# Asset Management Plan 2024

Town of Parry Sound

**May 2025**

psdcitywide

This Asset Management Plan was prepared by:


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

# Key Statistics

| | |
|---|---|
| **$515m** | 2024 Replacement Cost of Asset Portfolio |
| **$146k** | Replacement Cost of Infrastructure Per Household |
| **56%** | Percentage of Assets in Fair or Better Condition |
| **50%** | Percentage of Assets with Assessed Condition Data |
| **$3.5m** | Annual Capital Infrastructure Deficit |
| **20 Years** | Recommended Timeframe for Eliminating Annual Infrastructure Deficit |
| **3.4%** | Target Reinvestment Rate |
| **2.7%** | 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 the current 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:

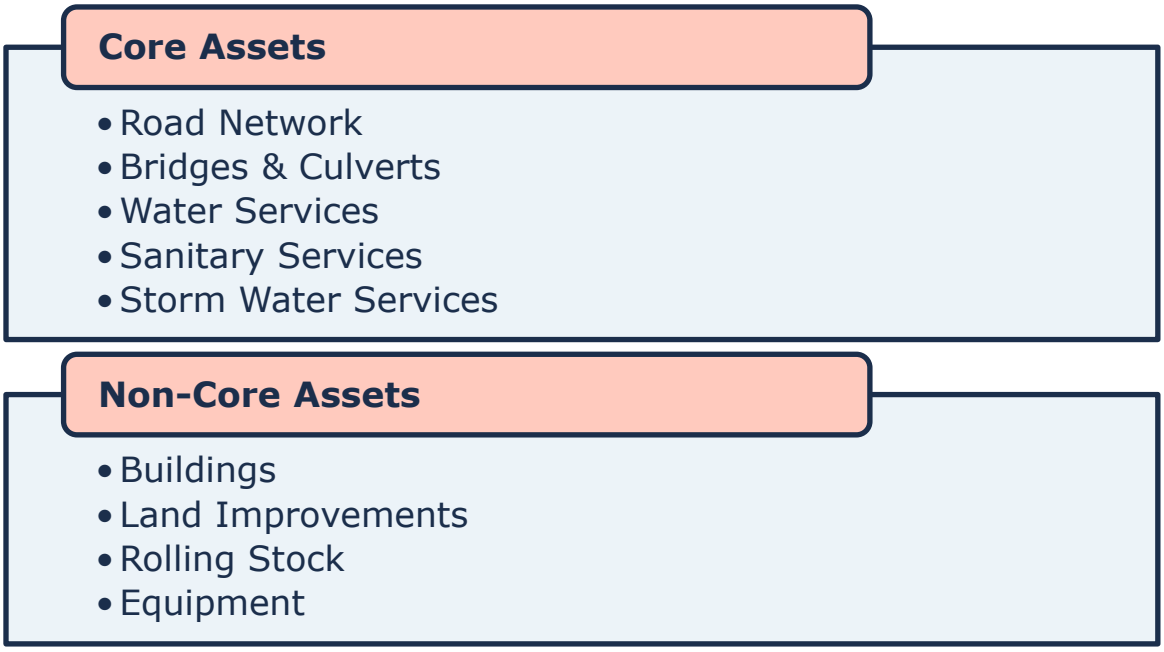



*Figure 1 Core and Non-Core Asset Categories*

## 1.2 O. Reg. 588/17 Compliance

With the development of this AMP the Municipality has achieved compliance with July 1, 2024, requirements under O. Reg. 588/17. This includes requirements for 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 $514.8 million. 56% of all assets analyzed in this AMP are in fair or better condition and assessed condition data was available for 50% of assets. For the remaining 50% of assets, assessed condition data was unavailable, and asset age was used to approximate condition – a data gap that persists in most municipalities. Generally, age misstates the true condition of assets, making assessments essential to accurate asset management planning, and a recurring recommendation in this AMP.

The development of a long-term, sustainable financial plan requires an analysis of whole lifecycle costs. This AMP uses a combination of proactive lifecycle strategies (Roads, Bridges & Culverts and Sanitary Services) and replacement only strategies (all other assets) to determine the lowest cost option to maintain the current level of service.

To meet capital replacement and rehabilitation needs for existing infrastructure, prevent infrastructure backlogs, and achieve long-term sustainability, the Town's average annual capital requirement totals $17.5 million. Based on a historical analysis of sustainable capital funding sources, the Town is committing approximately $14 million towards capital projects or reserves per year. As a result, there is currently an annual funding gap of $3.5 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. The following graphics shows annual tax/rate change required to eliminate the Town's infrastructure deficit based on a 20-year plan:

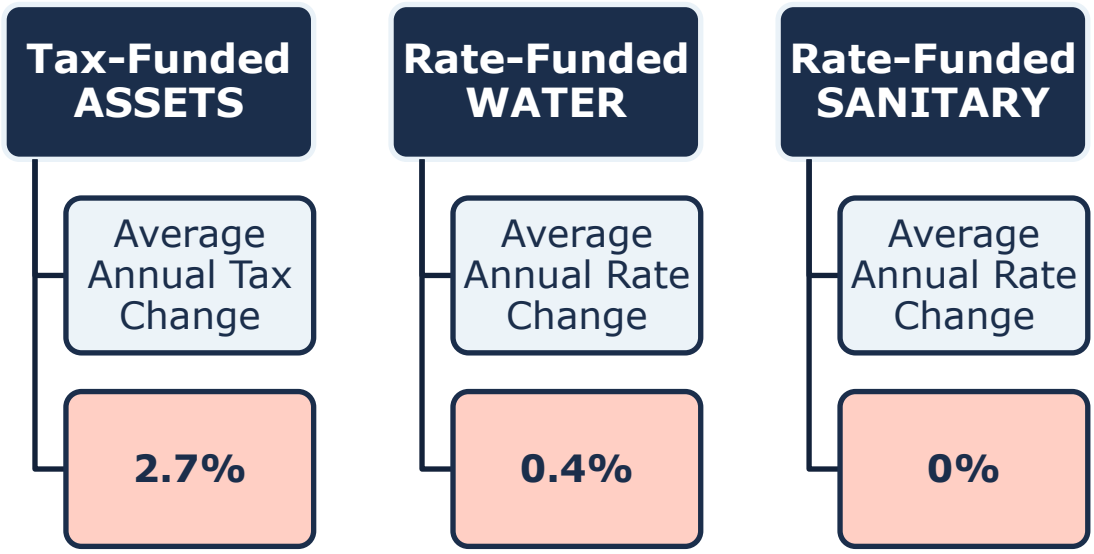



*Figure 2 Proposed Tax/Rate Changes*

# 2. Introduction & Context

## 2.1 Community Profile

The Town of Parry Sound is a vibrant single-tier municipality located on the shores of Georgian Bay in the District of Parry Sound, Ontario. Known for its stunning natural beauty, the town is surrounded by the rugged landscape of the Canadian Shield, featuring rocky shorelines, dense forests, and numerous lakes and rivers. This picturesque setting makes Parry Sound a popular destination for outdoor enthusiasts, offering a wide range of recreational activities such as boating, fishing, hiking, and snowmobiling.

Parry Sound is recognized as the birthplace of NHL legend Bobby Orr and is home to a thriving sports culture, with the Bobby Orr Community Centre serving as a hub for hockey and other community events. The town also boasts a rich cultural scene, hosting the annual Festival of the Sound, a renowned classical music festival that attracts visitors from across the country.

The local economy is driven by a mix of tourism, service industries, and small businesses, with a growing focus on sustainable development. The town offers a balance of urban amenities and cottage country charm, making it an ideal place for both year-round residents and seasonal visitors seeking a peaceful yet vibrant lifestyle in the heart of Ontario's cottage country.

The Town has experienced significant growth between the past two census years (2016-2021). During this period, the Municipality saw a 7.4% increase in population, resulting in 471 new residents. The demographic profile of the Municipality reveals an aging population, with 32% of residents over the ages of 65, which is significantly higher than the provincial average of 18.5%.

| Census Characteristic | Town of Parry Sound | Ontario |
|---|---|---|
| Population 2021 | 6,879 | 14,223,942 |
| Population Change 2016-2021 | 7.4% | 5.8% |
| Total Private Dwellings | 3,518 | 5,929,250 |
| Population Density | 524.9/km$^2$ | 15.9/km$^2$ |
| Land Area | 13.10 km$^2$ | 892,411.76 km$^2$ |

*Table 1 Town of Parry Sound Community Profile*

## 2.2 Climate Change

Climate change can cause severe impacts 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 time 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 Parry Sound Climate Profile

Parry Sound is nestled in Northern Ontario along the scenic shores of Georgian Bay, approximately 225 km north of Toronto. 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 Parry Sound may experience the following trends:

**Higher Average Annual Temperature:**

- Between the years 1971 and 2000 the annual average temperature was 5.6 ºC

- Under a high emissions scenario, the annual average temperatures are projected to increase to 8.3 ºC by the year 2050 and over 12.1 ºC by the end of the century.

**Increase in Total Annual Precipitation:**

- Under a high emissions scenario, Parry Sound is projected to experience a 14% increase in precipitation by the year 2050 and a 18% 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.

### 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 as a result of climate change impacts such as flooding, high heat, drought, and more frequent and intense storms.

In order 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.

The acquisition of capital assets accounts for only 10-20% of their total cost of ownership. The remaining 80-90% comes from operations and maintenance. This AMP focuses its analysis on the capital costs to maintain, rehabilitate and replace existing municipal infrastructure assets.

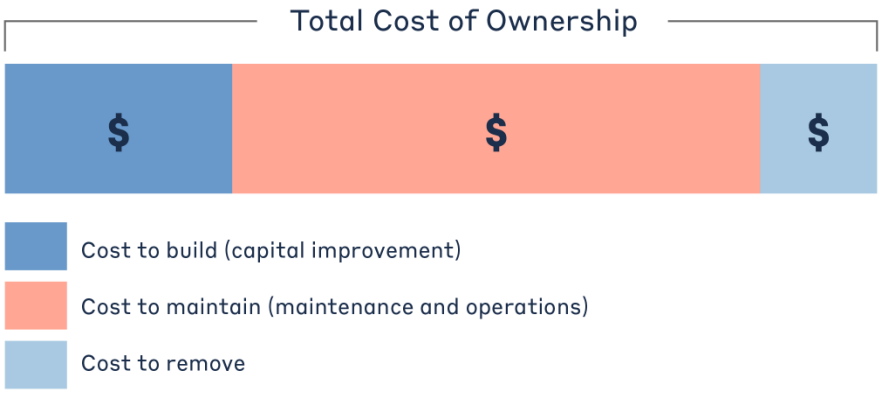



*Figure 3 Total Cost of Asset Ownership*

These costs can span decades, requiring planning and foresight to ensure financial responsibility is spread equitably across 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.

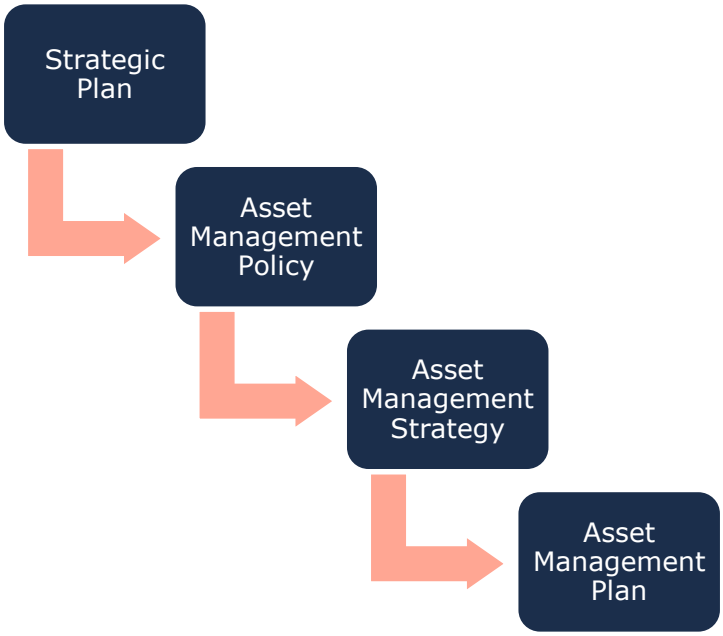



*Figure 4 Foundational Asset Management Documents*

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 the "Strategic Asset Management Policy" on July 1st, 2019 in accordance with Ontario Regulation 588/17.

The objectives of the policy include:

- Provide leadership and commitment to asset management
- Guide the consistent use of asset management across the organization
- Facilitate logical and evidence-based decision-making
- Support the delivery of sustainable community services now and in the future

### *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's Asset Management Policy contains many of the key components of an asset management strategy and may be expanded on in future revisions or as part of a separate strategic document.

### *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 an 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***<br>Activities that prevent defects or deteriorations from occurring | **$** | • Balancing limited resources between planned maintenance and reactive, emergency repairs and interventions;<br>• Diminishing returns associated with excessive maintenance activities, despite added costs;<br>• 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***<br>Activities that rectify defects or deficiencies that are already present and may be affecting asset performance | **$$$** | • Useful life may not be extended as expected;<br>• May be costlier in the long run when assessed against full reconstruction or replacement;<br>• Loss or disruption of service, particularly for underground assets; |

| Lifecycle Activity | Cost | Typical Associated Risks |
|---|---|---|
| ***Replacement/ Reconstruction***<br>Asset end-of-life activities that often involve the complete replacement of assets | **$$$$$** | • Incorrect or unsafe disposal of existing asset;<br>• Costs associated with asset retirement obligations;<br>• Substantial exposure to high inflation and cost overruns;<br>• Replacements may not meet capacity needs for a larger population;<br>• 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.

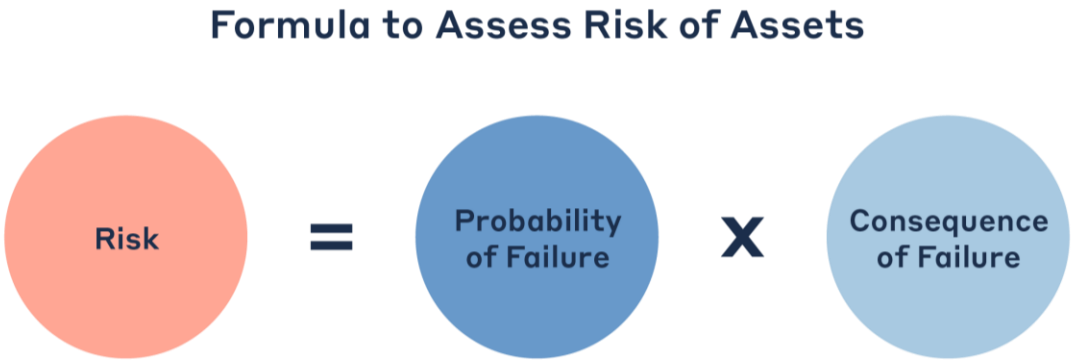



*Figure 5 Risk Equations*

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 is providing 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

This AMP focuses on measuring the current level of service provided to the community. Once current levels of service have been measured, the Town plans to establish proposed levels of service over a 10-year period, in accordance with O. Reg. 588/17.

Proposed levels of service should be realistic and achievable within the timeframe outlined by the Town. They should also be determined with consideration of a variety of community expectations, fiscal capacity, regulatory requirements, corporate goals and long-term sustainability. Once proposed levels of service have been established, and prior to July 2025, the Municipality must identify a lifecycle management and financial strategy which allows these targets to be achieved.

## 2.4 Scope & Methodology

### 2.4.1 Asset Categories for this AMP

This asset management plan for the Town of Parry Sound is produced in compliance with O. Reg. 588/17. The July 2024 deadline under the regulation—the second of three AMPs—requires analysis of core and non-core asset categories.

The AMP summarizes the state of the infrastructure for the Town's asset portfolio, establishes current 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.

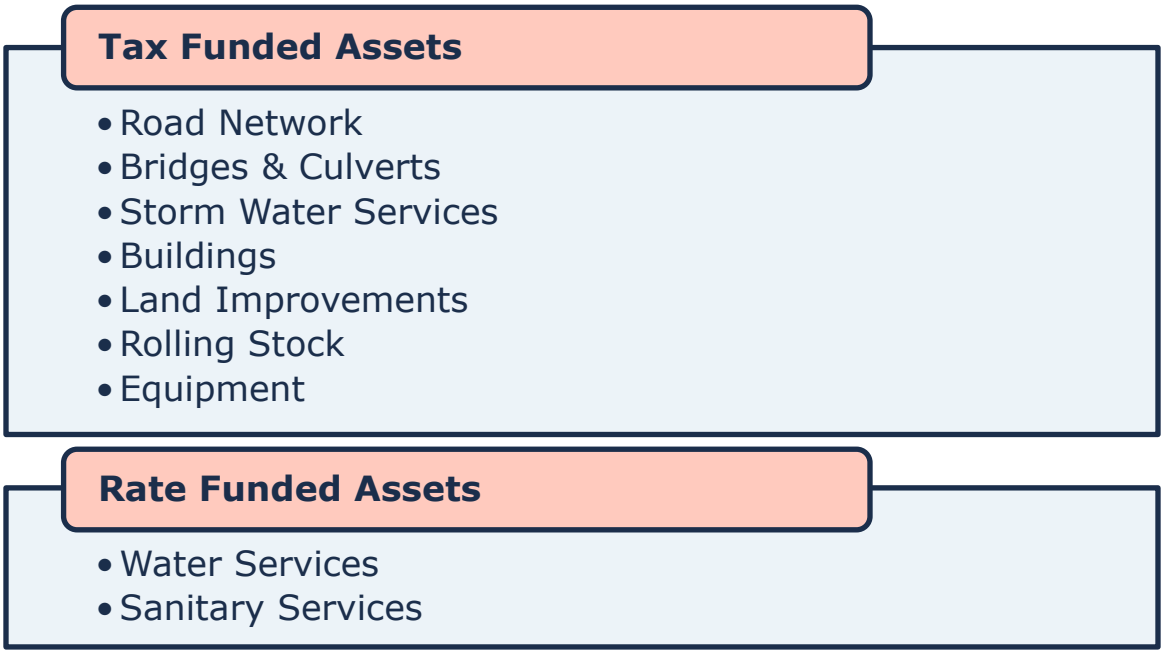



*Figure 6 Tax Funded and Rate Funded Asset Categories*

### 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 could 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*

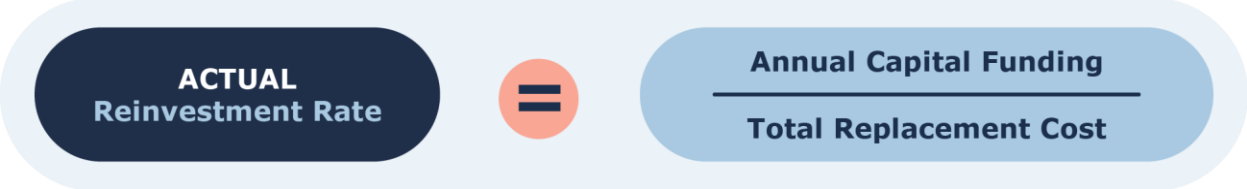



*Figure 9 Actual Reinvestment Rate Calculation*

### 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.

### *Condition vs. Suitability*

It is important to note that condition is only one aspect of determining an asset's suitability to providing the service intended. Other factors, such as capacity, should be considered on a category level.

For example, a Town Hall Office Facility may be in good condition with sufficient service life remaining, but only has office space for 20 employees. If the municipality requires office space for 30 employees, solutions should be considered which may include replacement amongst other alternatives such as secondary office space, remote work options, etc. As these considerations are nuanced for the specific asset, suitability factors may not be directly addressed as part of this Asset Management Plan.

## 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)[1]. Along with creating better performing organizations, more livable 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.

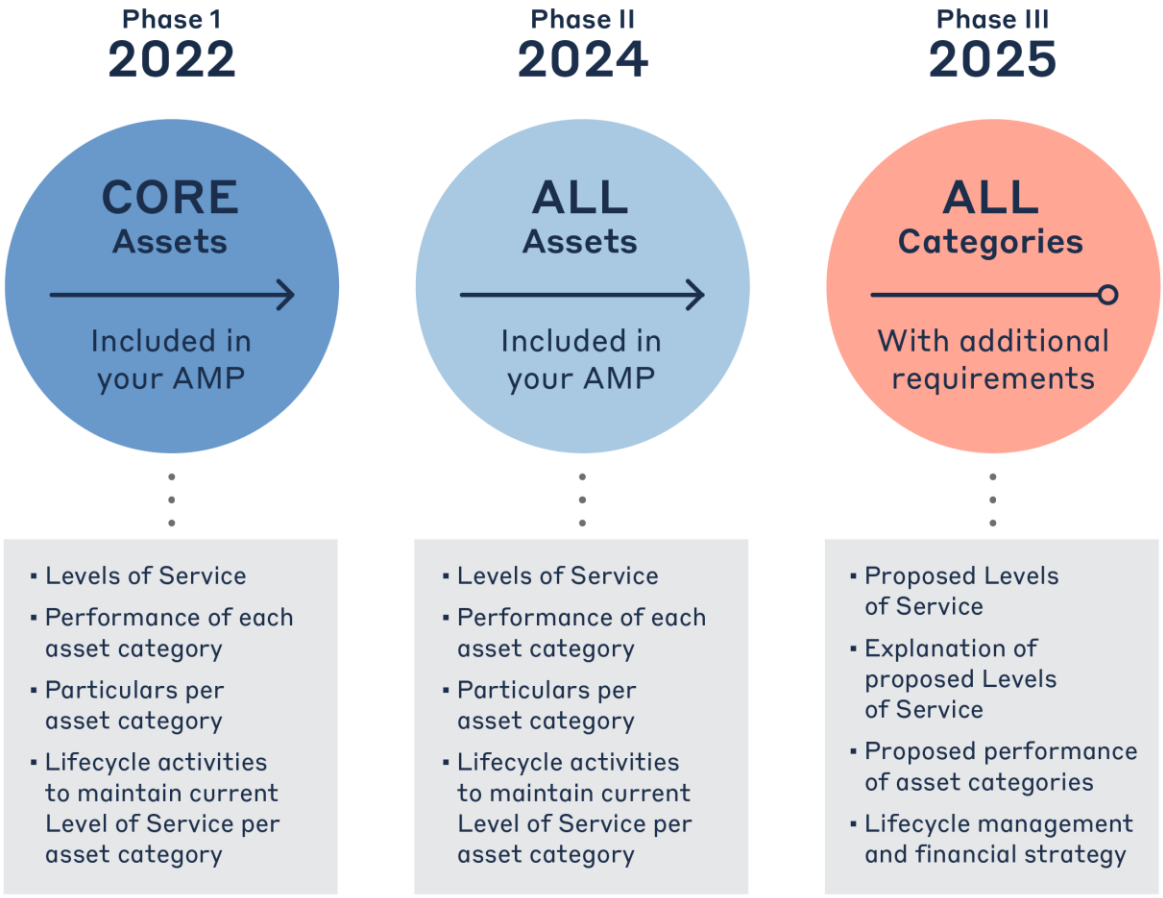



*Figure 10 O. Reg. 588/17 Requirements and Reporting Deadlines*

[1] 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 – 12.1 | Complete |
| Replacement cost of assets in each category | S.5(2), 3(ii) | 4.1 – 12.1 | Complete |
| Average age of assets in each category | S.5(2), 3(iii) | 4.3 – 12.3 | Complete |
| Condition of core assets in each category | S.5(2), 3(iv) | 4.2 – 12.2 | Complete |
| Description of municipality's approach to assessing the condition of assets in each category | S.5(2), 3(v) | 4.4 – 12.4 | Complete |
| Current levels of service in each category | S.5(2), 1(i-ii) | 4.7 – 12.7 | Complete |
| Current performance measures in each category | S.5(2), 2 | 4.7 – 12.7 | Complete |
| Lifecycle activities needed to maintain current levels of service for 10 years | S.5(2), 4 | 4.4 – 12.4 | Complete |
| Costs of providing lifecycle activities for 10 years | S.5(2), 4 | Appendix B | Complete |
| Growth assumptions | S.5(2), 5(i-ii)<br>S.5(2), 6(i-vi) | 13.1 – 13.2 | Complete |

*Table 5 O. Reg. 588/17 Compliance Review*

# 3. Portfolio Overview – 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 nine asset categories analyzed in this Asset Management Plan have a total current replacement cost of $515 million. This estimate was calculated using user-defined costing, as well as inflation of historical or original costs to current date. This estimate reflects replacement of historical assets with similar, not necessarily identical, assets available for procurement today. Figure 12 illustrates the replacement cost of each asset category; at 40% of the total portfolio, the road network forms the largest share of the Town's asset portfolio, followed by the sanitary services at 17%.

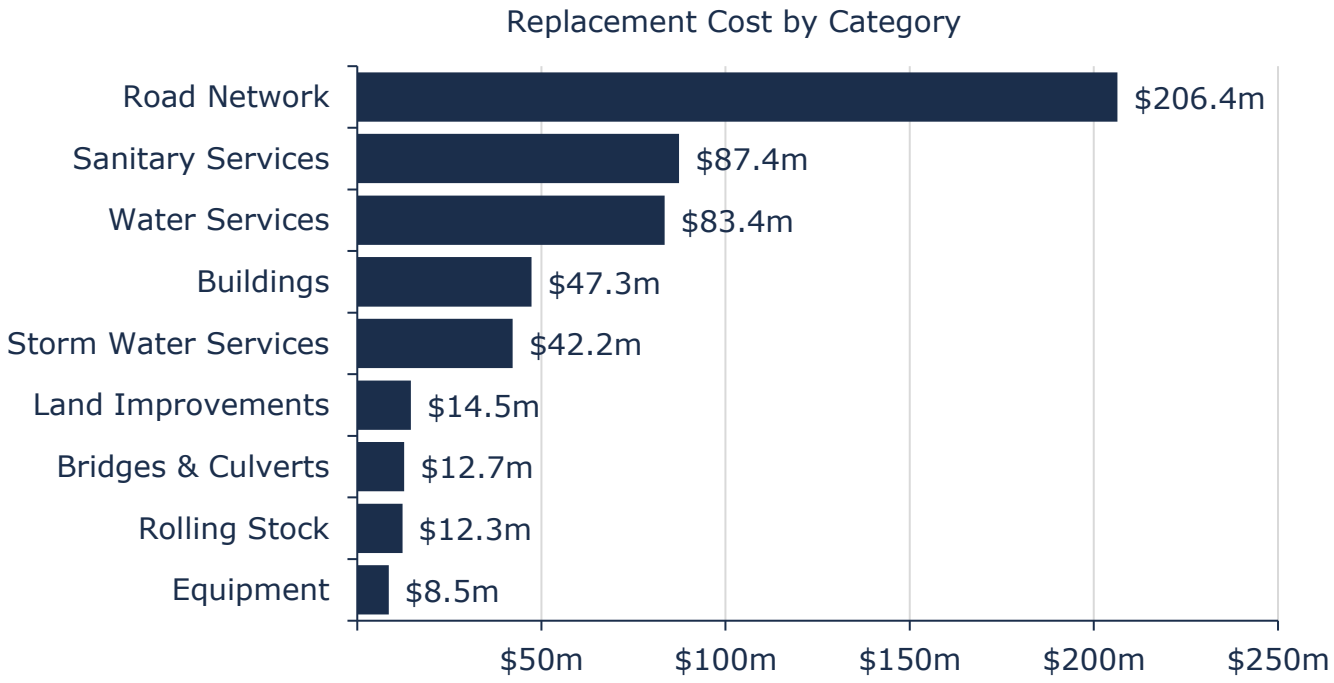



*Figure 12 Current Replacement Cost by Asset Category*

### 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 existing long-term capital requirements, the Town requires an annual capital investment of $17.5 million, for a target portfolio reinvestment rate of 3.4%. Currently, the annual investment from sustainable revenue sources is $14 million, for a current portfolio reinvestment rate of 2.7%. Target and current re-investment rates by asset category are detailed below.

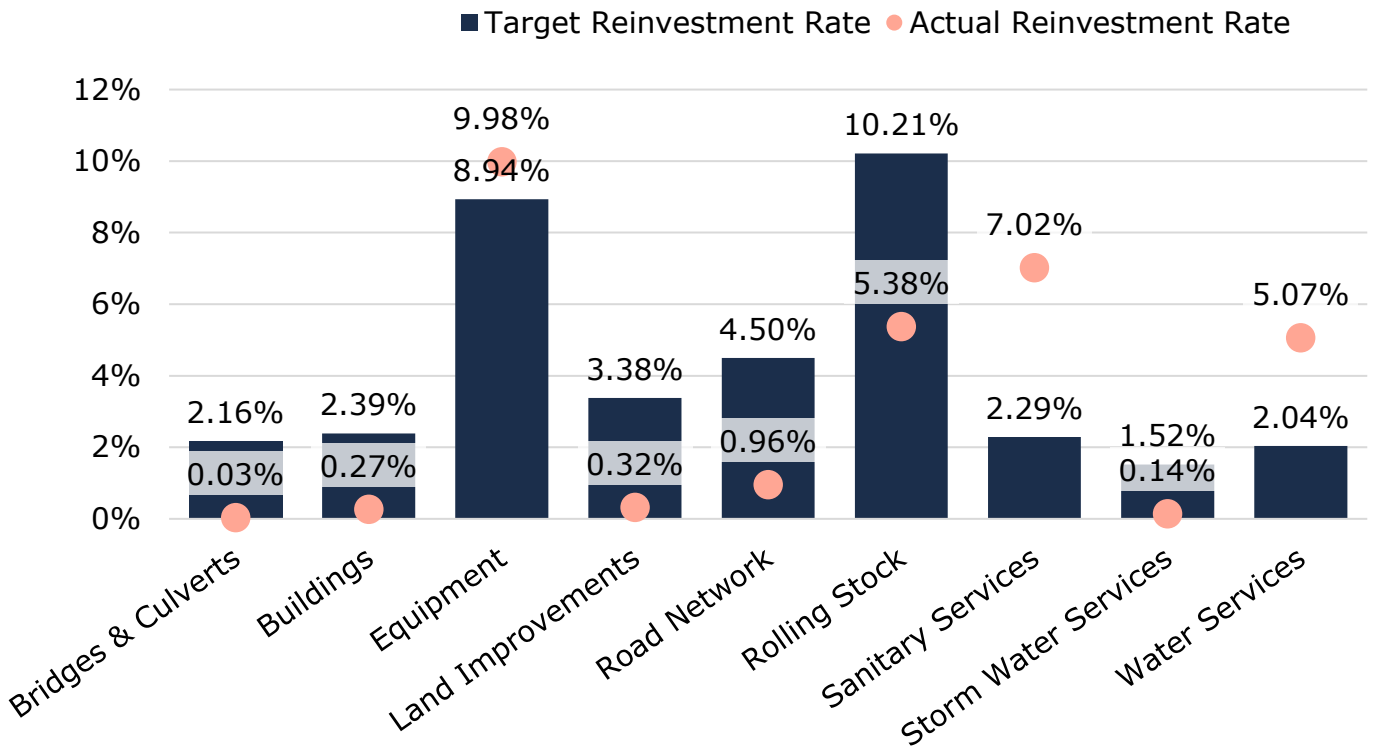



*Figure 13 Current Vs. Target Reinvestment Rate*

### 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, 56% of the Town's infrastructure portfolio is in fair or better condition, with the remaining 44% in poor or worse condition. Typically, assets in poor or worse condition 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.

Similarly, assets in fair condition should be monitored for disrepair over the medium term. Keeping assets in fair or better condition is typically more cost-effective than addressing assets needs when they enter the latter stages of their lifecycle or decline to a lower condition rating, e.g., poor or worse.

Condition data was available for majority of the road network, buildings and bridges & culverts. For all remaining assets, including major infrastructure such as storm mains and buildings, age was used as an approximation of

condition for most of these assets. Age-based condition estimations can skew data and lead to potential under- or overstatement of asset needs.

Further, when assessed condition data was available, it was projected to current year (2023). This 'projected condition' can generate lower condition ratings than those established at the time of the condition assessment. The rate of this deterioration will also depend on lifecycle curves used to project condition over time.

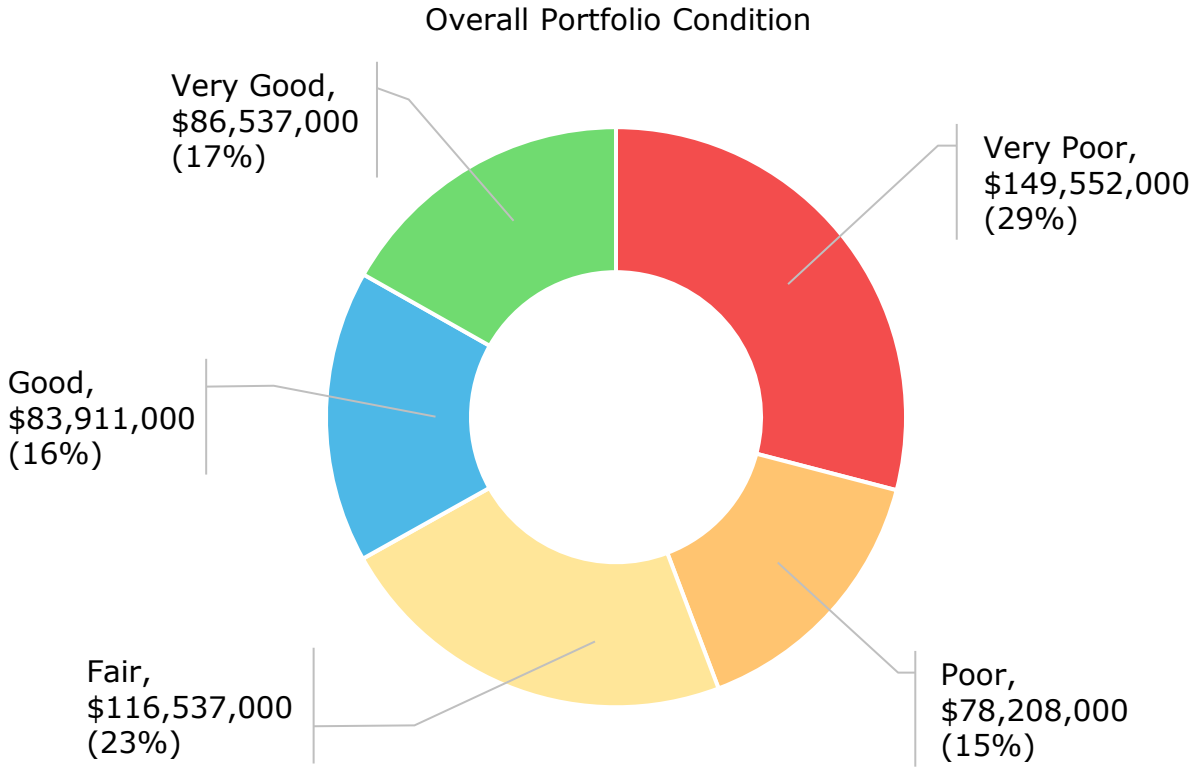



*Figure 14 Asset Condition: Portfolio Overview*

As further illustrated in Figure 15 at the category level, the majority of major, core infrastructure including roads, bridges, and structural culverts 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.

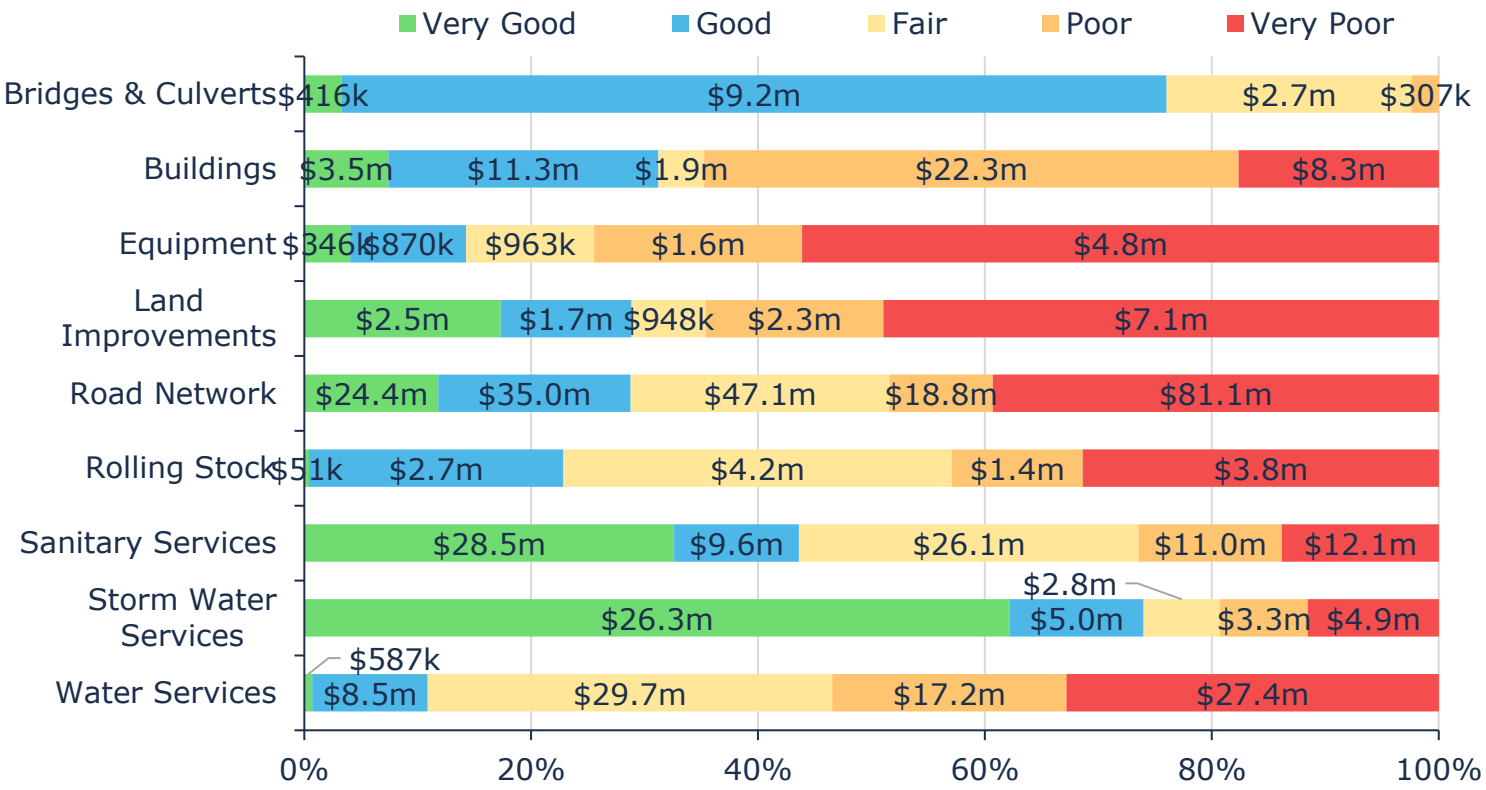



*Figure 15 Asset Condition by Asset Category*

Buildings and facilities are not componentized into their individual major elements and components. This limits the validity of current condition estimates as they are presented only at the 'parent' asset level, such as 'Fire Station #1', or 'Town Office'.

### *Source of Condition Data*

This AMP relies on assessed condition for 50% 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 | 65% | StreetScan Study |
| Bridges & Culverts | 100% | 2024 OSIM Report |
| Water Services | 28% | Staff Assessments |
| Sanitary Services | 49% | Staff Assessments |
| Storm Water Services | Age-Based | N/A |
| Buildings | 96% | Staff Assessments/Building Condition Assessments |
| Land Improvements | 3% | Staff Assessments |
| Rolling Stock | 16% | Staff Assessments |
| Equipment | Age-Based | N/A |

*Table 6 Source of Condition Data*

### 3.2.4 Service Life Remaining

Based on asset age, available assessed condition data and estimated useful life, 25% of the Town's assets will require replacement within the next 10 years (not accounting for asset replacement backlog). Details of the capital requirements are identified in each asset section.

### 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.

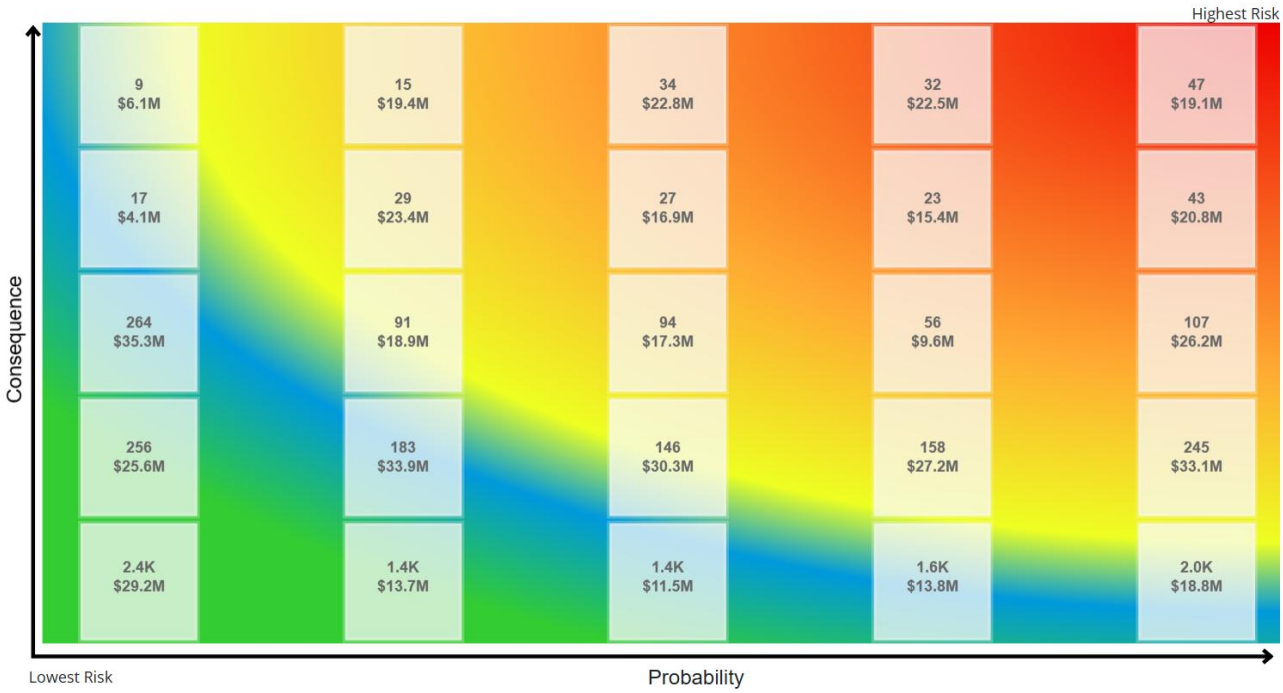



*Figure 16 Risk Matrix: All Assets*

The analysis shows that based on current risk models, approximately 24% of the Town's assets, with a current replacement cost of approximately $122 million, carry a risk rating of 15 or higher (red) out of 25. Assets in this group may have a high probability of failure based on available condition data and age-based estimates and were considered to be most essential to the Town.

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 consequence 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 80-year time horizon. On average, $17.5 million is required each year to remain current with capital replacement needs for the Town's asset portfolio, represented by the red dotted line. 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.


*Figure 17 Capital Replacement Needs: Portfolio Overview 2025-2104*

The chart also illustrates a backlog of more than $75 million, comprising 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. 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.

# Core Assets

## Road Network

| Replacement Cost | Average Condition | Financial Capacity | |
|---|---|---|---|
| **$206.4 m** | **Fair** | Annual Requirement: | $9.286,000 |
| | | Funding Available: | $1.974,000 |
| | | **Annual Deficit:** | **$7,312,000** |

## Bridges & Culverts

| Replacement Cost | Average Condition | Financial Capacity | |
|---|---|---|---|
| **$12.7 m** | **Good** | Annual Requirement: | $275,000 |
| | | Funding Available: | $4,000 |
| | | **Annual Deficit:** | **$271,164** |

## Water Services

| Replacement Cost | Average Condition | Financial Capacity | |
|---|---|---|---|
| **$83.4 m** | **Fair** | Annual Requirement: | $1,702,000 |
| | | Funding Available: | $1,213,000 |
| | | **Annual Deficit:** | **$489,000** |

## Sanitary Services

| Replacement Cost | Average Condition | Financial Capacity | |
|---|---|---|---|
| **$87.4 m** | **Fair** | Annual Requirement: | $1,998,000 |
| | | Funding Available: | $1,878,000 |
| | | **Annual Deficit:** | **$120,000** |

## Storm Water Services

| Replacement Cost | Average Condition | Financial Capacity | |
|---|---|---|---|
| **$42.2 m** | **Good** | Annual Requirement: | $641,000 |
| | | Funding Available: | $59,000 |
| | | **Annual Deficit:** | **$582,000** |

# 4. Road Network

The Road Network is a critical component of the provision of safe and efficient transportation services and represents the highest value asset category in the Town's asset portfolio. It includes all Town owned and maintained roadways in addition to supporting roadside infrastructure including guiderails, sidewalks, signal lights and street lights.

## 4.1 Inventory & Valuation

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

| Segment | Quantity | Unit of Measure | Replacement Cost | Primary RC Method |
|---|---|---|---|---|
| Guiderails | 5 | Quantity | $57,000 | CPI |
| Sidewalks | 44,752 | $m^2$ | $17,856,000 | Cost/Unit |
| Signal Lighting | 22 | Quantity | $1,767,000 | CPI |
| Street Lighting | 1,270 | Quantity | $1,480,000 | CPI |
| Sub-Surface | 54,014 | m | $69,299,000 | Cost/Unit |
| Surface | 55,515 | m | $115,969,000 | Cost/Unit |
| **TOTAL** | | | **$206,429,000** | |

*Table 7 Detailed Asset Inventory: Road Network*

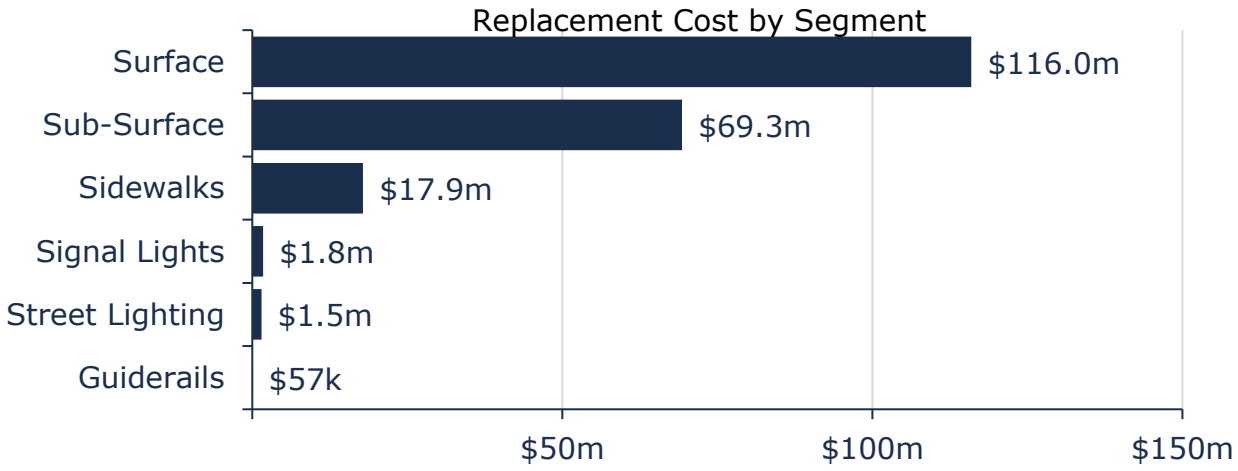



*Figure 18 Portfolio Valuation: Road Network*

## 4.2 Asset Condition

Figure 19 summarizes the replacement cost-weighted condition of the Town's road network. Based on a combination of field inspection data and age, 52% of assets are in fair or better condition; the remaining 48% of assets are in poor to very poor condition. Condition assessments were available for 70% of roads and 93% of sidewalks, based on replacement cost. This condition data was projected from inspection date to current year to estimate their condition today. No condition data was available for the remaining asset types.

Assets in poor or worse condition 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 illustrated in Figure 19, the majority of the Town's road network assets are in fair or better condition.

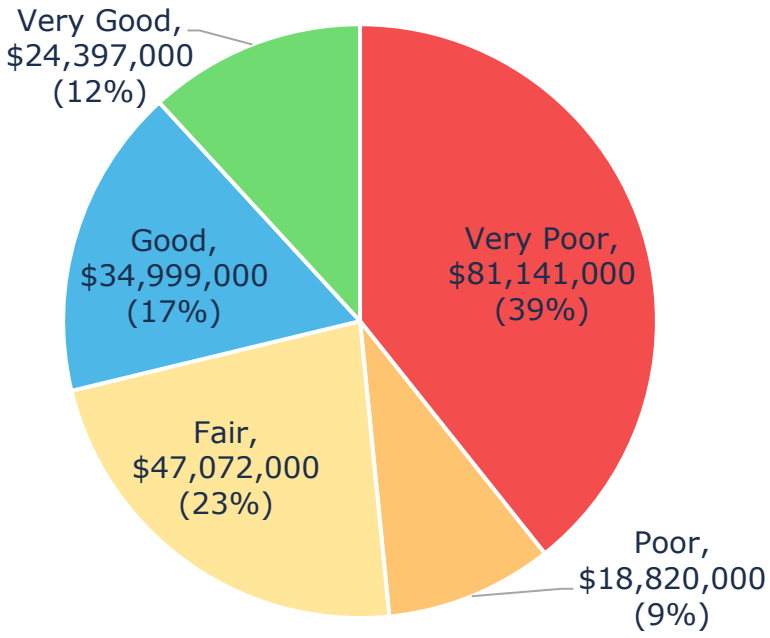



*Figure 19 Asset Condition: Road Network Overall*

As illustrated in Figure 20, based on condition assessments, the majority of the Town's road surfaces are in fair or better condition; however, 87% of the sub-surfaces are in poor or worse condition.

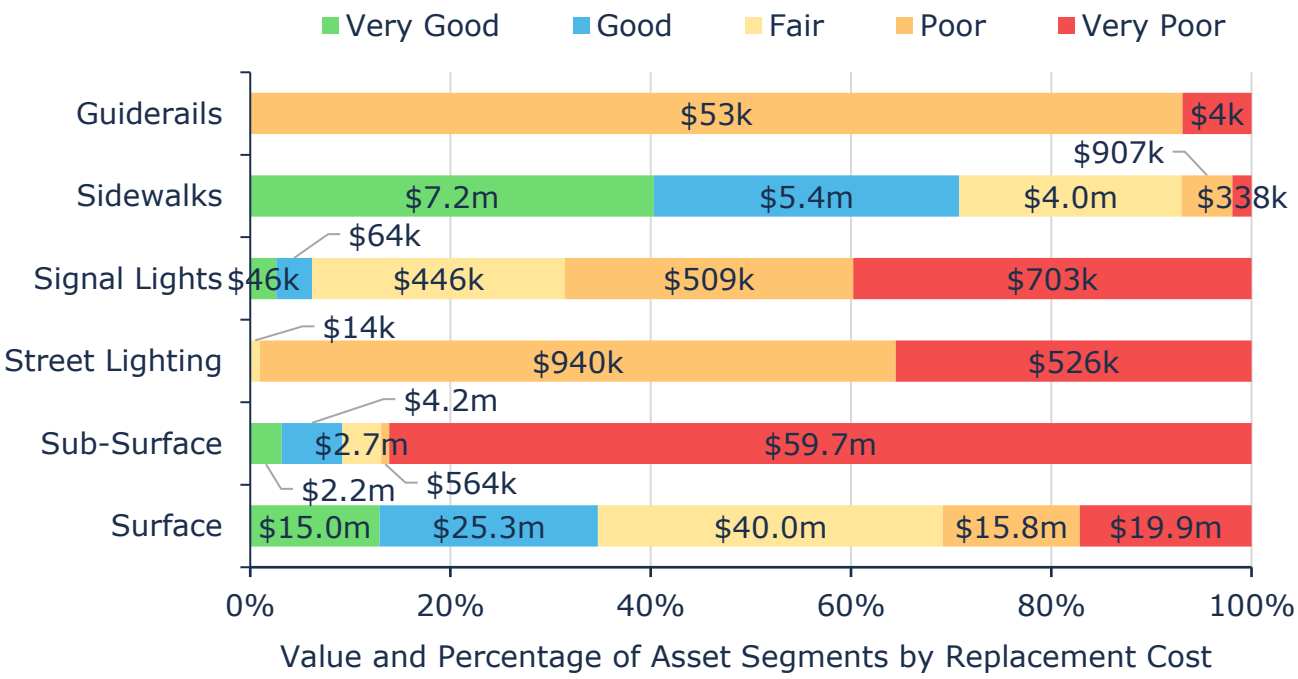



*Figure 20 Asset Condition: Road Network by Segment*

## 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.

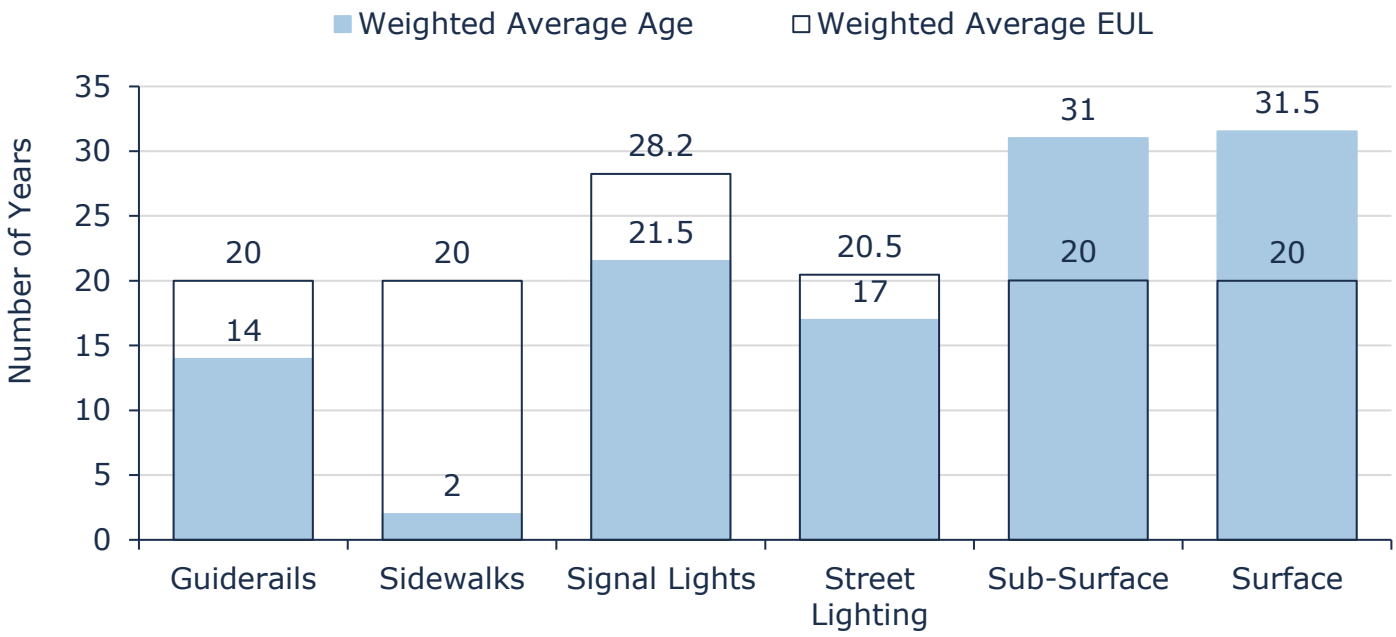



*Figure 21 Estimated Useful Life vs. Asset Age: Road Network*

Age analysis shows that the majority of roads have surpassed their expected useful life, with an average age of 31 years against a design life of 20 years. Guiderails, sidewalks, signal lights and street lighting are currently within their expected useful lives, with street lighting quickly approaching their proposed end of life.

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

The condition or performance of most assets will deteriorate over time. This process is affected by a range of factors including an asset's characteristics, location, utilization, maintenance history and environment.

The following lifecycle strategies have been developed as a proactive approach to managing the lifecycle of paved roads and tar and chip roads. Instead of allowing the roads to deteriorate until replacement is required, strategic rehabilitation is expected to extend the service life of roads at a lower total cost.

| Paved Roads | | |
|---|---|---|
| **Event Name** | **Event Class** | **Event Trigger** |
| Asphalt Patching & Pothole Repairs | General Maintenance | As needed |
| Crack Sealing | Preventative Maintenance | Every 5 years[2] |
| Pulverize & Pave (1st Treatment) | Rehabilitation | Condition: 45 - 55 |
| Pulverize & Pave (2nd Treatment) | Rehabilitation | Condition: 45 - 55 |
| Full Reconstruction | Replacement | Condition: 20 |

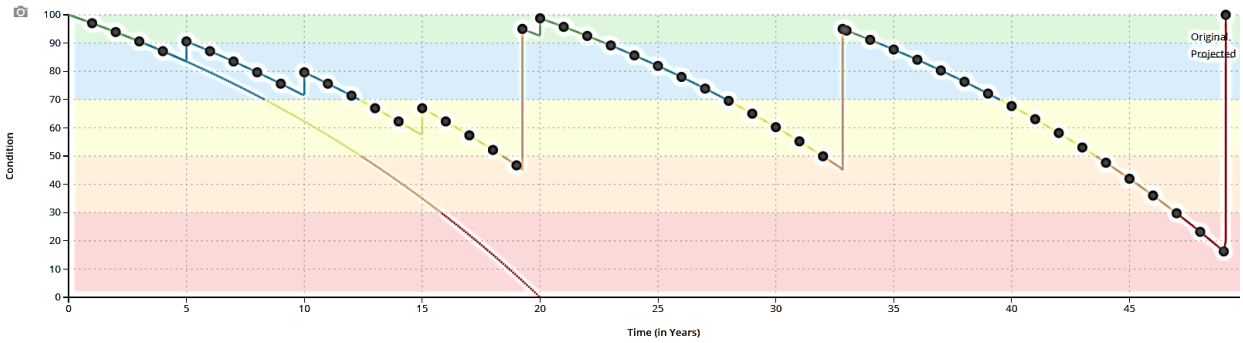



*Table 8 Lifecycle Management Strategy: Road Network (Paved Roads)*

| Tar & Chip Roads | | |
|---|---|---|
| **Event Name** | **Event Class** | **Event Trigger** |
| Cold Patch & Slurry Seal | Preventative Maintenance | Year 2 and every 7 years after |
| Single Lift Surface Treatment | Rehabilitation | Age: every 7 years |
| Full Reconstruction | Replacement | Condtion: 20 |

*Table 9 Lifecycle Management Strategy: Road Network (Tar & Chip Roads)*

[2] Crack sealing is not effective once the surface exceeds 20 years of useful life.

The following table expands on inspection activities for road network assets.

| Activity Type | Description of Current Strategy |
|---|---|
| Inspection | Road patrols are conducted regularly and based on the minimum maintenance standards (MMS) and specific design classes. |
| | The frequency of patrols varies by season. During the winter season, class 3 roads are inspected daily, and class 4-6 roads are inspected at least once a week. |
| | A streetscan study of the road network including road surfaces and sidewalks was completed in 2023 by external contractors. |

*Table 10 Lifecycle Management Strategy: Road Network*

## 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. This analysis was run until 2054 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Town's primary asset management system and asset register. The Town's average annual requirements (red dotted line) total $9.3 million for all assets in the road network. 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.

The chart illustrates substantial capital needs throughout the forecast period. It also shows a backlog of $43.4 million. These projections are based on asset replacement costs, age analysis, and condition data when available, as well as lifecycle modeling (roads only). 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.

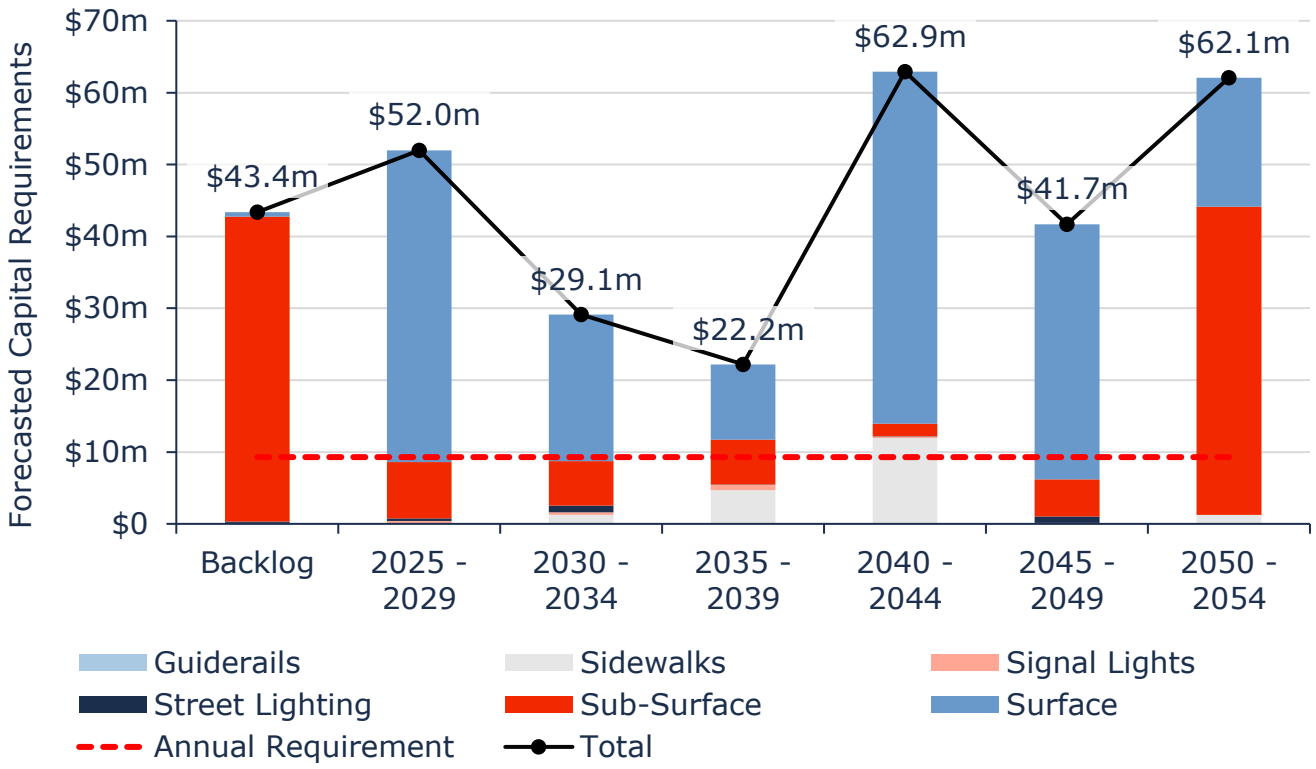



*Figure 22 Forecasted Capital Replacement Needs: Road Network 2025-2054*

Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. Regular pavement condition assessments and a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

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, and road class. The risk ratings for assets without useful attribute data were calculated using only condition, 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.

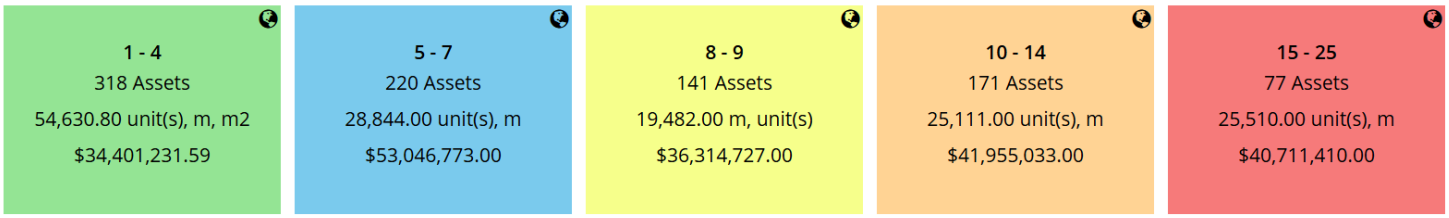



*Figure 23 Risk Matrix: Road Network*

## 4.7 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 | The Town is responsible for approximately 106 kilometres of road network comprised of paved roads, gravel lanes, and pedestrain passages. The majority of roads in the Town are designated as Class 5 roads, as per O. Reg. 239/02, and are composed of asphalt. Refer to Appendix C for map references. |

| Service Attribute | Qualitative Description | Current LOS (2024) |
|---|---|---|
| Performance | Description of minimum maintenance standards for road network (road surfaces and sidewalks) and Winter Maintenance Level of Service Policy | The Town follows provincial mininmum maintenance standards for municipal roads and sidewalks. "ONTARIO REGULATION 366/18 MINIMUM MAINTENANCE STANDARDS FOR MUNICIPAL HIGHWAYS" This Regulation sets out the minimum standards of repair for highways and sidewalks under municipal jurisdictions. |
| | Description of the lifecycle activities (maintenance, rehabilitation and replacement) performed on the road network | The current lifecycle strategy deployed by the Town is mainly reactive, although staff are committed to developing a more proactive strategy for paved roads. Currently, lifecycle activities consist of general maintenance activities (such as asphalt patching, pothole repairs, and other activities to satisfy the MMS requirements), rehabilitation activities (such as pulverize and pave) and road reconstruction. |
| Quality | Description or images that illustrate the different levels of road class pavement condition | The current condition of the Town's road network relies on assessed condition from a comprehensive road assessment performed in 2023. 52% of the road network is in fair or better condition and 48% in poor or very poor condition. The majority of the town's sidewalk inventory (93%) is estimated to be in fair or better condition, with only 7% in poor or worse condition. |

*Table 11 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/km$^2$) | 0 km/km$^2$ |
| | Lane-km of collector roads (MMS classes 3 and 4) per land area (km/km$^2$) | 1.8 km/km$^2$ |
| | Lane-km of local roads (MMS classes 5 and 6) per land area (km/km$^2$) | 2.01 km/km$^2$ |
| Quality | Average pavement condition index for paved roads in the Town | 59% |
| | Average surface condition for unpaved roads in the Town (e.g. excellent, good, fair, poor) | N/A |
| | Average condition for sidewalks in the municipality | 79% |
| Performance | Current vs. Target Capital Reinvestment Rate | 1.0% vs. 4.5% |

*Table 12 O. Reg. 588/17 Technical Levels of Service: Road Network*

# 5. Bridges & Culverts

Bridges & Culverts (over 3m) represent a critical portion of the transportation services provided to the community. The Transportation and Environmental Services Department is responsible for the maintenance of all bridges and culverts located across Town roads, with the goal of keeping structures in an adequate state of repair and minimizing service disruptions.

## 5.1 Inventory & Valuation

Table 13 summarizes the quantity and current replacement cost of bridges and culverts.

| Segment | Quantity | Unit of Measure | Replacement Cost | Primary RC Method |
|---|---|---|---|---|
| Bridges | 6 | Quantity | $12,261,000 | CPI |
| Culverts | 8 | Quantity | $450,000 | CPI |
| **TOTAL** | | | **$12,710,000** | |

*Table 13 Detailed Asset Inventory: Bridges & Culverts*

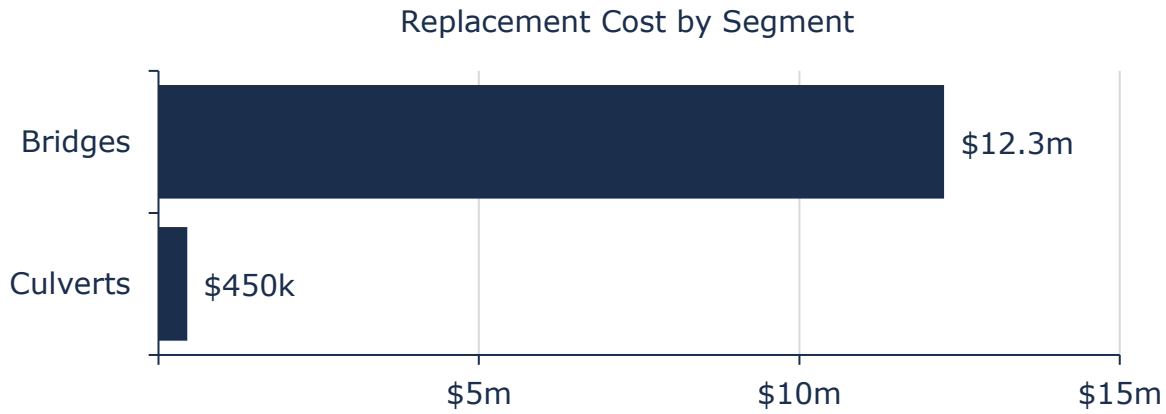



*Figure 24 Portfolio Valuation: Bridges & Culverts*

## 5.2 Asset Condition

Figure 25 summarizes the replacement cost-weighted condition of the Town's bridges and culverts. Based on the Town's recent Ontario Structures Inspection Manual (OSIM) assessments, 98% bridges and culverts are in fair or better condition. Some elements or components of these structures may be candidates for replacement or rehabilitation in the medium term and

should be monitored for further degradation in condition. At 2% of the total bridges and culverts portfolio, assets in poor or worse condition may require replacement in the immediate or short term.

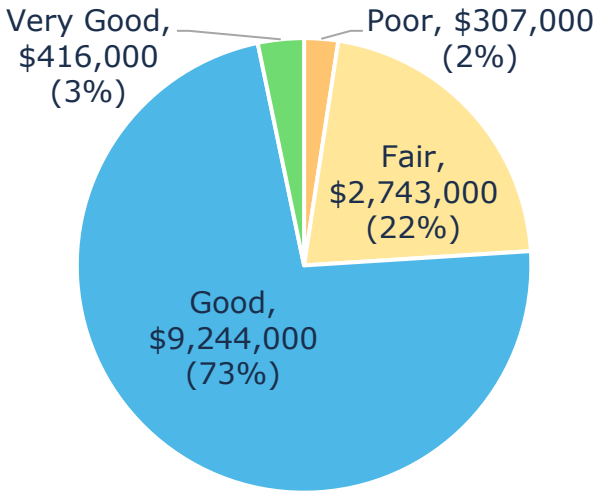



*Figure 25 Asset Condition: Bridges & Culverts Overall*

As further detailed in Figure 26, based on in-field condition assessments, 96% of bridge and culvert assets were identified in fair of better condition. As bridges and structures reach a poor or worse rating (i.e., a bridge condition index of less than 40), they are not necessarily unsafe for regular use, individual circumstances must be considered. The OSIM ratings are designed to identify repairs needed to elevate condition ratings to a fair or higher.

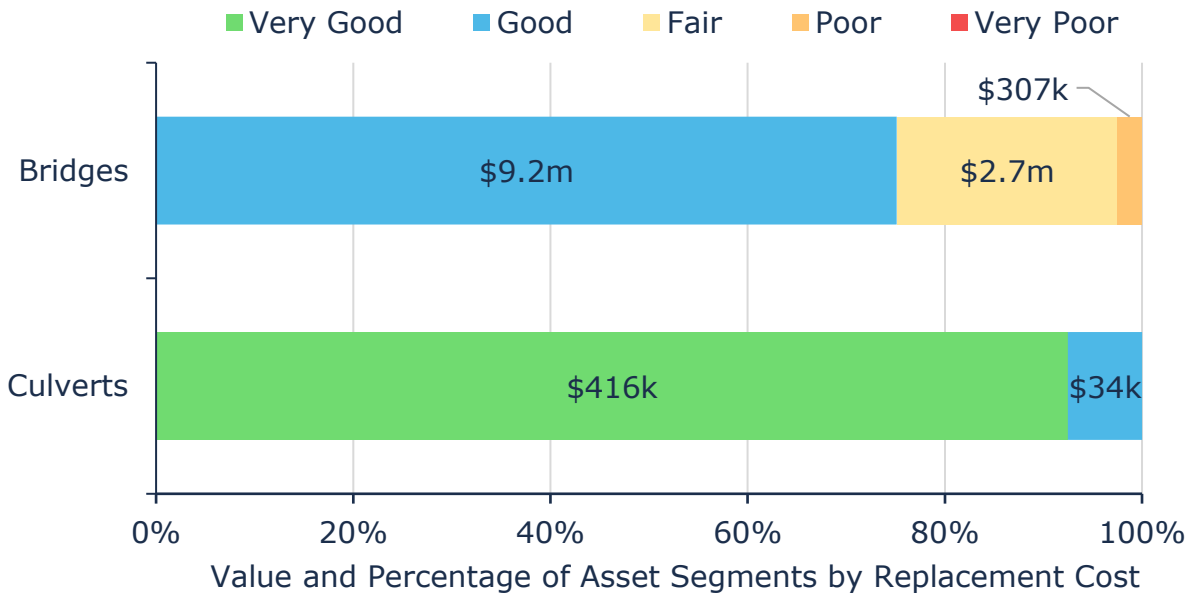



*Figure 26 Asset Condition: Bridges & Culverts by Segment*

## 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 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.

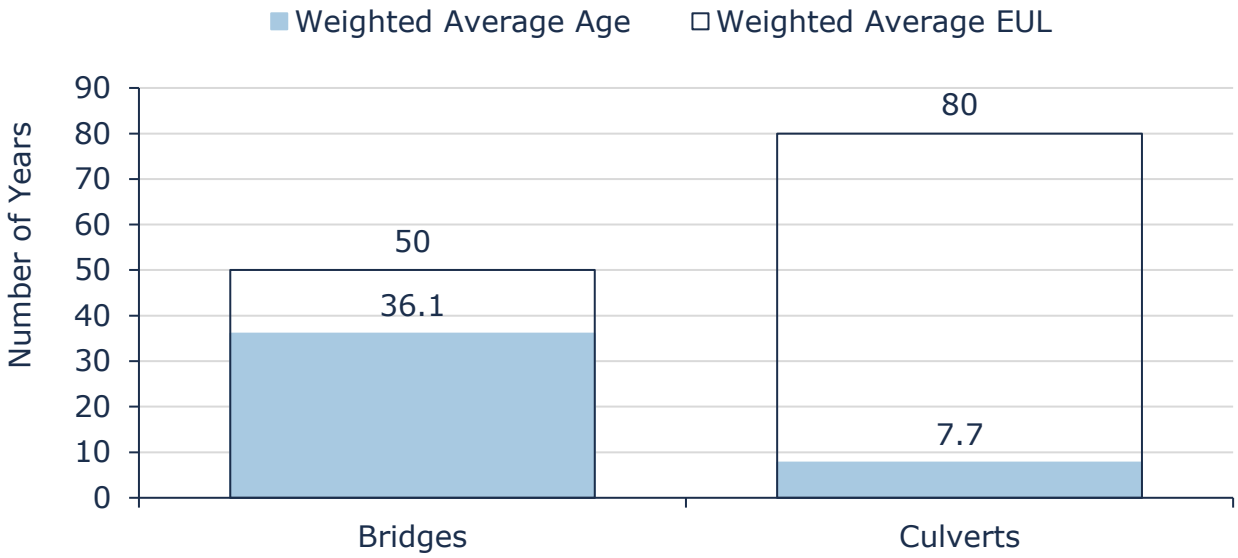



*Figure 27 Estimated Useful Life vs. Asset Age: Bridges & Culverts*

Age analysis reveals that on average; bridges have an average age of 36.1 years against an average EUL of 50 years. On average, culverts are in early stages of their lifecycle, with an average age of 7.7 years, against an average EUL of 80 years. OSIM assessments should continue to be used in conjunction with age and asset criticality to prioritize capital and maintenance expenditures.

## 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 |
|---|---|
| Inspection | The most recent OSIM report was completed in 2024 by C.C. Tatham and Associates Ltd. The assessed condition data as well as the recommended lifecycle activities from the report are used to inform decision making and are a part of budget deliberations. |
| | An informal internal inspection occurs seasonally and involves a visual inspection of the structures. |
| Maintenance | Typical maintenance include:<br>• Annual washing/cleaning/ spraying of various structural elements (expansion joints, deck, deck drains, curbs, bearings)<br>• Surface patching, sidewalk maintenance and minor repairs<br>• Removal of corrosion from exposed steel surfaces and priming/painting/coating of steel<br>• Removal of debris and obstructions |
| | The inspection report includes a list of recommended maintenance activities that the Town considers and completes according to cost and urgency. |
| Rehabilitation/ Replacement | Rehabilitation and replacement activities are based on the engineer recommended activities within the OSIM report and completed according to budget constraints and urgency. |

*Table 14 Lifecycle Management Strategy: Bridges & Culverts*

## 5.5 Forecasted Long-Term Replacement Needs

Figure 28 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's bridges and culverts. This analysis was run until 2000 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Town's primary asset management system and asset register. The Town's average annual requirements (red dotted line) for bridges and culverts total $275,000. 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.

These projections and estimates are based on asset replacement costs, age analysis, and condition data. 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.

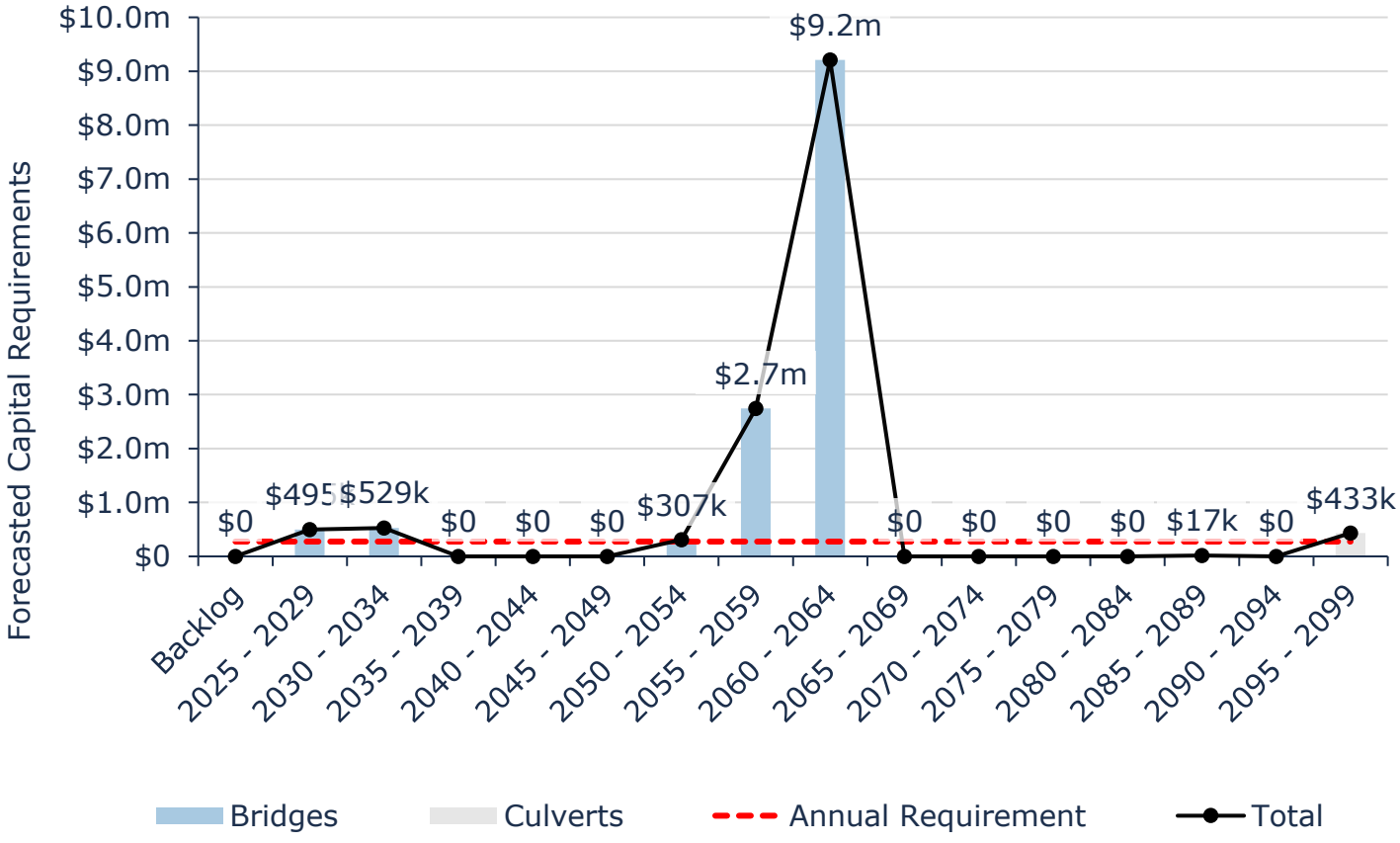



*Figure 28 Forecasted Capital Replacement Needs: Bridges & Culverts 2025-2099*

Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. OSIM condition assessments and a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

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

## 5.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, service life remaining, and 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.

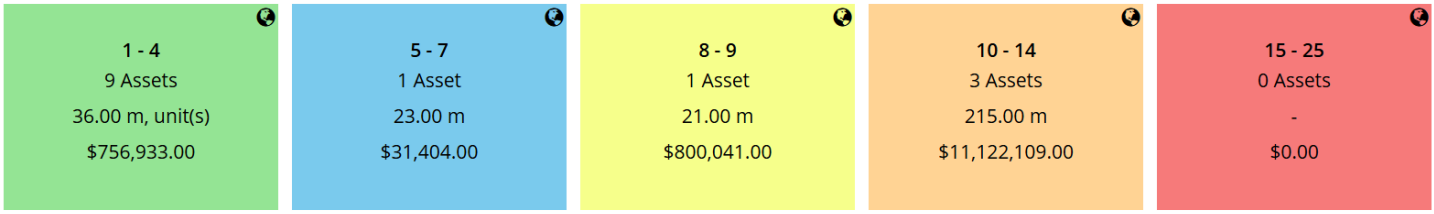



*Figure 29 Risk Matrix: Bridges & Culverts*

## 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 of the traffic that is supported by municipal bridges (e.g., heavy transport Rolling Stock, motor Rolling Stock, emergency Rolling Stock, pedestrians, cyclists) | The Town is responsible for 6 structural assets that have spans of 3 meters or greater that support multi-model transportation. |
| Performance | Description of the OSIM inspection process | O. Reg. 104/97 requires any bridge or culvert with a span of 3m or greater to be inspected at least once in every second calendar year based on the Ontario Structure Inspection Manual (OSIM) by a certified engineer. |
| | Description of the lifecycle activities (maintenance, rehabilitation, and replacement) performed on bridges & culverts | For repair, rehabilitation, and reconstruction activities for bridges and culverts over 3m in span, the Town relies on OSIM (Ontario Structural Inspection Manual) structural inspections completed every 2 years. The Town follows the provincial minimum maintenance standards for municipal bridges. "ONTARIO REGULATION 366/18 MINIMUM MAINTENANCE STANDARDS FOR MUNICIPAL HIGHWAYS" |
| Quality | Description or images of the condition of bridges & culverts and how this would affect use of the bridges & culverts | The Town's transportation and pedestrian network connectivity is highly dependent on critical water and railway crossings. Without the proper maintenance and repair of the Town's bridge and culvert structures the levels of service provided by the transportation |

| Service Attribute | Qualitative Description | Current LOS (2024) |
|---|---|---|
| | | network would be severely affected. The Town's bi-annual OSIM reports contain information and images the describe the current condition of bridge and culvert assets.<br>98% of all bridges and culverts over 3m in diameter are in fair or better condition. The remaining 2% are estimated to be in poor or worse condition. |

*Table 15 O. Reg. 588/17 Community Levels of Service: Bridges & Culverts*

### 5.7.2 Technical Levels of Service

| Service Attribute | Technical Metric | Current LOS (2024) |
|---|---|---|
| Scope | % of bridges in the Town with loading or dimensional restrictions | 0% |
| Availability | # of unplanned bridge closures | 0 |
| | # of planned bridge closures | 0 |
| Quality | Average bridge condition index value for bridges in the Town | 74% |
| | Average bridge condition index value for structural culverts in the Town | 91% |
| Performance | Current vs. Target capital reinvestment rate | 0.03% vs. 2.16% |

*Table 16 O. Reg. 588/17 Technical Levels of Service: Bridges & Culverts*

# 6. Water Services

The Town is responsible for owning and maintaining a water network of 78 kms of water mains, hydrants, booser stations, equipment, water towers, a water treatment plan and water valves.

## 6.1 Inventory & Valuation

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

| Segment | Quantity | Unit of Measure | Replacement Cost | Primary RC Method |
|---|---|---|---|---|
| Hydrants | 329 | Quantity | $1,735,000 | Cost/Unit |
| Water Booster Station | 6 | Quantity | $696,000 | CPI |
| Water Equipment | 432 | Quantity | $1,696,000 | CPI |
| Water Tower | 6 | Quantity | $6,277,000 | CPI |
| Water Treatment Plant | 1 (29) | Quantity | $16,525,000 | CPI |
| Water Valves | 678 | Quantity | $2,067,000 | Cost/Unit |
| Watermains | 78,050 | m | $54,413,000 | Cost/Unit |
| **TOTAL** | | | **$83,411,000** | |

*Table 17 Detailed Asset Inventory: Water Services*

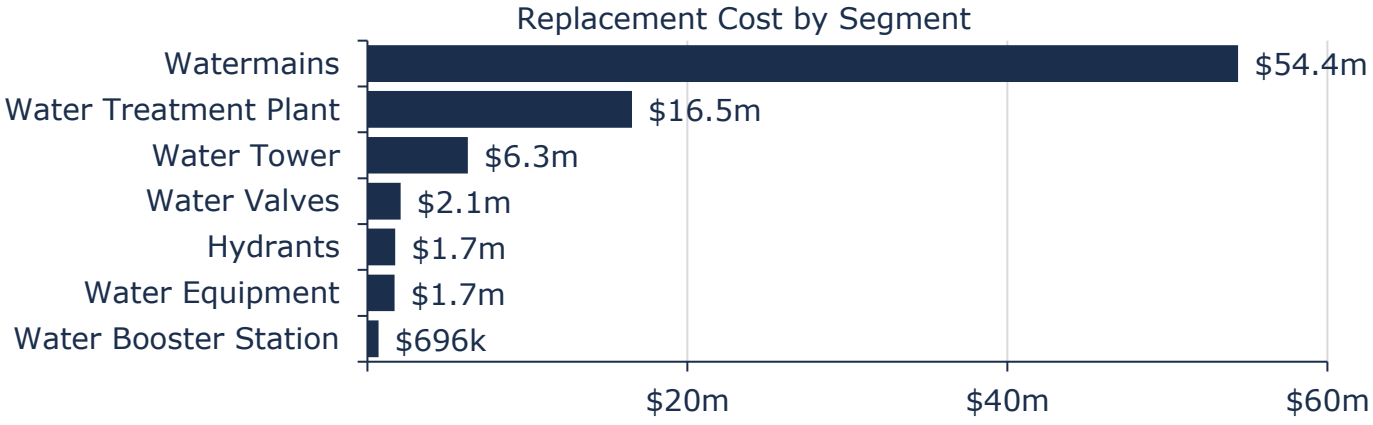



*Figure 30 Portfolio Valuation: Water Services*

## 6.2 Asset Condition

Figure 31 summarizes the replacement cost-weighted condition of the Town's Water Services. Based on a combination of field inspection data and age, 47% of assets are in fair or better condition; the remaining 53% of assets are in poor to very poor condition. Condition assessments were available for 100% of water booster stations, water tower, and water treatment plant, based on replacement cost. This condition data was projected from inspection date to current year to estimate their condition today. No condition data was available for the remaining asset segments.

Assets in poor or worse condition 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 illustrated in Figure 31, the majority of the Town's Water Services assets are in poor or worse condition.

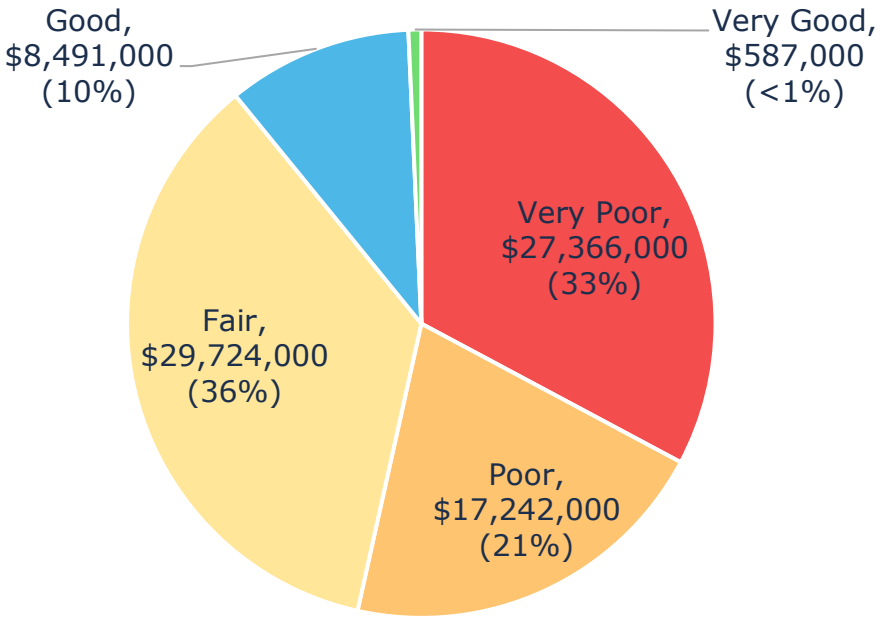



*Figure 31 Asset Condition: Water Services Overall*

As illustrated in Figure 32, based on condition assessments and age-based conditions, the majority of the Town's water booster stations are in fair condition; however, 56% of water mains are in poor or worse condition.

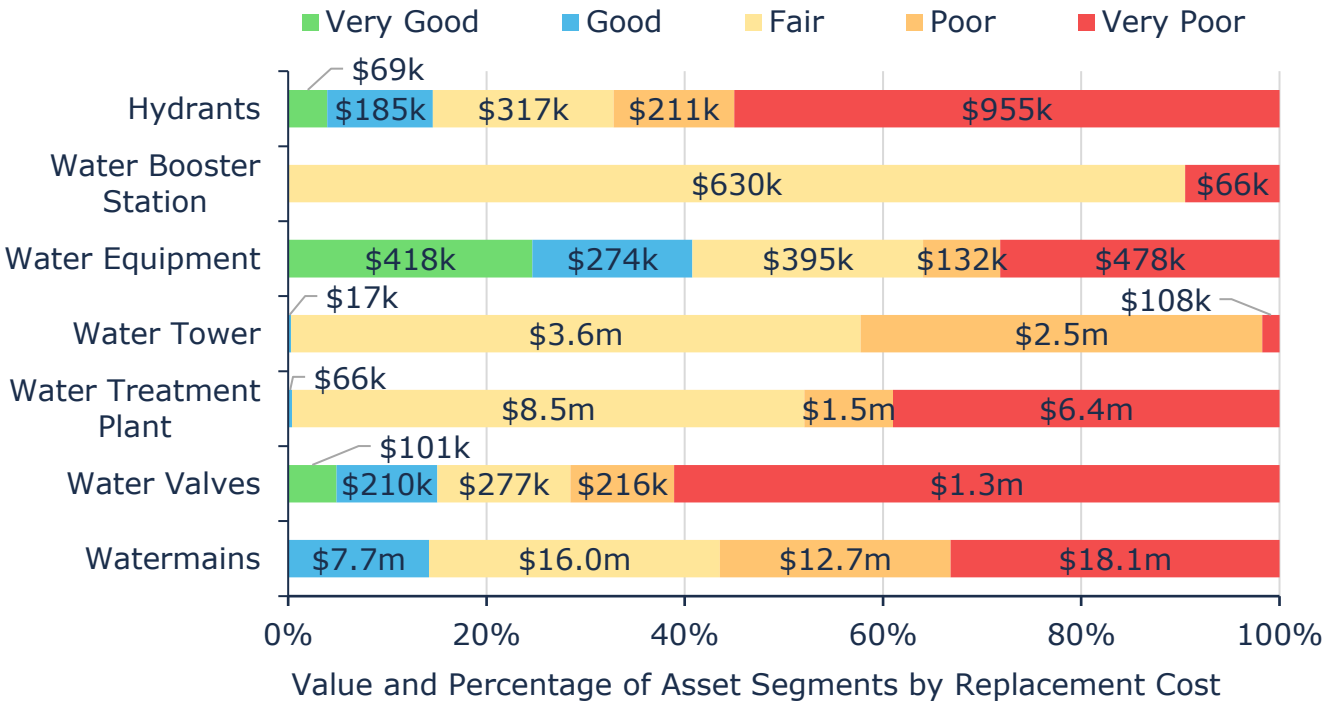



*Figure 32 Asset Condition: Water Services by Segment*

## 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 33 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.

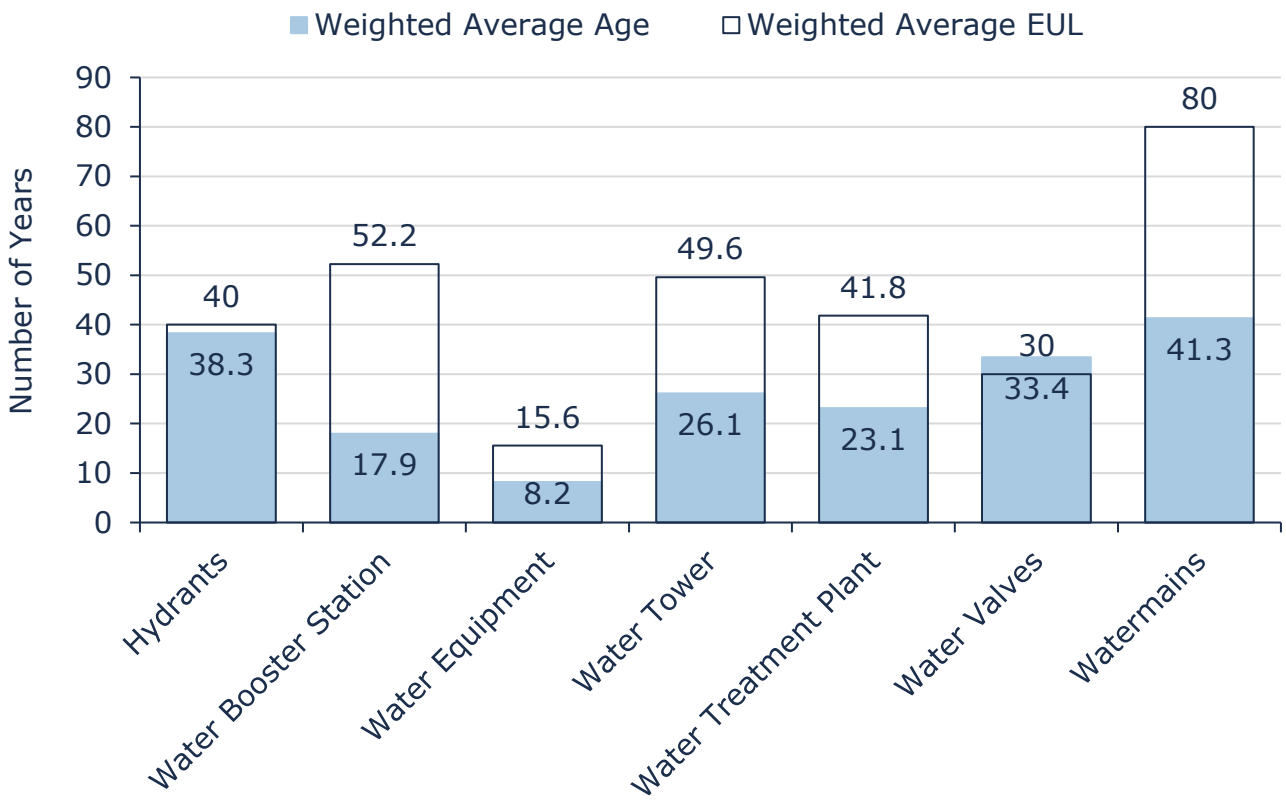



*Figure 33 Estimated Useful Life vs. Asset Age: Water Services*

## 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 | There is an annual valve turning program for the majority of the valves. |
| | For the water treatment facility, there is a work order management system currently in place and chemicals within the facility require significant operating costs. |

| Activity Type | Description of Current Strategy |
|---|---|
| | Condition data determined from the various inspections does inform decision-making and the budgeting process. |
| Rehabilitation/ Replacement | In the absence of mid-lifecycle rehabilitative activities, water mains are maintained with the goal of full replacement once it reaches of end-of-life. |
| | Hydrants have a replacement program for the next 20 years. |
| | Water valves are generally replaced as needed and no formal program is in place. |
| | The current water meter replacement program is reactive, and generally water meters are on a 10-year cycle. |
| | Assets that require replacement are prioritized on the following criteria: coordinated projects, asset data (age, condition, material), number of water main breaks, and soil type |
| | While Staff have acknowledged that the replacement of assets is reactive, critical assets have been identified and aging infrastructure is scheduled to be replaced. |
| Inspection | Water mains are inspected as mandated under O.Reg. 170/3 and flushed annually. |
| | Hydrant flushing occurs annually and flow testing in specific does occur. The hydrant flushing program also requires significant operating costs. |
| | While all inspections/assessments are conducted inhouse, inspections on the 2 water towers are contracted out and are conducted on a 3-year cycle. |

*Table 18 Lifecycle Management Strategy: Water Services*

## 6.5 Forecasted Long-Term Replacement Needs

Figure 34 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's

water services. This analysis was run until 2104 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Town's primary asset management system and asset register. The Town's average annual requirements (red dotted line) total $1.7m for all water services. 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.

The chart illustrates substantial capital needs throughout the forecast period. It also shows a backlog $10.8 million. These projections are based on asset replacement costs, age analysis, and condition data 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.

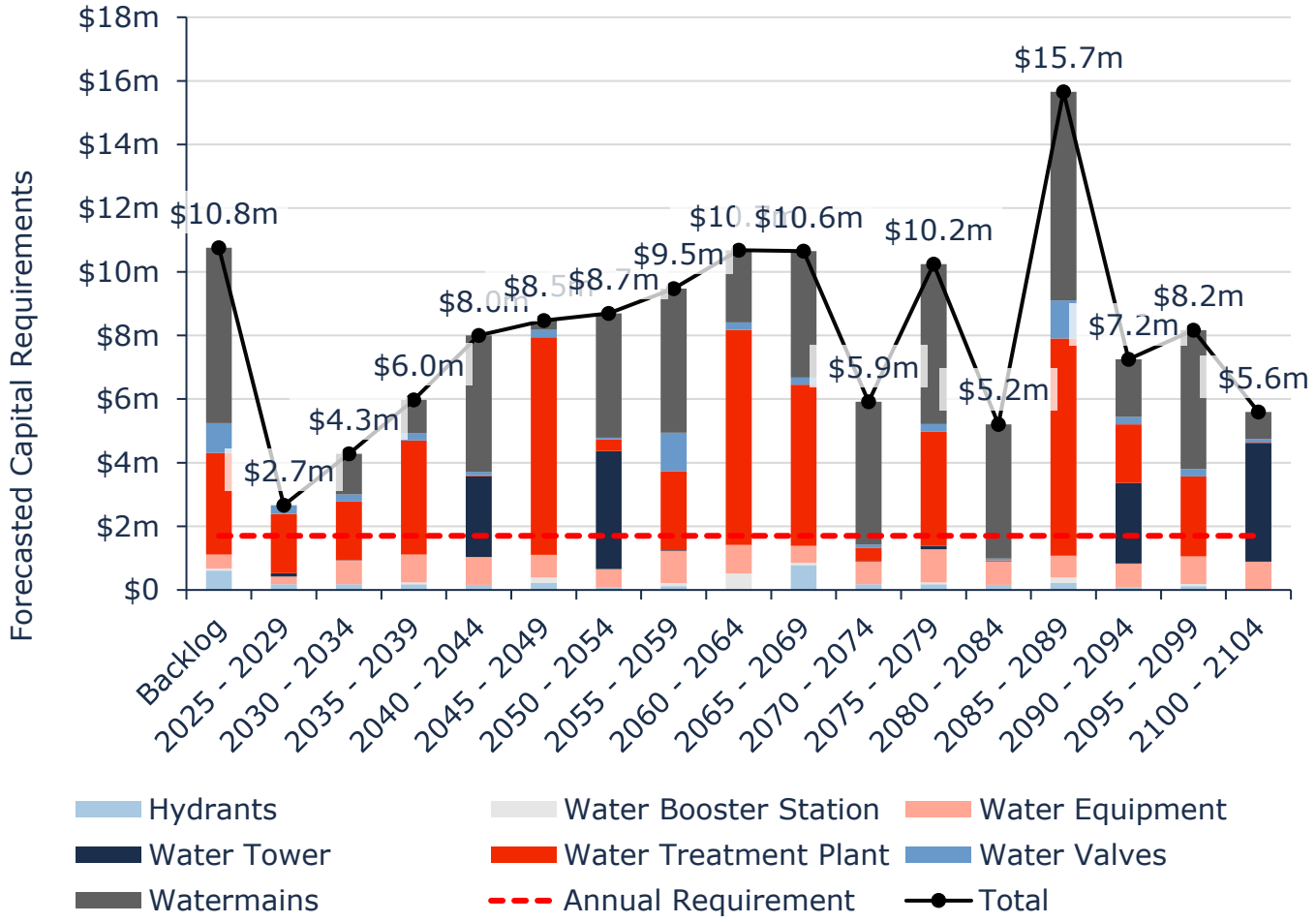



*Figure 34 Forecasted Capital Replacement Needs: Water Services 2025-2104*

Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. Regular condition assessments and a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

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

## 6.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, material, replacement cost, and diameter. The risk ratings for assets without useful attribute data were calculated using only condition 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.

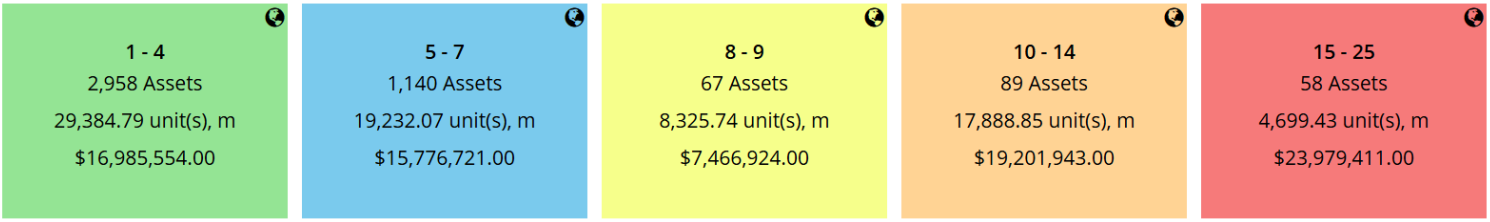



*Figure 35 Risk Matrix: Water Services*

## 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 water system | The Town is responsible for maintaining 48 kilometers of water mains, 30 km of water laterals, 329 hydrants, 678 various valves, 2,704 curb stops, 2 water storage towers, a treatment facility and water equipment that support the distribution and treatment of water for the Town. |
| | Description, which may include maps, of the user groups or areas of the municipality that have fire flow | See Appendix C |
| Performance | Description of the lifecycle activities (maintenance, rehabilitation and replacement) performed on the water network | "In the absence of mid-lifecycle rehabilitative activities, water mains are maintained with the goal of full replacement once it reaches of end-of-life.<br>Cast Iron pipes constitute a small percentage of the network and are prioritized during replacements." |
| | Description of the current condition of the water network and the plans that are in place to maintain or improve the provided level of service | The Town's linear municipal water distribution system relies solely on age based condition calculations. Taking this into consideration and the age of the majority of the system, 53% of the system is estimated to be in poor or very poor condition and the remainder of the system in fair or better condition. There are long term plans being developed to mitigate inherent risks of an aging water distribution system. |

| | | |
|---|---|---|
| Reliability | Description of boil water advisories and service interruptions | The Town has not issued any boil water advisories to date. In the event of a boil water advisory, staff would post a notification to the Municipal website to inform the public. |

*Table 19 O. Reg. 588/17 Community Levels of Service: Water Services*

### 6.7.2 Technical Levels of Service

| Service Attribute | Technical Metric | Current LOS (2024) |
|---|---|---|
| Scope | % of properties connected to the municipal water system | 99% |
| | % 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 |
| Performance | Current vs. Target capital reinvestment rate | 5.07% vs. 2.04% |

*Table 20 O. Reg. 588/17 Technical Levels of Service: Water Services*

# 7. Sanitary Services

The Town is responsible for owning and maintaining a sanitary network of 51 kms of sanitary sewers, manholes, pump stations, sewer connections, wastewater equipment and a wastewater treatment plant.

## 7.1 Inventory & Valuation

Table 21 summarizes the quantity and current replacement cost of the Town's various Sanitary Services assets as managed in its primary asset management register, Citywide Assets.

| Segment | Quantity | Unit of Measure | Replacement Cost | Primary RC Method |
|---|---|---|---|---|
| Manholes | 696 | Quantity | $9,382,000 | Cost/Unit |
| Pumping Stations | 152 | Quantity | $18,159,000 | CPI |
| Sanitary Sewers | 51,000 | m | $28,460,000 | Cost/Unit |
| Sewer Connections | 17,000 | m | $5,684,000 | User-Defined |
| Wastewater Equipment | 26 | Quantity | $539,000 | CPI |
| Wastewater Treatment Plant | 1 (43) | Quantity | $25,153,000 | CPI |
| **TOTAL** | | | **$87,377,000** | |

*Table 21 Detailed Asset Inventory: Sanitary Services*

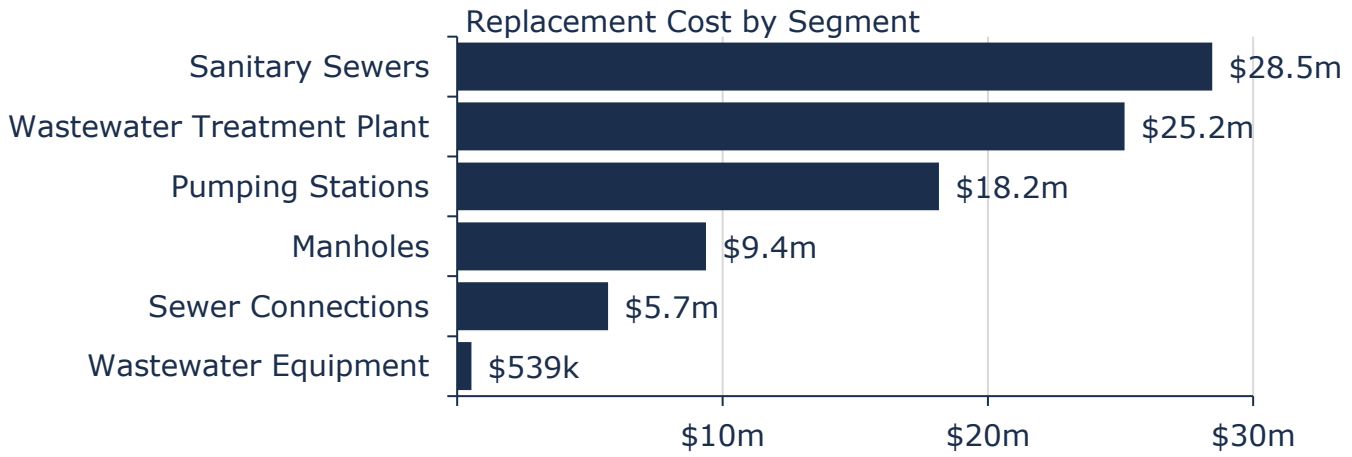



*Figure 36 Portfolio Valuation: Sanitary Services*

## 7.2 Asset Condition

Figure 37 summarizes the replacement cost-weighted condition of the Town's Sanitary Services. Based on a combination of field inspection data and age, 74% of assets are in fair or better condition; the remaining 26% of assets are in poor to very poor condition. Condition assessments were available for 97% of pumping stations, and 99% of water treatment plant assets, based on replacement cost. This condition data was projected from inspection date to current year to estimate their condition today. No condition data was available for sanitary equipment.

Assets in poor or worse condition 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 illustrated in Figure 37 the majority of the Town's Sanitary Services assets are in fair or better condition.

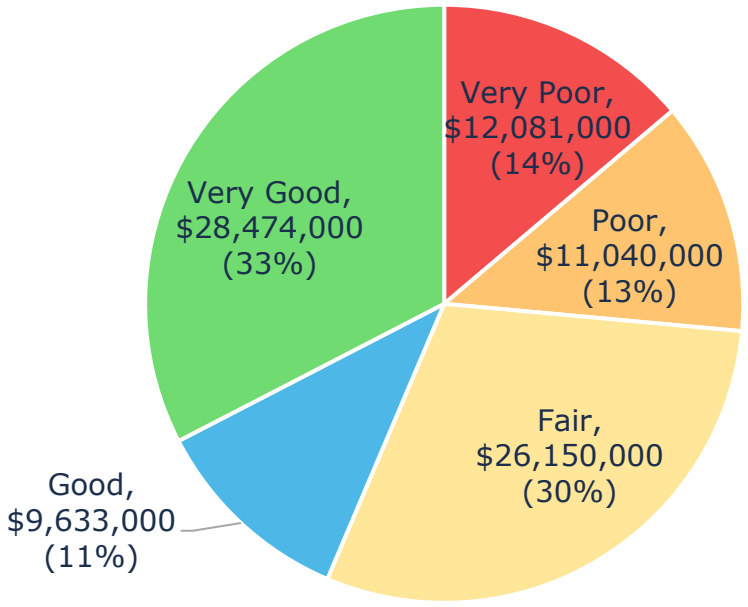



*Figure 37 Asset Condition: Sanitary Services Overall*

As illustrated in Figure 38, based on condition assessments and age-based conditions, the majority of the Town's sanitary sewers are in very good condition however, 60% of pumping stations are in poor or worse condition.

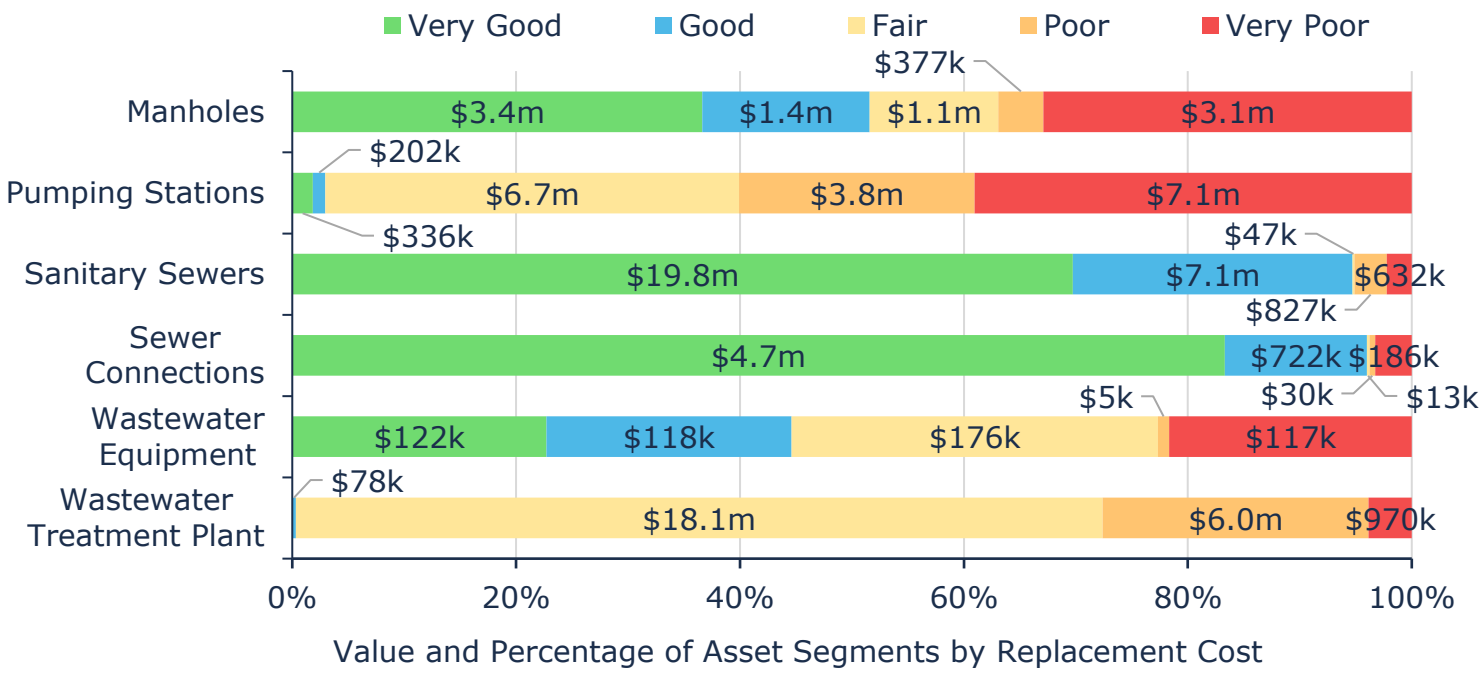



*Figure 38 Asset Condition: Sanitary Services by Segment*

## 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 long-term replacement spikes.

Figure 39 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.

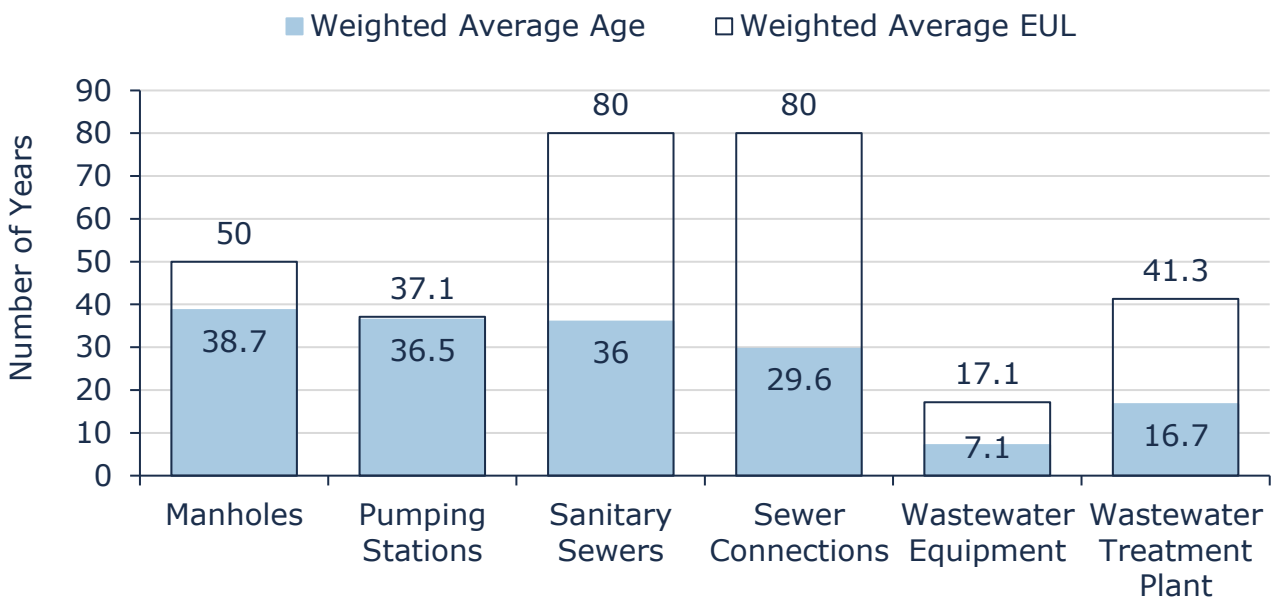



*Figure 39 Estimated Useful Life vs. Asset Age: Sanitary Services*

## 7.4 Current Approach to Lifecycle Management

The condition or performance of most assets will deteriorate over time. This process is affected by a range of factors including an asset's characteristics, location, utilization, maintenance history and environment. The following outlines the Town's current lifecycle management strategy.

| Activity Type | Description of Current Strategy |
|---|---|
| Inspection/ Maintenance | Santiary mains undergo camera inspections every 4 years and 25% of the network is inspected annually and is contracted out. A PACP rating is provided to the Town after inspections. |
| | Manholes are inspected as needed. |
| | In conjunction with the camera inspections, sanitary mains are also flushed and cleaned annually. Between 35% to 50% of the network is flushed and cleaned each year. |
| Rehabilitation/ Replacement | All assets are typically replaced at the end-of-life, there are minimal rehabilitative activities that are conducted. |

| Activity Type | Description of Current Strategy |
|---|---|
| | Although mains that comprise of clay, asbestos and concrete are prioritized. |
| | Assets that require replacement are determined through the following criteria: coordination with other infrastructure, asset condition, asset materials, capacity and flow rate. |

*Table 22 Lifecycle Management Strategy: Sanitary Services*

## 7.5 Forecasted Long-Term Replacement Needs

Figure 40 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's Sanitary Services. This analysis was run until 2099 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Town's primary asset management system and asset register. The Town's average annual requirements (red dotted line) total $2.0 million for all assets in the Sanitary Services. 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.

The chart illustrates substantial capital needs throughout the forecast period. It also shows a backlog of $7.8 million. These projections are based on asset replacement costs, age analysis, and condition data 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.

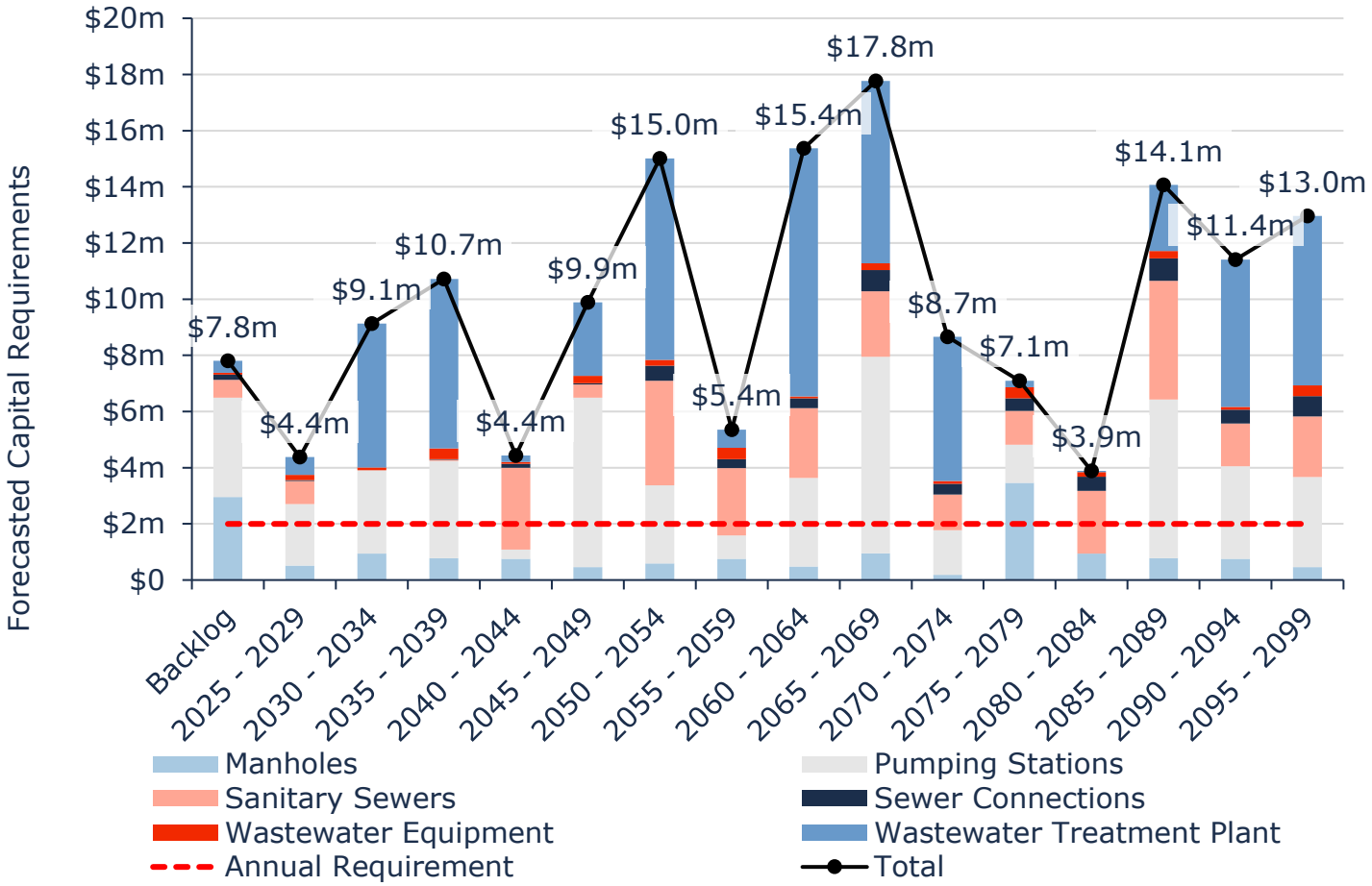



*Figure 40 Forecasted Capital Replacement Needs: Sanitary Services 2025-2099*

Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. Regular condition assessments and a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

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

## 7.6 Risk Analysis

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

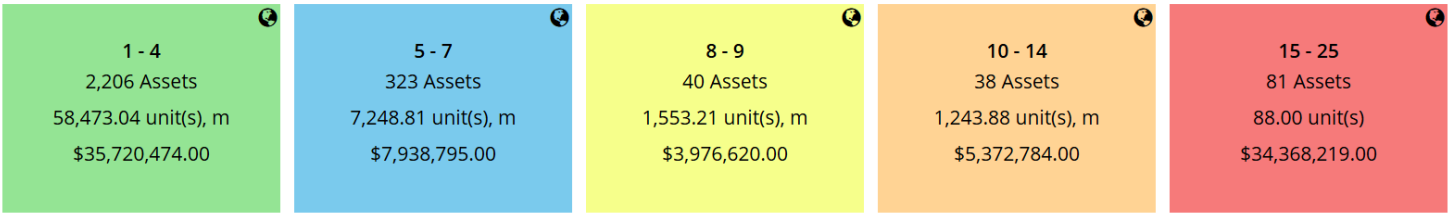



*Figure 41 Risk Matrix: Sanitary Services*

## 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 maps, of the user groups or areas of the municipality that are connected to the municipal wastewater system | The Town is responsible for maintaining 39 kilometers of gravity mains, 8 kilometers of pressurized mains, 16 kilometers of sanitary laterals, 696 manholes, 873 cleanouts, 15 pumping stations, a sanitary treatment facility and sanitary equipment that support the collection and treatment of wastewater. See Appendix C |

| Service Attribute | Qualitative Description | Current LOS (2024) |
|---|---|---|
| | 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 | The majority of the Town's sanitary lift stations are equipped with sewer overflow protection. Currently residents have not experienced any backups resulting from overflows in the sanitary system. |
| | Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches | Currently the Town has not experienced any sewage backups or overflows in habitable areas or beaches. |
| Reliability | Description of how Storm Water can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes | Inflow and infiltration, such as sump pumps, roof drains, floor drains, combined sewers and manhole lids. |
| | Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to Storm Water infiltration | The Town's wastewater system is over designed in capacity, or peak capacities and therefore resilient to Storm Water infiltration. |
| | Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system | The Town's sewage treatment plants meet or exceed regulatory compliance objectives. |

| Service Attribute | Qualitative Description | Current LOS (2024) |
|---|---|---|
| | Description of the lifecycle activities (maintenance, rehabilitation, and replacement) performed on the stanitary network | All assets are typically replaced at the end-of-life, there are minimal rehabilitative activities that are conducted. Although pipe material that comprises clay, asbestos and concrete are prioritized. |
| Performance | Description of the current condition of the sanitary network and the plans that are in place to maintain or improve the provided level of service | The current condition of the Town's linear wastewater network relies on a combination of assessed condition and age-based condition calculations. 94% of the linear sanitary system is in good or very good condition, 2.5% in poor condition, and only 2.4% in very poor condition. A formal inspection strategy is being implemented to better determine the true state of the linear sanitary system. |

*Table 23 O. Reg. 588/17 Community Levels of Service: Sanitary Services*

### 7.7.2 Technical Levels of Service

| Service Attribute | Technical Metric | Current LOS (2024) |
|---|---|---|
| Scope | % of properties connected to the municipal wastewater system | 98% |
| 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 | 19:3,447 |

| Service Attribute | Technical Metric | Current LOS (2024) |
|---|---|---|
| | # of connection-days per year having wastewater backups compared to the total number of properties connected to the municipal wastewater system | 0 |
| | # of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system | 0 |
| Performance | % of the wastewater system that is in good or very good condition | 43% |
| | % of the wastewater system that is in poor or very poor condition | 26% |
| | Current vs. Target capital reinvestment rate | 7.02% vs. 2.29% |

*Table 24 O. Reg. 588/17 Technical Levels of Service: Sanitary Services*

# 8. Storm Water Services

The Town is responsible for owning and maintaining a stormwater network of 38 kms of storm mains, catch basins and manholes.

## 8.1 Inventory & Valuation

Table 25 summarizes the quantity and current replacement cost of all storm water management assets available in the Town's asset register.

| Segment | Quantity | Unit of Measure | Replacement Cost | Primary RC Method |
|---|---|---|---|---|
| Catch Basins | 1,177 | m | $10,368,000 | Cost/Unit |
| Manholes | 354 | Quantity | $4,781,000 | Cost/Unit |
| Storm Mains | 38,427 | m | $27,073,000 | Cost/Unit |
| **TOTAL** | | | **$42,222,000** | |

*Table 25 Detailed Asset Inventory: Storm Water Services*

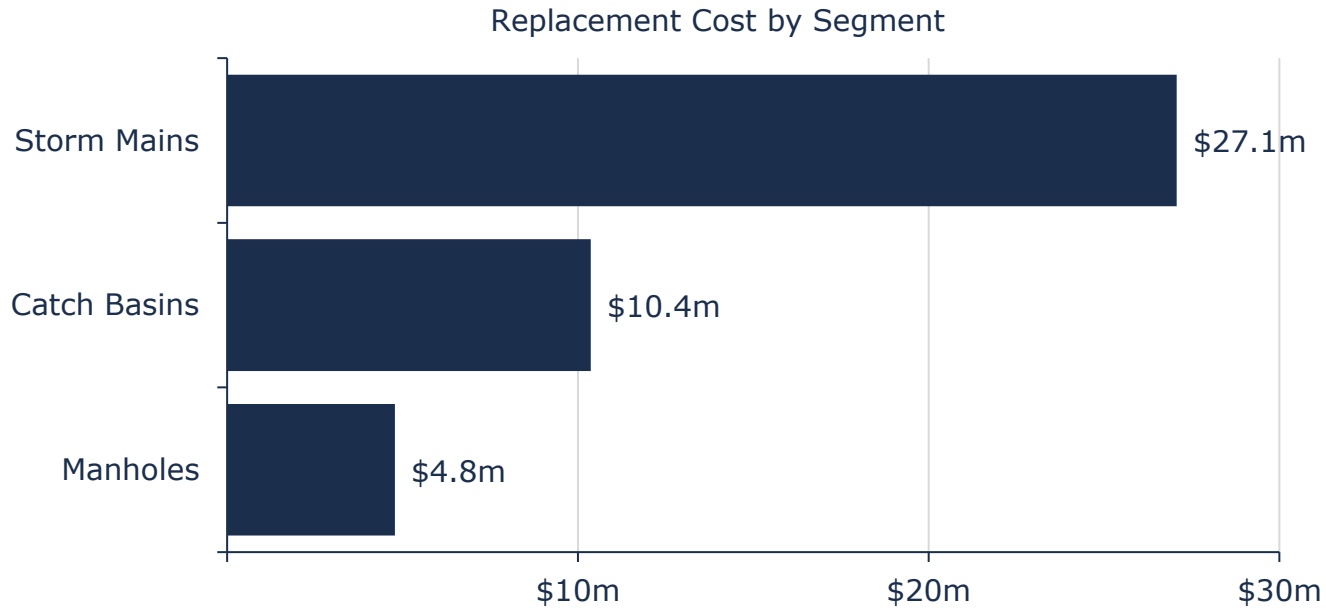



*Figure 42 Portfolio Valuation: Storm Water Services*

## 8.2 Asset Condition

Figure 43 summarizes the replacement cost-weighted condition of the Town's storm water management assets. Based on age data only, approximately 19% of assets are in 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.

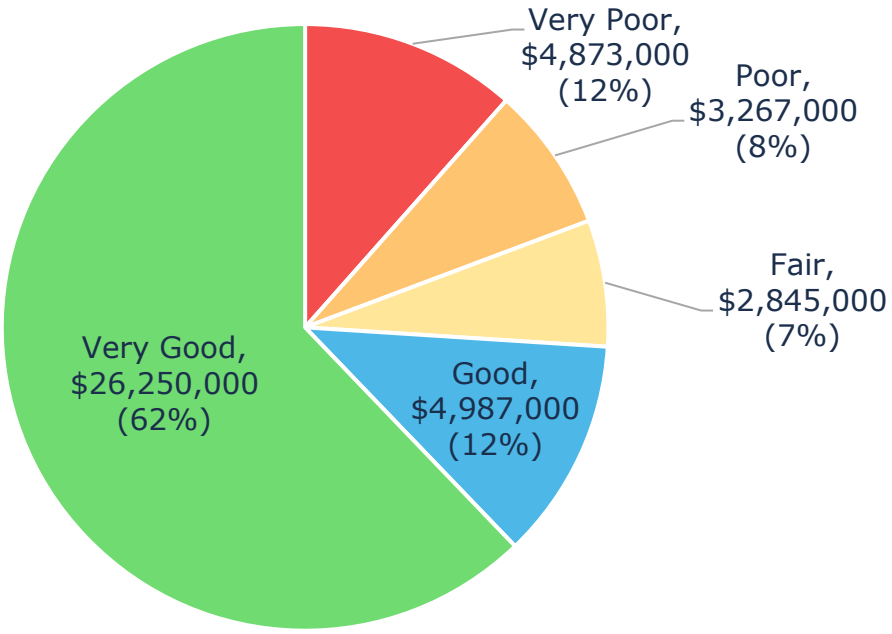



*Figure 43 Asset Condition: Storm Water Services Overall*

Figure 44 summarizes the age-based condition of Storm Water assets. The analysis illustrates that the majority of storm mains are in fair or better condition. However, 52% of catch basins, with a current replacement cost of $5.3 million, are in poor or worse condition.

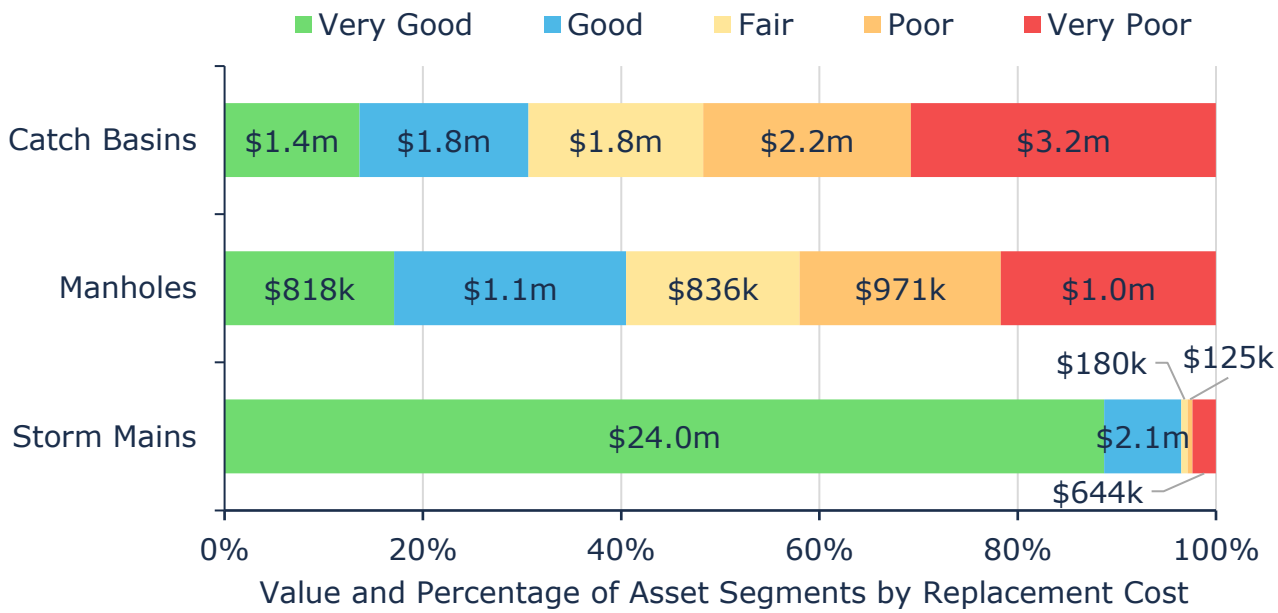



*Figure 44 Asset Condition: Storm Water Services by Segment*

## 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 45 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.

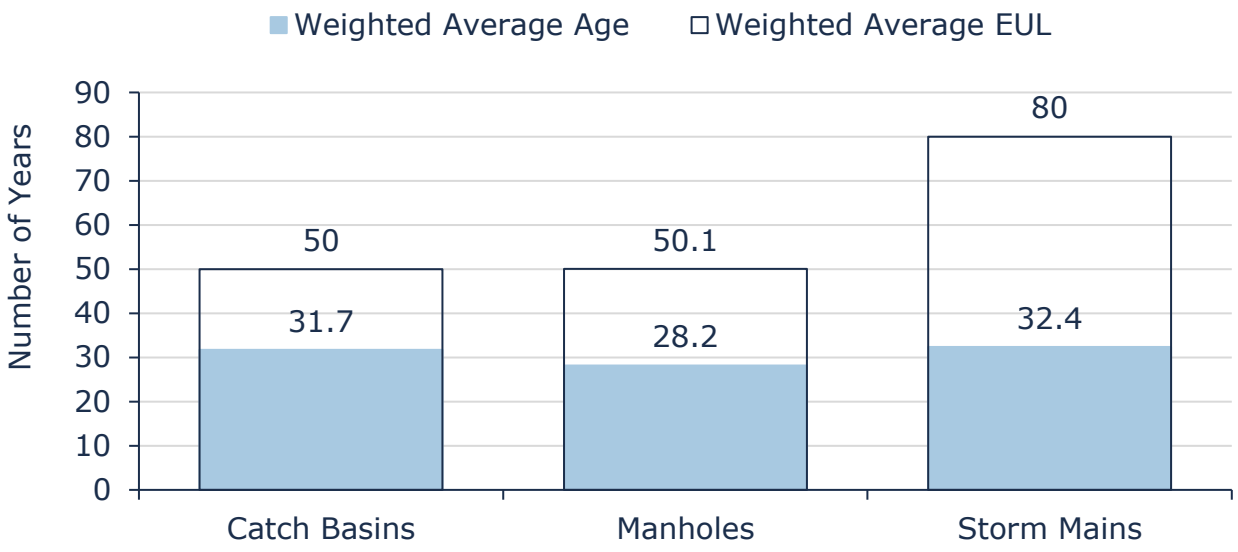



*Figure 45 Estimated Useful Life vs. Asset Age: Storm Water Services*

## 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.

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

| Activity Type | Description of Current Strategy |
|---|---|
| Inspection/ Maintenance | The inspection of storm sewer assets is largely reactive; assets are assessed when possible and where issues are identified. Some CCTV has occurred in the past to determine the asset condition for specific areas. |
| | Manholes are inspected annually during the spring season and also undergo cleaning and Hydrovac Technology. Hydrovac activities is conducted internally and requires significant operating costs. |
| | Catch basins, curbs and gutters are inspected and cleaned annually. |
| | Specific activities that occur after a flooding event include flushing, cleaning, and debris removal. |

| Activity Type | Description of Current Strategy |
|---|---|
| | Specific storm mains are flushed based on the results of manholes and catch basin inspections and as needed. |
| Rehabilitation/ Replacement | Generally, most storm sewer assets undergo end of life replacement without any interventions. |
| | Assets requiring rehabilitation or replacement are prioritized through the following criteria:<br>• operational efficiencies and capacity<br>• coordination with other infrastructure assets<br>• asset condition/age/material as needed or compliant driven |

*Table 26 Lifecycle Management Strategy: Storm Water Services*

## 8.5 Forecasted Long-Term Replacement Needs

Figure 46 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's Storm Water Services assets. This analysis was run until 2104 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Town's primary asset management system and asset register. The Town's average annual requirements (red dotted line) total $614,000 for all assets in the Storm Water Services. 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.

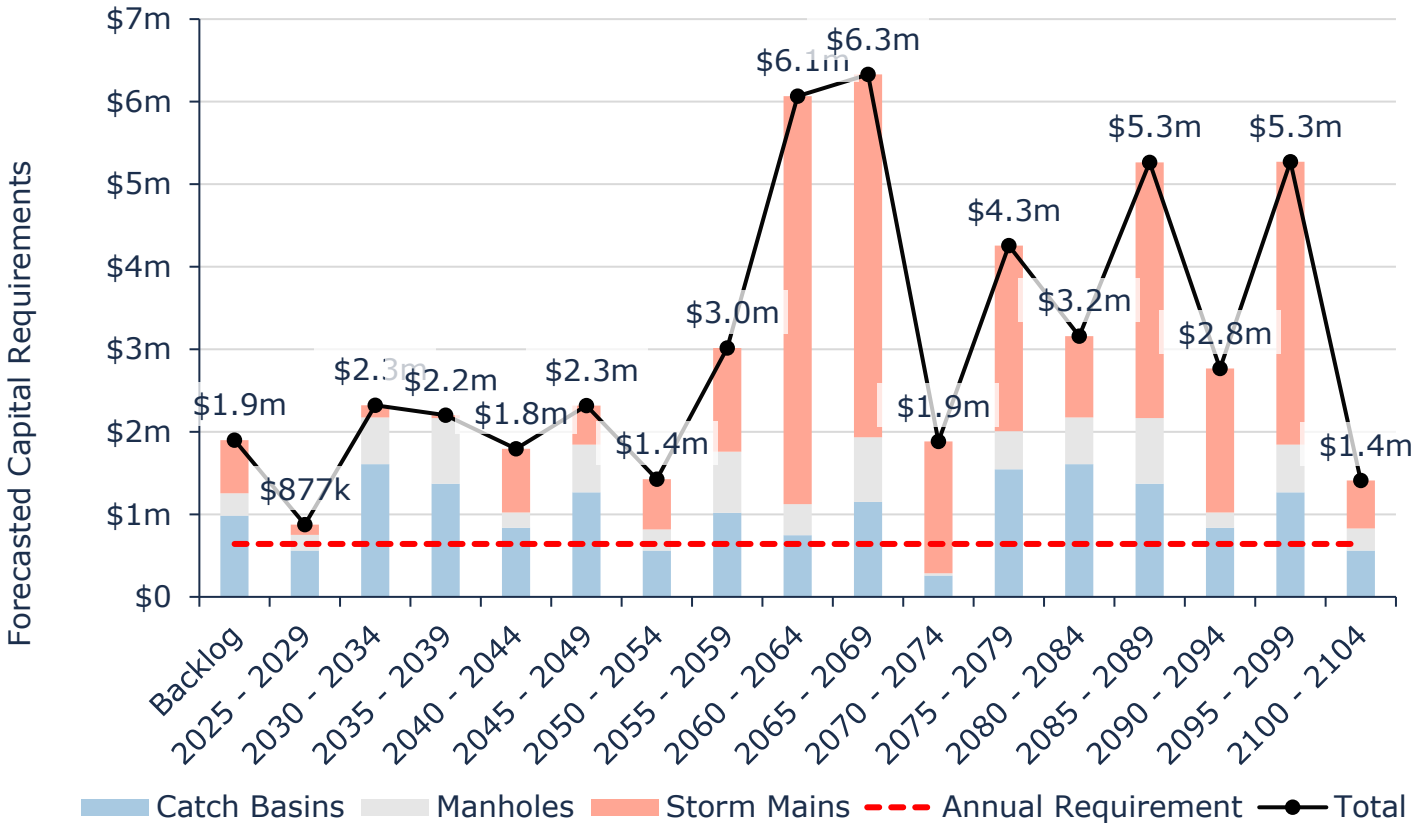



*Figure 46 Forecasted Capital Replacement Needs Storm Water Services 2025-2104*

The chart illustrates a backlog  of $1.9 million for Storm Water assets. These projections and estimates are based on asset replacement costs and age analysis. 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.

Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. In addition, a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

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

## 8.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, pipe material, pipe diameter, and 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.

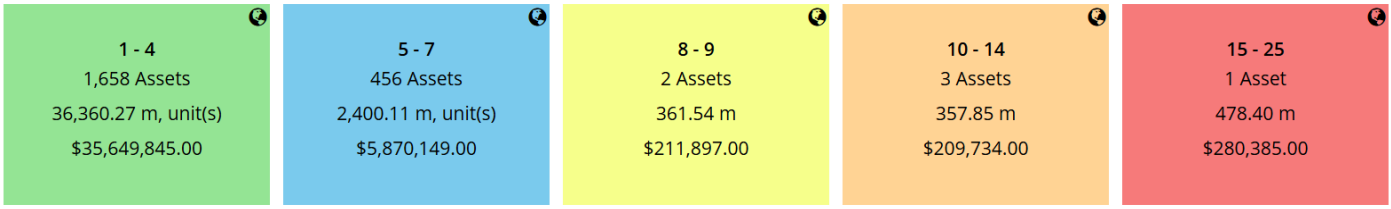



*Figure 47 Risk Matrix: Storm Water Services*

## 8.7 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.

### 8.7.1 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 Town that are protected from flooding, including the extent of protection provided by the municipal storm Water Services | The Town is responsible for maintaining 38.4 kilometers of storm sewer mains, 1,177 catch basins and 354 manholes. |
| Performance | Description of the lifecycle activities (maintenance, rehabilitation, and replacement) performed on the stormwater network | Assessments are generally performed on catch basins, manholes, and curb and gutters annually and storm sewer assets is largely reactive; assets are assessed when possible and where issues are identified. Maintenance activities are also performed annually on manholes, catch basins, and curb and gutters. Storm sewers are cleaned and flushed only when a need is identified.<br>Generally, most storm sewer assets undergo end of life replacement without any rehabilitation. |

| Service Attribute | Qualitative Description | Current LOS (2024) |
|---|---|---|
| | Description of the current condition of the stormwater network and the plans that are in place to maintain or improve the provided level of service | The current condition of the Town's linear stormwater network relies solely on age-based condition calculations. 81% of the system is in fair or better condition and 19% is in poor or worse condition. A formal inspection strategy is being implemented to better determine the true state of the stormwater system. |

*Table 27 O. Reg. 588/17 Community Levels of Service: Storm Water Services*

### 8.7.2 Technical Levels of Service

| Service Attribute | Technical Metric | Current LOS (2024) |
|---|---|---|
| Reliability | % of properties in municipality designed to be resilient to a 100-year storm | 50% |
| | # of service requests related to surface flooding | 55 |
| | % of the municipal Storm Water management system designed to be resilient to a 5-year storm | 60% |
| | % of the stormwater network in fair or better condition | 81% |
| | % of the stormwater network in poor or very poor condition | 19% |
| Performance | Current vs. Target capital reinvestment rate | 0.14% vs. 1.52% |

*Table 28 O. Reg. 588/17 Technical Levels of Service: Storm Water Services*

# Non-Core Assets

## Buildings

| Replacement Cost | Average Condition | Financial Capacity | |
|---|---|---|---|
| **$47.3 m** | **Fair** | Annual Requirement: | $1,130,000 |
| | | Funding Available: | $126,000 |
| | | **Annual Deficit:** | **$1,004,000** |

## Land Improvements

| Replacement Cost | Average Condition | Financial Capacity | |
|---|---|---|---|
| **$14.5 m** | **Poor** | Annual Requirement: | $491,000 |
| | | Funding Available: | $46,000 |
| | | **Annual Deficit:** | **$445,000** |

## Rolling Stock

| Replacement Cost | Average Condition | Financial Capacity | |
|---|---|---|---|
| **$12.3 m** | **Poor** | Annual Requirement: | $1,251,000 |
| | | Funding Available: | $659,000 |
| | | **Annual Deficit:** | **$592,000** |

## Equipment

| Replacement Cost | Average Condition | Financial Capacity | |
|---|---|---|---|
| **$ 8.5 m** | **Poor** | Annual Requirement: | $762000 |
| | | Funding Available: | $851,000 |
| | | **Annual Deficit:** | **($89,000)** |

# 9. Buildings

Parry Sound owns and maintains several buildings that provide key services to the community. These service area facilities include:

- Municipal offices
- Community buildings
- Ambulance base
- Fire hall
- Operational buildings

## 9.1 Inventory & Valuation

Table 29 summarizes the quantity and current replacement cost of all buildings assets available in the Municipality's asset register.

| Segment | Quantity (# of components) | Unit of Measure | Replacement Cost | Primary RC Method |
|---|---|---|---|---|
| Community Buildings | 12 (80) | Quantity | $34,344,000 | User-Defined |
| Emergency Buildings | 4 (14) | Quantity | $2,465,000 | CPI |
| Municipal Buildings | 1 (12) | Quantity | $6,420,000 | CPI |
| Operational Buildings | 11 (60) | Quantity | $2,354,000 | CPI |
| Other Town Property | 9 (24) | Quantity | $1,702,000 | CPI |
| **TOTAL** | | | **$47,286,000** | |

*Table 29 Detailed Asset Inventory: Buildings*

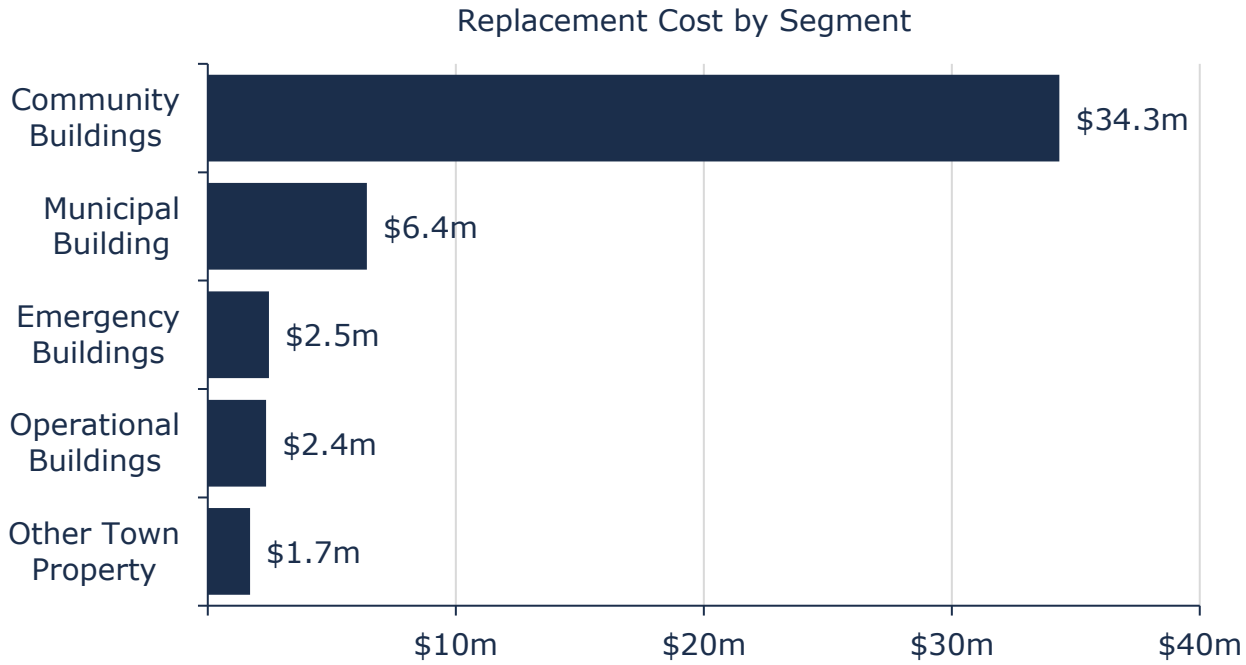



*Figure 48 Portfolio Valuation: Buildings*

## 9.2 Asset Condition

Figure 49 summarizes the replacement cost-weighted condition of the Town's buildings portfolio. Based mostly on assessed data, 35% of buildings assets are in fair or better condition; however, 65%, with a current replacement cost of more than $30 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.

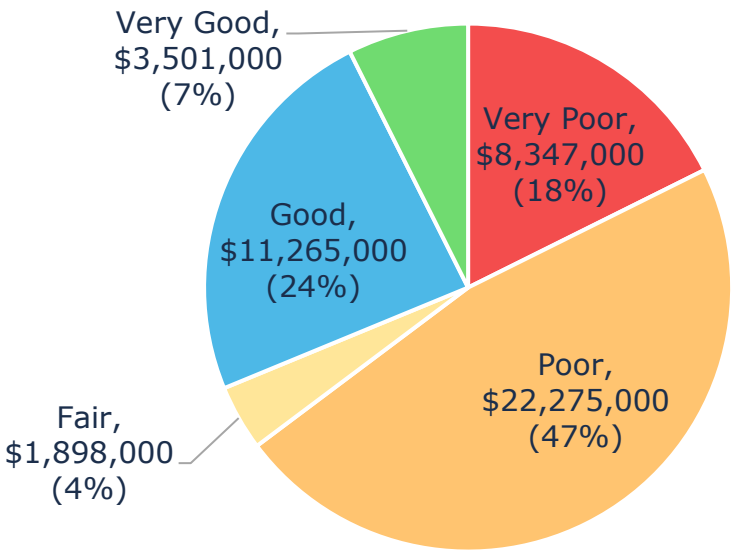



*Figure 49 Asset Condition: Buildings Overall*

Figure 50 summarizes the condition of buildings by each department. A substantial portion of other town property assets and the majority of community buildings are in poor to worse condition.

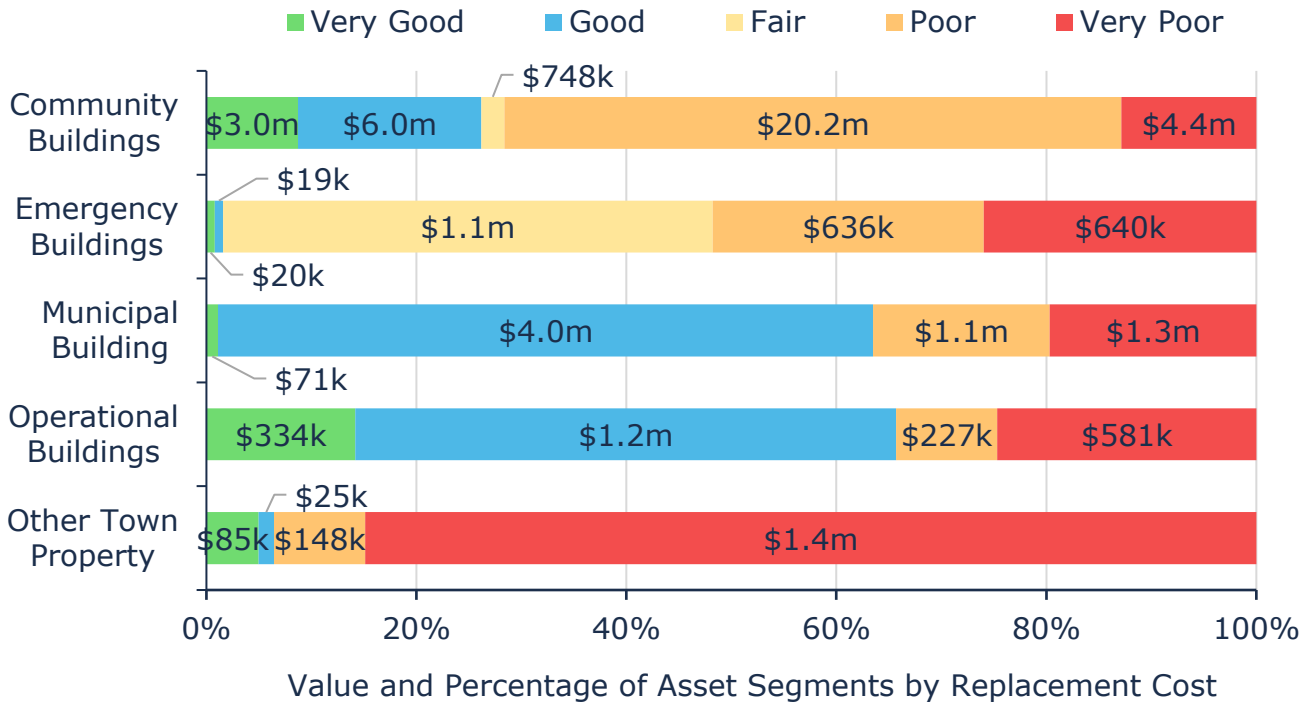



*Figure 50 Asset Condition: Buildings by Segment*

## 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 51 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.

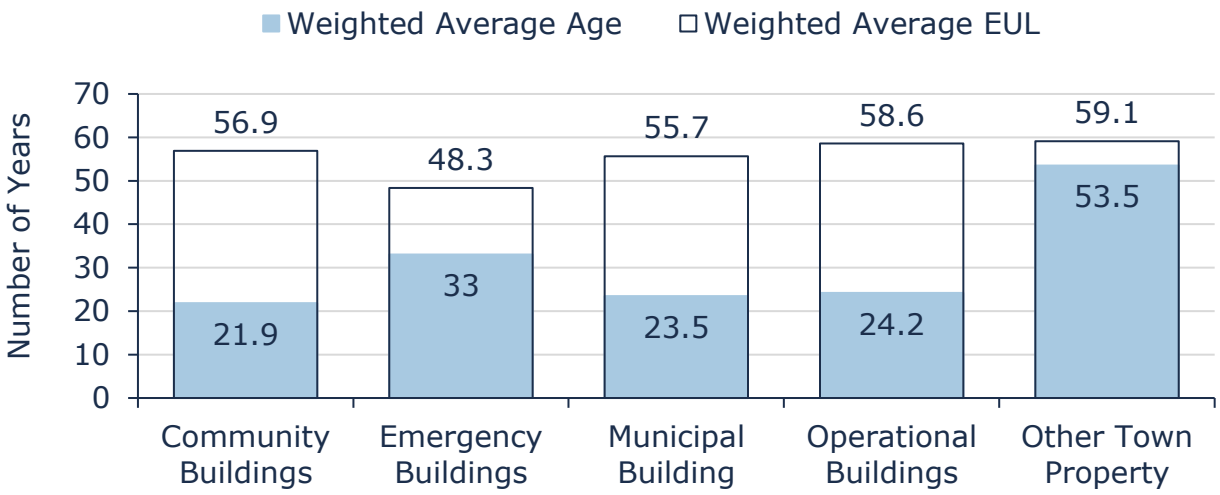



*Figure 51 Estimated Useful Life vs. Asset Age: Buildings*

## 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 30 outlines the Town's current lifecycle management strategy.

| Activity Type | Description of Current Strategy |
|---|---|
| Maintenance | Maintenance is triggered by inspections idenfifying safety, accessibility, functionality, and structural issues. |
| | Critical buildings (Water Treatment Plant, Wastewater Treatment Plant, Fire Stations etc.) have a detailed maintenance and rehabilitation schedules, while the maintenance of other facilities are dealt with on a case-by-case basis |
| Rehabilitation/ Replacement | Rehabilitations such as roof replacements or HVAC component replacements are considered on an as needed basis |
| | The primary considerations for asset replacement are asset failure, availability or grant funding, safety issues, volume of use, and recommendations from facility needs assessments |
| Inspection | Internal inspections are conducted monthly for health and safety requirements, as well as to identify any maintenance concerns |
| | Facility Needs Assessment Studies are conducted by an external contractor periodically, with the last one completed in 2016 |
| | Assessments are completed strategically as buildings approach their end-of-life to determine whether replacement or rehabilitation is appropriate |

*Table 30 Lifecycle Management Strategy: Buildings*

## 9.5 Forecasted Long-Term Replacement Needs

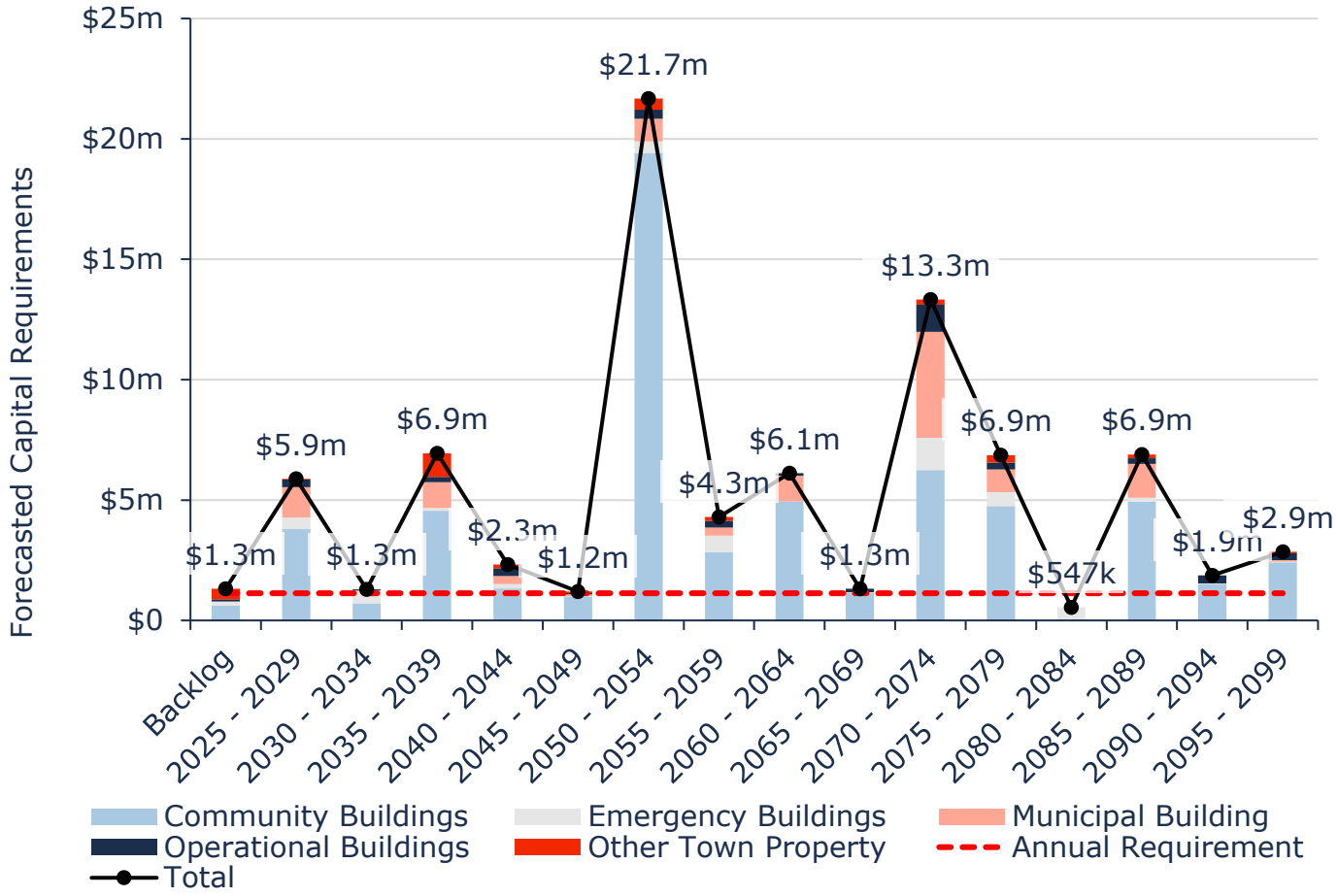



Figure *52* illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's buildings portfolio. This analysis was run until 2099 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Town's primary asset management system and asset register. The Town's average annual requirements (red dotted line) total $1.1 million for all buildings. 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.

The chart also illustrates a backlog of more than $1.3 million for buildings assets that have reached the end of their useful life but remain in operation. These projections and estimates are based on current asset records, their replacement costs, and age analysis. 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.

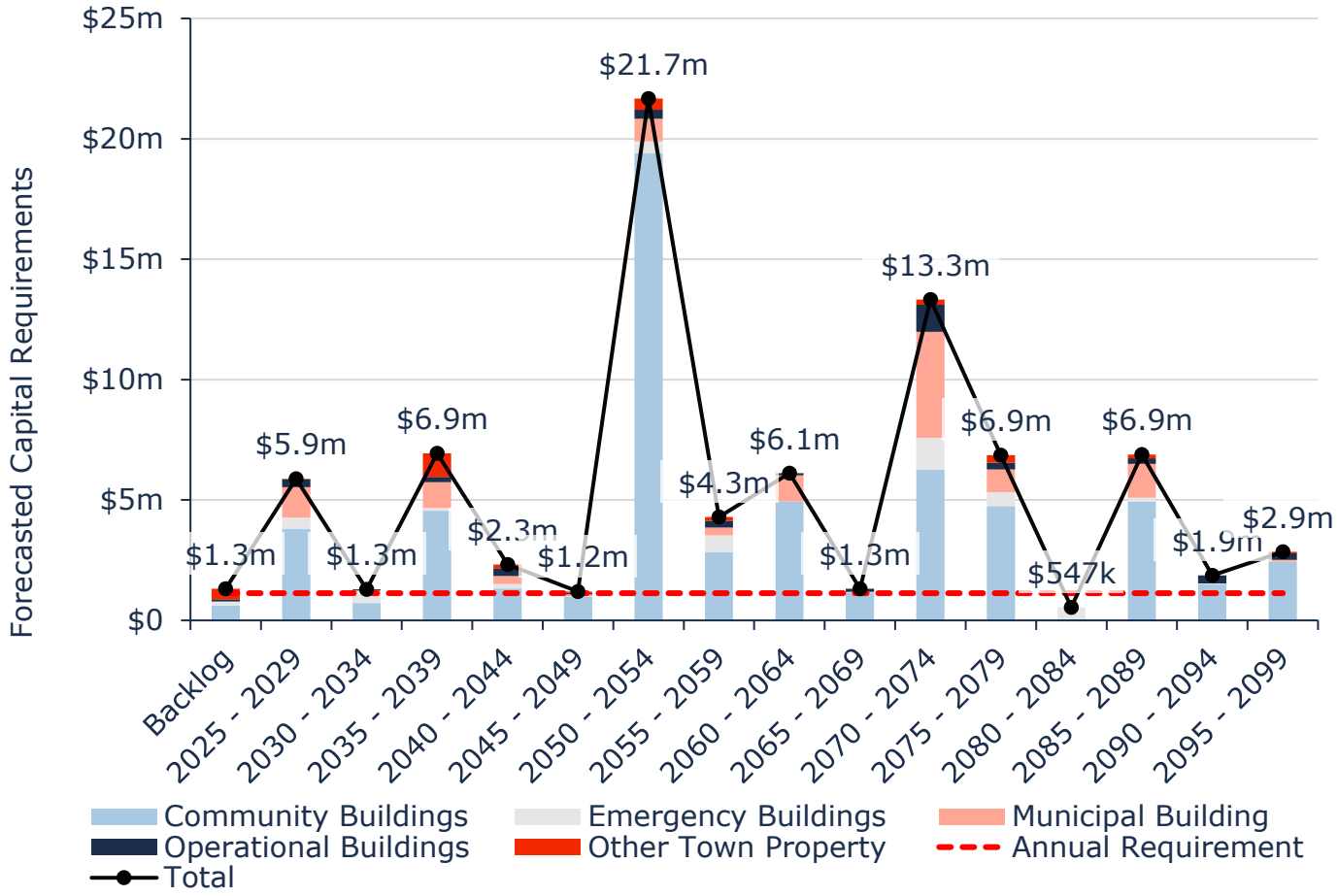



*Figure 52 Forecasted Capital Replacement Needs Buildings 2025-2099*

Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. In addition, a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements. In the case of buildings and facilities, detailed componentization is necessary to develop more reliable lifecycle forecasts that reflect the needs of individual elements and components.

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

## 9.6 Risk Analysis

The risk matrix below is generated using available asset data, condition and 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.

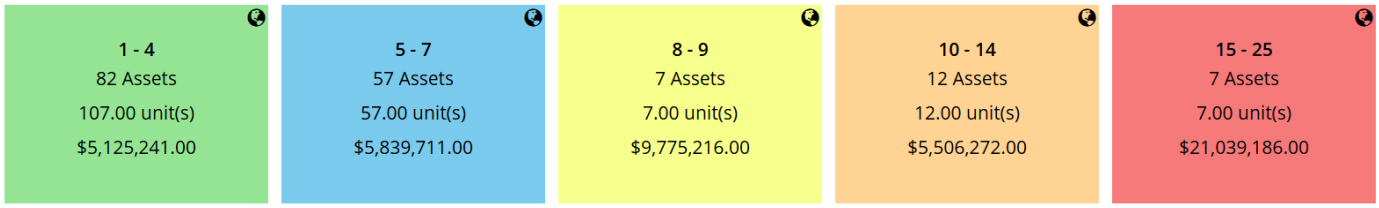



*Figure 53 Risk Matrix: Buildings*

## 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 facilities that the municipality operates and maintains | Facilities within Parry Sound include those dedicated to the community such as the Bobby Orr Community Center, Stockey Center, and Town Docks.<br>Emergency buildings include the fire hall, ambulance base, and dog impound.<br>The Municipal Office makes up the Municipal buildings in Parry Sound.<br>Town Operations are supported by various equipment garages, salt/sand protection facilities and the Waste Transfer Station.<br>Various cemeteries and the boat ramp make up the other town properties. |

*Table 31 Community Levels of Service: Buildings*

### 9.7.2 Technical Levels of Service

| Service Attribute | Technical Metric | Current LOS (2024) |
|---|---|---|
| Quality | Average facility condition index value for facilities in the municipality | 44% |
| Performance | Current vs. Target capital reinvestment rate | 0.03% vs. 2.16% |

*Table 32 Technical Levels of Service: Buildings*

# 10. Land Improvements

The Town of Parry Sound owns a number of assets that are considered Land Improvements. This category includes:

- Parking lots for Town owned facilities
- Water Access
- Park & Recreational areas
- Fencing and signage
- Miscellaneous landscaping and other assets

## 10.1 Inventory & Valuation

Table 33 summarizes the quantity and current replacement cost of all land improvement assets available in the Town's asset register.

| Segment | Quantity | Unit of Measure | Replacement Cost | Primary RC Method |
|---|---|---|---|---|
| Access Paths, Trails & Parking Lots | 48 | Quantity | $6,183,000 | CPI |
| Boat Slips, Docks & Launches | 74 | Quantity | $3,944,000 | CPI |
| Fencing | 11 | Quantity | $580,000 | CPI |
| Irrigation | 3 | Quantity | $79,000 | CPI |
| Landscaping | 6 | Quantity | $804,000 | CPI |
| Lighting | 40 | Quantity | $973,000 | CPI |
| Park Furnishings | 8 | Quantity | $266,000 | CPI |
| Sports Fields & Courts | 2 | Quantity | $42,000 | CPI |
| Structural Features | 22 | Quantity | $1,661,000 | CPI |
| **TOTAL** | | | **$14,532,000** | |

*Table 33 Detailed Asset Inventory: Land Improvements*

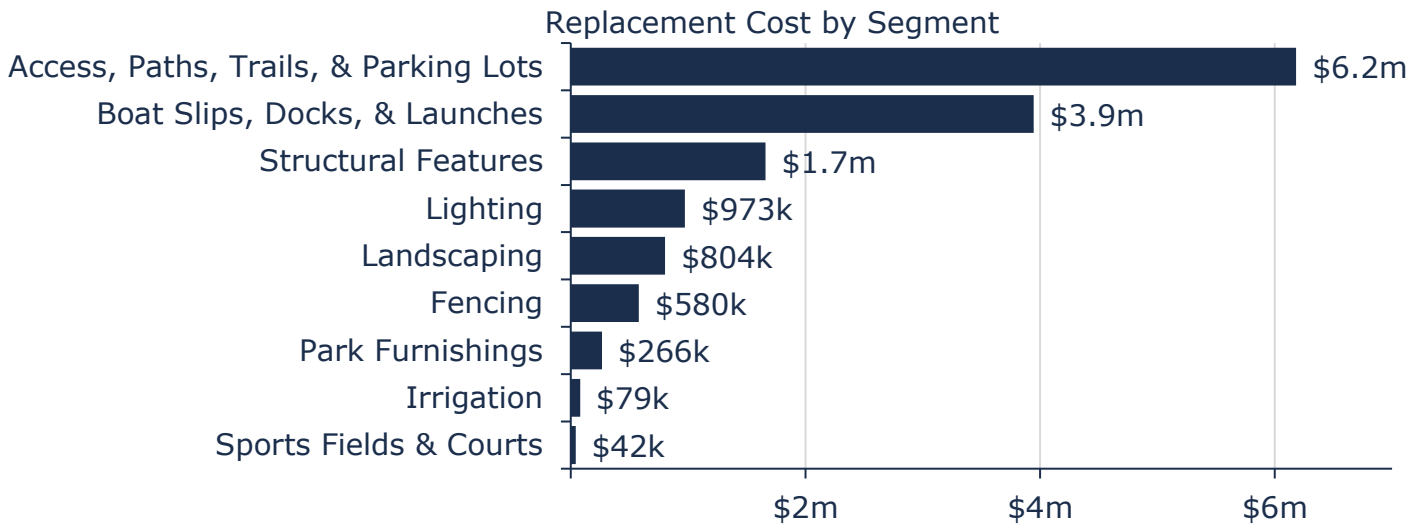



*Figure 54 Portfolio Valuation: Land Improvements*

## 10.2 Asset Condition

Figure 55 summarizes the replacement cost-weighted condition of the Municipality's land improvement portfolio. Based mostly on age data, 35% of assets are in fair or better condition, the remaining 65% 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.

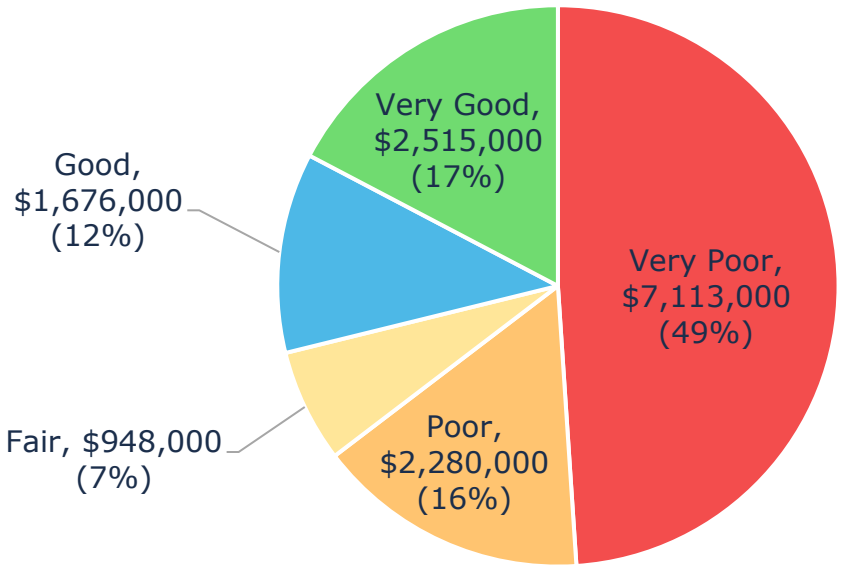



*Figure 55 Asset Condition: Land Improvements Overall*

Figure 56 summarizes the age-based condition of land improvements by each department.

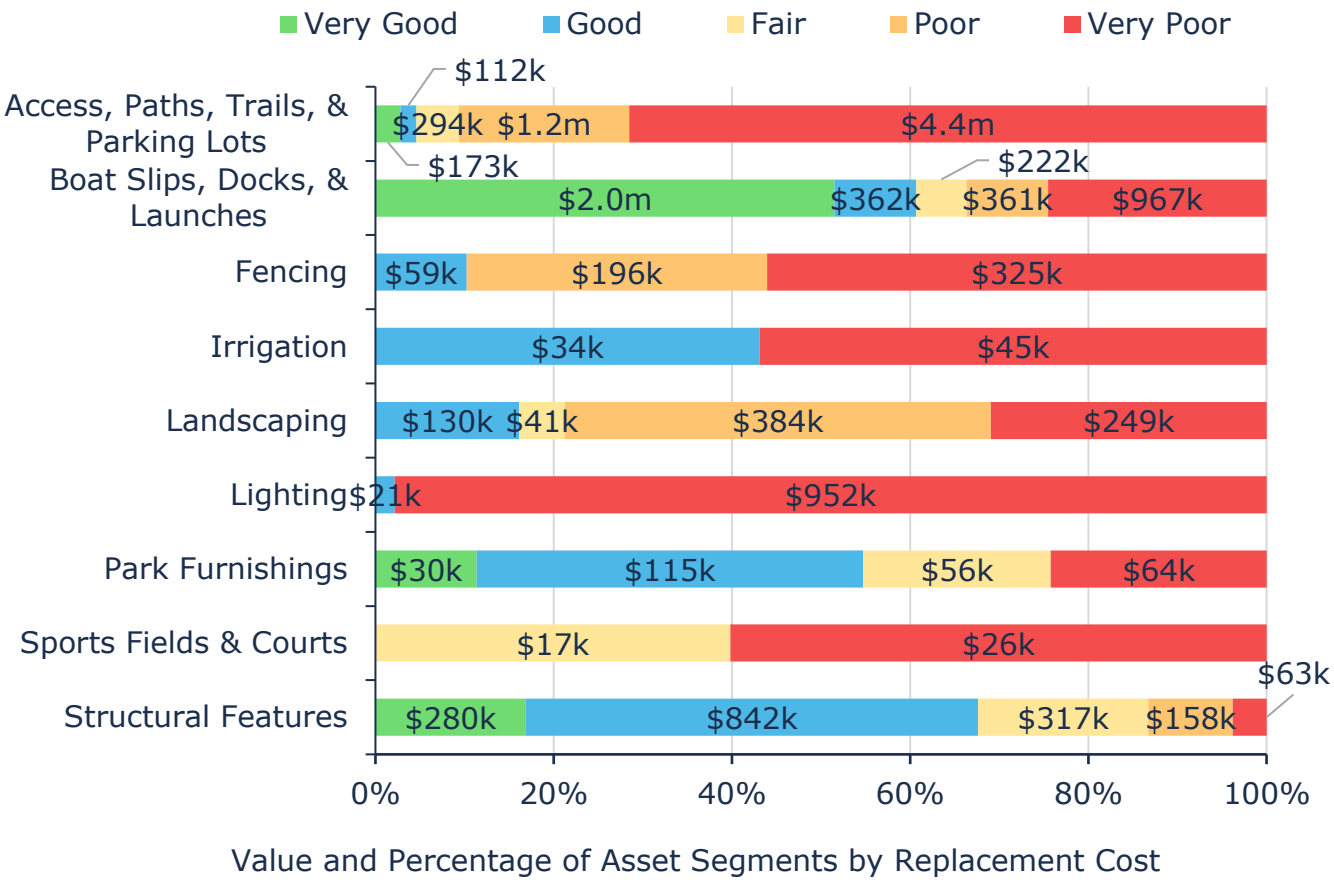



*Figure 56 Asset Condition: Land Improvements by Segment*

## 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 57 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.

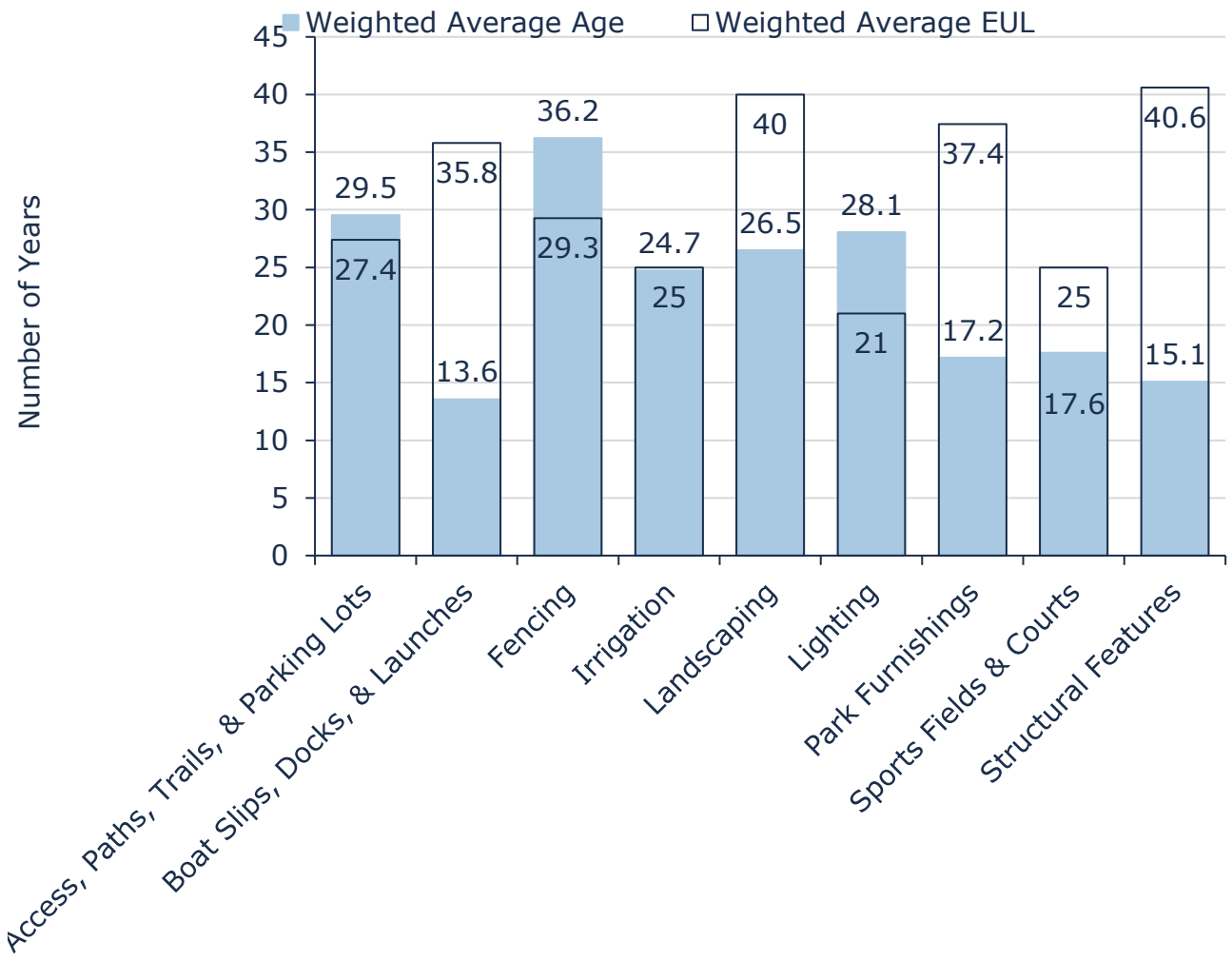



*Figure 57 Estimated Useful Life vs. Asset Age: Land Improvements*

## 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.

Table 34 outlines the Town's current lifecycle management strategy.

| Activity Type | Description of Current Strategy |
|---|---|
| Maintenance | Maintenance activities are completed on a reactive basis when operational issues are identified, through complaints, service requests, or ad-hoc inspections |
| Rehabilitation / Replacement | Without the availability of up-to-date condition assessment information replacement activities are purely reactive in nature |
| Inspections | Inspections are conducted on an ad-hoc basis |

*Table 34 Lifecycle Management Strategy: Land Improvements*

## 10.5 Forecasted Long-Term Replacement Needs

Figure 58 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's land improvements portfolio. This analysis was run until 2069 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Municipality's primary asset management system and asset register. The Town's average annual requirements (red dotted line) total $491,000 for all land improvements. 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.

These projections and estimates are based on asset replacement costs and age analysis. 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.

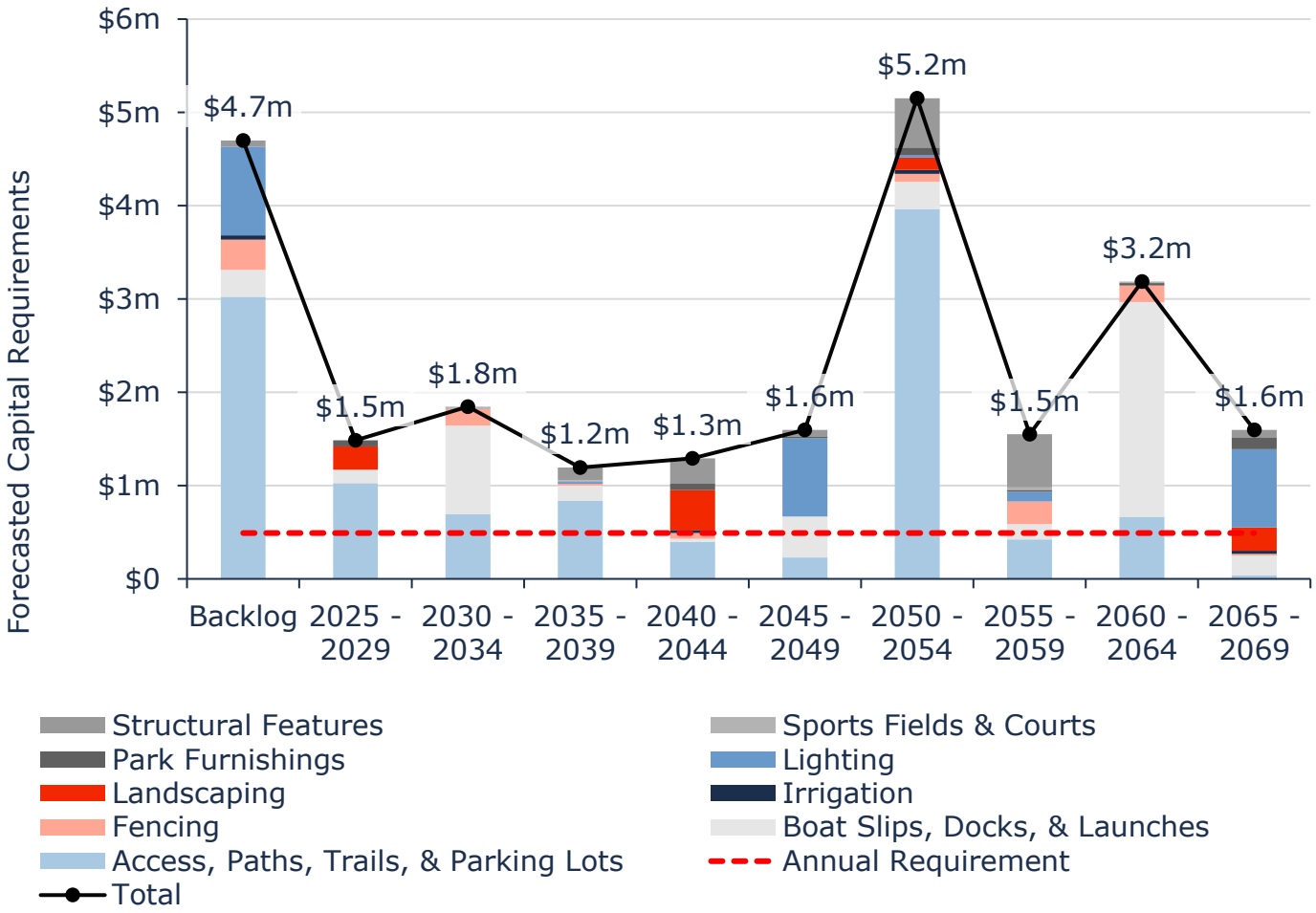



*Figure 58 Forecasted Capital Replacement Needs: Land Improvements 2025-2069*

Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. In addition, a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

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

## 10.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition and 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.

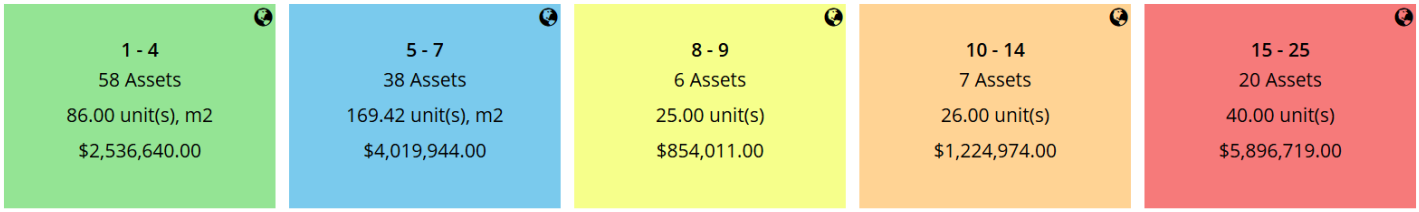



*Figure 59 Risk Matrix: Land Improvements*

## 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, which may include maps, of the outdoor recreational facilities that the municipality operates and maintains | The Town operates a variety of outdoor supporting infrastructures such as parking lots, fencing, and recreational infrastructure (i.e. trails, boat ramps, etc.). |

*Table 35 Community Levels of Service: Land Improvements*

### 10.7.2 Technical Levels of Service

| Service Attribute | Technical Metric | Current LOS (2024) |
|---|---|---|
| Quality | Average condition of outdoor recreation facilities and land improvements in the municipality | 35% |
| Performance | Current vs. Target capital reinvestment rate | 0.32% vs. 3.38% |

*Table 36 Technical Levels of Service: Land Improvements*

# 11. Rolling Stock

Town staff own and employ several types of rolling stock assets to provide and support various Town services. This includes:

- Land Ambulances
- Rolling stocks to support transportation, recreation, wastewater, water and protective services

## 11.1 Inventory & Valuation

Table 37 summarizes the quantity and current replacement cost of all rolling stock assets available in the Town's asset register. Transportation services and land ambulances account for the largest share of the Rolling Stock portfolio.

| Segment | Quantity | Unit of Measure | Replacement Cost | Primary RC Method |
|---|---|---|---|---|
| Cemeteries | 7 | Quantity | $309,000 | CPI |
| Fire | 4 | Quantity | $3,728,000 | User-Defined |
| Land Ambulance | 10 | Quantity | $3,051,000 | User-Defined |
| Protective Inspection | 2 | Quantity | $70,000 | CPI |
| Recreation & Cultural Services | 8 | Quantity | $589,000 | User-Defined |
| Transportation Services | 29 | Quantity | $4,063,000 | CPI |
| Wastewater Services | 3 | Quantity | $267,000 | CPI |
| Water Services | 4 | Quantity | $176,000 | CPI |
| **TOTAL** | | | **$12,252,000** | |

*Table 37 Detailed Asset Inventory: Rolling Stock*

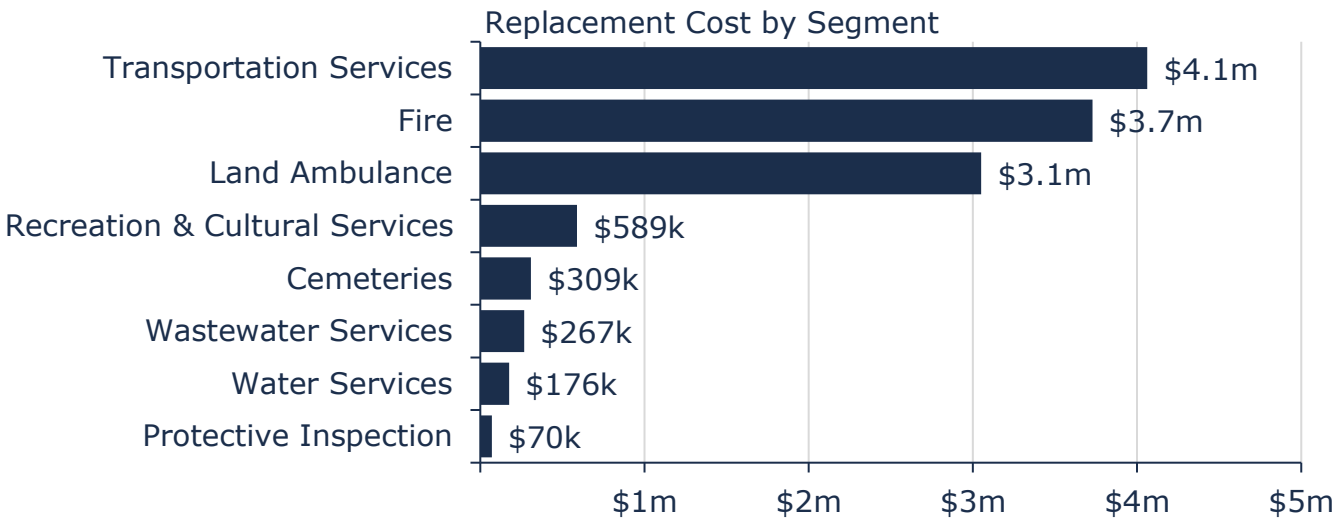



*Figure 60 Portfolio Valuation: Rolling Stock*

## 11.2 Asset Condition

Figure 61 summarizes the replacement cost-weighted condition of the Town's Rolling Stock portfolio. Based primarily on age-based data, 57% of Rolling Stock assets are in fair or better condition, with the remaining 43% 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 16% of Rolling Stock assets, based on replacement costs; age was used to estimate condition for the remaining 84% of assets.

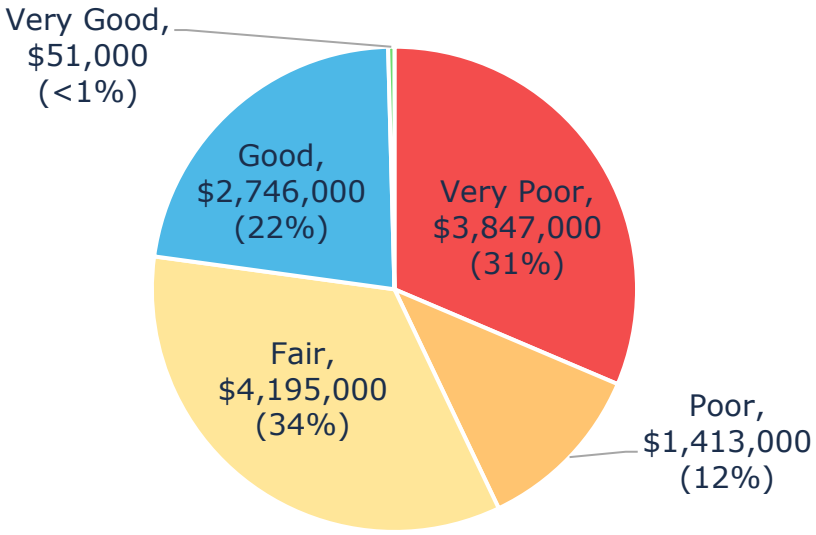



*Figure 61 Asset Condition: Rolling Stock Overall*

Figure 62 summarizes the condition of Rolling Stock assets by each department. The majority of all Rolling Stock asset across all asset segments are in poor or worse condition.

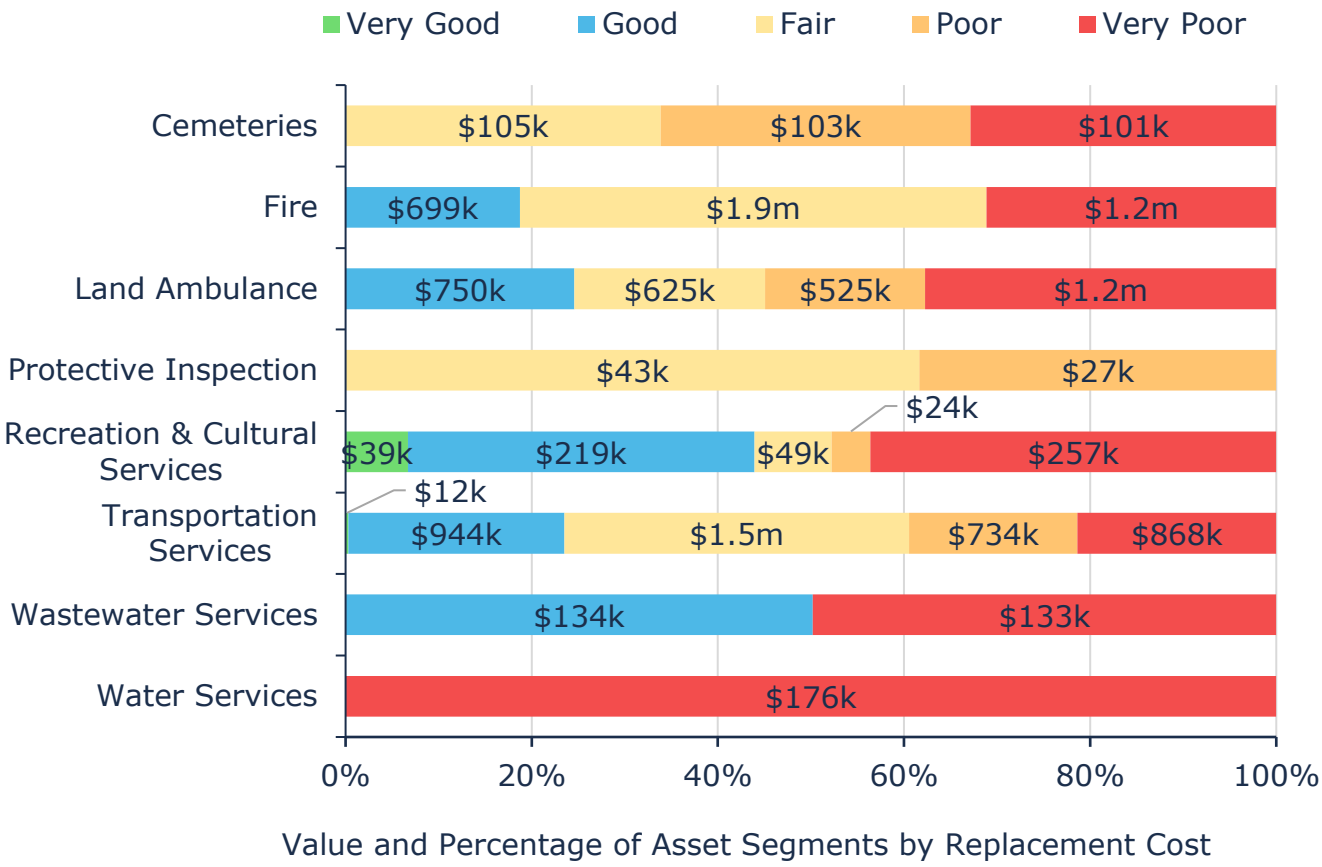



*Figure 62 Asset Condition: Rolling Stock by Segment*

## 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 63 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.

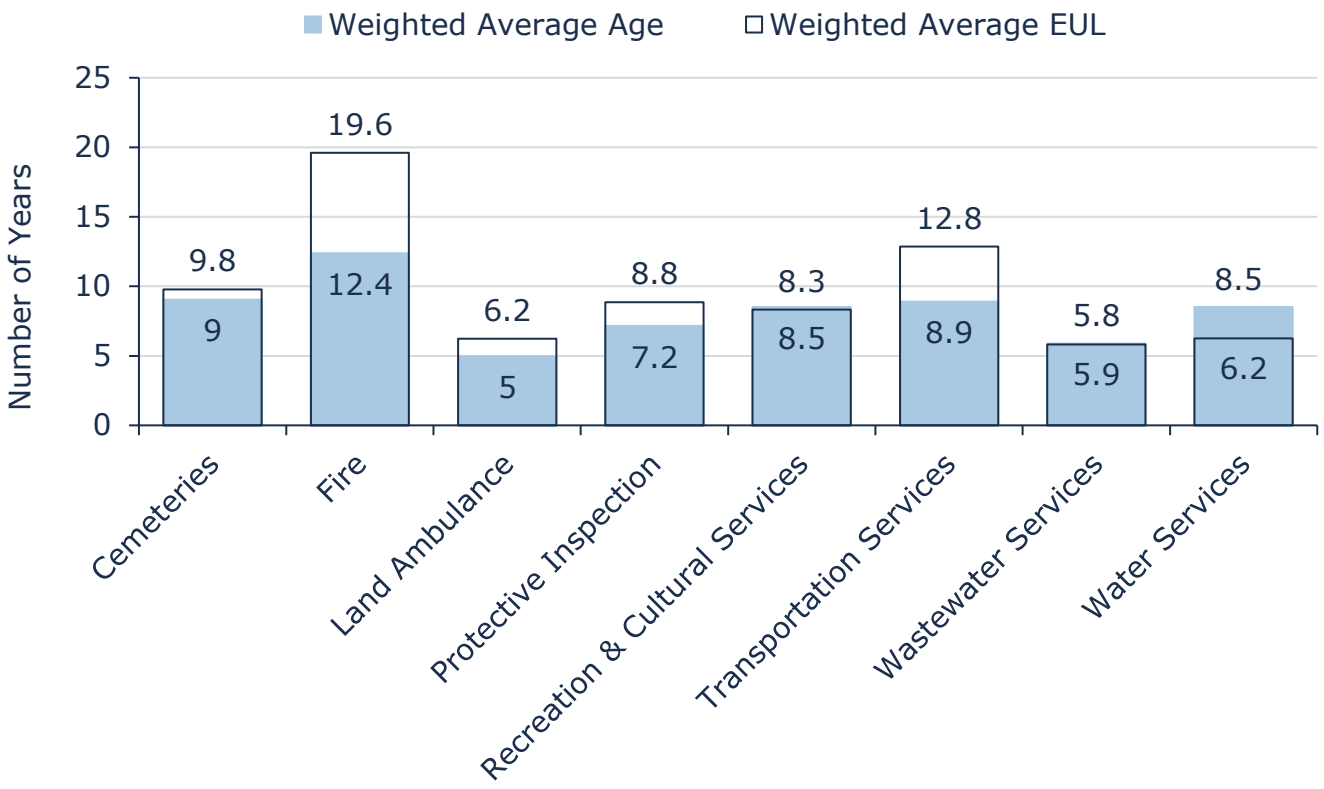



*Figure 63 Estimated Useful Life vs. Asset Age: Rolling Stock*

## 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 | Regular maintenance includes oil changes and tire rotations |

| Activity Type | Description of Current Strategy |
|---|---|
| | All other maintenance activities are completed on a reactive basis when operational issues are identified (e.g., mechanical breakdown, deficiencies identified during daily inspections) |
| Replacement | Replacements are considered on an as-needed basis and when maintenance is no longer cost effective. The Town leases several vehicles, which are on a 5-year replacement schedule |
| Inspection | Fleet with yellow stickers require a circle check every 24 hours |
| | Vehicles are inspected by the operator daily before use; however, these inspections identify deficiencies but do not provide overall condition ratings |
| | Vehicles that have over 46,000 KMs are inspected annually by external contractors, or internal staff when workload permits |

*Table 38 Lifecycle Management Strategy: Rolling Stock*

## 11.5 Forecasted Long-Term Replacement Needs

Figure 64 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's Rolling Stock portfolio. This analysis was run until 2049 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Town's primary asset management system and asset register. The Town's average annual requirements (red dotted line) total $1.3 million for all Rolling Stock. 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.

These projections and estimates are based on asset replacement costs and age analysis. 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.

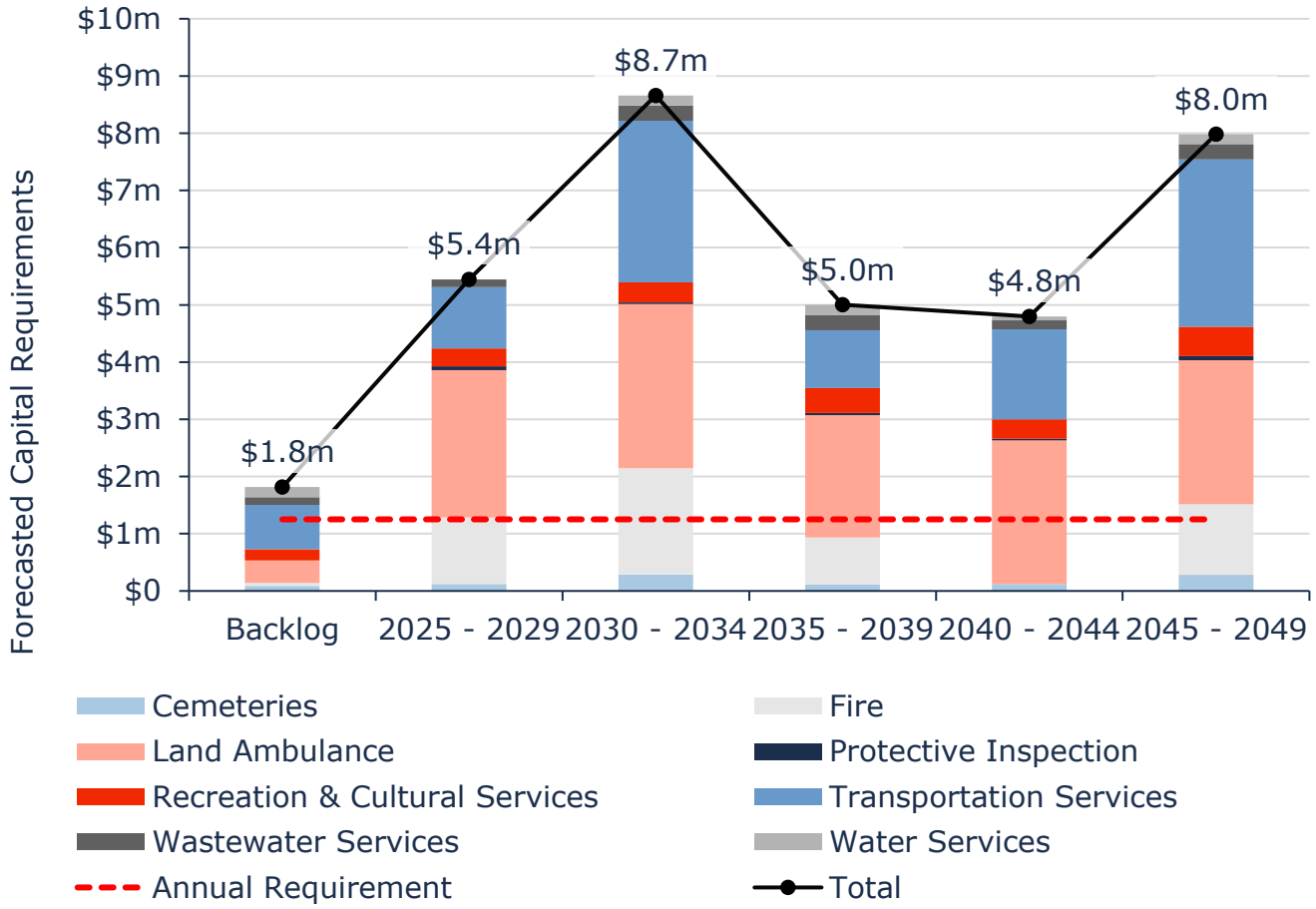



*Figure 64 Forecasted Capital Replacement Needs: Rolling Stock 2025-2049*

Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. In addition, a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

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

## 11.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition and 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.

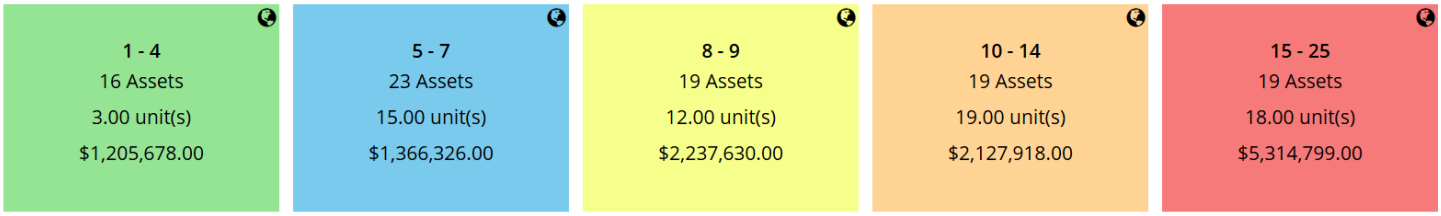



*Figure 65 Risk Matrix: Rolling Stock*

## 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, which may include images, of the types of Rolling Stock (i.e. light, medium, and heavy duty) that the municipality operates and the services that they help to provide to the community | Cemetery vehicles consist of various tractors, mowers and light duty pick-up trucks.<br>Fire department vehicles include water tankers, pumpers, service trucks, and rescue trucks, ensuring readiness for emergency response.<br>Recreation vehicles include light duty pick-up trucks for services such as park maintenance, and Zambonis and ice resurfaces. |

| Service Attribute | Qualitative Description | Current LOS (2024) |
|---|---|---|
| | | Transportation services vehicles include light and heavy duty trucks ranging from pick-up trucks to snow plows to ensure safe road conditions and managing infrastructure during inclement weather and construction projects.<br>Water and wastewater services vehicles include light duty pick-up trucks, to facilitate water and sanitary inspections and maintenance.<br>Land Ambulances also make up a large portion of the Town's rolling stock inventory for emergency response services. |

*Table 39 Community Levels of Service: Rolling Stock*

### 11.7.2 Technical Levels of Service

| Service Attribute | Technical Metric | Current LOS (2024) |
|---|---|---|
| Quality | Average condition of Rolling Stock | 38% |
| Performance | Current vs. Target capital reinvestment rate | 5.38% vs. 10.21% |

*Table 40 Technical Levels of Service: Rolling Stock*

# 12. Equipment

In order to maintain the high quality of public infrastructure and support the delivery of core services, Town staff own and deploy various types of equipment. This includes:

- Furniture and IT equipment in Town owned buildings
- Land Ambulance equipment
- Recreational equipment
- Equipment in Stockey Center
- Equipment that supports transportation and operational needs

## 12.1 Inventory & Valuation

Table 41 summarizes the quantity and current replacement cost of all equipment assets available in the Town's asset register.

| Segment | Quantity | Unit of Measure | Replacement Cost | Primary RC Method |
|---|---|---|---|---|
| Fire Admin | 10 | Quantity | $90,000 | CPI |
| General Government | 129 | Quantity | $1,357,000 | User-Defined |
| Land Ambulance | 245 | Quantity | $1,475,000 | CPI |
| Planning & Development | 7 | Quantity | $264,000 | CPI |
| Protection | 289 | Quantity | $831,000 | CPI |
| Recreation & Cultural Services | 52 | Quantity | $2,047,000 | CPI |
| Stockey – Administration | 7 | Quantity | $279,000 | CPI |
| Stockey – Building | 46 | Quantity | $1,452,000 | CPI |
| Transportation | 18 | Quantity | $731,000 | CPI |
| **TOTAL** | | | **$8,526,000** | |

*Table 41 Detailed Asset Inventory: Equipment*

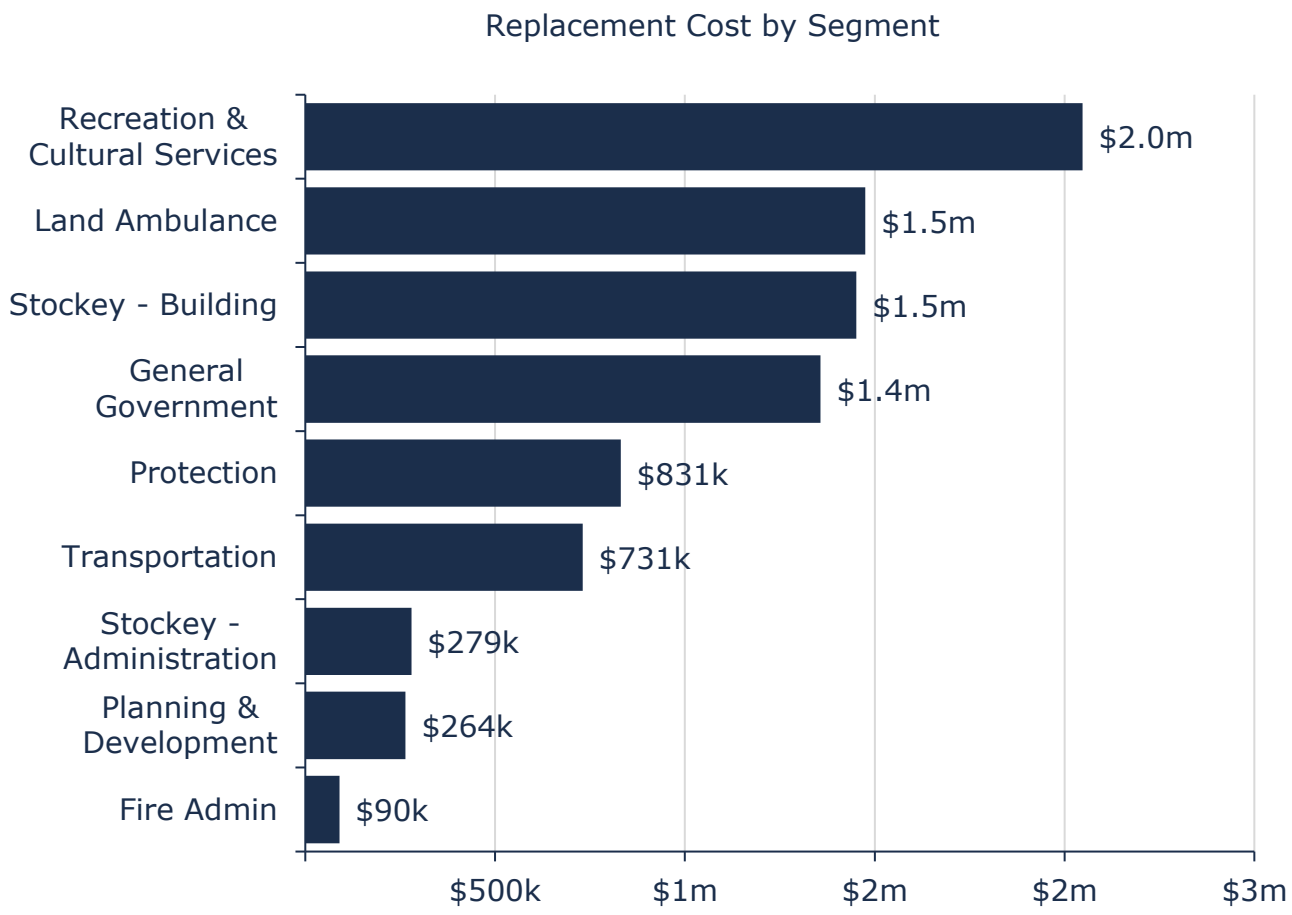



*Figure 66 Portfolio Valuation: Equipment*

## 12.2 Asset Condition

Figure 67 summarizes the replacement cost-weighted condition of the Town's equipment portfolio. Based on a combination of assessed conditions and age data, 26% of assets are in fair or better condition; the remaining 74% 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.

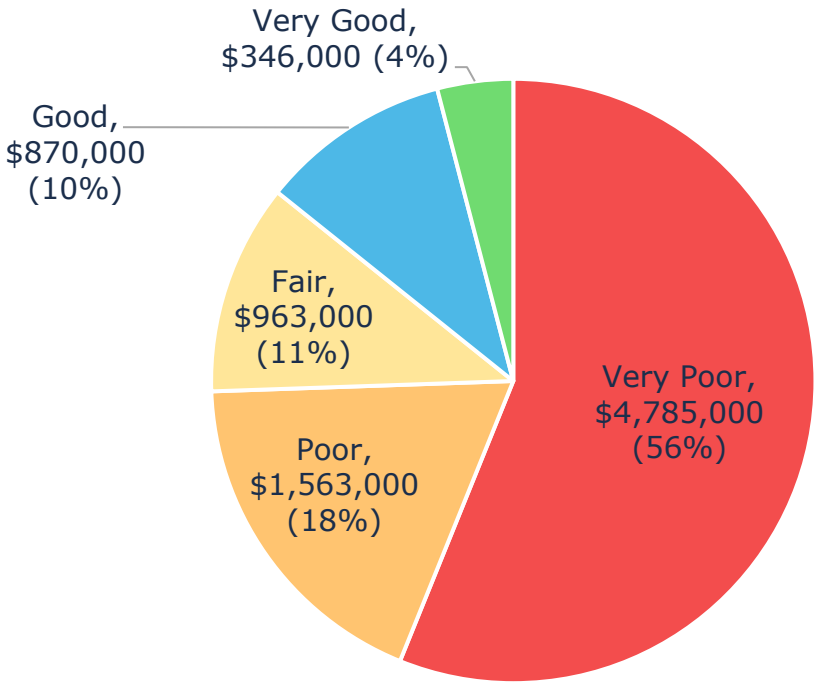



*Figure 67 Asset Condition: Equipment Overall*

Figure 68 summarizes the age-based condition of equipment by each department. Most assets are in poor or worse condition.

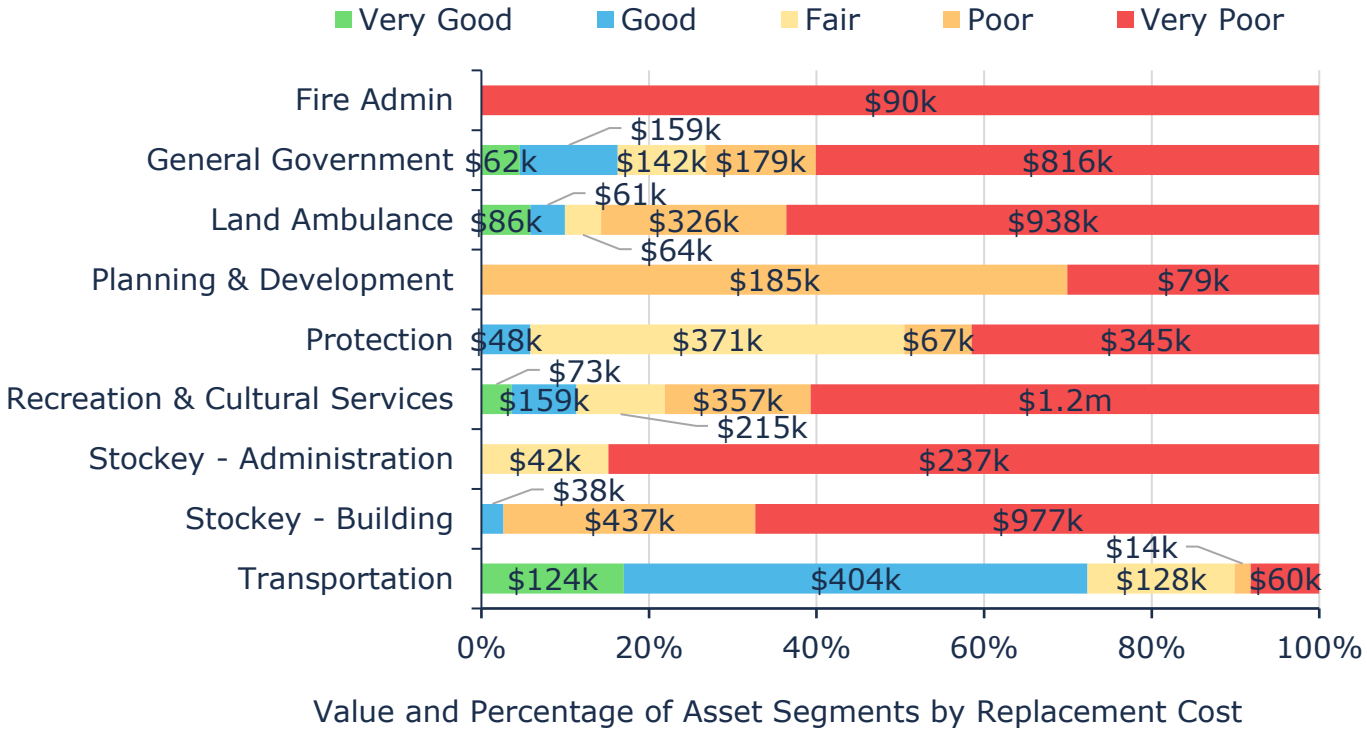



*Figure 68 Asset Condition: Equipment by Segment*

## 12.3 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 69 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.

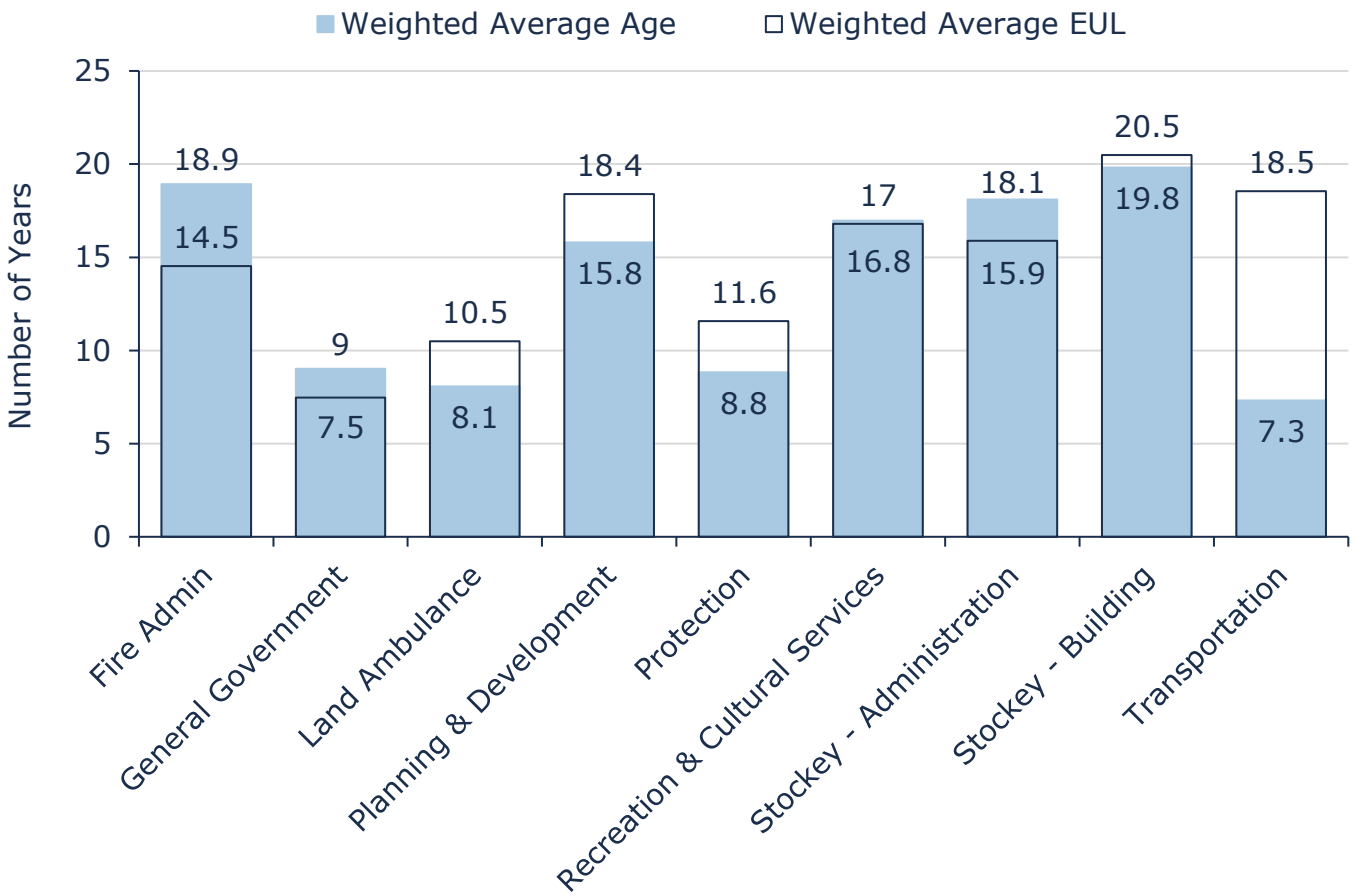



*Figure 69 Estimated Useful Life vs. Asset Age: Equipment*

## 12.4 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 | Maintenance activities vary by department and are specific to each piece of equipment, but typically as per manufacturer recommendations |
| | Equipment are given full service by an internal mechanic every 250 hours of use |
| | Fire Protection Services equipment is subject to a much more rigorous inspection and maintenance program compared to most other departments |
| Replacement | The replacement of equipment depends on deficiencies identified by operators that may impact their ability to complete the required tasks |
| | The Town has developed an equipment forecast which allows for replacement of assets before operating costs overrun the value of the equipment |
| Inspection | Specific equipment assets have set inspection schedules (e.g. water and wastewater pumps, fire equipment, etc.) |

*Table 42 Lifecycle Management Strategy: Equipment*

## 12.5 Forecasted Long-Term Replacement Needs

Figure 70 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's equipment portfolio. This analysis was run until 2049 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Town's primary asset management system and asset register. The Town's average annual requirements (red dotted line) total $762,000 for all equipment. 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.

These projections and estimates are based on asset replacement costs and age analysis. 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.

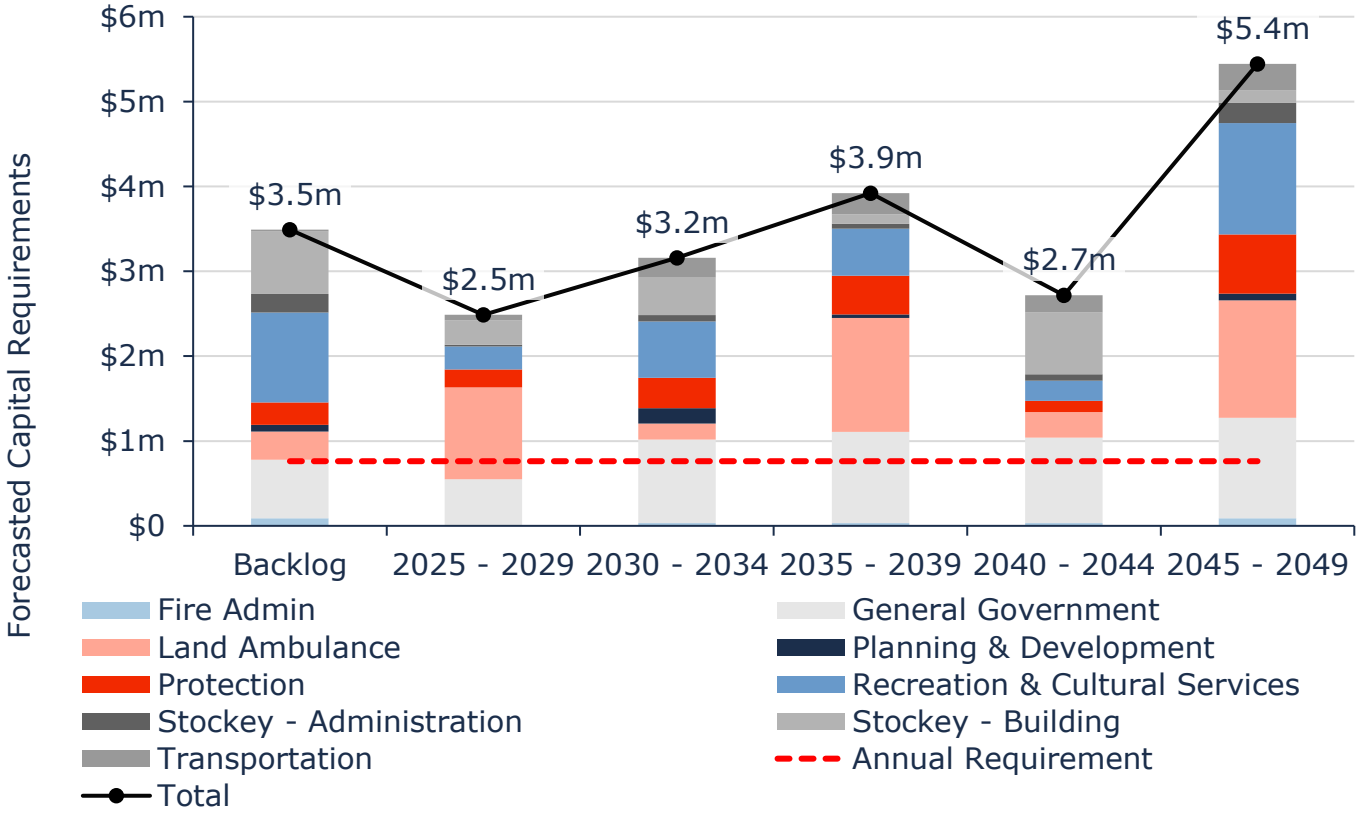



*Figure 70 Forecasted Capital Replacement Needs: Equipment 2025-2049*

Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. In addition, a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

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

## 12.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition and 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.

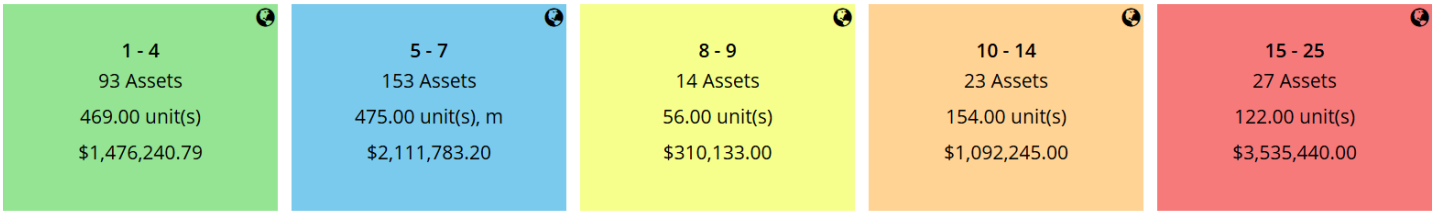



*Figure 71 Risk Matrix: Equipment*

## 12.7 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.

### 12.7.1 Community Levels of Service

| Service Attribute | Qualitative Description | Current LOS (2024) |
|---|---|---|
| Scope | Description, which may include images, of the types of equipment that the municipality operates and the services that they help to provide to the community | General government is supported by equipment such as phone systems and software.<br>Fire Administration is supported by equipment such as emergency generator, computers, and ThinkPads.<br>Various lifecycle equipment supports the Fire Department and the Town's Land Ambulance services.<br>Recreation is supported by playground structures, skateboard parks, folding tables and chairs, arena equipment and mowers.<br>Transportation services is supported by equipment such as compactors, steamers, crossing signals and LED lights. |

*Table 43 Community Levels of Service: Equipment*

### 12.7.2 Technical Levels of Service

| Service Attribute | Technical Metric | Current LOS (2024) |
|---|---|---|
| Quality | Average condition of equipment | 24% |
| Performance | Current vs. Target capital reinvestment rate | 9.98% vs. 8.94% |

*Table 44 Technical Levels of Service: Equipment*

# Strategies

Growth

Financial Strategy

Recommendations

# 13. 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.

## 13.1 Town of Parry Sound Official Plan (2014)

The Town of Parry Sound's Official Plan envisions a balanced approach to growth and development, rooted in preserving the town's natural beauty and rich cultural heritage. As a regional hub on the eastern shores of Georgian Bay, Parry Sound's economy thrives on tourism, bolstered by its scenic landscapes and historical significance. The plan emphasizes maintaining Parry Sound's identity while fostering economic growth through sustainable development, protecting natural features like Georgian Bay and the Seguin River, and ensuring that cultural and historical landmarks are preserved. By promoting land use intensification, compact development, and revitalization of its downtown and waterfront areas, the town aims to create vibrant public spaces that appeal to both residents and visitors.

Economic development is a key component of the Official Plan, focusing on expanding Parry Sound's role as a service and tourism hub. The plan supports efforts to attract new businesses, promote home-based enterprises, and enhance tourist destinations. The transformation of the waterfront into a major tourism center and the preservation of scenic vistas along Georgian Bay are crucial for future growth. A broad range of housing options, including affordable and diverse residential developments, is also promoted to accommodate the growing population, ensuring that new housing complements the town's character while meeting community needs.

In addition to economic goals, the plan addresses the town's infrastructure and environmental sustainability. Development will be concentrated in areas with existing municipal services to make efficient use of resources. Transportation improvements, including expanded road access, pedestrian pathways, and alternative transportation options, will support future growth. The town remains committed to protecting its natural and cultural assets through responsible environmental stewardship and the promotion of an urban forest initiative. By integrating these elements, Parry Sound aims to maintain its unique charm while ensuring a prosperous and sustainable future for its residents and visitors.

## 13.2 Town of Parry Sound Strategic Action Plan (2023-2026)

The Town of Parry Sound Strategic Action Plan builds upon the long-term Partnering for the Future Strategic Plan (2020-2030), outlining actionable steps to enhance economic growth, quality of life, and organizational excellence. Developed with input from residents, businesses, and key stakeholders, the plan focuses on maintaining the town's character while addressing contemporary challenges. Major areas of focus include economic diversification, downtown revitalization, housing solutions, and fostering tourism, all aimed at sustainable development and community well-being.

Economic growth is a top priority, with specific goals to attract new businesses, promote the town as a regional center, and enhance infrastructure to support economic development. Key initiatives include developing an investment attraction strategy, updating the Community Improvement Plan, and creating a strategy for youth engagement and workforce development. Supporting the tourism sector, particularly with improvements to the waterfront and the development of experiential tourism packages, is central to boosting Parry Sound’s appeal as a destination.

The plan also emphasizes improving quality of life through better housing options, enhancing parks and recreation, and addressing healthcare and transportation needs. By focusing on inclusivity, cultural development, and environmental sustainability, Parry Sound aims to create a community that balances growth with its natural beauty. The plan sets out to foster community pride, support Truth and Reconciliation initiatives, and create a welcoming environment for new residents. Additionally, the town seeks to ensure organizational excellence by reviewing policies, improving staff engagement, and enhancing customer service and communication with residents.

## 13.3 Impact of Growth on Lifecycle Activities

The growth of the Town of Parry Sound will bring challenges to service delivery. The Town recognizes this and has outlined strategies in its plans and communication to mitigate these impacts while ensuring long-term sustainability for residents. This includes a commitment to expanding existing neighborhoods and population hubs, which will help reduce costs by leveraging current infrastructure, staff, and processes. Additionally, there will be ongoing funding obligations to support lifecycle activities, ensuring services can be maintained and improved as the population increases.

# 14. 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 Town of Parry Sound 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 service levels
    c. Requirements of contemplated changes in service levels (none identified for this plan)
    d. Requirements of anticipated growth (none identified for this plan)
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. In order 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.

## 14.1 Annual Requirements & Capital Funding

### 14.1.1 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 $17.5 million annually to address capital requirements for the assets included in this AMP.

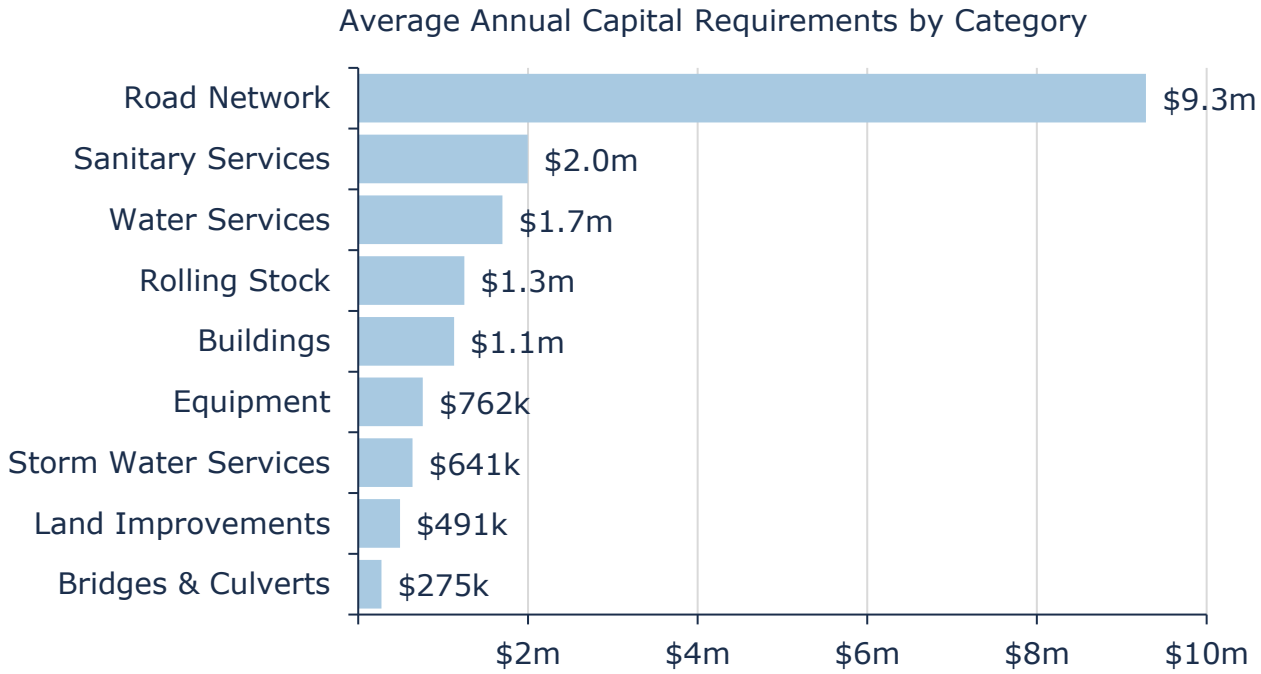



*Figure 72 Annual Capital Funding Requirements by Asset Category*

For most asset categories the annual requirement has been calculated based on a "replacement only" scenario, in which capital costs are only incurred at the construction and replacement of each asset.

However, for the Road Network, Bridges & Culverts and Sanitary Services, lifecycle management strategies have been developed and applied to the Town's Asset Management System to identify capital costs that are realized through strategic rehabilitation and renewals of the Town's assets. The development of these strategies allows for a comparison of potential cost avoidance if the strategies were to be implemented. The following table compares two scenarios for the Road Network, Bridges & Culverts and Sanitary Services:

1. **Replacement Only Scenario**: Based on the assumption that assets deteriorate and – without regularly scheduled maintenance and rehabilitation – are replaced at the end of their service life.
2. **Lifecycle Strategy Scenario**: Based on the assumption that lifecycle activities are performed at strategic intervals to extend the service life of assets until replacement is required.

| Asset Category | Annual Requirements (Replacement Only) | Annual Requirements (Lifecycle Strategy) | Difference |
|---|---|---|---|
| Bridges & Culverts | $245,000 | $269,000 | -$24,000 |
| Road Network | $10,305,000 | $9,286,000 | $1,019,000 |
| Sanitary Services | $1,989,000 | $1,998,000 | -$9,000 |

*Table 45 Lifecycle Strategies Annual Savings*

The implementation of a proactive lifecycle strategy for roads leads to a potential annual cost avoidance of $986,000 in total. This represents an overall reduction of the annual requirements of 6%. As the lifecycle strategy scenario represents the lowest cost option available to the Town, we have used these annual requirements in the development of the financial strategy.

### 14.1.2 Annual Funding Available

Based on a historical analysis of sustainable capital funding sources, the Town is committing approximately $14 million towards capital projects per year. Given the annual capital requirement of $17.5 million, there is currently a funding gap of $3.5 million annually.

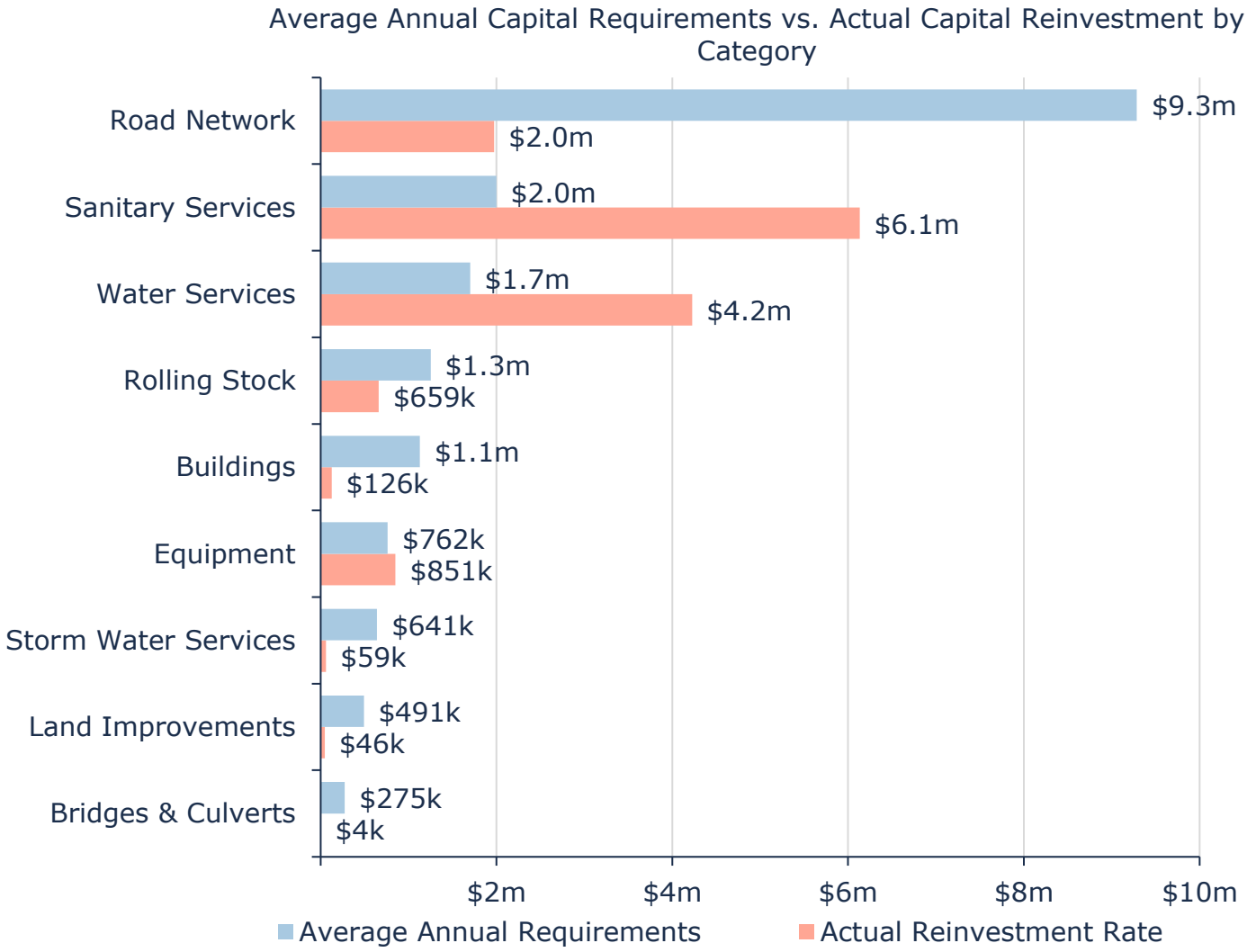



*Figure 73 Annual Requirements vs. Capital Funding Available*

## 14.2 Funding Objective

We have developed a scenario that would enable Parry Sound to achieve full funding within 15 years for the following assets:

1. **Tax Funded Assets:** Road Network, Storm Water Services, Bridges & Culverts, Buildings, Equipment, Land Improvements, Rolling Stock

2. **Rate-Funded Assets:** Water Services, Sanitary Services

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

## 14.3 Financial Profile: Tax Funded Assets

### 14.3.1 Current Funding Position

The following tables show, by asset category, Parry Sound's average annual asset investment requirements, current funding positions, and funding increases required to achieve full funding on assets funded by taxes.

| Asset Category | Avg. Annual Require-ment | Annual Funding Available | | | | | Annual Deficit |
|---|---|---|---|---|---|---|---|
| | | Taxes | CCBF | OCIF | Reserves | Total Available | |
| Road Network | 9,286,000 | - | 433,000 | 1,412,000 | 130,000 | 1,974,000 | 7,312,000 |
| Storm Water Services | 641,000 | 50,000 | - | - | 9,000 | 59,000 | 582,000 |
| Bridges & Culverts | 275,000 | - | - | - | 4,000 | 4,000 | 271,000 |
| Buildings | 1,130,000 | - | - | - | 126,000 | 126,000 | 1,004,000 |
| Equipment | 762,000 | 643,000 | - | - | 208,000 | 851,000 | -89,000 |
| Land Improve-ments | 491,000 | 46,000 | - | - | - | 46,000 | 445,000 |
| Rolling Stock | 1,251,000 | 18,000 | - | - | 641,000 | 659,000 | 592,000 |
| **Total** | **13,836,000** | **757,000** | **433,000** | **1,412,000** | **1,118,000** | **3,719,000** | **10,117,000** |

*Table 46 Annual Available Funding for Tax Funded Assets*

The average annual investment requirement for the above categories is $13.8 million. Annual revenue currently allocated to these assets for capital purposes is $3.7 million leaving an annual deficit of $10.1 million. Put differently, these infrastructure categories are currently funded at 26.9% of their long-term requirements.

### 14.3.2 Full Funding Requirements

In 2024, the Town of Parry Sound had budgeted annual tax revenues of approximately $13.67 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 | 53.5% |
| Storm Water Services | 4.3% |
| Bridges & Culverts | 2.0% |
| Buildings | 7.3% |
| Equipment | -0.7% |
| Land Improvements | 3.3% |
| Rolling Stock | 4.3% |
| Total | **74.0%** |

*Table 47 Tax Increase Requirements for Full Funding*

The following changes in costs and/or revenues over the next number of years should also be considered in the financial strategy:

a) Parry Sound's debt payments for these asset categories will be decreasing $114,000 over the next 5 years, $284,000 over the next 10 years, $150,000 over the next 15 years, and $557,000 over the next 20 years.

Our scenario modeling 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 | 10,117,083 | 10,117,083 | 10,117,083 | 10,117,083 |
| Change in Debt Costs | -113,795 | -284,360 | -149,673 | -556,909 |
| **Resulting Infrastructure Deficit:** | **10,003,288** | **9,832,723** | **9,967,410** | **9,560,174** |
| Tax Increase Required | 73.2% | 71.9% | 72.9% | 69.9% |
| **Annually:** | **11.7%** | **5.6%** | **3.8%** | **2.7%** |

*Table 48 Tax Increase Options 5-20 Years*

### 14.3.3 Financial Strategy Recommendations

Considering all the above information, we recommend the 20-year option. This involves full funding being achieved over 20 years by:

a) increasing tax revenues by 2.7% each year for the next 20 years solely for the purpose of phasing in full funding to the asset categories covered in this section of the AMP.
b) allocating the current CCBF and OCIF revenue as outlined previously.
c) reallocating appropriate revenue from categories in a surplus position to those in a deficit position.
d) 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[3].
2. We realize that raising tax revenues by the amounts recommended above for infrastructure purposes will be very difficult to do. However,

[3] 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.

considering a longer phase-in window may have even greater consequences in terms of infrastructure failure.

Although this option achieves full funding on an annual basis in 20 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 $1.3 million for buildings, $3.5 million for equipment, $4.7 million for land improvements, $43.4 million for the road network, $1.8 million for rolling stock, and $1.9 million for storm water services.

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 require otherwise.

## 14.4 Financial Profile: Rate Funded Assets

### 14.4.1 Current Funding Position

The following tables show, by asset category, Parry Sound's average annual asset investment requirements, current funding positions, and funding increases required to achieve full funding on assets funded by rates.

| Asset Category | Avg. Annual Require-ment | Annual Funding Available | | | | Annual Deficit |
|---|---|---|---|---|---|---|
| | | Rates | To Oper | OCIF | Total Available | |
| Water Services | 1,702,000 | 2,719,000 | -1,506,000 | - | 1,213,000 | 489,000 |
| Sanitary Services | 1,998,000 | 4,005,000 | -2,128,000 | - | 1,878,000 | 120,000 |
| **Total** | **3,700,000** | **6,725,000** | **-3,634,000** | **-** | **3,091,000** | **609,000** |

*Table 49 Annual Available Funding for Rate Funded Assets*

The average annual investment requirement for the above categories is $3.7 million. Annual revenue currently allocated to these assets for capital purposes is $3 million leaving an annual deficit of $609,000. Put differently, these infrastructure categories are currently funded at 83.5% of their long-term requirements.

### 14.4.2 Full Funding Requirements

Averaging from 2021-2023, Parry Sound had annual sanitary revenues of $2,719,294 and annual water revenues of $4,005,471. As illustrated in the table below, without consideration of any other sources of revenue, full funding would require the following changes over time:

| Asset Category | Rate Change Required for Full Funding |
|---|---|
| Water Services | 18.0% |
| Sanitary Services | 3.0% |

*Table 50 Rate Increase Requirements for Full Funding*

In the following tables, we have expanded the above scenario to present multiple options. Due to the significant increases required, we have provided phase-in options of up to 20 years:

| | Water Services | | | |
|---|---|---|---|---|
| | **5 Years** | **10 Years** | **15 Years** | **20 Years** |
| Infrastructure Deficit | 488,792 | 488,792 | 488,792 | 488,792 |
| Decrease in Debt Payment | -195,998 | -309,330 | -309,330 | -309,330 |
| **Total Deficit** | **292,794** | **179,462** | **179,462** | **179,462** |
| Rate Increase Required | 10.8% | 6.6% | 6.6% | 6.6% |
| **Annually:** | **2.1%** | **0.7%** | **0.5%** | **0.4%** |

*Table 51 Water Rate Increase Options 5-20 Years*

| | Sanitary Services | | | |
|---|---|---|---|---|
| | **5 Years** | **10 Years** | **15 Years** | **20 Years** |
| Infrastructure Deficit | 120,307 | 120,307 | 120,307 | 120,307 |
| Decrease in Debt Payment | -32,900 | -65,337 | -97,775 | -130,105 |
| **Total Deficit** | 87,407 | 54,970 | 22,532 | -9,798 |
| Rate Increase Required | 2.2% | 1.4% | 0.6% | 0% |
| **Annually:** | **0.5%** | **0.2%** | **0.1%** | **0%** |

*Table 52 Sanitary Rate Increase Options 5-20 Years*

### 14.4.3 Financial Strategy Recommendations

Considering all of the above information, we recommend the 20-year option. This involves full funding being achieved over 20 years by:

a) increasing rate revenues by 0.4% for water services and 0% for sanitary sewer services each year for the next 20 years solely for the purpose of phasing in full funding to the 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 rate 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 on an annual basis in 20 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 $10.8 million for the Water Services and $7.8 million for the Sanitary Services.

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 require otherwise.

## 14.5 Use of Debt

Debt can be strategically utilized as a funding source with in the long-term financial plan. The benefits of leveraging debt for infrastructure planning include:

a) the ability to stabilize tax & user rates when dealing with variable and sometimes uncontrollable factors
b) equitable distribution of the cost/benefits of infrastructure over its useful life
c) a secure source of funding
d) flexibility in cash flow management

Debt management policies and procedures with limitations and monitoring practices should be considered when reviewing debt as a funding option. In efforts to mitigate increasing commodity prices and inflation, interest rates have been rising. Sustainable funding models that include debt need to incorporate the now current realized risk of rising interest rates. The following graph shows the historical changes to the lending rates:

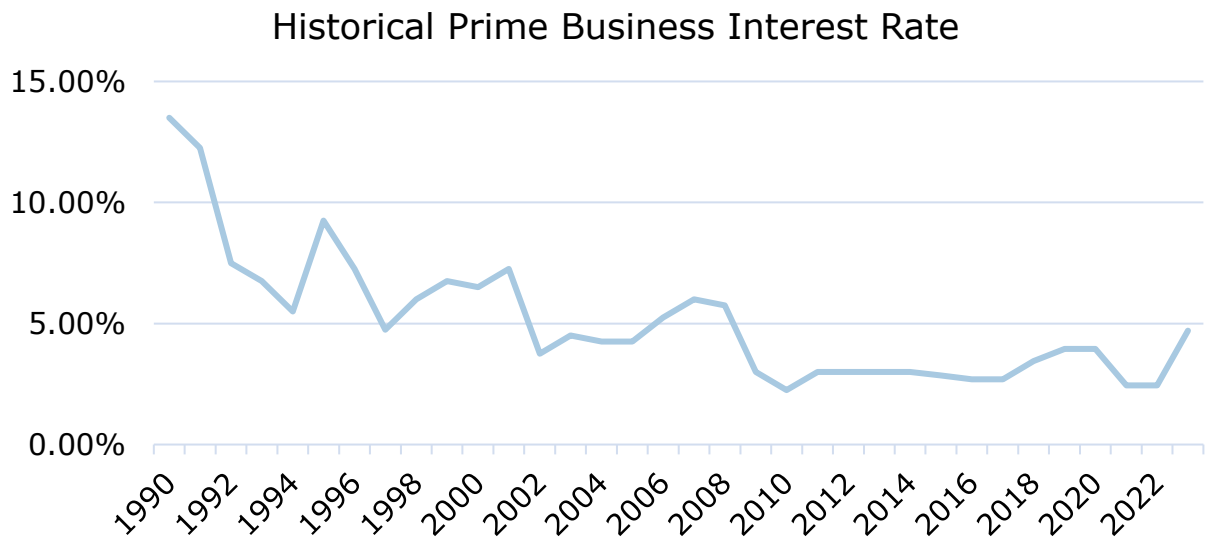



*Figure 74 Historical Prime Rate*

A change in 15-year rates from 5% to 7% would change the premium from 45% to 65%. Such a change would have a significant impact on a financial plan.

For reference purposes, the following table outlines the premium paid on a project if financed by debt. For example, a $1 million project financed at 3.0%[4] over 15 years would result in a 26% premium or $260 thousand of increased costs due to interest payments. For simplicity, the table does not consider the time value of money or the effect of inflation on delayed projects.

| Interest Rate | Number of Years Financed | | | | | |
|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 |
| **7.0%** | 22% | 42% | 65% | 89% | 115% | 142% |
| **6.5%** | 20% | 39% | 60% | 82% | 105% | 130% |
| **6.0%** | 19% | 36% | 54% | 74% | 96% | 118% |
| **5.5%** | 17% | 33% | 49% | 67% | 86% | 106% |
| **5.0%** | 15% | 30% | 45% | 60% | 77% | 95% |
| **4.5%** | 14% | 26% | 40% | 54% | 69% | 84% |
| **4.0%** | 12% | 23% | 35% | 47% | 60% | 73% |
| **3.5%** | 11% | 20% | 30% | 41% | 52% | 63% |
| **3.0%** | 9% | 17% | 26% | 34% | 44% | 53% |
| **2.5%** | 8% | 14% | 21% | 28% | 36% | 43% |
| **2.0%** | 6% | 11% | 17% | 22% | 28% | 34% |
| **1.5%** | 5% | 8% | 12% | 16% | 21% | 25% |
| **1.0%** | 3% | 6% | 8% | 11% | 14% | 16% |
| **0.5%** | 2% | 3% | 4% | 5% | 7% | 8% |
| **0.0%** | 0% | 0% | 0% | 0% | 0% | 0% |

*Table 53 Interest Premiums Paid*

The following tables outline how Parry Sound has historically used debt for investing in the asset categories as listed. As of year-end 2024, there is

[4] Current municipal Infrastructure Ontario rates for 15-year money is 4.03%.

currently $15.5 million of debt outstanding for the assets covered by this AMP with corresponding principal and interest payments of $1.6 million, within its provincially prescribed maximum of $1.7 million.

| Asset Category | Current Debt Outstanding | Use of Debt in the Last Five Years | | | | |
|---|---|---|---|---|---|---|
| | | 2019 | 2020 | 2021 | 2022 | 2023 |
| Road Network | 6,962,484 | 353,362 | 471,413 | 464,403 | 645,579 | 635,366 |
| Storm Water Services | - | - | - | - | - | - |
| Bridges & Culverts | - | - | - | - | - | - |
| Buildings | 3,180,645 | 246,358 | 289,473 | 284,471 | 279,861 | 275,251 |
| Equipment | - | - | - | - | - | - |
| Land Improvements | 1,133,910 | 45,496 | 87,278 | 86,332 | 85,431 | 84,530 |
| Rolling Stock | - | - | - | - | - | - |
| **Total Tax Funded** | **11,277,039** | **645,215** | **848,163** | **835,206** | **1,010,872** | **995,148** |
| Water Services | 1,065,835 | 361,566 | 351,338 | 340,620 | 330,146 | 319,673 |
| Sanitary Services | 3,187,500 | 689,314 | 673,132 | 655,392 | 638,431 | 621,471 |
| **Total Rate Funded** | **4,253,335** | **689,314** | **673,132** | **655,392** | **638,431** | **621,471** |

*Table 54 Parry Sound Use of Debt 2019-2023*

| Asset Category | Principal & Interest Payments in the Next Ten Years | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2034 |
| Road Network | 625,441 | 614,941 | 604,729 | 594,516 | 584,479 | 539,577 | 396,567 |
| Storm Water Services | - | - | - | - | - | - | - |
| Bridges & Culverts | - | - | - | - | - | - | - |
| Buildings | 270,982 | 266,031 | 261,421 | 256,811 | 252,492 | 247,591 | 224,541 |
| Machinery & Equipment | - | - | - | - | - | - | - |
| Land Improvements | 83,664 | 82,728 | 81,827 | 80,926 | 80,050 | 79,124 | 74,620 |
| Rolling Stock | - | - | - | - | - | - | - |
| **Total Tax Funded** | **980,088** | **963,701** | **947,977** | **932,254** | **917,021** | **866,293** | **695,728** |
| | | | | | | | |
| Water Services | 309,330 | 298,726 | 288,253 | 178,935 | 116,326 | 113,333 | 0 |
| Sanitary Services | 295,772 | 288,823 | 282,335 | 275,848 | 269,751 | 262,873 | 230,435 |
| **Total Rate Funded** | **605,102** | **587,549** | **570,588** | **454,783** | **386,078** | **376,205** | **230,435** |

*Table 55 Parry Sound Principal and Interest Payments*

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

## 14.6 Use of Reserves

### 14.6.1 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 Parry Sound.

| Asset Category | Balance at December 31, 2023 |
|---|---|
| Road Network | $631,593 |
| Storm Water Services | $129,183 |
| Bridges & Culverts | $38,889 |
| Buildings | $758,892 |
| Equipment | $710,419 |
| Land Improvements | $44,463 |
| Rolling Stock | $1,574,967 |
| **Total Tax Funded:** | **$3,888,408** |
| Water Services | $6,571,690 |
| Sanitary Services | $8,118,139 |
| **Total Rate Funded:** | **$14,689,829** |

*Table 56 Parry Sound 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 take into account 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 Parry Sound'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.

### 14.6.2 Recommendation

In 2025, Ontario Regulation 588/17 will require Parry Sound to integrate proposed levels of service for all asset categories in its asset management plan update. We recommend that future planning should reflect adjustments to service levels and their impacts on reserve balances.

# 15. Recommendations & Key Considerations

## 15.1 Financial Strategies

1. Review the feasibility of adopting a full-funding scenario to achieve 100% of average annual funding requirement for the asset categories analyzed. This includes:
    a. Increasing taxes by 2.7% per year over a period of 20 years;
    b. Increasing water rates by 0.4% per year over a period of 20 years; and
    c. Increasing sanitary rates by 0% per year over a period of 20 years.

2. Continued allocation of OCIF and CCBF funding as previously outlined.

3. Reallocating appropriate revenue from categories in a surplus position to those in a deficit position.

4. Increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

5. Continue to apply for project specific grant funding to supplement sustainable funding sources.

## 15.2 Asset Data

1. Continuously review, refine, and calibrate lifecycle and risk profiles to better reflect actual practices and improve capital projections. In particular:
    a. the timing of various lifecycle events, the triggers for treatment, anticipated impacts of each treatment, and costs
    b. the various attributes used to estimate the likelihood and consequence of asset failures, and their respective weightings

2. Asset management planning is highly sensitive to replacement costs. Periodically update replacement costs based on recent projects, invoices, or estimates, as well as condition assessments, or any other technical reports and studies. Material and labour costs can fluctuate due to local, regional, and broader market trends, and substantially so during major world events. Accurately estimating the replacement cost of like-for-like assets can be challenging. Ideally, several recent projects over multiple years should be used. Staff judgement and

historical data can help attenuate extreme and temporary fluctuations in cost estimates and keep them realistic.

3. Like replacement costs, an asset's established serviceable life can have dramatic impacts on all projections and analyses, including condition, long-range forecasting, and financial recommendations. Periodically reviewing and updating these values to better reflect in-field performance and staff judgement is recommended.

## 15.3 Risk & Levels of Service

1. Risk models and matrices can play an important role in identifying high-value assets, and developing an action plan which may include repair, rehabilitation, replacement, or further evaluation through condition assessments. As a result, project selection and the development of multi-year capital plans can become more strategic and objective. Initial models have been built into Citywide for all asset groups. These models reflect current data, which was limited. As the data evolves and new attribute information is obtained, these models should also be refined and updated.

2. Available data on current performance should be centralized and tracked to support any calibration of service levels ahead of O. Reg. 588's 2025 requirements on proposed levels of service.

3. Staff should monitor evolving local, regional, and environmental trends to identify factors that may shape the demand and delivery of infrastructure programs. These can include population growth, and the nature of population growth; climate change and extreme weather events; and economic conditions and the local tax base. This data can also be used to review service level targets.

# 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 | |
|---|---|---|---|---|
| Road Network | **$206.4 m** | **Fair** | Annual Requirement: | $9,286,000 |
| | | | Funding Available: | $1,974,000 |
| | | | **Annual Deficit:** | **$7,312,000** |
| Bridges & Culverts | **$12.7 m** | **Good** | Annual Requirement: | $275,000 |
| | | | Funding Available: | $4,000 |
| | | | **Annual Deficit:** | **$271,000** |
| Water Services | **$83.4 m** | **Fair** | Annual Requirement: | $1,702,000 |
| | | | Funding Available: | $1,213,000 |
| | | | **Annual Deficit:** | **$489,000** |
| Sanitary Services | **$87.4 m** | **Fair** | Annual Requirement: | $1,998,000 |
| | | | Funding Available: | $1,878,000 |
| | | | **Annual Deficit:** | **$120,000** |
| Storm Water Services | **$42.2 m** | **Good** | Annual Requirement: | $641,000 |
| | | | Funding Available: | $59,000 |
| | | | **Annual Deficit:** | **$582,000** |
| Buildings | **$47.3 m** | **Fair** | Annual Requirement: | $1,130,000 |
| | | | Funding Available: | $126,000 |
| | | | **Annual Deficit:** | **$1,004,000** |
| Land Improvements | **$14.5 m** | **Poor** | Annual Requirement: | $491,000 |
| | | | Funding Available: | $46,000 |
| | | | **Annual Deficit:** | **$445,000** |
| Rolling Stock | **$12.2 m** | **Poor** | Annual Requirement: | $1,251,000 |
| | | | Funding Available: | $659,000 |
| | | | **Annual Deficit:** | **$592,000** |
| Equipment | **$ 8.5 m** | **Poor** | Annual Requirement: | $762,000 |
| | | | Funding Available: | $851,000 |
| | | | **Annual Deficit:** | **($89,000)** |

# Appendix B – 10-Year Capital Requirements

The tables below summarize the projected cost of lifecycle activities (rehabilitation and replacements) that may be undertaken over the next 10 years to support current levels of service.

These projections are generated in Citywide and rely on the data available in the asset register. Assessed condition data and replacement costs were used to assist in forecasting replacement needs for roads. For all remaining assets, only age was used to determine forthcoming replacement needs.

The projections can be different from actual capital forecasts. Consistent data updates, particularly condition, replacement costs, and regular upkeep of lifecycle models, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

## Road Network

| Segment | Backlog | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Guiderails | - | - | - | - | $4k | $12k | - | $3k | $38k | - | - |
| Sidewalks | - | - | - | - | - | $36k | $302k | $57k | $229k | $292k | $330k |
| Signal Lights | $148k | $146k | - | - | - | $201k | $291k | $74k | - | - | - |
| Street Lighting | $162k | $140k | $54k | $72k | - | $98k | $871k | $5k | $11k | $4k | $29k |
| Sub-Surface | $42.4m | $428k | $5.1m | $1.3m | - | $997k | - | $1.8m | $1.8m | $1.6m | $1.0m |
| Surface | $607k | $8.6m | $8.2m | $7.6m | $11.1m | $7.8m | $5.8m | $3.3m | $1.9m | $7.9m | $1.4m |
| **Total** | **$43.4m** | **$9.3m** | **$13.4m** | **$9.0m** | **$11.1m** | **$9.1m** | **$7.2m** | **$5.3m** | **$4.0m** | **$9.8m** | **$2.8m** |

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

## Bridges & Culverts

| Segment | Backlog | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bridges | - | $495k | - | - | - | - | $529k | - | - | - | - |
| Culverts | - | - | - | - | - | - | - | - | - | - | - |
| **Total** | **-** | **$495k** | **-** | **-** | **-** | **-** | **$529k** | **-** | **-** | **-** | **-** |

*Table 58 System Generated 10-Year Capital Replacement Forecast: Bridges & Culverts*

## Water Services

| Segment | Backlog | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hydrants | $607k | - | $90k | $5k | $63k | $16k | $16k | $111k | $5k | $42k | - |
| Water Booster Station | $66k | - | - | - | - | - | - | - | - | - | - |
| Water Equipment | $443k | - | $21k | $65k | $132k | $27k | $124k | $253k | - | $147k | $227k |
| Water Tower | - | - | - | $7k | $101k | - | - | - | - | - | $10k |
| Water Treatment Plant | $3.2m | - | $1.8m | $13k | $23k | $58k | $28k | $1.8m | - | - | - |
| Water Valves | $933k | $9k | $85k | $162k | $15k | - | $58k | - | $49k | $88k | $34k |
| Watermains | $5.5m | - | - | - | - | - | - | - | - | - | $1.3m |
| **Total** | **$10.8m** | **$9k** | **$2.0m** | **$251k** | **$334k** | **$100k** | **$226k** | **$2.2m** | **$54k** | **$277k** | **$1.5m** |

*Table 59 System Generated 10-Year Capital Replacement Forecast: Water Services*

## Sanitary Services

| Segment | Backlog | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Manholes | $3.0m | $40k | $94k | $67k | $297k | $13k | $27k | $472k | $377k | $67k | - |
| Pumping Stations | $3.5m | $10k | $1.8m | $20k | $394k | - | - | $3.0m | - | - | - |
| Sanitary Sewers | $632k | - | $528k | $299k | - | - | - | - | - | - | - |
| Sewer Connections | $186k | - | $17k | $13k | - | - | - | - | - | - | - |
| Wastewater Equipment | $71k | - | $46k | $2k | $19k | $126k | $33k | $16k | - | $33k | $16k |
| Wastewater Treatment Plant | $419k | $21k | $473k | $102k | $20k | $8k | $57k | $5.1m | - | - | - |
| **Total** | **$7.8m** | **$71k** | **$2.9m** | **$503k** | **$730k** | **$148k** | **$117k** | **$8.5m** | **$377k** | **$100k** | **$16k** |

*Table 60 System Generated 10-Year Capital Replacement Forecast: Sanitary Services*

## Storm Water Services

| Segment | Backlog | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Catch Basins | $985k | $149k | - | $26k | $387k | - | $413k | $79k | $404k | $712k | - |
| Manholes | $270k | $40k | - | $27k | $121k | - | $108k | $81k | $121k | $256k | - |
| Storm Mains | $644k | - | - | - | $125k | - | - | - | - | - | $148k |
| **Total** | **$1.9m** | **$190k** | **-** | **$53k** | **$633k** | **-** | **$521k** | **$160k** | **$526k** | **$968k** | **$148k** |

*Table 61 System Generated 10-Year Capital Replacement Forecast: Storm Water Services*

## Buildings

| Segment | Backlog | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Community Buildings | $621k | - | - | $89k | $3.7m | - | - | $3k | $374k | $338k | - |
| Emergency Buildings | $162k | - | - | $478k | - | - | - | - | - | $527k | - |
| Municipal Building | - | - | - | $330k | $934k | - | - | - | - | - | - |
| Operational Buildings | $89k | - | - | $135k | $186k | - | $22k | - | - | - | $31k |
| Other Town Property | $446k | - | - | - | $25k | - | - | - | - | - | - |
| **Total** | **$1.3m** | **-** | **-** | **$1.0m** | **$4.8m** | **-** | **$22k** | **$3k** | **$374k** | **$865k** | **$31k** |

*Table 62 System Generated 10-Year Capital Replacement Forecast: Buildings*

## Land Improvements

| Segment | Backlog | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Access Paths, Trails & Parking Lots | $3.0m | $399k | $369k | $37k | $95k | $124k | - | $601k | $19k | $36k | $38k |
| Boat Slips, Docks & Launches | $289k | - | - | - | $147k | - | - | $117k | $629k | $57k | $147k |
| Fencing | $325k | - | - | - | - | - | - | $130k | $47k | - | - |
| Irrigation | $45k | - | - | - | - | - | - | - | - | - | - |
| Landscaping | - | - | - | - | $249k | - | - | - | - | - | - |
| Lighting | $952k | - | - | - | - | - | - | - | - | - | - |
| Park Furnishings | - | - | $24k | - | $41k | - | - | - | - | - | - |
| Sports Fields & Courts | - | - | - | - | - | - | $26k | - | - | - | - |
| Structural Features | $63k | - | - | - | - | - | - | - | - | - | - |
| **Total** | **$4.7m** | **$399k** | **$393k** | **$37k** | **$531k** | **$124k** | **$26k** | **$848k** | **$695k** | **$93k** | **$186k** |

*Table 63 System Generated 10-Year Capital Replacement Forecast: Land Improvements*

## Rolling Stock

| Segment | Backlog | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cemeteries | $85k | $16k | - | $97k | $6k | - | - | $105k | $85k | - | $97k |
| Fire | $60k | - | $1.1m | - | - | $69k | - | - | $60k | - | $1.8m |
| Land Ambulance | $391k | $660k | $540k | $525k | $845k | - | $90k | $880k | $540k | $611k | $745k |
| Protective Inspection | - | - | - | $27k | - | $43k | - | - | - | - | $27k |
| Recreation & Cultural Services | $191k | - | $66k | - | $244k | - | $11k | $38k | - | $304k | - |
| Transportation Services | $778k | - | $90k | $19k | $894k | $72k | $405k | $976k | $335k | $638k | $471k |
| Wastewater Services | $133k | - | - | - | $134k | - | $23k | - | $110k | $134k | - |
| Water Services | $176k | - | - | - | - | - | $66k | - | $110k | - | - |
| **Total** | **$1.8m** | **$676k** | **$1.8m** | **$668k** | **$2.1m** | **$184k** | **$595k** | **$2.0m** | **$1.2m** | **$1.7m** | **$3.1m** |

*Table 64 System Generated 10-Year Capital Replacement Forecast: Rolling Stock*

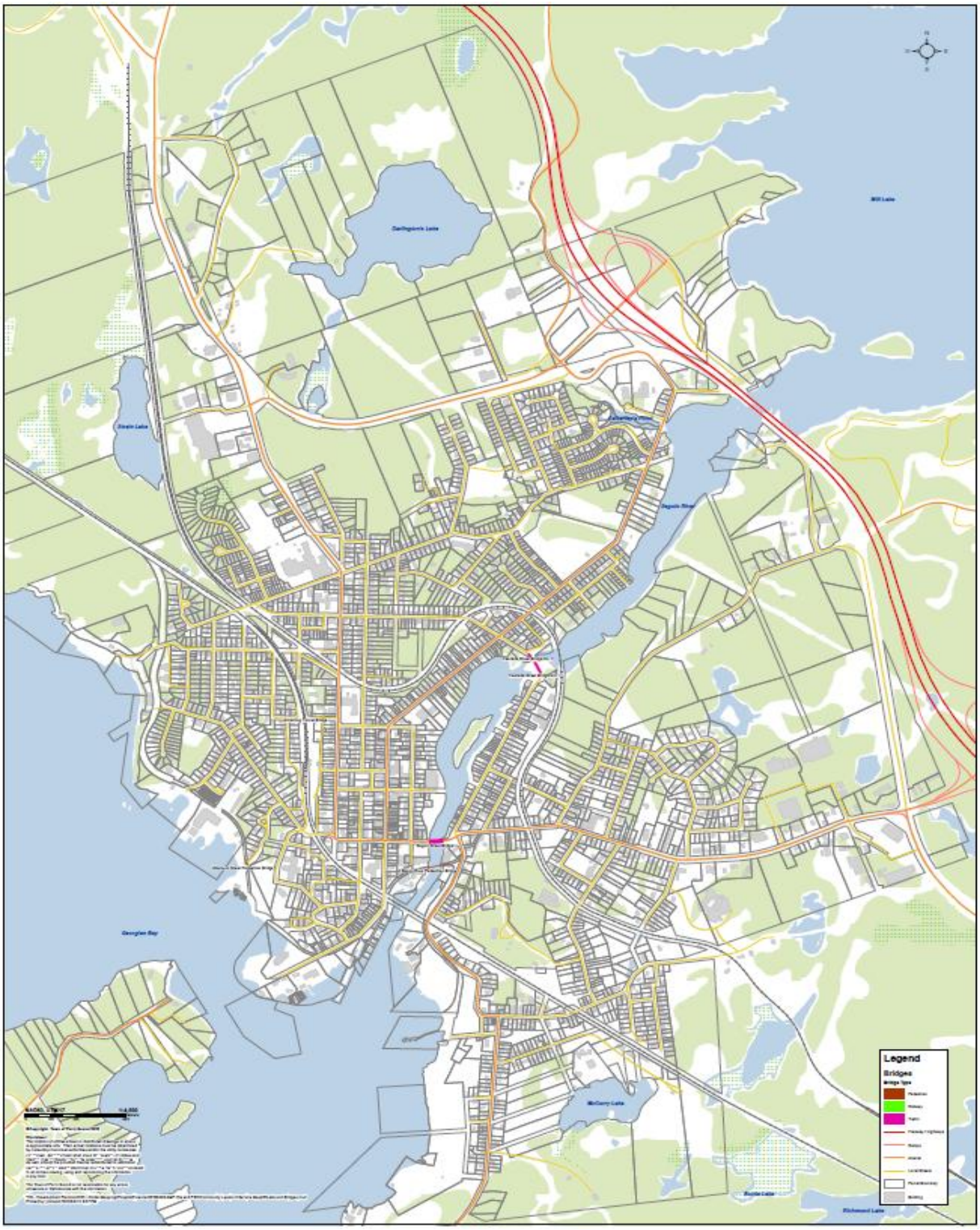
## Equipment

| Segment | Backlog | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fire Admin | $90k | - | - | - | - | - | $32k | - | - | - | - |
| General Government | $691k | $71k | $129k | $125k | $193k | $31k | $402k | $195k | $124k | $131k | $132k |
| Land Ambulance | $329k | $21k | $104k | $825k | $28k | $106k | $127k | $18k | $42k | - | - |
| Planning & Development | $79k | - | - | - | - | - | $185k | - | - | - | - |
| Protection | $266k | $27k | $52k | $36k | $30k | $63k | $64k | $34k | $14k | $245k | - |
| Recreation & Cultural Services | $1.1m | $115k | $9k | $106k | $20k | $23k | $284k | $72k | $32k | $109k | $166k |
| Stockey – Administration | $217k | $8k | - | $12k | - | - | $76k | - | - | - | - |
| Stockey – Building | $735k | - | $4k | $6k | $241k | $40k | $24k | $20k | - | $397k | - |
| Transportation | $23k | $16k | - | $26k | $8k | $11k | - | - | $7k | $117k | $108k |
| **Total** | **$3.5m** | **$258k** | **$298k** | **$1.1m** | **$520k** | **$275k** | **$1.2m** | **$340k** | **$220k** | **$999k** | **$406k** |

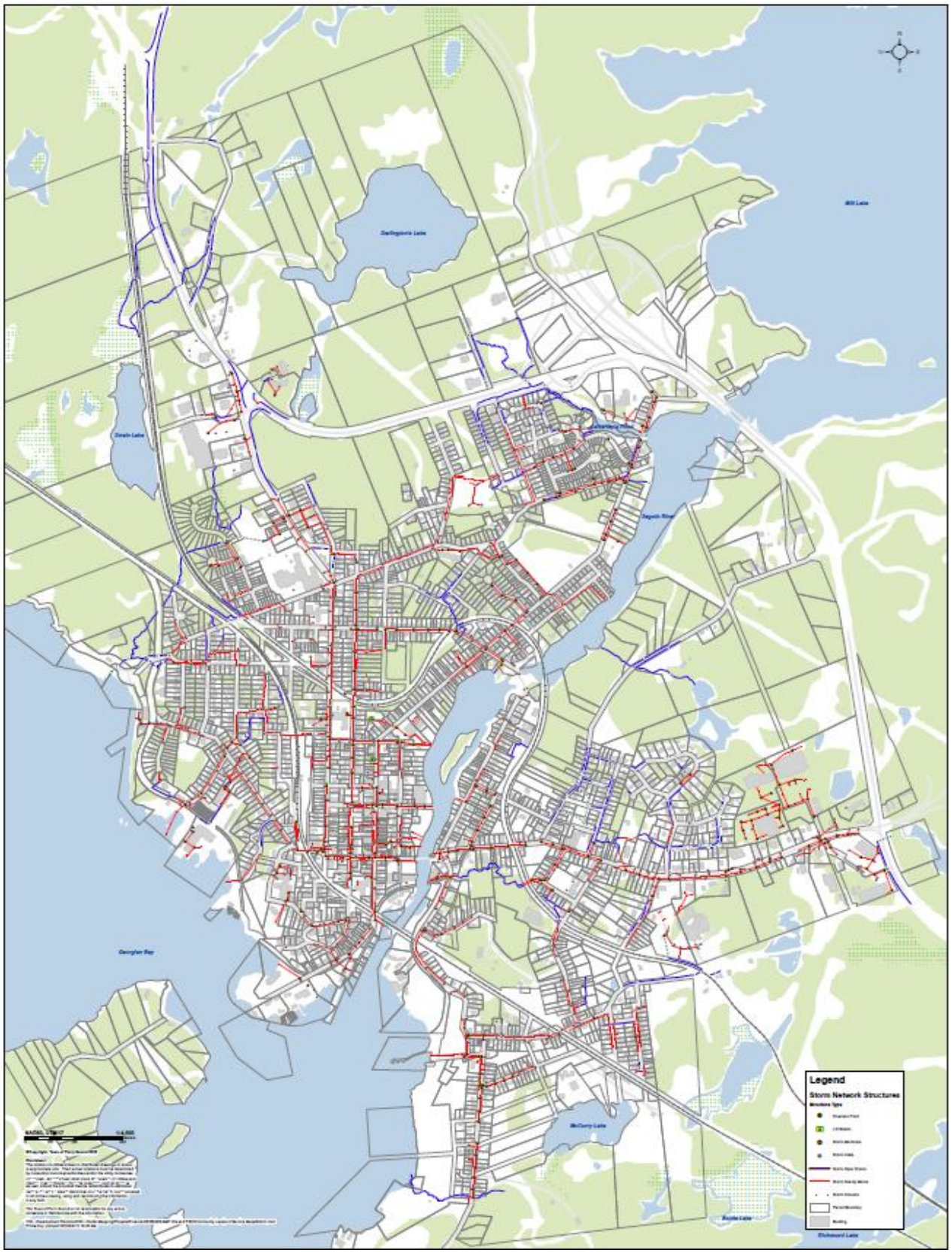
*Table 65 System Generated 10-Year Capital Replacement Forecast: Equipment*

# Appendix C – Level of Service Maps & Photos

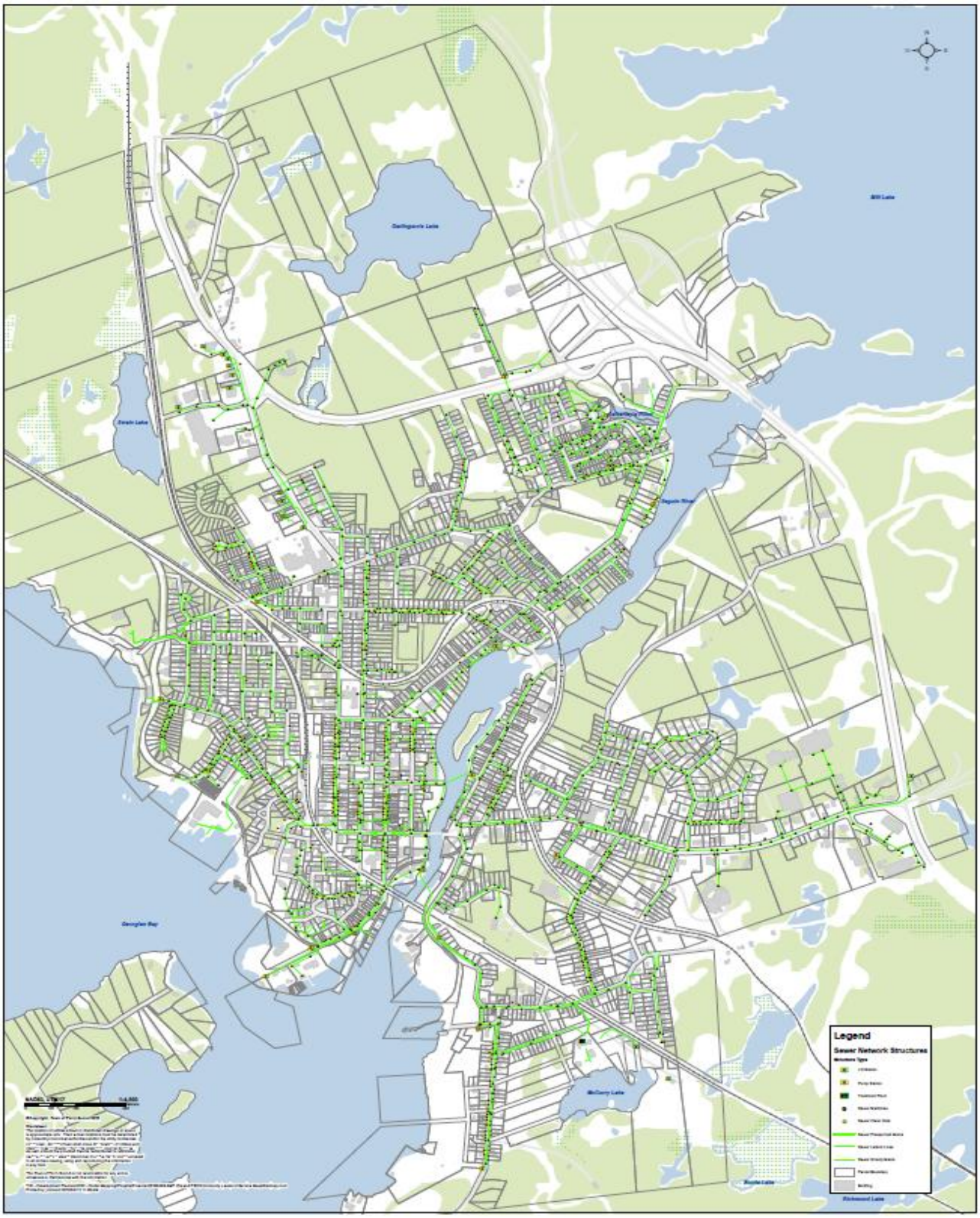
## *Road Network Connectivity*



## *Stormwater Network*



## *Sanitary Sewer Network*



## *Municipal Water Distribution*