience periods of drought at a higher rate. Extreme weather events and climate conditions are more common across Canada. Recorded events include droughts, flooding, cold extremes, warm extremes, wildfires, and record minimum arctic sea ice extent.

The changing climate poses a significant risk to the Canadian economy, society, environment, and infrastructure. The impacts on infrastructure are often a result of climate-related extremes such as droughts, floods, higher frequency of freeze-thaw cycles, extended periods of high temperatures, high winds, and wildfires. Physical infrastructure is vulnerable to damage and increased wear when exposed to these extreme events and climate variabilities. Canadian Municipalities are faced with the responsibility to protect their local economy, citizens, environment, and physical assets.

2.2.1 Town of Arnprior Climate Profile

The Town of Arnprior is in Eastern Ontario, within Renfrew County. The Town is expected to experience notable effects of climate change which include higher average annual temperatures, an increase in total annual precipitation, and an increase in the frequency and severity of extreme events. According to Climatedata.ca – a collaboration supported by Environment and Climate Change Canada (ECCC) – the Town of Arnprior may experience the following trends:

Higher Average Annual Temperature:

- Between the years 1971 and 2000 the annual average temperature was 5.7 ºC
- Under a high emissions scenario, the annual average temperatures are projected to increase by 4.7 ºC by the year 2050 and over 6.5 ºC by the end of the century.

Increase in Total Annual Precipitation:

- Under a high emissions scenario, Arnprior is projected to experience a 12% increase in precipitation by the year 2051 and a 17% increase by the end of the century.

Increase in Frequency of Extreme Weather Events:

- It is expected that the frequency and severity of extreme weather events will change.
- In some areas, extreme weather events will occur with greater frequency and severity than others.

2.2.2 Integration of Climate Change and Asset Management

Asset management practices aim to deliver sustainable service delivery - the delivery of services to residents today without compromising the services and well-being of future residents. Climate change threatens sustainable service delivery by reducing the useful life of an asset and increasing the risk of asset failure. Desired levels of service can be more difficult to achieve due to climate change impacts such as flooding, high heat, drought, and more frequent and intense storms.

To achieve the sustainable delivery of services, climate change considerations should be incorporated into asset management practices. The integration of asset management and climate change adaptation observes industry best practices and enables the development of a holistic approach to risk management.

2.3 Asset Management Overview

Municipalities are responsible for managing and maintaining a broad portfolio of infrastructure assets to deliver services to the community. The goal of asset management is to minimize the lifecycle costs of delivering infrastructure services, manage the associated risks, while maximizing the value ratepayers receive from the asset portfolio.

While the acquisition of capital assets accounts for approximately 10-20% of their total cost of ownership, the remaining 80-90% comes from operations and maintenance. This can be seen in the infographic below:

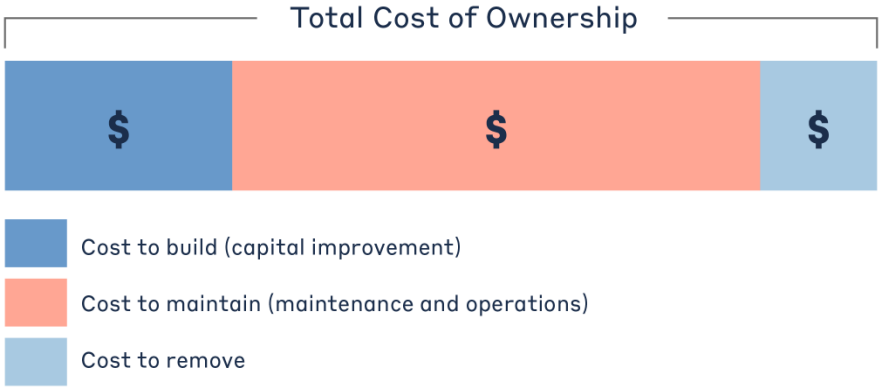


Figure 3 Total Cost of Asset Ownership

These costs can span decades, requiring planning and foresight to ensure financial responsibility is spread equitably across current and future generations. An asset management plan is critical to this planning, and an essential element of broader asset management program. The industry-standard approach and sequence to developing a practical asset management program begins with a Strategic Plan, followed by an Asset Management Policy and an Asset Management Strategy, concluding with an Asset Management Plan.

This industry standard, defined by the Institute of Asset Management (IAM), emphasizes the alignment between the corporate strategic plan and various asset management documents. The strategic plan has a direct, and cascading impact on asset management planning and reporting.

2.3.1 Foundational Asset Management Documentation

The industry-standard approach and sequence to developing a practical asset management program begins with a Strategic Plan, followed by an Asset Management Policy and an Asset Management Strategy, concluding with an Asset Management Plan.

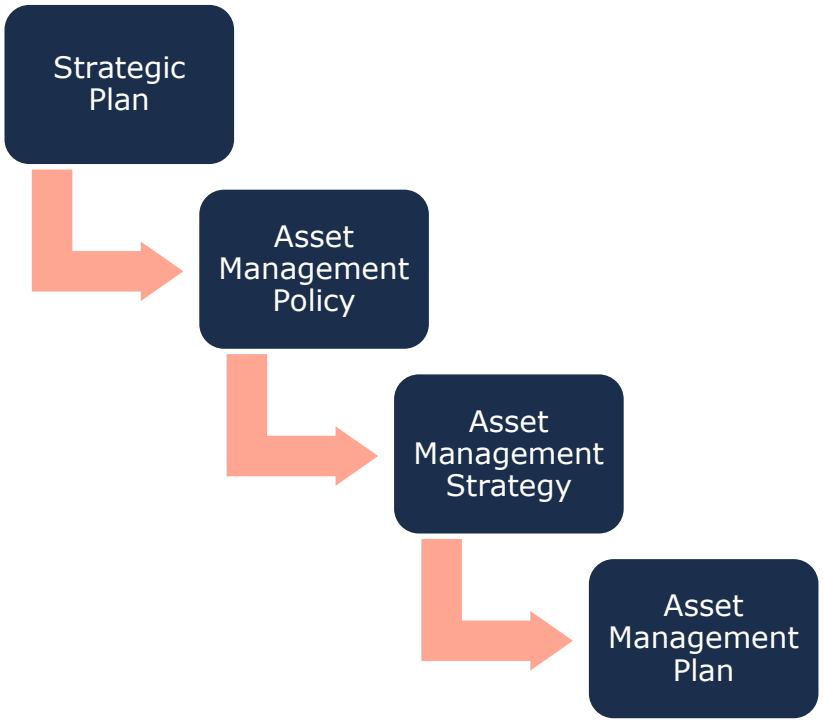


Figure 4 Foundational Asset Management Documents

This industry standard, defined by the Institute of Asset Management (IAM), emphasizes the alignment between the corporate strategic plan and various asset management documents. The strategic plan has a direct, and cascading impact on asset management planning and reporting.

Asset Management Policy

An asset management policy represents a statement of the principles guiding the Town's approach to asset management activities. It aligns with the organizational strategic plan and provides clear direction to municipal staff on their roles and responsibilities as part of the asset management program.

The Town adopted By-law No. 6951-19, "A By-law to Establish and Approve a Strategic Asset Management Policy," on May 13, 2019, in accordance with Ontario Regulation 588/17. The objectives of the policy include:

- Promoting sustainable, evidence-based, and lifecycle-driven asset management practices
- Integrating asset management with long-term financial planning and budgeting
- Ensuring efficient and effective delivery of expected levels of service

- Considering climate change risks and promoting resilience and adaptation
- Enhancing accountability, transparency, and public engagement in asset management
- Aligning asset management planning with provincial land-use frameworks and municipal strategic plans
- Encouraging continuous improvement and innovation in asset management practices
- Supporting collaboration with neighboring municipalities and shared service bodies

Asset Management Strategy

An asset management strategy outlines the translation of organizational objectives into asset management objectives and provides a strategic overview of the activities required to meet these objectives. It provides greater detail than the policy on how the Town plans to achieve asset management objectives through planned activities and decision-making criteria.

The Town of Arnprior's Strategic Plan (2024–2027) identifies Growth and Asset Management as one of five key priorities. The Town is committed to fostering sustainable growth and implementing effective asset management practices that enhance the quality of life for residents and preserve the unique character of the community.

Key initiatives under this priority include:

- Affordable housing initiatives, including strategies and funding programs.
- Development of a Transportation Master Plan.
- Continued upkeep of the Asset Management Plan to meet the required provincial milestones.
- A Water/Wastewater Master Plan, with integration of recommended projects into long-range budget planning.

These initiatives reflect the Town's strategic direction to manage infrastructure in a way that supports community prosperity, environmental stewardship, and resident well-being. The Asset Management Plan aligns with the Town's strategic priorities by supporting the implementation of these master plans and ensuring compliance with applicable legislative requirements.

Asset Management Plan

The asset management plan (AMP) presents the outcomes of the Town's asset management program and identifies the resource requirements needed to achieve a defined level of service. The AMP typically includes the following content:

- State of Infrastructure
- Asset Management Strategies
- Levels of Service
- Financial Strategies

The AMP is a living document that should be updated regularly as additional asset and financial data becomes available. This will allow the Town to re-evaluate the state of infrastructure and identify how the organization's asset management and financial strategies are progressing.

2.3.2 Key Concepts in Asset Management

Effective asset management integrates several key components, including lifecycle management, risk & criticality, and levels of service. These concepts are applied throughout this asset management plan and are described below in greater detail.

Lifecycle Management Strategies

The condition or performance of most assets will deteriorate over time. This process is affected by a range of factors including asset's characteristics, location, utilization, maintenance history and environment. Asset deterioration has a negative effect on the ability of an asset to fulfill its intended function, and may be characterized by increased cost, risk and even service disruption.

To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

There are several field intervention activities that are available to extend the life of an asset. These activities can be generally placed into one of three categories: maintenance, rehabilitation, and replacement. The following table provides a description of each type of activity and the general difference in cost.

Depending on initial lifecycle management strategies, asset performance can be sustained through a combination of maintenance and rehabilitation, but at some point, replacement is required. Understanding what effect these activities will have on the lifecycle of an asset, and their cost, will enable staff to make better recommendations.

Lifecycle Activity	Cost	Typical Associated Risks
Maintenance Activities that prevent defects or deteriorations from occurring	**$**	♦ Balancing limited resources between planned maintenance and reactive, emergency repairs and interventions ♦ Diminishing returns associated with excessive maintenance activities, despite added costs ♦ Intervention selected may not be optimal and may not extend the useful life as expected, leading to lower payoff and potential premature asset failure
Rehabilitation/ Renewal Activities that rectify defects or deficiencies that are already present and may be affecting asset performance	**$$$**	♦ Useful life may not be extended as expected ♦ May be costlier in the long run when assessed against full reconstruction or replacement ♦ Loss or disruption of service, particularly for underground assets

Lifecycle Activity	Cost	Typical Associated Risks
Replacement/ Reconstruction Asset end-of-life activities that often involve the complete replacement of assets	**$$$$$**	♦ Incorrect or unsafe disposal of existing asset ♦ Costs associated with asset retirement obligations ♦ Substantial exposure to high inflation and cost overruns ♦ Replacements may not meet capacity needs for a larger population ♦ Loss or disruption of service, particularly for underground assets

Table 2 Lifecycle Management: Typical Lifecycle Interventions

The Town's approach to lifecycle management is described within each asset category outlined in this AMP. Staff will continue to evolve and innovate current practices for developing and implementing proactive lifecycle strategies to determine which activities to perform on an asset and when they should be performed to maximize useful life at the lowest total cost of ownership.

Risk & Criticality

Asset risk and criticality are essential building blocks of asset management, integral in prioritizing projects and distributing funds where they are needed most based on a variety of factors. Assets in disrepair may fail to perform their intended function, pose substantial risk to the community, lead to unplanned expenditures, and create liability for the municipality. In addition, some assets are simply more important to the community than others, based on their financial significance, their role in delivering essential services, the impact of their failure on public health and safety, and the extent to which they support a high quality of life for community stakeholders.

Risk is a product of two variables: the probability that an asset will fail, and the resulting consequences of that failure event. It can be a qualitative measurement, (i.e. low, medium, high) or quantitative measurement (i.e. 1-5), that can be used to rank assets and projects,

identify appropriate lifecycle strategies, optimize short- and long-term budgets, minimize service disruptions, and maintain public health and safety.

Figure 5 Risk Equations

The approach used in this AMP relies on a quantitative measurement of risk associated with each asset. The probability and consequence of failure are each scored from 1 to 5, producing a minimum risk index of 1 for the lowest risk assets, and a maximum risk index of 25 for the highest risk assets.

Probability of Failure

Several factors can help decision-makers estimate the probability or likelihood of an asset's failure, including its condition, age, previous performance history, and exposure to extreme weather events, such as flooding and ice jams—both a growing concern for municipalities in Canada.

Consequence of Failure

Estimating criticality also requires identifying the types of consequences that the organization and community may face from an asset's failure, and the magnitude of those consequences. Consequences of asset failure will vary across the infrastructure portfolio; the failure of some assets may result primarily in high direct financial cost but may pose limited risk to the community. Other assets may have a relatively minor financial value, but any downtime may pose significant health and safety hazards to residents.

Table 3 illustrates the various types of consequences that can be integrated in developing risk and criticality models for each asset category and segments within. We note that these consequences are common, but not exhaustive.

Type of Consequence	Description
Direct Financial	Direct financial consequences are typically measured as the replacement costs of the asset(s) affected by the failure event, including interdependent infrastructure.
Economic	Economic impacts of asset failure may include disruption to local economic activity and commerce, business closures, service disruptions, etc. Whereas direct financial impacts can be seen immediately or estimated within hours or days, economic impacts can take weeks, months and years to emerge, and may persist for even longer.
Socio-political	Socio-political impacts are more difficult to quantify and may include inconvenience to the public and key community stakeholders, adverse media coverage, and reputational damage to the community and the Municipality.
Environmental	Environmental consequences can include pollution, erosion, sedimentation, habitat damage, etc.
Public Health and Safety	Adverse health and safety impacts may include injury or death, or impeded access to critical services.
Strategic	These include the effects of an asset's failure on the community's long-term strategic objectives, including economic development, business attraction, etc.

Table 3 Risk Analysis: Types of Consequences of Failure

This AMP includes a preliminary evaluation of asset risk and criticality. Each asset has been assigned a probability of failure score and consequence of failure score based on available asset data. These risk scores can be used to prioritize maintenance, rehabilitation, and replacement strategies for critical assets.

These models have been built in Citywide for continued review, updates, and refinements.

Levels of Service

A level of service (LOS) is a measure of the services that the Town provides to the community and the nature and quality of those services. Within each asset category in this AMP, technical metrics and qualitative descriptions that measure both technical and community levels of service have been established and measured as data is available.

The Town measures the level of service provided at two levels: Community Levels of Service, and Technical Levels of Service. This AMP includes those LOS that are required under O. Reg. 588/17 as well as any additional metrics the Town wishes to track.

Community Levels of Service

Community levels of service are a simple, plain language description or measure of the service that the community receives. For core asset categories as applicable (Roads, Bridges & Culverts, Storm Water, Water, and Sanitary) the province, through O. Reg. 588/17, has provided qualitative descriptions that are required to be included in this AMP.

Technical Levels of Service

Technical levels of service are a measure of key technical attributes of the service being provided to the community. These include mostly quantitative measures and tend to reflect the impact of the Town's asset management strategies on the physical condition of assets or the quality/capacity of the services they provide.

For core asset categories as applicable (Roads, Bridges & Culverts, Storm Water, Water, and Sanitary) the province, through O. Reg. 588/17, has also provided technical metrics that are required to be included in this AMP.

Current and Proposed Levels of Service

Current LOS are the past performance metrics of an asset category up until the present day. In contrast, Proposed LOS looks toward the municipality's goal for asset performance by a defined future date.

It is important to note that O. Reg 588/17 does not dictate which proposed LOS metrics municipalities need to strive for. A proposed LOS will be very specific to each community's resident desires, political goals, and financial capacity. This can range from increasing service levels and costs, to maintaining or even reducing current performance to mitigate future cost increases. Regardless of the proposed LOS chosen, O. Reg 588/17 requires municipalities to demonstrate the achievability of their selected metrics.

2.4 Scope & Methodology

2.4.1 Asset Categories for this AMP

This asset management plan for the Town of Arnprior is produced in compliance with O. Reg. 588/17. The July 2025 deadline under the regulation—the third of three AMPs—requires analysis of core and non-core asset categories, as well as proposed service levels and how to fund them.

The AMP summarizes the state of the infrastructure for the Town's asset portfolio, establishes current/proposed levels of service and the associated technical and customer-oriented key metrics, outlines lifecycle strategies for optimal asset management and performance, and provides financial strategies to reach sustainability for the asset categories listed below.

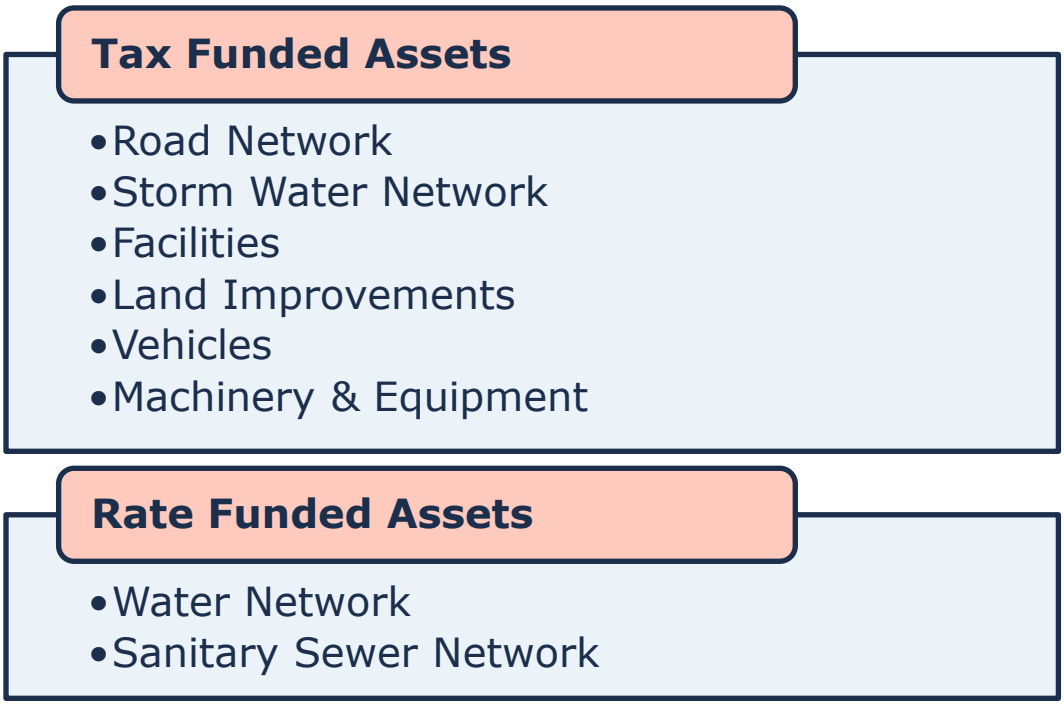


Figure 6 Tax Funded and Rate Funded Asset Categories

2.4.2 Data Effective Date

It is important to note that this plan is based on data as of **December 2024**; therefore, it represents a snapshot in time using the best available processes, data, and information at the Municipality. Strategic asset management planning is an ongoing and dynamic process that requires continuous data updates and dedicated data management resources.

2.4.3 Deriving Replacement Costs

There are a range of methods to determine the replacement cost of an asset, and some are more accurate and reliable than others. This AMP relies on two methodologies:

User-Defined Cost and Cost Per Unit

Based on costs provided by municipal staff which can include average costs from recent contracts; data from engineering reports and assessments; staff estimates based on knowledge and experience.

Cost Inflation / CPI Tables

Historical costs of the assets are inflated based on Consumer Price Index or Non-Residential Building Construction Price Index.

User-defined costs based on reliable sources are a reasonably accurate and reliable way to determine asset replacement costs. Cost inflation is typically used in the absence of reliable replacement cost data. It is a reliable method for recently purchased and/or constructed assets where the total cost is reflective of the actual costs that the Town incurred. As assets age, and new products and technologies become available, cost inflation becomes a less reliable method.

2.4.4 Estimated Service Life & Service Life Remaining

The estimated useful life (EUL) of an asset is the period over which the Town expects the asset to be available for use and remain in service before requiring replacement or disposal. The EUL for each asset in this AMP was assigned according to the knowledge and expertise of municipal staff and supplemented by existing industry standards when necessary.

By using an asset's in-service data and its EUL, the Town can determine the service life remaining (SLR) for each asset. Using condition data and the asset's SLR, the Town can more accurately forecast when it will require replacement. The SLR is calculated as follows:

Figure 7 Service Life Remaining Calculation

2.4.5 Reinvestment Rate

As assets age and deteriorate, they require additional investment to maintain a state of good repair. The reinvestment of capital funds, through asset renewal or replacement, is necessary to sustain an adequate level of service. The reinvestment rate is a measurement of available or required funding relative to the total replacement cost.

By comparing the actual vs. target reinvestment rate the Town can determine the extent of any existing funding gap. The reinvestment rate is calculated as follows:

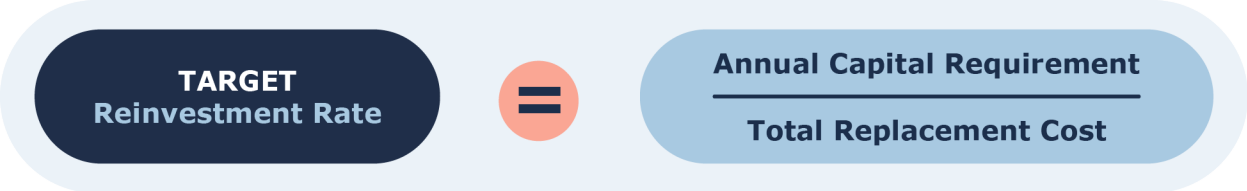


Figure 8 Target Reinvestment Rate Calculation

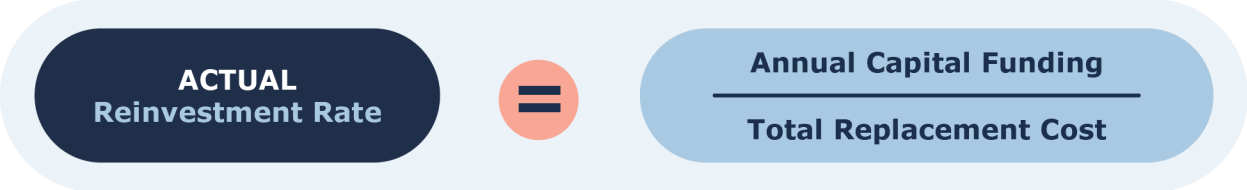


Figure 9 Actual Reinvestment Rate Calculation

2.4.6 Deriving Asset Condition

An incomplete or limited understanding of asset condition can mislead long-term planning and decision-making. Accurate and reliable condition data helps to prevent premature and costly rehabilitation or replacement and ensures that lifecycle activities occur at the right time to maximize asset value and useful life.

A condition assessment rating system provides a standardized descriptive framework that allows comparative benchmarking across the Town's asset portfolio. The table below outlines the condition rating system used in this AMP to determine asset condition. This rating system is aligned with the Canadian Core Public Infrastructure Survey which is used to develop the Canadian Infrastructure Report Card. When assessed condition data is not available, service life remaining is used to approximate asset condition.

Condition	Description	Criteria	Service Life Remaining (%)
Very Good	Fit for the future	Well maintained, good condition, new or recently rehabilitated	80-100
Good	Adequate for now	Acceptable, generally approaching mid-stage of expected service life	60-80
Fair	Requires attention	Signs of deterioration, some elements exhibit significant deficiencies	40-60
Poor	Increasing potential of affecting service	Approaching end of service life, condition below standard, large portion of system exhibits significant deterioration	20-40
Very Poor	Unfit for sustained service	Near or beyond expected service life, widespread signs of advanced deterioration, some assets may be unusable	0-20

Table 4 Standard Condition Rating Scale

The analysis in this AMP is based on assessed condition data only as available. In the absence of assessed condition data, asset age is used as a proxy to determine asset condition.

2.5 Ontario Regulation 588/17

As part of the Infrastructure for Jobs and Prosperity Act, 2015, the Ontario government introduced Regulation 588/17 - Asset Management Planning for Municipal Infrastructure (O. Reg 588/17)[3]. Along with creating better performing organizations, more liveable and sustainable communities, the regulation is a key, mandated driver of asset management planning and reporting. It places substantial emphasis on current and proposed levels of service and the lifecycle costs incurred in delivering them.

Figure 10 below outlines key reporting requirements under O. Reg 588/17 and the associated timelines.

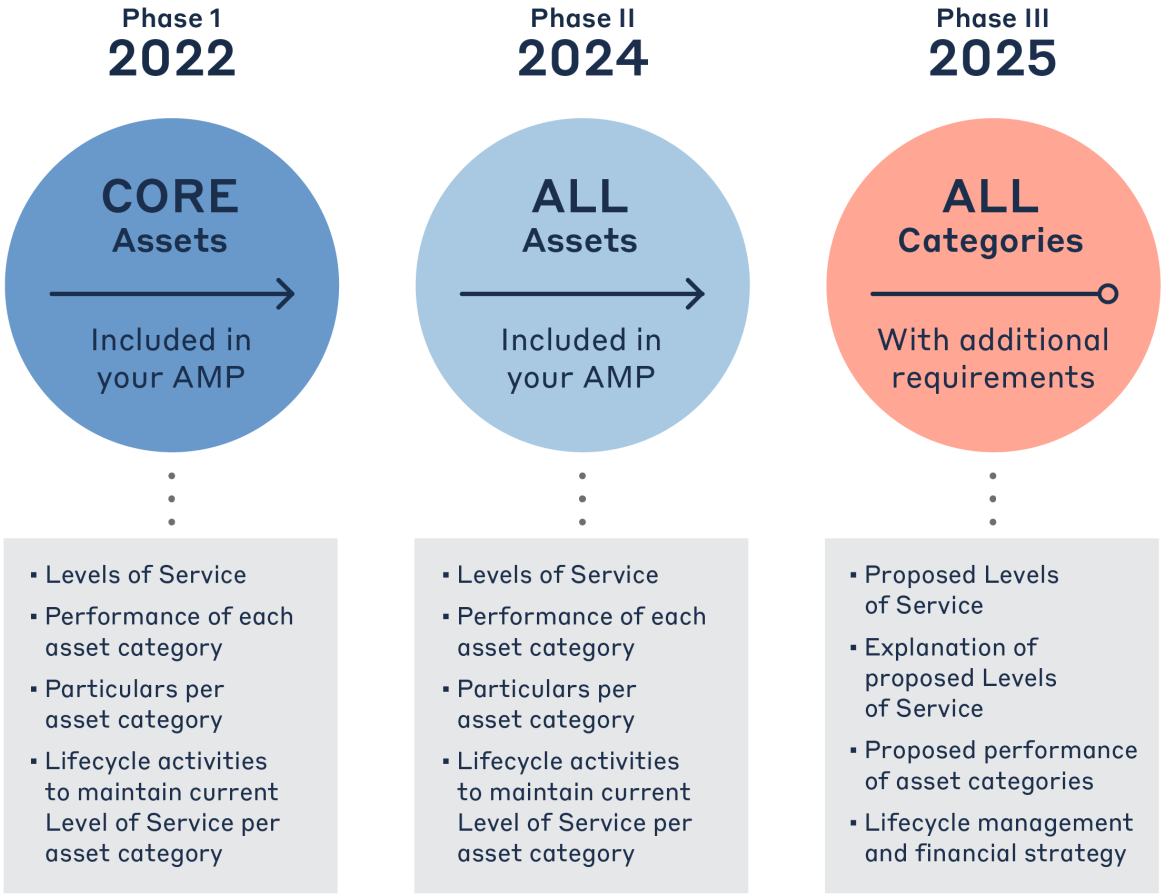


Figure 10 O. Reg. 588/17 Requirements and Reporting Deadlines

[3] O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure https://www.ontario.ca/laws/regulation/170588

2.5.1 O. Reg. 588/17 Compliance Review

Requirement	O. Reg. 588/17 Section	AMP Section Reference	Status
Summary of assets in each category	S.5(2), 3(i)	4.1 – 11.1	Complete
Replacement cost of assets in each category	S.5(2), 3(ii)	4.1 – 11.1	Complete
Average age of assets in each category	S.5(2), 3(iii)	4.3 – 11.3	Complete
Condition of core assets in each category	S.5(2), 3(iv)	4.2 – 11.2	Complete
Description of municipality's approach to assessing the condition of assets in each category	S.5(2), 3(v)	4.4 – 11.4	Complete
Current/proposed levels of service in each category	S.5(2), 1(i-ii)	4.7/4.8 – 11.7/11.8	Complete
Performance measures in each category	S.5(2), 2	4.7/5.8 – 13.7/11.8	Complete
Lifecycle activities needed for proposed levels of service for 10 years	S.5(2), 4	4.4 – 11.4	Complete
Costs of providing lifecycle activities for 10 years	S.5(2), 4	4.5 – 11.5	Complete
Growth considerations	S.6(1), 5	12.1 – 12.2	Complete
10-year capital costs for proposed levels of service	S.6(1), 4(ii)	Appendix B	Complete

Table 5 O. Reg. 588/17 Compliance Review

Portfolio Overview

3. State of the Infrastructure

The state of the infrastructure (SOTI) summarizes the inventory, condition, age profiles, and other key performance indicators for the Town's infrastructure portfolio. These details are presented for all core and non-core asset categories.

3.1 Asset Hierarchy & Data Classification

Asset hierarchy explains the relationship between individual assets and their components, and a wider, more expansive network and system. How assets are grouped in a hierarchy structure can impact how data is interpreted. Assets were structured to support meaningful, efficient reporting and analysis. Key category details are summarized at asset segment level.

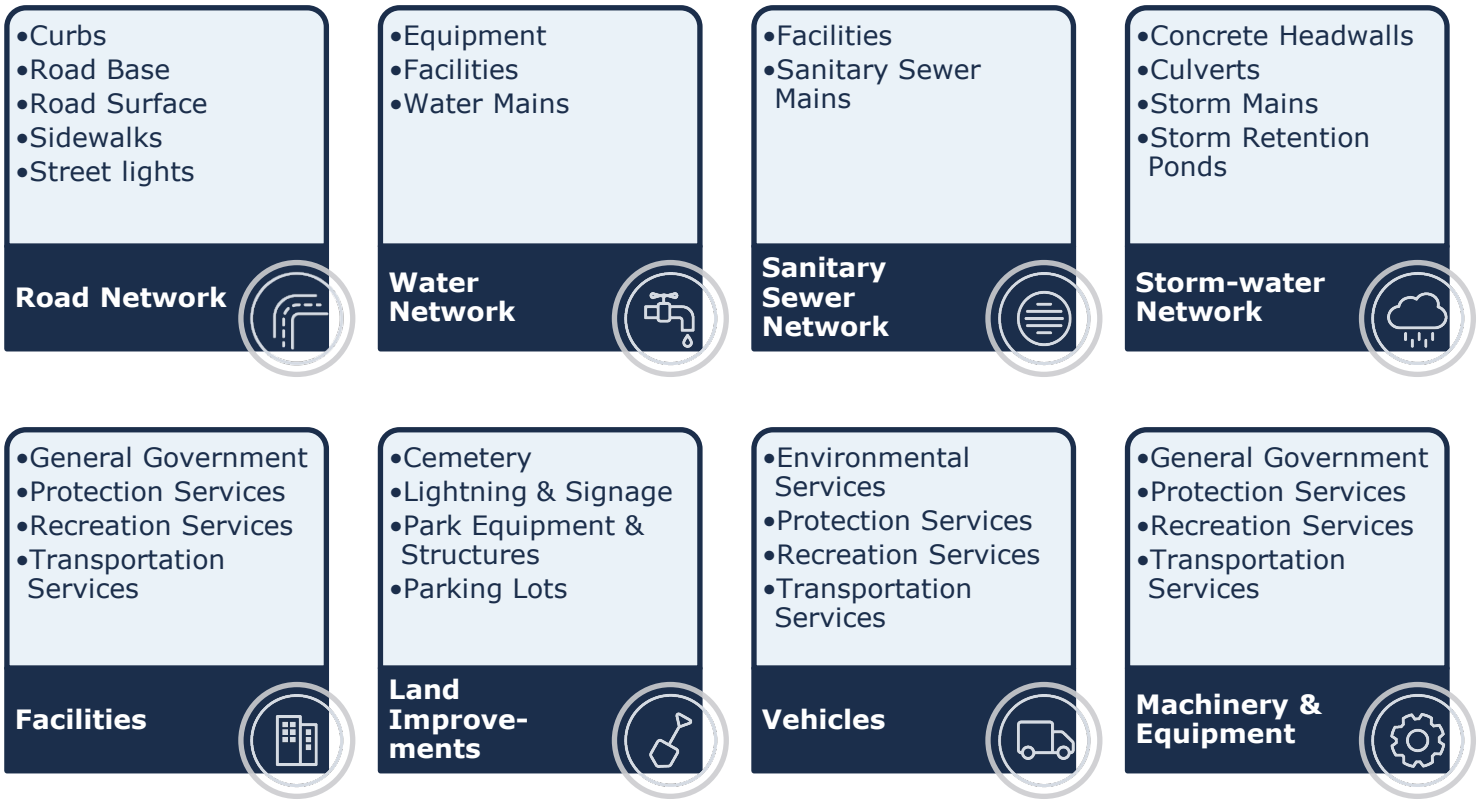


Figure 11 Asset Hierarchy and Data Classification

3.2 Portfolio Overview

3.2.1 Total Replacement Cost of Asset Portfolio

The eight asset categories analyzed in this AMP have a total current replacement cost of $614 million. This estimate was calculated using cost per unit, as well as user defined costing and CPI tables. This estimate reflects the replacement of historical assets with similar, not necessarily identical, assets available for procurement today.

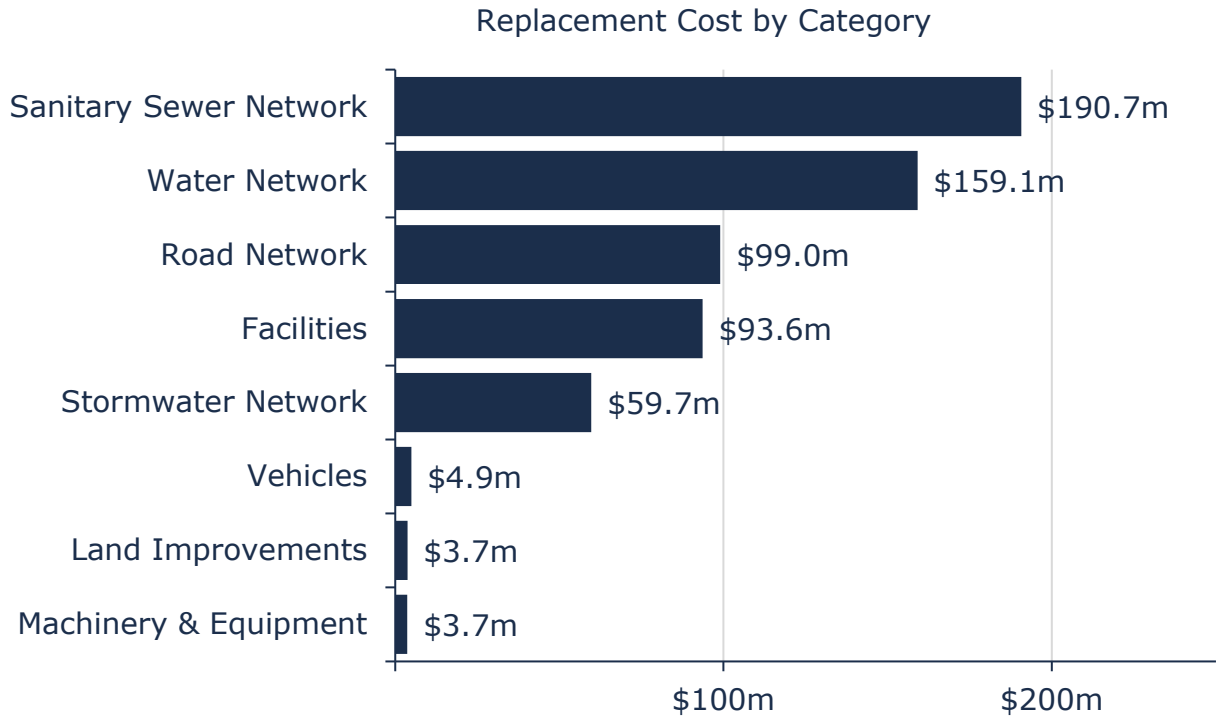


Figure 12 Current Replacement Cost by Asset Category

3.2.2 Target vs. Actual Reinvestment Rate

The graph below depicts funding gaps by comparing the target to the current reinvestment rate.

To meet the proposed long-term capital requirements, the Town requires an annual capital investment of $12.3 million, for a target portfolio reinvestment rate of 2.01%. Currently, the annual investment from sustainable revenue sources is $7.7 million, for a current portfolio reinvestment rate of 1.25%. Target and current re-investment rates by asset category are detailed below.

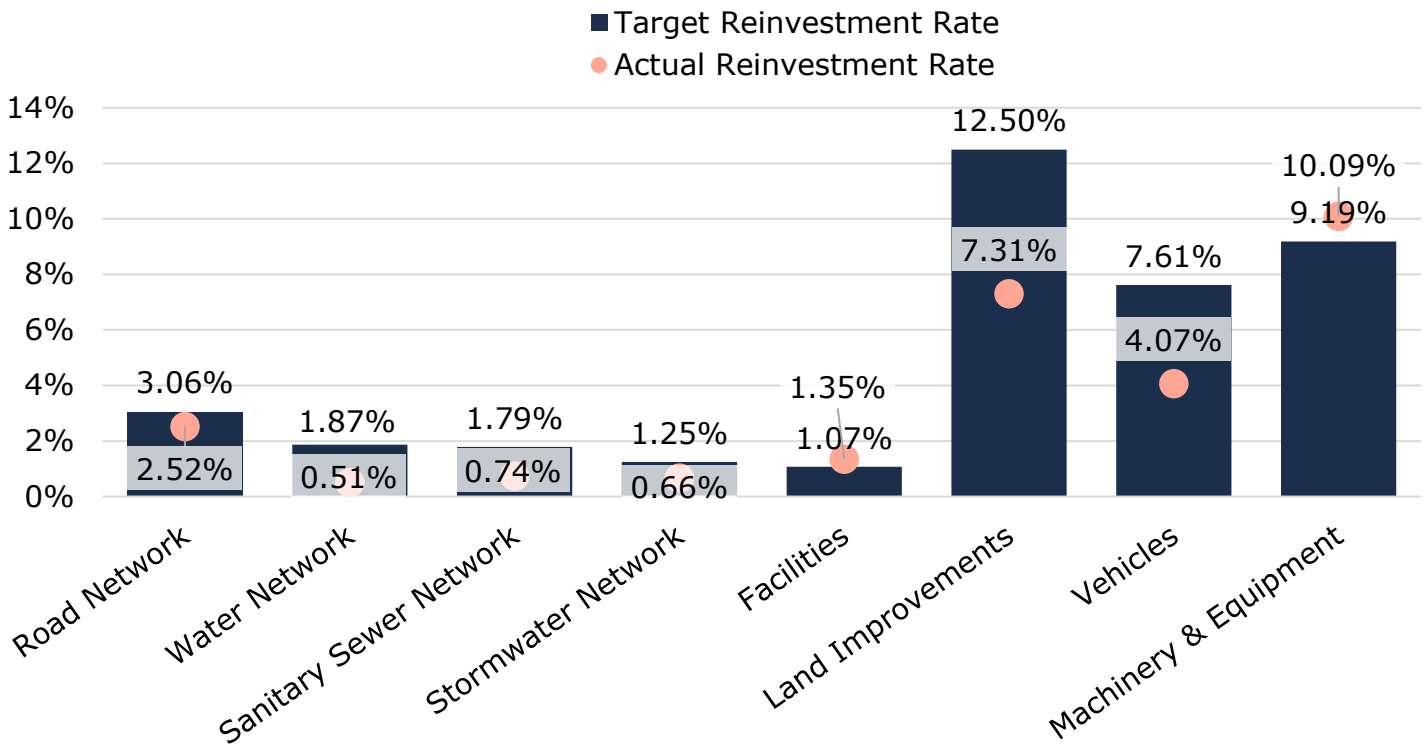


Figure 13 Current Vs. Target Reinvestment Rate

3.2.3 Condition of Asset Portfolio

Figure 14 and Figure 15 summarize asset condition at the portfolio and category levels, respectively. Based on both assessed condition and age-based analysis, 66% of the Town's infrastructure portfolio is in fair or better condition, with the remaining 34% in poor or worse condition. Typically, assets in poor or worse conditions may require replacement or major rehabilitation in the immediate or short-term. Targeted condition assessments may help further refine the list of assets that may be candidates for immediate intervention, including potential replacement or reconstruction.

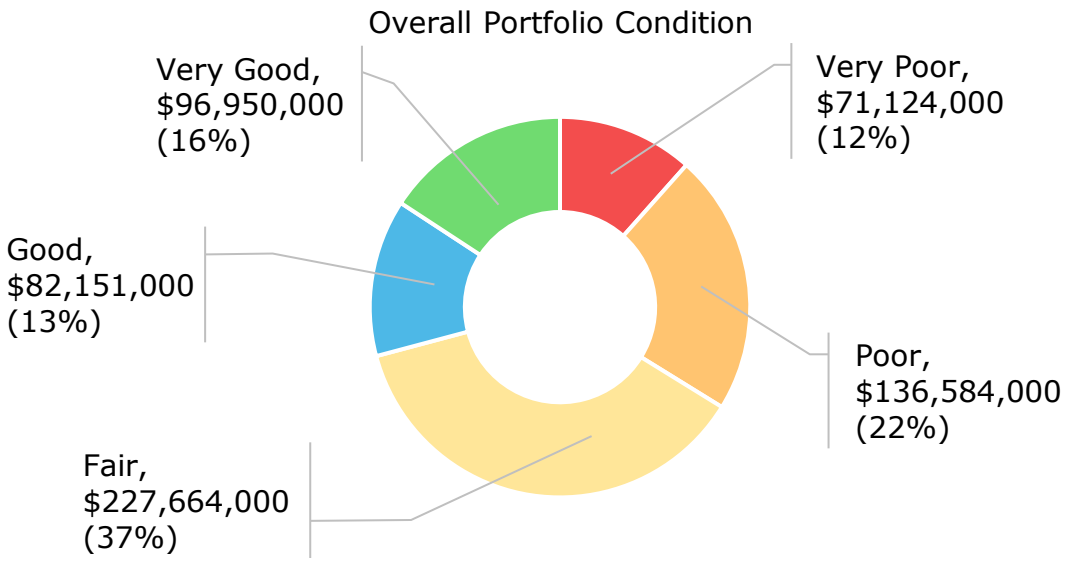


Figure 14 Asset Condition: Portfolio Overview

As further illustrated in Figure 15 at the category level, the majority of major, core infrastructure including roads, water network, sanitary sewer network, and stormwater network are in fair or better condition, based on in-field condition assessment data and age-based condition projections. See Table 6 for details on how condition data was derived for each asset segment.

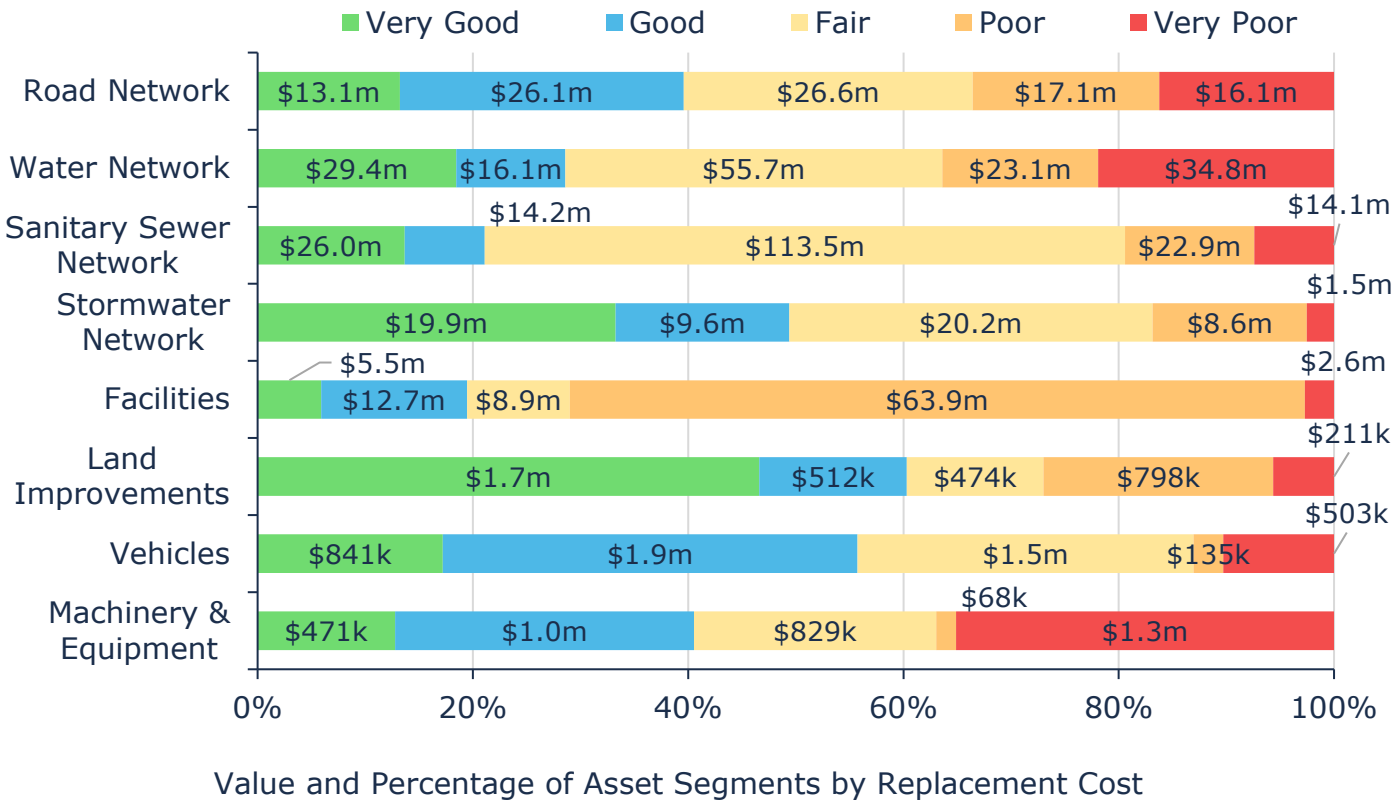


Figure 15 Asset Condition by Asset Category

Source of Condition Data

This AMP relies on assessed condition for 38% of assets, based on and weighted by replacement cost. For the remaining assets, age is used as an approximation of condition. Assessed condition data is invaluable in asset management planning as it reflects the true condition of the asset and its ability to perform its functions. The table below identifies the source of condition data used throughout this AMP.

Asset Category	% of Assets with Assessed Conditions	Source of Condition Data
Road Network	77%	2020 Road Needs Study Internal Assessments
Water Network	32%	External Building Condition Assessments (BCAs)
Sanitary Sewer Network	50%	External Building Condition Assessments (BCAs)
Storm Water Network	0%	N/A
Facilities	11%	Internal Assessments
Land Improvements	53%	Internal Assessments
Vehicles	4%	Internal Assessments
Machinery & Equipment	29%	Internal Assessments

Table 6 Source of Condition Data

3.2.4 Service Life Remaining

Based on asset age, available assessed condition data and estimated useful life, 4% ($27.2 million) of all assets have reached their service life, with another 8% ($46 million) requiring replacement within the next 10 years.

3.2.5 Risk Matrix

Using the risk equation and preliminary risk models, Figure 16 shows how assets across the different asset categories are stratified within a risk matrix.

1 - 4 Very Low	5 - 7 Low	8 - 9 Moderate	10 - 14 High	15 - 25 Very High
$196,688,338 (32%)	$96,780,851 (16%)	$46,872,958 (8%)	$194,761,654 (32%)	$79,369,732 (13%)

Figure 16 Risk Matrix: All Assets

The analysis shows that based on current risk models, approximately 13% of the Town's assets, with a current replacement cost of approximately $79 million, carry a risk rating of 15 or higher out of 25. Assets in this group may have a high probability of failure based on available condition data and age-based estimates.

As new asset attribute information and condition assessment data are integrated with the asset register, asset risk ratings will evolve, resulting in a redistribution of assets within the risk matrix. Staff should also continue to calibrate risk models.

We caution that since risk ratings rely on many factors beyond an asset's physical condition or age, assets in a state of disrepair can sometimes be classified as low risk, despite their poor condition rating. In such cases, although the probability of failure for these assets may be high, their consequences of failure ratings were determined to be low based on the attributes used and the data available.

Similarly, assets with very high condition ratings can receive a moderate to high-risk rating despite a low probability of failure. These assets may be deemed as highly critical to the Town based on their costs, economic importance, social significance, and other factors. Continued calibration of an asset's criticality and regular data updates are needed to ensure these models more accurately reflect an asset's actual risk profile.

3.2.6 Forecasted Capital Requirements

Aging assets require maintenance, rehabilitation, and replacement.

Figure 17 below illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for all asset categories analyzed in this AMP over a 25-year time horizon. On average, $10.6 million is required each year to remain current with capital replacement needs for the Town's proposed lifecycle approach (2025-2049).[4]

Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise. This figure relies on age and available condition data.

The chart also illustrates a backlog of approximately $27.2 million, comprising of assets that remain in service beyond their estimated useful life. It is unlikely that all such assets are in a state of disrepair, requiring immediate replacements.[5] This makes continued and expanded targeted and consistent condition assessments integral. Risk frameworks, proactive lifecycle strategies, and levels of service targets can then be used to prioritize projects, continuously refine estimates for both backlogs and ongoing capital needs and help select the right treatment for each asset. In addition, more effective componentization of buildings will improve these projections, including backlog estimates.

[4] While $10.6 million is the average annual requirement from 2025-2049, $12.3 million is the average annual requirement assuming all assets undergo an entire lifecycle. See 13.
[5] While $18.1 million has been identified as 'backlog' within the water network – primarily due to ductile iron watermains reaching their expected estimated useful life – it is highly unlikely that the Town will need to rehabilitate/replace the identified 'backlog' assets in the short term.

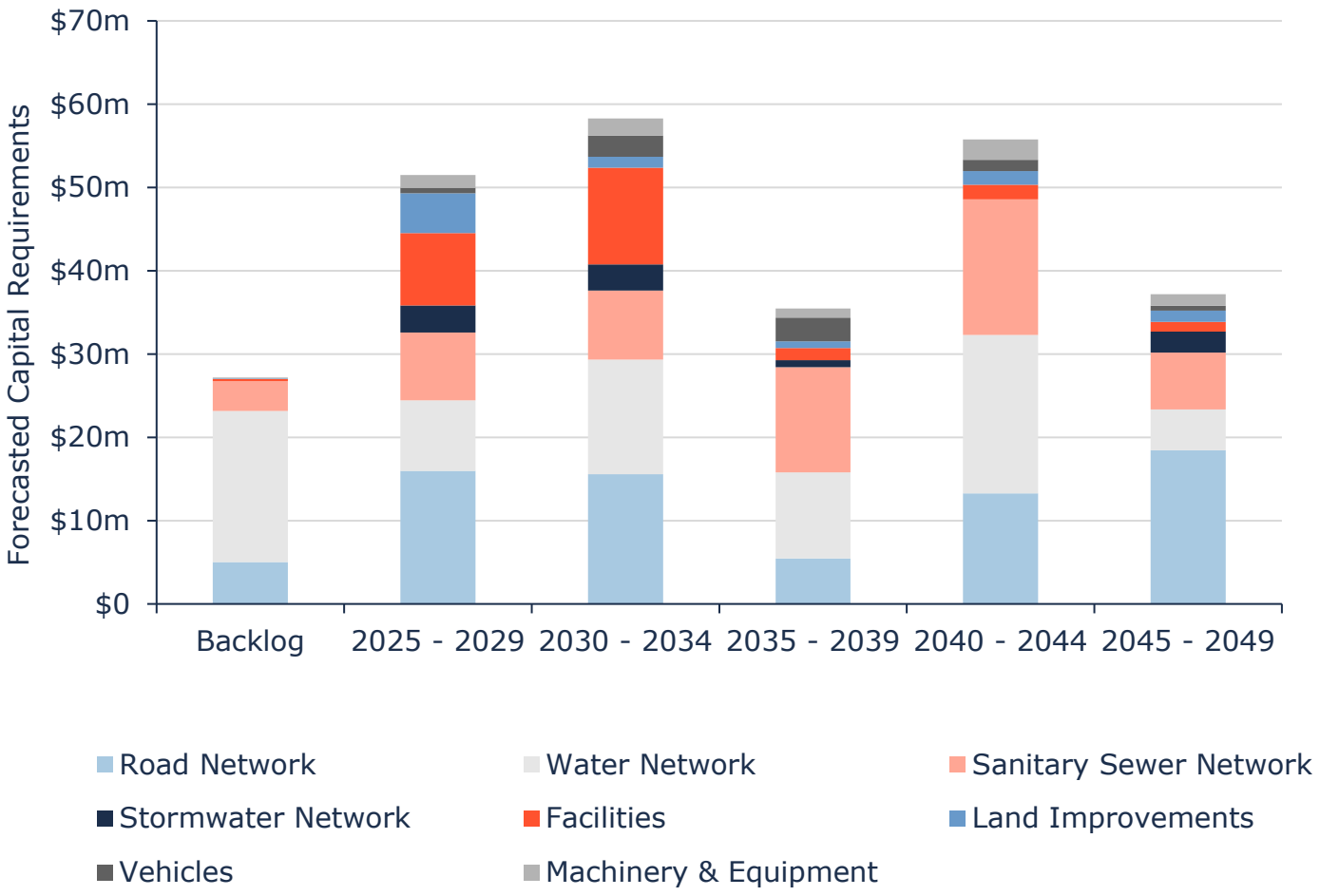


Figure 17 Capital Replacement Needs: Portfolio Overview 2025-2049

Category Analysis: Core Assets

4. Road Network

4.1 Inventory & Valuation

Table 7 summarizes the quantity and current replacement cost of the Town's road network assets as managed in its primary asset management register, Citywide.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Curbs	69,132	Length (m)	$11,744,046	Cost per Unit
Road Base	60,972	Length (m)	$36,722,752	Cost per Unit
Road Surface	58,565	Length (m)	$26,022,003	Cost per Unit
Sidewalks	73,583	Area (m2)	$22,525,202	Cost per Unit
Streetlights	1,111	Quantity	$2,018,940	Cost per Unit
TOTAL			**$99,032,942**	

Table 7 Detailed Asset Inventory: Road Network

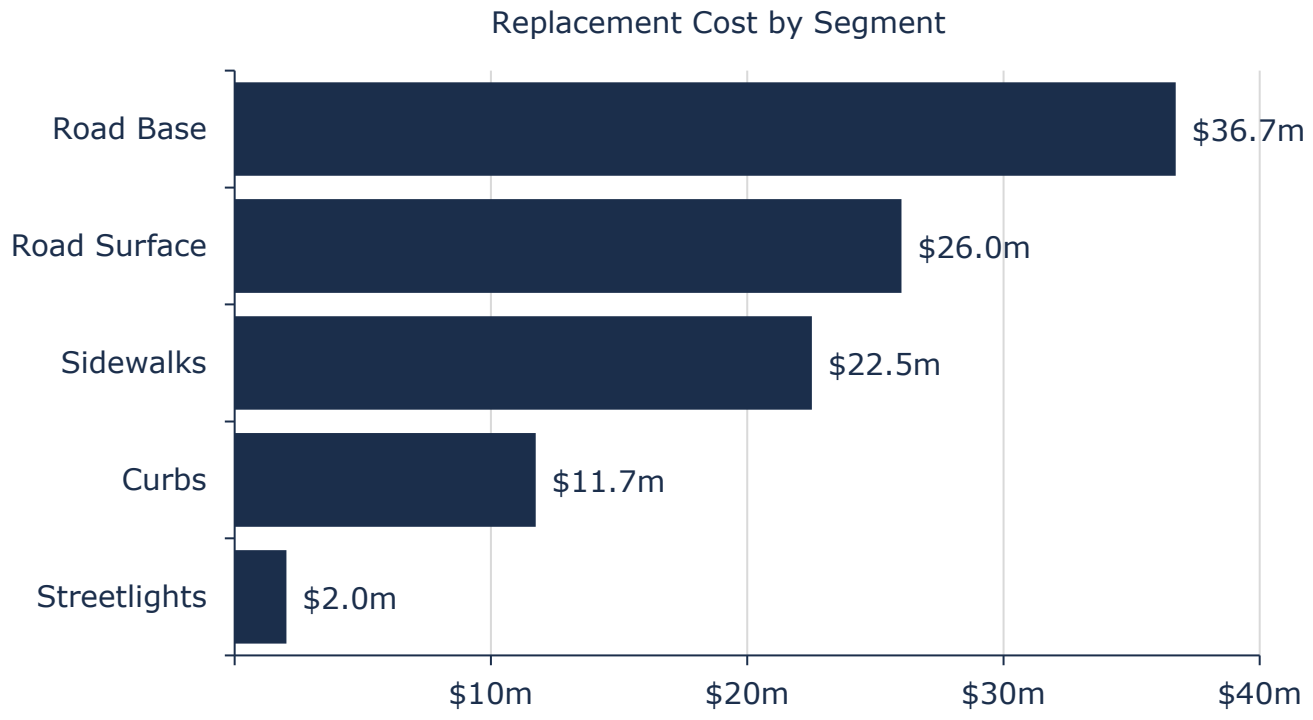


Figure 18 Portfolio Valuation: Road Network

4.2 Asset Condition

Figure 19 summarizes the replacement cost of the Town's road network. Based on a combination of field inspection data and age, 67% of assets are in fair or better condition; the remaining 33% of assets are in poor to very poor condition. Condition assessments were available for 92% of road surface, 88% of the Road base and 90% of sidewalks, based on replacement cost. This condition data was projected from inspection date to current year to estimate their condition today.

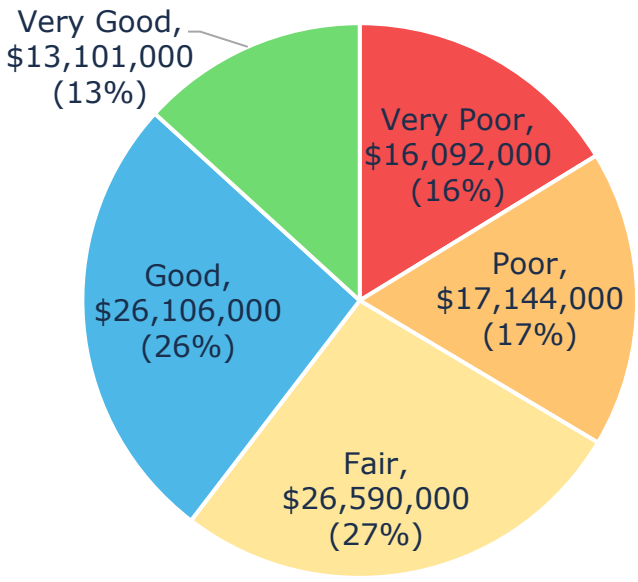


Figure 19 Asset Condition: Road Network Overall Condition

As illustrated in Figure 20, based on condition assessments, the majority of the Town's road surface, road base network, and sidewalks are in fair or better condition. Notably, the Town's curb assets, which rely almost exclusively on an age-based approach, are in poor (36) condition. Approximately 38% of curb assets have reached their useful life which negatively skews the overall condition of the road network.

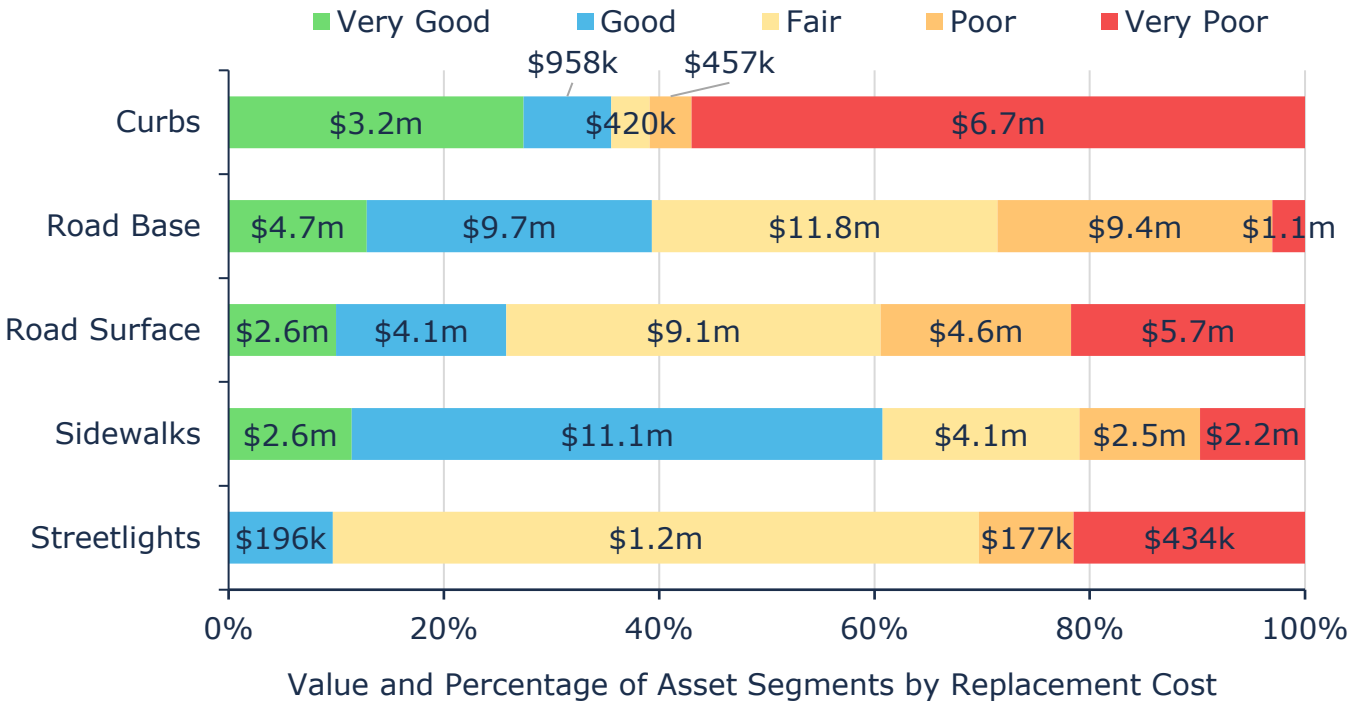


Figure 20 Asset Condition: Road Network by Segment

4.3 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential long-term replacement spikes.

Figure 21 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

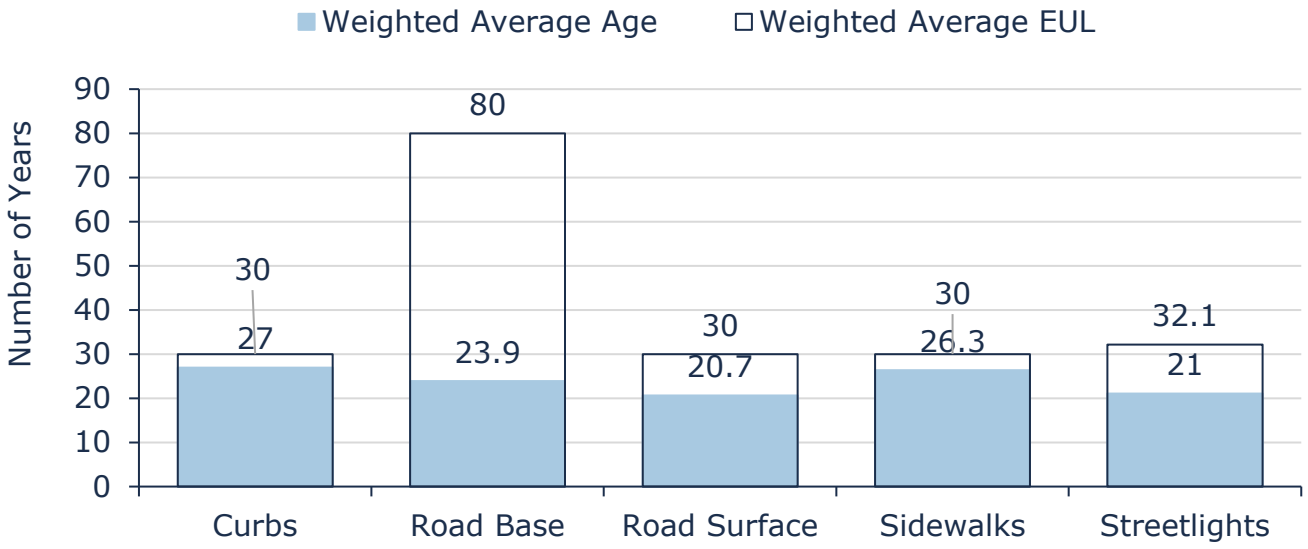


Figure 21 Estimated Useful Life vs. Asset Age: Road Network

Age analysis shows that most curbs, sidewalks, and road surfaces are nearing the end of their expected useful life, with average ages of 27, 26.3, and 20.7 years against design lives of 30 years. Streetlights remain within their expected life at 21 years of age against a 32.1-year design life. The road base, with an average age of 23.9 years against an expected life of 80 years, is well within its useful life and not a renewal priority currently.

Although asset age is an important measurement for long-term planning, condition assessments provide a more accurate indication of actual asset needs. Further, useful life estimates established as part of the PSAB 3150 implementation may not be accurate and may not reflect in-field asset performance.

4.4 Current Approach to Lifecycle Management

Paved Roads		
Event Name	**Event Class**	**Event Trigger**
Crack Sealing	Maintenance	Annual (Targeted and as required)
Mill & Overlay	Rehabilitation	15-20 Years
Strip & Pave	Rehabilitation	30-35 Years
Full Reconstruction	Replacement	PCI: 20-30[6]

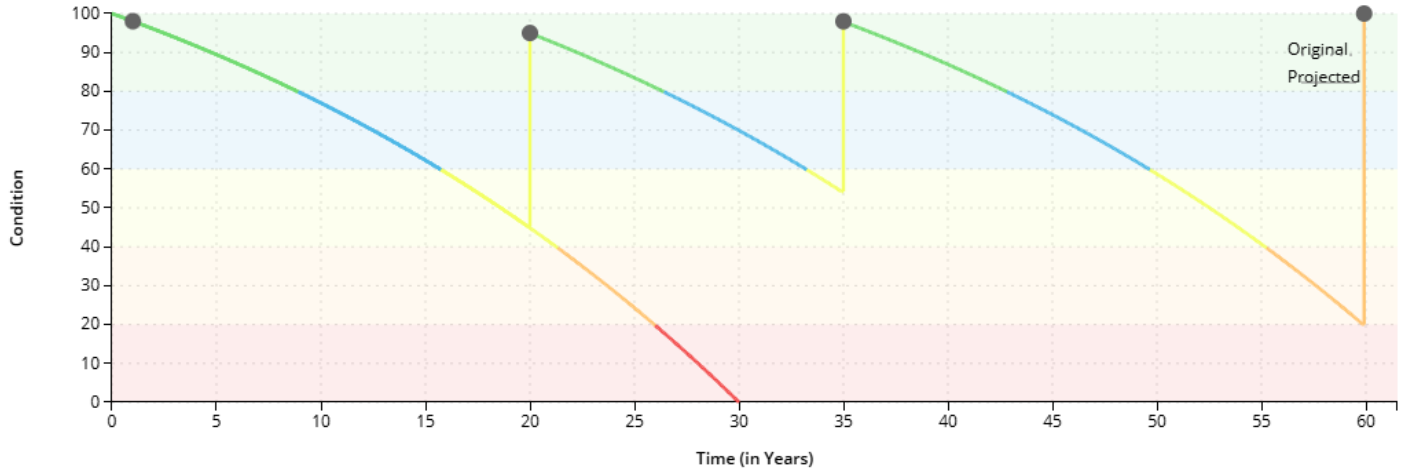


Table 8 Lifecycle Management Strategy: Road Network

[6] Full reconstruction projects are often tied to the asset condition of underlying linear assets. A road at the end of its useful life may not be reconstructed if underground infrastructure (ex. watermains) is anticipated to be replaced in the near future.

4.5 Forecasted Long-Term Replacement Needs

Figure 22 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's road network, until 2049. The Town's average annual requirement is $3 million per year for all assets in the road network (full lifecycle).[7] Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

While the average annual requirement for the road network is $3 million per year, from 2025-2034, the average annual capital requirement is $3.7 million per year. Additionally, backlog assets account for approximately $5 million, as per the Town's asset register.[8] These projections are based on asset replacement costs, age analysis, condition data, and anticipated capital expenditure (10-year window), when available. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

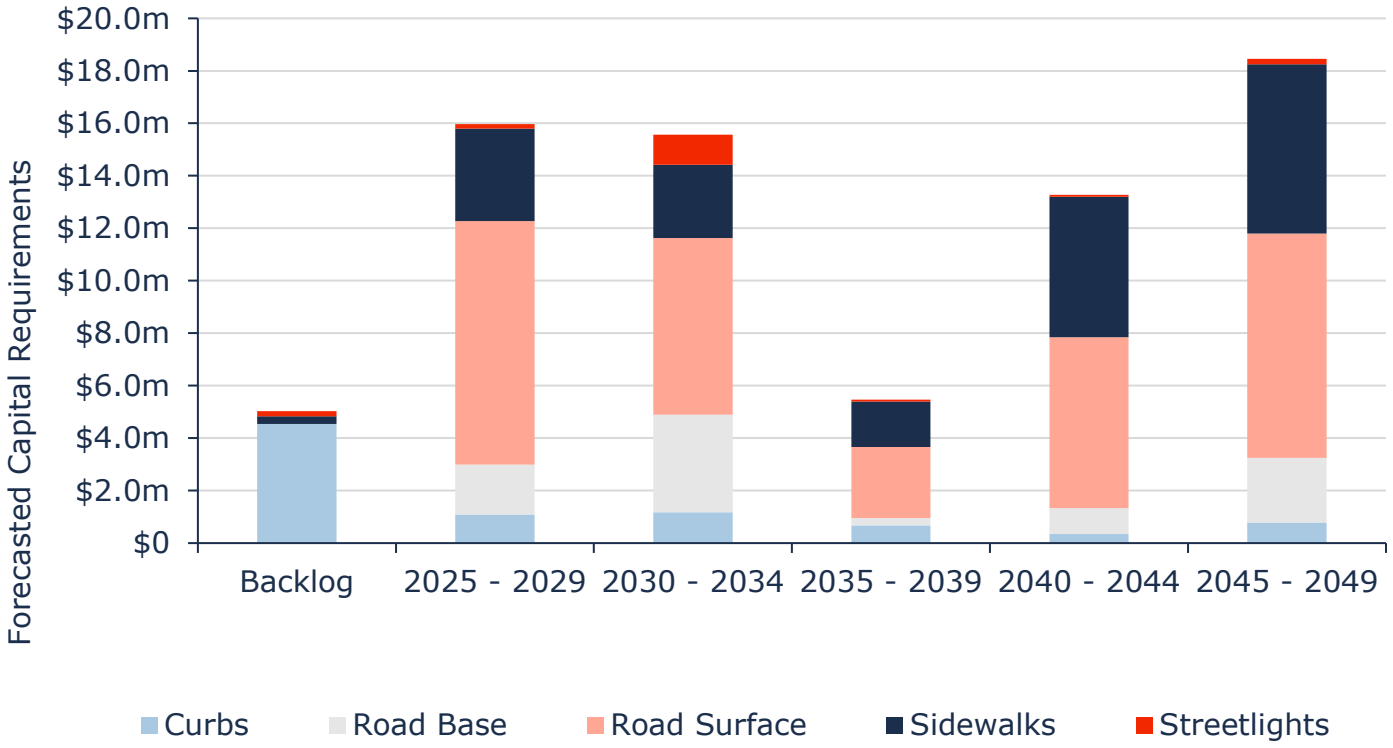


Figure 22 Forecasted Capital Replacement Needs: Road Network 2025-2049

The Town currently completes a third-party assessment of all road surfaces every 5 years and an internal assessment of all sidewalks annually. Updates to the Town's asset management register (Citywide) on a scheduled basis is critical for capturing accurate future capital requirements.

[7] $3 million per year (AACR). Also $3 million per year from 2025-2049. See 1.3.
[8] See curbs in sections 4.2 & 4.3

A detailed 10-year capital replacement forecast can be found in Appendix B – 10-Year Capital Requirements.

4.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, service life remaining, replacement costs, traffic data, and road class. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix stratifies assets based on their individual probability and consequence of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (Citywide Assets). See *Risk & Criticality* section for further details on approach used to determine asset risk ratings and classifications.

1 - 4 **Very Low**	**5 - 7** **Low**	**8 - 9** **Moderate**	**10 - 14** **High**	**15 - 25** **Very High**
$61,582,967 (62%)	$18,640,426 (19%)	$4,703,709 (5%)	$9,605,700 (10%)	$4,500,140 (5%)

Figure 23 Risk Matrix: Road Network

4.7 Current Levels of Service

The tables that follow summarize the Municipality's current levels of service with respect to prescribed KPIs under Ontario Regulation 588/17, as well as any additional performance measures that the Town selected for this AMP.

4.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description, which may include maps of the road network in the municipality and its level of connectivity	See Appendix C
Quality	Description or images that illustrate the different levels of road class pavement condition	See Appendix C

Table 9 O. Reg. 588/17 Community Levels of Service: Road Network

4.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2024)
Scope	Lane-km of arterial roads (MMS classes 1 and 2) per land area (km/km2)	N/A
	Lane-km of collector roads (MMS classes 3 and 4) per land area (km/km2)	2.93[9]
	Lane-km of local roads (MMS classes 5 and 6) per land area (km/km2)	6.06[10]
Quality	Average pavement condition index for paved roads in the municipality	46 (Fair)
	Average surface condition for unpaved roads in the municipality (e.g. excellent, good, fair, poor)	N/A

Table 10 O. Reg. 588/17 Technical Levels of Service: Road Network

[9] 38.17 kms (assumed 2 lanes).
[10] 78.96 kms (assumed 2 lanes).

4.8 Proposed Levels of Service

As per O. Reg. 588/17, by July 1, 2025, municipalities are required to consider proposed levels of service (PLOS), discuss the associated risks and long-term sustainability of these service levels, and explain the Town's ability to afford the PLOS.

Proposed levels of service reflect the municipality's commitment to delivering reliable, cost-effective, and sustainable services. These projected levels were developed through a comprehensive analysis of several key factors:

- Current service performance, based on historical data and condition assessments;
- Planned capital and operational activities within the 10-year planning horizon; and
- Available financial resources, including funding strategies and lifecycle costing

LOS Metric	Current KPI	Proposed KPI (2034)	Growth	Achievability & Affordability
Pavement Condition Index (PCI)	Fair 46	Good 75	Refer to section 12.	Refer to section 13.
Average risk rating[11]	Moderate 9.07	Low 6.88		

Table 11 O. Reg. 588/17 Proposed LOS: Road Network

[11] See *Risk & Criticality*

5. Water Network

5.1 Inventory & Valuation

Table 12 summarizes the quantity and current replacement cost of the Town's water network assets as managed in its primary asset management register, Citywide.

Segment	Quantity (components)	Unit of Measure	Replacement Cost	Primary RC Method
Equipment	8	Quantity	$1,517,722	Cost per Unit
Facilities	4[12] (519)	Quantity	$52,223,577	Cost per Unit[13]
Water Mains	63,395	Length (m)	$105,344,570	Cost per Unit
TOTAL			**$159,085,868**	

Table 12 Detailed Asset Inventory: Water Network

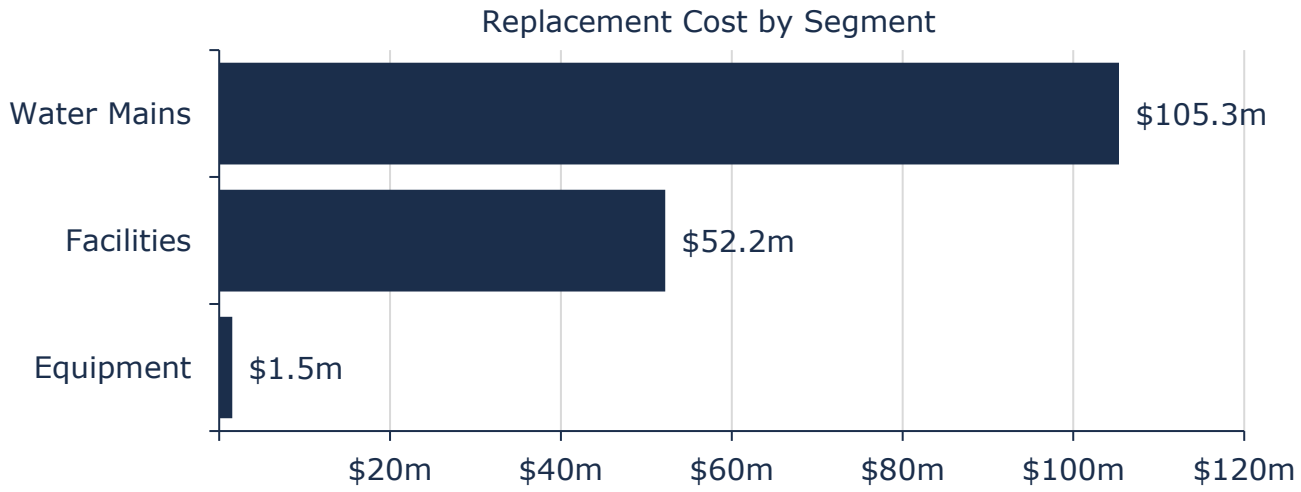


Figure 24 Portfolio Valuation: Water Network

[12] Filtration plant, water tower, pumphouse, & waterworks shed.
[13] Third party building condition assessments.

5.2 Asset Condition

Figure 25 summarizes the replacement cost-weighted condition of the Town's water network. Based on mostly age-based condition, 63% of assets are in fair or better condition; the remaining 37% of assets are in poor to very poor condition.

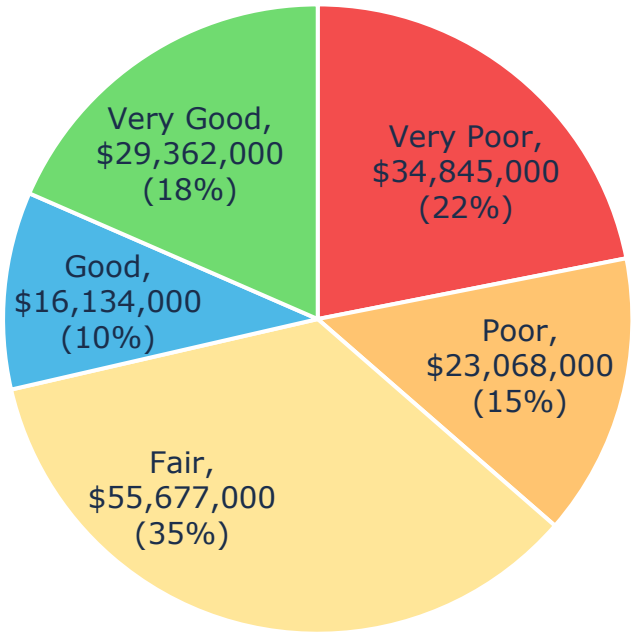


Figure 25 Asset Condition: Water Network Overall

As illustrated in Figure 26, based on condition assessments and age-based conditions, most water network assets are in fair or better condition. However, most water mains, due to variables such as material type and an age-based condition approach – are designated in poor or worse condition.[14]

[14] See 3.2.6

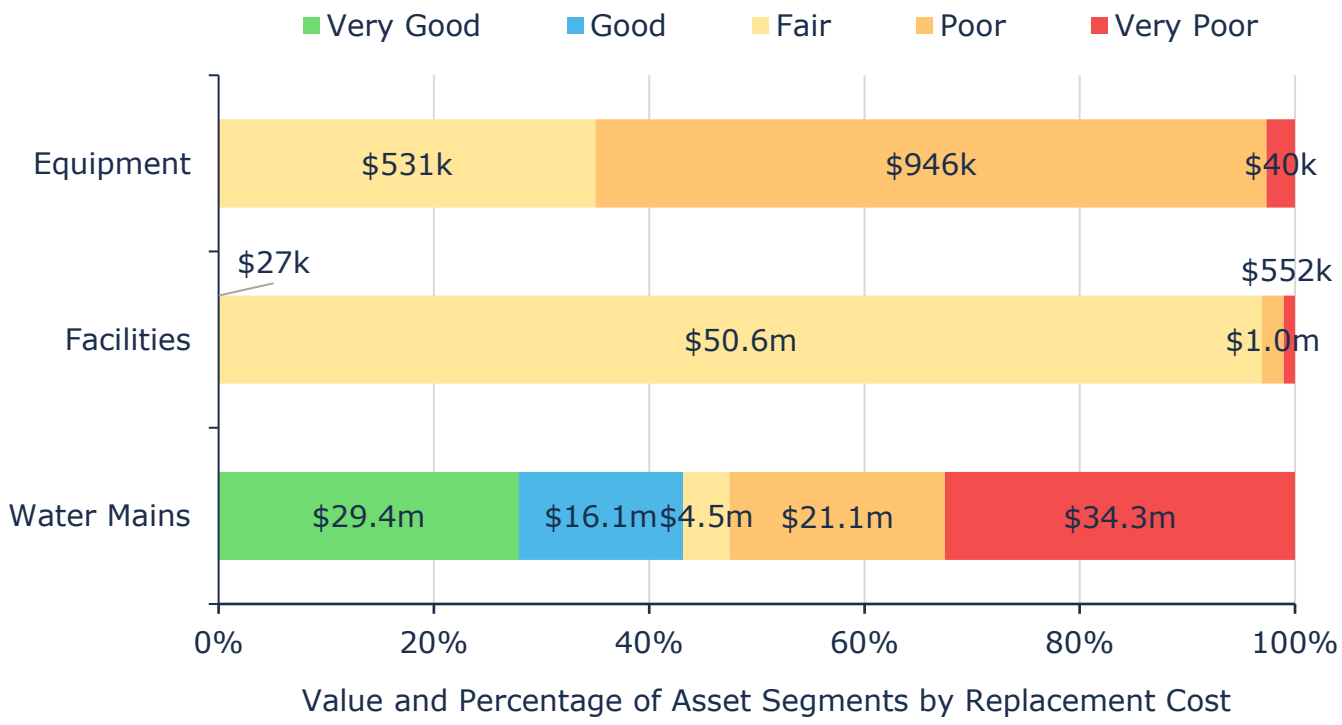


Figure 26 Asset Condition: Water Network by Segment

5.3 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential long-term replacement spikes.

Figure 27 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

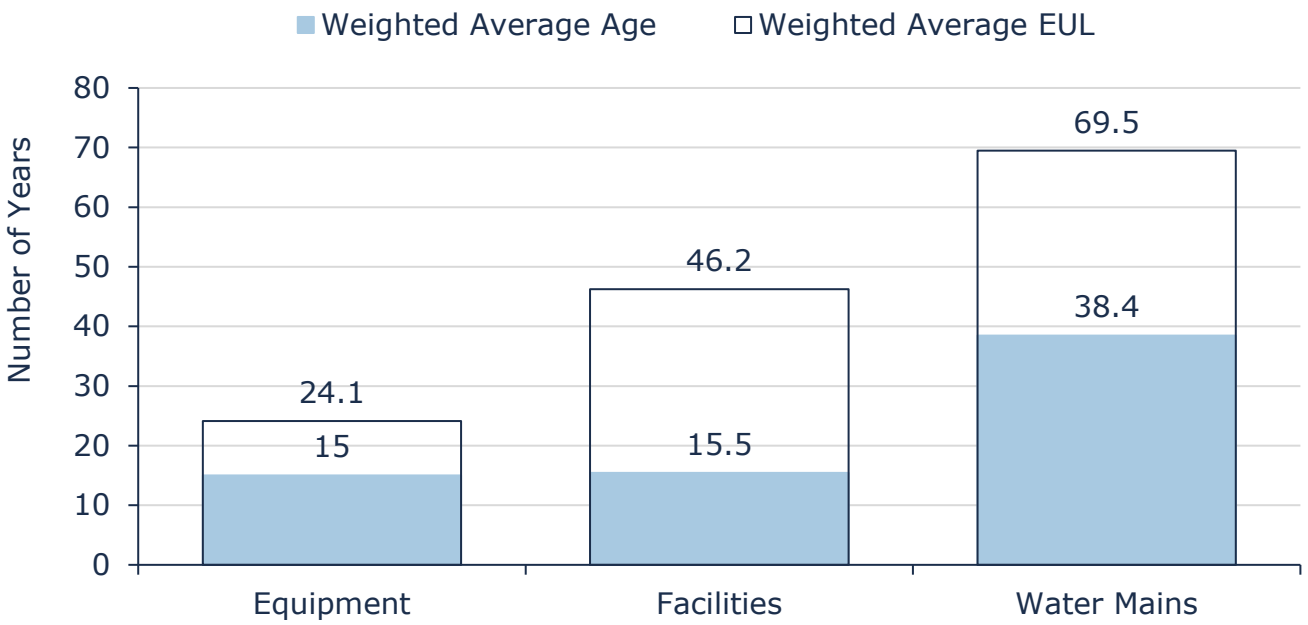


Figure 27 Estimated Useful Life vs. Asset Age: Water Network

5.4 Current Approach to Lifecycle Management

The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

The following table outlines the Town's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance	Fire hydrants are flushed twice per year to ensure proper operation of the hydrants and to flush the watermains throughout the distribution system to remove sediment and corrosion.
	Staff conduct a valve turning exercise on one third of the network every year using in-house resources.
Rehabilitation	Trenchless re-lining of water mains presents significant challenges and is not always a viable option.
Replacement	In the absence of mid-lifecycle rehabilitative events, most mains are simply maintained with the goal of full replacement once it reaches its end-of-life.
	Replacement activities are identified based on an analysis of the main break rate as well as any issues identified during regular maintenance activities. Staff also aim to prioritize the replacement of cast iron and ductile iron mains. Watermains are typically replaced with higher capacity pipes to accommodate population growth and increased demand.
	A replacement program is in place to proactively replace water hydrants based on age.

Table 13 Lifecycle Management Strategy: Water Network

5.5 Forecasted Long-Term Replacement Needs

The figure below illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's water network, until 2049.The Town's average annual requirement is $3 million per year for all assets in the water network (full lifecycle).[15] Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

While the average annual requirement for the water network is $3 million per year, from 2025-2034, the average annual requirement is $4 million, due in large part to numerous backlog assets (water mains) accounting for approximately $18 million, as per the Town's asset register.[16] These projections are based on asset replacement costs, age analysis, condition data, and anticipated capital expenditure (10-year window), when available. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

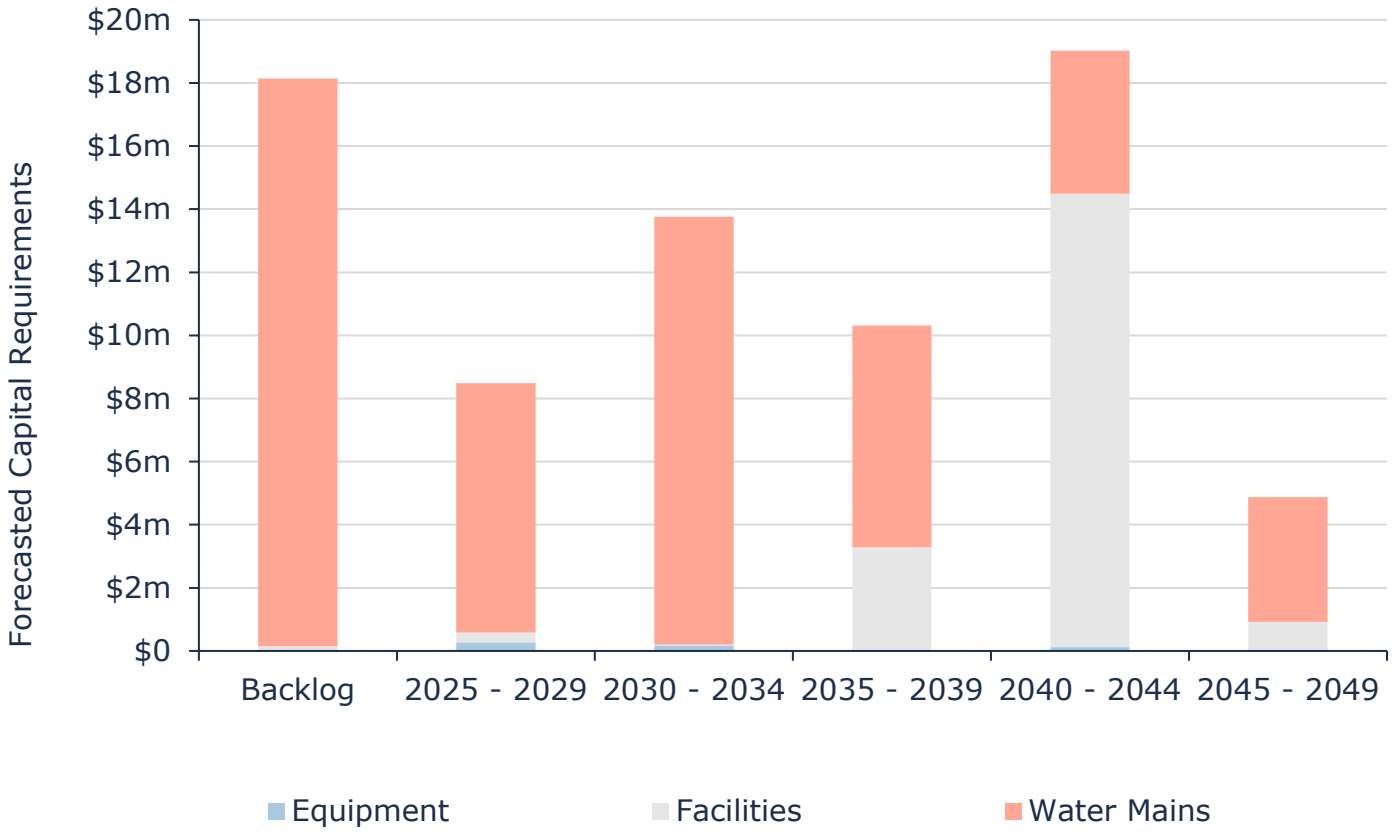


Figure Forecasted Capital Replacement Needs: Water Network 2025-2049

A detailed 10-year capital replacement forecast can be found in Appendix B – 10-Year Capital Requirements.

[15] $3 million per year (AACR). Also $3 million per year from 2025-2049. See 1.3.
[16] See 3.2.6

5.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, service life remaining, replacement costs, traffic data, and road class. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix stratifies assets based on their individual probability and consequence of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (Citywide Assets). See *Risk & Criticality* section for further details on approach used to determine asset risk ratings and classifications.

1 - 4 **Very Low**	**5 - 7** **Low**	**8 - 9** **Moderate**	**10 - 14** **High**	**15 - 25** **Very High**
$36,830,273 (23%)	$23,322,708 (15%)	$12,830,221 (8%)	$72,631,144 (46%)	$13,471,522 (8%)

Figure 28 Risk Matrix: Water Network

5.7 Levels of Service

The tables that follow summarize the Town's current levels of service with respect to prescribed KPIs under Ontario Regulation 588/17 as well as any additional performance measures that the Town has selected for this AMP.

5.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description, which may include maps of the user groups or areas of the municipality that are connected to the municipal water system	See Appendix C
	Description, which may include maps of the user groups or areas of the municipality that have fire flow	99% of all properties have access to fire flow.[17]
Reliability	Description of boil water advisories and service interruptions	The Town adopted a policy that dictates a communication protocol during a boil water advisory. The Town follows Ontario's Drinking Water Quality Management Standard (DWQMS) as defined in their Water Treatment Operations Manual and the Water Distribution Operations Manual.

Table 14 O. Reg. 588/17 Community Levels of Service: Water Network

5.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2024)
Scope	% of properties connected to the municipal water system	94%
	% of properties where fire flow is available	99%
Reliability	# 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
	# of connection-days per year where water is not available due to water main breaks compared to the total number of properties connected to the municipal water system	0

[17] Exceptions include properties at the end of both Johnston Road and Didak Drive

Table 15 O. Reg. 588/17 Technical Levels of Service: Water Network

5.8 Proposed Levels of Service

As per O. Reg. 588/17, by July 1, 2025, municipalities are required to consider proposed levels of service (PLOS), discuss the associated risks and long-term sustainability of these service levels, and explain the Town's ability to afford the PLOS.

Proposed levels of service reflect the municipality's commitment to delivering reliable, cost-effective, and sustainable services. These projected levels were developed through a comprehensive analysis of several key factors:

- Current service performance, based on historical data and condition assessments;
- Planned capital and operational activities within the 10-year planning horizon; and
- Available financial resources, including funding strategies and lifecycle costing

LOS Metric	Current KPI	Proposed KPI (2034)	Growth	Achievability & Affordability
Average condition rating	Fair 54	Fair 58	Refer to section 12.	Refer to section 13.
Average risk rating[18]	Moderate 8.76	Moderate 9.78		

Table 16 O. Reg. 588/17 Proposed LOS: Water Network

[18] See *Risk & Criticality*

6. Sanitary Sewer Network

6.1 Inventory & Valuation

Table 17 summarizes the quantity and current replacement cost of the Town's various sanitary sewer network assets as managed in its primary asset management register, Citywide Assets.

Segment	Quantity (components)	Unit of Measure	Replacement Cost	Primary RC Method
Facilities	6 (51)	Quantity, Area (m2)	$95,237,834	Cost per Unit[19]
Sanitary Sewer Mains	57,428	Length (m)	$95,429,339	Cost per Unit
TOTAL			**$190,667,173**	

Table 17 Detailed Asset Inventory: Sanitary Sewer Network

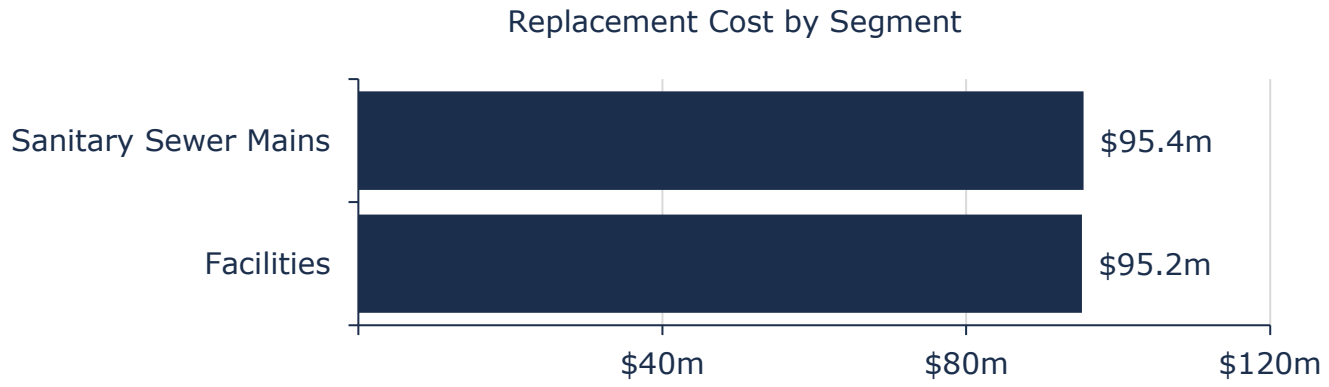


Figure 29 Portfolio Valuation: Sanitary Sewer Network

[19] Third party building condition assessments.

6.2 Asset Condition

Figure 30 summarizes the replacement cost-weighted condition of the Town's sanitary sewer network. Based mostly on age-based condition, 81% of assets are in fair or better condition; the remaining 19% of assets are in poor to very poor condition.

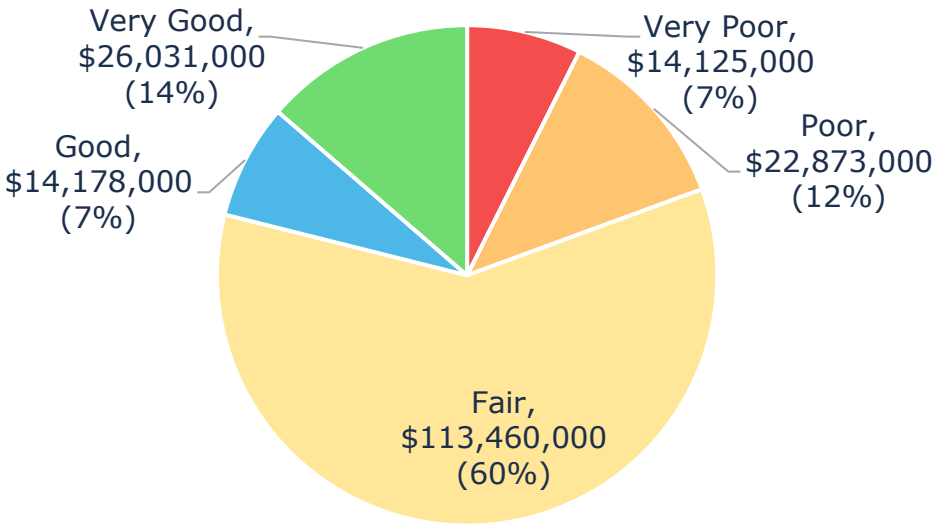


Figure 30 Asset Condition: Sanitary Sewer Network Overall

As illustrated in Figure 31, based on age-based conditions, most the Town's sanitary sewer mains and facilities are in fair or better condition.

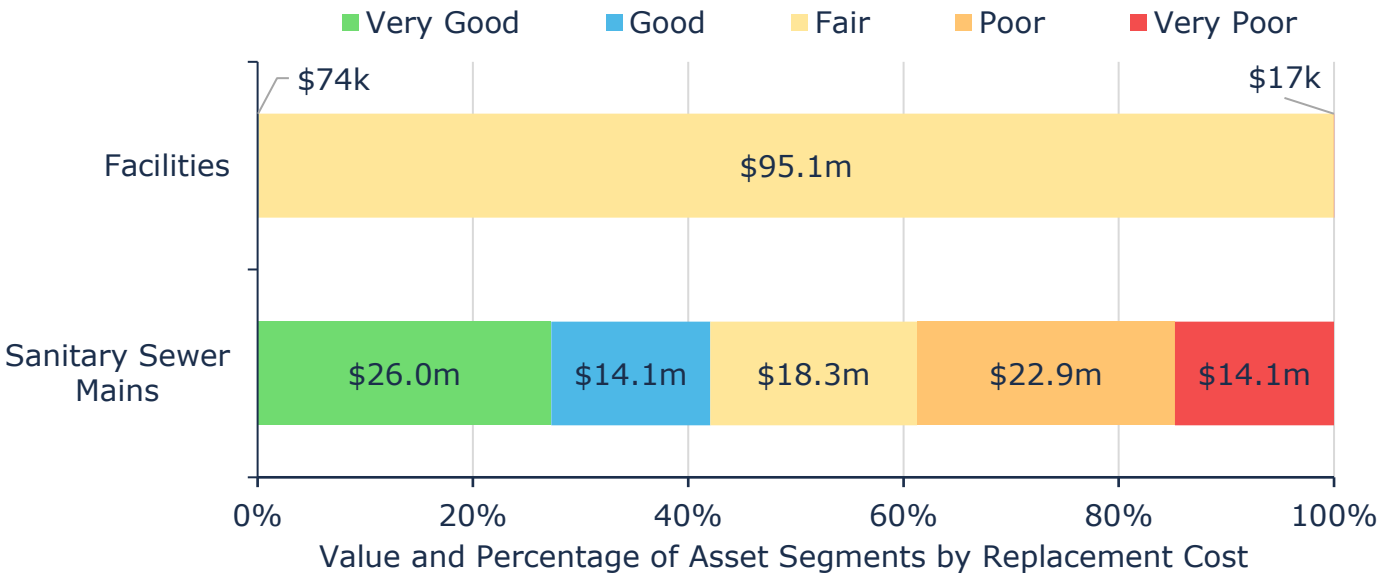


Figure 31 Asset Condition: Sanitary Sewer Network by Segment

6.3 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential long-term replacement spikes.

Figure 32 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

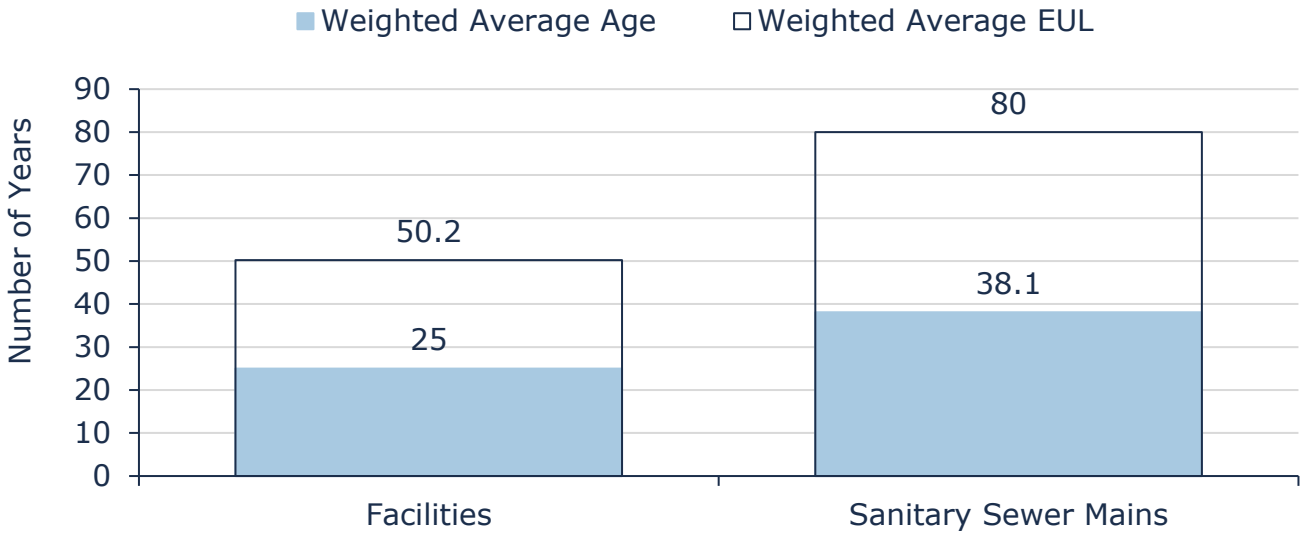


Figure 32 Estimated Useful Life vs. Asset Age: Sanitary Sewer Network

6.4 Current Approach to Lifecycle Management

The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

The following table outlines the Town's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance	Through CCTV inspections and historical data staff have an understanding of the sanitary mains that require more regular flushing to prevent blockages.
	CCTV and flushing work is aligned with road work when possible to reduce costs.
Rehabilitation	Sanitary sewer lining presents significant challenges and is not always a viable option. The Town will undertake spot lining in some areas based on the findings from the CCTV inspections.
Replacement	In the absence of mid-lifecycle rehabilitative events, most mains are simply maintained with the goal of full replacement once it reaches its end-of-life.
	Replacement activities are identified based on an analysis of the main break rate as well as any issues identified during CCTV inspection.

Table 18 Lifecycle Management Strategy: Sanitary Sewer Network

6.5 Forecasted Long-Term Replacement Needs

Figure 33 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's sanitary sewer network, until 2049. The Town's average annual requirement is $3.4 million per year for all assets in the sanitary sewer network (full lifecycle).[20] Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

While the average annual requirement is $3.4 million per year, from 2025-2034, the average annual requirement is $2.0 million a year, and $2.2 million from 2025-2049. Additionally, backlog assets account for approximately $4 million, as per the Town's asset register. These projections are based on asset replacement costs, age analysis, condition data, and anticipated capital expenditure (10-year window), when available. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

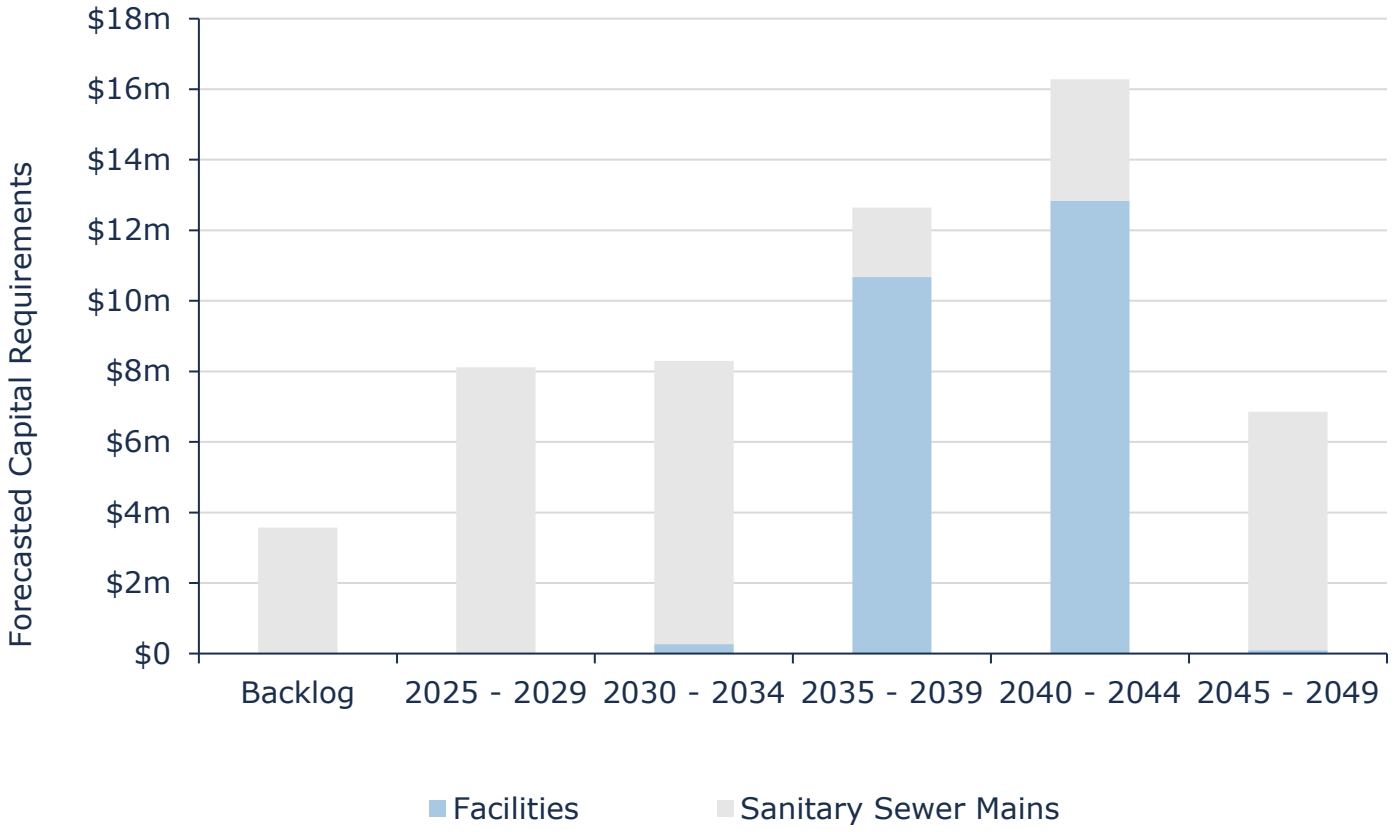


Figure 33 Forecasted Capital Replacement Needs: Sanitary Sewer Network 2025-2049

A detailed 10-year capital replacement forecast can be found in Appendix B – 10-Year Capital Requirements.

[20] $3.4 million per year (AACR). $2.2 million per year from 2025-2049. See 1.3.

6.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, service life remaining, replacement costs. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix stratifies assets based on their individual probability and consequence of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (Citywide Assets). See *Risk & Criticality* section for further details on approach used to determine asset risk ratings and classifications.

1 - 4	**5 - 7**	**8 - 9**	**10 - 14**	**15 - 25**
Very Low	**Low**	**Moderate**	**High**	**Very High**
$47,541,412	$30,891,449	$9,655,901	$97,852,232	$4,726,179
(25%)	(16%)	(5%)	(51%)	(2%)

Figure 34 Risk Matrix: Sanitary Sewer Network

6.7 Levels of Service

The tables that follow summarize the Town's current levels of service with respect to prescribed KPIs under Ontario Regulation 588/17 as well as any additional performance measures that the Town has selected for this AMP.

6.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal wastewater system	See Appendix C for a map of the Sanitary Sewer System.
Reliability	Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place which allow overflow during storm events to prevent backups into homes	4 of the 6 sanitary pumping stations have combined sewer overflows to prevent backups by directing water to the river during storm events.
	Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches	June 26: bypass of 0.17 m^3 July 13: volume of 52.4 m and 0.48 m^3 July 28: 220.5 m^3 September 7: 6.37 m^3 and 83.8 m^3 December 8: 3204 m^3
	Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes	Storm water can get into sanitary sewers due to combined sewers, illegal roof drains connected to the sanitary system, and infiltration related to aging and damaged infrastructure. Scada equipment tracks flow meters, which are then manually tracked in the records management system. The results are reported in the Water Pollution Control Centre summary report and made available to the public.
	Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to stormwater infiltration	The municipality follows a series of design standards that integrate servicing requirements and land use considerations when constructing or replacing sanitary sewers. These standards have been determined with consideration of the minimization of sewage overflows and backups.

Service Attribute	Qualitative Description	Current LOS (2024)
	Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system	Approximately X m3 of liquid is discharged daily and tested regularly. All contaminants were consistently found to be below the MECP limits. Nitrogen levels were higher than the plant goals which is inconsequential at this time due to the assimilative capacity report included in the 2008 Environmental Study Report (ESR) that states that the Ottawa River's nitrates are not a concern. This is confirmed by the observation that neighbouring facilities that also discharge to the Ottawa River do not have a total nitrogen objective.

Table 19 O. Reg. 588/17 Community Levels of Service: Sanitary Sewer Network

6.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2024)
Scope	% of properties connected to the municipal wastewater system	93%
Reliability	# 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	4
	# of connection-days per year having wastewater backups compared to the total number of properties connected to the municipal wastewater system	1[21]
	# of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system	X

Table 20 O. Reg. 588/17 Technical Levels of Service: Sanitary Sewer Network

[21] Single storm event which partially impacted Daniel St and Sullivan Cres properties (15 properties)

6.8 Proposed Levels of Service

As per O. Reg. 588/17, by July 1, 2025, municipalities are required to consider proposed levels of service (PLOS), discuss the associated risks and long-term sustainability of these service levels, and explain the Town's ability to afford the PLOS.

Proposed levels of service reflect the municipality's commitment to delivering reliable, cost-effective, and sustainable services. These projected levels were developed through a comprehensive analysis of several key factors:

- Current service performance, based on historical data and condition assessments;
- Planned capital and operational activities within the 10-year planning horizon; and
- Available financial resources, including funding strategies and lifecycle costing

LOS Metric	Current KPI	Proposed KPI (2034)	Growth	Achievability & Affordability
Average condition rating	Good 65	Fair 54	Refer to section 12.	Refer to section 13.
Average risk rating[22]	Moderate 8.88	High 10.85		

Table 21 O. Reg. 588/17 Proposed LOS: Sanitary Sewer Network

[22] See *Risk & Criticality*

7. Storm Water Network

7.1 Inventory & Valuation

Table 22 summarizes the quantity and current replacement cost of all storm water management assets available in the Town's asset register.

Segment	Quantity (components)	Unit of Measure	Replacement Cost	Primary RC Method
Concrete Headwalls	39	Quantity	$187,827	Cost per Unit
Culverts	918	Length (m)	$984,793	Cost per Unit
Storm Mains	34,853	Length (m)	$57,957,818	Cost per Unit
Storm Retention Ponds	6[23] (6,217)	Volume (m3)	$604,280	Cost per Unit
TOTAL			**$59,734,718**	

Table 22 Detailed Asset Inventory: Storm Water Network

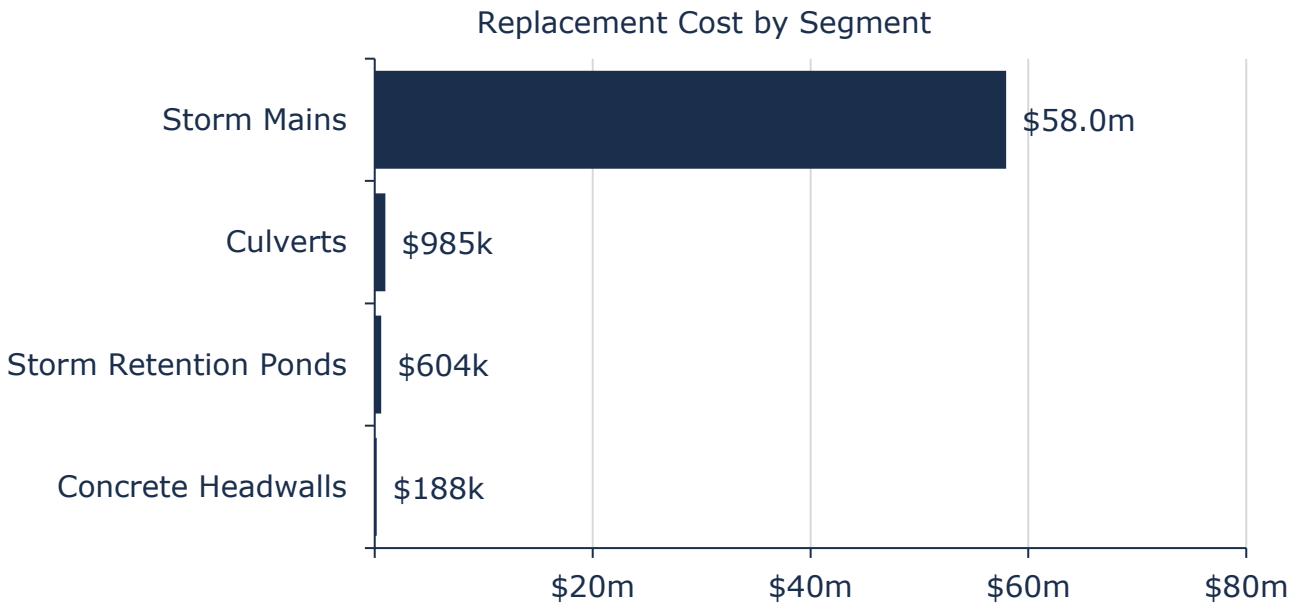


Figure 35 Portfolio Valuation: Storm Water Network

[23] The Town owns and manages 6 retention ponds

7.2 Asset Condition

Figure 36 summarizes the replacement cost-weighted condition of the Town's storm water management assets. Based on age data only, approximately 83% of assets are in fair or better condition. The remaining 17% are poor to very poor condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

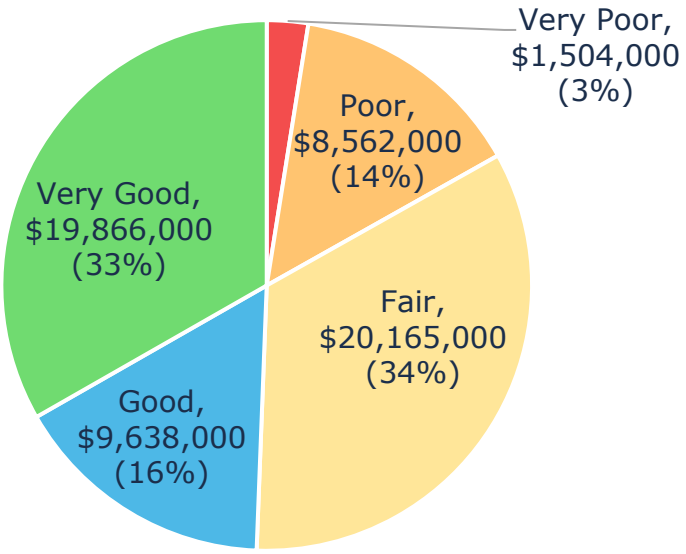


Figure 36 Asset Condition: Storm Water Network Overall

Figure 37 summarizes the age-based condition of storm water assets. The analysis illustrates that most storm water assets are in fair or better condition.

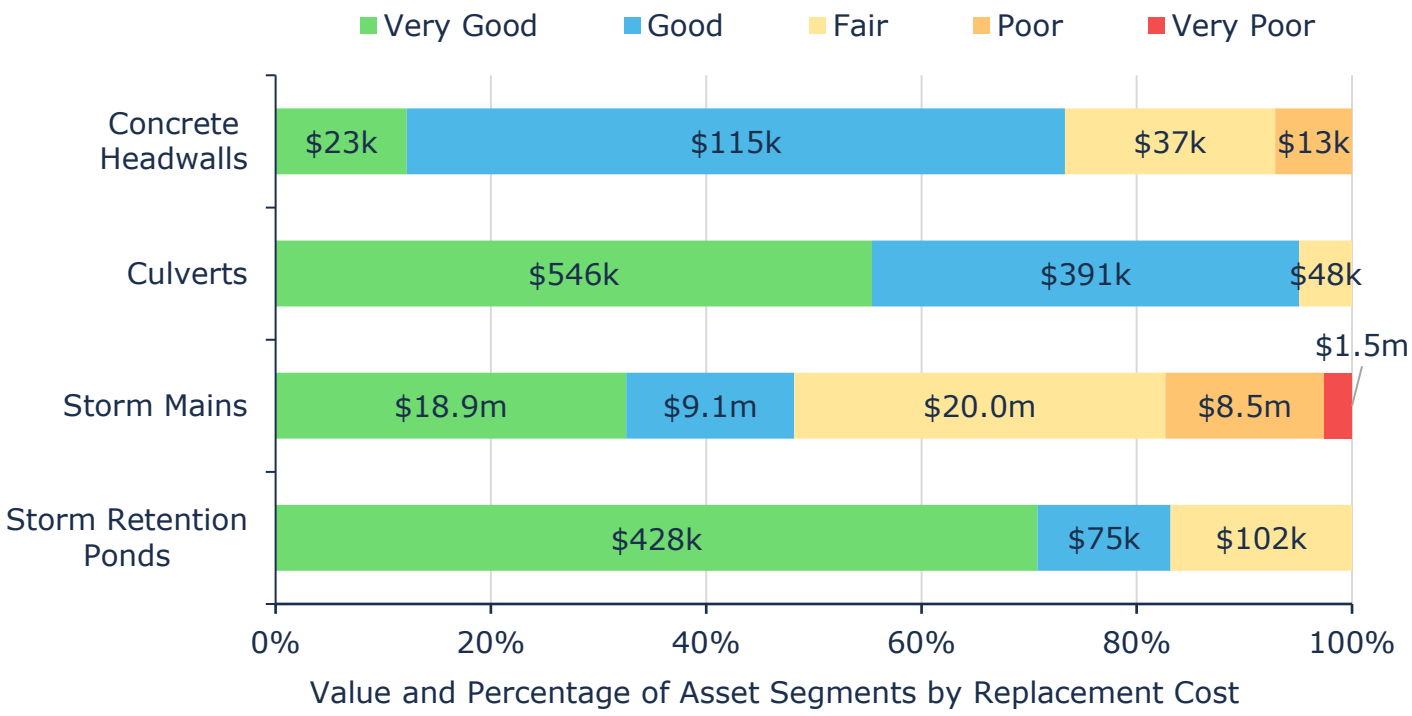


Figure 37 Asset Condition: Storm Water Network by Segment

7.3 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential replacement spikes.

Figure 38 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

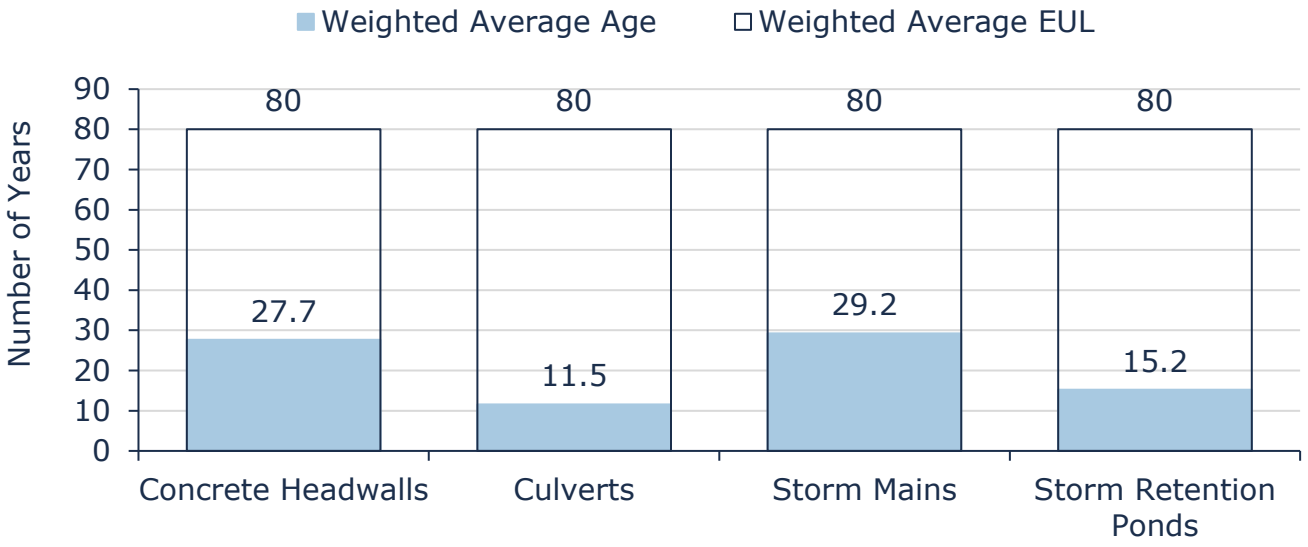


Figure 38 Estimated Useful Life vs. Asset Age: Storm Water Network

Age analysis reveals that, on average, storm mains and concrete headwalls are in a moderate stage of their expected lifecycle. Culverts, and storm retention ponds are relatively early in their lifecycle. All components have a consistent expected useful life of 80 years.

7.4 Current Approach to Lifecycle Management

The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

The following table outlines the Town's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance	Repairs are reactive, and conducted only after issues are identified by camera inspections (e.g., loose joints, cracked or sunken pipe, root infiltration).
	Primary activities include catch basin cleaning and storm main flushing, but only a small percentage of the entire network is completed per year in advance of CCTV inspections.
	CCTV inspections and cleaning are completed as budget becomes available, and this information will be used to drive forward rehabilitation and replacement plans.
Rehabilitation	Trenchless re-lining has the potential to reduce total lifecycle costs but would require a formal condition assessment program to determine viability.
Replacement	Replacement of storm water assets is partly reactive. However, replacement of storm assets may also take place in coordination with road construction based on an assessment of asset age, material, and CCTV inspections. Due to the overall young age and good condition of the Town's storm sewer network, storm sewers are generally upgraded only to accommodate new growth. The Town continues to add new Storm Water assets through combined sewer separation.

Table 23 Lifecycle Management Strategy: Storm Water Network

7.5 Forecasted Long-Term Replacement Needs

Figure 39 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's storm water network assets, until 2049. The Town's average annual requirement is $747,000 per year for all assets in the storm water network (full lifecycle).[24] Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

While the average annual requirement is $747,000 per year, from 2025-2034, the average annual requirement is $639,000 per year, and $390,000 from 2025-2049. These projections are based on asset replacement costs, age analysis, condition data, and anticipated capital expenditure (10-year window), when available. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

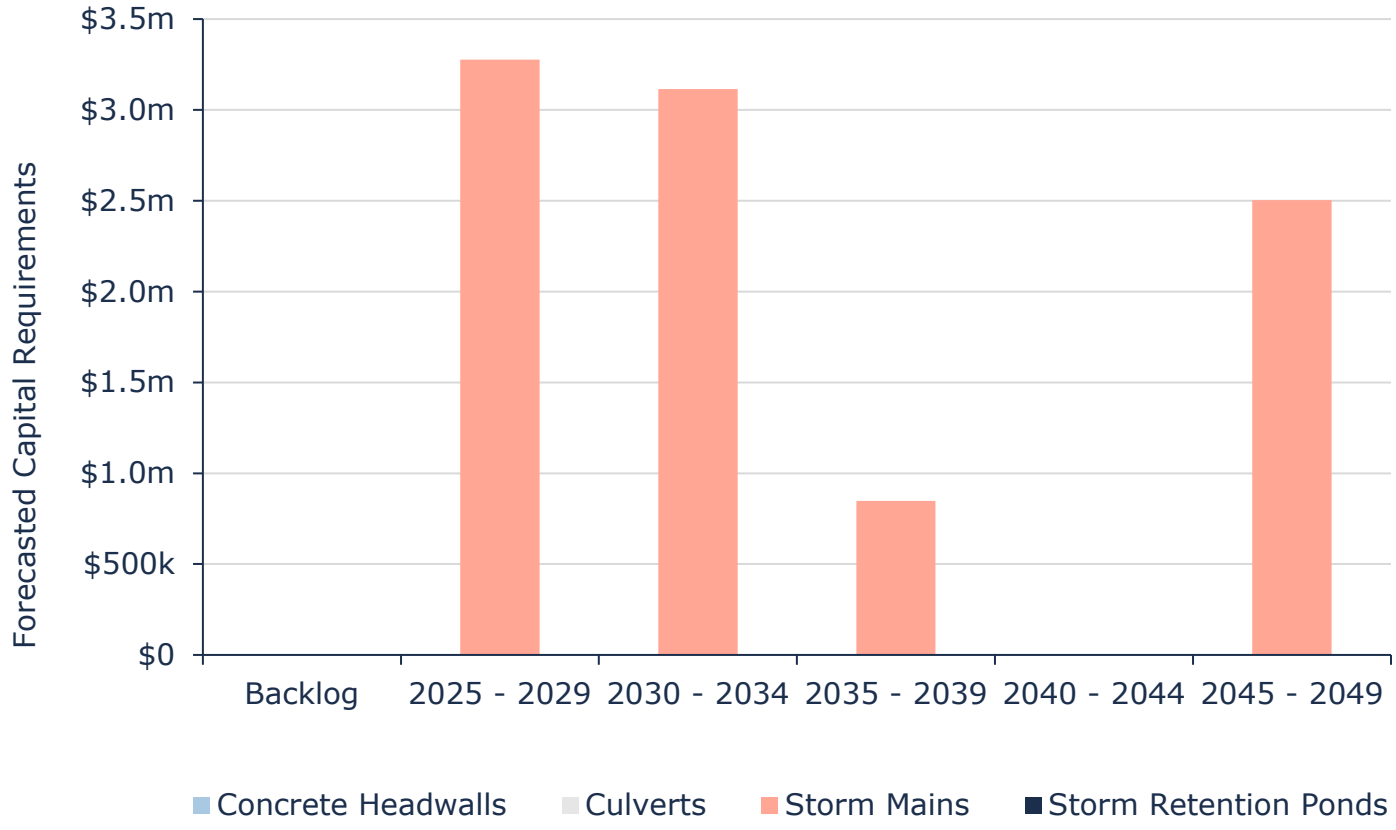


Figure 39 Forecasted Capital Replacement Needs Storm Water Network 2025-2049

A detailed 10-year capital replacement forecast can be found in Appendix B – 10-Year Capital Requirements.

[24] $747,000 per year (AACR). $390,000 from 2025-2049. See 1.3

7.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, service life remaining, and replacement costs. As no attribute data was available for storm assets, the risk ratings for assets were calculated using only these required, minimum asset fields.

The matrix stratifies assets based on their individual probability and consequence of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (Citywide Assets). See *Risk & Criticality* section for further details on approach used to determine asset risk ratings and classifications.

1 - 4 **Very Low**	**5 - 7** **Low**	**8 - 9** **Moderate**	**10 - 14** **High**	**15 - 25** **Very High**
$32,533,601 (54%)	$20,559,397 (34%)	$3,583,432 (6%)	$3,058,288 (5%)	- (0%)

Figure 40 Risk Matrix: Storm Water Network

7.7 Levels of Service

The tables that follow summarize the Town's current levels of service with respect to prescribed KPIs under Ontario Regulation 588/17 as well as any additional performance measures that the Town has selected for this AMP.

7.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description, which may include map, of the user groups or areas of the municipality that are protected from flooding, including the extent of protection provided by the municipal storm water system	See Appendix C

Table 24 O. Reg. 588/17 Community Levels of Service: Storm Water Network

7.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2024)
Scope	% of the municipal storm water management system resilient to a 100-year storm	44%[25]
	% of the municipal storm water management system resilient to a 5-year storm	100%[26]

Table 25 O. Reg. 588/17 Technical Levels of Service: Storm Water Network

[25] The Town does not currently have data available to determine the percentage of properties that are resilient to a 100-year storm. However, Town staff is confident that storm infrastructure installed within the last 20 years is resilient to a 100-year storm. Further information can be found in the 2015 Storm Water Management Plan.
[26] This is based on the observations of Town staff. The minor system (pipes and catchbasins) is generally designed to withstand at least 5-year storm.

7.8 Proposed Levels of Service

As per O. Reg. 588/17, by July 1, 2025, municipalities are required to consider proposed levels of service (PLOS), discuss the associated risks and long-term sustainability of these service levels, and explain the Town's ability to afford the PLOS.

Proposed levels of service reflect the municipality's commitment to delivering reliable, cost-effective, and sustainable services. These projected levels were developed through a comprehensive analysis of several key factors:

- Current service performance, based on historical data and condition assessments;
- Planned capital and operational activities within the 10-year planning horizon; and
- Available financial resources, including funding strategies and lifecycle costing

LOS Metric	Current KPI	Proposed KPI (2034)	Growth	Achievability & Affordability
Average condition rating	Good 65	Fair 59	Refer to section 12.	Refer to section 13.
Average risk rating[27]	Low 5.15	Low 5.41		

Table 26 O. Reg. 588/17 Proposed LOS: Storm Water Network

[27] See *Risk & Criticality*

Category Analysis: Non-Core Assets

8. Facilities

8.1 Inventory & Valuation

Table 27 summarizes the quantity and current replacement cost of all facility assets available in the Town's asset register.

Segment	Facilities	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
General Government	Town Hall D.A. Gillies Building Library	3	Quantity	$17,481,601	User-Defined
Protection Services	Stanley Tourangeau Fire Hall	1	Quantity	$8,910,537	User-Defined
Recreation Services[28]	Nick Smith Centre Marina Office	2	Quantity	$63,835,743	User-Defined
Transportation Services	Public Works Garage Salt Shed	2	Quantity	$3,414,720	User-Defined
TOTAL				**$93,642,600**	

Table 27 Detailed Asset Inventory: Facilities

[28] Outdoor recreation facilities such as ball diamonds, park sheds, etc. can be found under the 'Land Improvements' category of this report. See 9.

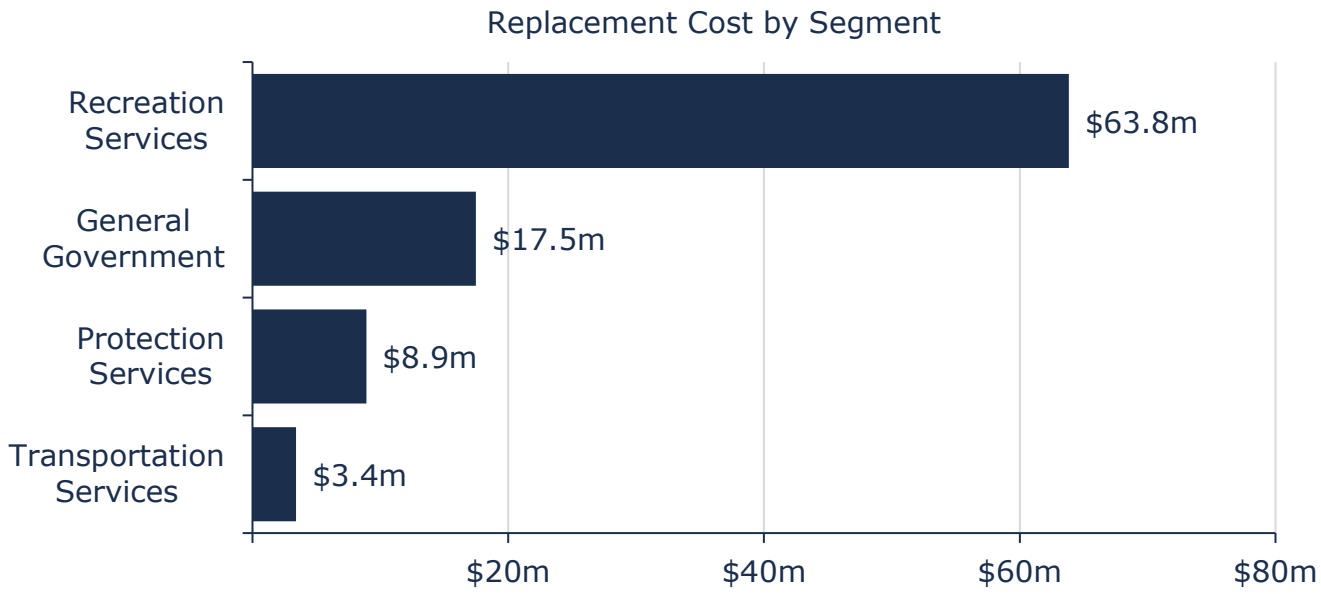


Figure 41 Portfolio Valuation: Facilities

8.2 Asset Condition

Figure 42 summarizes the replacement cost-weighted condition of the Town's buildings portfolio. Based mostly on age-based data, 29% of facility assets are in fair or better condition; however, 71%, with a current replacement cost of more than $66 million are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition. As buildings are not componentized, condition data is presented only at the site level, rather than at the individual element or component level within each building. This drawback is further compounded by the lack of assessed condition data, requiring the use of age-based estimates.

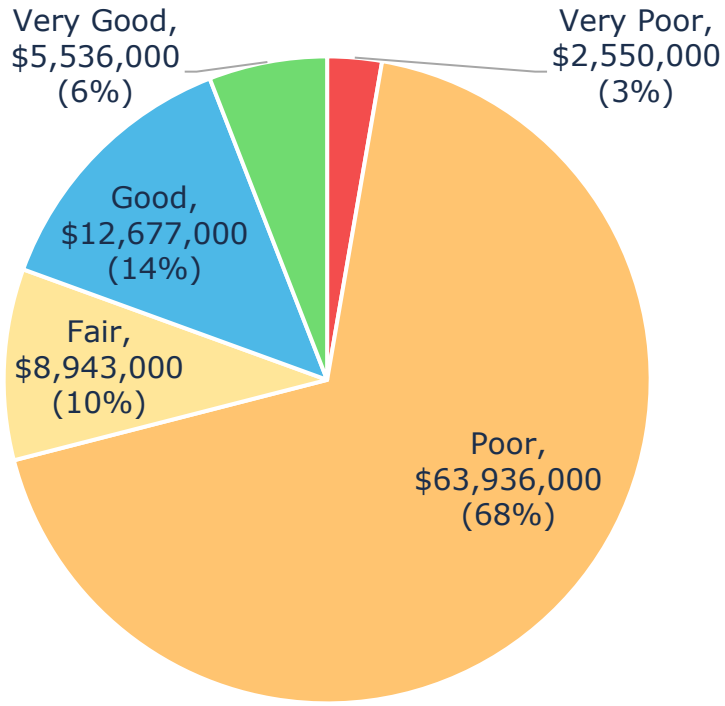


Figure 42 Asset Condition: Facilities Overall

Figure 43 summarizes the age-based condition of buildings by each department. A substantial portion of recreation services are in poor to worse condition. However, in the absence of componentization, this data has limited value. Componentization of assets and integration of condition assessments will provide a more accurate and reliable estimation of the condition of various facilities.

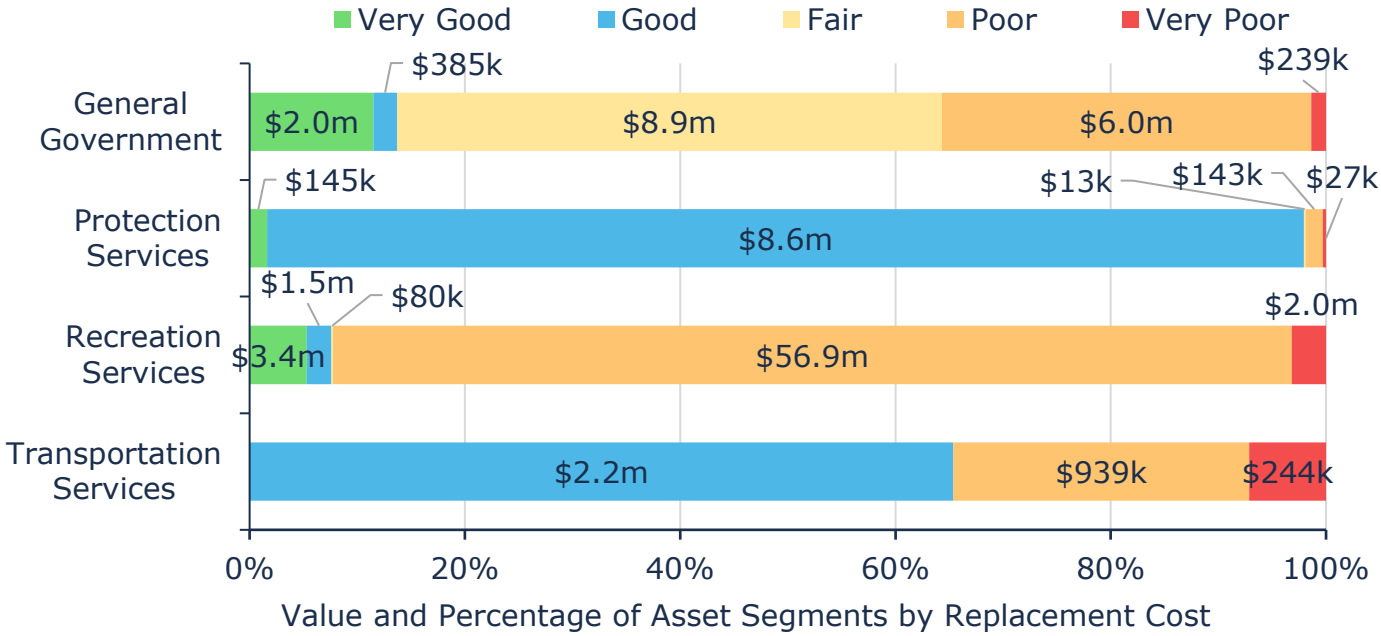


Figure 43 Asset Condition: Facilities by Segment

Facilities assets are unique in that they rarely require the need for replacement based solely on condition. It is typical that, in addition to condition, other factors, such as capacity, will impact on the asset's ability to serve the purpose originally intended.

8.3 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential replacement spikes.

Figure 44 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

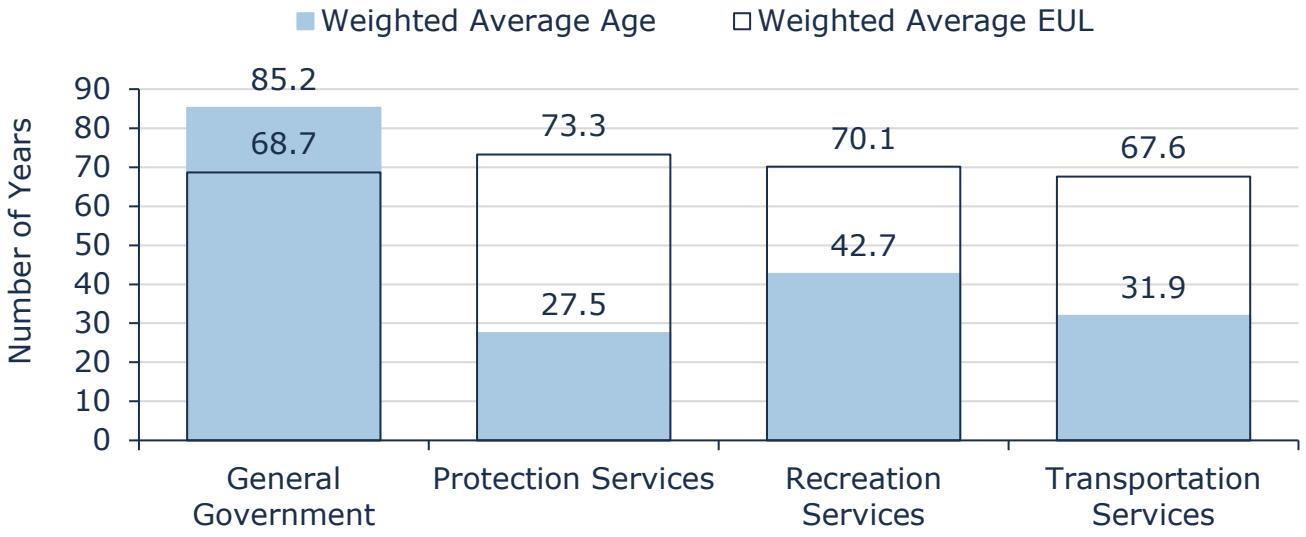


Figure 44 Estimated Useful Life vs. Asset Age: Facilities

Age analysis indicates that General Government assets have exceeded their expected useful life, with an average age of 85.2 years compared to an EUL of 68.7 years. This elevated average age is heavily influenced by two historical assets: the Henry A. Murdoch Building (137 years old, replacement cost of $5,244,445.00) and the D.A. Gillies Building (Museum) (129 years old, replacement cost of $4,650,215.00). While both buildings have been in service for 100+ years, both have received betterments throughout their lifespans, and are still currently operational and in fair condition.

Recreation Services assets have used about 61% of their useful life, suggesting upcoming reinvestment needs.[29] Transportation Services assets are mid-life, with 47% of their lifespan consumed. In contrast, Protection Services assets remain in the early stages of their lifecycle, with less than 40% of their useful life used. Once again, this analysis presented only at the site level, rather than at the individual element or component level. Useful and meaningful age analysis for buildings is entirely predicated on effective componentization.

[29] This figure will change significantly in the coming years due to the significant betterments ($7 million) to the Nick Smith Centre skating rink

8.4 Current Approach to Lifecycle Management

The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

Table 28 outlines the Town's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance	Municipal facilities are subject to regular inspections to identify health & safety requirements as well as structural deficiencies that require additional attention.
	Critical facilities have a detailed maintenance and rehabilitation schedule, while the maintenance of other facilities are dealt with on a case-by-case basis.
Rehabilitation/Replacement	As a supplement to the knowledge and expertise of the municipal staff, the Town regularly works with contractors to complete Facility Needs Assessment Studies.[30]
	Assessments for replacement are completed strategically as facilities approach their end-of-life to determine whether replacement or rehabilitation is appropriate.

Table 28 Lifecycle Management Strategy: Facilities

[30] Various facilities have received assessments in the past few years including the Nick Smith Centre, Public Works Garage, Fire Hall, and Town Hall

8.5 Forecasted Long-Term Replacement Needs

Figure 45 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's buildings portfolio, until 2049. The Town's average annual requirement is $1 million per year for all facilities (full lifecycle).[31] Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

While the average annual requirement is $1 million per year, from 2025-2034, the average annual requirement is $2 million a year, and $999 thousand from 2025-2049. These projections are based on asset replacement costs, age analysis, condition data, and anticipated capital expenditure (10-year window), when available. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

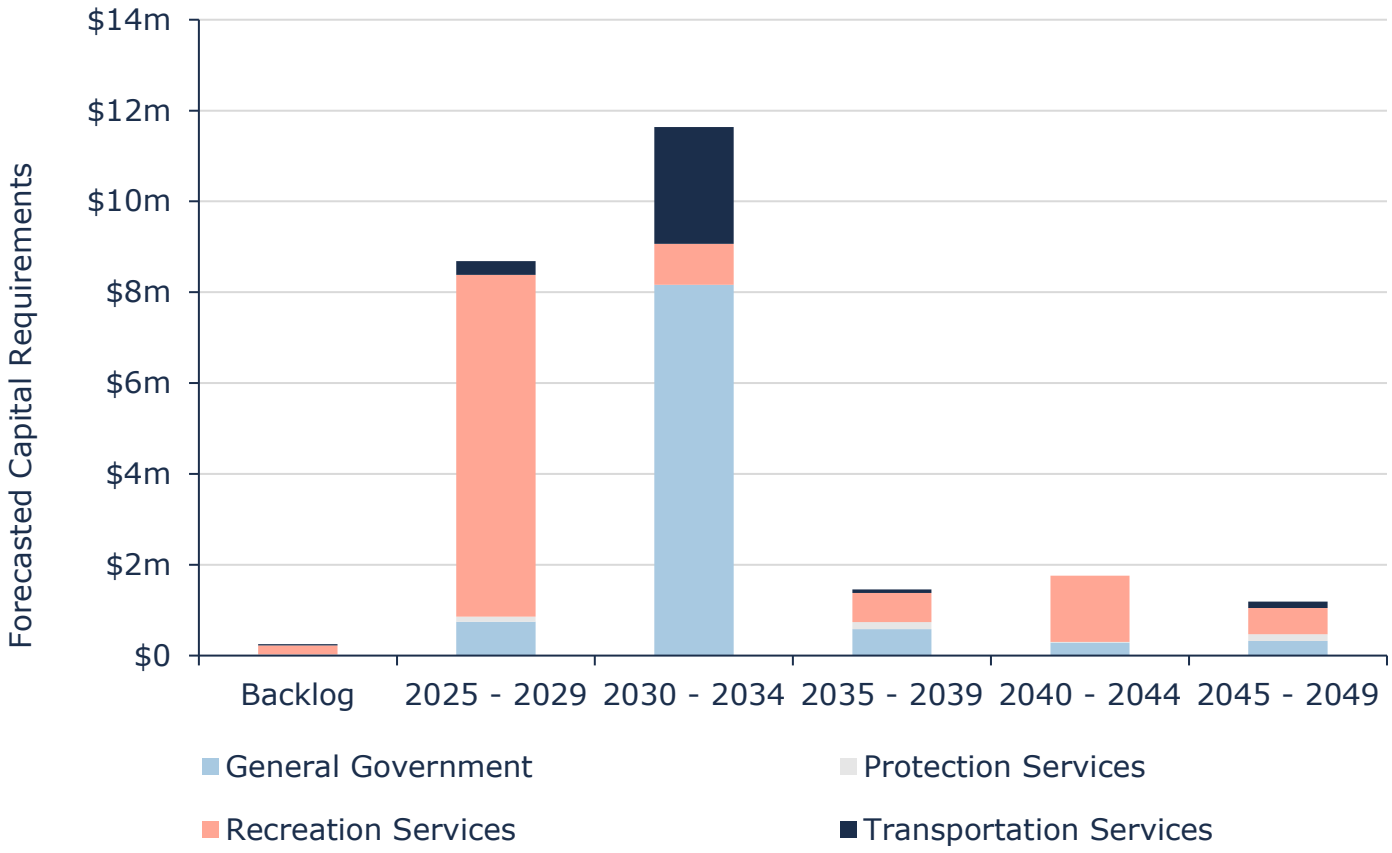


Figure 45 Forecasted Capital Replacement Needs Facilities 2025-2049

A detailed 10-year capital replacement forecast can be found in Appendix B – 10-Year Capital Requirements.

[31] $1 million per year (AACR). $999,000 thousand per year from 2025-2049. See 1.3

8.6 Risk Analysis

The risk matrix below is generated using available asset data, including service life remaining, replacement costs, and building department. The risk ratings for assets without useful attribute data were calculated using only age, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and consequence of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (Citywide Assets). See *Risk & Criticality* section for further details on approach used to determine asset risk ratings and classifications.

1 - 4 **Very Low**	5 - 7 **Low**	8 - 9 **Moderate**	10 - 14 **High**	15 - 25 **Very High**
$12,839,401 (14%)	$1,513,135 (2%)	$13,630,428 (15%)	$10,231,188 (11%)	$55,428,449 (59%)

Figure 46 Risk Matrix: Facilities

8.7 Levels of Service

The tables that follow summarize the Town's current levels of service. There are no specifically prescribed KPIs under Ontario Regulation 588/17 for non-core assets, therefore the KPIs below represent performance measures that the Town has selected for this AMP.

8.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description, which may include maps of the types of facilities that the town operates and maintains	See 8.1

Table 29 Community Levels of Service: Facilities

8.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2024)
Quality	Average condition rating of buildings	Fair (46%)

Table 30 Technical Levels of Service: Facilities

8.8 Proposed Levels of Service

As per O. Reg. 588/17, by July 1, 2025, municipalities are required to consider proposed levels of service (PLOS), discuss the associated risks and long-term sustainability of these service levels, and explain the Town's ability to afford the PLOS.

Proposed levels of service reflect the municipality's commitment to delivering reliable, cost-effective, and sustainable services. These projected levels were developed through a comprehensive analysis of several key factors:

- Current service performance, based on historical data and condition assessments;
- Planned capital and operational activities within the 10-year planning horizon; and
- Available financial resources, including funding strategies and lifecycle costing

LOS Metric	Current KPI	Proposed KPI (2034)	Growth	Achievability & Affordability
Average condition rating	Fair 46	Good 78	Refer to section 12.	Refer to section 13.
Average risk rating[32]	High 13.54	Low 7.13		

Table 31 O. Reg. 588/17 Proposed LOS: Facilities

[32] See *Risk & Criticality*

9. Land Improvements

9.1 Inventory & Valuation

Table 32 summarizes the quantity and current replacement cost of all land improvements assets available in the Town's asset register.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Cemetery	6	Quantity	$179,228	CPI
Lighting & Signage	104	Quantity	$1,171,739	CPI
Park Equipment & Structures	40	Quantity	$2,144,101	CPI
Parking Lots	6	Quantity	$241,320	CPI
TOTAL			**$3,736,388**	

Table 32 Detailed Asset Inventory: Land Improvements

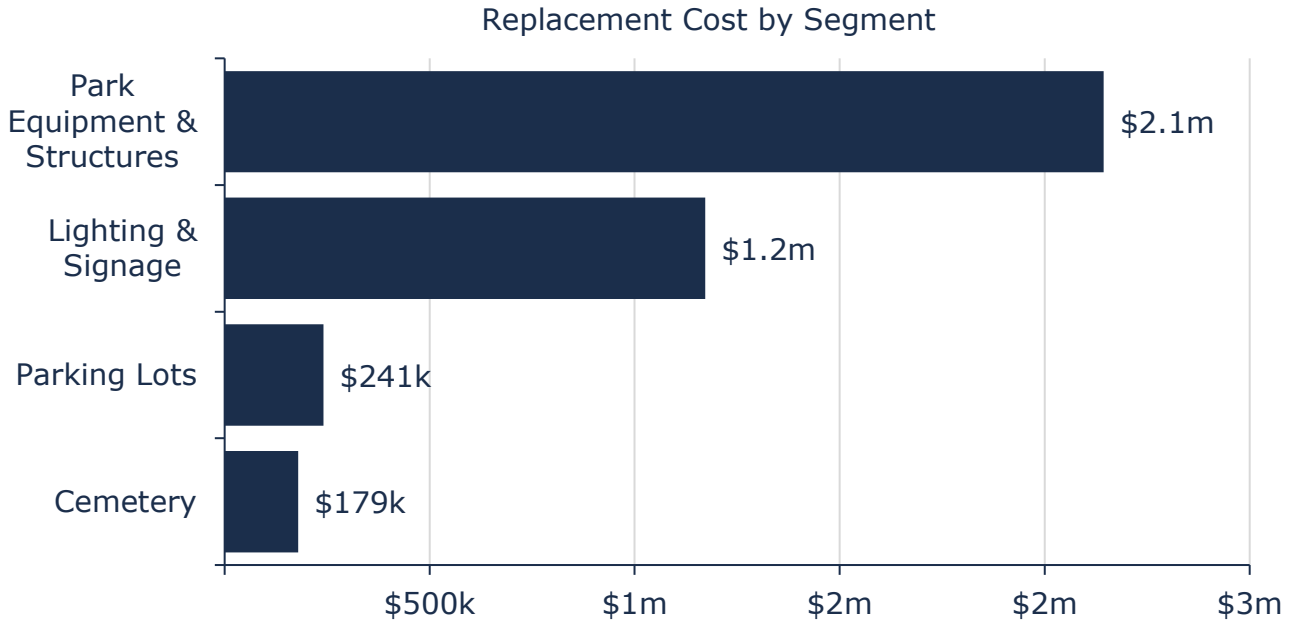


Figure 47 Portfolio Valuation: Land Improvements

9.2 Asset Condition

Figure 48 summarizes the replacement cost-weighted condition of the Municipality's land improvement portfolio. Based on a combination of field inspection data and age, 73% of assets are in fair or better condition, the remaining 27% are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

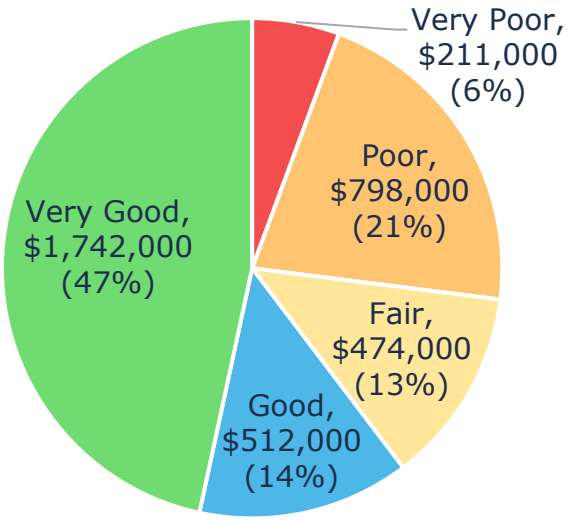


Figure 48 Asset Condition: Land Improvements Overall

Figure 49 summarizes the age-based condition of land improvements by each asset type. Assets in poor or worse condition are primarily concentrated in lightning & signage and park equipment & structures.

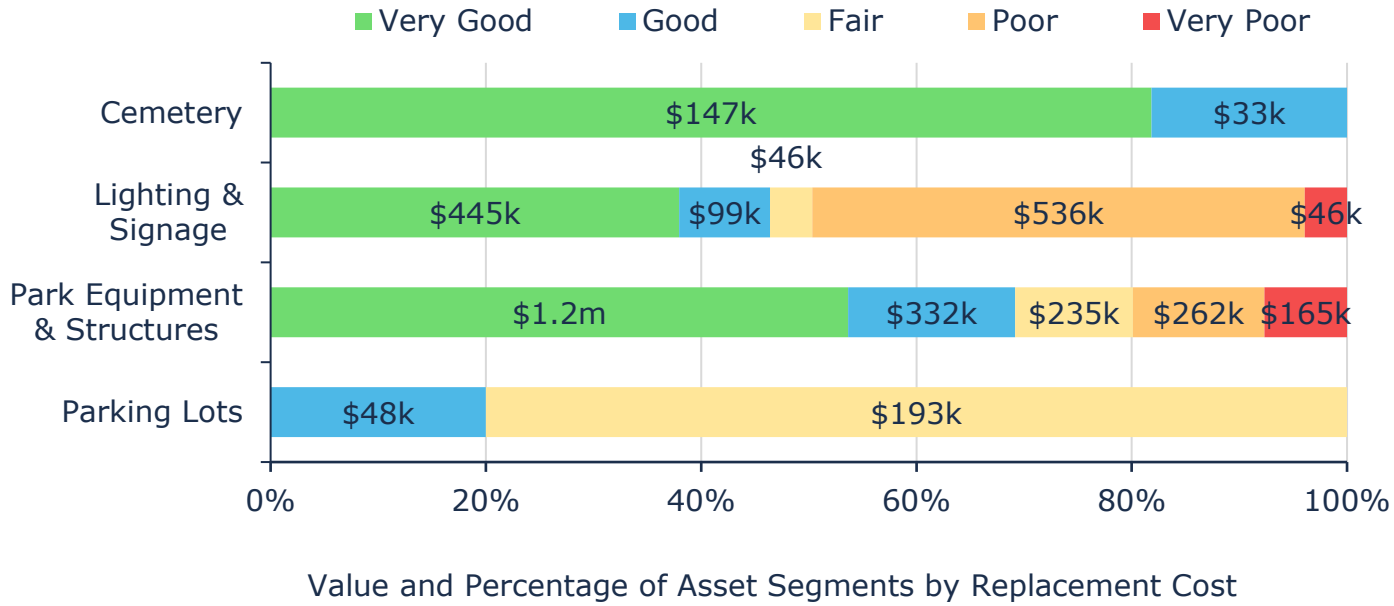


Figure 49 Asset Condition: Land Improvements by Segment

9.3 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential replacement spikes.

Figure 50 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

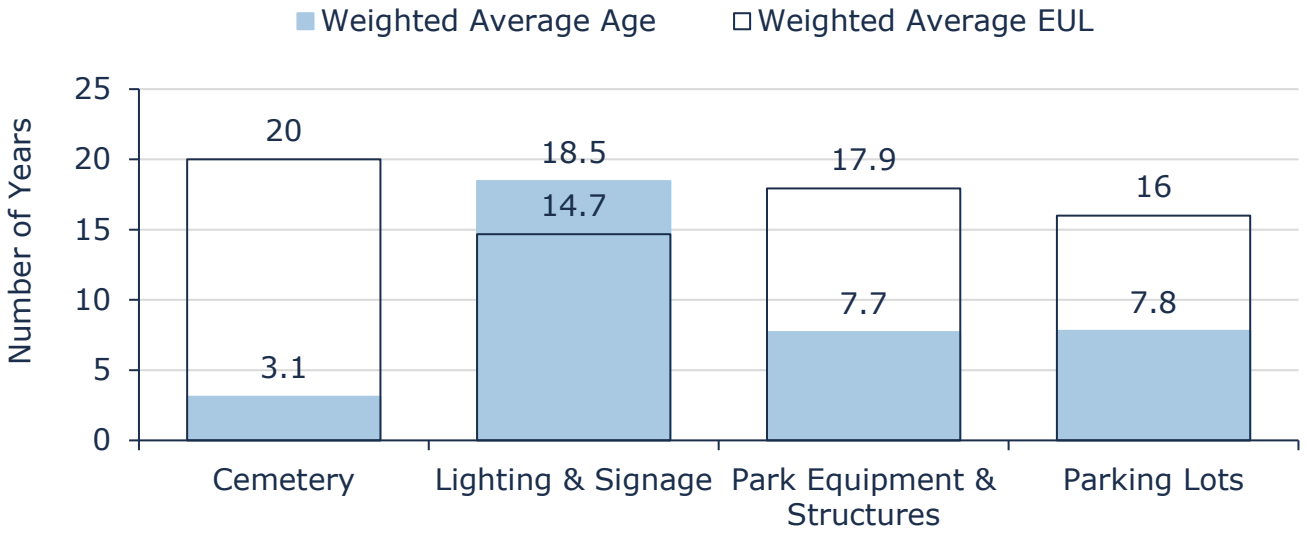


Figure 50 Estimated Useful Life vs. Asset Age: Land Improvements

Age analysis reveals that, on average, Lighting & Signage assets are the most aged, with an average age of 18.5 years—exceeding their expected useful life of 14.7 years, indicating they are overdue for replacement. Cemetery assets are the newest at 3.1 years. Park Equipment & Structures and Parking Lots are mid-life, with average ages around 7.7 to 7.8 years, representing roughly 45% to 50% of their expected life.

9.4 Current Approach to Lifecycle Management

The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

Table 33 outlines the Town's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance, Rehabilitation & Replacement	The Land Improvements asset category includes several unique asset types and lifecycle requirements are dealt with on a case-by-case basis.

Table 33 Lifecycle Management Strategy: Land Improvements

9.5 Forecasted Long-Term Replacement Needs

Figure 51 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's land improvements portfolio, until 2049. The Town's average annual requirement is $467,000 per year for all land improvements (full lifecycle).[33] Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

While the average annual requirement is $467,000 per year, from 2025-2034, the average annual requirement is $614,000, and $395,000 from 2025-2049. These projections are based on asset replacement costs, age analysis, condition data, and anticipated capital expenditure (10-year window), when available. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

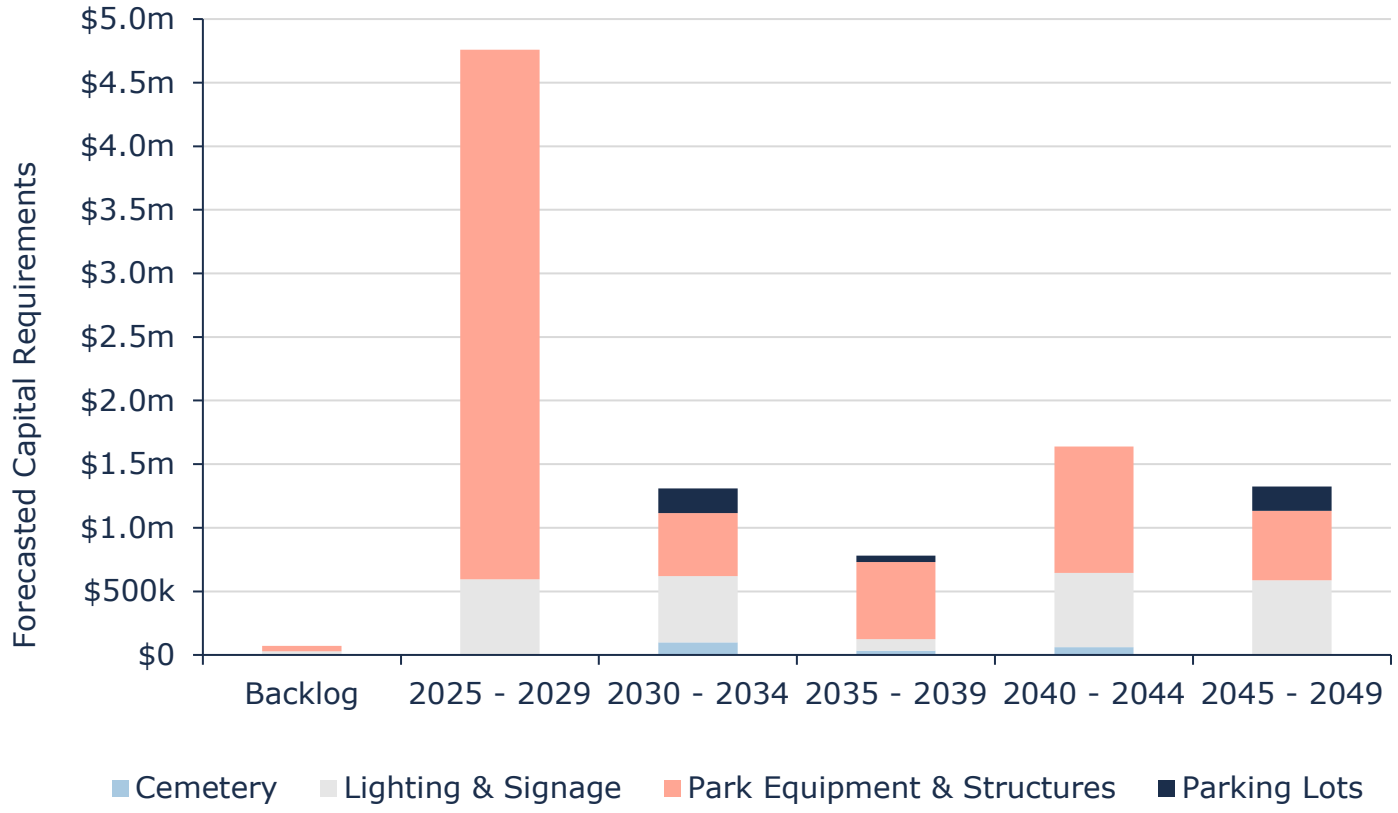


Figure 51 Forecasted Capital Replacement Needs: Land Improvements 2025-2049

A detailed 10-year capital replacement forecast can be found in Appendix B – 10-Year Capital Requirements.

[33] $467,000 per year (AACR). $395,000 from 2025-2049. See 1.3

9.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, service life remaining, and replacement costs. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix stratifies assets based on their individual probability and consequence of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (Citywide Assets). See *Risk & Criticality* section for further details on approach used to determine asset risk ratings and classifications.

1 - 4 **Very Low** $2,637,428 (71%)	**5 - 7** **Low** $346,270 (9%)	**8 - 9** **Moderate** $199,579 (5%)	**10 - 14** **High** $57,671 (2%)	**15 - 25** **Very High** $495,440 (13%)

Figure 52 Risk Matrix: Land Improvements

9.7 Levels of Service

The tables that follow summarize the Town's current levels of service. There are no specifically prescribed KPIs under Ontario Regulation 588/17 for non-core assets, therefore the KPIs below represent performance measures that the Town has selected for this AMP.

9.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description, which may include maps, of the types of land improvements that the Town operates and maintains.	• Lighting & Signage • Park Equipment & Structures • Parking Lots • Cemetery (Columbaria)

Table 34 Community Levels of Service: Land Improvements

9.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2024)
Quality	Average condition rating of Land Improvements (e.g. very good, good, fair, poor, very poor)	Good (66%)

Table 35 Technical Levels of Service: Land Improvements

9.8 Proposed Levels of Service

As per O. Reg. 588/17, by July 1, 2025, municipalities are required to consider proposed levels of service (PLOS), discuss the associated risks and long-term sustainability of these service levels, and explain the Town's ability to afford the PLOS.

Proposed levels of service reflect the municipality's commitment to delivering reliable, cost-effective, and sustainable services. These projected levels were developed through a comprehensive analysis of several key factors:

- Current service performance, based on historical data and condition assessments;
- Planned capital and operational activities within the 10-year planning horizon; and
- Available financial resources, including funding strategies and lifecycle costing

LOS Metric	Current KPI	Proposed KPI (2034)	Growth	Achievability & Affordability
Average condition rating	Good 68	Fair 57	Refer to section 12.	Refer to section 13.
Average risk rating[34]	Low 4.8	Low 4.81		

Table 36 O. Reg. 588/17 Proposed LOS: Land Improvements

[34] See *Risk & Criticality*

10. Vehicles

10.1 Inventory & Valuation

Table 37 summarizes the quantity and current replacement cost of all vehicle assets available in the Town's asset register.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Environmental Services	5	Quantity	$275,000	User-defined
Protection Services	7	Quantity	$3,132,692	User-defined
Recreation Services	3	Quantity	$206,940	User-defined
Transportation Services	8	Quantity	$1,273,900	User-defined
TOTAL			**$4,888,532**	

Table 37 Detailed Asset Inventory: Vehicles

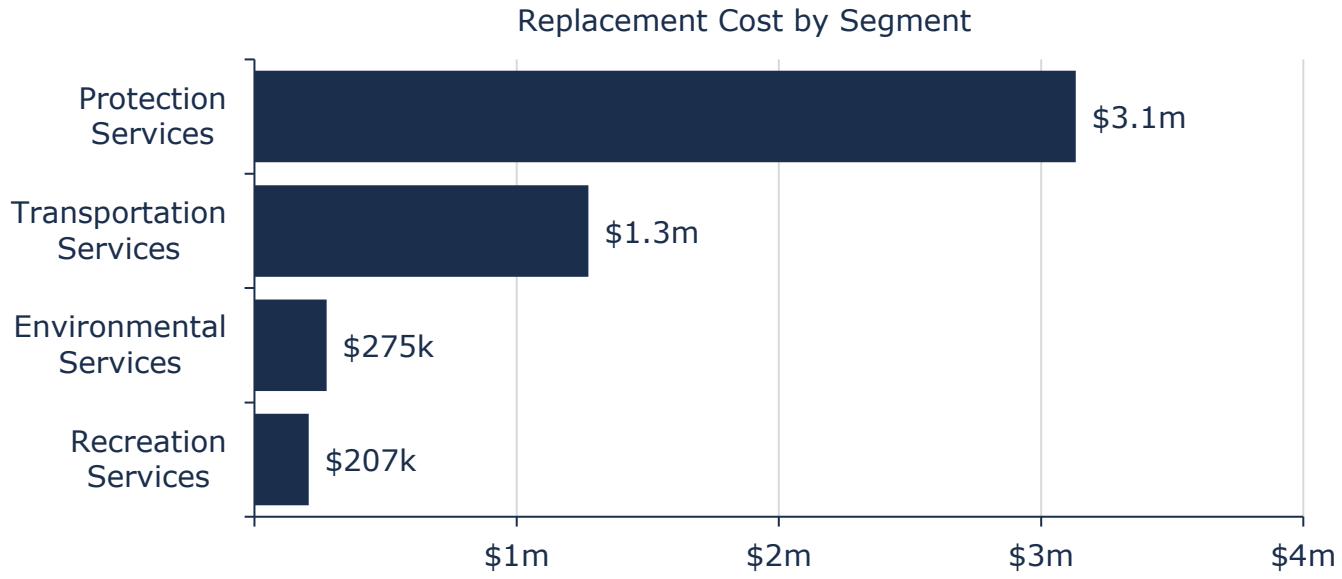


Figure 53 Portfolio Valuation: Vehicles

10.2 Asset Condition

Figure 54 summarizes the replacement cost-weighted condition of the Town's vehicles portfolio. Based primarily on age-based data, 87% of vehicles are in fair or better condition, with the remaining 13% in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition. Condition data was available for 4% of vehicles, based on replacement costs; age was used to estimate condition for the remaining 96% of assets.

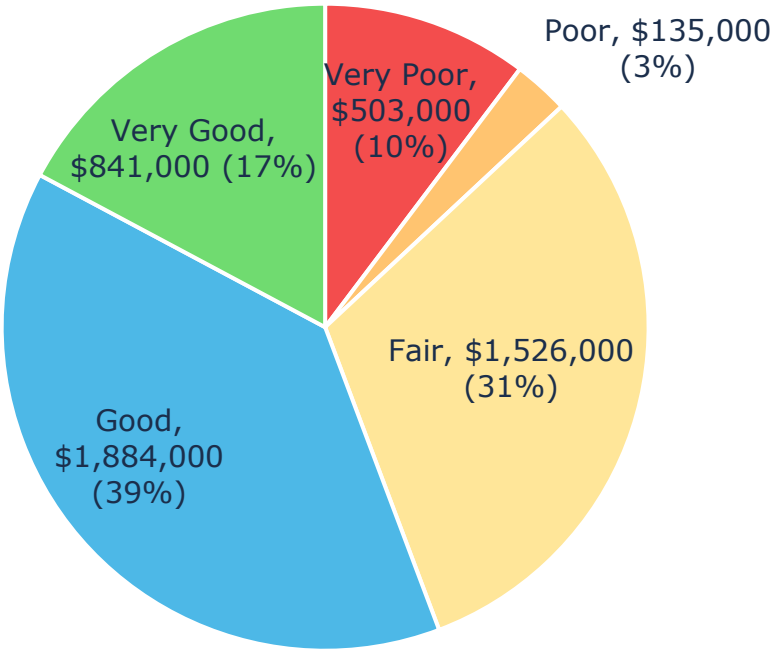


Figure 54 Asset Condition: Vehicles Overall

Figure 55 summarizes the condition of vehicles by each department. Vehicles across all asset segments are in fair or better condition. Notably, while there are assets within protection services in poor or worse condition, they are scheduled for replacement in the coming years. Consequently, this will have a positive impact on the overall condition rating of protection services vehicles. Staff should continue to proactively update its asset register on a regular basis to ensure that condition and scheduled capital replacement events of critical assets, are as accurate as possible.

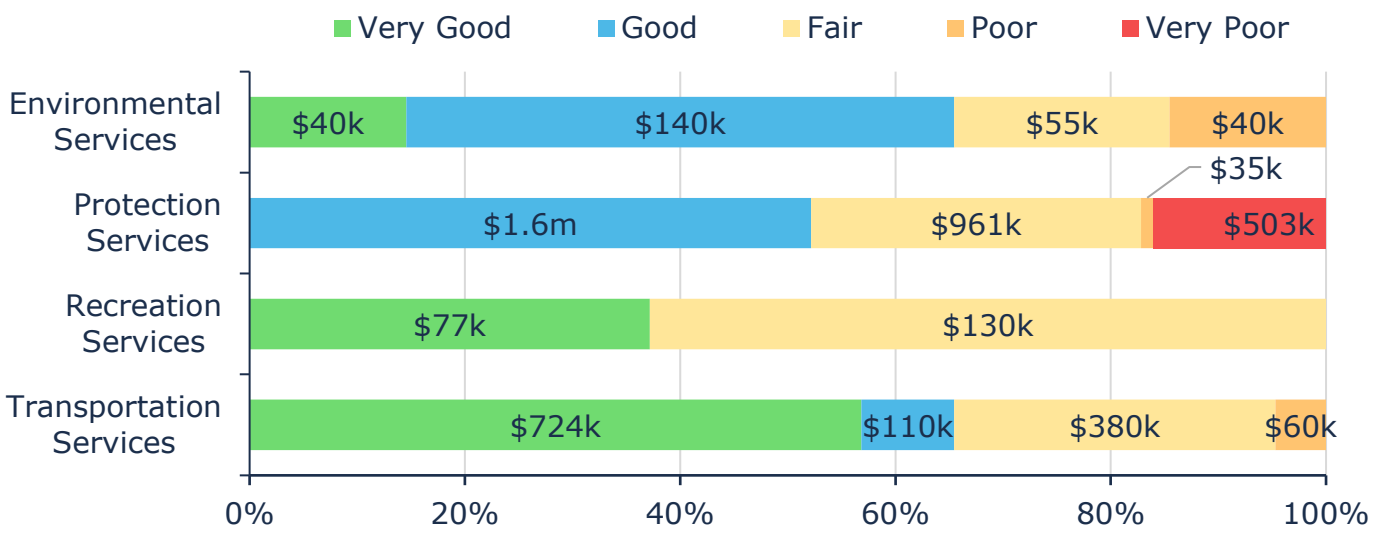


Figure 55 Asset Condition: Vehicles by Segment

10.3 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential replacement spikes.

Figure 56 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

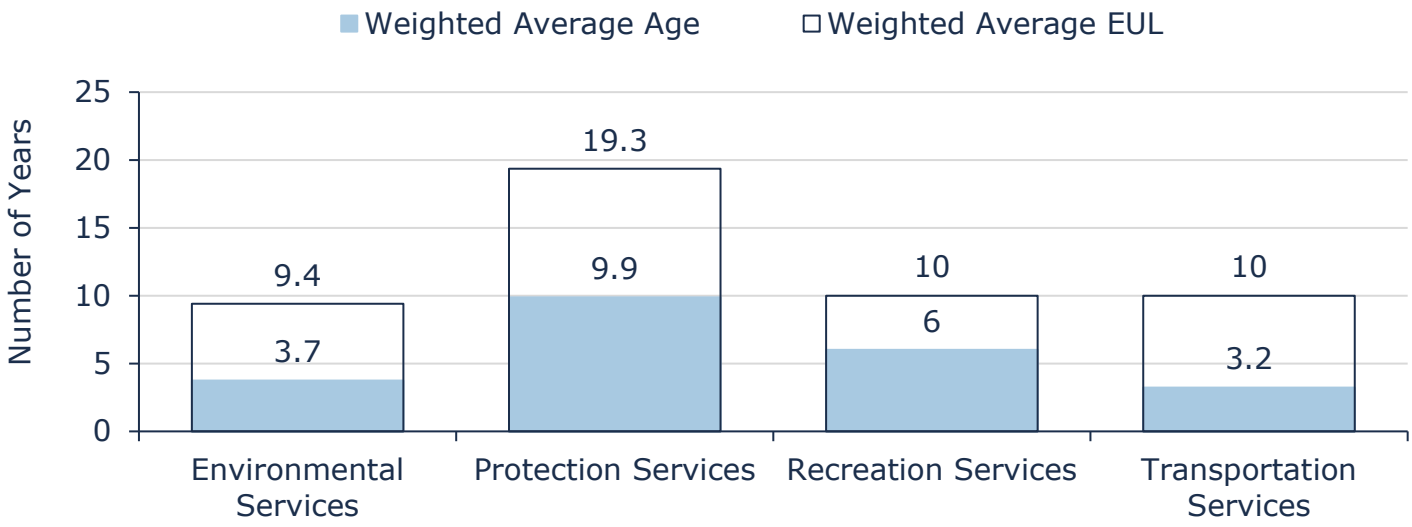


Figure 56 Estimated Useful Life vs. Asset Age: Vehicles

Age analysis reveals that, on average, vehicles across all service areas remain within their expected useful life. Recreation Services vehicles are the most aged, with 60% of their useful life consumed, followed by Protection Services at just over 50%. In contrast, Transportation and Environmental Services fleets are in the early stages of their lifecycle.

10.4 Current Approach to Lifecycle Management

The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

The following table outlines the Town's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance / Rehabilitation	Visual inspections are completed and documented daily; fluids are inspected at every fuel stop; tires inspected monthly.
	Certification and inspections are completed annually.
	Annual preventative maintenance activities include system components check and additional detailed inspections.
Replacement	Vehicle replacements are based on the Town's Capital Asset Policy.
	Vehicle age, kilometers, and annual repair costs are taken into consideration when determining appropriate treatment options.

Table 38 Lifecycle Management Strategy: Vehicles

10.5 Forecasted Long-Term Replacement Needs

Figure 57 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's vehicles portfolio, until 2049. The Town's average annual requirement is $372,000 per year for all vehicle assets (full lifecycle).[35] Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

While the average annual requirement for vehicles is $372,000 per year, from 2025-2034, the average annual requirement is $319,000 per year, and $320,000 from 2025-2049. These projections are based on asset replacement costs, age analysis, condition data, and anticipated capital expenditure (10-year window), when available. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

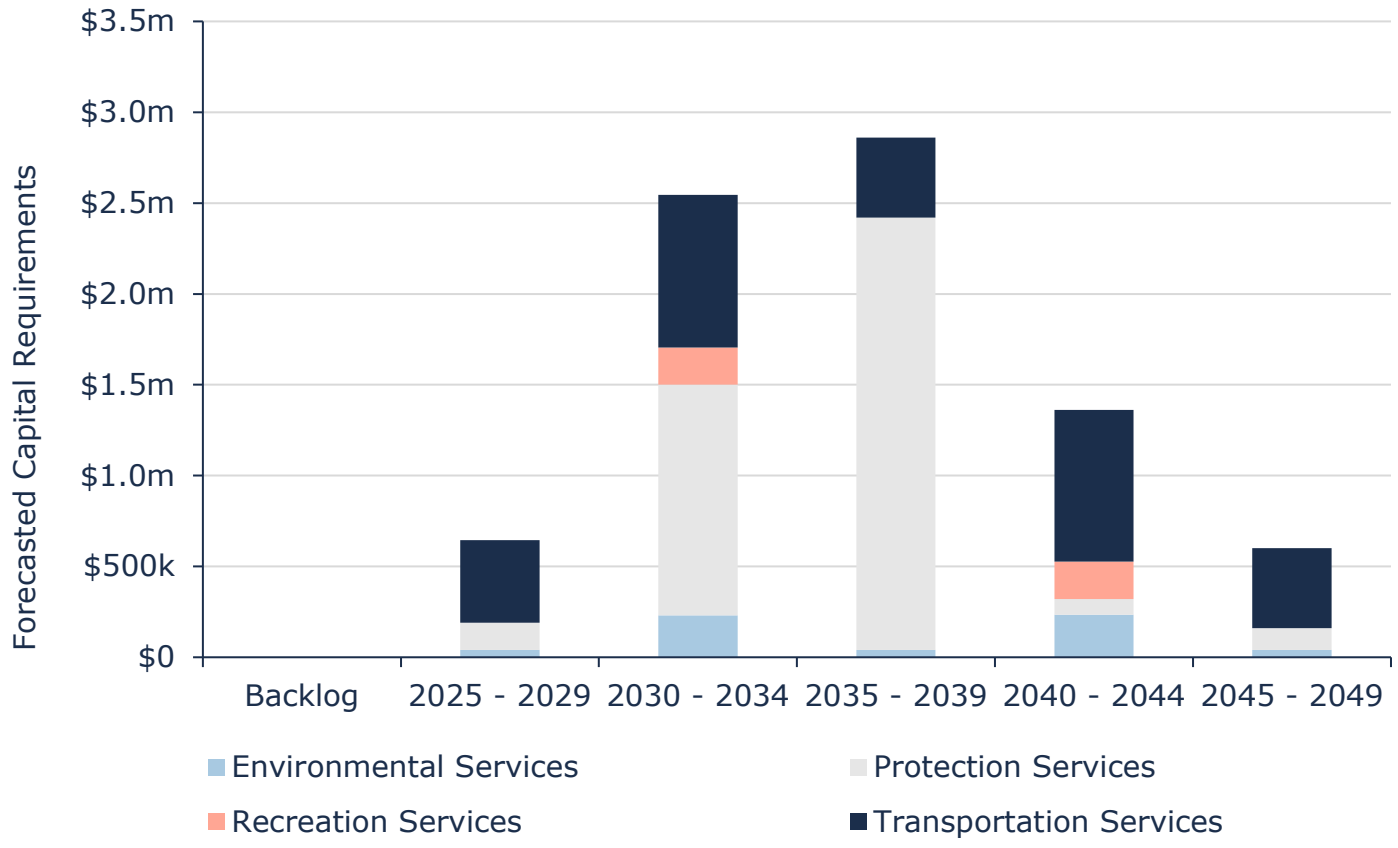


Figure 57 Forecasted Capital Replacement Needs: Vehicles 2025-2049

A detailed 10-year capital replacement forecast can be found in Appendix B – 10-Year Capital Requirements.

[35] $372,000 per year (AACR). $320,000 from 2025-2049 See 1.3

10.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, service life remaining, replacement costs, and department or service area. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix stratifies assets based on their individual probability and consequence of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Municipality may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (Citywide Assets). See *Risk & Criticality* section for further details on approach used to determine asset risk ratings and classifications.

1 - 4	5 - 7	8 - 9	10 - 14	15 - 25
Very Low	**Low**	**Moderate**	**High**	**Very High**
$1,510,840	$310,000	$1,853,692	$796,000	$418,000
(31%)	(6%)	(38%)	(16%)	(9%)

Figure 58 Risk Matrix: Vehicles

10.7 Levels of Service

The tables that follow summarize the Town's current levels of service. There are no specifically prescribed KPIs under Ontario Regulation 588/17 for non-core assets, therefore the KPIs below represent performance measures that the Town has selected for this AMP.

10.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description or images of the types of vehicles owned by the Town	• General Vehicles • Pick-Up Trucks • Fire Trucks • Plow Trucks

Table 39 Community Levels of Service: Vehicles

10.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2024)
Quality	Average condition rating of vehicles	Good (60%)

Table 40 Technical Levels of Service: Vehicles

10.8 Proposed Levels of Service

As per O. Reg. 588/17, by July 1, 2025, municipalities are required to consider proposed levels of service (PLOS), discuss the associated risks and long-term sustainability of these service levels, and explain the Town's ability to afford the PLOS.

Proposed levels of service reflect the municipality's commitment to delivering reliable, cost-effective, and sustainable services. These projected levels were developed through a comprehensive analysis of several key factors:

- Current service performance, based on historical data and condition assessments;
- Planned capital and operational activities within the 10-year planning horizon; and
- Available financial resources, including funding strategies and lifecycle costing

LOS Metric	Current KPI	Proposed KPI (2034)	Growth	Achievability & Affordability
Average condition rating	Good 60	Fair 46	Refer to section 12.	Refer to section 13.
Average risk rating[36]	Moderate 8.5	High 11.58[37]		

Table 41 O. Reg. 588/17 Proposed LOS: Vehicles

[36] See *Risk & Criticality*
[37] While vehicles are projected to be in acceptable condition (fair), the risk of ownership and delivering crucial services will slightly increase due to an aging fleet. However, the Town has a robust approach to lifecycle management (see 10.4) which mitigates various risk factors

11. Machinery & Equipment

11.1 Inventory & Valuation

Table 42 summarizes the quantity and current replacement cost of all machinery & equipment available in the Town's asset register.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
General Government	7	Quantity	$466,349	CPI
Protection Services	8	Quantity	$510,387	CPI
Recreation Services	14	Quantity	$705,504	CPI
Transportation Services	18	Quantity	$2,003,070	CPI
TOTAL			**$3,685,311**	

Table 42 Detailed Asset Inventory: Machinery & Equipment

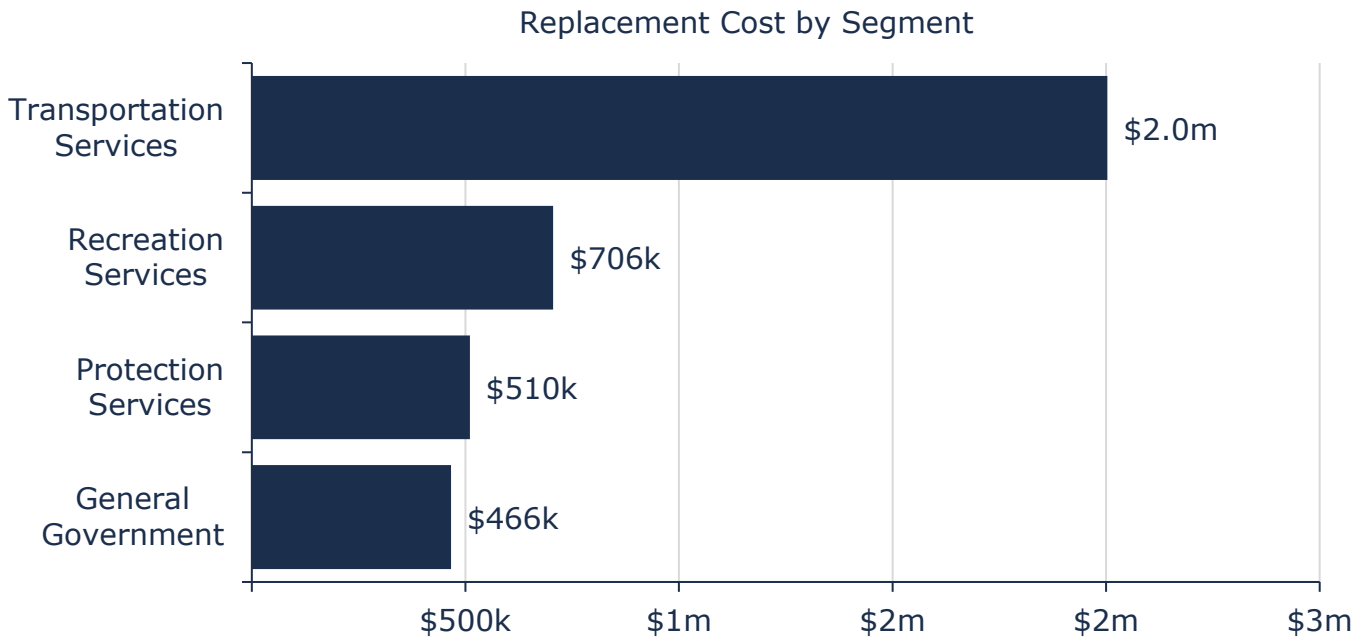


Figure 59 Portfolio Valuation: Machinery & Equipment

11.2 Asset Condition

Figure 60 summarizes the replacement cost-weighted condition of the Town's machinery and equipment portfolio. Based on a combination of assessed conditions and age data, 63% of assets are in fair or better condition; the remaining 37% are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

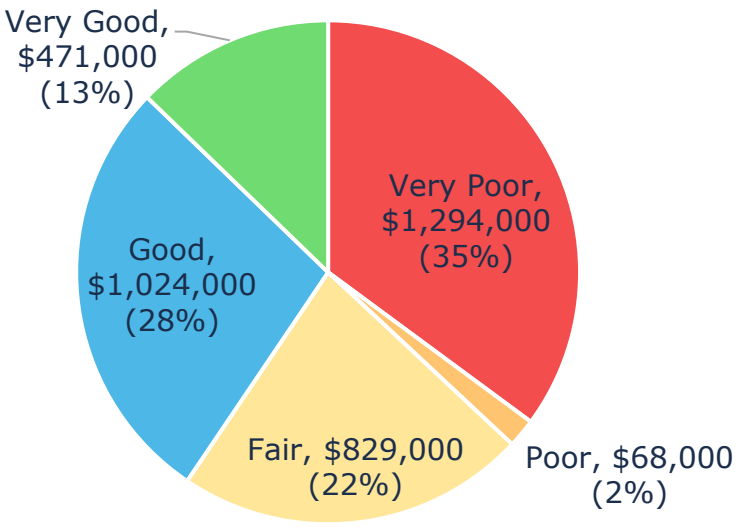


Figure 60 Asset Condition: Machinery & Equipment Overall

Figure 61 summarizes the age-based condition of machinery & equipment by each department. While numerous segments have assets in poor or worse condition, it is worth noting that the Town is in the process of ensuring that its machinery and equipment assets are in sufficient condition. Over the next 10 years (2034), the overall condition of the Town's machinery & equipment assets will increase from 48 to 58.[38] Crucial assets, particularly those belonging to protection services, will increase substantially, from 27 to 60, demonstrating the Town's commitment to ensuring critical assets are kept in good working order.

[38] See 11.8

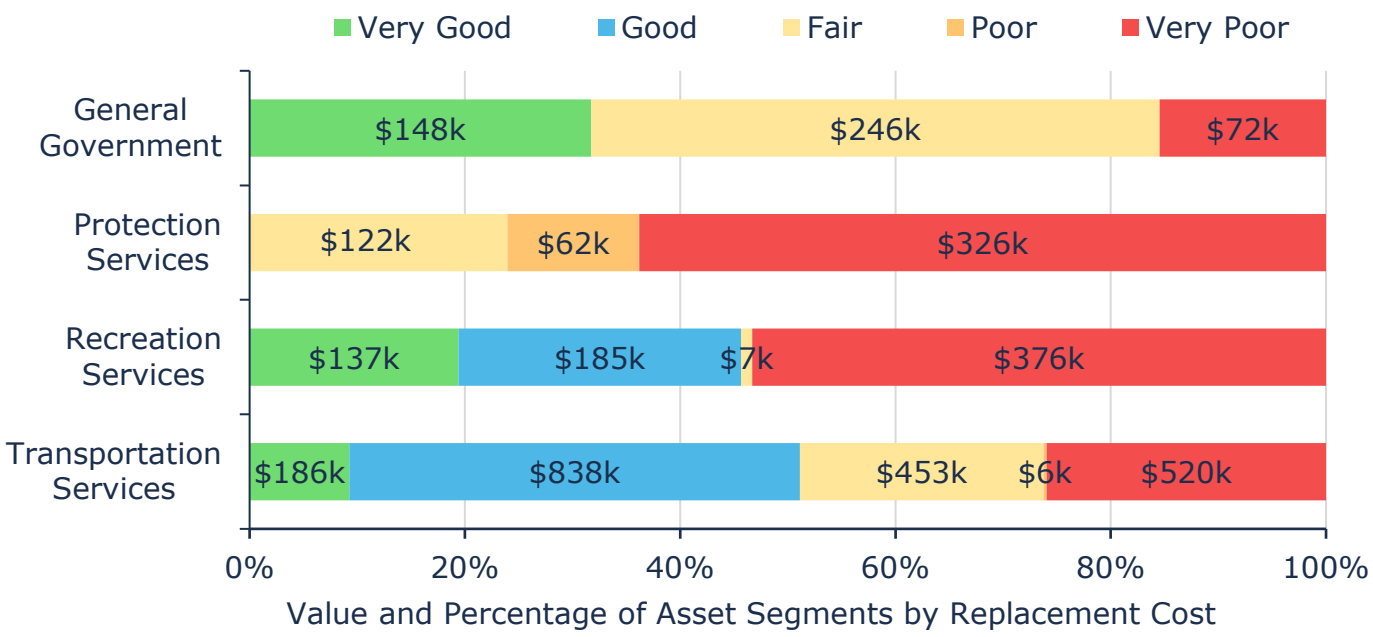


Figure 61 Asset Condition: Machinery & Equipment by Segment

11.3 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential replacement spikes.

Figure 62 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

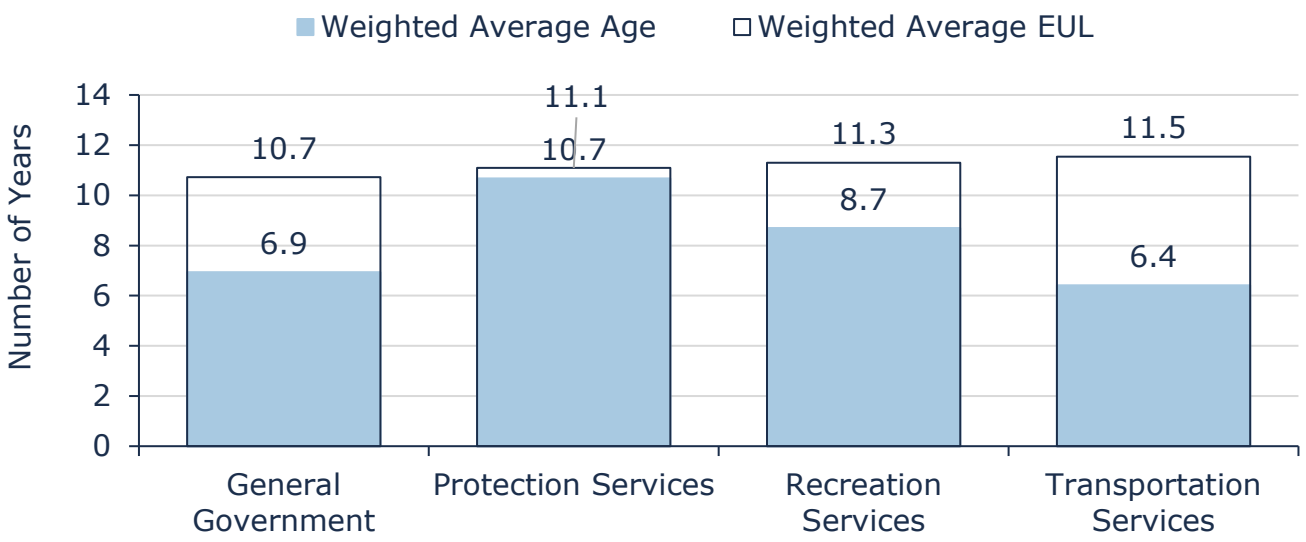


Figure 62 Estimated Useful Life vs. Asset Age: Machinery & Equipment

Age analysis reveals that, on average, protection services assets are nearing the end of their expected useful life, while recreation services are also approaching late life. General government and transportation services assets remain in mid-life condition, with moderate remaining service capacity.

11.4 Current Approach to Lifecycle Management

The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

The following table outlines the Town's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance/ Rehabilitation	The maintenance program varies by department.
	Fire Protection Services equipment is subject to a more rigorous inspection and maintenance program in accordance with the guidelines provided by the National Fire Protection Association (NFPA).
	Machinery & equipment is maintained according to manufacturer recommended actions and supplemented by the expertise of municipal staff.
Replacement	The replacement of machinery & equipment depends on deficiencies identified by operators that may impact their ability to complete the required tasks.

Table 43 Lifecycle Management Strategy: Machinery & Equipment

11.5 Forecasted Long-Term Replacement Needs

Figure 63 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's machinery and equipment portfolio, until 2049. The Town's average annual requirement is $339,000 per year for all machinery and equipment assets (full lifecycle).[39] Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

While the average annual requirement for machinery & equipment is $339,000 per year, from 2025-2034, the average annual requirement is $373,000, and $345,000 from 2025-2049. These projections are based on asset replacement costs, age analysis, condition data, and anticipated capital expenditure (10-year window), when available. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

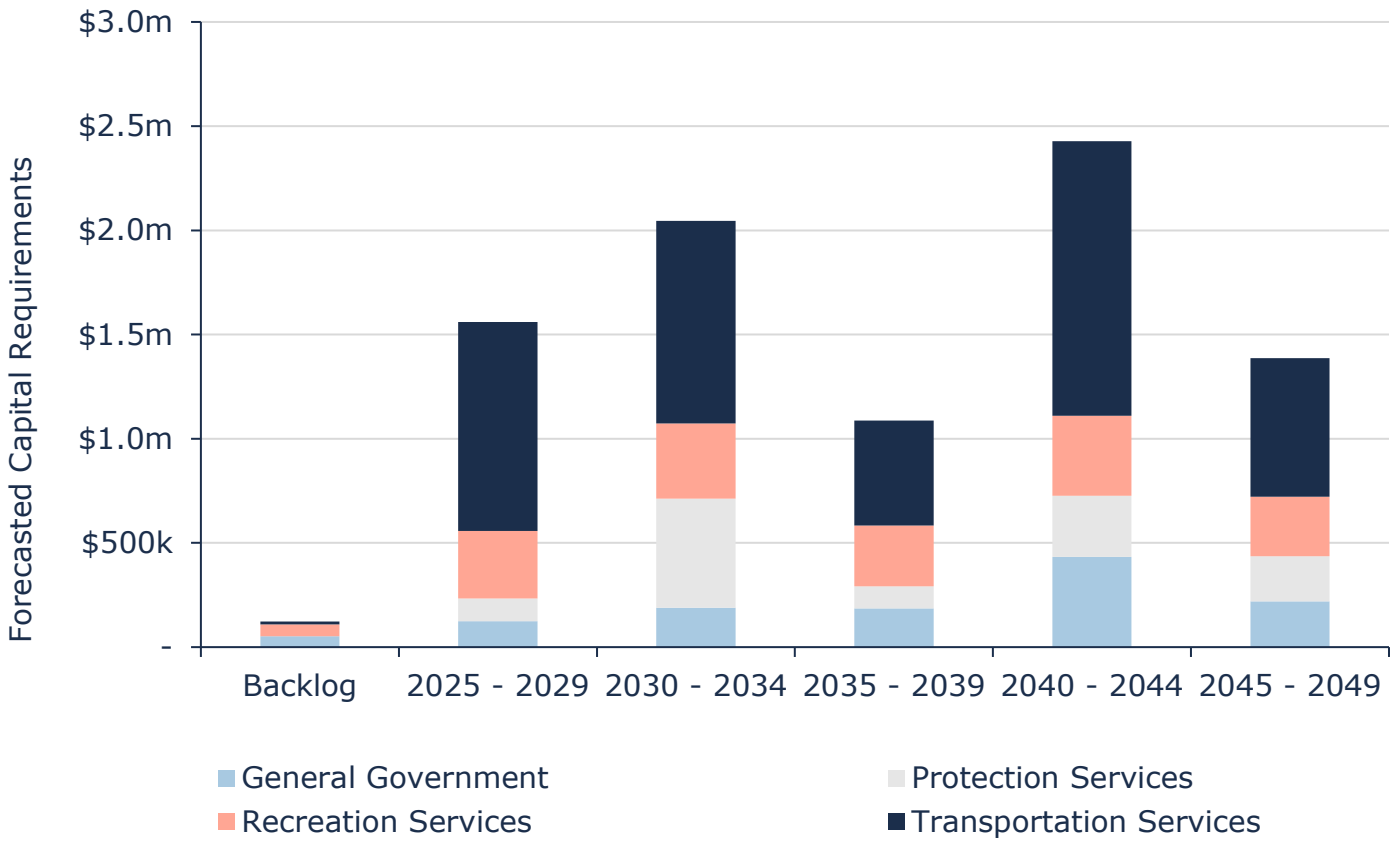


Figure 63 Forecasted Capital Replacement Needs: Machinery & Equipment 2025-2049

A detailed 10-year capital replacement forecast can be found in Appendix B – 10-Year Capital Requirements.

[39] $339,000 per year (AACR). $345,000 from 2025-2049. See 1.3

11.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, service life remaining, and replacement costs. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix stratifies assets based on their individual probability and consequence of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (Citywide Assets). See *Risk & Criticality* section for further details on approach used to determine asset risk ratings and classifications.

1 - 4 **Very Low**	5 - 7 **Low**	8 - 9 **Moderate**	10 - 14 **High**	15 - 25 **Very High**
$1,212,418 (33%)	$1,197,466 (32%)	$415,996 (11%)	$529,431 (14%)	$330,000 (9%)

Figure 64 Risk Matrix: Machinery & Equipment

11.7 Levels of Service

The tables that follow summarize the Town's current levels of service. There are no specifically prescribed KPIs under Ontario Regulation 588/17 for non-core assets, therefore the KPIs below represent performance measures that the Town has selected for this AMP.

11.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description or images of the types of equipment that the town operates and the services that they help to provide to the community	• Recreation Services Equipment • Transportation Services Equipment • General Government Equipment (Computer hardware/software, IT infrastructure, telephone systems, etc.) • Park Equipment • Protection Services Equipment

Table 44 Community Levels of Service: Machinery & Equipment

11.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2024)
Quality	Average condition rating of Machinery & Equipment (e.g. very good, good, fair, poor, very poor)	Fair (48%)

Table 45 Technical Levels of Service: Machinery & Equipment

11.8 Proposed Levels of Service

As per O. Reg. 588/17, by July 1, 2025, municipalities are required to consider proposed levels of service (PLOS), discuss the associated risks and long-term sustainability of these service levels, and explain the Town's ability to afford the PLOS.

Proposed levels of service reflect the municipality's commitment to delivering reliable, cost-effective, and sustainable services. These projected levels were developed through a comprehensive analysis of several key factors:

- Current service performance, based on historical data and condition assessments;
- Planned capital and operational activities within the 10-year planning horizon; and
- Available financial resources, including funding strategies and lifecycle costing

LOS Metric	Current KPI	Proposed KPI (2034)	Growth	Achievability & Affordability
Average condition rating	Fair 48	Fair 58	Refer to section 12.	Refer to section 13.
Average risk rating[40]	Low 7.08	Low 6.07		

Table 46 O. Reg. 588/17 Proposed LOS: Machinery & Equipment

[40] See *Risk & Criticality*

Strategies

Growth

Financial Strategy

12. Growth

The demand for infrastructure and services will change over time based on a combination of internal and external factors. Understanding the key drivers of growth and demand will allow the Town to plan for new infrastructure more effectively, and the upgrade or disposal of existing infrastructure. Increases or decreases in demand can affect what assets are needed and what level of service meets the needs of the community.

12.1 Town of Arnprior Official Plan

The Town of Arnprior adopted a new Official Plan in June of 2017. The Official Plan guides development through policies that address the need for services such as sewers, water, and roads and the community's vision for growth.

The five-year review of the Official Plan commenced in 2015 with a focus on anticipated population and employment growth. The Plan projects the population to increase to 11,773 and employment to increase to 7,137 by 2036. These figures are based on Renfrew County's 2015 Official Plan.

As part of the review, the Town completed a land inventory in conjunction with the Town's Water and Wastewater Master Plan (2013). This exercise confirmed that there is sufficient land supply to accommodate anticipated growth. The available residential area is 114.71 hectares, which is expected to accommodate a population of over 6,100. Housing projections anticipate 1,660 new dwellings by 2036.

The land inventory also found 57.82 hectares of available industrial land and 38.75 hectares of available commercial land. Growth in Arnprior's employment sector is projected to result in 729 new industrial jobs and 900 new commercial jobs by 2031. According to the analysis, the available industrial land can withstand such growth.

The Town's growth management policies focus on developing a complete community with access to employment, education, health care, cultural and recreational facilities, housing, social services, diverse goods and services, and sustainable public infrastructure and services. The Official Plan states that planning for infrastructure and public services will be coordinated with land use planning and growth projections. Municipal infrastructure and public services will also be financially viable over their life cycle as demonstrated in the Town's asset management planning.

12.1.1 Development Charges Background Study

According to the 2023 Development Charges Background Study, the Town's updated growth forecasts are based on a comprehensive review and land needs analysis completed in 2022. This analysis projects that, from 2023 to 2042, Arnprior will see a net population increase of 2,660 people and an increase of 1,419 residential units, confirming that the Town has planned for sufficient land supply to accommodate anticipated growth over the next two decades. The study also includes updated inventories of residential, industrial, and commercial lands, and these figures now inform the Town's infrastructure and financial planning.

12.2 County of Renfrew Official Plan (May 2024)

The County of Renfrew's Official Plan, consolidated May 2024, serves as the primary land use policy framework for twelve Townships and five Towns within the County. It promotes orderly and efficient development that supports the quality of life, economic vitality, and environmental integrity of Renfrew's communities. The Plan directs most projected residential growth to urban and village community areas as identified in Schedule "A" and supported by local Official Plans. While Appendix A identifies population projections for each lower-tier municipality to 2036, these figures are not considered fixed allocations but provide guidance for local planning.

The Official Plan emphasizes the promotion of cost-effective development patterns that sustain the long-term financial viability of infrastructure and public service facilities. This is to be demonstrated, where applicable, through asset management planning. Growth in Renfrew County is viewed as beneficial when well-managed—contributing to employment generation and an expanded tax base—while respecting the balance between healthy communities, environmental protection, and economic development.

The Plan identifies key growth-supporting initiatives, including expansion of broadband infrastructure, upgrading water treatment and transportation facilities, and supporting the extension of Highway 417. Other strategic goals include the redevelopment of brownfield sites, investment in tourism branding ("Ontario's Adventure Playground"), and potential acquisition of abandoned rail corridors for multi-use purposes. Development is also guided by objectives to preserve cultural heritage, manage Crown lands responsibly, and strengthen Indigenous engagement.

To support housing needs, the County promotes a 10-year supply of designated residential land, encourages a minimum of 15% affordable housing in new developments, and supports a diverse housing mix for all income levels. These efforts are guided by the County's Housing and Homelessness Plan and are implemented through coordination with area municipalities.

12.3 Impact of Growth on Lifecycle Activities

The Town's AMP, along with supporting documents like the Development Charges Background Study (2023), Water and Wastewater Master Plan, Transportation Master Plan, guides strategic planning and efficient growth. As Arnprior continues to grow rapidly, new infrastructure assets are incorporated into the AMP, and updated lifecycle costs are factored into long-term funding strategies to maintain service levels and financial sustainability.

13. Financial Strategy

For an asset management plan to be effective and meaningful, it must be integrated with financial planning and long-term budgeting. The development of a comprehensive financial plan will allow the Town of Arnprior to identify the financial resources required for sustainable asset management based on existing asset inventories, desired levels of service, and projected growth requirements.

This report develops such a financial plan by presenting several scenarios for consideration and culminating with final recommendations. As outlined below, the scenarios presented model different combinations of the following components:

1. The financial requirements for:
    a. Existing assets
    b. Existing/proposed service levels
    c. Requirements of contemplated changes in service
    d. Requirements of anticipated growth
2. Use of traditional sources of municipal funds:
    a. Tax levies
    b. User fees
    c. Debt
    d. Development charges
3. Use of non-traditional sources of municipal funds:
    a. Reallocated budgets
    b. Partnerships
    c. Procurement methods
4. Use of Senior Government Funds:
    a. Canada Community-Building Fund (CCBF)
    b. Annual grants

Note: Periodic grants are normally not included due to Provincial requirements for firm commitments. However, if moving a specific project forward is wholly dependent on receiving a one-time grant, the replacement cost included in the financial strategy is the net of such grant being received.

If the financial plan component results in a funding shortfall, the province requires the inclusion of a specific plan as to how the impact of the shortfall will be managed. In determining the legitimacy of a funding shortfall, the province may evaluate a Town's approach to the following:

1. To reduce financial requirements, consideration has been given to revising service levels downward.
2. All asset management and financial strategies have been considered. For example:
    a. If a zero-debt policy is in place, is it warranted? If not the use of debt should be considered.
    b. Do user fees reflect the cost of the applicable service? If not, increased user fees should be considered.

13.1 Annual Requirements & Capital Funding – Full Lifecycle

13.1.1 Annual Requirements

The annual requirements represent the amount the Town should allocate annually to each asset category to meet replacement needs as they arise, prevent infrastructure backlogs and achieve long-term sustainability. In total, the Town must allocate approximately $12.3 million annually to address capital requirements for the assets included in this AMP.

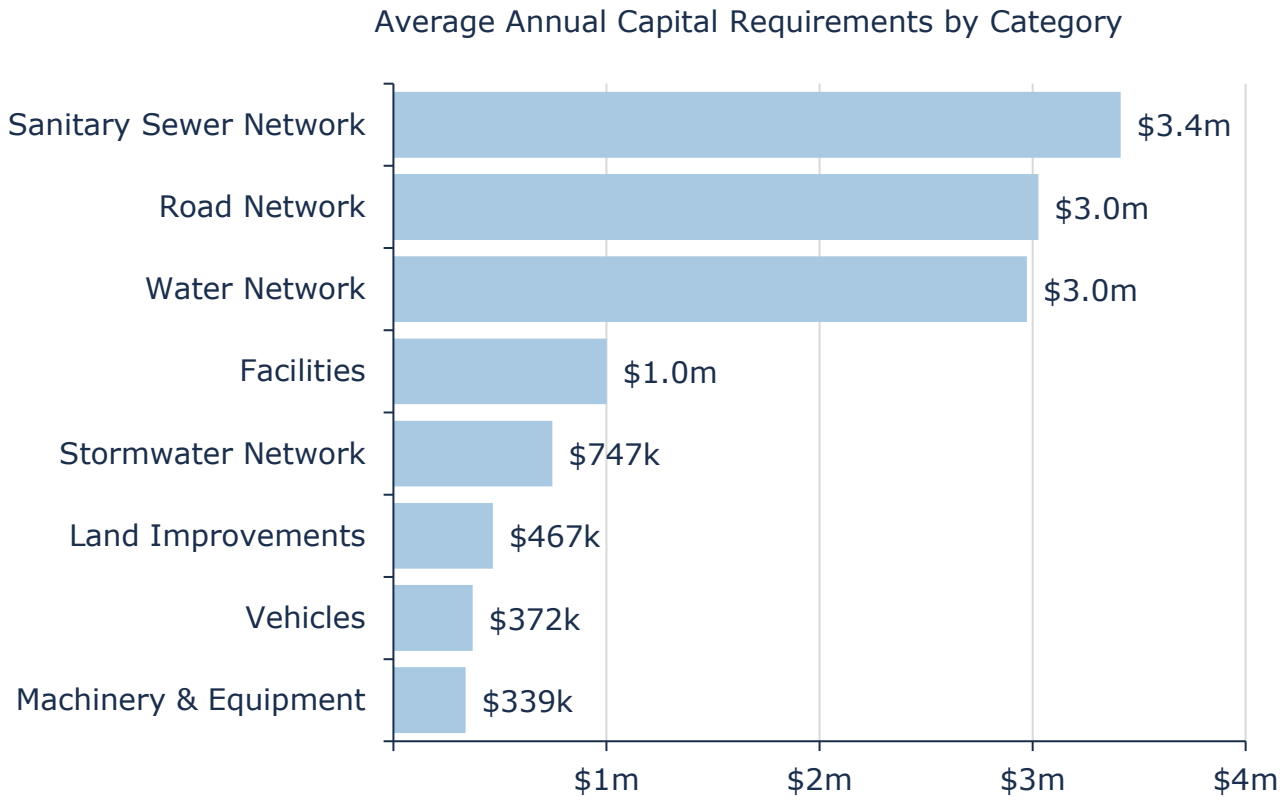


Figure 65 Annual Capital Funding Requirements by Asset Category

13.1.2 Annual Funding Available

Based on a historical analysis of sustainable capital funding sources, the Town is committing approximately $7.7 million towards capital projects per year. Given the annual capital requirement of $12.3 million to meet the selected proposed levels of service, there is currently a funding gap of $4.6 million annually.

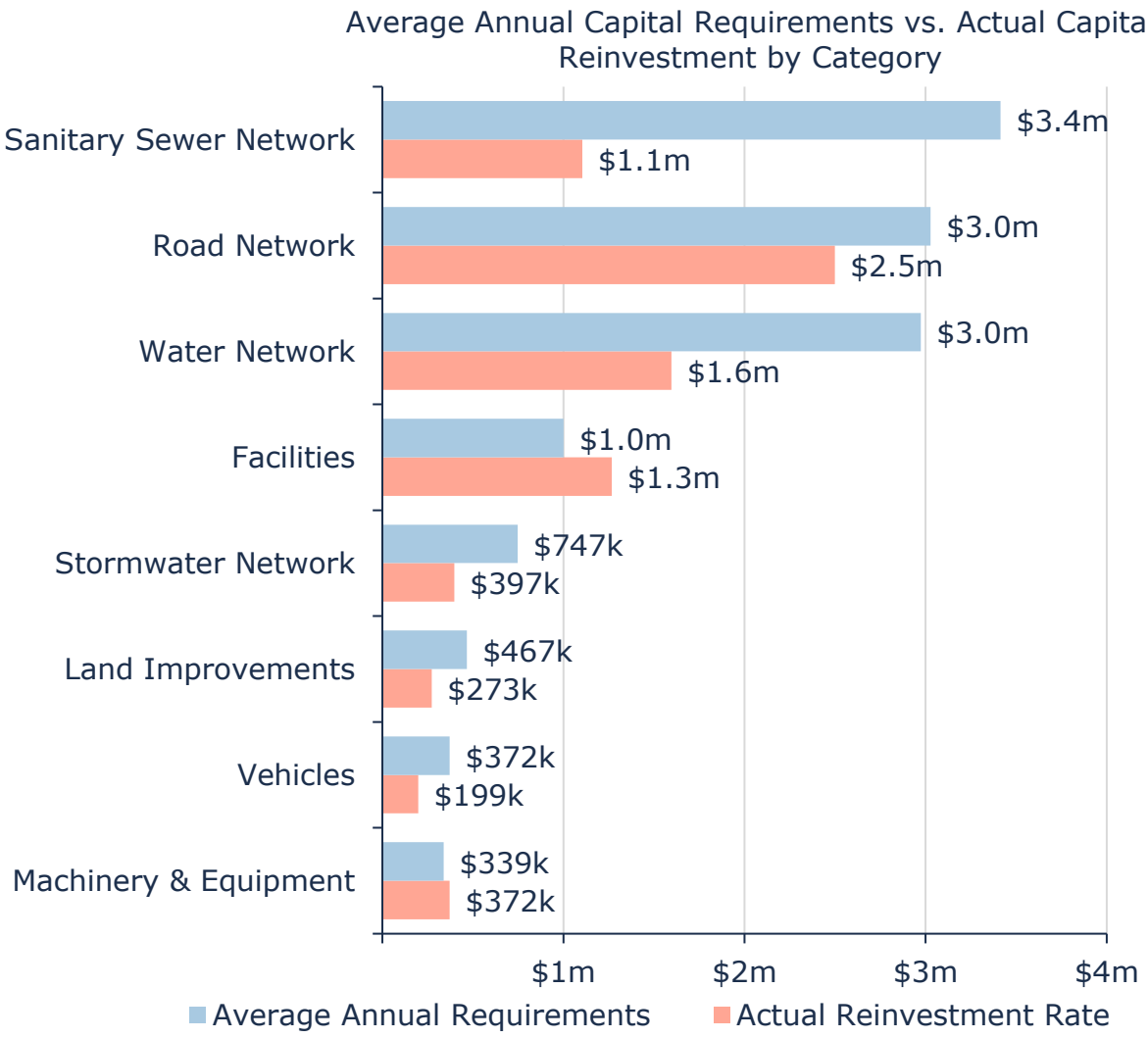


Figure 66 Annual Requirements vs. Capital Funding Available

13.2 Funding Objective

We have developed a scenario that would enable Arnprior to achieve their proposed levels of service within 1 to 20 years for the following assets:

1. **Tax Funded Assets:** Road Network, Storm Water Network, Facilities, Land Improvements, Vehicles, Machinery & Equipment
2. **Rate-Funded Assets:** Sanitary Sewer Network, Water Network

Note: For the purposes of this AMP, we have excluded gravel roads since they are a perpetual maintenance asset and end of life replacement calculations do not normally apply. If gravel roads are maintained properly, they can theoretically have a limitless service life.

For each financial scenario developed we have included strategies, where applicable, regarding the use of cost containment and funding opportunities.

13.3 Financial Profile: Tax Funded Assets

13.3.1 Current Funding Position

The following tables show, by asset category, Arnprior's average annual asset investment requirements, current funding positions, and funding increases required to achieve the proposed levels of service on assets funded by taxes.

Asset Category	Avg. Annual Require-ment	Annual Funding Available				Annual Deficit
		Taxes to Reserves	CCBF	OCIF	Total Available	
Road Network	3,028,000	1,949,000	151,000	398,000	2,498,000	530,000
Storm Water Network	747,000	397,000	0	0	397,000	350,000
Facilities	1,001,000	1,267,000	0	0	1,267,000	-266,000
Land Improvements	467,000	273,000	0	0	273,000	194,000
Vehicles	372,000	199,000	0	0	199,000	173,000
Machinery & Equipment	339,000	372,000	0	0	372,000	-33,000
Total	**5,954,000**	**4,457,000**	**151,000**	**398,000**	**5,006,000**	**948,000**

Table 47 Annual Available Funding for Tax Funded Assets

The average annual investment requirement for the above categories is $5.95 million. The annual revenue currently allocated to these assets for capital purposes is $5.00 million leaving an annual deficit of $948 thousand Put differently, these infrastructure categories are currently funded at 84.1% of their long-term requirements.

13.3.2 Proposed Levels of Service Funding Requirements

In 2024, Arnprior had annual tax revenues of $12.7 million. As illustrated in the following table, without consideration of any other sources of revenue or cost containment strategies, full funding would require the following tax change over time:

Asset Category	Tax Change Required for Full Funding
Road Network	4.2%
Storm Water Network	2.8%
Facilities	-2.1%
Land Improvements	1.5%
Vehicles	1.4%
Machinery & Equipment	-0.3%
Total	**7.5%**[41]

Table 48 Tax Increase Requirements for Proposed Levels of Service

Our recommendations include capturing the above changes and allocating them to the infrastructure deficit outlined above. The table below outlines this concept and presents several options:

	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	948,000	948,000	948,000	948,000
Change in Debt Costs	-128,000	-128,000	-128,000	-128,000
Resulting Infrastructure Deficit:	**820,000**	**820,000**	**820,000**	**820,000**
Tax Increase Required	6.5%	6.5%	6.5%	6.5%
Annually:	**1.3%**	**0.7%**	**0.4%**	**0.3%**

Table 49 Tax Increase Options 5-20 Years

[41] A negative funding figure (facilities/machinery & equipment) for an asset category does not inherently mean it is overfunded; rather, it reflects a reallocation of resources within a shared property tax pool to better align with overall asset management priorities in any given year

13.3.3 Financial Strategy Recommendations

Considering all the above information, we recommend the 10-year option. This involves full funding being achieved over 10 years by:

a) when realized, reallocating the debt cost reductions to the infrastructure deficit as outlined above
b) increasing tax revenues by 0.7% each year for the next 10 years solely for the purpose of phasing in the proposed levels of service for asset categories covered in this section of the AMP
c) adjusting tax revenue increases in future year(s) when allocations to capital expenditure exceed or fail to meet budgeted amounts
d) allocating the current CCBF and OCIF revenue as outlined previously.
e) reallocating appropriate revenue from categories in a surplus position to those in a deficit position.
f) reallocating appropriate revenue from categories in a surplus position to those in a deficit position, when applicable
g) increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

Notes:

1. As in the past, periodic senior government infrastructure funding will most likely be available during the phase-in period. By Provincial AMP rules, this periodic funding cannot be incorporated into an AMP unless there are firm commitments in place. We have included OCIF formula-based funding, if applicable, since this funding is a multi-year commitment.[42]
2. We realize that raising tax revenues by the amounts recommended above for infrastructure purposes will be very difficult to do. However, considering a longer phase-in window may have even greater consequences in terms of infrastructure failure.

Although this option achieves full funding of the proposed levels of service on an annual basis in 10 years, and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available. Current data shows a pent-up investment demand of $5.5 million for tax-funded assets.

Prioritizing future projects will require the current data to be replaced by condition-based data. Although our recommendations include no further use of debt, the results of the condition-based analysis may be required otherwise.

[42] The Town should take advantage of all available grant funding programs and transfers from other levels of government. While OCIF has historically been considered a sustainable source of funding, the program is currently undergoing review by the provincial government. Depending on the outcome of this review, there may be changes that impact its availability.

13.4 Financial Profile: Rate Funded Assets

13.4.1 Current Funding Position

The following tables show, by asset category, Arnprior's average annual asset investment requirements, current funding positions, and funding increases required to achieve proposed levels of service on assets funded by rates.

Asset Category	Avg. Annual Require-ment	Annual Funding Available				Annual Deficit
		To Reserves	CCBF	OCIF	Total Available	
Sanitary Sewer Network	3,414,000	829,000	76,000	199,000	1,104,000	2,310,000
Water Network	2,974,000	1,322,000	76,000	199,000	1,597,000	1,377,000
Total	**6,388,000**	**2,151,000**	**152,000**	**398,000**	**2,701,000**	**3,687,000**

Table 50 Annual Available Funding for Rate Funded Assets

The average annual investment requirement for the above categories is $6.39 million. The annual revenue currently allocated to these assets for capital purposes is $2.70 million, leaving an annual deficit of $3.69 million. Put differently, these infrastructure categories are currently funded at 42.3% of their long-term requirements.

13.4.2 Proposed Levels of Service Funding Requirements

In 2024, Arnprior had annual sanitary revenues of $2.6 million and annual water revenues of $3.6 million. As illustrated in the table below, without consideration of any other sources of revenue, the proposed levels of service would require the following changes over time:

Asset Category	Rate Change Required for Full Funding
Sanitary Sewer Network	90.2%
Water Network	38.0%

Table 51 Rate Increase Requirements for Full Funding

Our recommendations include capturing the above changes and allocating them to the infrastructure deficit outlined above. The table below outlines this concept and presents several options:

	Sanitary Sewer Network			
	5 Years	**10 Years**	**15 Years**	**20 Years**
Infrastructure Deficit	2,310,000	2,310,000	2,310,000	2,310,000
Rate Increase Required	84.8%	77.7%	77.7%	77.7%
Annually:	**17.0%**	**7.8%**	**5.2%**	**3.9%**

Table 52 Sanitary Rate Increase Options 5-20 Years

	Water Network			
	5 Years	**10 Years**	**15 Years**	**20 Years**
Infrastructure Deficit	1,377,000	1,377,000	1,377,000	1,377,000
Rate Increase Required	31.1%	24.9%	24.9%	24.9%
Annually:	**6.2%**	**2.5%**	**1.7%**	**1.2%**

Table 53 Water Rate Increase Options 5-20 Years

13.4.3 Financial Strategy Recommendations

Considering all the above information, we recommend the 10-year option for both the sanitary sewer network water network. This involves the proposed levels of service being achieved over -10 years by:

a) increasing rate revenues of water services by 2.5% and 7.8% for sanitary sewer services each year for the next 10 years solely for the purpose of phasing the proposed levels of service for asset categories covered in this section of the AMP.
b) increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

Notes:

1. As in the past, periodic senior government infrastructure funding will most likely be available during the phase-in period. This periodic funding should not be incorporated into an AMP unless there are firm commitments in place.
2. We realize that raising revenues for infrastructure purposes will be very difficult to do. However, considering a longer phase-in window may have even greater consequences in terms of infrastructure failure.
3. Any increase in rates required for operations would be in addition to the above recommendations.

Although this option achieves full funding of the proposed levels of service on an annual basis in 10 years and provides financial sustainability over the period modeled, the recommendations do

require prioritizing capital projects to fit the resulting annual funding available. Current data shows a pent-up investment demand of $21.7 million.

Prioritizing future projects will require the current data to be replaced by condition-based data. Although our recommendations include no further use of debt, the results of the condition-based analysis may be necessary.

13.5 Annual Requirements & Capital Funding – 25 Year Outlook

While the primary focus of this asset management plan is to provide a roadmap for the Town of Arnprior to achieve full funding within 10 years and meet key condition targets, the financial strategy is grounded in a whole-lifecycle approach. To complement this, the following section provides a 25-year outlook (2025–2049), analyzing long-term funding requirements and potential scenarios (phase in periods) to ensure sustainable asset performance over time.

13.5.1 Tax-Funded Assets

Asset Category	Avg. Annual Require-ment[43]	Annual Funding Available				Annual Deficit
		Taxes to Reserves	CCBF	OCIF	Total Available	
Road Network	2,951,000	1,949,000	151,000	398,000	2,498,000	453,000
Storm Water Network	390,000	397,000	0	0	397,000	-7,000
Facilities	999,000	1,267,000	0	0	1,267,000	-268,000
Land Improvements	395,000	273,000	0	0	273,000	122,000
Vehicles	320,000	199,000	0	0	199,000	121,000
Machinery & Equipment	345,000	372,000	0	0	372,000	-27,000
Total	**5,400,000**	**4,457,000**	**151,000**	**398,000**	**5,006,000**	**394,000**

The average annual investment requirement for the above categories is $5.4 million. The annual revenue currently allocated to these assets for capital purposes is $5.0 million leaving an annual deficit of $394 thousand Put differently, these infrastructure categories are currently funded at 92.7% of their long-term requirements.

Asset Category	Tax Change Required for Full Funding
Road Network	3.6%
Storm Water Network	-0.1%
Facilities	-2.1%
Land Improvements	1.0%
Vehicles	1.0%
Machinery & Equipment	-0.2%
Total	**3.2%[44]**

[43] Anticipated capital requirements from 2025-2049
[44] A negative funding figure (storm water/facilities/machinery & equipment) for an asset category does not inherently mean it is overfunded; rather, it reflects a reallocation of resources within a shared property tax pool to better align with overall asset management priorities in any given year

	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	394,000	394,000	394,000	394,000
Change in Debt Costs	-128,000	-128,000	-128,000	-128,000
Resulting Infrastructure Deficit:	**266,000**	**266,000**	**266,000**	**266,000**
Tax Increase Required	2.1%	2.1%	2.1%	2.1%
Annually:	**0.4%**	**0.2%**	**0.1%**	**0.1%**

13.5.2 Rate-Funded Assets

Asset Category	Avg. Annual Require-ment	Annual Funding Available				Annual Deficit
		To Reserves	CCBF	OCIF	Total Available	
Sanitary Sewer Network	2,230,000	829,000	76,000	199,000	1,104,000	1,126,000
Water Network	2,984,000	1,322,000	76,000	199,000	1,597,000	1,387,000
Total	**5,214,000**	**2,151,000**	**152,000**	**398,000**	**2,701,000**	**2,513,000**

The average annual investment requirement for the above categories is $5.2 million. The annual revenue currently allocated to these assets for capital purposes is $2.7 million, leaving an annual deficit of $2.5 million. Put differently, these infrastructure categories are currently funded at 51.8% of their long-term requirements.

Asset Category	Rate Change Required for Full Funding
Sanitary Sewer Network	44.0%
Water Network	38.3%

	Sanitary Sewer Network			
	5 Years	**10 Years**	**15 Years**	**20 Years**
Infrastructure Deficit	1,126,000	1,126,000	1,126,000	1,126,000
Rate Increase Required	38.6%	31.5%	31.5%	31.5%
Annually:	**7.7%**	**3.2%**	**2.1%**	**1.6%**

	Water Network			
	5 Years	**10 Years**	**15 Years**	**20 Years**
Infrastructure Deficit	1,387,000	1,387,000	1,387,000	1,387,000
Rate Increase Required	31.4%	25.1%	25.1%	25.1%
Annually:	**6.2%**	**2.5%**	**1.7%**	**1.3%**

13.6 Use of Debt

The following tables outline how Arnprior has historically used debt for investing in the asset categories as listed. There is currently $10.7 million debt outstanding for the assets covered by this AMP with corresponding principal and interest payments of $924 thousand (2024), well within its provincially prescribed maximum of $3.8 million.

Asset Category	Current Debt Outstanding	Use of Debt in the Last Five Years				
		2019	2020	2021	2022	2023
Road Network	60,000	0	0	0	0	0
Storm Water Network	0	0	0	0	0	0
Facilities	0	0	0	0	0	0
Land Improvements	0	0	0	0	0	0
Vehicles	378,000	0	0	0	0	0
Machinery & Equipment	0	0	0	0	0	0
Total Tax Funded	**438,000**	**0**	**0**	**0**	**0**	**0**
Sanitary Sewer Network	4,849,000	0	0	0	0	0
Water Network	5,423,000	0	0	0	0	0
Total Rate Funded	**10,272,000**	**0**	**0**	**0**	**0**	**0**

Table 54 Arnprior Use of Debt 2019-2023

Asset Category	Principal & Interest Payments in the Next Ten Years						
	2024	2025	2026	2027	2028	2029	2034
Road Network	52,000	9,000					
Storm Water Network							
Facilities							
Land Improvements	76,000	76,000	76,000	76,000	76,000		
Vehicles							
Machinery & Equipment							
Total Tax Funded	**128,000**	**85,000**	**76,000**	**76,000**	**76,000**		
Sanitary Sewer Network	320,000	241,000	211,000	182,000	182,000	182,000	
Water Network	476,000	476,000	351,000	226,000	226,000	226,000	
Total Rate Funded	**796,000**	**717,000**	**562,000**	**408,000**	**408,000**	**408,000**	

Table 55 Arnprior Principal and Interest Payments

The revenue options outlined in this plan allow Arnprior to fully fund its long-term infrastructure requirements without further use of debt.

13.7 Use of Reserves

13.7.1 Available Reserves

Reserves play a critical role in long-term financial planning. The benefits of having reserves available for infrastructure planning include:

a) the ability to stabilize tax rates when dealing with variable and sometimes uncontrollable factors
b) financing one-time or short-term investments
c) accumulating the funding for significant future infrastructure investments
d) managing the use of debt
e) normalizing infrastructure funding requirement

By asset category, the table below outlines the details of the reserves currently available to Arnprior.

Asset Category	Reserve Balances
Road Network	1,401,000
Storm Water Network	1,401,000
Facilities	1,401,000
Land Improvements	1,401,000
Vehicles	1,401,000
Machinery & Equipment	1,401,000
Total Tax Funded:	**8,408,000**
Sanitary Sewer Network	329,000
Water Network	1,643,000
Total Rate Funded:	**1,972,000**

Table 56 Arnprior Reserve Balances

There is considerable debate in the municipal sector as to the appropriate level of reserves that a Town should have on hand. There is no clear guideline that has gained wide acceptance. Factors that municipalities should consider when determining their capital reserve requirements include:

a) breadth of services provided
b) age and condition of infrastructure
c) use and level of debt
d) economic conditions and outlook
e) internal reserve and debt policies.

These reserves are available for use by applicable asset categories during the phase-in period to full funding. This coupled with Arnprior's judicious use of debt in the past, allows the scenarios to

assume that, if required, available reserves and debt capacity can be used for high priority and emergency infrastructure investments in the short- to medium-term.

Appendices

Appendix A – Infrastructure Report Card

Appendix B – 10-Year Capital Requirements

Appendix C – Level of Service Maps

Appendix A – Infrastructure Report Card

Asset Category	Replacement Cost	Average Condition	Financial Capacity (Based on Proposed LOS)	
Road Network	**$99 m**	**Fair**	Annual Requirement:	$3,028,000
			Funding Available:	$2,498,000
			Annual Deficit:	**$530,000**
Water Network	**$159 m**	**Fair**	Annual Requirement:	$2,974,000
			Funding Available:	$1,597,000
			Annual Deficit:	**$1,377,000**
Sanitary Sewer Network	**$190.6 m**	**Good**	Annual Requirement:	$3,414,000
			Funding Available:	$1,104,000
			Annual Deficit:	**$2,310,000**
Storm Water Network	**$59.6 m**	**Good**	Annual Requirement:	$747,000
			Funding Available:	$397,000
			Annual Deficit:	**$350,000**
Facilities	**$93.6 m**	**Fair**	Annual Requirement:	$1,001,000
			Funding Available:	$1,267,000
			Annual Surplus:	**$266,000**
Land Improvements	**$3.7 m**	**Good**	Annual Requirement:	$467,000
			Funding Available:	$273,000
			Annual Deficit:	**$194,000**
Vehicles	**$4.9 m**	**Good**	Annual Requirement:	$372,000
			Funding Available:	$199,000
			Annual Deficit:	**$173,000**
Machinery & Equipment	**$ 3.6 m**	**Fair**	Annual Requirement:	$339,000
			Funding Available:	$372,000
			Annual Surplus:	**$33,000**

Appendix B – 10-Year Capital Requirements

Road Network

Segment	Back-log	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Curbs	$4.5m	$307k	$147k	$235k	$320k	$74k	$69k	$119k	$182k	$498k	$306k
Road Base	-	$378k	$347k	$513k	$550k	$118k	$129k	$430k	$1.5m	$1.0m	$620k
Road Surface	-	$3.5m	$1.2m	$842k	$2.1m	$1.6m	$551k	$511k	$2.2m	$1.7m	$1.8m
Sidewalks	$289k	$613k	$1.2m	$294k	$465k	$960k	$383k	$281k	$692k	$1.1m	$339k
Streetlights	$195k	$44k	$44k	$44k	$14k	$25k	$30k	$15k	$15k	$14k	$1.1m
Total	**$5.0m**	**$4.8m**	**$3.0m**	**$1.9m**	**$3.5m**	**$2.8m**	**$1.2m**	**$1.4m**	**$4.6m**	**$4.4m**	**$4.1m**

Table 57 System Generated 10-Year Capital Replacement Forecast: Road Network

Water Network

Segment	Back-log	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Equipment	-	-	$34k	$20k	-	$215k	$150k	-	$16k	-	-
Facilities	$150k	$32k	-	$291k	-	-	$14k	-	-	$23k	-
Water Mains	$18.0m	$2.6m	$402k	$1.8m	$1.6m	$1.5m	$1.1m	$408k	$5.4m	$3.4m	$3.2m
Total	**$18.1m**	**$2.6m**	**$436k**	**$2.1m**	**$1.6m**	**$1.7m**	**$1.3m**	**$408k**	**$5.4m**	**$3.5m**	**$3.2m**

Table 58 System Generated 10-Year Capital Replacement Forecast: Water Network

Sanitary Sewer Network

Segment	Back-log	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Facilities	$17k	-	-	-	-	-	$17k	$156k	$98k	-	-
Sanitary Sewer Mains	$3.6m	$1.6m	$3.5m	$1.4m	$1.3m	$411k	$363k	$950k	$1.9m	$3.3m	$1.5m
Total	**$3.6m**	**$1.6m**	**$3.5m**	**$1.4m**	**$1.3m**	**$411k**	**$380k**	**$1.1m**	**$2.0m**	**$3.3m**	**$1.5m**

Table 59 System Generated 10-Year Capital Replacement Forecast: Sanitary Sewer Network

Storm Water Network

Segment	Back-log	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Concrete Headwalls	-	-	-	-	-	-	-	-	-	-	-
Culverts	-	-	-	-	-	-	-	-	-	-	-
Storm Mains	-	$1.1m	-	$1.1m	$1.1m	-	$229k	$361k	$889k	$623k	$1.0m
Storm Retention Ponds	-	-	-	-	-	-	-	-	-	-	-
Total	**-**	**$1.1m**	**-**	**$1.1m**	**$1.1m**	**-**	**$229k**	**$361k**	**$889k**	**$623k**	**$1.0m**

Table 60 System Generated 10-Year Capital Replacement Forecast: Storm Water Network

Facilities

Segment	Back-log	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
General Government	-	$2k	$328k	$24k	$366k	$29k	$180k	$99k	$2.0m	$5.7m	$231k
Protection Services	$27k	-	-	$110k	-	-	-	-	-	-	-
Recreation Services	$195k	$4.8m	-	$75k	$885k	$1.8m	$735k	-	$87k	$20k	$62k
Transportation Services	$30k	$275k	-	$32k	-	-	-	$1.3m	$1.3m	-	-
Total	**$253k**	**$5.0m**	**$328k**	**$240k**	**$1.3m**	**$1.8m**	**$915k**	**$1.4m**	**$3.3m**	**$5.7m**	**$293k**

Table 61 System Generated 10-Year Capital Replacement Forecast: Facilities

Land Improvements

Segment	Back-log	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Cemetery	-	-	-	-	-	-	-	-	-	$100k	-
Lighting & Signage	$28k	$61k	$38k	-	-	$495k	$35k	-	-	$485k	-
Park Equipment & Structures	$44k	$22k	$1.5m	$1.2m	$1.2m	$188k	$173k	$94k	$14k	$215k	-
Parking Lots	-	-	-	-	-	-	-	-	-	$193k	-
Total	**$72k**	**$83k**	**$1.6m**	**$1.2m**	**$1.2m**	**$684k**	**$208k**	**$94k**	**$14k**	**$993k**	**-**

Table 62 System Generated 10-Year Capital Replacement Forecast: Land Improvements

Vehicles

Segment	Back-log	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Environmental Services	-	-	-	-	-	$40k	$55k	-	$80k	$55k	$40k
Protection Services	-	$95k	-	-	$55k	-	-	$850k	$75k	$345k	-
Recreation Services	-	-	-	-	-	-	-	$130k	-	-	$75k
Transportation Services	-	-	-	-	-	$455k	-	-	$55k	$665k	$119k
Total	**-**	**$95k**	**-**	**-**	**$55k**	**$495k**	**$55k**	**$980k**	**$210k**	**$1.1m**	**$234k**

Table 63 System Generated 10-Year Capital Replacement Forecast: Vehicles

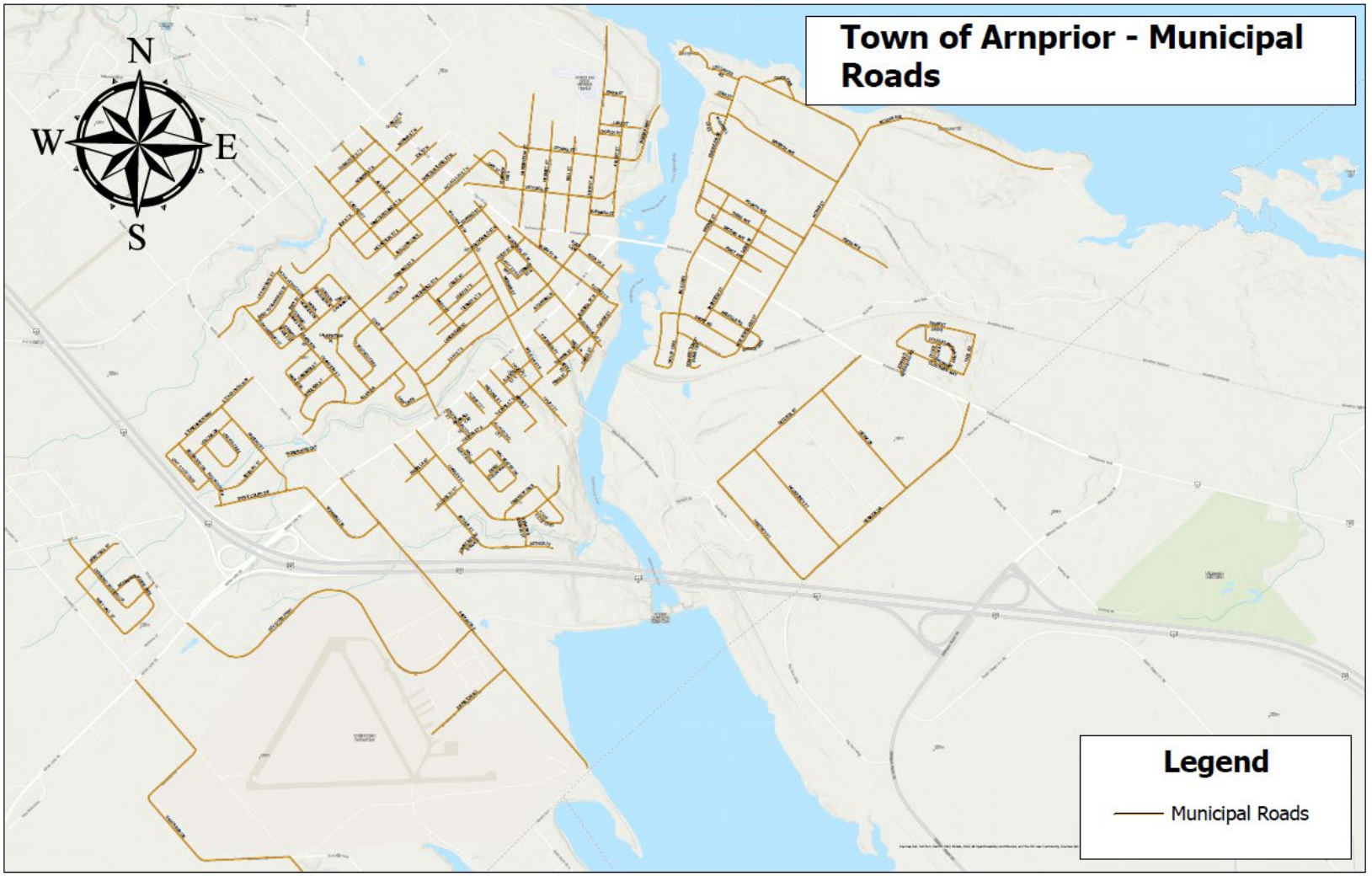
Machinery & Equipment

Segment	Back-log	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
General Government	$53k	-	$65k	-	-	$60k	$19k	-	$23k	-	$148k
Protection Services	-	-	$21k	$62k	-	$25k	$325k	-	$76k	$122k	-
Recreation Services	$55k	-	$165k	$160k	-	-	$7k	$172k	-	$26k	$156k
Transportation Services	$15k	$220k	$330k	$52k	-	$400k	$6k	$296k	$110k	$411k	$149k
Total	**$123k**	**$220k**	**$581k**	**$274k**	**-**	**$485k**	**$357k**	**$468k**	**$208k**	**$560k**	**$453k**

Table 64 System Generated 10-Year Capital Replacement Forecast: Machinery & Equipment

Appendix C – Level of Service Maps & Photos

Road Network Map



Road Class Pavement Condition

Sample Serious/Failed Road (0-25)

(Grey & Dark Red)

Sample Very Poor Road (26-40)

(Red)

Sample Poor Road (41-55)

(Orange)

Sample Fair Road (56-70)

(Yellow)

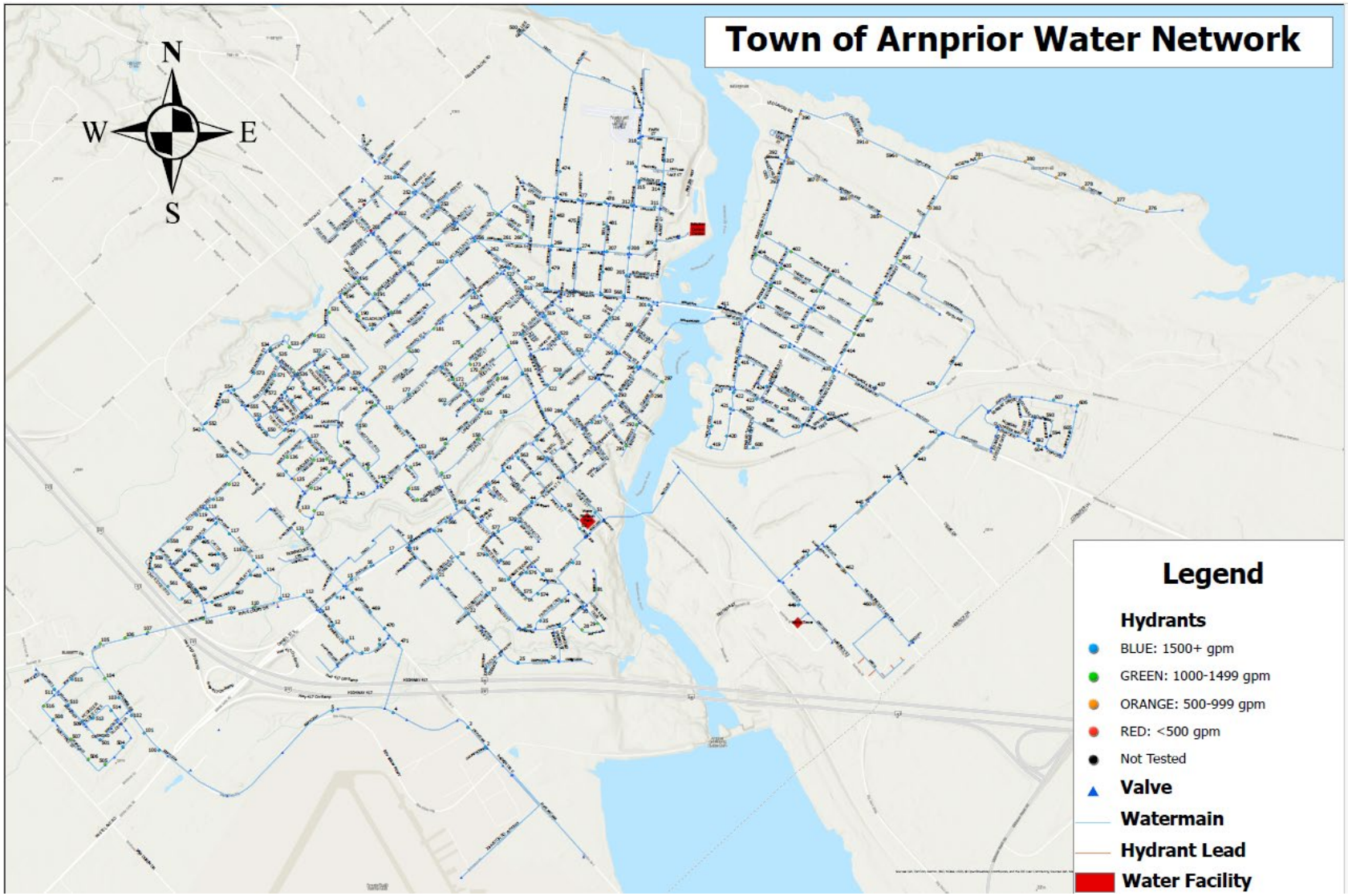
Sample Good Road (71-85)

(Light Green)

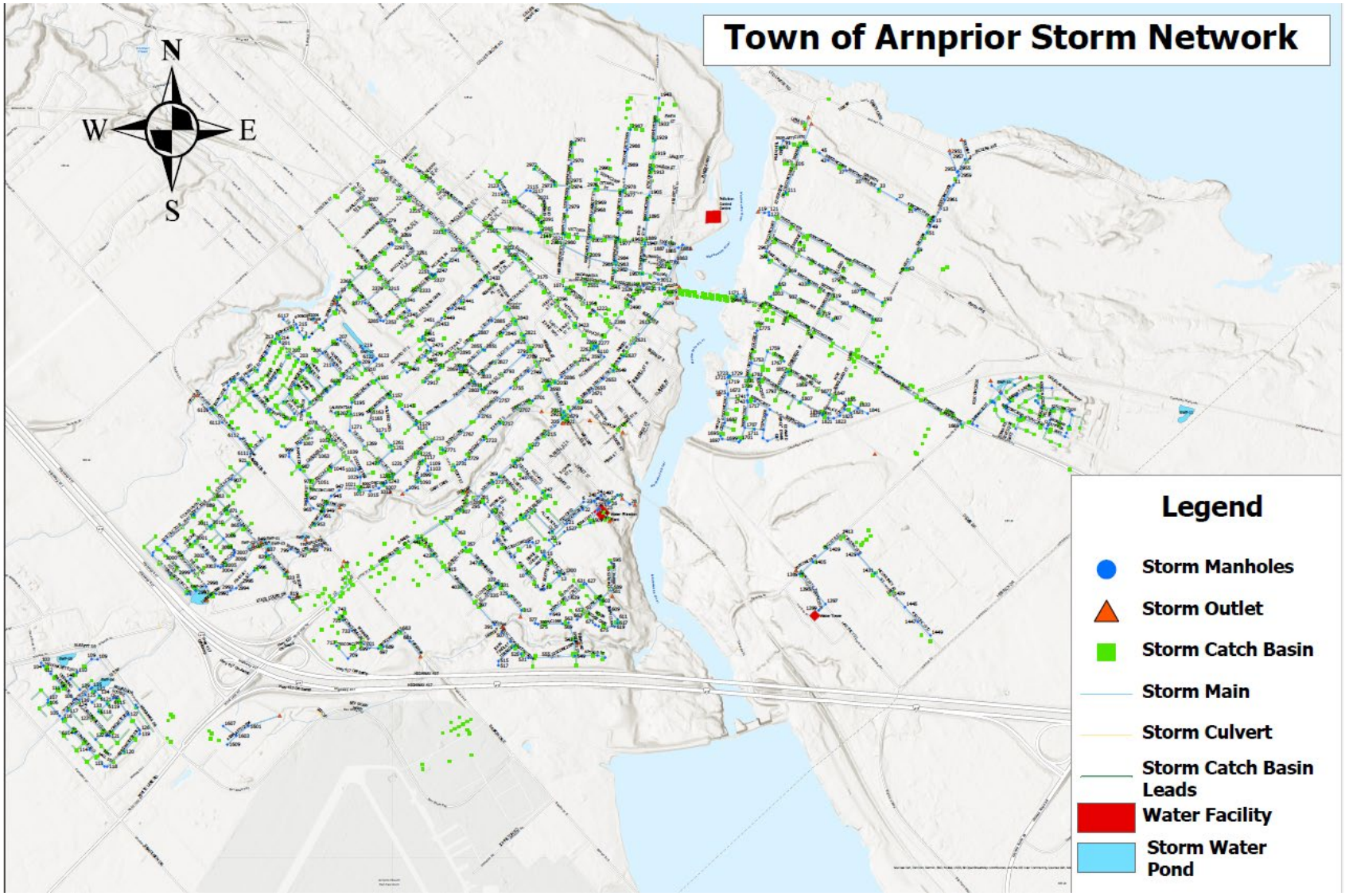
Sample Excellent Road (86-100)

(Dark Green)

Water Network Map



Storm Network



Sanitary Network