Asset Management Plan 2025

Town of South Bruce Peninsula

June 2025

psdcitywide

This Asset Management Plan was prepared by:

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

Key Statistics

$537m	2024 Replacement Cost of Asset Portfolio
$76k	Replacement Cost of Infrastructure Per Household
69%	Percentage of Assets in Fair or Better Condition
76%	Percentage of Assets with Assessed Condition Data
$7.6 m	Annual Capital Infrastructure Deficit[1]
15 Years	Recommended Timeframe to reach Proposed Levels of Service
1.04%	Target Investment Rate to meet Proposed Levels of Service
0.94%	Actual Investment Rate

[1] The annual capital infrastructure deficit does not include one-time grants due to Provincial requirements for firm commitments. However, the Municipality should take advantage of grant funding opportunities when applicable as these will continue be an essential source of revenue for investment in capital infrastructure.

Table of Contents

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 of South Bruce Peninsula can ensure that public infrastructure is managed to support the sustainable delivery of municipal services. Natural Assets are currently being reviewed by staff with the development of an Action Plan for future completion of a separate Asset Management Plan.

This AMP includes the following asset categories:

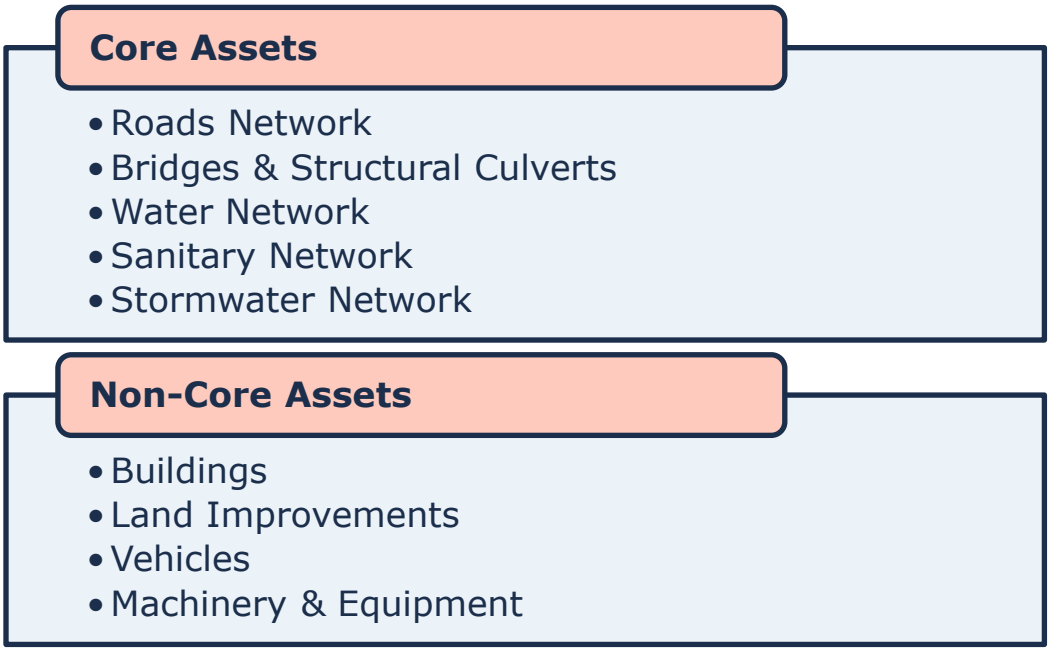


Figure 1 Core and Non-Core Asset Categories

1.2 Compliance

With the development of this AMP the Town of South Bruce Peninsula has achieved compliance with July 1, 2025, requirements under O. Reg. 588/17. This includes requirements for proposed levels of service and inventory reporting for all asset categories.

1.3 Findings

The overall replacement cost of the asset categories included in this AMP totals $537 million. 69% of all assets analyzed in this AMP are in fair or better condition and assessed condition data was available for 76% of assets. For the remaining 24% 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 and replacement only strategies 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 $12.6 million. Based on a historical analysis of sustainable capital funding sources, the Town is committing approximately $5 million towards capital projects or reserves per year. As a result, there is currently an annual funding gap of $7.6 million.

It is important to note that this AMP represents a snapshot in time and is based on the best available processes, data, and information at the Town. This AMP also does not take into account any potential increases to replacement costs due to tariffs, as these are difficult to predict. 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 15-year plan:

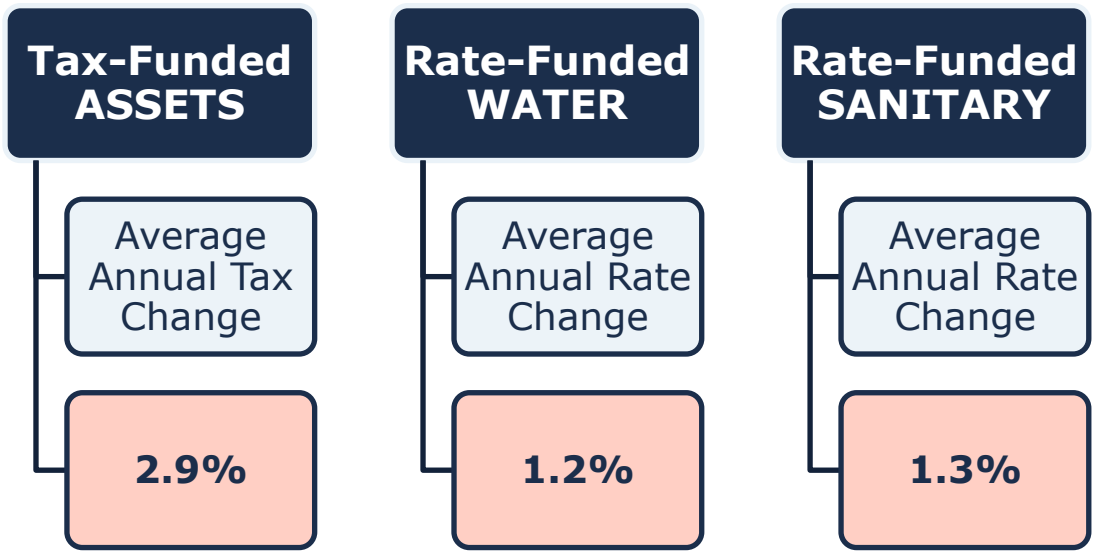


Figure 2 Proposed Tax/Rate Changes

Recommendations to guide continuous refinement of the Town's asset management program. These include:

- Review data to update and maintain a complete and accurate dataset
- Develop a condition assessment strategy with a regular schedule
- Review and update lifecycle management strategies
- Development and regularly review short- and long-term plans to meet capital requirements. Work towards aligning the Town's Capital Budget with the AMP
- Measure current levels of service and evaluate progress on proposed levels of service
- Development of a Data Governance Policy to address supporting documents and frequency for updating supporting data

2. Introduction & Context

2.1 Community Profile

Census Characteristic	Town of South Bruce Peninsula	Ontario
Population 2021	9,137	14,223,942
Population Change 2016-2021	8.6%	5.8%
Total Private Dwellings	7,093	5,929,250
Population Density	17.2/km^2	15.9/km^2
Land Area	530.61 km^2	892,411.76 km^2

Table 1 Town of South Bruce Peninsula Community Profile

The Town of South Bruce Peninsula is a lower-tier municipality, part of Bruce County, which is located within southern Ontario. It is situated between Lake Huron to the west and Georgian Bay to the east.

South Bruce Peninsula was incorporated as a Town in 1999. This incorporation resulted from the amalgamation of the former towns of Wiarton, Albemarie and Amabel including surrounding rural areas, as part of a provincial initiative to reduce the number of municipalities throughout Ontario. The formation of the Town of South Bruce Peninsula was intended to create a stronger, more sustainable governance structure capable of meeting the needs of its communities in a more coordinated and cost-effective manner.

The region is characterized by its ecological diversity and conservation efforts, featuring unique flora and fauna, including rare orchids and migratory bird species. Architecturally, the area blends historical buildings with modern amenities, reflecting its rich history while accommodating contemporary needs. These aspects distinguish the region, showcasing it as both a recreational spot and a leader in environmental and cultural protection.

Demand within the region is driven by the attraction of its varied landscapes, from the rugged cliffs of the Niagara Escarpment to the beaches of Lake Huron and Georgian Bay, attracting tourists throughout the year. These natural settings provide a variety of outdoor activities, creating a steady demand for local services and accommodations. The Town is within close proximity to national parks and host cultural events like the Wiarton Willie Festival. This mix of natural beauty and rich culture drives the economy and makes the Town a dynamic place for residents and tourists, promoting growth and vitality.

The Town of South Bruce Peninsula is focusing on infrastructure development to accommodate growth, prioritizing enhanced municipal services in areas like Wiarton and Sauble Beach. The strategies include efficient residential and commercial land use, infrastructure upgrades, and fostering economic development to ensure sustainable and balanced growth.

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 South Bruce Peninsula Climate Profile

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

Higher Average Annual Temperature:

- Between the years 1971 and 2000 the annual average temperature was 6.7 ºC
- Under a high emissions scenario, the annual average temperatures are projected to increase by 4.8 ºC by the year 2050 and over 6.6 ºC by the end of the century.

Increase in Total Annual Precipitation:

- Under a high emissions scenario, South Bruce Peninsula is projected to experience a 13% increase in precipitation by the year 2051 and a 16% increase by the end of the century.

Increase in Frequency of Extreme Weather Events:

- It is expected that the frequency and severity of extreme weather events will change.

- In some areas, extreme weather events will occur with greater frequency and severity than others especially those impacted by Great Lake winds.

2.2.2 Lake Huron

The Great Lakes are one of the largest sources of fresh water on earth, containing 21 percent of the world's surface freshwater. There are 35 million people living in the Great Lakes watershed and Lake Huron is the second largest of the Great Lakes. The area of Lake Huron Watershed is approximately 131,100 km^2. The physical impacts of climate change are most noticeable from: flooding, extreme weather events such as windstorms and tornadoes, and/or rising water levels eroding shorelines and natural spaces. Erosion and flooding pose a threat to the surrounding built infrastructure such as park assets, bridges, and roads. Communities located in the Great Lakes region may experience more severe windstorms or tornadoes as a result of climate change, causing damage to both the natural and built environment.

Public health and safety depend on the stability and predictability of the ecosystem in the Great Lakes watershed. The quality of water is threatened by peoples influence directly or indirectly on climate change as a result of blue-green algae blooms, soil erosion, and agricultural, stormwater, and wastewater runoff. These phenomena put undue stress on regional water filtering and treatment systems. The safety of the public is threatened by the physical impacts of flooding such as flooding and erosion. In some cases, homeowners located near the lakeshore are already at risk of losing their homes.

2.2.3 Integrating 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.

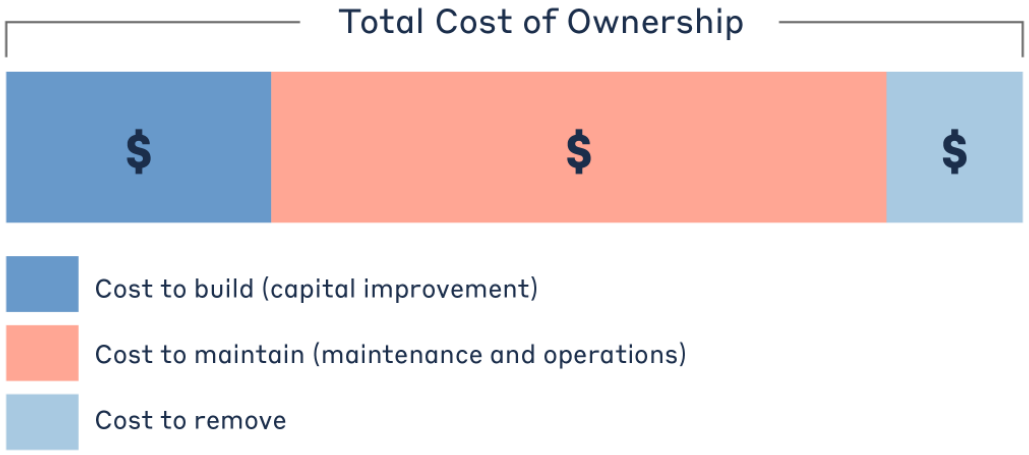


Figure 3 Total Cost of Asset Ownership

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.

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.

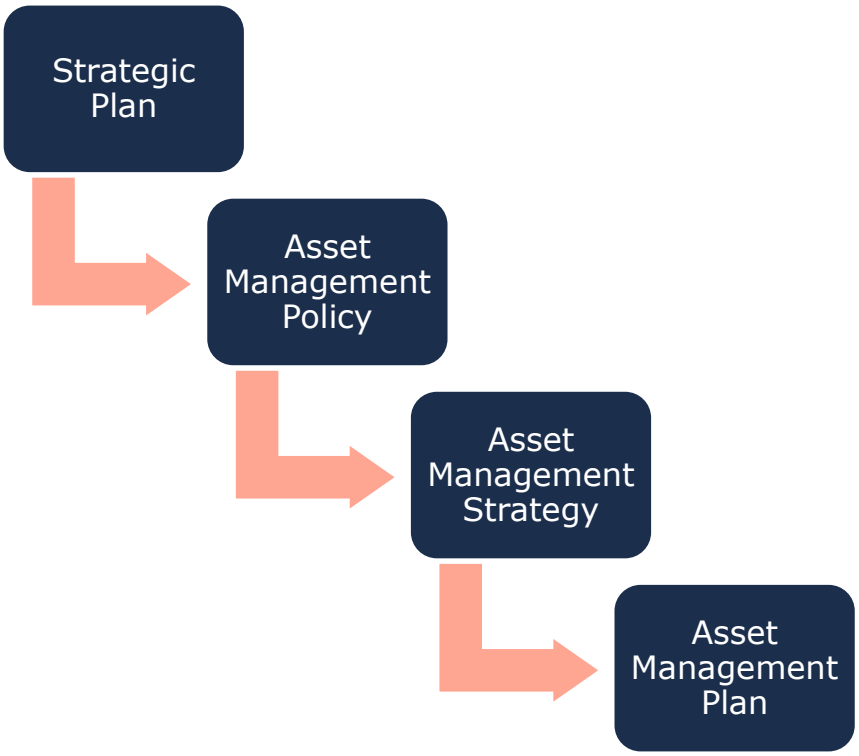


Figure 4 Foundational Asset Management Documents

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 Policy TR.17.3 "Strategic Asset Management Policy" on June 18, 2019, in accordance with Ontario Regulation 588/17. The Strategic Asset Management Policy can be seen in Appendix F – TR.17.3 Strategic Asset Management Policy.

The purpose of the policy is to provide a framework for implementing asset management to enable strategic approach at all levels of the organization. As outlined in the policy, the Town seeks to leverage the lowest total lifecycle cost of ownership with regard to the service levels that best meet the needs of the community while being cognizant of the risk of failure that is acceptable.

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 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 Activities that prevent defects or deteriorations from occurring	**$**	♦ Balancing limited resources between planned maintenance and reactive, emergency repairs and interventions; ♦ Diminishing returns associated with excessive maintenance activities, despite added costs; ♦ Intervention selected may not be optimal and may not extend the useful life as expected, leading to lower payoff and potential premature asset failure;
Rehabilitation/ Renewal Activities that rectify defects or deficiencies that are already present and may be affecting asset performance	**$$$**	♦ Useful life may not be extended as expected; ♦ May be more costly in the long run when assessed against full reconstruction or replacement; ♦ Loss or disruption of service, particularly for underground assets;
Replacement/ Reconstruction Asset end-of-life activities that often involve the complete replacement of assets	**$$$$$**	♦ Incorrect or unsafe disposal of existing asset; ♦ Costs associated with asset retirement obligations; ♦ Substantial exposure to high inflation and cost overruns; ♦ Replacements may not meet capacity needs for a larger population; ♦ Loss or disruption of service, particularly for underground assets;

Table 2 Lifecycle Management: Typical Lifecycle Interventions

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

Risk & Criticality

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

Risk is a product of two variables: the probability that an asset will fail, and the resulting consequences of that failure event. It can be a qualitative measurement, (i.e. low, medium, high) or quantitative measurement (i.e. 1-5), that can be used to rank assets and projects, identify appropriate lifecycle strategies, optimize short- and long-term budgets, minimize service disruptions, and maintain public health and safety.

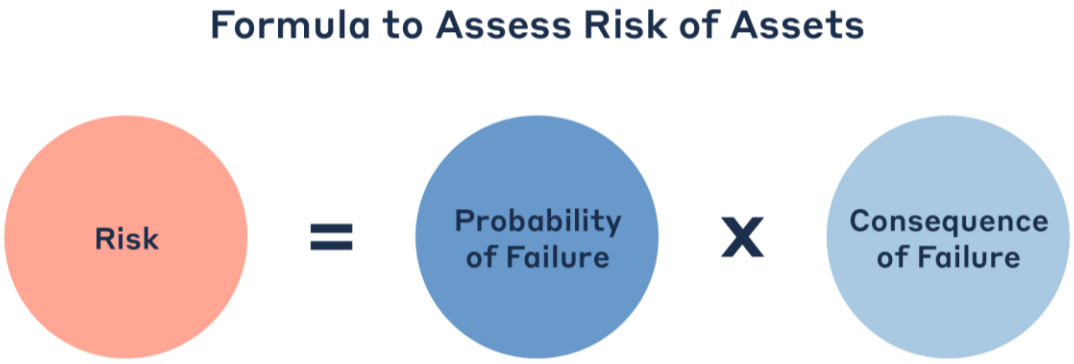


Figure 5 Risk Equations

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

Probability of Failure

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

Consequence of Failure

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

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

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

Table 3 Risk Analysis: Types of Consequences of Failure

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

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

Levels of Service

A level of service (LOS) is a measure of the services that the Town 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.

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 & Structural Culverts, Water, Sanitary, Stormwater) 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, the province, through O. Reg. 588/17, has also provided technical metrics that are required to be included in this AMP.

Current and Proposed Levels of Service

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

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

2.4 Scope & Methodology

2.4.1 Asset Categories for this AMP

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

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

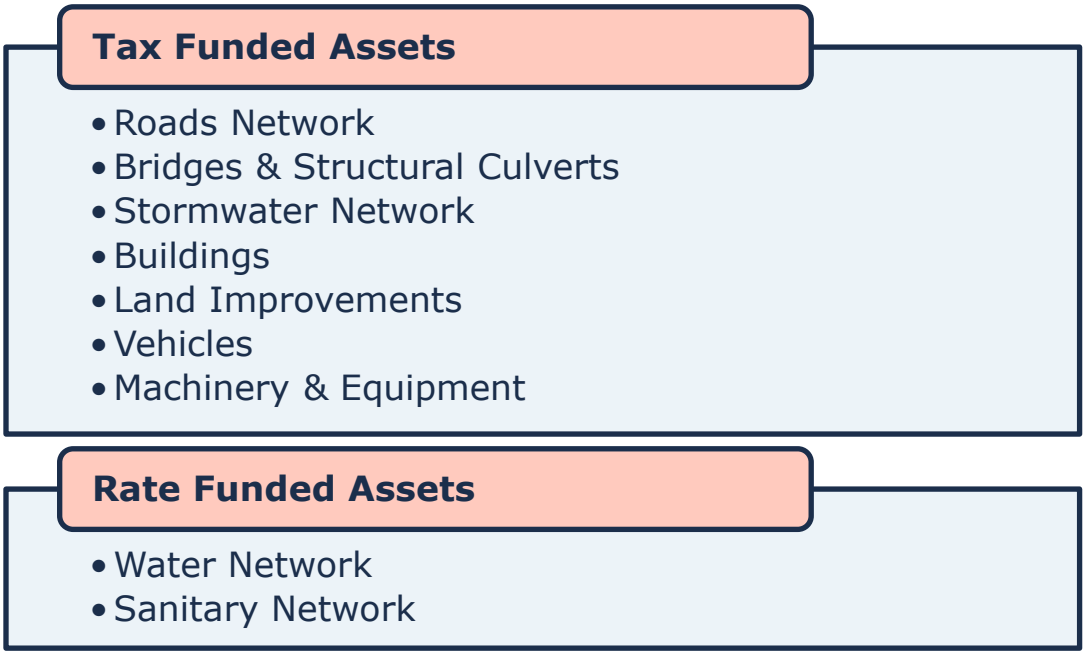


Figure 6 Tax Funded and Rate Funded Asset Categories

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 Town. 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:

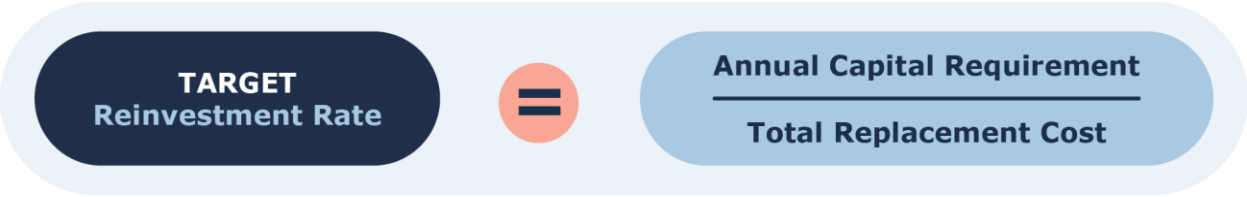


Figure 8 Target Reinvestment Rate Calculation

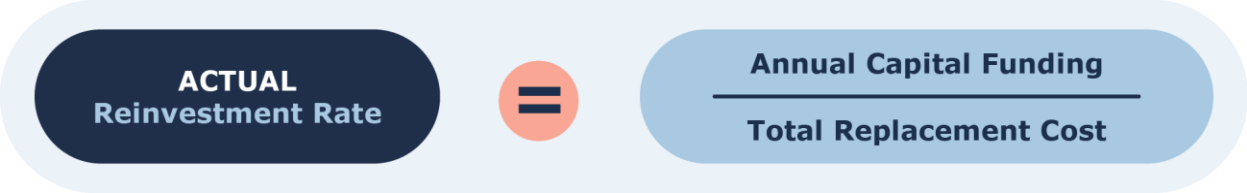


Figure 9 Actual Reinvestment Rate Calculation

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.

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

Table 4 Standard Condition Rating Scale

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

2.5 Ontario Regulation 588/17

As part of the Infrastructure for Jobs and Prosperity Act, 2015, the Ontario government introduced Regulation 588/17 - Asset Management Planning for Municipal Infrastructure (O. Reg 588/17)[2]. 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.

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

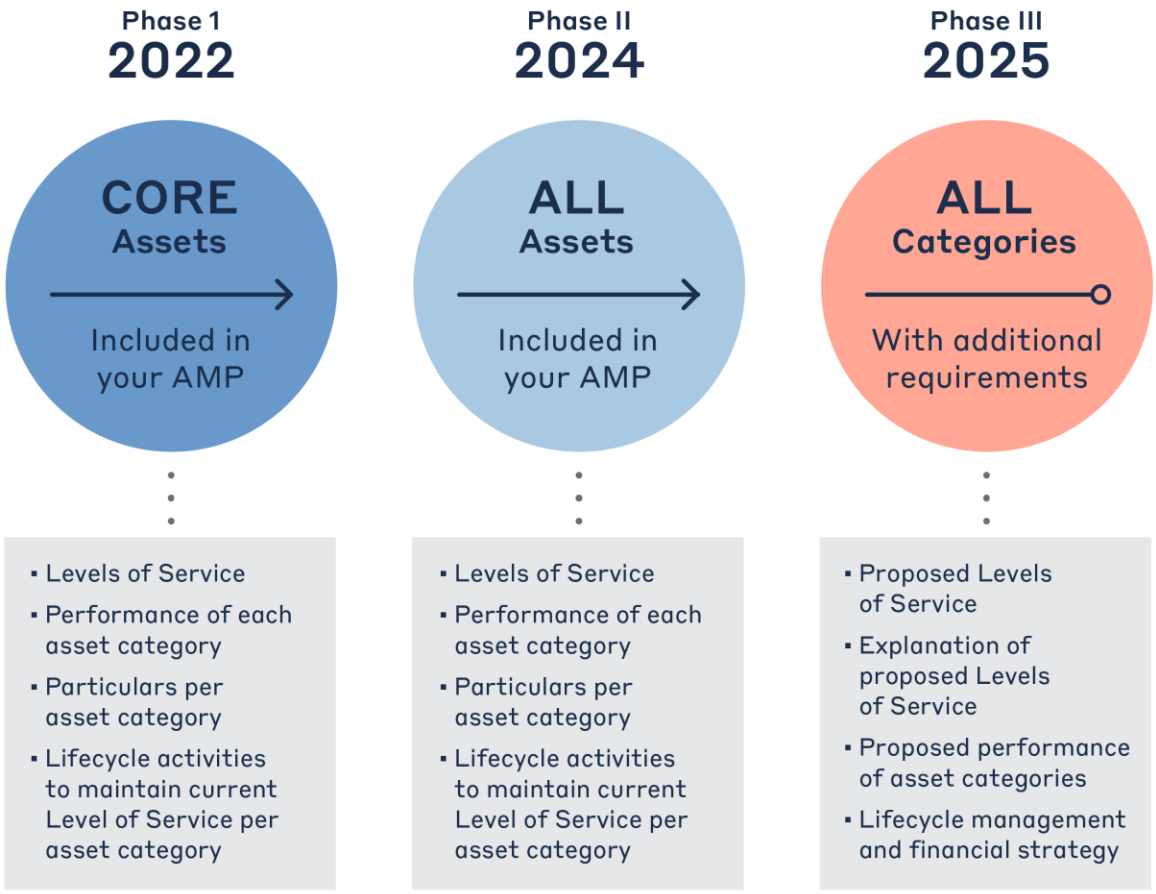


Figure 10 O. Reg. 588/17 Requirements and Reporting Deadlines

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)	5.1 – 13.1	Complete
Replacement cost of assets in each category	S.5(2), 3(ii)	5.1 – 13.1	Complete
Average age of assets in each category	S.5(2), 3(iii)	5.3 – 13.3	Complete
Condition of core assets in each category	S.5(2), 3(iv)	5.2 – 13.2	Complete
Description of municipality's approach to assessing the condition of assets in each category	S.5(2), 3(v)	5.4 – 13.4	Complete

Requirement	O. Reg. 588/17 Section	AMP Section Reference	Status
Current levels of service in each category	S.5(2), 1(i-ii)	5.7 – 13.7	Complete
Current performance measures in each category	S.5(2), 2	5.7 – 13.7	Complete
Lifecycle activities needed to maintain current levels of service for 10 years	S.5(2), 4	5.4 – 13.4	Complete
Costs of providing lifecycle activities for 10 years	S.5(2), 4	5.5 – 13.5	Complete
Growth considerations	S.6(1), 5	14.1 – 14.2	Complete
Proposed levels of service for each category for next 10 years	S.6(1), 1(i-ii)	5.8 – 13.8	Complete
Explanation of appropriateness of proposed levels of service	S.6(1), 2(i-iv)	4.2	Complete
Lifecycle management activities for proposed levels of service	S.6(1), 4(i)	4.2	Complete
10-year capital costs for proposed levels of service	S.6(1), 4(ii)	Appendix B	Complete
Annual funding availability projections	S.6(1), 4(iii)	4.2	Complete

Table 5 O. Reg. 588/17 Compliance Review

Green Infrastructure Assets, or Natural Assets, have been excluded from the current asset categories as the Town works towards developing a comprehensive inventory of the municipally owned natural assets. Town staff is currently reviewing the natural assets with the development of an Action Plan, which will be used for completion of a separate Asset Management Plan in the future.

Portfolio Overview

3. State of the Infrastructure

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

3.1 Asset Hierarchy & Data Classification

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

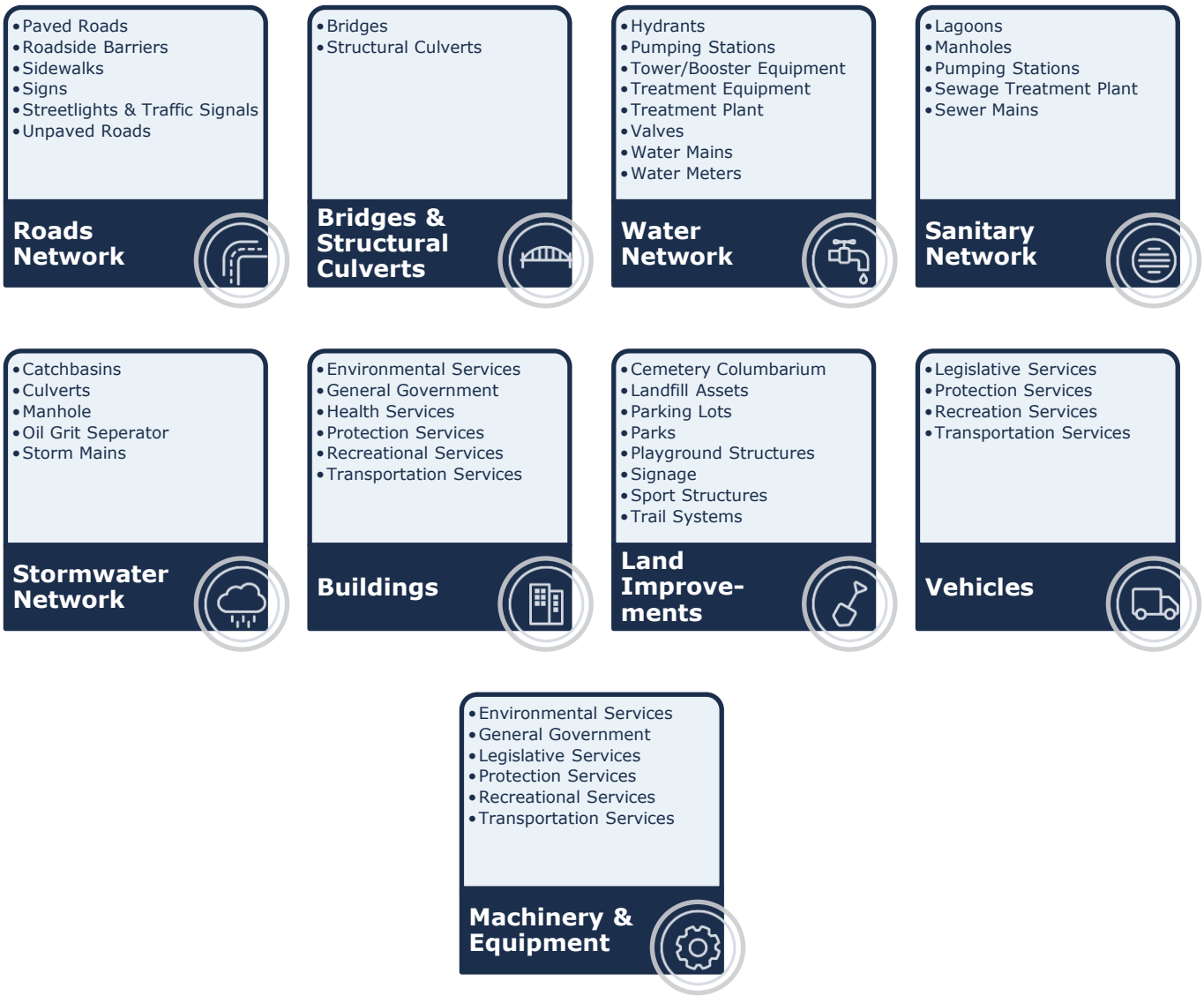


Figure 11 Asset Hierarchy and Data Classification

3.2 Portfolio Overview

3.2.1 Total Replacement Cost of Asset Portfolio

The nine asset categories analyzed in this Asset Management Plan have a total current replacement cost of $537 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 46% of the total portfolio, the roads network forms the largest share of the Town's asset portfolio, followed by buildings at 14%.

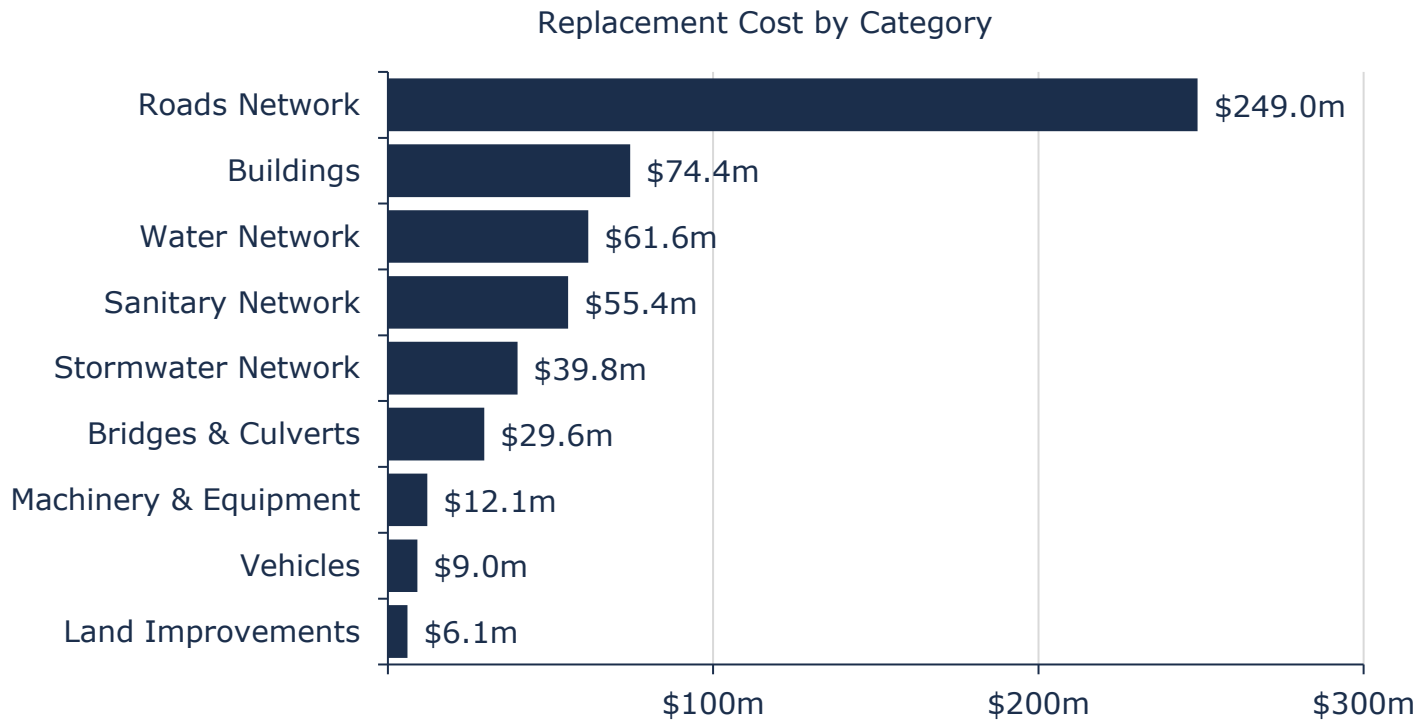


Figure 12 Current Replacement Cost by Asset Category

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 $12.6 million, for a target portfolio reinvestment rate of 2.36%. Currently, annual investment from sustainable revenue source is $5 million, for a current portfolio reinvestment rate of 0.94%. Target and current re-investment rates by asset category are detailed below.

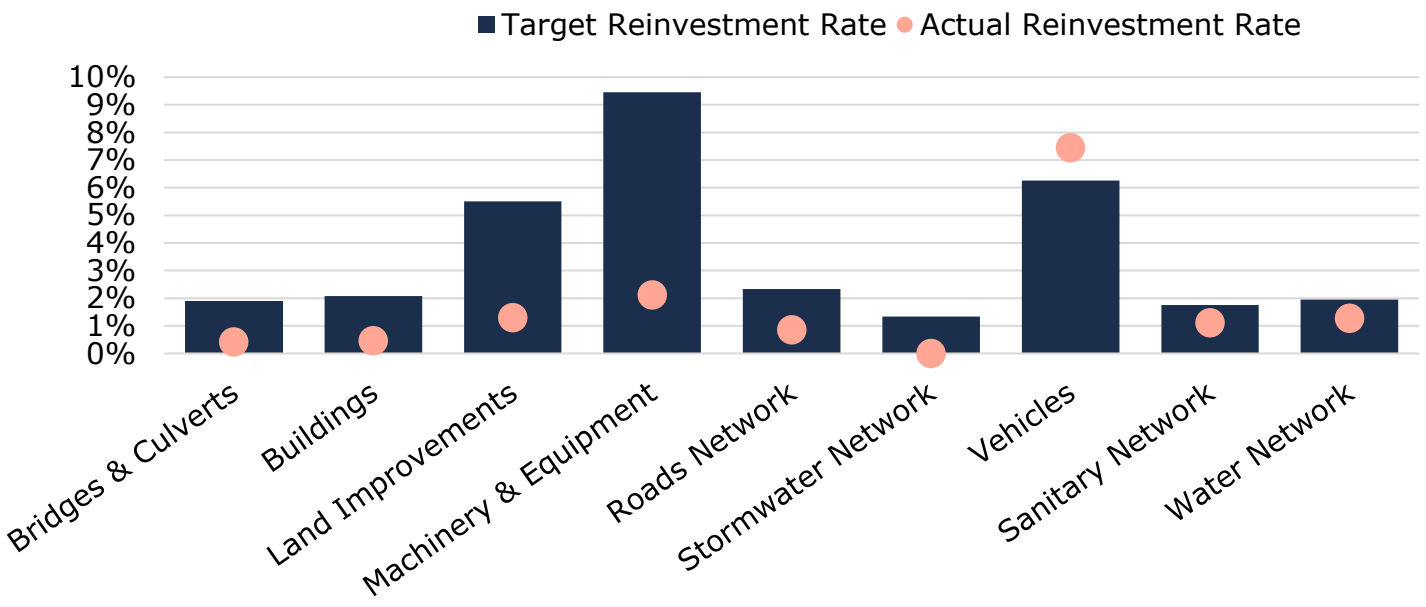


Figure 13 Current Vs. Target Reinvestment Rate

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, 69% of the Town's infrastructure portfolio is in fair or better condition, with the remaining 31% 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 the majority of the road network, bridges & structural culverts, buildings and vehicles. A portion of the water, storm, and sanitary network, and machinery and equipment, had condition data available. For all remaining assets age was used as an approximation of condition for these assets. Age-based condition estimations can skew data and lead to potential under- or overstatement of asset needs.

Further, when past assessed condition data was available, it was projected to the current year-end (2024). This 'projected condition' can generate lower condition ratings than those established at the time of the original condition assessment. The rate of this deterioration will also depend on lifecycle curves used to project condition over time.

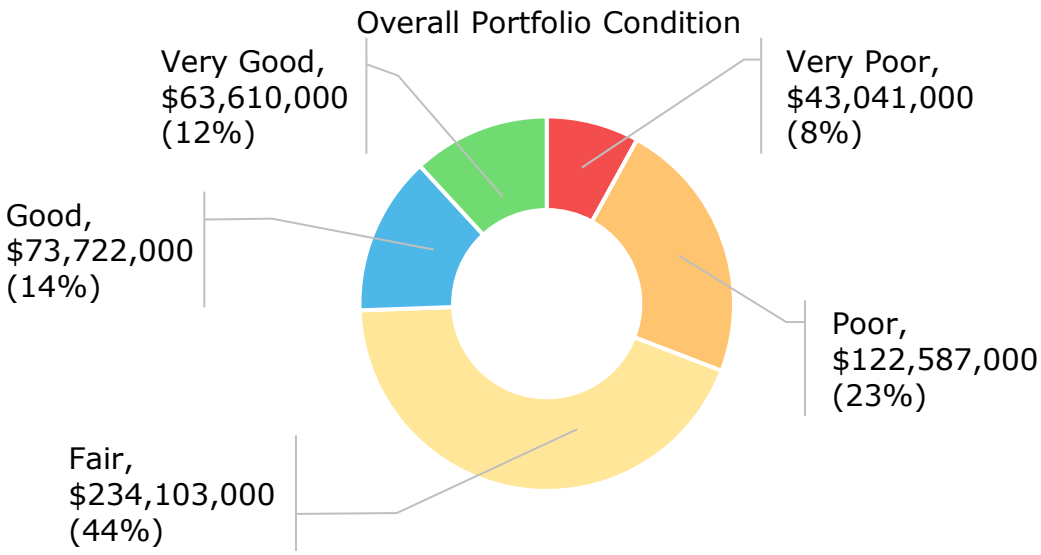


Figure 14 Asset Condition: Portfolio Overview

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. Most vehicles are also in fair or better condition, based on recent condition assessments. See Table 6 for details on how condition data was derived for each asset segment.

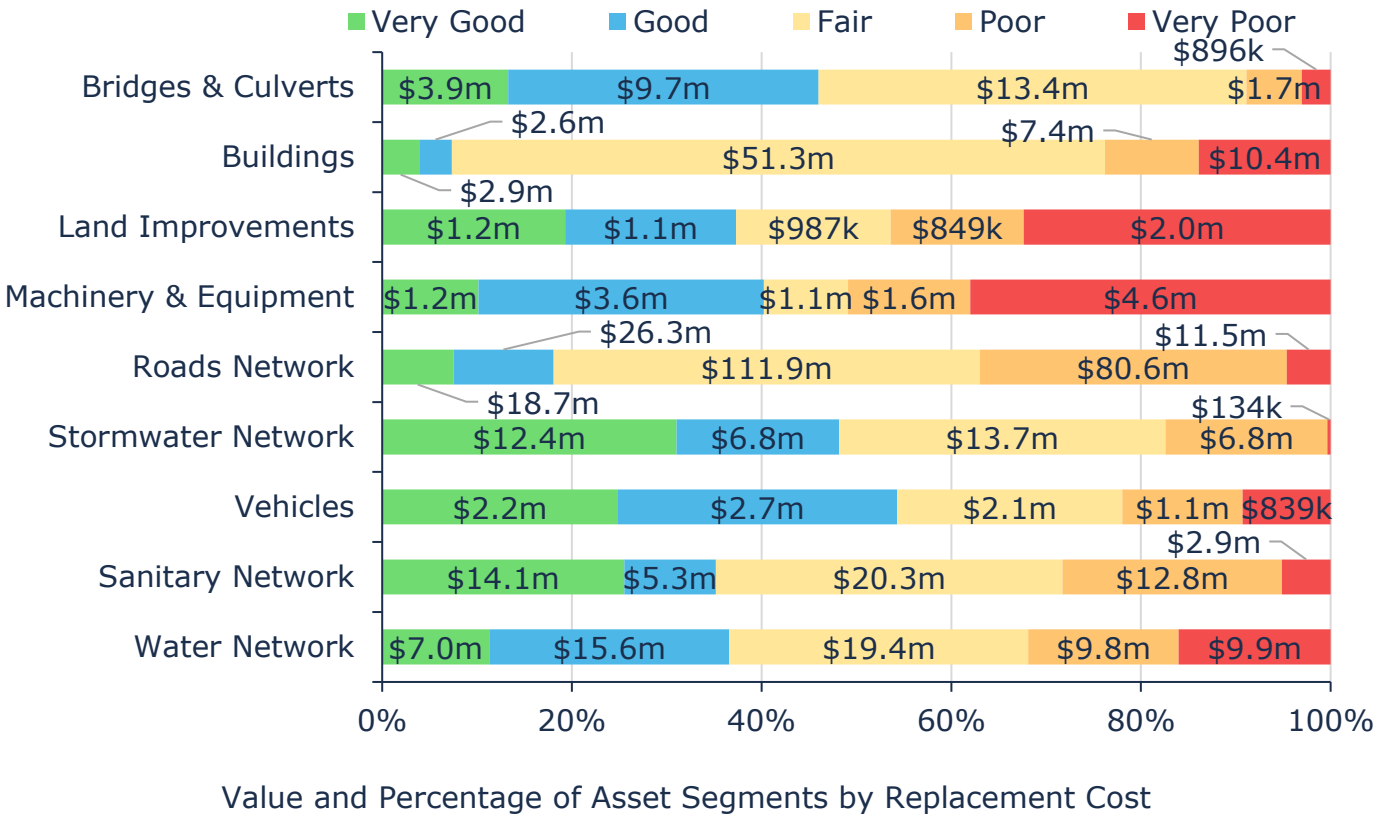


Figure 15 Asset Condition by Asset Category

Source of Condition Data

This AMP relies on assessed condition for 76% 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. Table 6 below identifies the source of condition data used throughout this AMP.

Asset Category	Asset Segment(s)	% of Assets with Assessed Conditions	Source of Condition Data
Roads Network	Paved Roads	89%	2019/2024 Road Needs Assessment
	Roadside Barriers	96%	Staff Assessments
	Sidewalks	100%	Sidewalk Evaluation
	Signs	93%	2023 Traffic Signs Evaluation
	Streetlights & Traffic Signals	0%	Age-Based
	Unpaved Roads	99%	2019 Road Needs Assessment
Bridges & Structural Culverts	Bridges Structural Culverts	100%	2024 OSIM Report
Water Network	Hydrants	7%	Staff Assessments
	Pumping Stations	73%	
	Tower/Booster Equipment	97%	2020 OCWA Report
	Treatment Equipment	77%	
	Treatment Plants	46%	
	Valves	67%	
	Water Mains	6%	Staff Assessments
	Water Meters	0%	Age-Based
Sanitary Network	Lagoons	99%	2020 OCWA Report
	Manholes	5%	Staff Assessments
	Pumping Stations	0%	Age-Based
	Sewage Treatment Plant	58%	2020 OCWA Report
	Sewermains	64%	2021 CCTV Report
	Catchbasins	6%	Staff Assessments

Asset Category	Asset Segment(s)	% of Assets with Assessed Conditions	Source of Condition Data
Stormwater Network	Culverts	96%	CCTV Inspections & Staff Assessments
	Manholes	42%	
	Storm Mains	32%	
	Oil Grit Separator	0%	Age-Based
Buildings	Environmental Services	100%	Building Condition Assessment 2020 & Municipal Staff
	General Government Services	100%	
	Health Services	100%	
	Protection Services	100%	
	Recreational Services	90%	
	Transportation Services	90%	
Land Improvements	Cemetery Columbarium	0%	Age-Based
	Landfill Assets	0%	
	Parking Lots	18%	Building Condition Assessment 2020
	Parks	14%	Staff Assessments
	Playground Structures	21%	
	Signage	0%	Age-Based
	Sport Structures	15%	Staff Assessments
	Trail Systems	11%	
Vehicles	Legislative Services	98%	Staff Assessments
	Protection Services	90%	
	Recreation Services	100%	
	Transportation Services	100%	
Machinery & Equipment	Environmental Services	86%	Staff Assessments
	General Government	38%	
	Protection Services	61%	
	Recreational Services	35%	
	Transportation Services	66%	
	Legislative Services	0%	Age-Based

Table 6 Source of Condition Data

3.2.4 Service Life Remaining

Based on asset age, available assessed condition data and estimated useful life, 31% of the Town's assets will require replacement within the next 10 years. The Town has indicated that many in-service dates in the Citywide system are estimates based on the best available information, therefore, the asset age may be slightly skewed. Refer to Appendix B – 10-Year Capital Requirements.

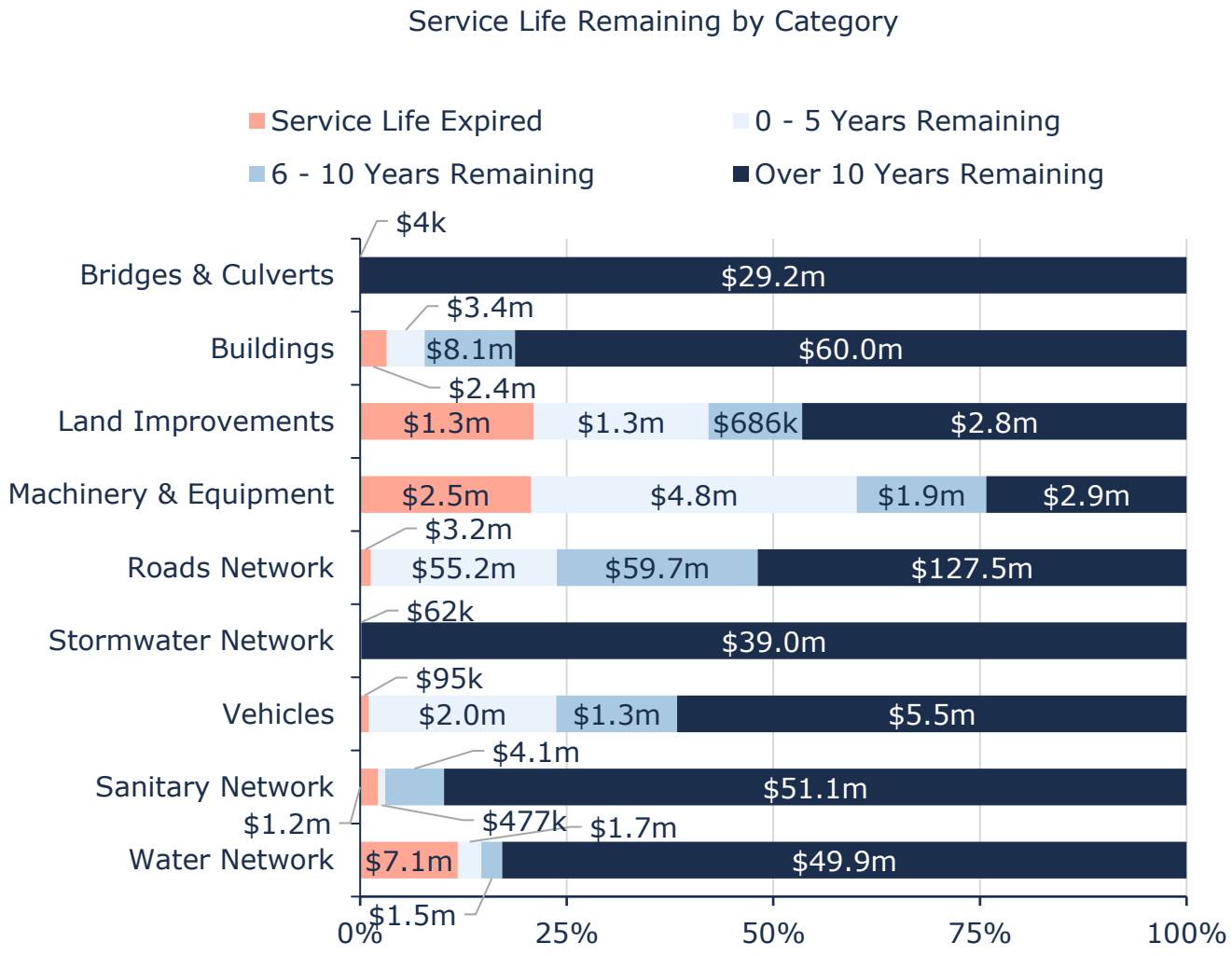


Figure 16 Service Life Remaining by Asset Category

3.2.5 Risk Matrix

Using the risk equation and preliminary risk models, Figure 17 shows how assets across the different asset categories are stratified within a risk matrix.

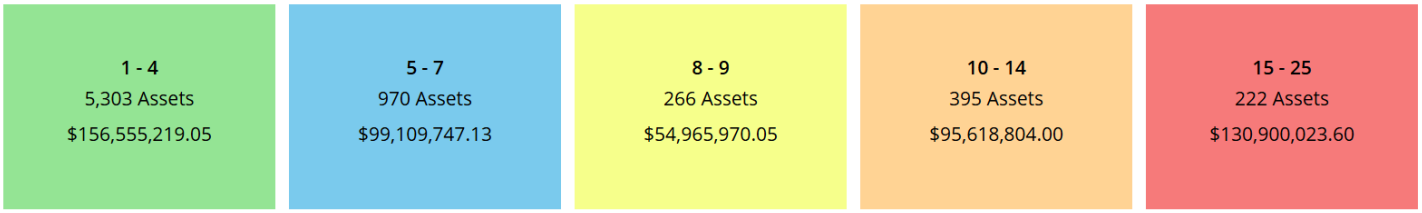


Figure 17 Risk Matrix: All Assets

The analysis shows that based on current risk models, approximately 24% of the Town's assets, with a current replacement cost of approximately $131 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 18 below illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for all asset categories analyzed in this AMP over a 110-year time horizon. On average, $12.6 million is required each year to remain current with capital replacement needs for the Town's asset portfolio (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.

The chart also illustrates a backlog of more than $15.2 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.

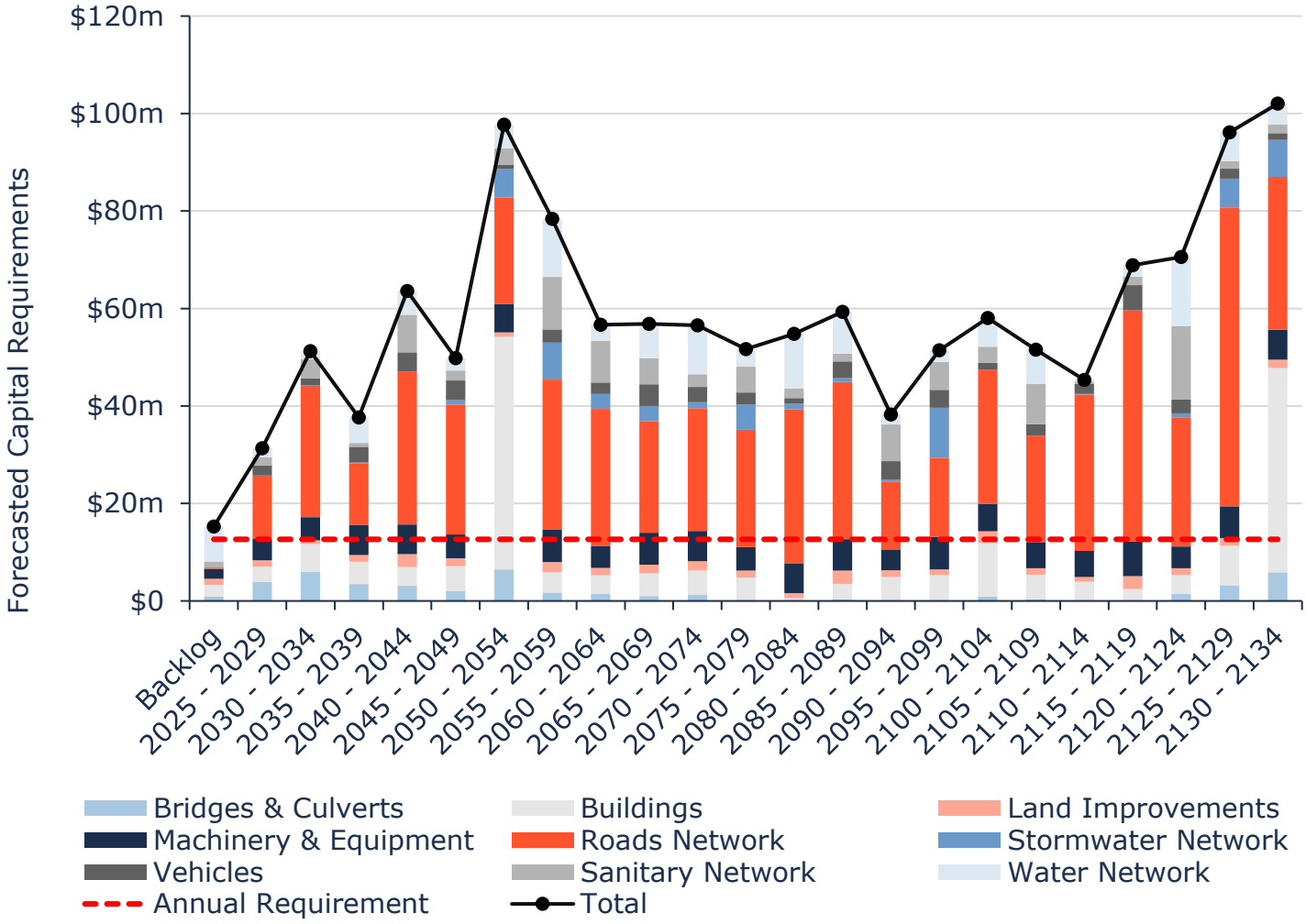


Figure 18 Capital Replacement Needs: Portfolio Overview 2025-2134

The Town has developed and approved their 2025 Capital Plan. This has been developed externally from the findings of this AMP and can be seen in Appendix H – 2025 Approved Capital Budget Summary. Town staff are working towards aligning future capital plans with the long-term capital forecasts developed based on the Citywide inventory.

Proposed Levels of Service

4. Proposed Levels of Service Analysis

4.1 Overview

4.1.1 O. Reg. 588/17 Proposed Levels of Service Requirements

The third iteration of municipal Asset Management Plans required under O. Reg. 588/17 requires the evaluation of levels of service (LOS) that includes:

- Proposed LOS options (i.e. increase, decrease, or maintain current LOS) and the risks associated with these options.
- How the proposed LOS may differ from current LOS.
- Whether the proposed LOS are achievable; and
- The municipality's ability to afford proposed LOS.

Additionally, a lifecycle management and financial strategy to support the proposed LOS must be identified for a period of 10 years with specific reporting on:

- Identification of lifecycle activities needed to provide the proposed LOS.
- Annual costs over the next 10 years to achieve the proposed LOS; and
- Identification of proposed funding projected to be available.

4.1.2 Considerations

Proposed LOS for the Town have been developed through comprehensive engagement with Town staff, council, and the public surveys. In order to achieve any target LOS goal, careful consideration should be given to the following:

Financial Impact Assessments

- Assess historical expenditures/budget patterns to gauge feasibility of increasing budgets to achieve increased service levels
- Consider implications of LOS adjustments on other services and other infrastructure programs (i.e. trade-offs)

Infrastructure Condition Assessments

- Regularly assess the condition of critical infrastructure components
- Use standardized condition assessment protocols (where possible) to quantify the state of the infrastructure
- Identify non-critical components where maintenance could potentially be deferred without causing severe degradation
- Use current condition metrics as benchmarks to gauge feasibility of large adjustments to LOS

Service Metrics

- Measure user satisfaction, response times, and other relevant indicators for specific services

Service Impact Assessments

- Evaluate potential impacts on user satisfaction and service delivery due to changes in infrastructure condition

Key Lifecycle Activities

- Implement routine maintenance and inspections to ensure infrastructure reaches its optimal useful life
- Monitor and optimize operational processes for efficiency
- Regularly review and update preventative maintenance schedules
- Prioritize critical infrastructure components for maintenance
- Implement cost-saving measures without compromising safety or compliance
- Develop strategies for managing and communicating service impacts to stakeholders
- Invest in technology and process improvements to enhance maintenance efficiency
- Upgrade critical infrastructure components to improve overall reliability
- Explore opportunities for innovation and efficiency gains

Risk Management

- Identify potential risks to infrastructure and service quality resulting from adjusted service levels
- Develop contingency plans to address unforeseen challenges without compromising service quality
- Monitor performance closely to ensure that the target investment translates to the desired infrastructure condition

Infrastructure Condition Enhancements

- Identify areas for improvement and increased maintenance to enhance overall infrastructure condition

Timelines

- Although O. Reg. 588/17 requires evaluation of expenditures for a 10-year period in pursuit of proposed LOS, it does not require municipalities to achieve the LOS within this 10-year timeframe (ex. a municipality may have a goal to reach X% condition by 2050, the AMP is required to review the first 10 years of the strategy to reach this goal)
- Careful consideration should be given to setting realistic targets for when proposed service levels can be achieved.

Stakeholder Engagement

- It is recommended to ensure adjustments to LOS are not made in isolation and without consultation of various stakeholders. This could include, but is not limited to:
  - Department Heads/Infrastructure Managers
  - Residents
  - Service Users
  - Council
- Efforts should be made to communicate changes to LOS transparently to all affected stakeholders

Flexibility

- Priorities may change over time due to a variety of factors, such as:
  - Financial state of the municipality
  - Availability of grants
  - Significant increases or decreases in population
  - Changes in political priorities
  - Changes in resident priorities
  - New technologies
  - Changes in legislation
- Any proposed changes to LOS should be flexible and able to adapt to changes listed above, and other unforeseen circumstances

4.1.3 Resident Engagement

The Town of South Bruce Peninsula issued a community engagement survey in 2024. In total, 48 survey responses were submitted, representing a 0.5% response rate. The survey contained a total of 19 questions regarding satisfaction levels with various municipal services and provided an opportunity for additional feedback. Findings of relevance to setting proposed LOS included the following:

Priority Areas of Investment

- Safe and well-maintained roads and bridges, recreation, and reliable and safe utilities were identified as the most important areas of focus, followed by moderate tax rates, signaling the importance of balancing infrastructure investment levels with ratepayer affordability.
- Investment in the road network, including repairs, was identified as an infrastructure priority.
- The majority of respondents indicated that they are willing, or somewhat willing, to pay for improvements to recreation, leisure, and community programs, safe and well-maintained roads and bridges, and reliable and safe utilities.

4.2 Proposed Levels of Service Scenarios

The three scenarios outlined in the following section were analyzed as options for proposed service levels for all categories included in this Asset Management Plan:

- Scenario 1: Maintain Existing Funding
- Scenario 2: Achieving 100% of Target Funding in 15 Years
- Scenario 3: Target Funding by Category

While all three scenarios were reviewed, ***the Town of South Bruce Peninsula selected Scenario 3 as their preferred path forward regarding proposed levels of service***, which is reflected in the financial strategy and 10-year capital replacement forecasts.

4.2.1 Scenario 1: Maintain Existing Funding

This scenario assumes no increases to taxes or rates for the purpose of increasing capital funding.

- Annual capital allocation for tax-funded assets: $3.6m
- Annual capital allocation for water rate-funded assets: $788k
- Annual capital allocation for sanitary rate-funded assets: $616k

Lifecycle Changes Required for Scenario 1

For all asset classes, no changes to lifecycle strategies are required in order to achieve Scenario 1. With the lack of funding, although existing lifecycle strategies are modelled within the Town's asset management system, a significant number of lifecycle events will not have sufficient funds and will move from projected events into the infrastructure backlog.

Affordability/Achievability of Scenario 1

Of the three scenarios analyzed, Scenario 1 is the least expensive option. Maintaining existing funding levels would require no tax or rate increases. The available capital funding over the next 10 years for Scenario 1 would remain consistent as indicated in the table below:

Categories	Available Capital Funding									
	2026	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Tax-Funded	$3.6m	$3.6m	$3.6m	$3.6m	$3.6m	$3.6m	$3.6m	$3.6m	$3.6m	$3.6m
Rate-Funded (Water)	$788k	$788k	$788k	$788k	$788k	$788k	$788k	$788k	$788k	$788k
Rate-Funded (Sanitary)	$616k	$616k	$616k	$616k	$616k	$616k	$616k	$616k	$616k	$616k

Table 7 Scenario 1 Available Capital Funding Over Next 10 Years

It is important to note that an AMP is a dynamic document which should be reviewed regularly to ensure up-to-date information is incorporated including accurate replacement costs, changes in inventory, changes in available funding sources, and reflection on progress made on previous recommendations.

Changes to Community and Technical Levels of Service for Scenario 1

The Town of South Bruce Peninsula does not anticipate any changes to qualitative community levels of services for any of the asset categories included within this AMP. All asset categories will see adjustments to their technical levels of service over time, particularly relating to capital reinvestment rate and average condition of assets. Refer to each asset category for more details.

Risks Associated with Scenario 1

There are pros and cons associated with each scenario analyzed, and each benefit is counter-balanced with consequences. For Scenario 1, the following risks have been identified:

- Increased infrastructure backlog
  - While modelling no financial increases on residents and businesses, knowingly continuing with insufficient infrastructure funding the Town is committing to sub-optimal lifecycle management of its assets. Being unable to complete strategic lifecycle interventions and replacements may result in increased asset failures, reduced reliability, and the potential for costly unbudgeted repairs to maintain services.
  - The risks of maintaining a funding level of 40% of the recommendation, Scenario 1 increases the risk of services being impacted by deteriorating asset conditions.
- Reliance on Grants
  - As Scenario 1 maintains a position of 40% of recommended funding levels, the Town will be more reliant on conditional grants, as they become available. While these are beneficial to all municipalities to secure to reduce their tax/rate burden on residents, they are considered an unsustainable revenue source. The Town will be more vulnerable to changes in provincial and federal policy and funding programs.
- Missed opportunities for efficiencies
  - While analyzing Scenario 1, no alternative lifecycle strategies were proposed. Mid-lifecycle interventions, such as asphalt overlays and sewer lining, can result in extended lifespans of assets and reduced costs over the lifetime of the assets. By relying on existing lifecycle strategies, the Town risks paying more than necessary to maintain their asset inventory.

4.2.2 Scenario 2: Achieving 100% of Target Funding in 15 Years

This scenario assumes gradual tax and rate increases, stabilizing at 100% funding in 15 years.

- Annual Tax Increase ~2.9%
- Annual Water Rate Increase ~1.2%
- Annual Wastewater Rate Increase ~1.3%

Lifecycle Changes Required for Scenario 2

For all asset classes, no changes to lifecycle strategies are required in order to achieve Scenario 2. In future iterations of the AMP, it is recommended to more closely analyze changes to lifecycle management strategies to find long-term cost savings and efficiencies.

Affordability/Achievability of Scenario 2

Of the three scenarios analyzed, Scenario 2 is the most expensive option, in terms of tax/rate increases. Reaching 100% of the recommended funding immediately would require an increase of 55% in tax revenue. This is not reasonable or realistic to achieve in a short period of time. With the recommended implementation timeframe of 15 years, tax revenue would be increased gradually from $12.98 million to $19.93 million, water revenue from $2.3 million to $2.7 million, and wastewater revenue from $1.5 million to $1.8 million. Based on these gradual proposed increases, while maintaining existing sustainable grant funding, the available **capital** funding over the next 10 years for Scenario 2 is indicated in the table below:

Categories	Available Capital Funding									
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Tax-Funded	$4.01m	$4.40m	$4.80m	$5.21m	$5.63m	$6.06m	$6.51m	$6.97m	$7.44m	$7.93m
Rate-Funded (Water)	$815k	$842k	$870k	$898k	$926k	$955k	$985k	$1.01m	$1.04m	$1.07m
Rate-Funded (Sanitary)	$636k	$656k	$676k	$696k	$717k	$738k	$759k	$780k	$802k	$824k

Table 8 Scenario 2 Available Capital Funding Over Next 10 Years

It is important to note that an AMP is a dynamic document which should be reviewed regularly to ensure up-to-date information is incorporated including accurate replacement costs, changes in inventory, changes in available funding sources, and reflection on progress made on previous recommendations.

Changes to Community and Technical Levels of Service for Scenario 2

The Town of South Bruce Peninsula does not anticipate any changes to qualitative community levels of services for any of the asset categories included within this AMP. All asset categories will see adjustments to their technical levels of service over time, particularly relating to capital reinvestment rate and average condition of assets. Refer to each asset category for more details.

Risks Associated with Scenario 2

There are pros and cons associated with each scenario analyzed, and each benefit is counter-balanced with consequences. For Scenario 2, the following risks have been identified:

- Increased infrastructure backlog
  - While mitigating the impact of financial increases on residents and businesses, taking 15 years to reach the targeted funding levels means 15 years of sub-optimal lifecycle management of assets. Being unable to complete strategic lifecycle interventions and replacements may result in increased asset failures, reduced reliability, and the potential for costly unbudgeted repairs to maintain services.
- Missed opportunities for efficiencies

- While analyzing Scenario 2, no alternative lifecycle strategies were proposed. Mid-lifecycle interventions, such as asphalt overlays and sewer lining, can result in extended lifespans of assets and reduced costs over the lifetime of the assets. By relying on existing lifecycle strategies, the Town risks paying more than necessary to maintain their asset inventory.

4.2.3 Scenario 3: Target Funding by Category

This scenario assumes an annual tax increase of 1.9% for 15 years, and water and wastewater rate increase following recommendations provided by the Water and Wastewater System Financial Plan to achieve the following targeted funding levels:

- Road Network: 50% Targeted Funding
- Bridges & Structural Culverts: 50% Targeted Funding
- Stormwater Network: 50% Targeted Funding
- Buildings & Facilities: 100% Targeted Funding
- Machinery & Equipment: 100% Targeted Funding
- Land Improvements: 75% Targeted Funding
- Vehicles: Maintain Existing Funding
- Water Network: Achieving Recommendations from Water System Financial Plan
- Sanitary Network: Achieving Recommendations from Wastewater System Financial Plan

The Water Revenue and Wastewater Revenue increases recommended by the Financial Plan are as follows:

Description	2026	2027	2028	2029	2030
Total Water Rate Revenues	1,907,150	1,789,072	1,924,553	2,070,201	2,226,808
Total Water Capital Expenditures	575,000	520,000	650,000	700,000	710,000
Annual Percent Change	-2.3%	-1.7%	8.8%	3.9%	1.8%
Total Wastewater Rate Revenues	1,565,702	1,684,665	1,812,611	1,950,215	2,098,201
Total Wastewater Capital Expenditures	673,482	841,307	951,121	1,070,861	1,267,819
Annual Percent Change	7.5%	7.8%	8.0%	7.7%	11.2%

Table 9 Water and Wastewater Revenue Projections

Water and wastewater revenue noted is the net costs to be recovered from users of the water and wastewater systems, as recommended by the respective Financial Plans, Table 3.1 and 3.2.

Lifecycle Changes Required for Scenario 3

For all asset classes, no changes to lifecycle strategies were required in order to achieve Scenario 3 the PLOS target, relying solely on the increase in funding to transition from the norm of routine rehabilitation/replacements being deferred to having sufficient funding for the assets' lifecycle interventions.

In future iterations of the AMP, it is recommended to more closely analyze changes to lifecycle management strategies to find long-term cost savings and efficiencies.

Affordability/Achievability of Scenario 3

Of the three scenarios analyzed, Scenario 3 is the middle ground in terms of tax and rate increases. Reaching the funding goal immediately would require an increase of 26.3% in tax revenue. This is not reasonable or realistic to achieve in a short period of time. With the recommended implementation timeframe of 15 years, tax revenue would be increased gradually from $12.98 million to $17.2 million, water revenue and wastewater revenues would follow the increases indicated in the water and wastewater financial plan. Based on these gradual proposed increases, while maintaining existing sustainable grant funding, the available **capital** funding over the next 10 years for Scenario 3 is indicated in the table below:

Categories	Available Capital Funding									
	2026	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Tax-Funded	$3.06m	$3.31m	$3.57m	$3.83m	$4.09m	$4.36m	$4.64m	$4.92m	$5.21m	$5.51m
Rate-Funded (Water)	$575k	$520k	$650k	$700k	$710k	$710k	$710k	$710k	$710k	$710k
Rate-Funded (Sanitary)	$673k	$841k	$951k	$1.1m	$1.3m	$1.3m	$1.3m	$1.3m	$1.3m	$1.3m

Table 10 Scenario 3 Available Capital Funding Over Next 10 Years

The above table accounts for both current and future expenditures in order to achieve and maintain the proposed levels of service. This requires a combination of capital spending and saving (i.e. reserves) to ensure future large expenditures can be financed.

As the Town of South Bruce Peninsula selected Scenario 3 as their preferred proposed level of service, a further breakdown of projected capital expenditures by asset category can be found in Appendix B – 10-Year Capital Requirements.

It is important to note that an AMP is a dynamic document which should be reviewed regularly to ensure up-to-date information is incorporated including accurate replacement costs, changes in inventory, changes in available funding sources, and reflection on progress made on previous recommendations.

Changes to Community and Technical Levels of Service for Scenario 3

The Town of South Bruce Peninsula does not anticipate any changes to qualitative community levels of services for any of the asset categories included within this AMP. All asset categories will see adjustments to their technical levels of service over time, particularly relating to capital reinvestment rate and average condition of assets. Refer to each asset category for more details.

Appropriateness of Scenario 3 to Meet the Town's Needs

Town staff emphasized a need to balance financial impacts on residents with the reality of the current state of infrastructure within the municipality. Upon review of all three scenarios, Scenario 3 was selected as the most appropriate option as an annual tax increase of 1.9% was determined to be subjectively manageable to implement, while creating a sustainable future for the Town's infrastructure. The risks associated with relying on conditional grants from higher levels of government were deemed to be too great considering the country-wide trend of downloading responsibilities (and costs) to municipal governments and reducing funding opportunities.

Risks Associated with Scenario 3

There are pros and cons associated with each scenario analyzed, and each benefit is counter-balanced with consequences. For Scenario 3, the following risks have been identified:

- Increased infrastructure backlog
  - While mitigating the impact of financial increases on residents and businesses, taking 15 years to reach the targeted funding levels means 15 years of sub-optimal lifecycle management of assets. Being unable to complete strategic lifecycle interventions and replacements may result in increased asset failures, reduced reliability, and the potential for costly unbudgeted repairs to maintain services.
- Missed opportunities for efficiencies
  - While analyzing Scenario 3, no alternative lifecycle strategies were proposed. Mid-lifecycle interventions, such as asphalt overlays and sewer lining, can result in extended lifespans of assets and reduced costs over the lifetime of the assets. By relying on existing lifecycle strategies, the Town risks paying more than necessary to maintain their asset inventory.
- Water and Wastewater Financial Plan timeline
  - The Financial Plan only provides the funding that would be needed for the following 7 years. As the AMP requires reporting on the capital funds available for the next 10 years, this scenario assumes that the water and sanitary revenues will remain consistent once they reach their peak after the 7-year implementation. Water and wastewater rates should be re-evaluated in 7 years and the AMP updated accordingly to account for any changes to rate increases required.

Category Analysis: Core Assets

5. Roads Network

The Roads Network is a critical component of the provision of safe and efficient transportation services. Town staff completed a Road Needs Study Assessment in 2019 and plan on updating it every 5 years, when possible. The report provided detailed asset attribute information on the road segments, a detailed maintenance and resurfacing needs analysis, and a prioritization analysis. The Town is currently in the process of completing a 2024 update to the Road Needs Study Assessment.

5.1 Inventory & Valuation

Table 11 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	Sub-Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Paved Roads		253,048	Meters	$155,566,000	Cost/Unit
Roadside Barriers		7,121	Meters	$2,466,000	CPI Tables
Sidewalks		19,710	Meters	$4,874,000	User-Defined
Signs		6,696	Quantity	$267,000	User-Defined
Streetlights & Traffic Signals	Decorative Lights	98	Quantity	$1,010,000	CPI Tables
	Materials & Supplies	1	Quantity	$34,000	
	Seasonal Lights	57	Quantity	$175,000	
	Streetlights	749	Quantity	$1,931,000	
	Traffic Signals	36	Quantity	$758,000	
Unpaved Roads		187,897	Meters	$81,886,000	Cost/Unit
TOTAL				**$248,967,000**	

Table 11 Detailed Asset Inventory: Roads Network

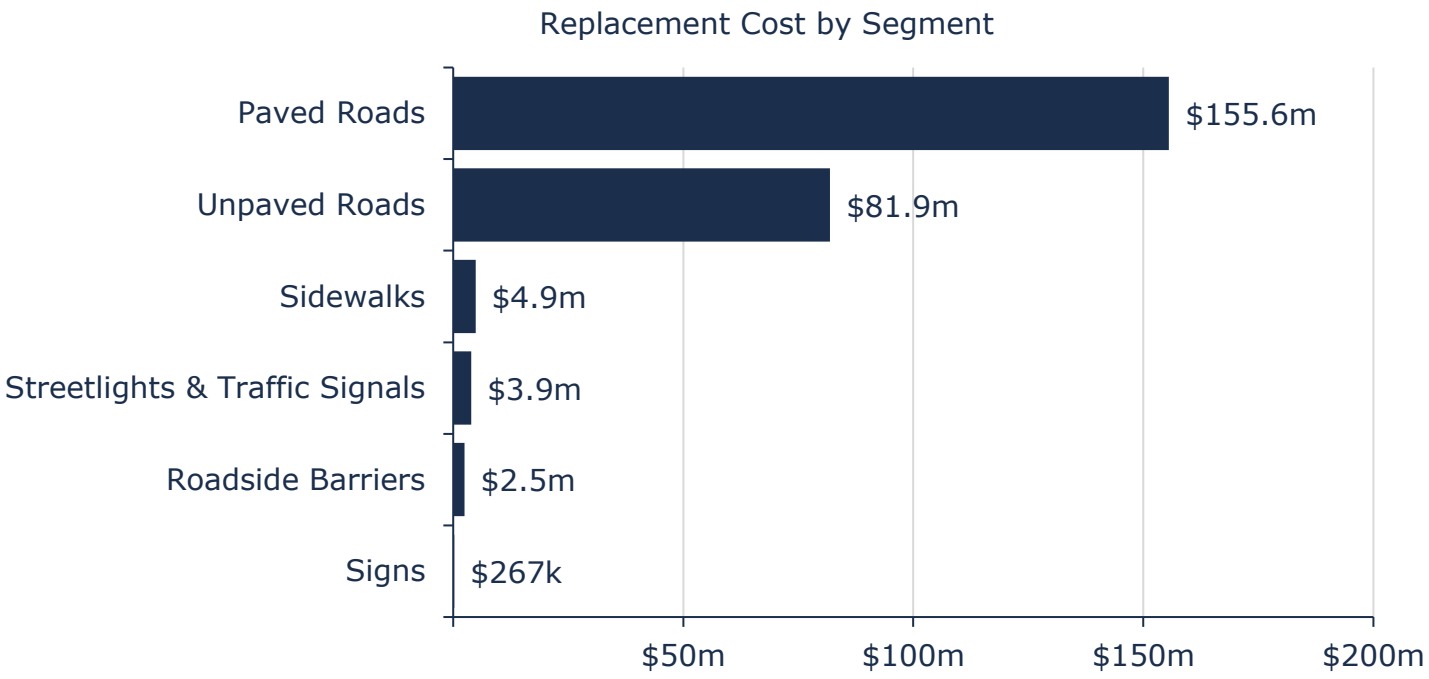


Figure 19 Portfolio Valuation: Roads Network

5.2 Asset Condition

Figure 20 summarizes the replacement cost-weighted condition of the Town's road network. Based on a combination of field inspection data and age, 63% of assets are in fair or better condition; the remaining 37% of assets are in poor to very poor condition. Condition assessments were available for 89% of paved roads and 99% of unpaved roads, based on replacement cost. This condition data was projected from inspection date to current year to estimate their condition today.

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 20, the majority of the Town's road network assets are in fair or better condition.

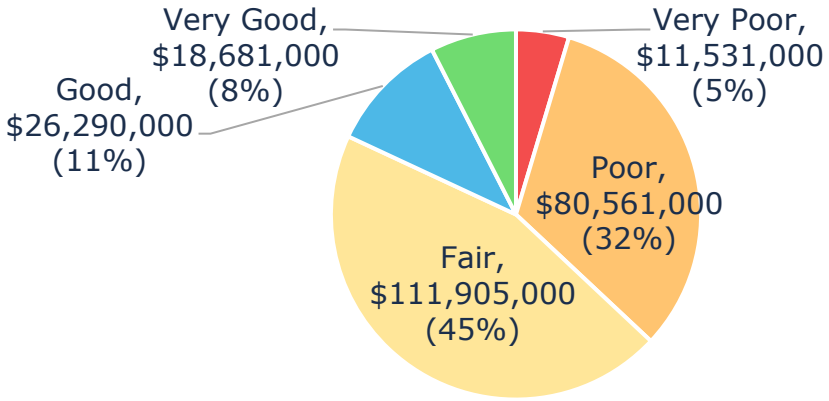


Figure 20 Asset Condition: Roads Network Overall

As illustrated in Figure 21, based on condition assessments, the majority of the Town's unpaved road network is in fair or better condition; however, 52% of paved roads are in poor or worse condition.

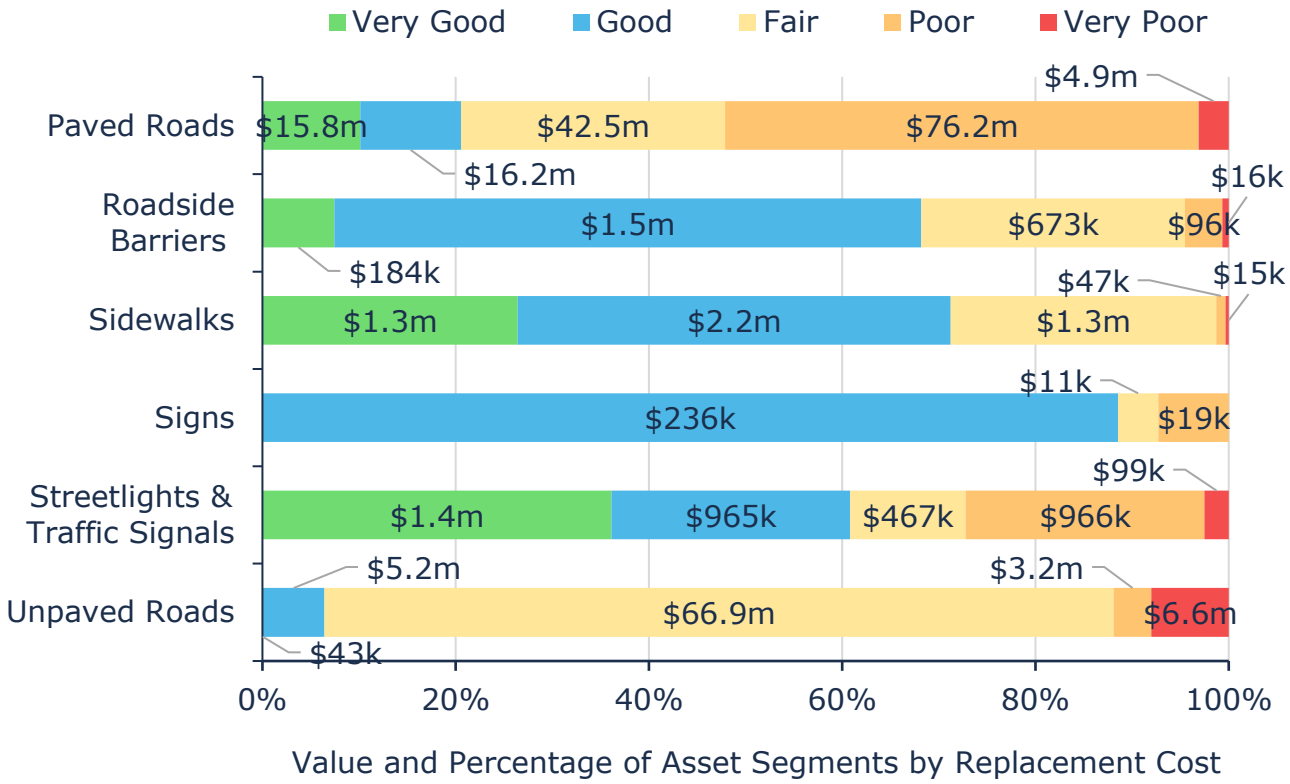


Figure 21 Asset Condition: Roads Network by Segment

5.3 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life. The Estimated Useful Life for road network assets has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable.

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 22 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.

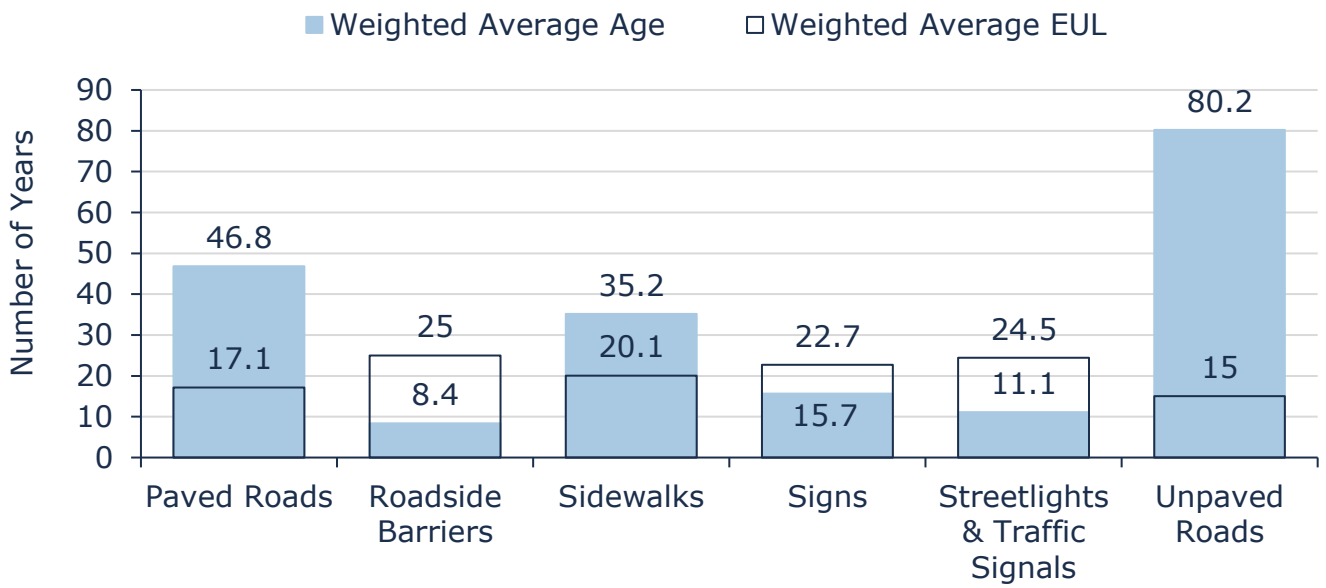


Figure 22 Estimated Useful Life vs. Asset Age: Roads Network

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.

5.4 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 HCB and LCB 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 (HCB)		
Event Name	**Event Class**	**Event Trigger**
Crack Sealing & Patching (as-needed)	Maintenance	Condition: 8
Pulverize & Pave	Rehabilitation	Condition: 5
Full Reconstruction	Replacement	Condition: 0

Paved Roads (HCB)

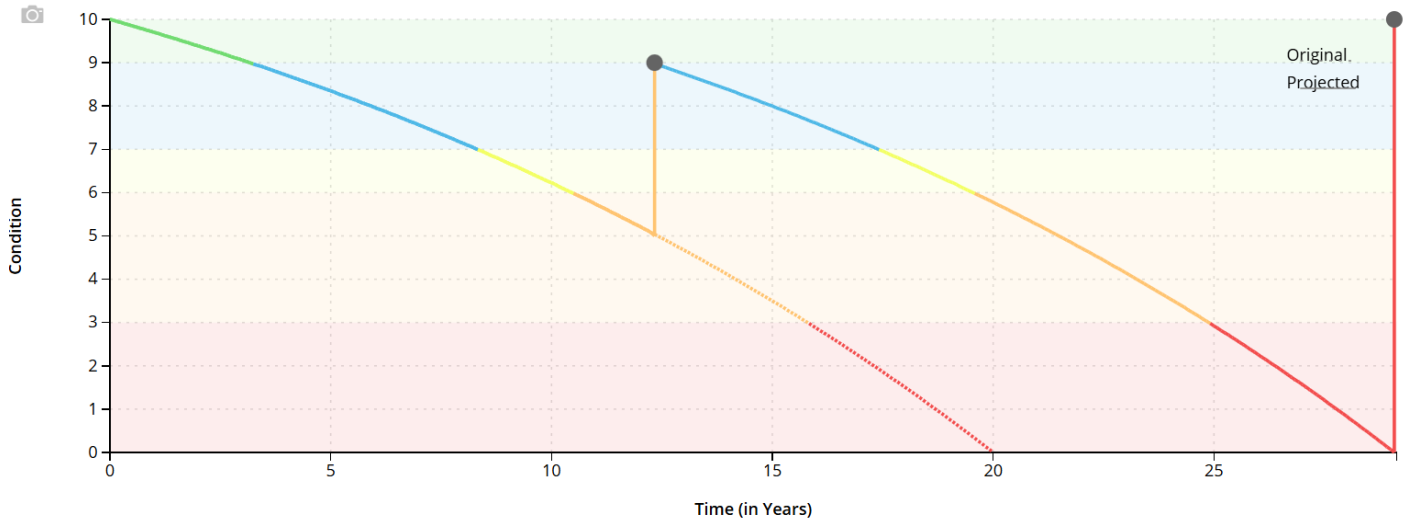


Table 12 Lifecycle Management Strategy: Roads Network (HCB Roads)

Paved Roads (LCB)		
Event Name	**Event Class**	**Event Trigger**
Single Resurface	Rehabilitation	Every 12 Years
Double Surface	Rehabilitation	Every 34 Years
Full Reconstruction	Replacement	Condition: 0

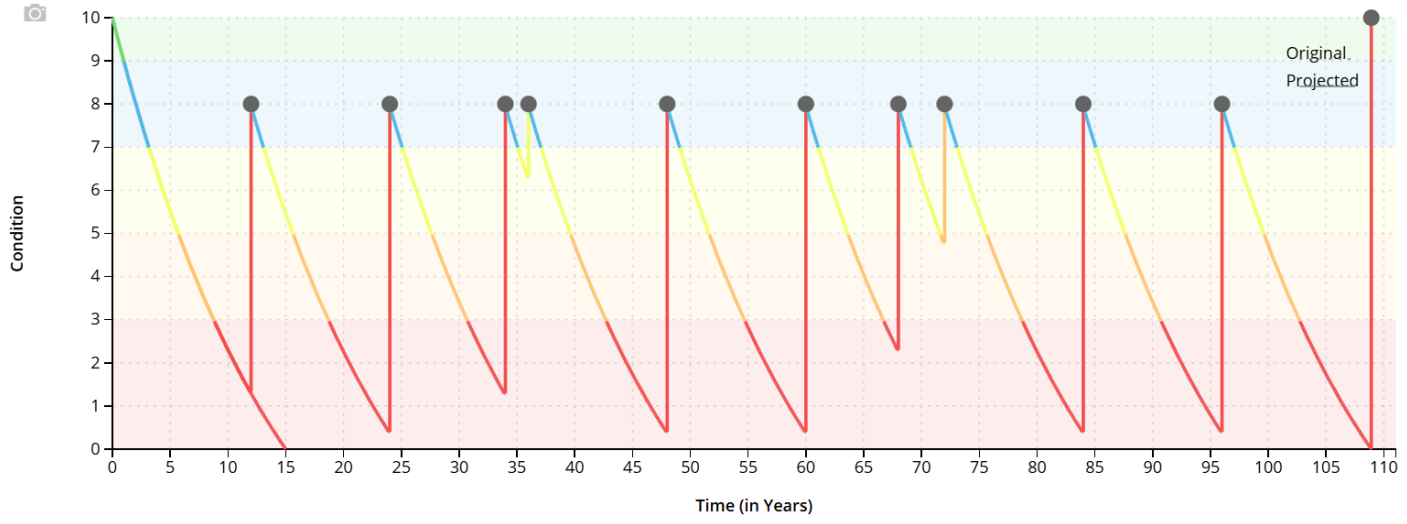


Table 13 Lifecycle Management Strategy: Roads Network (LCB Roads)

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

Activity Type	Description of Current Strategy
Maintenance	Annual winter control activities to meet Minimum Maintenance Standards including road and sidewalk plowing, and snow removal.
	Activities such as crack sealing and shallow patching are done on an as-needed basis depending on the performance and condition of the road segments. Staff will implement a crack sealing program to extend service life of paved roads.
	Gravel roads undergo ongoing maintenance activities including: • Dust Control/Calcium Chloride Application (annually) • Grading (multiple times annually) • Re-gravelling is done on an as-needed basis. Staff plan to develop a strategic, rotating schedule for re-gravelling depending on the criticality of the road segment.
Rehabilitation	Surface treatments are performed every 12 years on surface treated roads. Standard practices recommend that this be completed every 7-8 years, however this is not feasible due to funding constraints. In the past, the Town has surface treated 14 km of roads per year. This has been reduced to 11 km per year in recent years due to budget constraints.
	Surface treated roads with an annual daily traffic count of 1000 or more are viable candidates for an upgrade to asphalt or to receive an extra lift.
Replacement	Full road reconstruction is coordinated effectively with other Right-of-Way assets, including linear underground assets.
Inspection	The Town completed a Roads Needs Assessment in 2024 and are currently finalizing the recommendations. They plan on updating it every 5 years, when possible. The report provided detailed asset attribute information on the road segments and sidewalks, a detailed maintenance and resurfacing needs analysis, and a prioritization analysis.

Table 14 Lifecycle Management Strategy: Roads Network

5.5 Forecasted Long-Term Replacement Needs

Figure 13 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's road network. This analysis was run until 2134 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 $5.8 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 through the forecast period. 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.

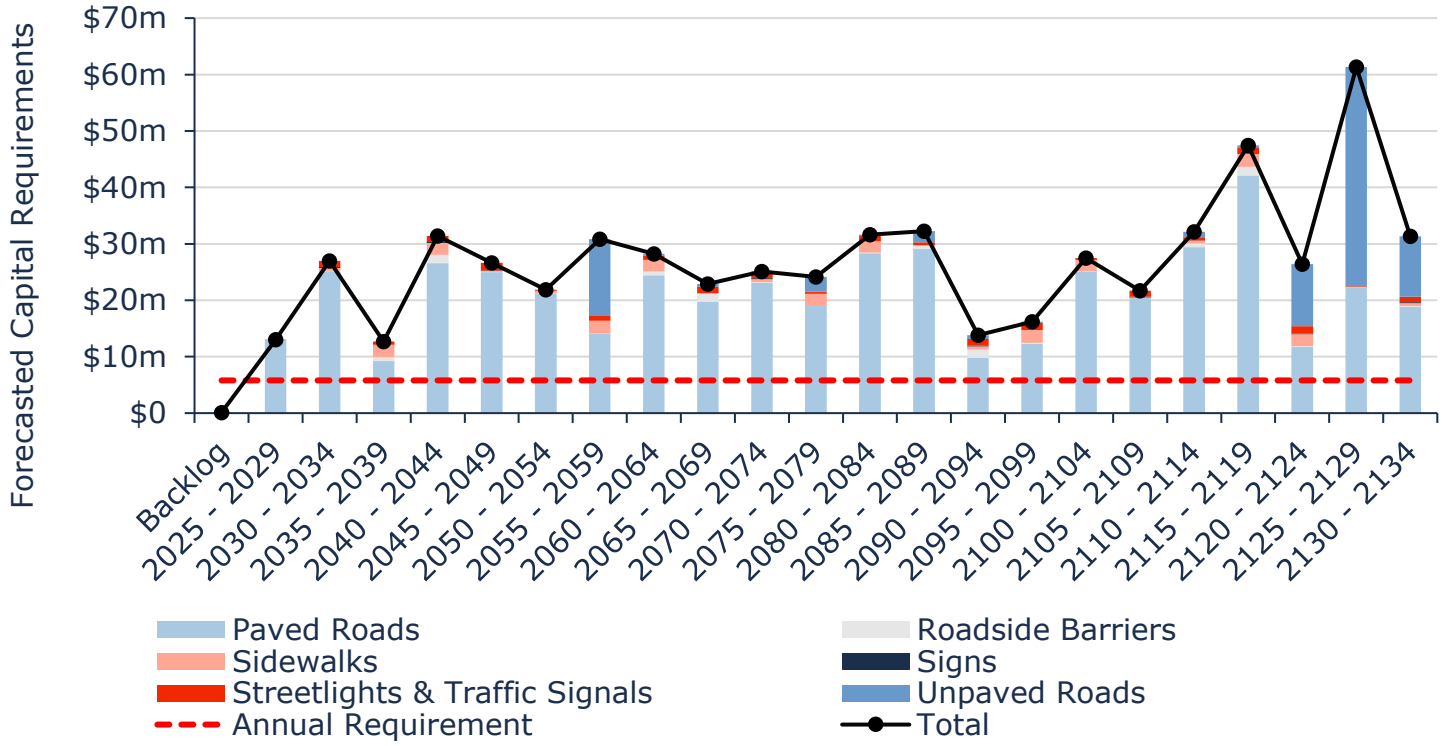


Figure 23 Forecasted Capital Replacement Needs: Roads Network 2025-2134

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 summary of the 10-year 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, drainage, road structure, replacement cost, traffic range, criticality, density and connectivity. The risk ratings

for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

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

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

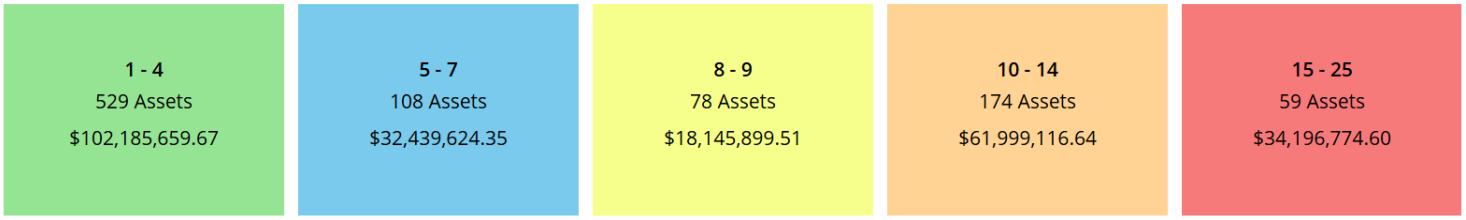


Figure 24 Risk Matrix: Roads Network

5.7 Levels of Service

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

5.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description, which may include maps, of the road network in the municipality and its level of connectivity	See Appendix C – Level of Service Maps & Photos
Quality	Description or images that illustrate the different levels of road class pavement condition	As illustrated in Appendix C, the Municipality assessed the condition of their roads on a 0-100 scale in accordance with the MTO's Method and Inventory Manual. Each road segment was scored on a 1-10 scale, with any rating value below 6 considered Very Poor condition, and anything above 8 is considered Good-Very Good.

Table 15 O. Reg. 588/17 Community Levels of Service: Roads Network

5.7.2 Technical Levels of Service

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2024)
Scope	Lane-km of arterial roads (MMS classes 1 and 2) per land area (km/km^2)	0	0
	Lane-km of collector roads (MMS classes 3 and 4) per land area (km/km^2)	0.75	0.75
	Lane-km of local roads (MMS classes 5 and 6) per land area (km/km^2)	0.7	0.7
Quality	Average pavement condition index for paved roads in the Town	58%	56%
	Average surface condition for unpaved roads in the Town (e.g. excellent, good, fair, poor)	Good	Fair
Performance	Capital reinvestment rate	0.9%	0.9%

Table 16 O. Reg. 588/17 Technical Levels of Service: Roads Network

5.8 Proposed Levels of Service

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

The below tables and graphs explain the proposed levels of service scenarios that were analyzed for the road network. Further PLOS analysis at the portfolio level can be found in Section *4. Proposed Levels of Service Analysis.*

5.8.1 PLOS Scenarios Analyzed

Scenario	Description
Scenario 1: Maintain Current Funding Level	This scenario maintains existing capital funding levels for those categories that are underfunded. ♦ Road Network capital funding maintained at $2,153,000/year
Scenario 2: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~2.9%/year, stabilizing at 100% funding across all asset categories in 15 years. ♦ Road Network capital funding gradually increases from $2,153,000/year to $5.94m/year over a span of 15 years
Scenario 3: Specific Funding Targets: Achieving	This scenario assumes gradual tax increases of ~1.9%/year for 15 years to achieve specific funding targets:

Scenario	Description
50% Target Funding in 15 Years	♦ Road Network capital funding gradually increases from $2,153,000/year to $2,899,000/year over a span of 15 years to achieve 50% funding

Table 17 Roads Network PLOS Scenario Descriptions

5.8.2 PLOS Analysis Results

Scenario	Technical LOS Outcomes	Initial Value (2025)	15 Year Projection (2039)	30 Year Projection (2054)	Comments
Scenario 1 (All Segments)	Average Condition	56%	49%	38%	
	Average Asset Risk	6.57	9.24	10.15	
	Annual Investment Required		$2,153,250		This is the maintained parameter in this scenario
	Capital Reinvestment Rate		0.9%		
Scenario 2 (All Segments)	Average Condition	56%	58%	62%	
	Average Asset Risk	6.57	8.40	7.38	
	Annual Investment Required		$5,798,000		This parameter is increased from $2.15M incrementally to reach a target portfolio investment of $5.93M over 15 years
	Capital Reinvestment Rate		2.3%		
Scenario 3 (All Segments)	Average Condition	56%	49%	39%	
	Average Asset Risk	6.57	9.24	10.15	
	Annual Investment Required		$2,899,000		This parameter is increased from $2.15M incrementally to reach 50% of the target portfolio investment, $2.89M, over 15 years
	Capital Reinvestment Rate		1.2%		

Table 18 Roads Network PLOS Scenario Analysis

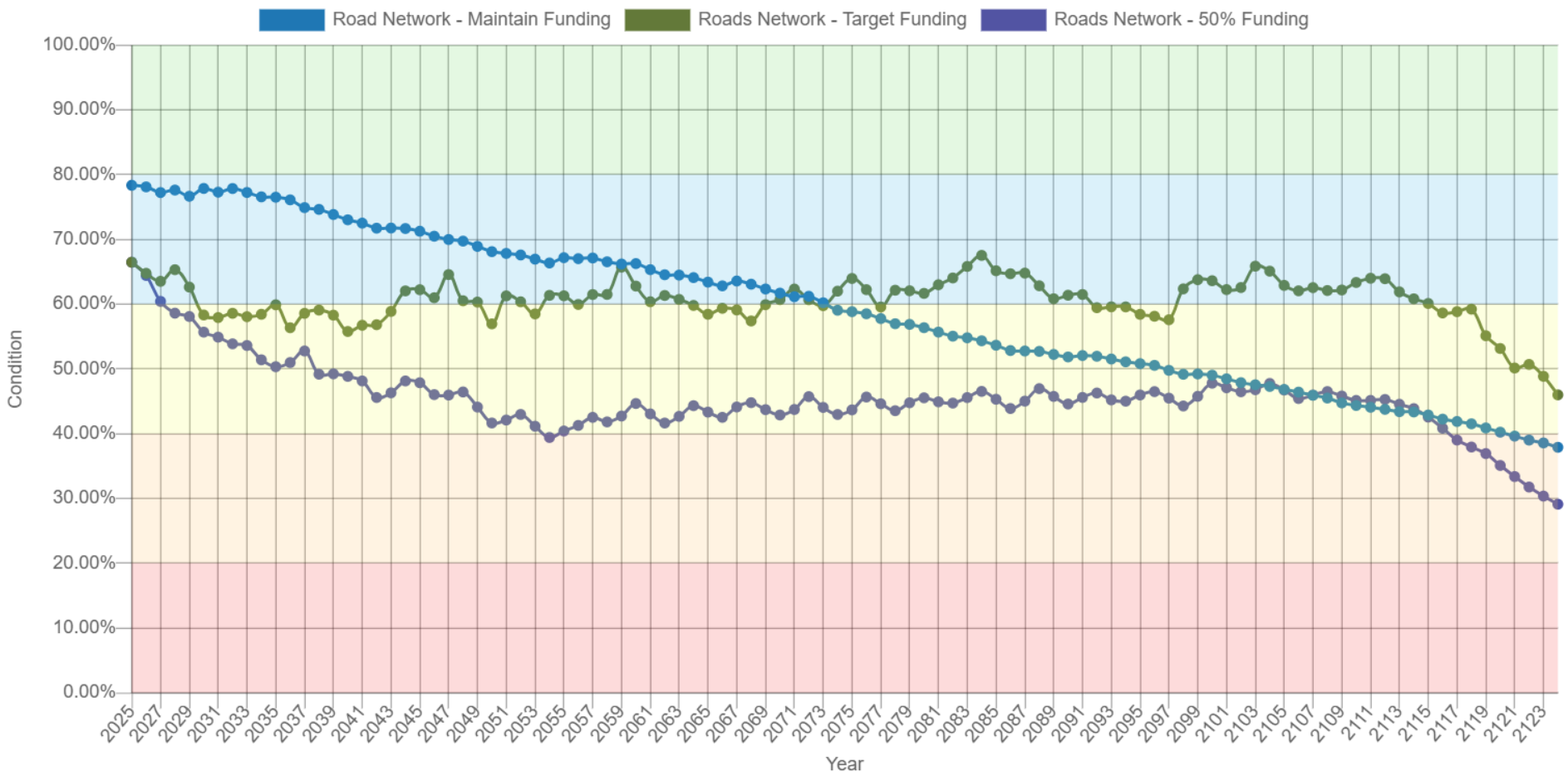


Figure 25 Roads Network PLOS Scenario Condition Results

6. Bridges & Structural Culverts

Bridges and Structural Culverts represent a critical portion of the transportation services provided to the community. The Town is responsible for 36 bridges and structural culverts. The asset inventory contains assessed condition values, replacement cost and other information from completed OSIM inspections. The most recent inspection report was completed in 2024.

6.1 Inventory & Valuation

Table 19 summarizes the quantity and current replacement cost of bridges and structural culverts. The Town owns and manages 20 bridges and 16 structural culverts.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Bridges	20	Quantity	$21,304,000	User-Defined
Structural Culverts	16	Quantity	$8,297,000	User-Defined
TOTAL			**$29,600,000**	

Table 19 Detailed Asset Inventory: Bridges & Structural Culverts

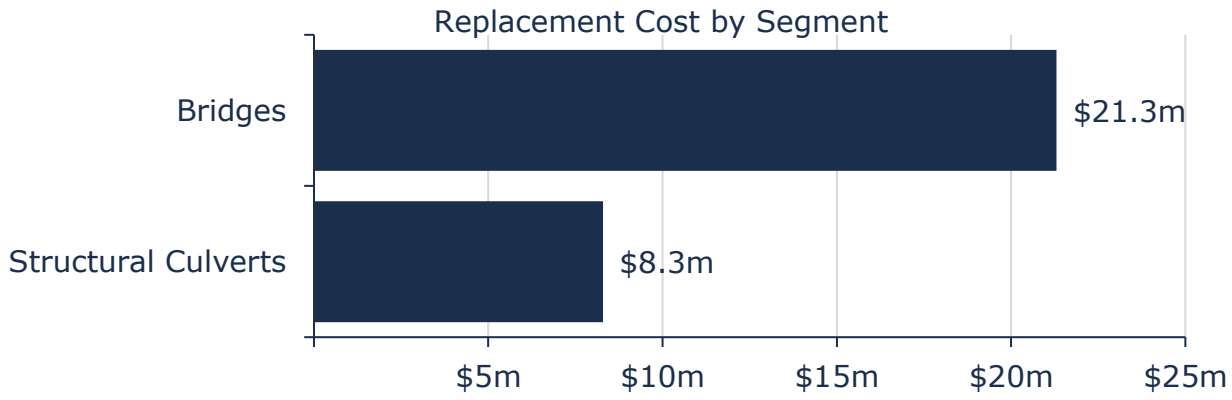


Figure 26 Portfolio Valuation: Bridges & Structural Culverts

6.2 Asset Condition

Figure 27 summarizes the replacement cost-weighted condition of the Town's bridges and structural culverts. Based on the Town's recent Ontario Structures Inspection Manual (OSIM) assessments, 91% of bridges and structural 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 9% of the total bridges and structural culverts portfolio, assets in poor or worse condition may require replacement in the immediate or short term.

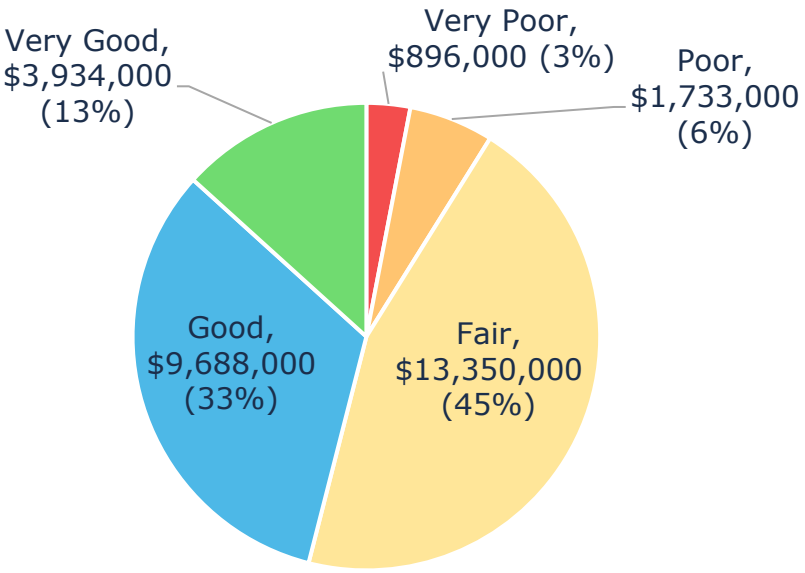


Figure 27 Asset Condition: Bridges & Structural Culverts Overall

As further detailed in Figure 28, based on in-field condition assessments, $1.7 million of bridge and structural assets were assessed as being in poor condition. Bridges and structures with a poor or worse rating (i.e., a bridge condition index of less than 60) are not necessarily unsafe for regular use. The OSIM ratings are designed to identify repairs needed to elevate condition ratings to a fair or higher.

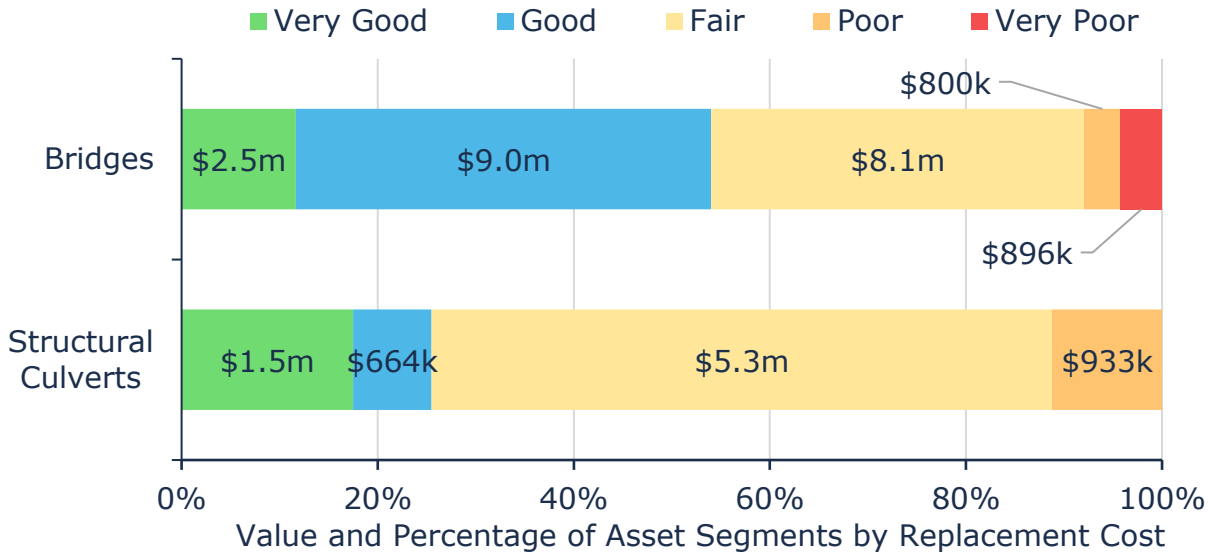


Figure 28 Asset Condition: Bridges & Structural Culverts by Segment

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. The Estimated Useful Life for bridges and culvert assets has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable.

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 29 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.

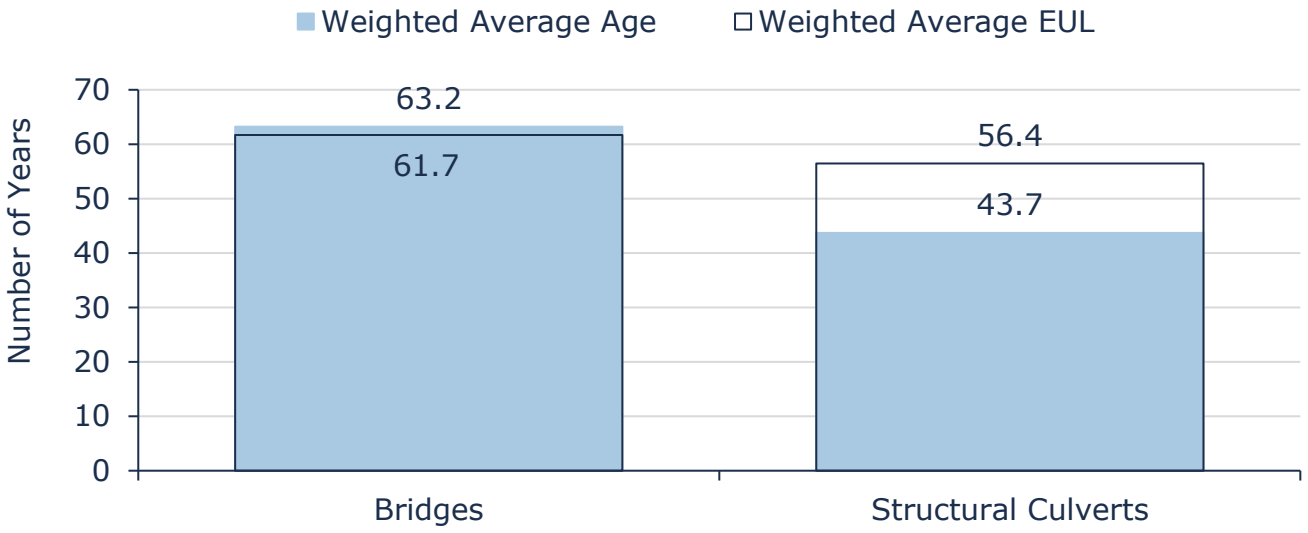


Figure 29 Estimated Useful Life vs. Asset Age: Bridges & Structural Culverts

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, Rehabilitation and Replacement	Staff perform visual inspections regularly. Routine bridge sweeping, washing of decks, drains and girders, and erosion repairs are performed
	Lifecycle activities are driven by the results of mandated structural inspections completed according to the Ontario Structure Inspection Manual (OSIM). Staff perform lifecycle activities (ex: deck replacements, concrete patch repairs, guard rail repairs, etc.) depending on recommendations through OSIM and/or staff inspections.

Activity Type	Description of Current Strategy
Inspection	Bridges and structural culverts are required to be inspected every 2 years according to the Ontario Structure Inspection Manual (OSIM). The latest inspections were performed in 2024

Table 20 Lifecycle Management Strategy: Bridges & Structural Culverts

6.5 Forecasted Long-Term Replacement Needs

Figure 30 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's bridges and structural culverts. This analysis was run until 2174 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 structural culverts total $567,000. 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.

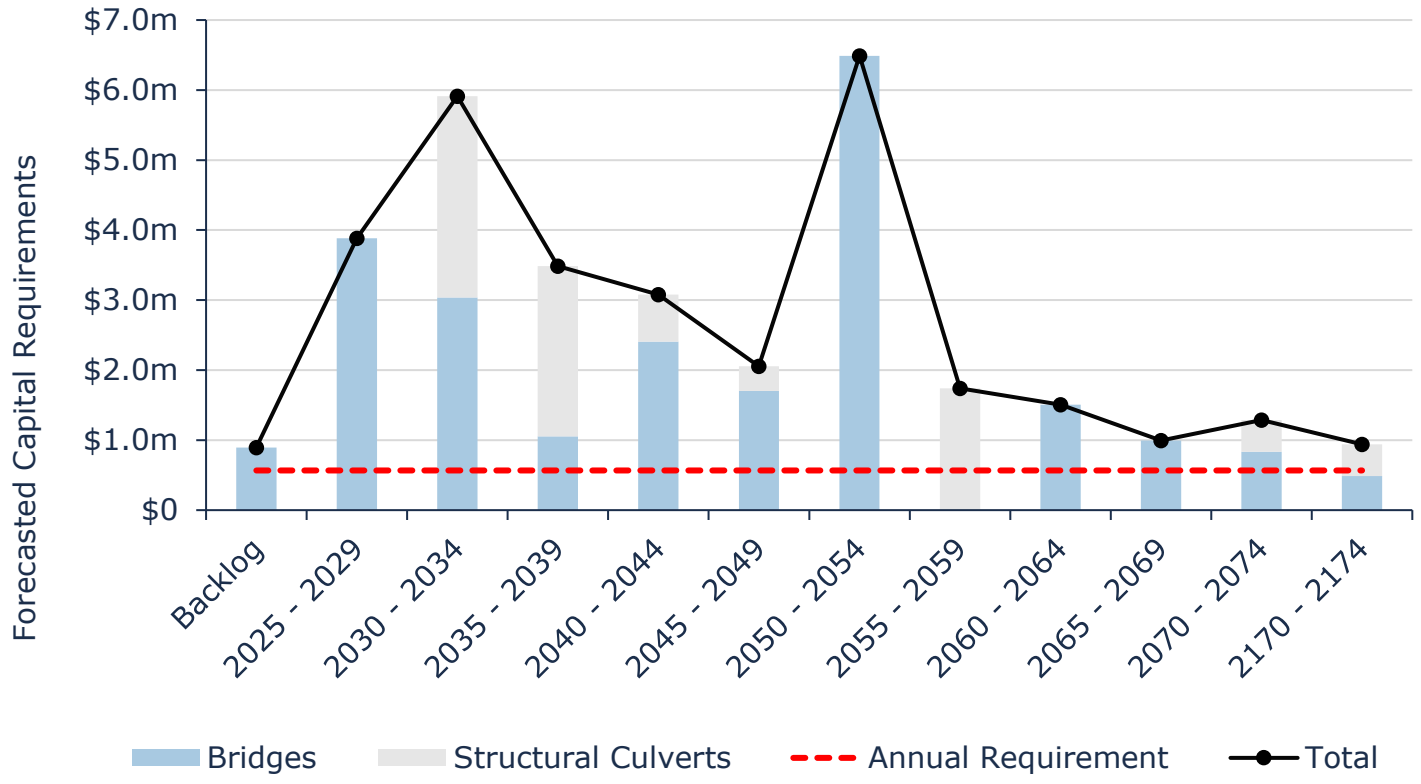


Figure 30 Forecasted Capital Replacement Needs: Bridges & Structural Culverts 2025-2174

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. Bridge deterioration timelines are utilized based on industry standards. However, these standards are developed for structures that are subject to significantly higher vehicular usage. Therefore, the Town's structures have historically not deteriorated at the anticipated rate. The regular inspections ensure that the Town is still planning for the future, while also adjusting conditions ratings per the assessed condition on a regular basis.

A summary of the 10-year 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, needs time frame, replacement cost and structure priority number. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

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

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

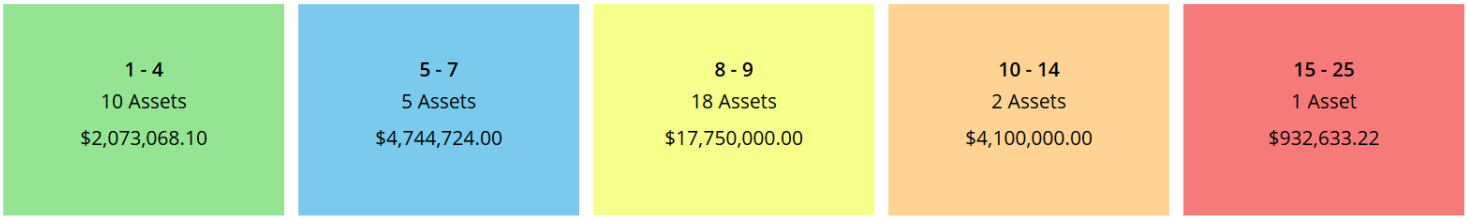


Figure 31 Risk Matrix: Bridges & Structural Culverts

An asset's criticality rating, determined by the nature and magnitude of the consequences of its potential failure should be used to prioritize projects, particularly lifecycle management strategies. Using risk in conjunction with levels of service, and the recommended workplans in OSIM inspections, can assist in optimizing limited funds.

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 of the traffic that is supported by municipal bridges (e.g., heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists)	Bridges and structural culverts are a key component of the Municipality's transportation network, and support the movement of pedestrians, trucks, emergency vehicles, and motor vehicles in and around South Bruce Peninsula.
Quality	Description or images of the condition of bridges & structural culverts and how this would affect use of the bridges & structural culverts	Good (BCI 70-100): A bridge with a BCI greater than 70 is generally considered to be in good to excellent condition, and repair or rehabilitation work is not usually required within the next 5 years. Routine maintenance, such as sweeping, cleaning are still recommended. Fair (BCI 50-70): A bridge with a BCI between 50 and 70 is generally considered to be in good to fair condition. Repair or rehabilitation work recommended is scheduled to be completed within the next 5 years. Poor (BCI Less than 50): A bridge with a BCI rating of less than 50 is generally considered poor with lower numbers representing structures nearing the end of life. The repair of these structures is best scheduled to be completed within a year. However, if the replacement of the structure is more viable, it is identified for continued monitoring and scheduled for replacement within 1 to 10-years.

Table 21 O. Reg. 588/17 Community Levels of Service: Bridges & Structural Culverts

6.7.2 Technical Levels of Service

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2024)
Scope	% of bridges in the Town with loading or dimensional restrictions	26%	35%
Quality	Average bridge condition index value for bridges in the Town	68%	69%
	Average bridge condition index value for structural culverts in the Town	65%	66%
Performance	Capital reinvestment rate	1.1%	0.4%

Table 22 O. Reg. 588/17 Technical Levels of Service: Bridges & Structural Culverts

6.8 Proposed Levels of Service

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

The below tables and graphs explain the proposed levels of service scenarios that were analyzed for bridges and structural culverts. Further PLOS analysis at the portfolio level can be found in section *4. Proposed Levels of Service Analysis.*

6.8.1 PLOS Scenarios Analyzed

Scenario	Description
Scenario 1: Maintain Current Funding Level	This scenario maintains existing capital funding levels for those categories that are underfunded. ♦ Bridges and structural culverts capital funding maintained at $123,000/year.
Scenario 2: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~2.9%/year, stabilizing at 100% funding across all asset categories in 15 years. ♦ Bridges and structural culverts capital funding increases from $123,000/year to $567,000/year over a span of 15 years
Scenario 3: Specific Funding Targets: Achieving 50% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~1.9%/year for 15 years to achieve specific funding targets: ♦ Bridges & structural culverts capital funding gradually increases from $123,000/year to $284,000/year over a span of 15 years to achieve 50% funding

Table 23 Bridges & Structural Culverts PLOS Scenario Descriptions

6.8.2 PLOS Analysis Results

Scenario	Technical LOS Outcomes	Initial Value (2025)	15 Year Projection (2039)	30 Year Projection (2054)	Comments
Scenario 1 (All Segments)	Average Condition	68%	51%	31%	
	Average Asset Risk	8.3	10.7	13.6	
	Annual Investment Required		$123,000		This is the maintained parameter in this scenario
	Capital Reinvestment Rate		0.4%		
Scenario 2 (All Segments)	Average Condition	68%	54%	41%	
	Average Asset Risk	8.3	10.5	12.6	
	Annual Investment Required		$567,000		This parameter is increased from $123,000 incrementally to reach a target portfolio investment of $567,000 over 15 years
	Capital Reinvestment Rate		1.9%		
Scenario 3 (All Segments)	Average Condition	68%	52%	41%	
	Average Asset Risk	8.3	10.6	12.5	
	Annual Investment Required		$284,000		This parameter is increased from $123,000 incrementally to reach 50% of the target portfolio investment, $284,000, over 15 years
	Capital Reinvestment Rate		1.0%		

Table 24 Bridges & Structural Culverts PLOS Scenario Analysis

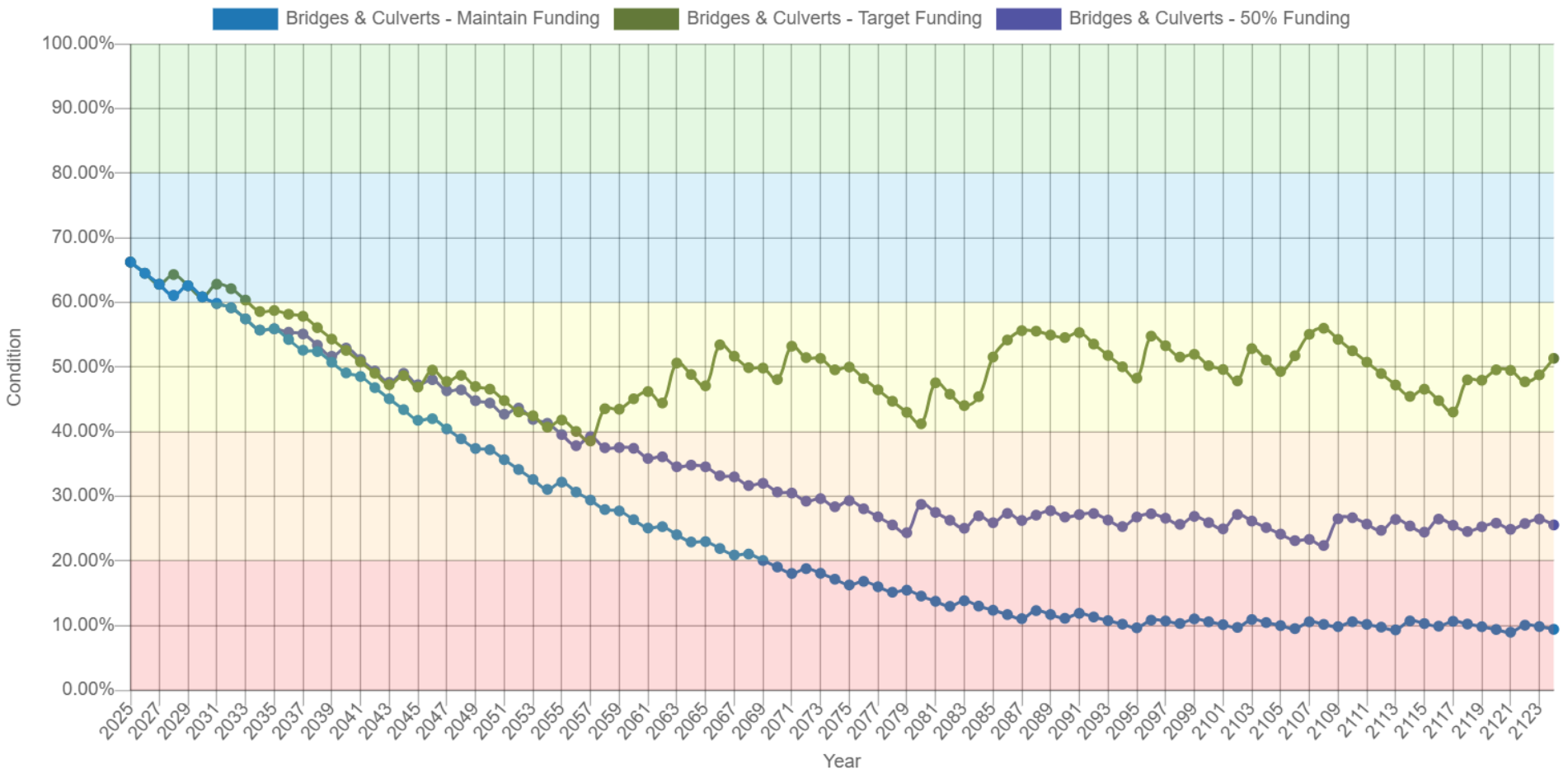


Figure 32 Bridges & Structural Culverts PLOS Scenario Condition Results

7. Water Network

The Town is responsible for approximately 35 kilometers of water mains, 144 hydrants, 1,110 water meters, 9 water pumping stations, 39 tower/booster equipment, 443 treatment equipment, and 5 water treatment plants. These assets are broken out into the two water systems, Wiarton and Amabel. The asset inventory is somewhat populated with data on pipe material, length, pipe size, and includes a node from/node to using a combination of valves and hydrants that signify the start and end of each segment.

Staff completed their 2020 Rate Study and retained a contractor to develop their Water Financial Plan in accordance with O.Reg. 453/07. Staff have identified opportunities for capacity upgrades and expansions in the Amabel Sauble Drinking Water system.

7.1 Inventory & Valuation

Table 25 summarizes the quantity and current replacement cost of the Town's various water network assets as managed in its primary asset management register, Citywide Assets.

Segment	Quantity (# of components)	Unit of Measure	Replacement Cost	Primary RC Method
Hydrants	144	Quantity	$2,890,000	User-Defined
Pumping Stations	9	Quantity	$1,432,000	Cost/Unit
Tower/Booster Equipment	39	Quantity	$2,734,000	CPI Tables
Treatment Equipment	443	Quantity	$5,227,000	CPI Tables
Treatment Plant	5 (299)	Quantity	$16,786,000	CPI Tables
Valves	97	Quantity	$393,000	CPI Tables
Water Mains	34,871	Meters	$31,304,000	CPI Tables
Water Meters	1,110	Quantity	$846,000	Cost/Unit
TOTAL			**$61,612,000**	

Table 25 Detailed Asset Inventory: Water Network

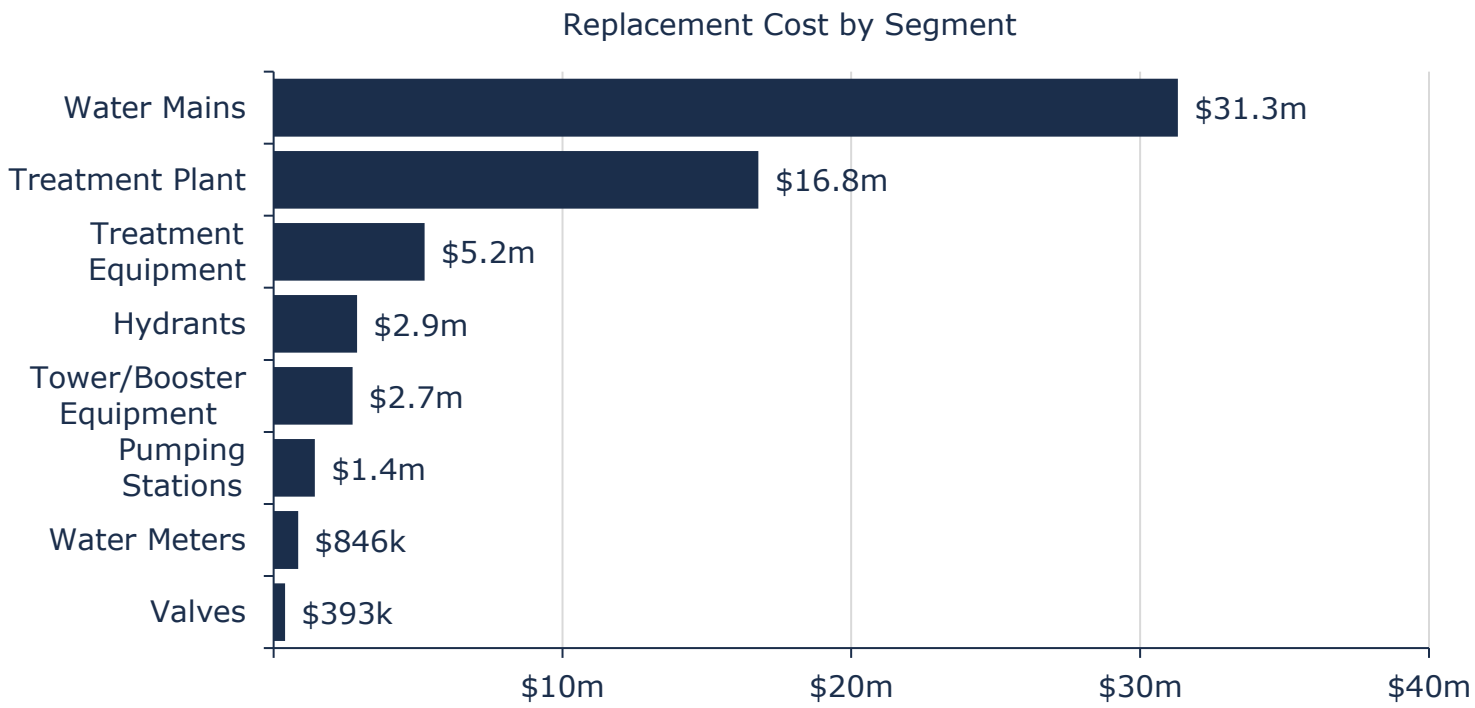


Figure 33 Portfolio Valuation: Water Network

7.2 Asset Condition

Figure 34 summarizes the replacement cost-weighted condition of the Town's water network. Based on a combination of field inspection data and age, 68% of assets are in fair or better condition; the remaining 32% of assets are in poor to very poor condition. Condition assessments were available for 29% of water network assets. This condition data was projected from inspection date to current year to estimate their condition today.

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 34, the majority of the Town's water network assets are in fair or better condition.

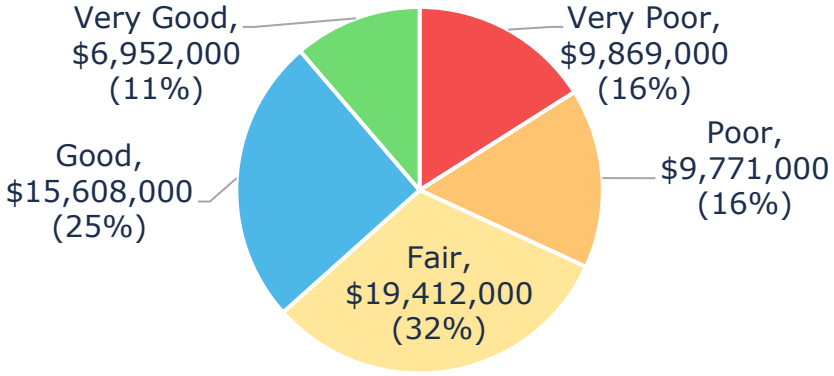


Figure 34 Asset Condition: Water Network Overall

As illustrated in Figure 35, based on condition assessments and age-based conditions, the majority of the Town's water mains are in very good condition.

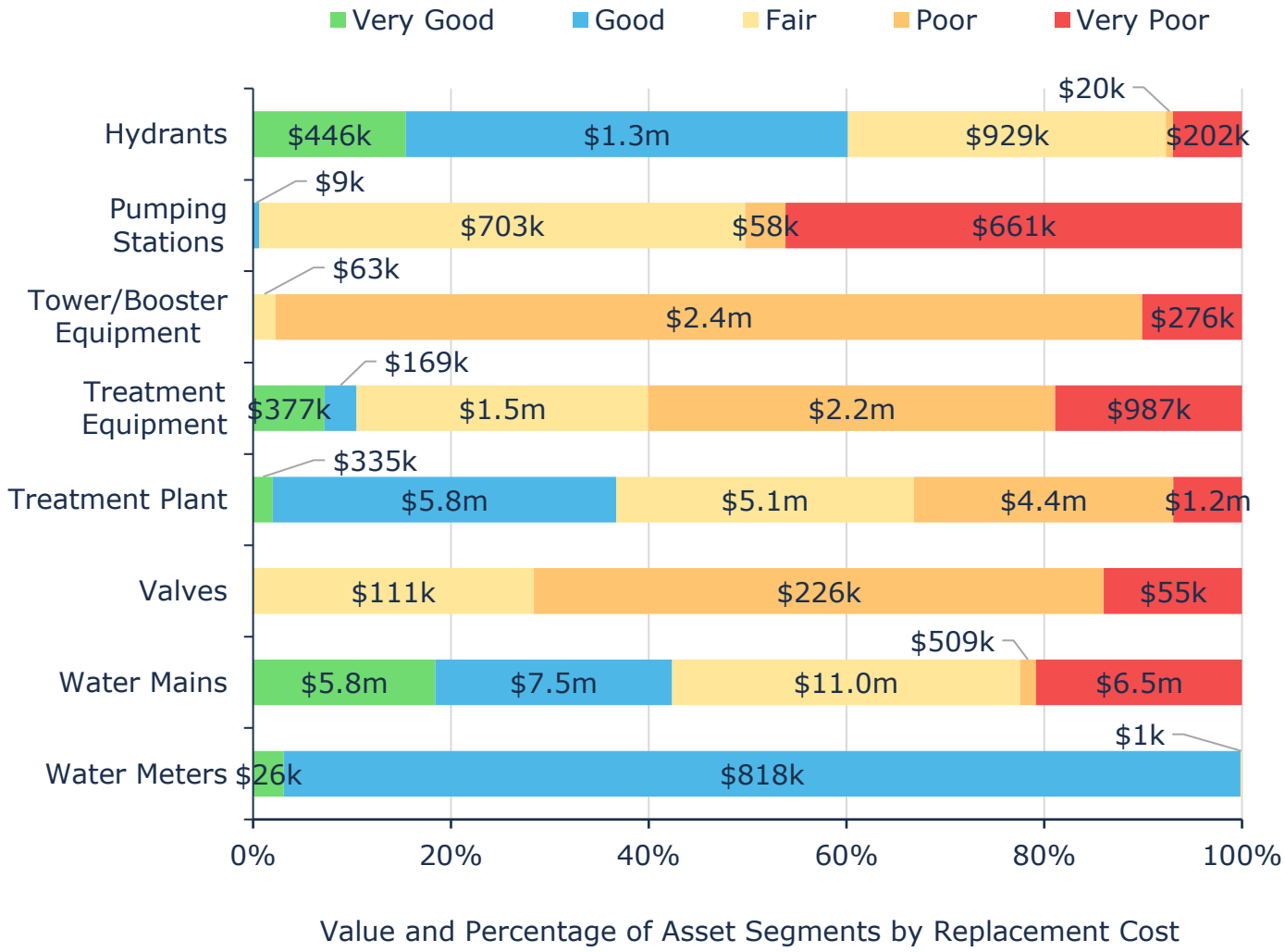


Figure 35 Asset Condition: Water Network by Segment

7.3 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life. The Estimated Useful Life for water network assets has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable.

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 36 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. Based on age analysis, the majority of water network assets have not surpassed their estimate useful lives, aside from the pumping stations, which are nearing the end of their defined useful life.

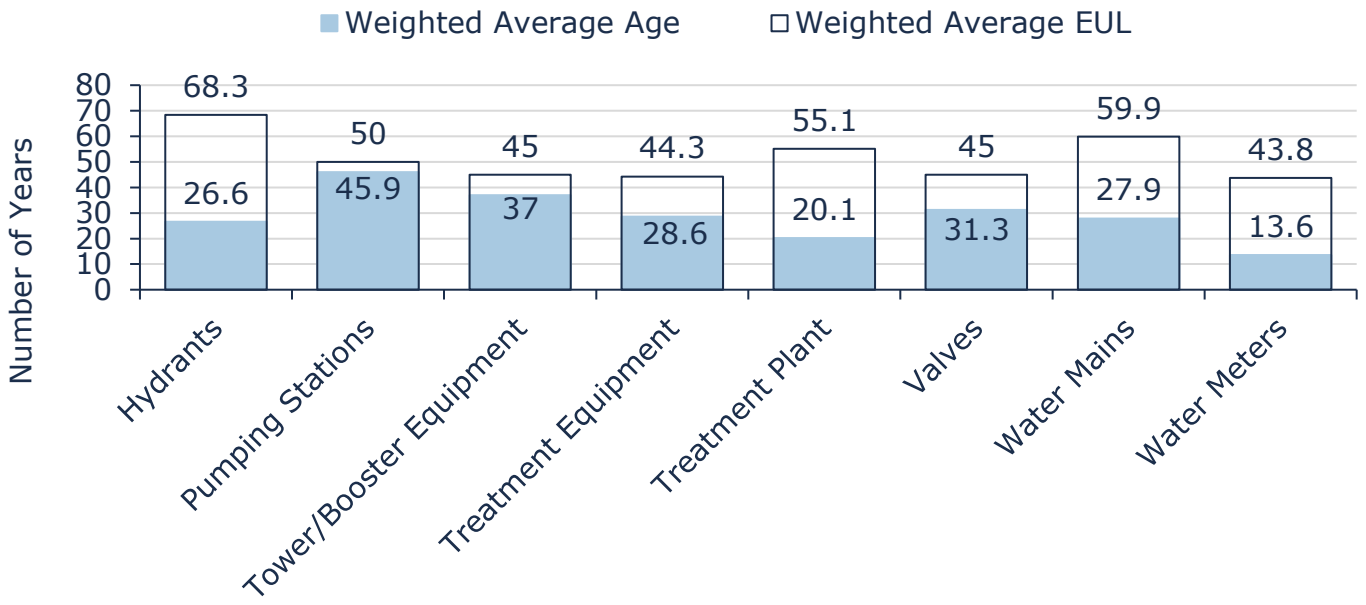


Figure 36 Estimated Useful Life vs. Asset Age: Water Network

7.4 Current Approach to Lifecycle Management

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

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

Activity Type	Description of Current Strategy
Maintenance	Annual watermain unidirectional flushing, hydrant maintenance, and valve exercising is completed by OCWA.
Rehabilitation/ Replacement	The Town has experienced very few main breaks historically and so staff rely on a proxy of age, pipe material and diameter, and location to determine the severity of the pipe. Watermains are redesigned to improve efficiency. Fire Hydrants are added to increase fire flow protection in the Town.

Activity Type	Description of Current Strategy
	Prioritization focuses on affordability, coordination with other projects, and criticality as key indicators. OCWA develops a 5-year capital plan that it provides to Town staff for any upcoming capital projects.
Inspection	OCWA performs regular visual inspections and condition assessments of the water treatment plants, water tower, and booster/pumping stations.

Table 26 Lifecycle Management Strategy: Water Network

7.5 Forecasted Long-Term Replacement Needs

Figure 37 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's water network. 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 $1.2 million for all assets in the water 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. 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.

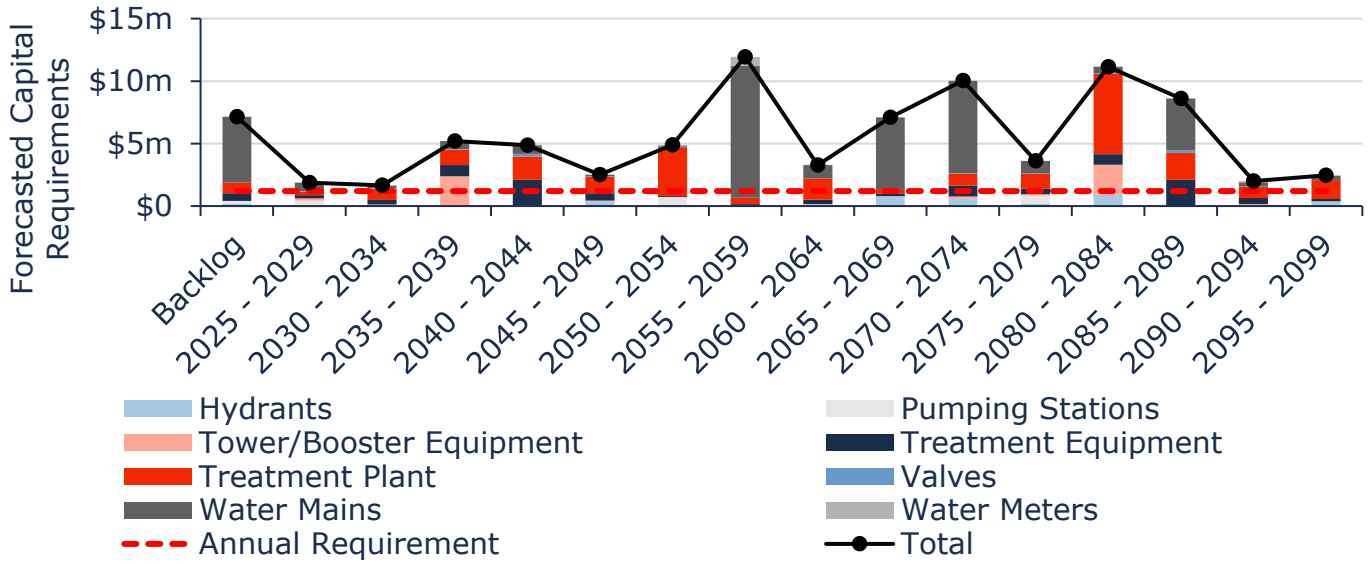


Figure 37 Forecasted Capital Replacement Needs: Water Network 2025-2099

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 summary of the 10-year 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, soil corrosion, breaks/segments, pipe material, replacement cost and pipe diameter. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

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

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

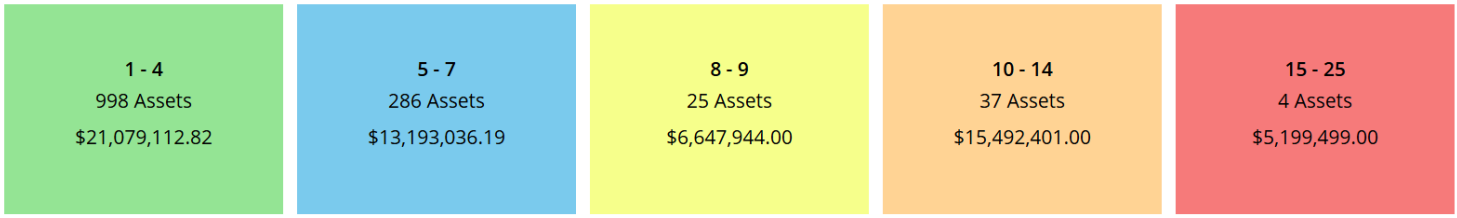


Figure 38 Risk Matrix: Water Network

7.7 Levels of Service

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

7.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system	The Town has multiple distribution systems; they are listed below: • Wiarton Drinking Water System is a Class III Treatment and Class II Distribution system that is supplied by Colpoy's Bay. • Oliphant Drinking Water System transports its drinking water from the Wiarton system • Huron Woods Drinking Water System is a Class II Water Treatment and Class I Distribution System that is supplied by a GUDI well. • Foreman Drinking Water System is a Class II Water Treatment and Class I Distribution System that is supplied by a GUDI well. • Amabel-Sauble Drinking Water System is a Class II Water Treatment and Class II Distribution System that is supplied by multiple GUDI wells.
	Description, which may include maps, of the user groups or areas of the municipality that have fire flow	See Appendix C for a map of areas of the municipality that have fire flow. Staff have an annual flushing and replacement program to ensure that hydrants are replaced and maintained appropriately.
Reliability	Description of boil water advisories and service interruptions	The Municipality has not experienced any boil water advisories in 2024. Staff maintain the system following their Drinking Water Quality Management System (DWQMS), in regulation with the Safe Drinking Water Act, 2002.

Table 27 O. Reg. 588/17 Community Levels of Service: Water Network

7.7.2 Technical Levels of Service

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2024)
Scope	% of properties connected to the municipal water system	21%	21%
	% of properties where fire flow is available	18%	15%
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	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	0
Performance	Capital reinvestment rate	1.4%	1.3%

Table 28 O. Reg. 588/17 Technical Levels of Service: Water Network

7.8 Proposed Levels of Service

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

The below tables and graphs explain the proposed levels of service scenarios that were analyzed for the water network. Further PLOS analysis at the portfolio level can be found in section *4. Proposed Levels of Service Analysis.*

7.8.1 PLOS Scenarios Analyzed

Scenario	Description
Scenario 1: Maintain Current Funding Level	This scenario maintains existing capital funding levels for those categories that are underfunded. ♦ Water Network capital funding maintained at $788,000/year
Scenario 2: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual water rate increases of ~1.2%/year, stabilizing at 100% funding in 15 years. ♦ Water network capital funding gradually increases from $788,000/year to $1,200,000/year over a span of 15 years
Scenario 3: Specific Funding Targets: Following Water System Financial Plan	This scenario assumes water rate changes based on the recommendations provided by the Water System Financial Plan

Table 29 Water Network PLOS Scenario Descriptions

7.8.2 PLOS Analysis Results

Scenario	Technical LOS Outcomes	Initial Value (2025)	15 Year Projection (2039)	30 Year Projection (2054)	Comments
Scenario 1	Average Condition	51%	44%	36%	
	Average Asset Risk	7.5	8.9	10.6	
	Annual Investment Required		$788,000		This is the maintained parameter in this scenario
	Capital Reinvestment Rate		1.3%		
Scenario 2	Average Condition	51%	47%	44%	
	Average Asset Risk	7.5	8.8	9.1	
	Annual Investment Required		$1,200,000		This parameter is based on water rates increasing 1.2% annually for 15 years
	Capital Reinvestment Rate		1.9%		
Scenario 3	Average Condition	51%	42%	34%	
	Average Asset Risk	7.5	9.2	10.7	
	Annual Investment Required		$710,000		This parameter is based on water rates following the recommendation from the Water System Financial Plan. As the plan only defines funds required for the next 7 years, this plan assumes the investment required will remain consistent once it reaches it's peak in 7 years.
	Capital Reinvestment Rate		1.2%		

Table 30 Water Network PLOS Scenario Analysis

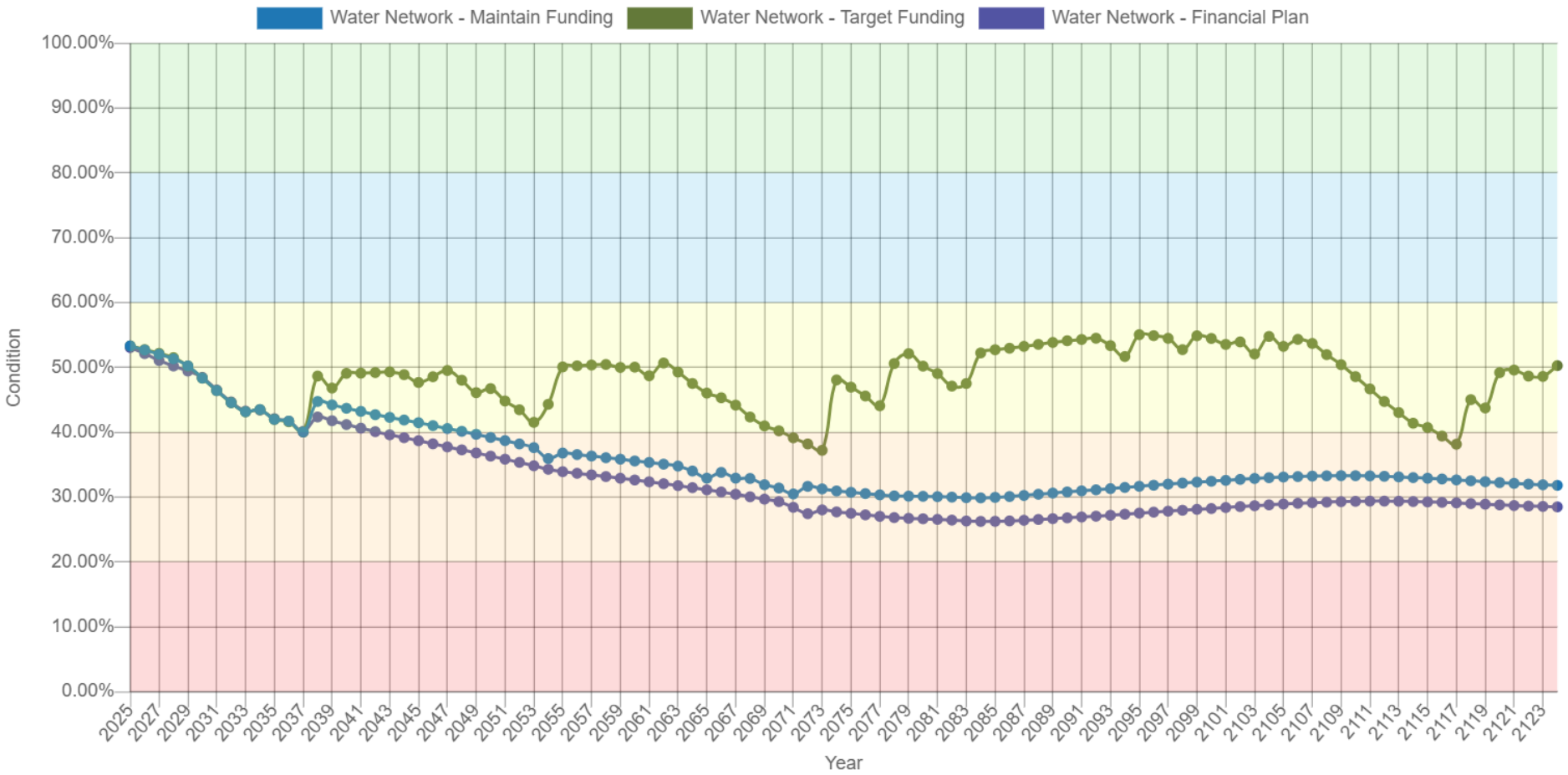


Figure 39 Water Network PLOS Scenario Condition Results

8. Sanitary Network

The Town is responsible for approximately 29 kilometers of sanitary sewer mains, 1 lagoon, 2 sewer pumping stations, and 1 sewage treatment plant. The Ontario Clean Water Agency (OCWA) maintains the Town's above ground structures. The attribute information is mostly populated with length, pipe size, material, slope, and node to/node from (manholes).

8.1 Inventory & Valuation

Table 31 summarizes the quantity and current replacement cost of the Town's various sanitary network assets as managed in its primary asset management register, Citywide Assets.

Segment	Quantity (# of components)	Unit of Measure	Replacement Cost	Primary RC Method
Lagoons	1 (15)	Quantity	$10,792,000	CPI Tables
Manholes	244	Quantity	$5,370,000	Cost/Unit
Pumping Station	2	Quantity	$1,073,000	CPI Tables
Sewage Treatment Plant	1 (179)	Quantity	$21,532,000	CPI Tables
Sewermains	29,150	Meters	$16,666,000	Cost/Unit
TOTAL			**$55,433,000**	

Table 31 Detailed Asset Inventory: Sanitary Network

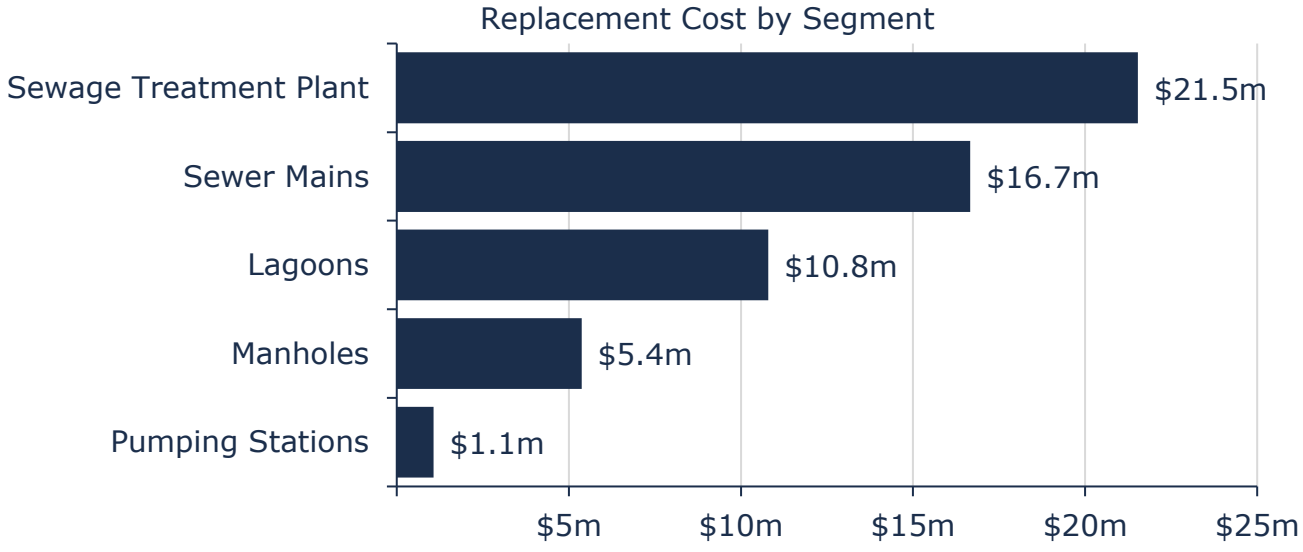


Figure 40 Portfolio Valuation: Sanitary Network

8.2 Asset Condition

Figure 41 summarizes the replacement cost-weighted condition of the Town's sanitary network. Based on a combination of field inspection data and age, 72% of assets are in fair or better condition; the remaining 28% of assets are in poor to very poor condition. Condition assessments were available for 62% of the sanitary network. This condition data was projected from inspection date to current year to estimate their condition today.

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 41 the majority of the Town's sanitary network assets are in fair or better condition.

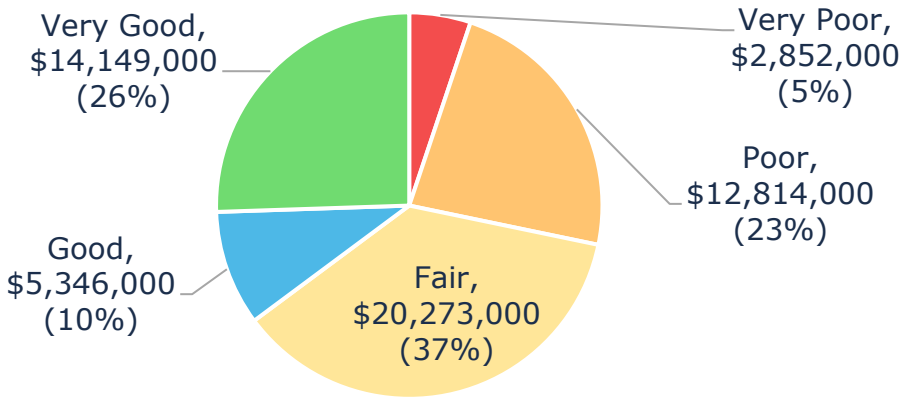


Figure 41 Asset Condition: Sanitary Network Overall

As illustrated in Figure 42, based on condition assessments and age-based conditions, the majority of the Town's sanitary sewer mains are in very good condition however, 46% of manholes are in poor or worse condition.

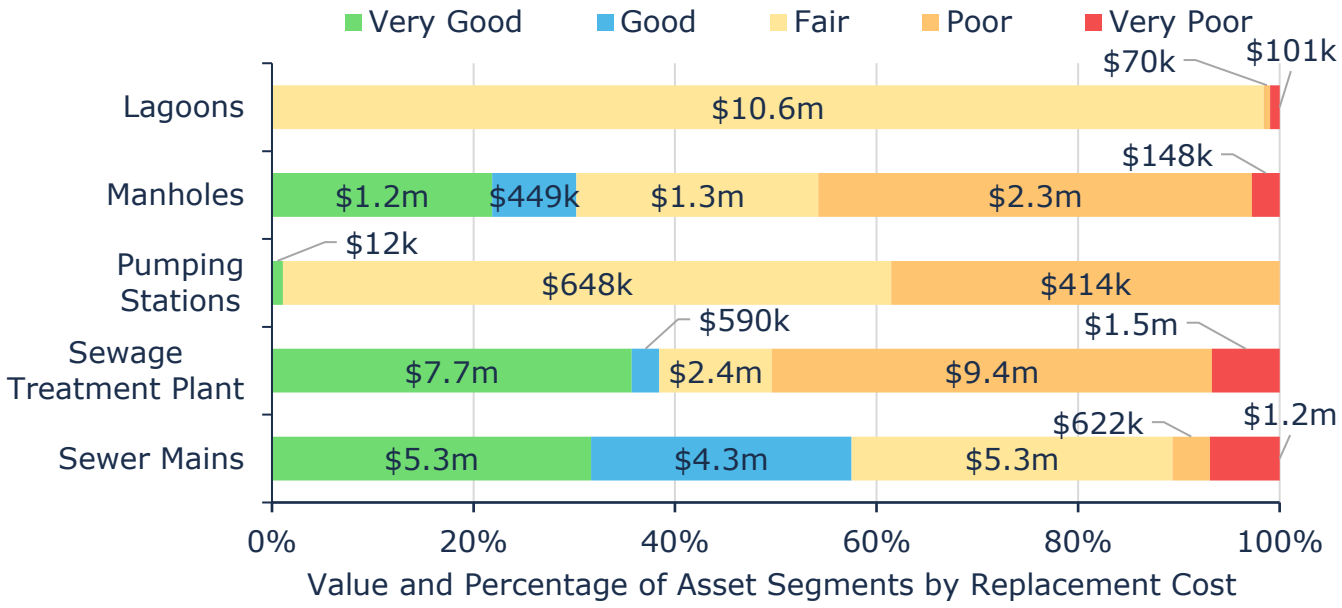


Figure 42 Asset Condition: Sanitary Network by Segment

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. The Estimated Useful Life for sanitary network assets has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable.

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 43 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. Based on age-analysis, the majority of sanitary network assets have not surpassed their estimated useful lives, aside from lagoons, which have remained in service approximately 20 years beyond their defined useful life.

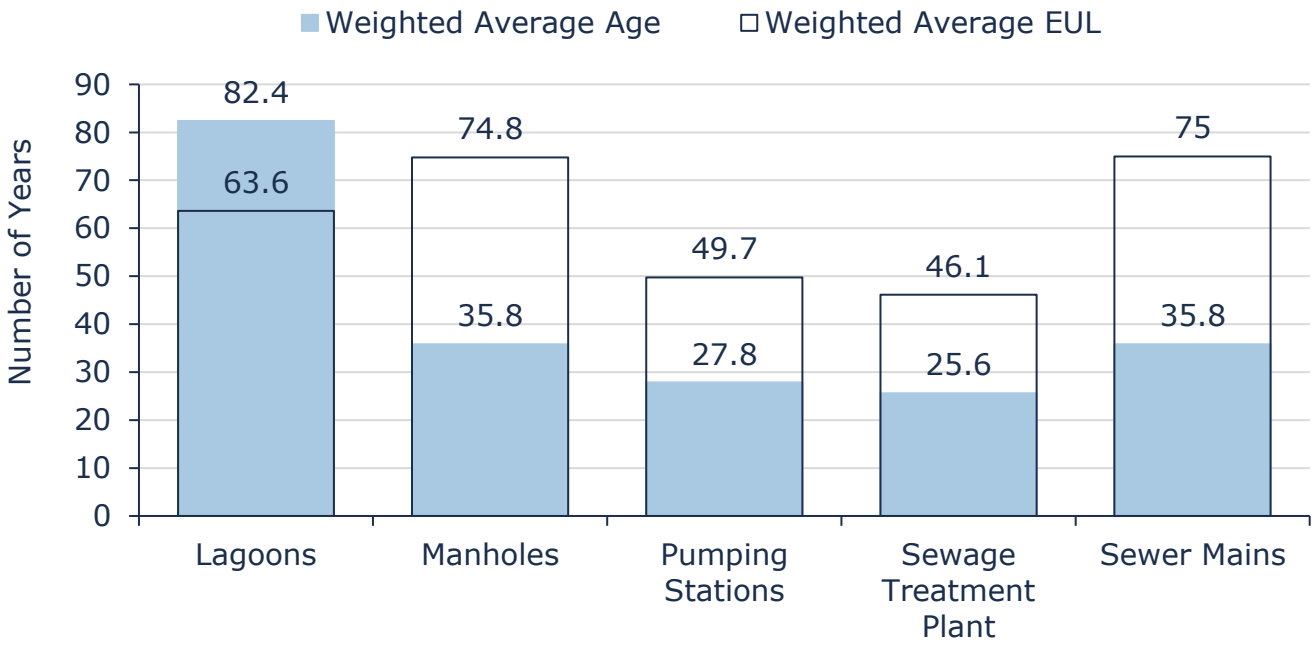


Figure 43 Estimated Useful Life vs. Asset Age: Sanitary Network

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
Maintenance	Annual sanitary sewer flushing, and inspection activities are completed regularly. Sanitary manhole repairs and inspections are performed as-needed (grouting & sealing). Furthermore, OCWA monitors and calibrates equipment as per manufacturer's recommendations, on an annual basis.
Rehabilitation	Preventative Maintenance activities are scheduled and performed, on a monthly basis, for pumping stations and lagoon systems. These activities are scheduled within OCWA's work order system, MAXIMO.
	CCTV camera inspections are completed on an as-needed basis.
Inspection	OCWA performs regular inspections and assessments on the Town's wastewater treatment plant, lagoon systems, and pumping stations.

Table 32 Lifecycle Management Strategy: Sanitary Network

8.5 Forecasted Long-Term Replacement Needs

Figure 44 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's sanitary network. 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 $970,000 for all assets in the sanitary sewer 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. 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.

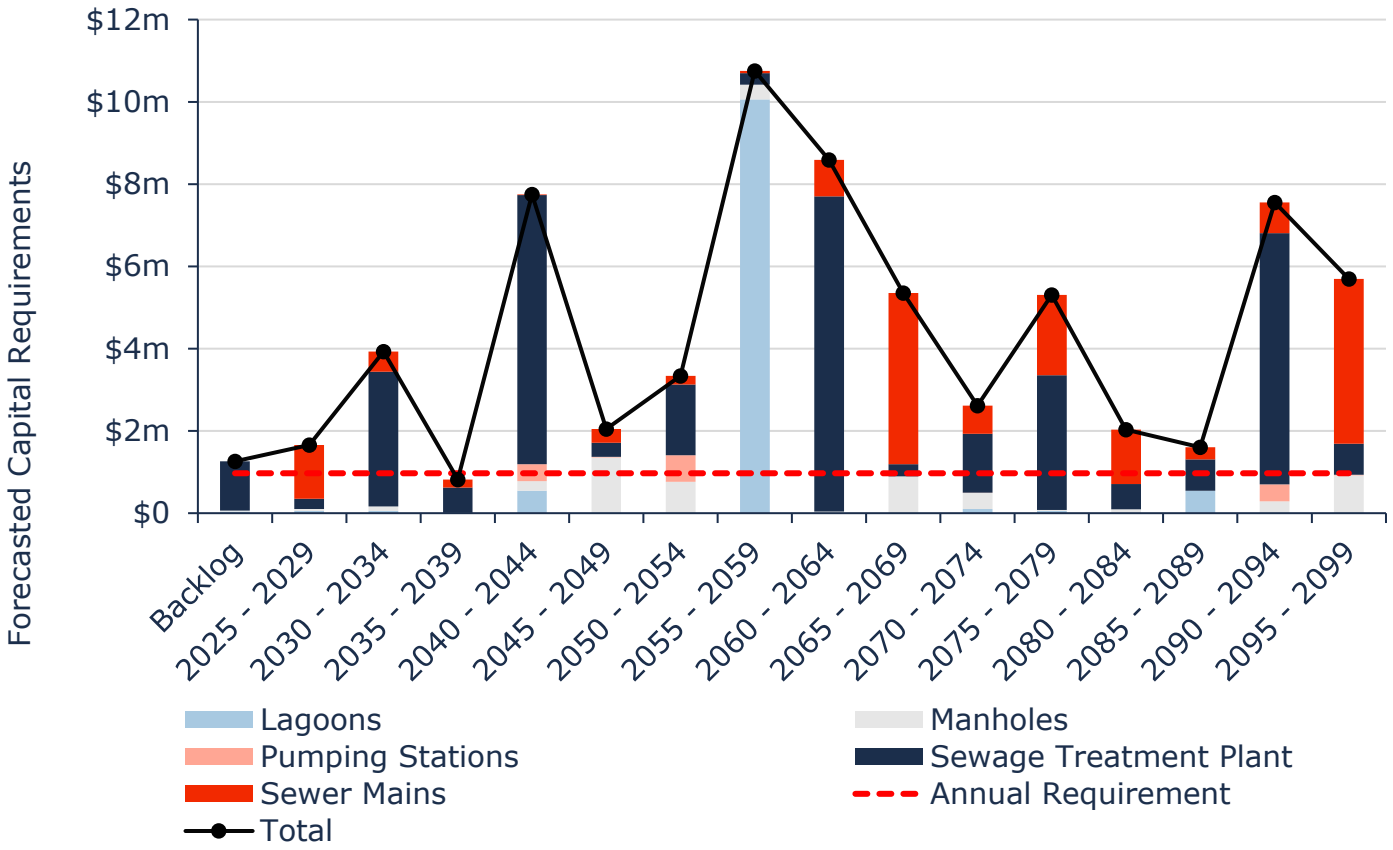


Figure 44 Forecasted Capital Replacement Needs: Sanitary Network 2025-2099

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 summary of the 10-year 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, replacement cost, pipe diameter and inflow and infiltration. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

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

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

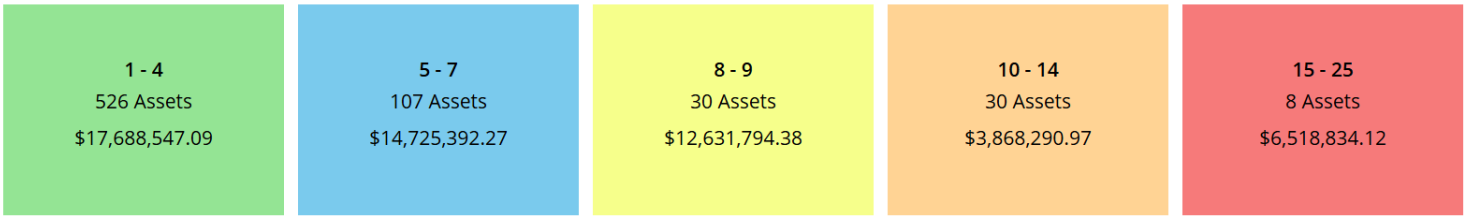


Figure 45 Risk Matrix: Sanitary Network

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 maps, of the user groups or areas of the municipality that are connected to the municipal wastewater system	The Wiarton Wastewater Treatment plant services 935 households in the Town of South Bruce Peninsula. See Appendix C
Reliability	Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place which allow overflow during storm events to prevent backups into homes	Not Applicable. No combined sewers present.
	Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches	Not Applicable. No combined sewers present.
	Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes	Stormwater can enter into sanitary sewers due to cracks in sanitary mains, manholes, private services or through indirect connections (e.g. weeping tiles). In the case of heavy rainfall events, sanitary sewers may experience a volume

Service Attribute	Qualitative Description	Current LOS (2024)
		of water and sewage that exceeds its designed capacity. In some cases, this can cause water and/or sewage to backup into homes.
	Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to stormwater infiltration	The municipality follows a series of design standards that integrate servicing requirements and land use considerations when constructing or replacing sanitary sewers. These standards have been determined with consideration of the minimization of sewage overflows and backups.
	Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system	The Environmental Compliance Approval (ECA) identifies the effluent criteria for municipal wastewater treatment plants. Municipal staff adhere to the Design Guidelines for Sewage Works (MOECC, 2008); the effluent is discharged with established minimum requirements for critical parameters such as the organic loading rate, hydraulic retention time, CBOD5, pH levels, and phosphorus and sulfur levels.

Table 33 O. Reg. 588/17 Community Levels of Service: Sanitary Network

8.7.2 Technical Levels of Service

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2024)
Scope	% of properties connected to the municipal wastewater system	15%	13%
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	N/A	N/A
	# of connection-days per year having wastewater backups compared to the total number of properties connected to the municipal wastewater system	3	0
	# of effluent violations per year due to wastewater discharge compared to the total	0	0

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2024)
	number of properties connected to the municipal wastewater system		
Performance	Capital reinvestment rate	0.3%	1.1%

Table 34 O. Reg. 588/17 Technical Levels of Service: Sanitary Network

8.8 Proposed Levels of Service

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

The below tables and graphs explain the proposed levels of service scenarios that were analyzed for the sanitary network. Further PLOS analysis at the portfolio level can be found in Section *4. Proposed Levels of Service Analysis.*

8.8.1 PLOS Scenarios Analyzed

Scenario	Description
Scenario 1: Maintain Current Funding Level	This scenario maintains existing capital funding levels for those categories that are underfunded. ♦ Sanitary network capital funding maintained at $616,000/year
Scenario 2: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual sanitary rate increases of ~1.3%/year, stabilizing at 100% funding in 15 years. ♦ Sanitary sewer network capital funding gradually increases from $616,000/year to $970,000/year over a span of 15 years
Scenario 3: Specific Funding Targets: Following Wastewater System Financial Plan	This scenario assumes wastewater rate changes based on the recommendations provided by the Wastewater System Financial Plan

Table 35 Sanitary Network PLOS Scenario Descriptions

8.8.2 PLOS Analysis Results

Scenario	Technical LOS Outcomes	Initial Value (2025)	15 Year Projection (2039)	30 Year Projection (2054)	Comments
Scenario 1	Average Condition	56%	45%	37%	
	Average Asset Risk	8.3	10.0	12.0	
	Annual Investment Required		$616,000		This is the maintained parameter in this scenario
	Capital Reinvestment Rate		1.1%		
Scenario 2	Average Condition	56%	42%	40%	
	Average Asset Risk	8.3	10.5	10.9	
	Annual Investment Required		$970,000		This parameter is based on sanitary rates increasing 1.3% annually for 15 years
	Capital Reinvestment Rate		1.7%		
Scenario 2	Average Condition	56%	42%	40%	
	Average Asset Risk	8.3	10.5	10.9	
	Annual Investment Required		$1,268,000		This parameter is based on wastewater rates following the recommendation from the Wastewater System Financial Plan. As the plan only defines funds required for the next 7 years, this plan assumes the investment required will remain consistent once it reaches it's peak in 7 years.
	Capital Reinvestment Rate		2.3%		

Table 36 Sanitary Network PLOS Scenario Analysis

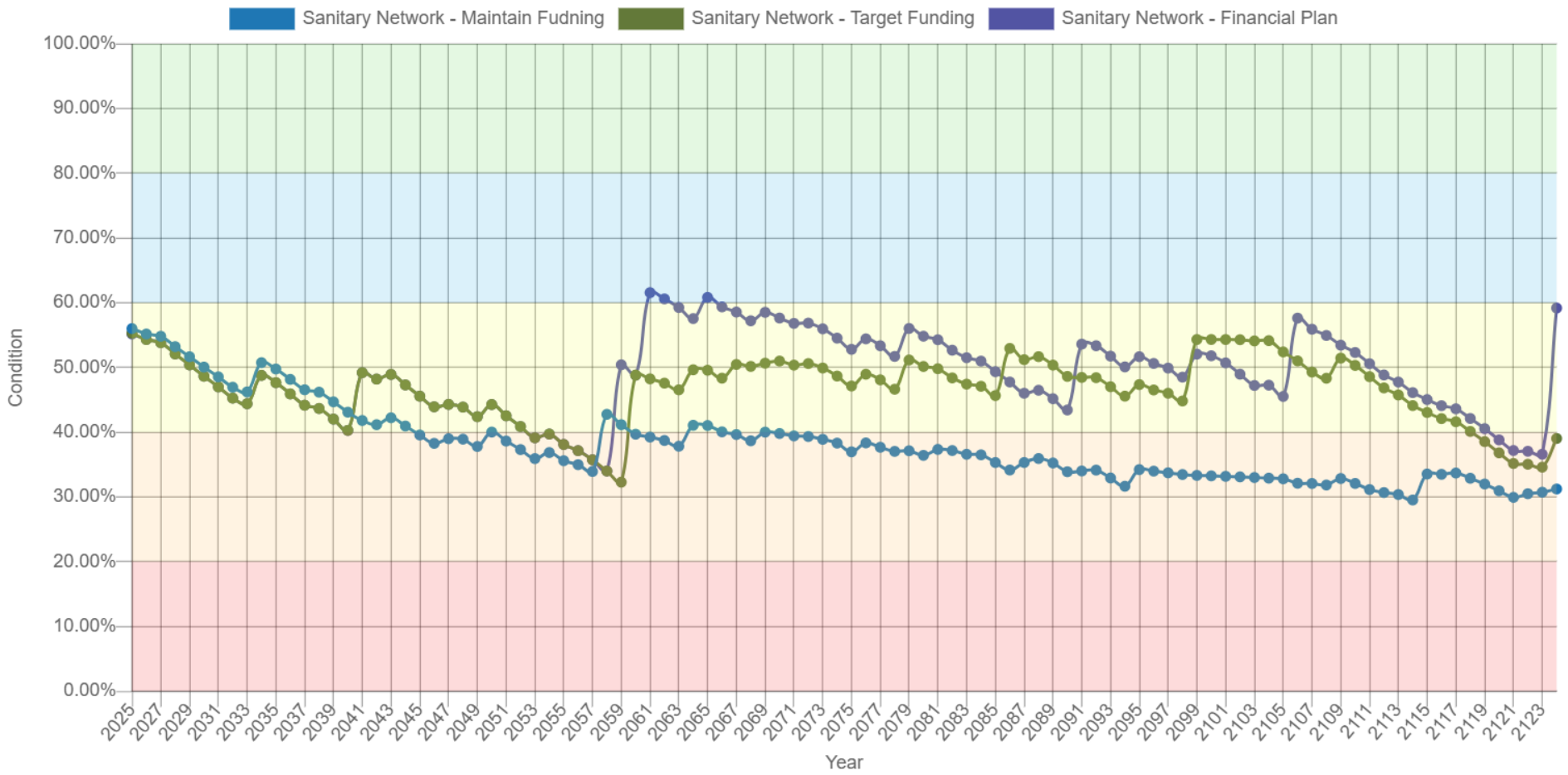


Figure 46 Sanitary Network PLOS Scenario Condition Results

9. Stormwater Network

The Town is responsible for owning and maintaining a stormwater network of storm sewer mains and other supporting infrastructure. Staff are working towards improving the accuracy and reliability of their Stormwater Services inventory to assist with long-term asset management planning. Storm manholes, mains, and inlets are being refined and staff are working towards including them in the Citywide database.

9.1 Inventory & Valuation

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

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Catchbasins	630	Quantity	$3,862,000	Cost/Unit
Culverts	902	Quantity	$6,262,000	Cost/Unit
Manholes	255	Quantity	$4,384,000	Cost/Unit
Oil Grit Separator	1	Quantity	$843,000	CPI Tables
Storm Mains	34,608	Meters	$24,466,000	Cost/Unit
TOTAL			**$39,818,000**	

Table 37 Detailed Asset Inventory: Stormwater Network

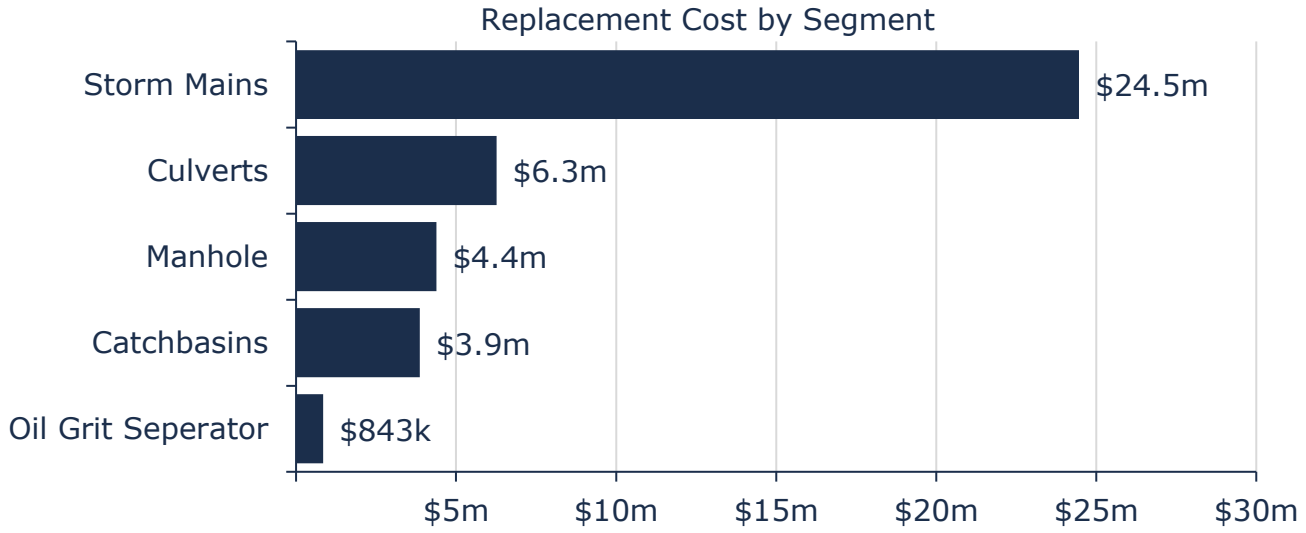


Figure 47 Portfolio Valuation: Stormwater Network

9.2 Asset Condition

Figure 48 summarizes the replacement cost-weighted condition of the Town's stormwater network assets. Based on a combination of field condition assessments and age data, approximately 17% 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.

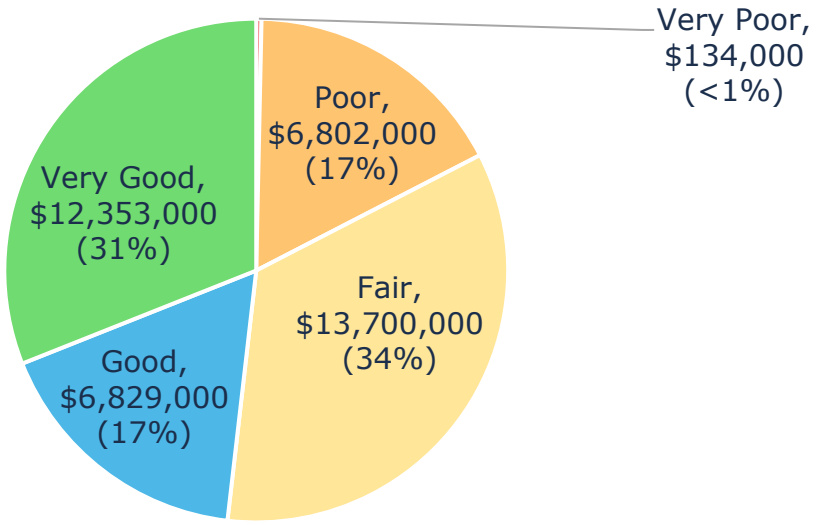


Figure 48 Asset Condition: Stormwater Network Overall

Figure 49 summarizes the age-based condition of stormwater network assets. The analysis illustrates that the majority of stormwater mains are in fair or better condition.

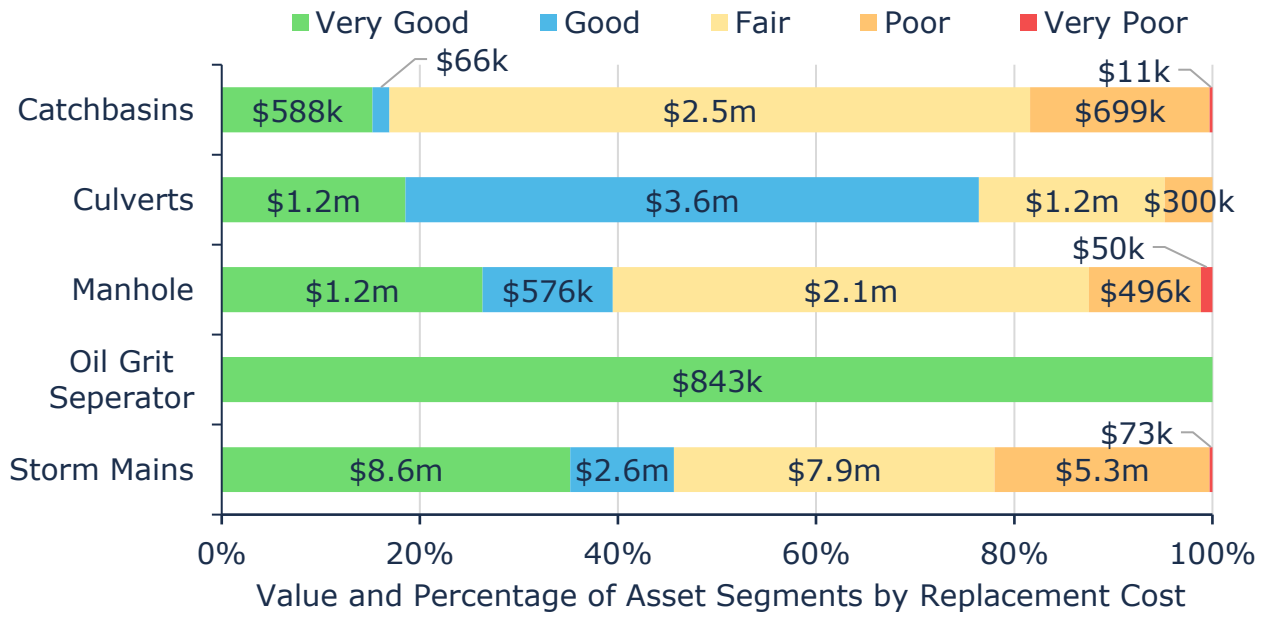


Figure 49 Asset Condition: Stormwater Network by Segment

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. The Estimated Useful Life for stormwater network assets has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable.

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

Figure 50 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets. Based on age-analysis, all stormwater network assets have not surpassed their defined useful life.

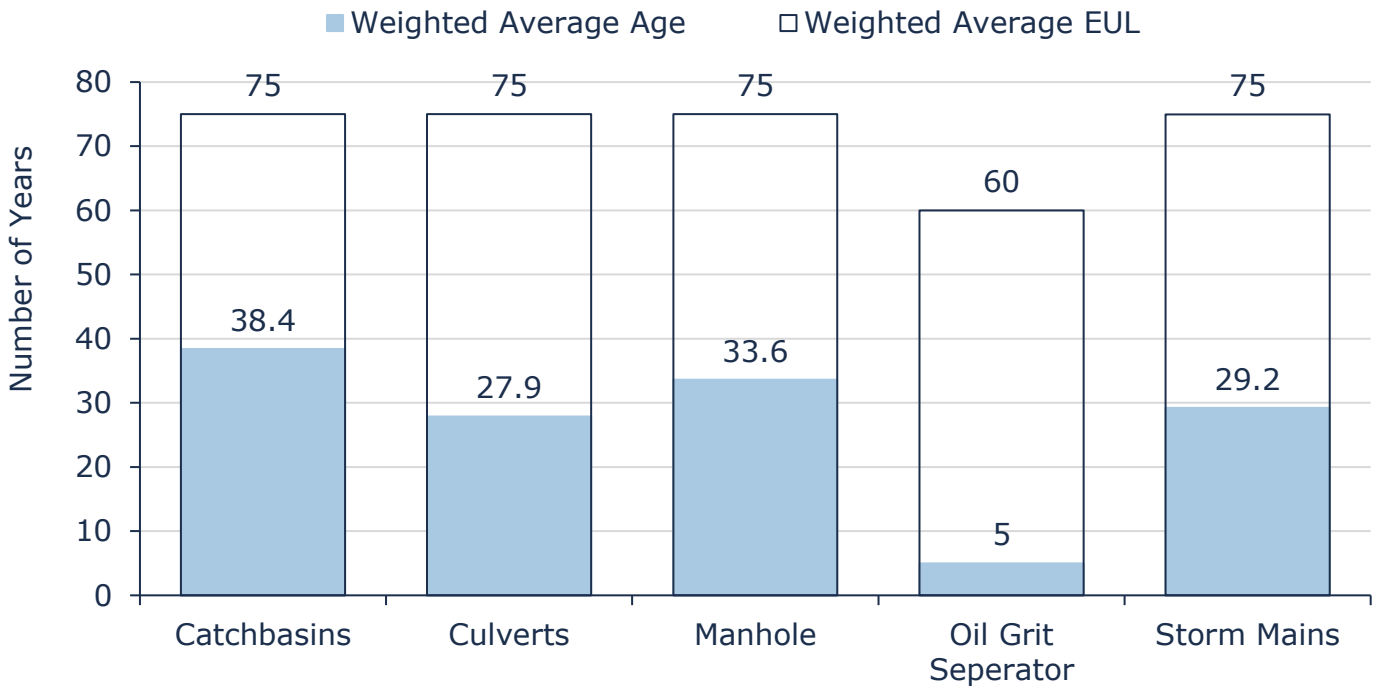


Figure 50 Estimated Useful Life vs. Asset Age: Stormwater Network

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.

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

Activity Type	Description of Current Strategy
Maintenance	CCTV camera inspections are completed on an as-needed basis to assess condition of pipes.
	Staff perform periodic catchbasins cleanout and flushing of stormwater mains.
	Manhole repairs and cleaning is performed regularly.
	Oil grit separators are inspected on a monthly basis and are cleaned out bi-annually, or as required.
Rehabilitation/ Replacement	Trenchless Relining is performed on viable main candidates, when applicable. Staff prioritize the rehabilitation and/or replacement of storm sewers in coordination with other underground linear assets, condition, and capacity.
Inspection	CCTV camera inspections are completed on an as-needed basis.

Table 38 Lifecycle Management Strategy: Stormwater Network

9.5 Forecasted Long-Term Replacement Needs

Figure 51 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's stormwater network assets. 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 $534,000 for all assets in the stormwater 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.

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.

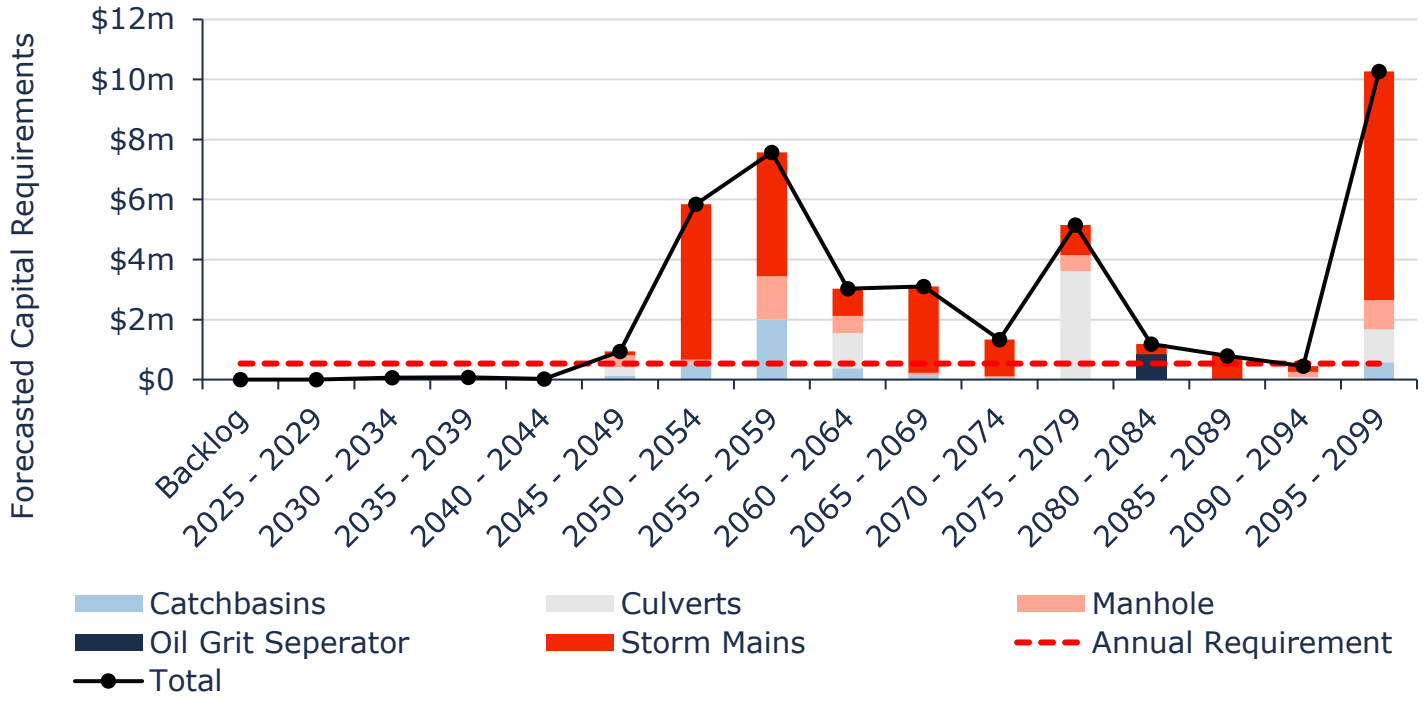


Figure 51 Forecasted Capital Replacement Needs Stormwater Network 2025-2099

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. A robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

A summary of the 10-year 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, including condition, material, replacement cost and pipe diameter. As no attribute data was available for storm assets, the risk ratings for assets were calculated using only these required, minimum asset fields.

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

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

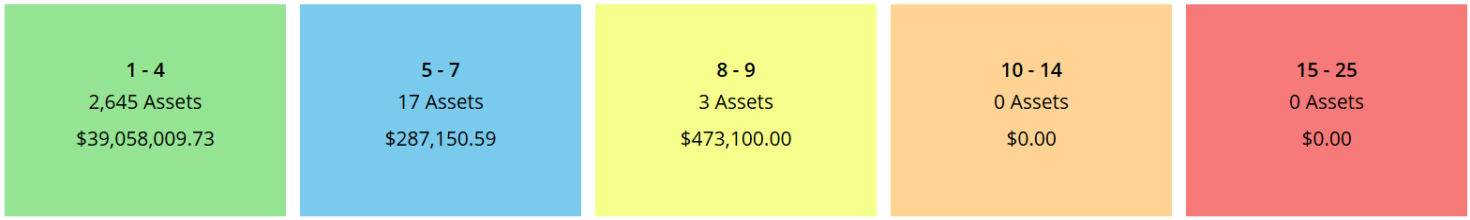


Figure 52 Risk Matrix: Stormwater Network

9.7 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.

9.7.1 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 network	See Appendix C

Table 39 O. Reg. 588/17 Community Levels of Service: Stormwater Network

9.7.2 Technical Levels of Service

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2024)
Scope	% of properties in municipality designed to be resilient to a 100-year storm	TBD	TBD[3]
	% of the municipal stormwater management system designed to be resilient to a 5-year storm	25%	25%
Performance	Capital reinvestment rate	1.4%	0%

Table 40 O. Reg. 588/17 Technical Levels of Service: Stormwater Network

[3] The Town does not current have data available to confidently determine the resilience of the stormwater management system.

9.8 Proposed Levels of Service

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

The below tables and graphs explain the proposed levels of service scenarios that were analyzed for the stormwater network. Further PLOS analysis at the portfolio level can be found in Section *4. Proposed Levels of Service Analysis.*

9.8.1 PLOS Scenarios Analyzed

Scenario	Description
Scenario 1: Maintain Current Funding Level	This scenario maintains existing capital funding levels for those categories that are underfunded. ♦ Stormwater network capital funding maintained at $0
Scenario 2: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~2.9%/year, stabilizing at 100% funding across all asset categories in 15 years. ♦ Stormwater network capital funding increases from $0/year to $534,000/year.
Scenario 3: Specific Funding Targets: Achieving 50% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~1.9%/year for 15 years to achieve specific funding targets: ♦ Stormwater Network capital funding gradually increases from $0/year to $267,000/year over a span of 15 years to achieve 50% funding

Table 41 Stormwater Network PLOS Scenario Descriptions

9.8.2 PLOS Analysis Results

Scenario	Technical LOS Outcomes	Initial Value (2025)	15 Year Projection (2039)	30 Year Projection (2054)	Comments
Scenario 1	Average Condition	63%	43%	24%	
	Average Asset Risk	2.8	3.8	4.8	
	Annual Investment Required		$0		This is the maintained parameter in this scenario
	Capital Reinvestment Rate		0%		
Scenario 2	Average Condition	63%	43%	40%	
	Average Asset Risk	2.8	3.8	4.0	
	Annual Investment Required		$534,000		This parameter was increased from $0/year to $534,000/year gradually over 15 years.
	Capital Reinvestment Rate		1.3%		
Scenario 3	Average Condition	63%	43%	39%	
	Average Asset Risk	2.8	3.8	4.1	
	Annual Investment Required		$267,000		This parameter is increased from $0 incrementally to reach 50% of the target portfolio investment, $267,000, over 15 years
	Capital Reinvestment Rate		0.7%		

Table 42 Stormwater Network PLOS Scenario Analysis

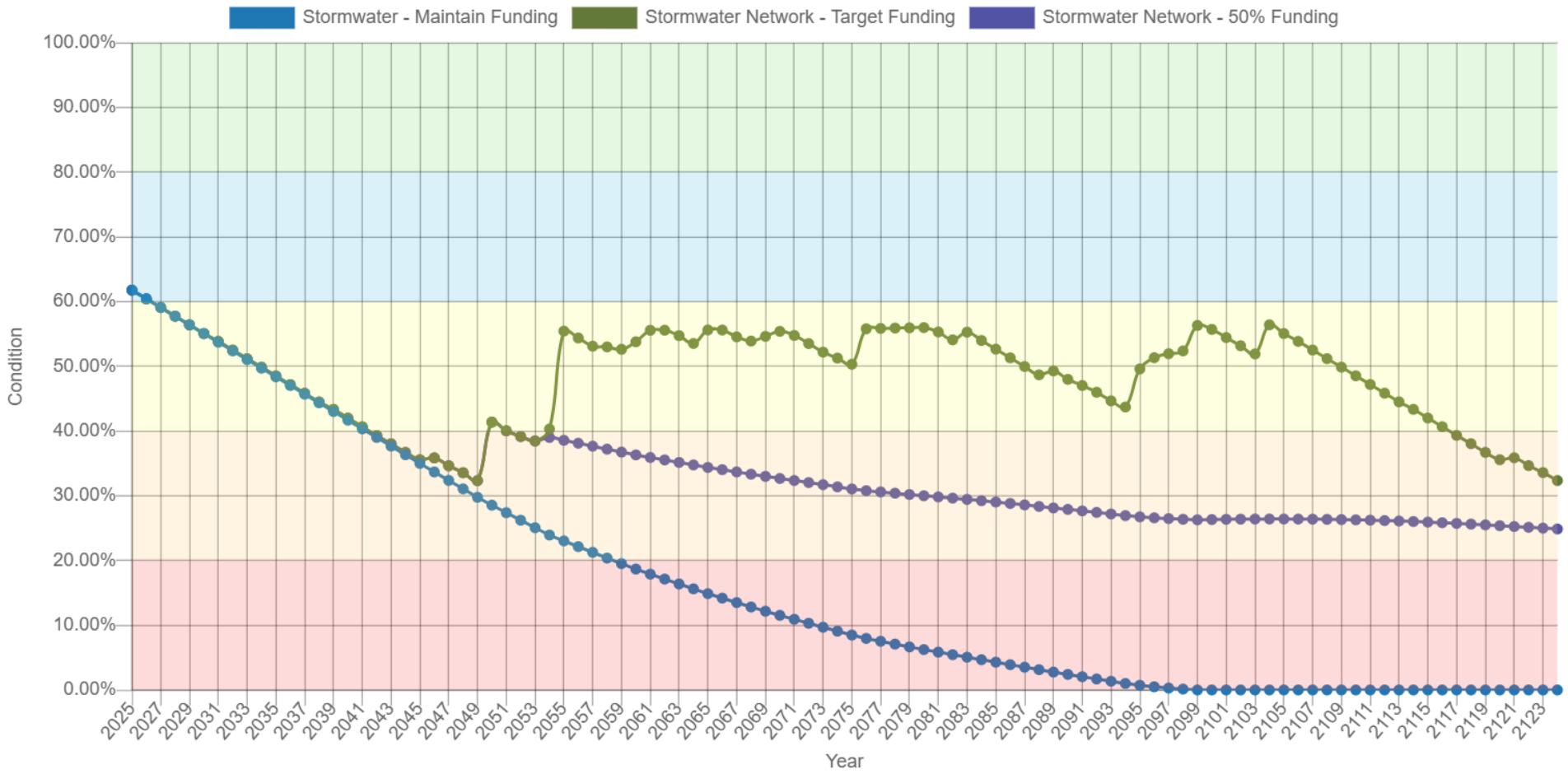


Figure 53 Stormwater Network PLOS Scenario Condition Results

Category Analysis: Non-Core Assets

10. Buildings

The Town owns and maintains several facilities and recreation centers that provide key services to the community. These buildings fall under the following categories:

- Environmental Services
- General Government
- Health Services
- Protection Services
- Recreational Services
- Transportation Services

10.1 Inventory & Valuation

Table 43 summarizes the quantity and current replacement cost of all buildings assets available in the Town's asset register.

Segment	Name	Quantity (# of components)	Replacement Cost	Primary RC Method
Environmental Services	Landfill Buildings	1	$23,000	User-Defined
General Government	Town Hall	1 (53)	$3,498,000	User-Defined
Health Services	Bayview Cemetery Mortuary	1	$42,000	User-Defined
Protection Services	Sauble Beach OPP & Fire Station	1 (48)	$1,913,000	User-Defined
	Wiarton Fire Station	1 (34)	$1,791,000	
Recreational Services	Berford Lake Park	1 (5)	$49,000	User-Defined
	Bluewater Park	1 (80)	$3,021,000	
	Coal Shed	1 (41)	$1,323,000	
	Elsinore Community Center	1	$500,000	

Segment	Name	Quantity (# of components)	Replacement Cost	Primary RC Method
	Hepworth Community Center	1 (5)	$603,000	
	Hope Bay Washrooms	1 (3)	$45,000	
	North Beach Washrooms	1	$39,000	
	Oilphant Park	1 (3)	$100,000	
	Park Head Community Center	1	$500,000	
	Purple Valley Community Center	1	$500,000	
	Red Bay Washroom	1 (4)	$46,000	
	Ross Whicher Center	1 (48)	$2,884,000	
	Sauble Beach Community Center	1 (63)	$4,302,000	
	Sauble Beach Lawn Bowling	1 (33)	$861,000	
	Sauble Beach Library	1 (36)	$1,512,000	
	Sauble Medical Clinic	1 (9)	$2,597,000	
	Sauble Town Square	1 (3)	$1,197,000	
	South Beach Washroom	1	$83,000	

Segment	Name	Quantity (# of components)	Replacement Cost	Primary RC Method
	Train Station	1 (22)	$1,157,000	
	Wiarton Arena & Community Center	1 (79)	$40,140,000	
	Wiarton Willie House	1	$45,000	
Transportation Services	Albemarle Public Works Shop	1 (37)	$935,000	User-Defined
	Amabel Public Works Shop	1 (35)	$3,448,000	
	Wiarton Public Works Shop	1 (34)	$1,143,000	
TOTAL			**$74,448,000**	

Table 43 Detailed Asset Inventory: Buildings

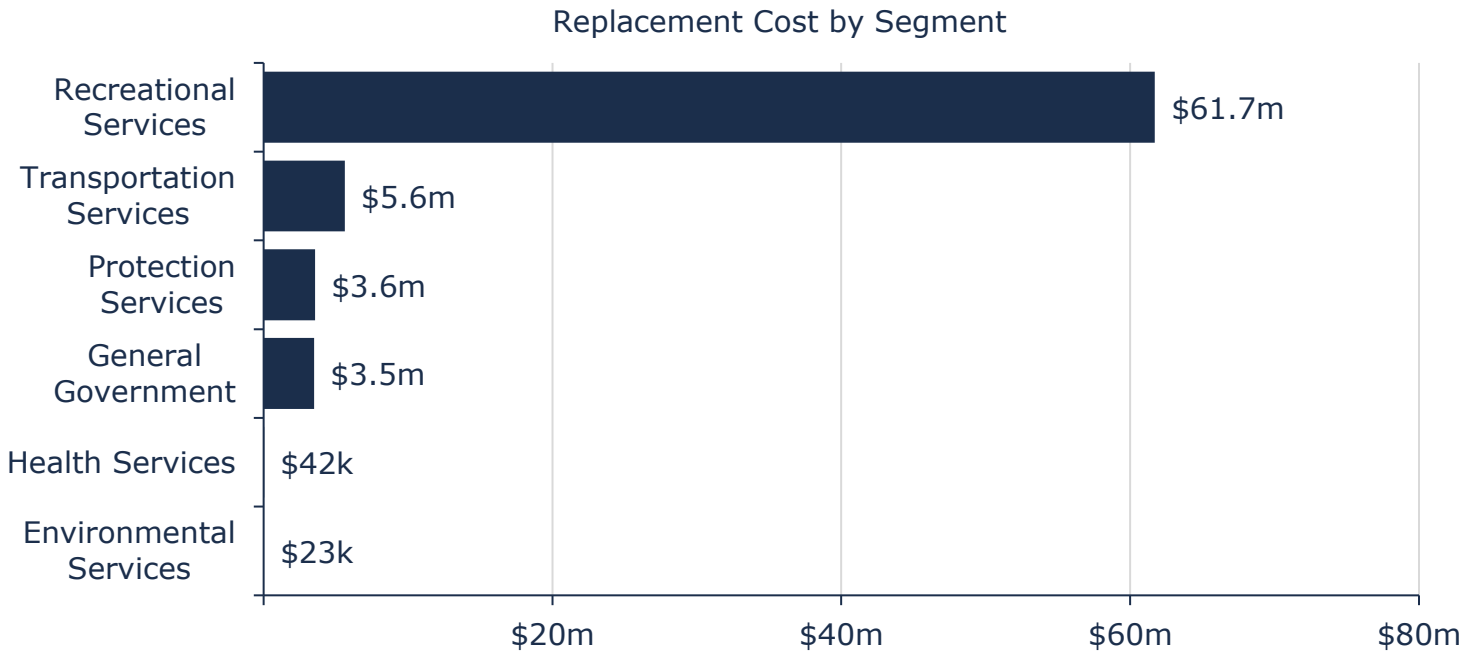


Figure 54 Portfolio Valuation: Buildings

10.2 Asset Condition

Figure 55 summarizes the replacement cost-weighted condition of the Town's buildings portfolio. Based only on age data, 76% of buildings assets are in fair or better condition; however, 24%, with a current replacement cost of more than $17 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.

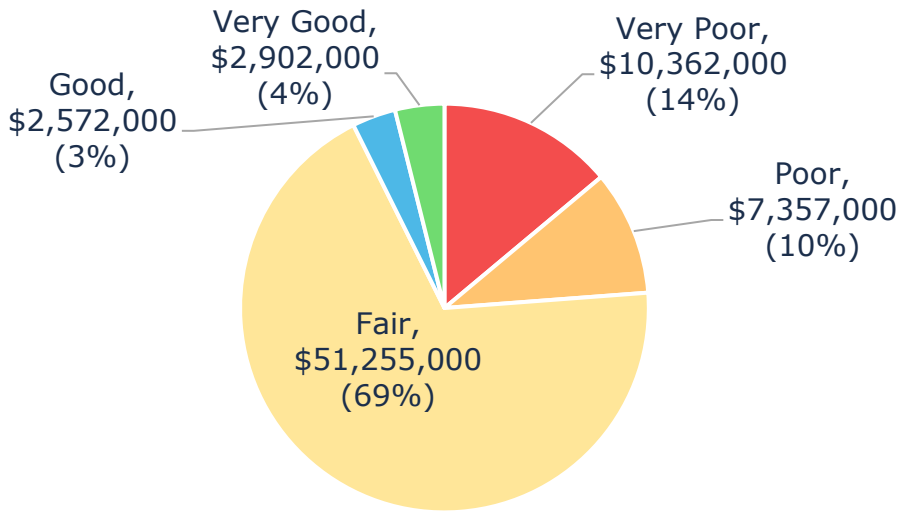


Figure 55 Asset Condition: Buildings Overall

Figure 56 summarizes the age-based condition of buildings by each department. A substantial portion of recreation assets and the majority of library assets are in poor to worse condition.

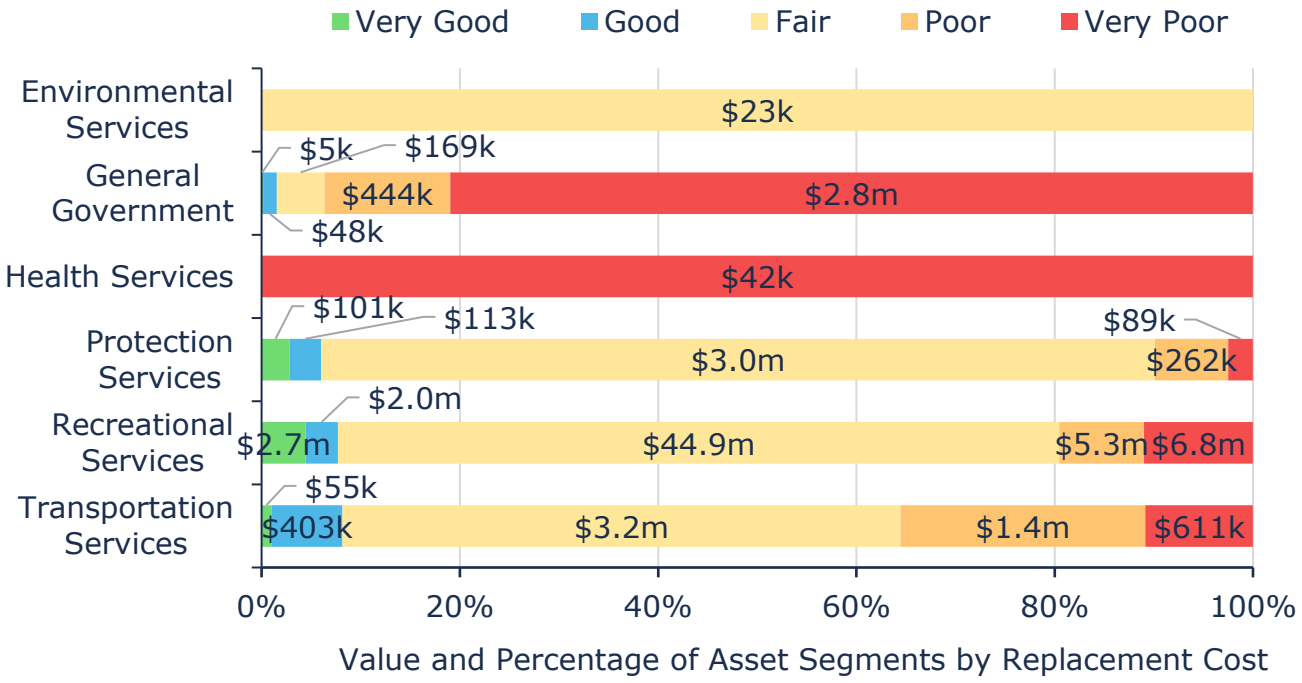


Figure 56 Asset Condition: Buildings by Segment

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. The Estimated Useful Life for building assets has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable.

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. Based on age analysis, environmental, protection, recreational and transportation services buildings have not exceeded their defined estimated useful lives. However, general government and health services buildings have remained in service beyond their estimated useful lives.

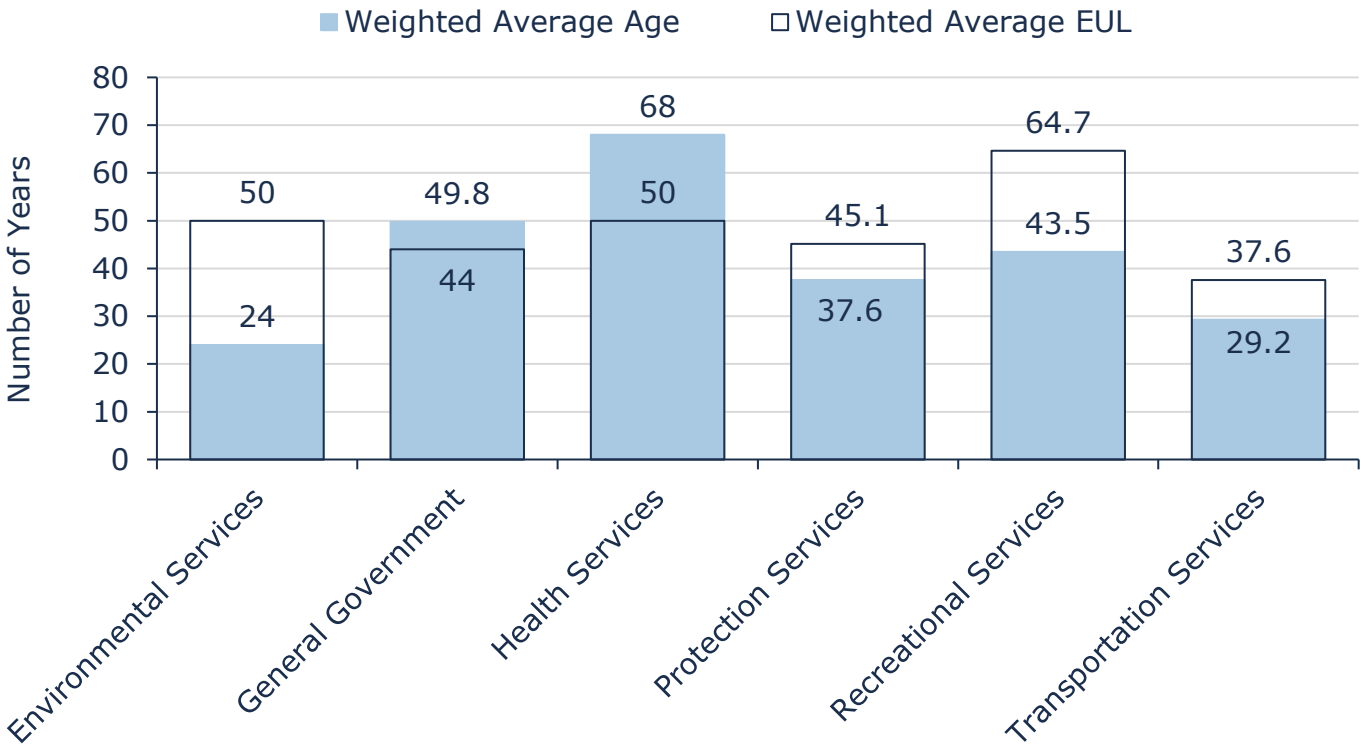


Figure 57 Estimated Useful Life vs. Asset Age: Buildings

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 44 outlines the Town's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance/ Rehabilitation	Municipal buildings are subject to regular inspections to identify health & safety requirements as well as structural deficiencies that require additional attention. Since the componentization of many of the Town's buildings, staff will be able to proactively maintain and plan for the rehabilitation/replacement of assets.
	Critical buildings have a detailed maintenance and rehabilitation schedule, while the maintenance of other facilities are dealt with on a case-by-case basis.
Replacement	Assessments are completed strategically as buildings approach their end-of-life to determine whether replacement or rehabilitation is appropriate. Staff prioritize capital projects based on health and safety issues, public feedback, and funding restraints.
	As a supplement to the knowledge and expertise of municipal staff the Municipality works with contractors to complete assessments of the buildings and facilities and address replacement needs.
Inspections	A building condition assessment was conducted in 2020 for all critical buildings. This provided staff with building condition indices (BCIs) and a list of repair and/or renewal recommendations. Recreation facilities were assessed in 2023 by external staff. Staff plan to conduct recreation facilities inspections every 2 years going forward.

Table 44 Lifecycle Management Strategy: Buildings

10.5 Forecasted Long-Term Replacement Needs

Figure 58 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's buildings portfolio. This analysis was run until 2084 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 $1.5 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 spike in capital replacements in the years 2049-2053 is due to the Wiarton Arena & Community Center reaching the end of its useful life in 2050, forecasting its replacement at a

value of $40 million in this year. The Town should continue to monitor the condition of the Wiarton Arena & Community Center to determine if replacement will be required. 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.

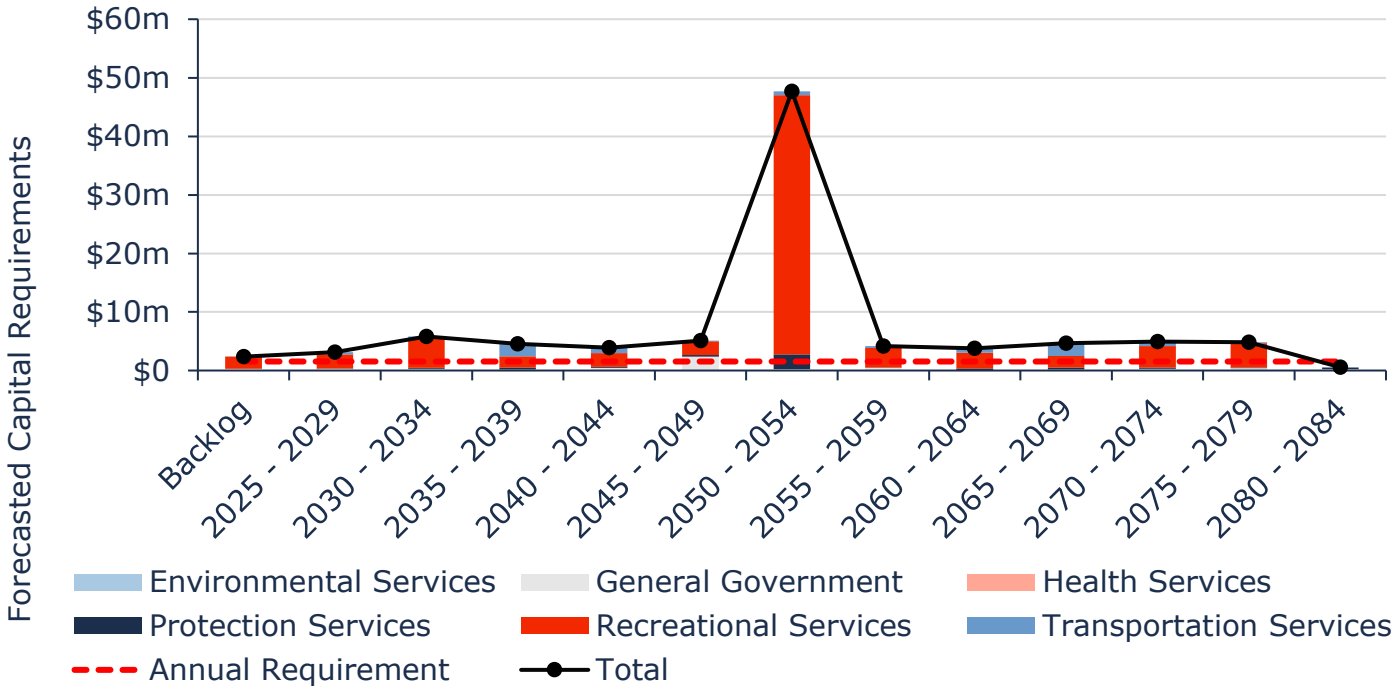


Figure 58 Forecasted Capital Replacement Needs Buildings 2025-2084

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 summary of the 10-year 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 replacement cost and condition. The risk ratings for assets without useful attribute data were calculated using only age, service life remaining, and their replacement costs.

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

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

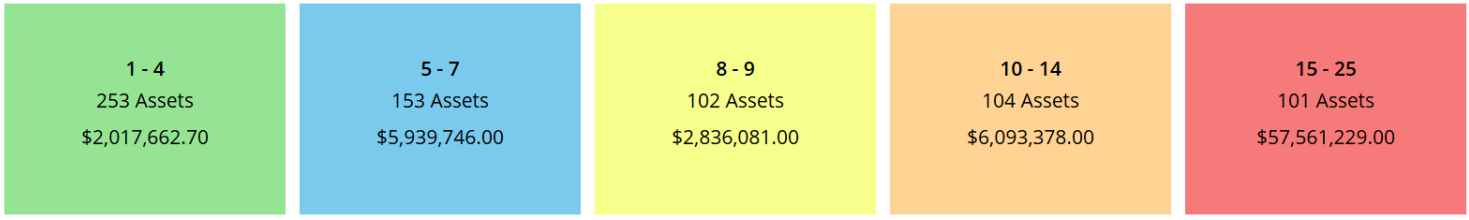


Figure 59 Risk Matrix: Buildings

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 of monthly and annual facilities inspection process	Municipal buildings undergo regular inspections to identify health and safety concerns, as well as structural deficiencies. A facilities inspection was performed on Recreational facilities in 2023, with plans to perform inspections every 2 years going forward. A building condition assessment was also performed in 2020 which included condition information, along with identifying repair or renewal recommendations for Municipal facilities.
Performance	Description of the current condition of municipal facilities and plans that are in place to maintain or improve the provided level of service	Municipal facilities are overall in fair condition and providing the community with an acceptable level of service. Annual budgeting is determined to maintain the state of buildings and address any major repair or rehabilitation needs.

Table 45 Community Levels of Service: Buildings

10.7.2 Technical Levels of Service

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2024)
Scope	% of facilities that are in good or very good condition	2%	7%
	% of facilities that are in poor or very poor condition	24%	24%
Performance	Capital reinvestment rate	0.5%	0.5%

Table 46 Technical Levels of Service: Buildings

10.8 Proposed Levels of Service

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

The below tables and graphs explain the proposed levels of service scenarios that were analyzed for buildings. Further PLOS analysis at the portfolio level can be found in Section *4. Proposed Levels of Service Analysis.*

10.8.1 PLOS Scenarios Analyzed

Scenario	Description
Scenario 1: Maintain Current Funding Level	This scenario maintains existing capital funding levels for those categories that are underfunded. ♦ Buildings' capital funding maintained at $352,000/year
Scenario 2: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~2.9%/year, stabilizing at 100% funding across all asset categories in 15 years. ♦ Buildings' capital funding gradually increases from $352,000/year to $1.5m/year over a span of 15 years
Scenario 3: Specific Funding Targets: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~1.9%/year for 15 years to achieve specific funding targets: ♦ Buildings' capital funding gradually increases from $352,000/year to $1.5m/year over a span of 15 years to achieve 100% funding

Table 47 Buildings PLOS Scenario Descriptions

10.8.2 PLOS Analysis Results

Scenario	Technical LOS Outcomes	Initial Value (2025)	15 Year Projection (2039)	30 Year Projection (2054)	Comments
Scenario 1 (All Segments)	Average Condition	48%	28%	15%	
	Average Asset Risk	14.5	18.3	21.5	
	Annual Investment Required		$352,000		This is the maintained parameter in this scenario
	Capital Reinvestment Rate		0.5%		
Scenario 2 (All Segments)	Average Condition	48%	38%	39%	
	Average Asset Risk	14.5	16.6	17.3	
	Annual Investment Required		$1,543,000		This parameter is increased from $352,000 incrementally to reach a target portfolio investment of $1.5M over 15 years
	Capital Reinvestment Rate		2.1%		
Scenario 3	Average Condition	48%	38%	39%	This parameter is increased from $352,000 incrementally to reach 100% of the target portfolio investment, $1.5M, over 15 years
	Average Asset Risk	14.5	16.6	17.3	
	Annual Investment Required		$1,543,000		
	Capital Reinvestment Rate		2.1%		

Table 48 Buildings PLOS Scenario Analysis

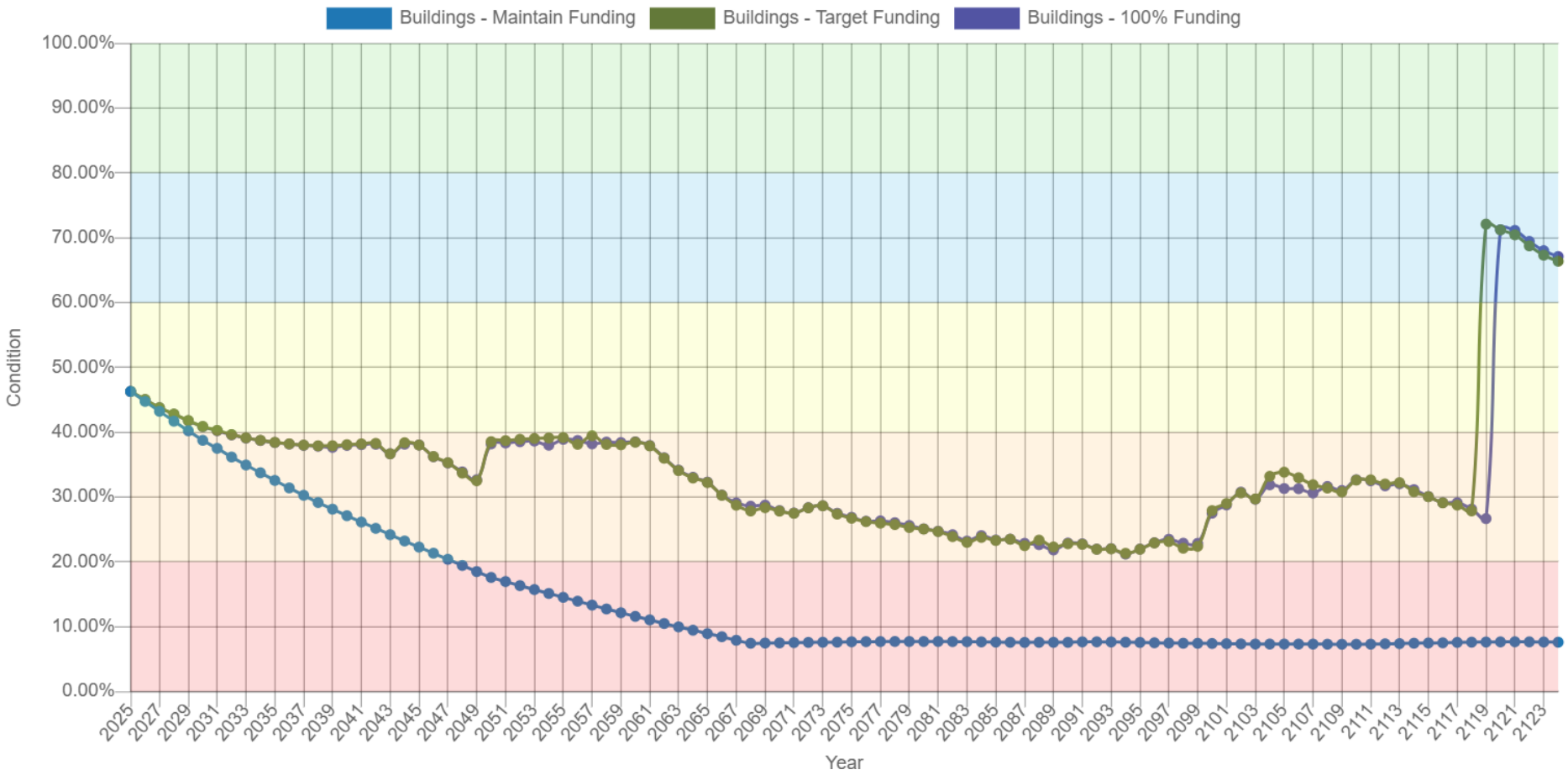


Figure 60 Buildings PLOS Scenario Condition Results

11. Land Improvements

The Town owns and operates several assets that are considered Land Improvements. This category includes:

- Cemetery Columbarium
- Landfill Assets
- Parking Lots
- Parks
- Playground Structures
- Signage
- Sport Structures
- Trail Systems

11.1 Inventory & Valuation

Table 49 summarizes the quantity and current replacement cost of all land improvements assets available in the Town's asset register.

Segment	Quantity (# of components)	Unit of Measure	Replacement Cost	Primary RC Method
Cemetery Columbarium	1	Quantity	$46,000	CPI Tables
Landfill Assets	1 (6)	Quantity	$383,000	CPI Tables
Parking Lots	29	Quantity	$1,827,000	CPI Tables
Parks	7 (147)	Quantity	$1,690,000	CPI Tables
Playground Structures	12 (27)	Quantity	$702,000	User-Defined
Signage	17	Quantity	$228,000	CPI Tables
Sport Structures	12	Quantity	$851,000	User-Defined
Trail Systems	6	Quantity	$324,000	User-Defined
TOTAL			**$6,051,000**	

Table 49 Detailed Asset Inventory: Land Improvements

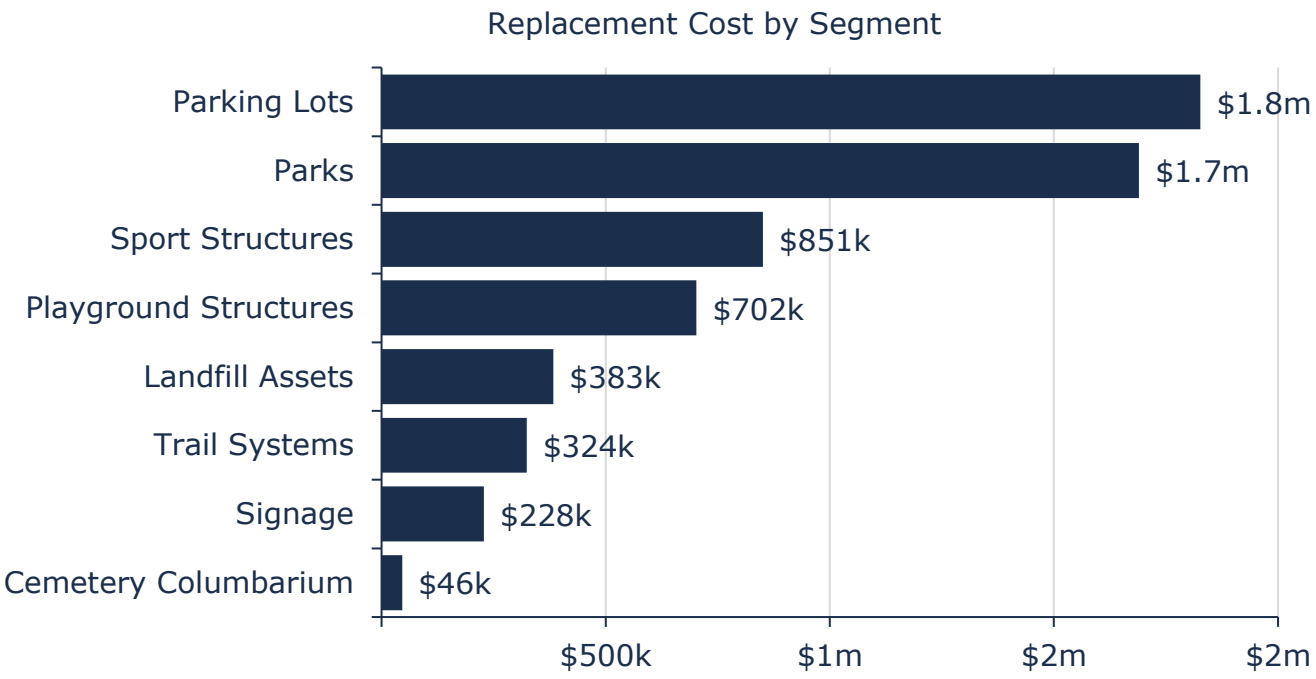


Figure 61 Portfolio Valuation: Land Improvements

11.2 Asset Condition

Figure 62 summarizes the replacement cost-weighted condition of the Town's land improvements portfolio. Based on a combination of field condition and age data, 54% of assets are in fair or better condition, the remaining 46% 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.

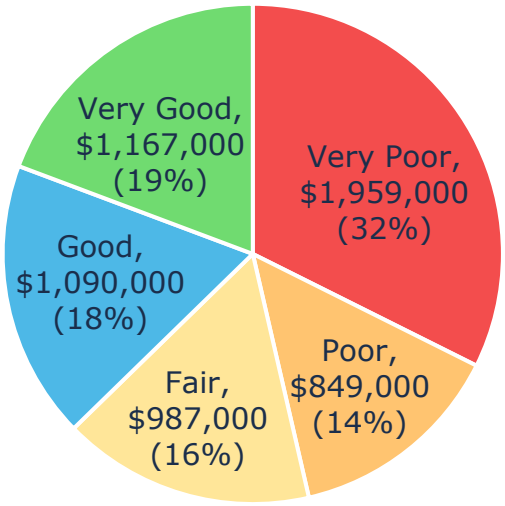


Figure 62 Asset Condition: Land Improvements Overall

Figure 63 summarizes the age-based condition of land improvements by each department. Assets in poor or worse condition are concentrated primarily in public works, consisting mostly of parking lots and associated infrastructure.

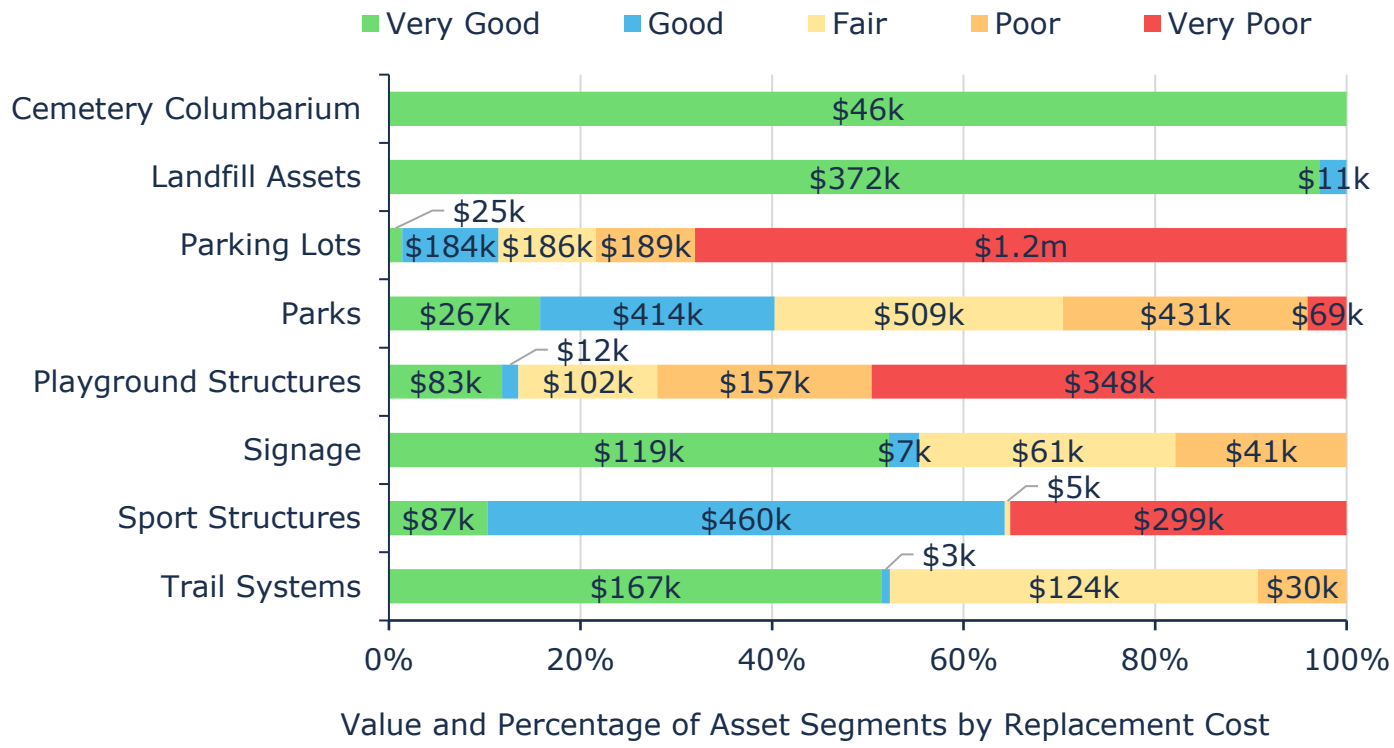


Figure 63 Asset Condition: Land Improvements by Segment

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. The Estimated Useful Life for land improvement assets has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable.

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 64 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. Based on age-analysis, all land improvement assets have not surpassed their defined estimated useful lives, aside from parking lots, which remain in service roughly 9 years beyond the defined useful life.

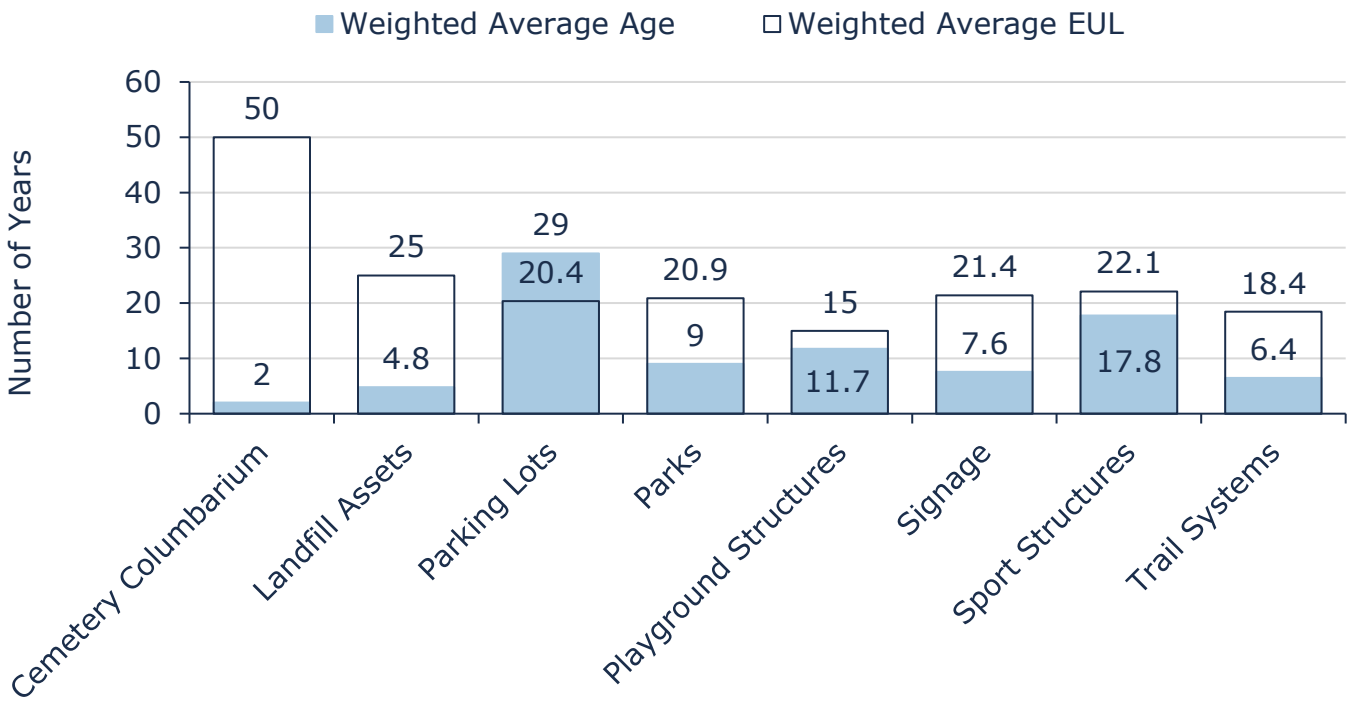


Figure 64 Estimated Useful Life vs. Asset Age: Land Improvements

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.

Table 50 outlines the Township's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance, Rehabilitation & Replacement	The Land Improvements asset category includes several unique asset types and lifecycle requirements are dealt with on a case-by-case basis.
	Staff have developed a Parks, Recreation & Culture Master Plan that identifies service level needs and asset lifecycle requirements in order to meet community expectations.
Inspections	Staff perform visual inspections for most assets on a regular basis. Parks are assessed based on the Parks, Recreation and Culture Master Plan (2019)

Table 50 Lifecycle Management Strategy: Land Improvements

11.5 Forecasted Long-Term Replacement Needs

Figure 65 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's land improvements portfolio. This analysis was run until 2074 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 $333,000 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.

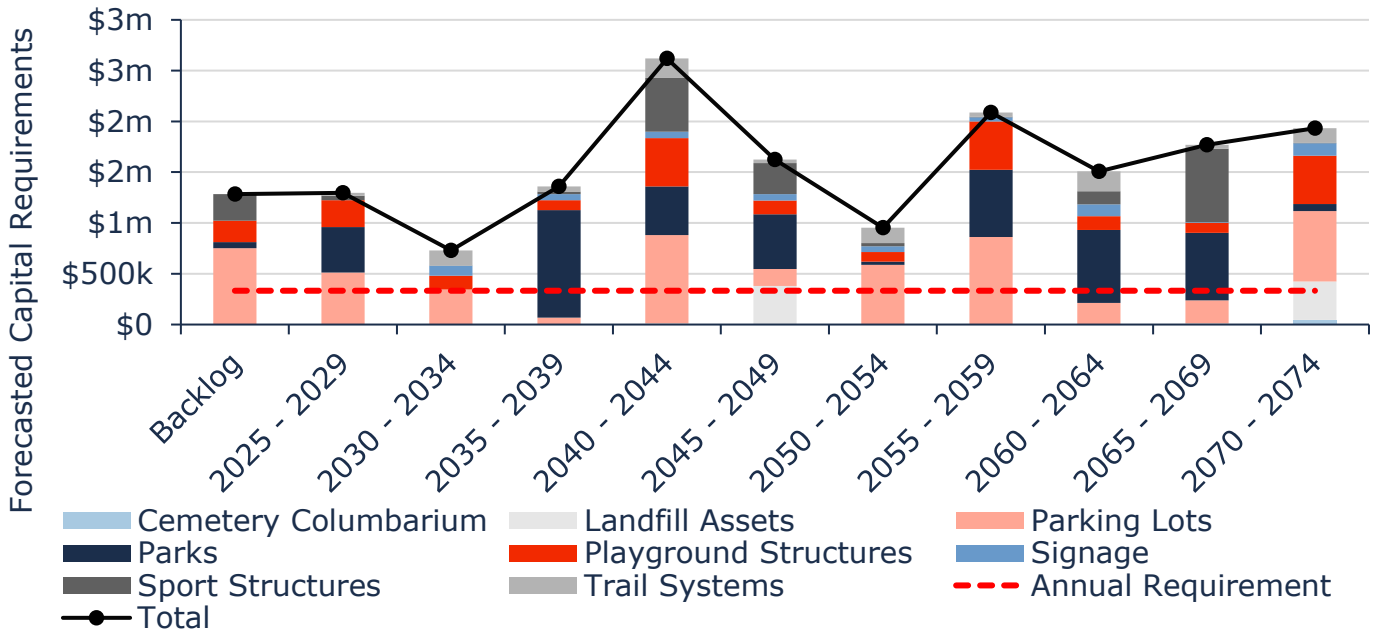


Figure 65 Forecasted Capital Replacement Needs: Land Improvements 2025-2074

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 summary of the 10-year 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 cost. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

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

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

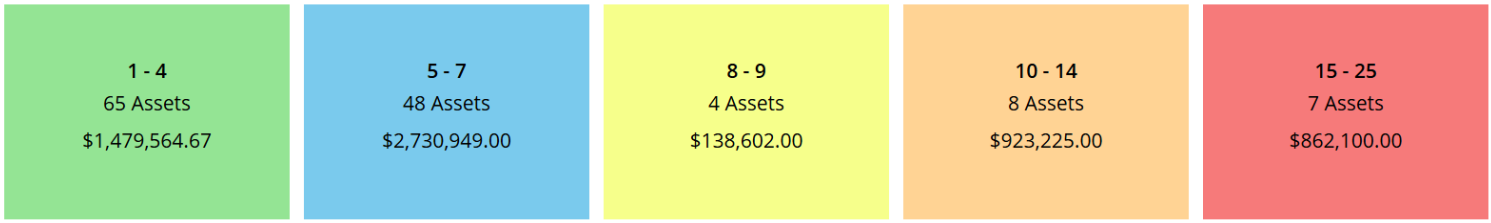


Figure 66 Risk Matrix: Land Improvements

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 of the parks inspection process and timelines for inspections	Land Improvements and Parks are assessed based on the Parks, Recreation and Culture Master Plan of November 2019 to determine needs. Parks are inspected annually, along with regular health and safety inspections to identify safety concerns.
Performance	Description of the current condition of parks and the plans that are in place to maintain or improve the provided level of service	Municipal Parks are in an overall fair condition. The Parks, Recreation and Culture Master Plan allows the municipality to identify renewal and rehabilitation needs to ensure Parks continue to provide an acceptable level of service.

Table 51 Community Levels of Service: Land Improvements

11.7.2 Technical Levels of Service

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2024)
Scope	Square meters of outdoor recreation facility space	697,516 m^2	697,516 m^2
	% of land improvement assets that are in good or very good condition	55%	37%
	% of land improvement assets that are in poor or very poor condition	41%	46%
Performance	Capital reinvestment rate	1.9%	1.3%

Table 52 Technical Levels of Service: Land Improvements

11.8 Proposed Levels of Service

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

The below tables and graphs explain the proposed levels of service scenarios that were analyzed for land improvements. Further PLOS analysis at the portfolio level can be found in section *4. Proposed Levels of Service Analysis.*

11.8.1 PLOS Scenarios Analyzed

Scenario	Description
Scenario 1: Maintain Current Funding Level	This scenario maintains existing capital funding levels for those categories that are underfunded. ♦ Land Improvements capital funding maintained at $78,000/year
Scenario 2: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~2.9%/year, stabilizing at 100% funding across all asset categories in 15 years. ♦ Land Improvements capital funding increases from $78,000/year to $333,000/year.
Scenario 3: Specific Funding Targets: Achieving 75% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~1.9%/year for 15 years to achieve specific funding targets: ♦ Land Improvements capital funding gradually increases from $78,000/year to $250,000/year over a span of 15 years to achieve 75% funding

Table 53 Land Improvements PLOS Scenario Descriptions

11.8.2 PLOS Analysis Results

Scenario	Technical LOS Outcomes	Initial Value (2025)	15 Year Projection (2039)	30 Year Projection (2054)	Comments
Scenario 1	Average Condition	43%	16%	11%	
	Average Asset Risk	8.0	13.0	13.2	
	Annual Investment Required		$78,000		This is the maintained parameter in this scenario
	Capital Reinvestment Rate		1.3%		
Scenario 2	Average Condition	43%	34%	50%	
	Average Asset Risk	8.0	10.7	7.2	
	Annual Investment Required		$333,000		This parameter was increased from $78,000/year to $333,000/year gradually over 15 years.
	Capital Reinvestment Rate		5.5%		
Scenario 3	Average Condition	43%	30%	36%	
	Average Asset Risk	8.0	11.6	9.4	
	Annual Investment Required		$250,000		This parameter is increased from $78,000 incrementally to reach 75% of the target portfolio investment, $250,000, over 15 years
	Capital Reinvestment Rate		4.1%		

Table 54 Land Improvements PLOS Scenario Analysis

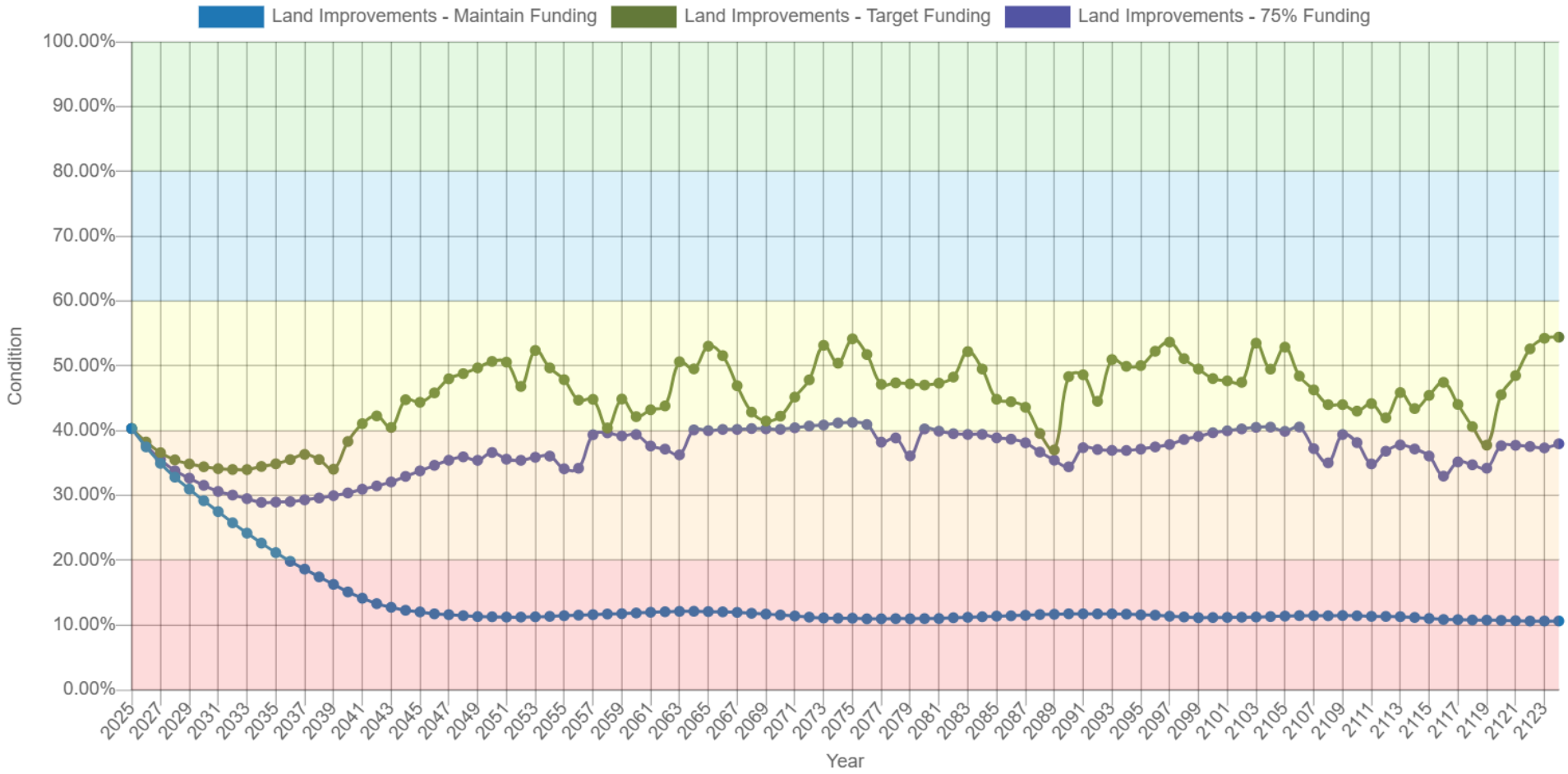


Figure 67 Land Improvements PLOS Scenario Condition Results

12. Vehicles

Vehicles allow staff to efficiently deliver municipal services and personnel. Municipal vehicles are used to support several service areas, including:

- Protection Services
- Transportation Services
- Recreational Services

12.1 Inventory & Valuation

Table 55 summarizes the quantity and current replacement cost of all vehicles available in the Town's asset register.

Segment	Sub-Segment	Quantity	Replacement Cost	Primary RC Method
Protection Services	Fire	7	$5,315,000	User-Defined
	Light Duty	1		
Recreational Services	Light Duty	2	$110,000	User-Defined
Transportation Services	Heavy Duty	4	$3,576,000	User-Defined
	Medium Duty	6		
	Light Duty	15		
Legislative Services	Light Duty	1	$31,000	User-Defined
TOTAL			**$9,032,000**	

Table 55 Detailed Asset Inventory: Vehicles

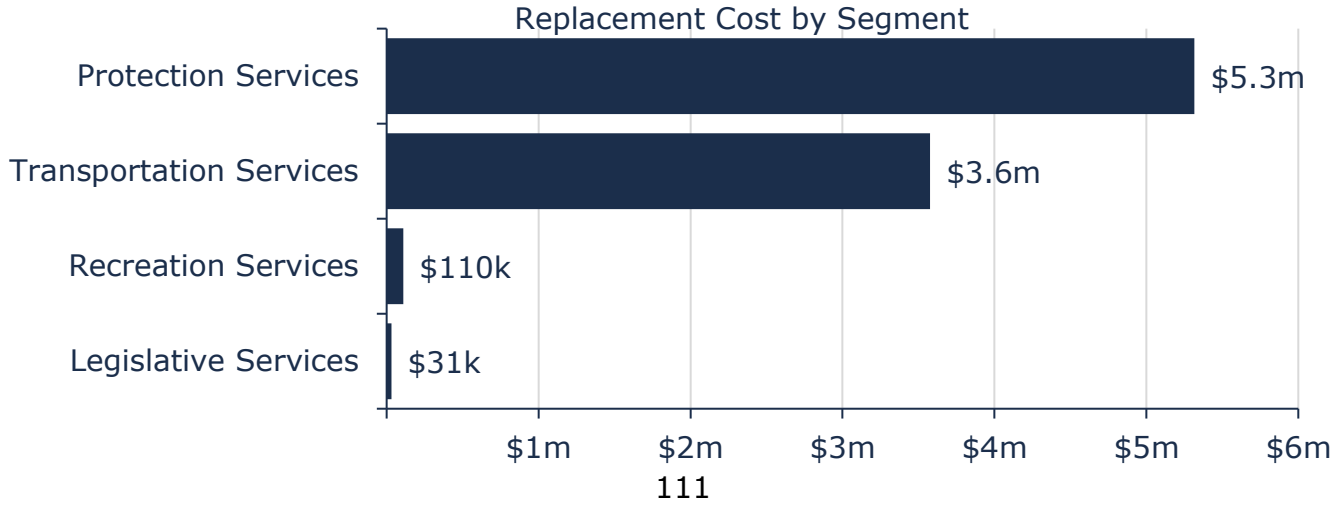


Figure 68 Portfolio Valuation: Vehicles

12.2 Asset Condition

Figure 69 summarizes the replacement cost-weighted condition of the Town's vehicles portfolio. Based primarily on assessed condition data, 78% of vehicles are in fair or better condition, with the remaining 22% 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.

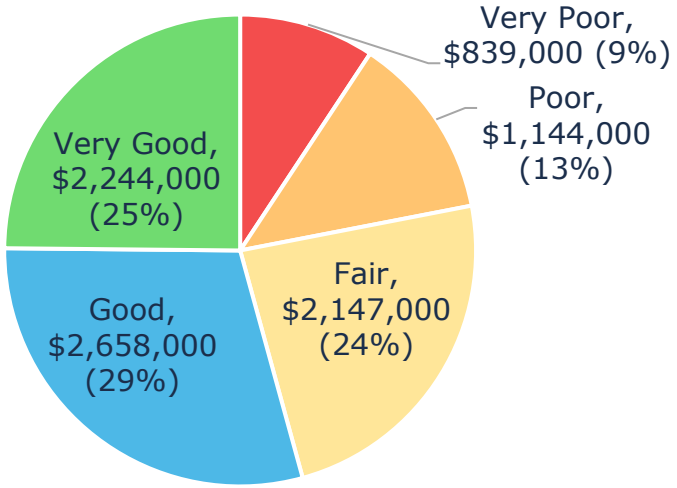


Figure 69 Asset Condition: Vehicles Overall

Figure 70 summarizes the condition of vehicles by each department. Assets in poor or worse condition are concentrated primarily in recreation and transportation services.

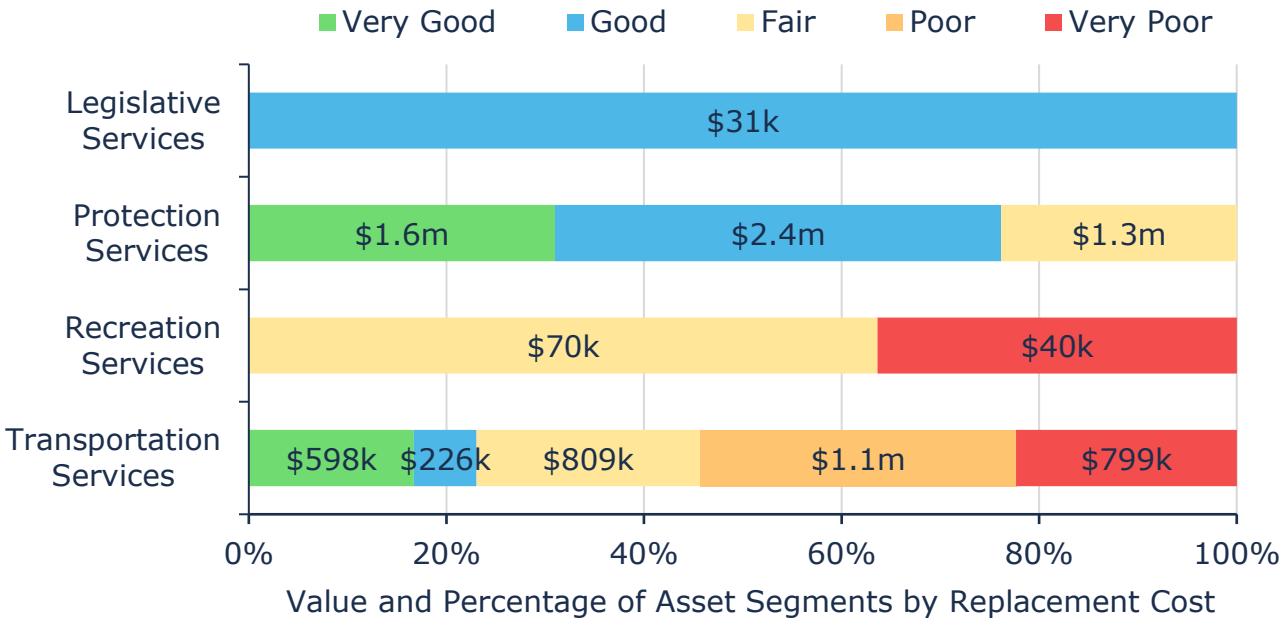


Figure 70 Asset Condition: Vehicles by Segment

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. The Estimated Useful Life for vehicle assets has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable.

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 71 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. Based on age analysis, all vehicles have not exceeded their defined estimated useful lives however, transportation services vehicles are nearing their end of life.

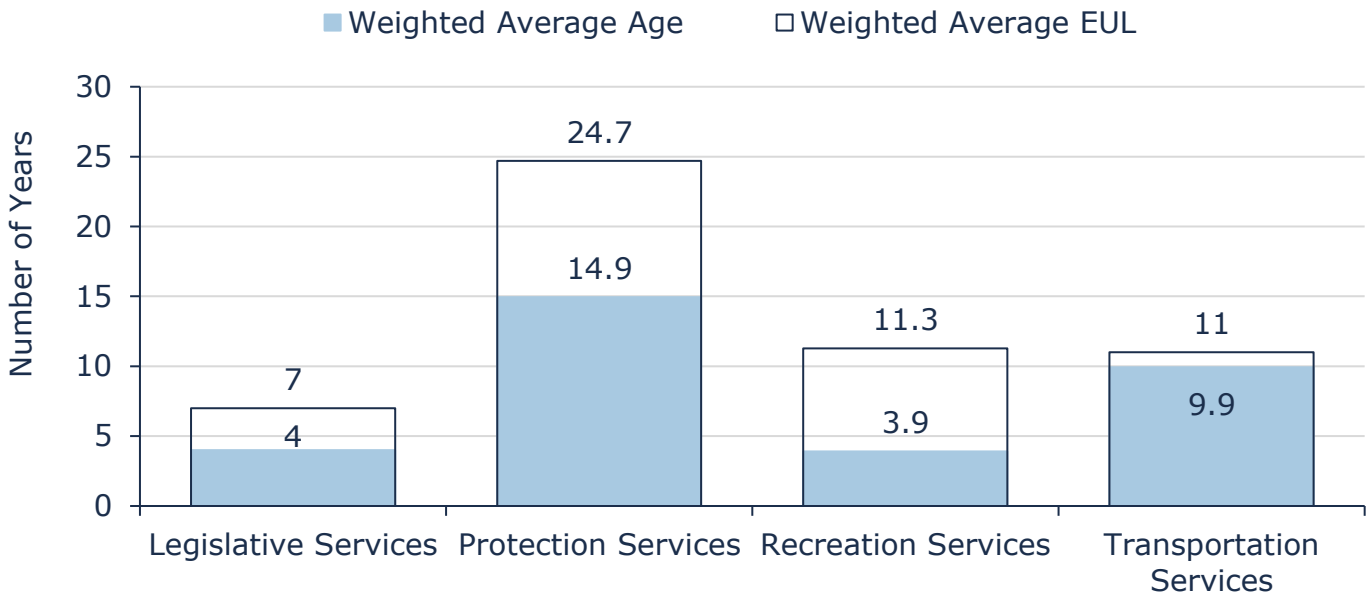


Figure 71 Estimated Useful Life vs. Asset Age: Vehicles

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/ Rehabilitation	Visual inspections completed and documented daily; fluids inspected at every fuel stop; tires inspected monthly.
	Annual preventative maintenance activities include system components check and additional detailed inspections.
Replacement	Vehicle age, kilometers and annual repair costs are taken into consideration when determining appropriate treatment options.
Inspections	Staff complete regular visual inspections of vehicles to ensure they are in a state of adequate repair prior to operation and the mileage of vehicles is used as a proxy to determine remaining useful life and relative vehicle condition.
	Condition assessments are conducted on vehicles in accordance with health and safety regulations including NFPA codes and standards for fire department related vehicles.

Table 56 Lifecycle Management Strategy: Vehicles

12.5 Forecasted Long-Term Replacement Needs

Figure 72 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's vehicles 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 $565,000 for all vehicles. 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.

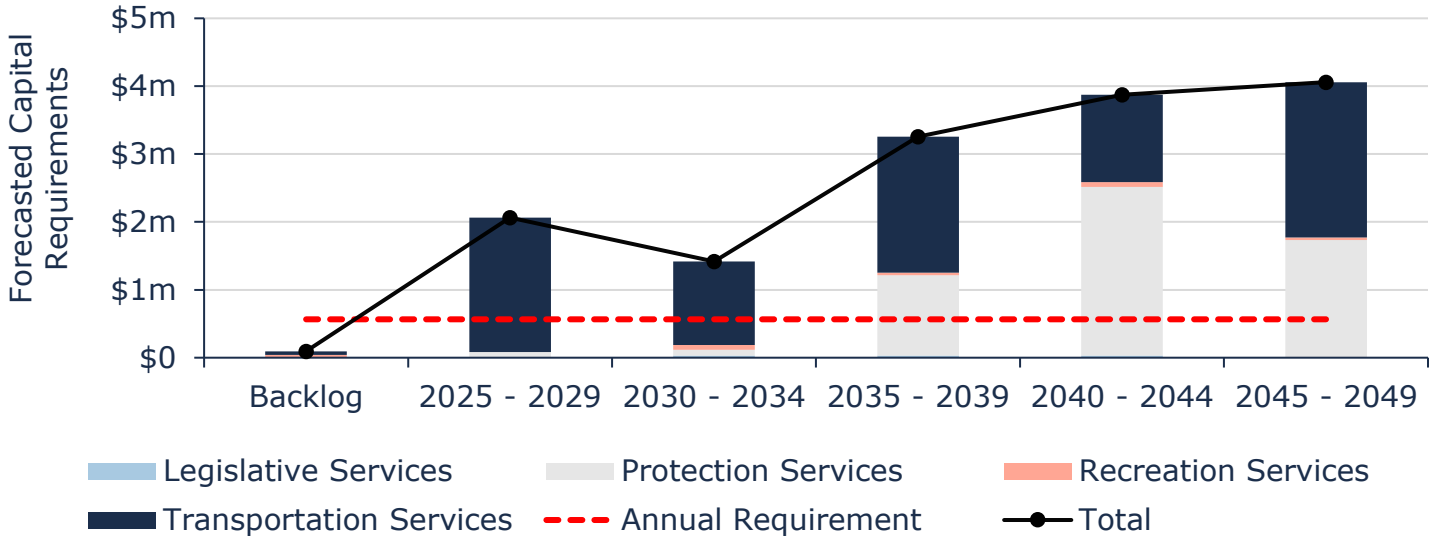


Figure 72 Forecasted Capital Replacement Needs: Vehicles 2025-2049

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 summary of the 10-year 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 cost. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

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

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

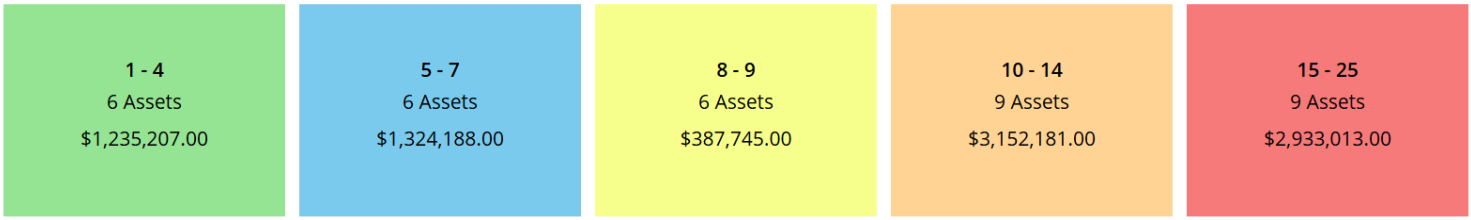


Figure 73 Risk Matrix: Vehicles

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 of the Fleet Management and Safety Program	The majority of Park's vehicles are leased; however, they are inspected by internal staff weekly and sent to the leasing agency for any maintenance or repair. Fire vehicles undergo annual certification or fire pump testing and receive a rating of pass or fail. Fire vehicles are also inspected monthly by internal staff and sent to qualified repair shops to correct deficiencies. Public Works staff perform daily circle checks, and visual inspections twice a year on their vehicles.
Performance	Description of the current condition of municipal vehicles and plans that are in place to maintain or improve the provided level of service	Fire vehicle conditions range from fair to excellent, allowing the fire department to provide reliable protection services to the Town. One apparatus has a rating of poor, which is planned for replacement in 2024. Recreation and Transportation vehicles are in fair condition and provide an acceptable level of service.

Table 57 Community Levels of Service: Vehicles

12.7.2 Technical Levels of Service

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2024)
Scope	% of fire vehicles that are in good or very good condition	23%	89%
	% of fire vehicles that are in poor or very poor condition	10%	11%
	% of other vehicles that are in good or very good condition	28%	40%
	% of other vehicles that are in poor or very poor condition	55%	48%
Performance	Capital reinvestment rate	2.1%	7.5%

Table 58 Technical Levels of Service: Vehicles

12.8 Proposed Levels of Service

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

The below tables and graphs explain the proposed levels of service scenarios that were analyzed for vehicles. Further PLOS analysis at the portfolio level can be found in section *4. Proposed Levels of Service Analysis.*

12.8.1 PLOS Scenarios Analyzed

Scenario	Description
Scenario 1: Maintain Current Funding Level	This scenario maintains existing capital funding levels for those categories that are underfunded. ♦ Vehicles capital funding maintained at $673,000/year
Scenario 2: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~2.9%/year, stabilizing at 100% funding across all asset categories in 15 years. ♦ Vehicles capital funding decreases from $673,000/year to $565,000/year.
Scenario 3: Specific Funding Targets: Maintain Current Funding Level	This scenario assumes gradual tax increases of ~1.9%/year for 15 years to achieve specific funding targets: ♦ Vehicles capital funding maintained at $673,000/year

Table 59 Vehicles PLOS Scenario Descriptions

12.8.2 PLOS Analysis Results

Scenario	Technical LOS Outcomes	Initial Value (2025)	15 Year Projection (2039)	30 Year Projection (2054)	Comments
Scenario 1	Average Condition	58%	37%	41%	
	Average Asset Risk	12.5	15.4	14.1	
	Annual Investment Required		$673,000		This is the maintained parameter in this scenario
	Capital Reinvestment Rate		7.5%		
Scenario 2	Average Condition	58%	32%	42%	
	Average Asset Risk	12.5	16.2	14.3	
	Annual Investment Required		$565,000		This parameter was increased from $673,000/year to $565,000/year gradually over 15 years.
	Capital Reinvestment Rate		6.3%		
Scenario 3	Average Condition	58%	37%	41%	
	Average Asset Risk	12.5	15.4	14.1	
	Annual Investment Required		$673,000		This is the maintained parameter in this scenario
	Capital Reinvestment Rate		7.5%		

Table 60 Vehicles PLOS Scenario Analysis

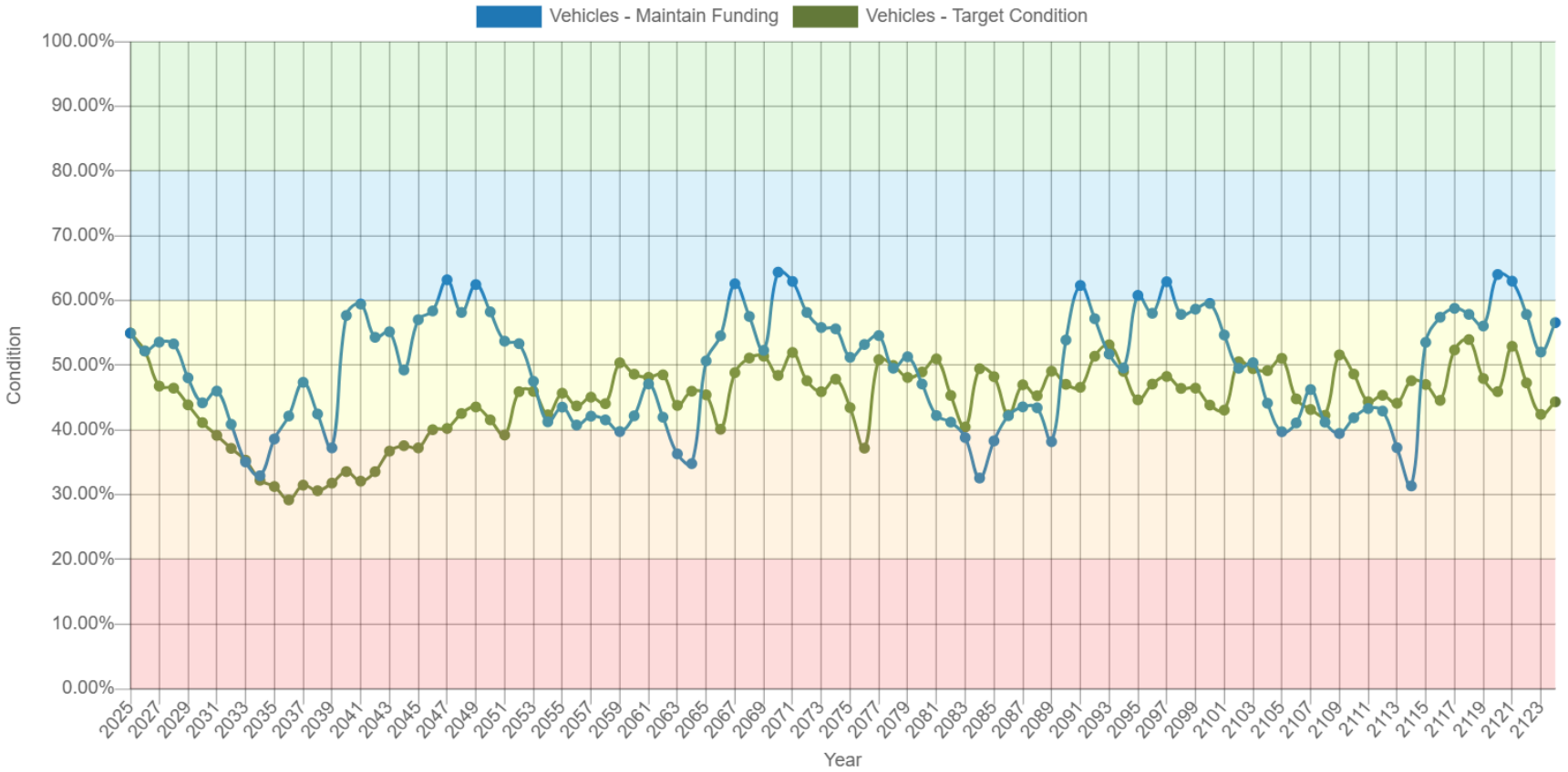


Figure 74 Vehicles PLOS Scenario Condition Results

13. Machinery & Equipment

In order to maintain the high quality of public infrastructure and support the delivery of core services, the Town's staff own and employ various types of machinery and equipment. These core services include:

- Environmental Services (ex: Landfill Weigh Scales, Utility Meter Reader)
- General Government (ex: Office Furniture, Computer Hardware)
- Protection Services (ex: Generators, Personal Protective Equipment, Portable Radios)
- Recreational Services (ex: Mowers, Zamboni Ice Resurfacer, Portable Stage)
- Transportation Services (ex: Loaders, Graders, Streetsweeper)

13.1 Inventory & Valuation

Table 61 summarizes the quantity and current replacement cost of all machinery and equipment assets available in the Town's asset register.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Environmental Services	37	Quantity	$1,674,000	CPI Tables
General Government	423	Quantity	$1,627,000	CPI Tables
Legislative Services	49	Quantity	$207,000	CPI Tables
Protection Services	1,522	Quantity	$1,661,000	User-Defined
Recreational Services	2,263	Quantity	$1,898,000	CPI Tables
Transportation Services	142	Quantity	$5,035,000	CPI Tables
TOTAL			**$12,101,000**	

Table 61 Detailed Asset Inventory: Machinery & Equipment

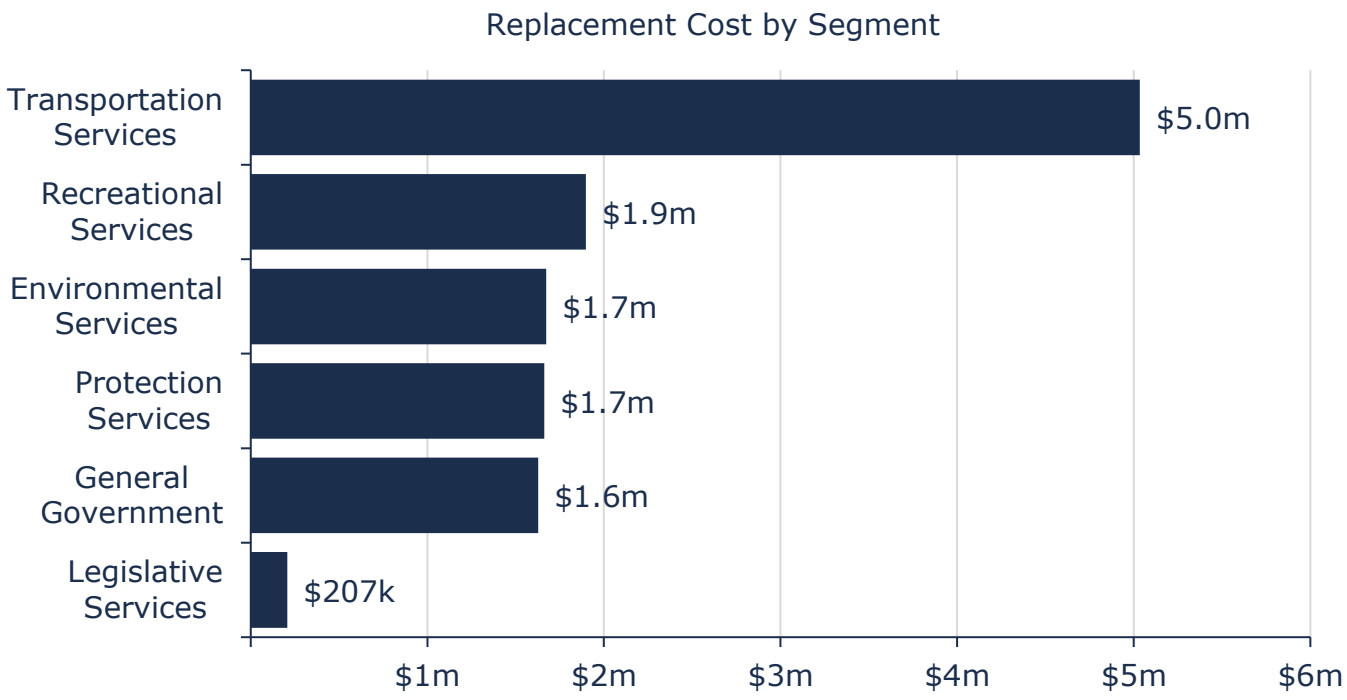


Figure 75 Portfolio Valuation: Machinery & Equipment

13.2 Asset Condition

Figure 76 summarizes the replacement cost-weighted condition of the Town's machinery and equipment portfolio. Based only on age data, 49% of assets are in fair or better condition; the remaining 51% 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.

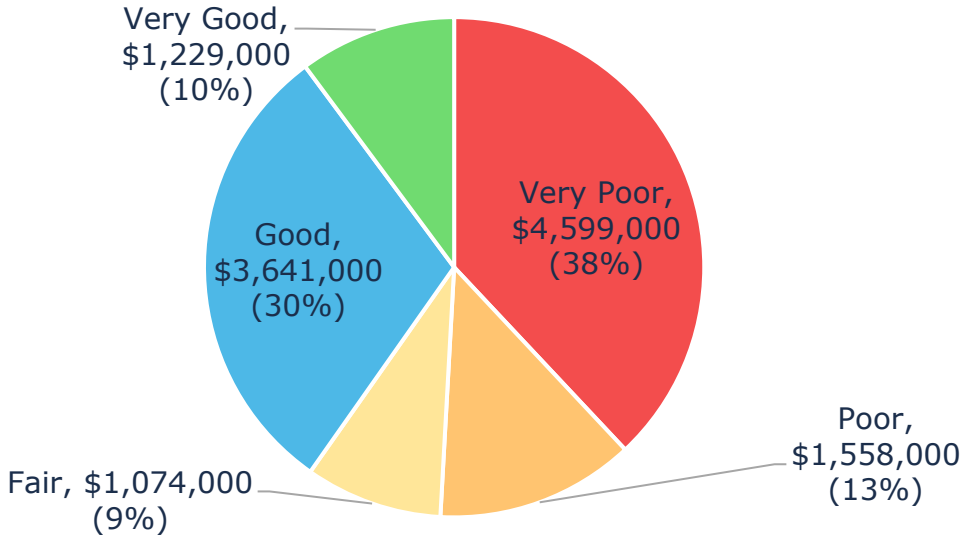


Figure 76 Asset Condition: Machinery & Equipment Overall

Figure 77 summarizes the age-based condition of machinery and equipment by each department.

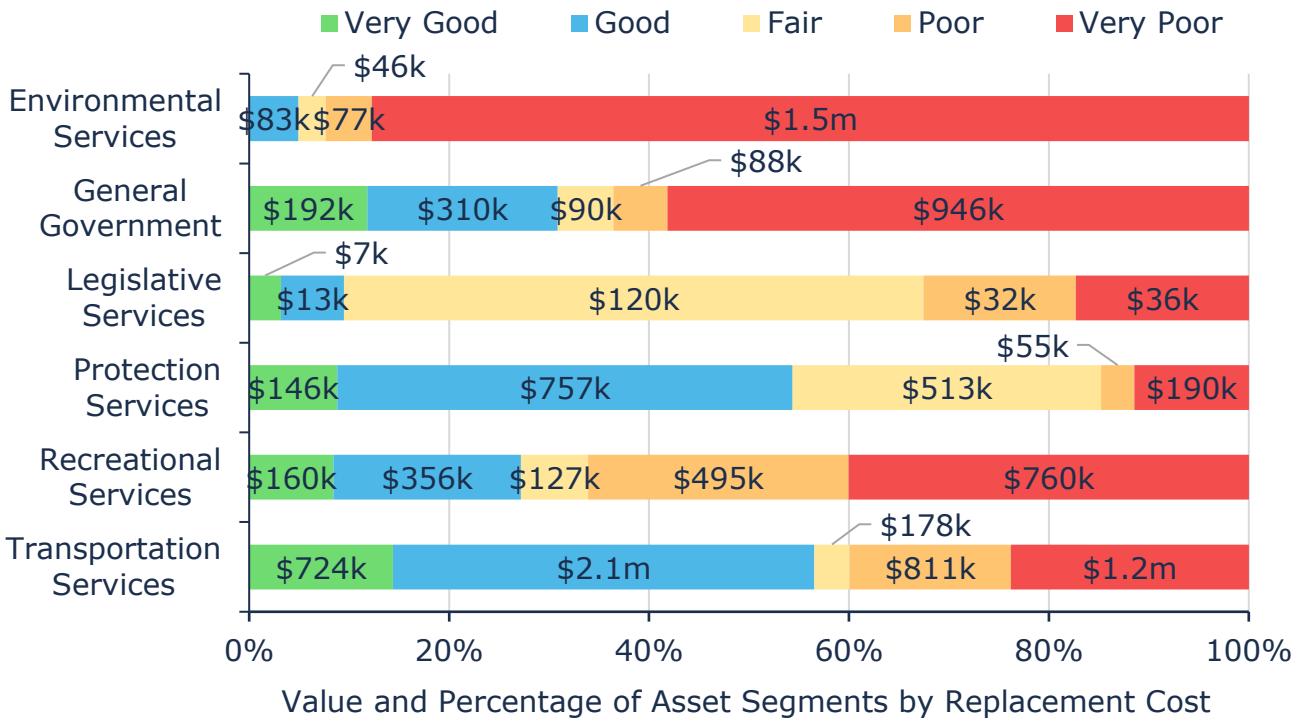


Figure 77 Asset Condition: Machinery & Equipment by Segment

13.3 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. The Estimated Useful Life for machinery and equipment assets has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable.

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 78 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. Age analysis reveals that, on average, with the exception of legislative and protective services, most machinery and equipment assets are in the latter stages of their expected life.

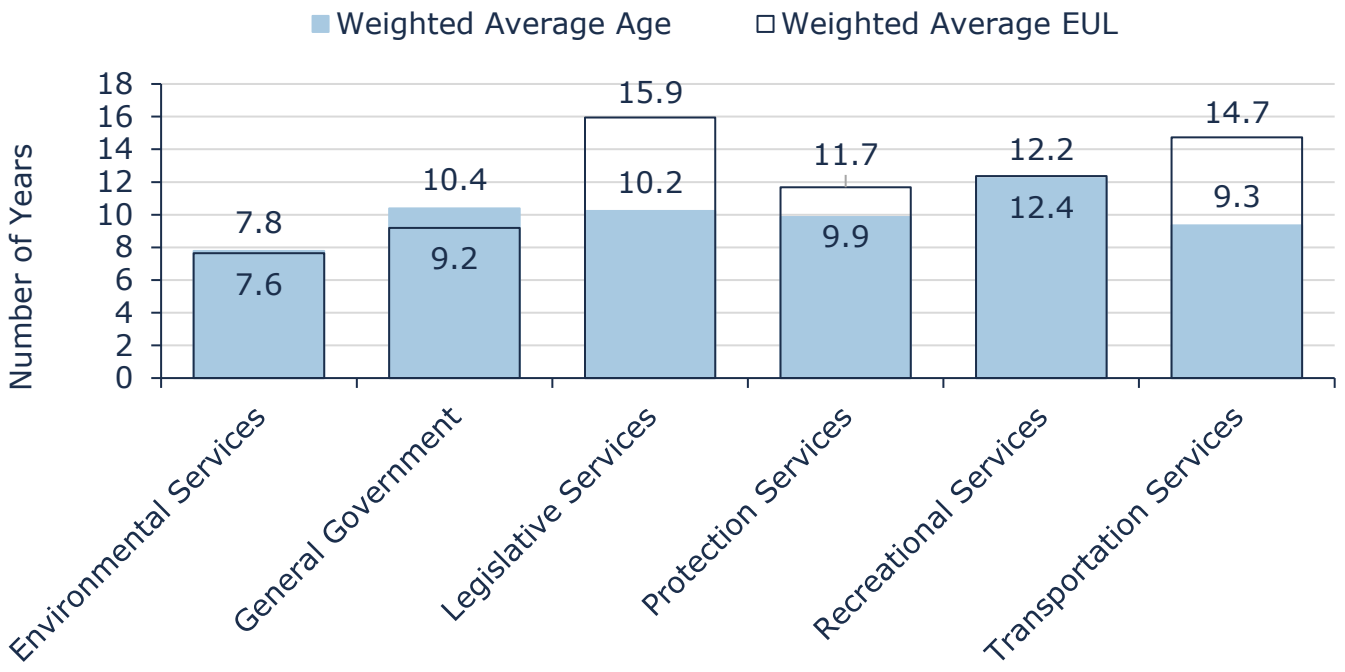


Figure 78 Estimated Useful Life vs. Asset Age: Machinery & Equipment

13.4 Current Approach to Lifecycle Management

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

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

Activity Type	Description of Current Strategy
Maintenance / Rehabilitation	Maintenance program varies by department.
	Fire Protection Services equipment is subject to a much more rigorous inspection and maintenance program compared to most other departments.
	Machinery & equipment is maintained according to manufacturer recommended actions and supplemented by the expertise of municipal staff.
Replacement	The replacement of machinery & equipment depends on deficiencies identified by operators that may impact their ability to complete required tasks.

Activity Type	Description of Current Strategy
Inspections	Staff conduct condition assessments in accordance with National Fire Protection association (NFPA) codes and standards for fire department related machinery and equipment.
	Staff complete regular visual inspections of other Machinery & Equipment to ensure they are in a state of adequate repair.
	There are no formal condition assessment programs in place for the full inventory, although some Machinery & Equipment were assigned cursory condition ratings for this AMP.

Table 62 Lifecycle Management Strategy: Machinery & Equipment

13.5 Forecasted Long-Term Replacement Needs

Figure 79 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's machinery and equipment portfolio. This analysis was run until 2044 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 machinery and 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.

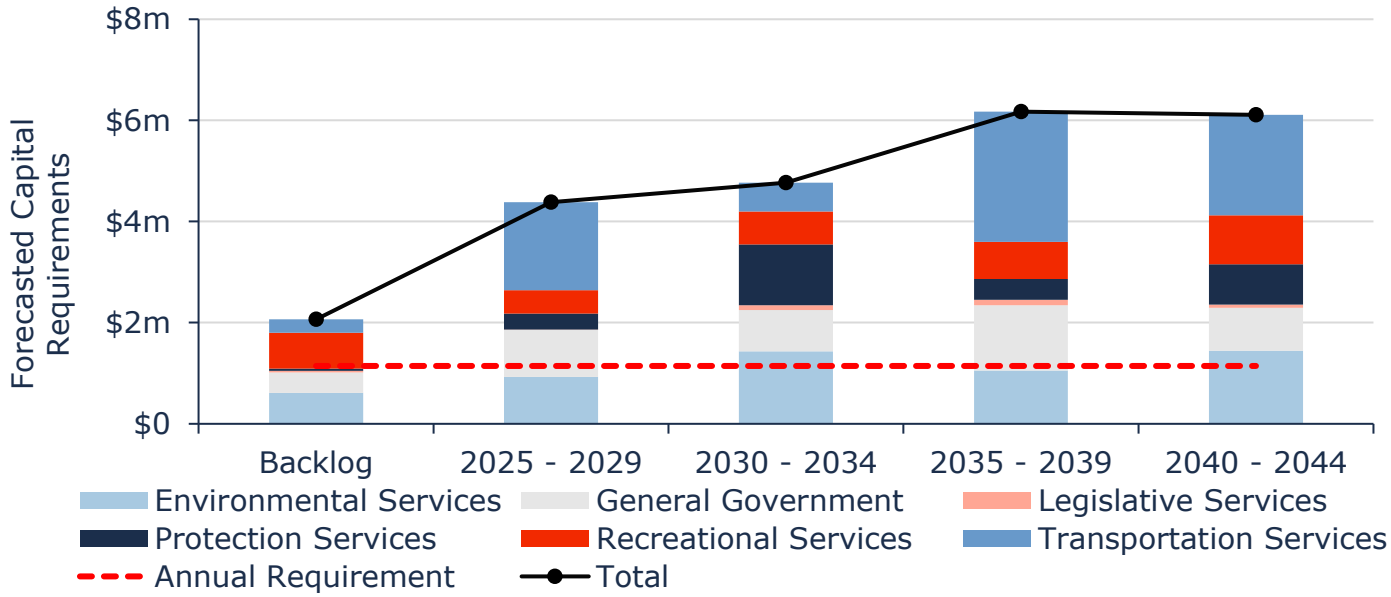


Figure 79 Forecasted Capital Replacement Needs: Machinery & Equipment 2025-2044

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 summary of the 10-year replacement forecast can be found in Appendix B – 10-Year Capital Requirements.

13.6 Risk Analysis

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

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

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

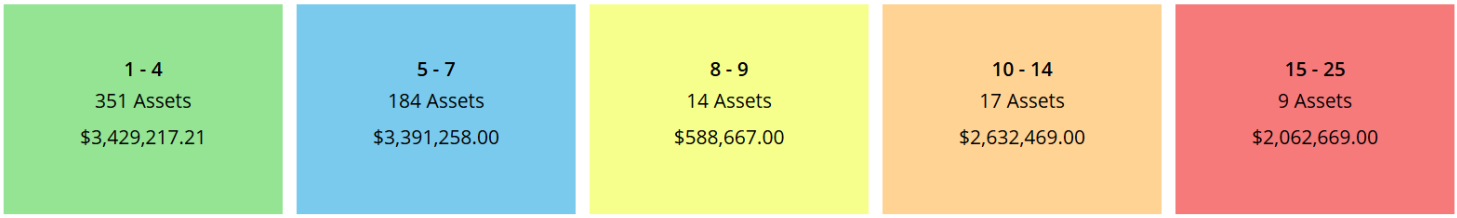


Figure 80 Risk Matrix: Machinery & Equipment

13.7 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.

13.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description of the machinery & equipment inspection process	Park's machinery and equipment is assessed annually by external staff. Fire equipment is serviced annually or monthly, depending on the specifications outlined for the asset. There is no formal assessment program for Public Works equipment. Internal staff perform daily circle checks and visual inspections twice a year.
Performance	Description of the current condition of machinery & equipment and the plans that are in place to maintain or improve the provided level of service	Machinery and Equipment assets are in an adequate state of repair to provide an acceptable level of service to the community. Regular staff and external inspections allow the Town to identify any deficiencies and plan for rehabilitation or replacement on an as needed basis.

Table 63 Community Levels of Service: Machinery & Equipment

13.7.2 Technical Levels of Service

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2024)
Scope	% of annual fire equipment test completed	N/A	90%
	% of fire equipment that is in good or very good condition	38%	24%
	% of other machinery & equipment that is in good or very good condition	28%	37%
	% of fire equipment that is in poor or very poor condition	55%	69%[4]
	% of other machinery & equipment that is in poor or very poor condition	27%	58%
Performance	Capital reinvestment rate	4.2%	2.1%

Table 64 Technical Levels of Service: Machinery & Equipment

[4] This assessment is based on Citywide data and relies heavily on age-based conditions. Fire equipment is assessed according to NFPA standards to ensure it remains in an adequate state of repair.

13.8 Proposed Levels of Service

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

The below tables and graphs explain the proposed levels of service scenarios that were analyzed for machinery and equipment. Further PLOS analysis at the portfolio level can be found in Section *4. Proposed Levels of Service Analysis.*

13.8.1 PLOS Scenarios Analyzed

Scenario	Description
Scenario 1: Maintain Current Funding Level	This scenario maintains existing capital funding levels for those categories that are underfunded. ♦ Machinery and equipment capital funding maintained at $257,000/year
Scenario 2: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~2.9%/year, stabilizing at 100% funding across all asset categories in 15 years. ♦ Machinery and equipment capital funding increases from $257,000/year to $1.1M/year.
Scenario 3: Specific Funding Targets: Achieving 100% Target Funding in 15 Years	This scenario assumes gradual tax increases of ~1.9%/year for 15 years to achieve specific funding targets: ♦ Machinery and equipment capital funding gradually increases from $257,000/year to $1.1m/year over a span of 15 years to achieve 100% funding

Table 65 Machinery & Equipment PLOS Scenario Descriptions

13.8.2 PLOS Analysis Results

Scenario	Technical LOS Outcomes	Initial Value (2025)	15 Year Projection (2039)	30 Year Projection (2054)	Comments
Scenario 1	Average Condition	42%	11%	10%	
	Average Asset Risk	9.3	13.3	13.1	
	Annual Investment Required		$257,000		This is the maintained parameter in this scenario
	Capital Reinvestment Rate		2.1%		
Scenario 2	Average Condition	63%	38%	46%	
	Average Asset Risk	9.3	9.7	9.2	
	Annual Investment Required		$1,144,000		This parameter was increased from $257,000/year to $1.1M/year gradually over 15 years.
	Capital Reinvestment Rate		9.5%		
Scenario 3	Average Condition	63%	38%	46%	
	Average Asset Risk	9.3	9.7	9.2	
	Annual Investment Required		$1,144,000		This parameter is increased from $257,000 incrementally to reach 100% of the target portfolio investment, $1.1M, over 15 years
	Capital Reinvestment Rate		9.5%		

Table 66 Machinery & Equipment PLOS Scenario Analysis

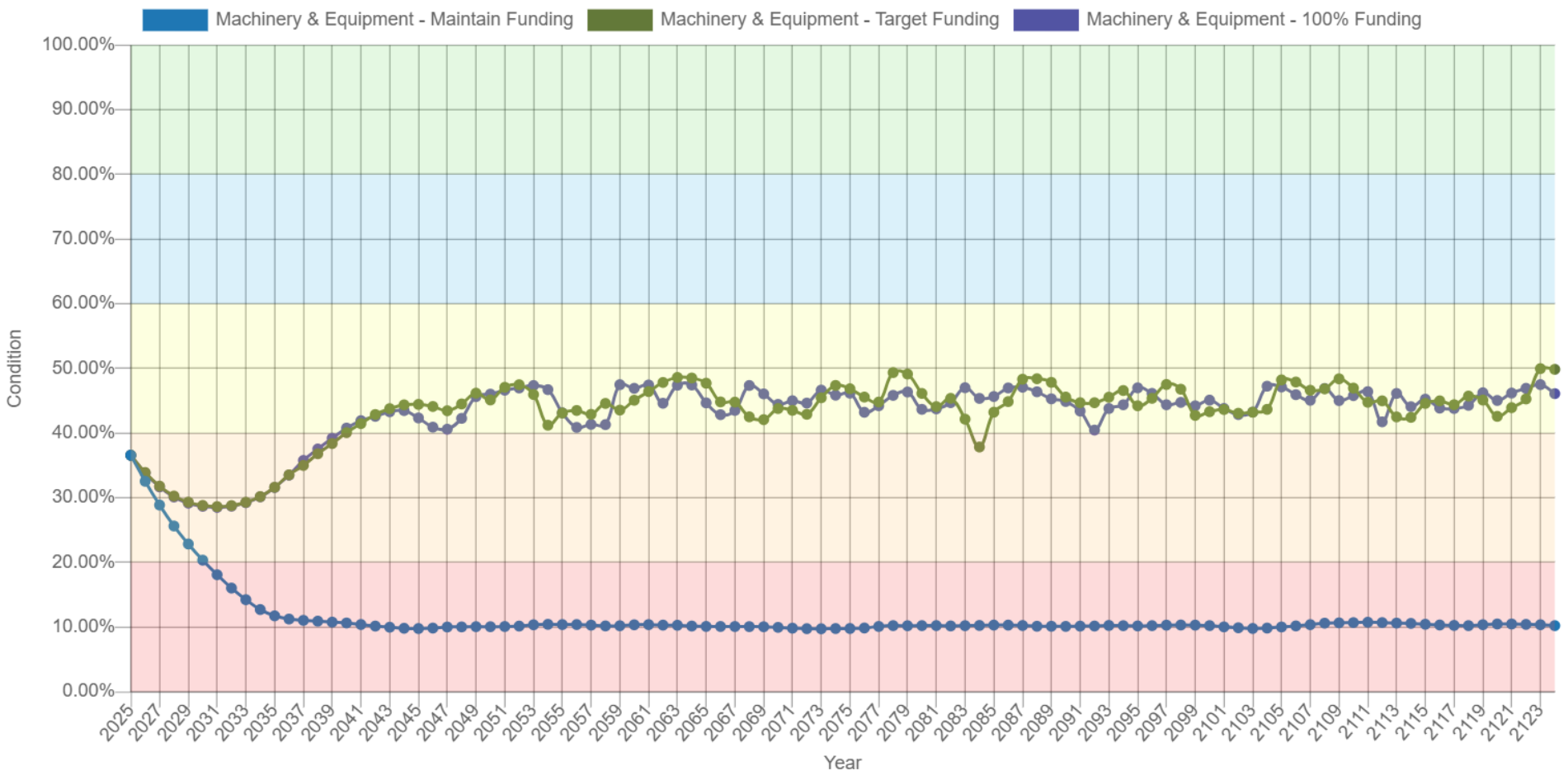


Figure 81 Machinery & Equipment PLOS Scenario Condition Results

Strategies

14. 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.

14.1 Growth Assumptions

The Town of South Bruce Peninsula initiated a Water, Wastewater and Stormwater Master Servicing Plan (MSP) for Wiarton in 2015 to identify a preferred strategy to support existing servicing needs and projected growth. This strategy will accommodate anticipated demands as identified through the Town's Official Plan. This long-term plan addresses current service levels, policy, practices and procedures as well as identifies gaps and opportunities to improve efficiency and effectiveness at present and in the future. The Town is currently undertaking a Water Service Master Plan for the area within and adjacent to the Sauble Beach Settlement Area in the former Township of Amabel. The Study will consider solutions that provide servicing capacity for potential development and lower per capita cost for users of the existing systems. The approximate Study Area locations are shown on the map below.

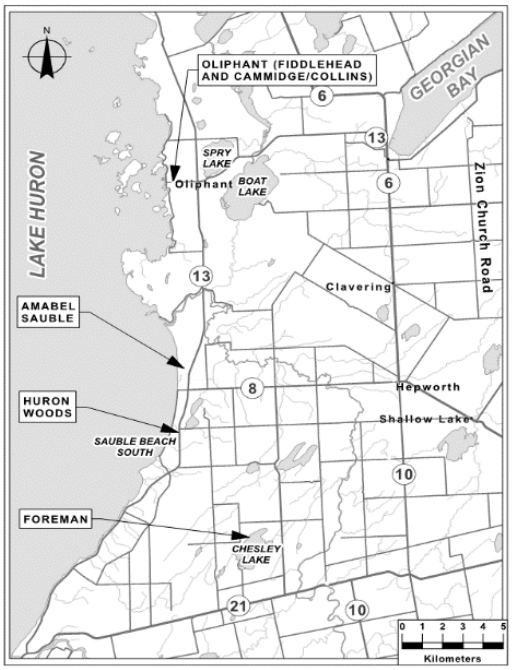


Figure 82 Study Area Location - Water, Wastewater and Stormwater Master Servicing Plan (MSP)

This Asset Management Plan contains essential information regarding levels of service metrics that are fundamental to the development of the Master Servicing Plans for sanitary and water infrastructure. Furthermore, the findings of these Master Servicing Plans will be used to guide the development of future iterations of the Town's Asset Management Plan.

14.1.1 Official Plan of the Town of South Bruce Peninsula (February 2003)

The Official Plan for the Town of South Bruce Peninsula was adopted in 2003 and has a planning horizon of 20 years. It serves as a comprehensive guide for the Town's long-term development and land use strategy, developed in collaboration with local, county, and provincial authorities to ensure alignment with broader objectives. The most recent consolidation of the plan was done in January of 2019.

The purpose of the Official Plan is to manage growth in a way that balances public health, safety, environmental preservation, and development efficiency, focusing on the community's needs for living, working, and recreation within environmental, social, and economic goals.

County of Bruce's Official Plan, including South Bruce Peninsula, anticipates growth and outlines strategies to meet housing and service needs while prioritizing areas with municipal services like Wiarton for development. Growth in un-serviced areas is considered under interim policies. The plan stresses the importance of periodic reviews to ensure land allocations meet evolving development needs. Proposals for new development areas must justify the need, assess impacts on community services and the environment, and ensure compatibility with existing land uses. The overarching goal is to foster a competitive real estate market and support a diverse range of land uses, addressing constraints posed by limited municipal services.

14.1.2 County of Bruce Official Plan (1997)

In 1997, the County Council of Bruce County adopted the Official Plan to establish a policy framework to guide the physical, social and economic development of the County and to protect the natural environment within the County to the year 2021.

Through this Official Plan it is County Council's intent to:

- Achieve an orderly pattern of settlement
- Protect and conserve good agricultural land
- Protect and when possible enhance the quality of the natural environment
- Encourage economic development and prosperity
- Encourage necessary social, cultural and educational facilities and services.

The policies of the Bruce County Official Plan encourage and strengthen the role of Primary Urban Communities, including Wiarton and Sauble Beach as regional service centers within the County. It is further specified that the majority of anticipated permanent population growth shall be directed to Primary Urban Communities. Industrial growth, particularly that which requires municipal water and sanitary services, is also encouraged to locate within Primary Urban Communities. Section 4.4.2 of the Bruce County Official Plan specifies that the County is expected to grow by approximately 21,300 permanent residents to the year 2016. These projections are based on those population projections supplied by the Ontario Ministry of Finance. Based on an average household size of 2.7 persons per unit, the County anticipates a total of 7,900 additional units will be required to house the projected population growth in the County over this period. It is the policy of this official plan to direct the majority of this growth to Primary and Secondary Urban Communities and Hamlet Communities.

The following table demonstrates population and employment projections for the Town of South Bruce Peninsula and Bruce County dating back to the years 2016 and 2011 as seen below:

Forecast	2011	2016	2021
Population – South Bruce Peninsula	8,413	8,416	9,137
Employment – South Bruce Peninsula	4,161	4,286	4,286
Population – Bruce County	66,101	67,818	67,866
Employment – Bruce County	35,390	36,309	36,335

Table 67 Population and Employment Projections

14.1.3 Growth Management Report - Wiarton South Settlement Area (2009)

The purpose of this study is to estimate how much residential and employment land is required to accommodate long-term growth in the community and recommend its preferred location.

The study has also been undertaken to assist the Town in addressing other issues, such as the allocation of future infrastructure servicing and the overall desire to provide sufficient employment opportunities for residents to foster a self-sustaining economic base for the Town.

The purpose of this report is to provide a review of projected population growth and associated housing and employment land demand anticipated for the Town for the planning period ranging from 2009-2029. This population, housing and employment forecast will allow for a comparison against the amount of land presently designated and available to accommodate this anticipated growth.

Wiarton is presently the only fully serviced settlement area in the Town and the Official Plan for the Town of South Bruce Peninsula stipulates that the majority of growth be directed towards areas serviced with municipal sewer and water, such as Wiarton.

The following table demonstrates low, medium, and high growth scenarios as seen below:

Historical & Forecast	2009	2019	2029
Low Population Growth – Deduction Method	8,706	9,417	10,134
Medium Population Growth – Linear Method	8,830	9,660	10,491
Population Growth – Dwelling Occupancy Method	8,425	9,572	10,720

Table 68 Growth Scenarios

By 2029, 840 additional homes will be required for the anticipated population growth, of which 629 are in the Wiarton area.

On the other hand, employment is expected to grow by 1,072 from 2009 to 2029, which represents an increase of more than 26%.

14.2 Impact of Growth on Lifecycle Activities

Planning for forecasted population growth may require the expansion of existing infrastructure and services. As growth-related assets are constructed or acquired, they should be integrated into the Town's AMP. While the addition of residential units will add to the existing assessment base and offset some of the costs associated with growth, the Town will need to review the lifecycle costs of growth-related infrastructure. These costs should be considered in long-term funding strategies that are designed to, at a minimum, maintain the current level of service.

For the near- to mid-term, the projected population growth in South Bruce Peninsula is not expected to significantly impact the current portfolio of assets required by the Town to maintain acceptable service levels.

15. Financial Strategy

For an asset management plan to be effective and meaningful, it must be integrated with financial planning and long-term budgeting. The development of a comprehensive financial plan will allow the Town of South Bruce Peninsula 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. Ontario Community Infrastructure Fund (OCIF)
    c. 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 Township'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.

15.1 Annual Requirements & Capital Funding

15.1.1 Annual Requirements

The annual requirements represent the amount the Town should allocate annually to each asset category to meet replacement needs as they arise, prevent infrastructure backlogs and achieve long-term sustainability. In total, the Town must allocate approximately $12.6 million annually to address capital requirements for the assets included in this AMP.

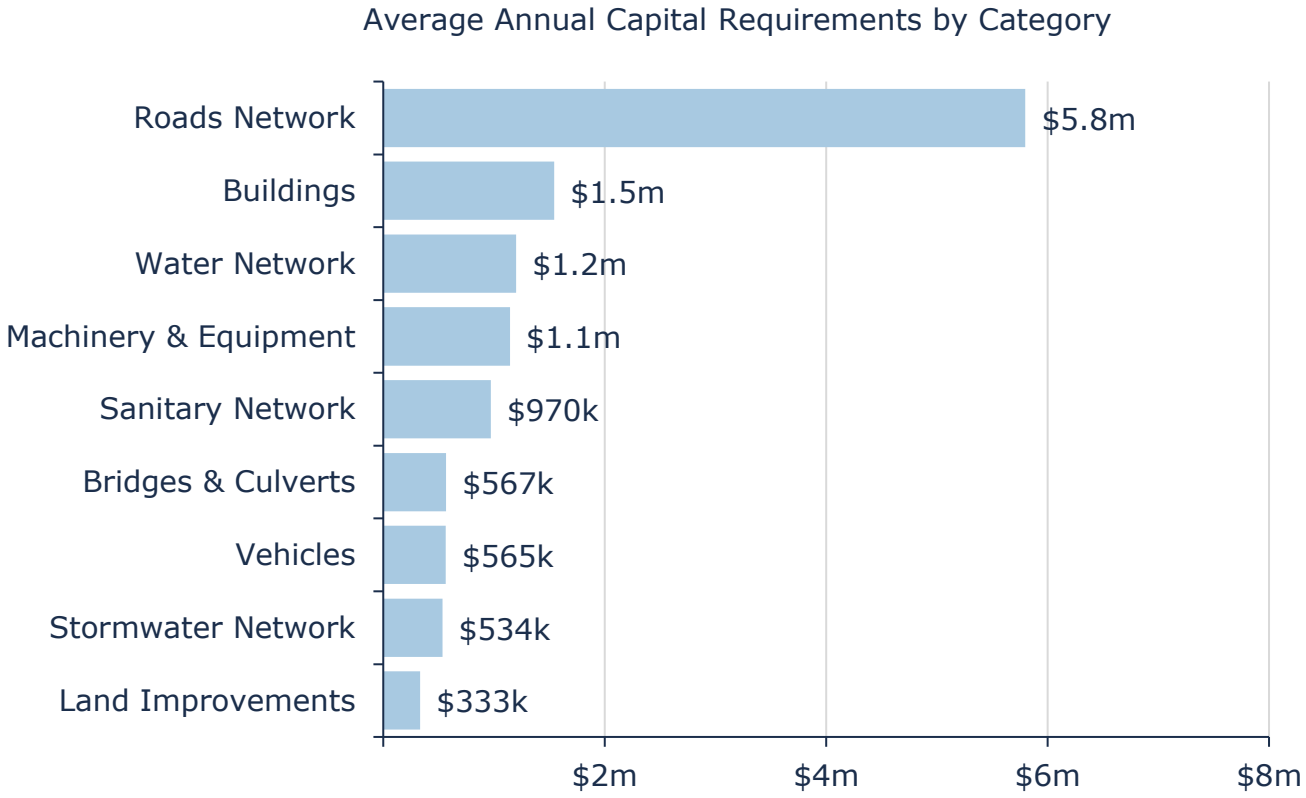


Figure 83 Annual Capital Funding Requirements by Asset Category

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 and Structural Culverts, and Buildings, lifecycle management strategies have been developed to identify CapEx that are realized through strategic rehabilitation and renewal of the Town's assets in these categories. The development of these strategies allows for a comparison of potential cost avoidance if the strategies were to be implemented.

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.

The implementation of a proactive lifecycle strategy for these categories can lead to potential annual cost avoidance. The effectiveness of the lifecycle strategy depends on many factors, such as timing, current material and labor costs, and condition of underground infrastructure.

15.1.2 Annual Funding Available

Based on a historical analysis of sustainable capital funding sources, the Town is committing approximately $5 million towards capital projects per year. Given the annual capital requirement of $12.6 million, there is currently a funding gap of $7.6 million annually.

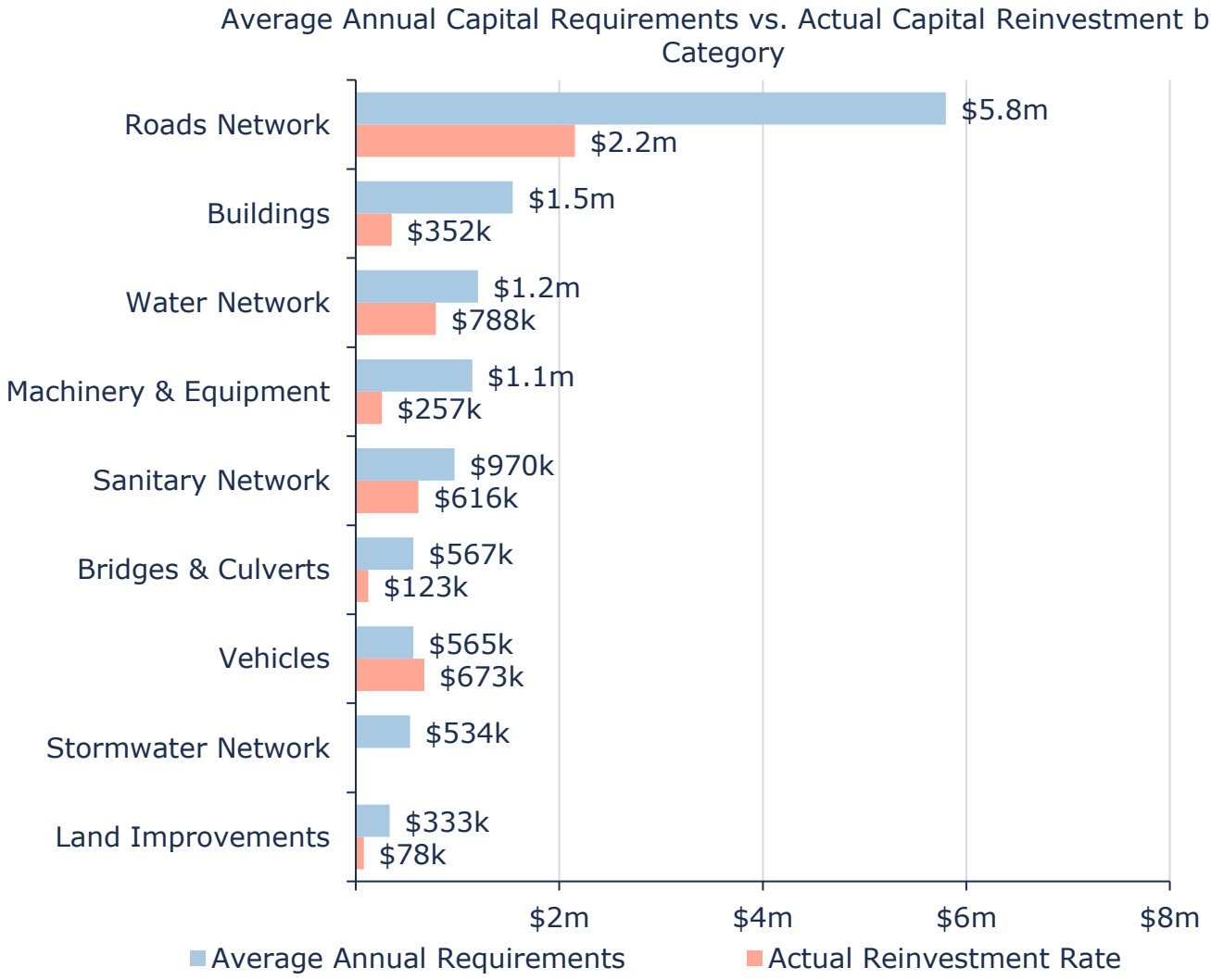


Figure 84 Annual Requirements vs. Capital Funding Available

15.2 Funding Objective

We have developed a scenario that would enable the Town of South Bruce Peninsula to achieve its proposed level of service funding goal within 15 years for the following assets:

1. **Tax Funded Assets:** Road Network, Stormwater Network, Bridges & Structural Culverts, Buildings, Machinery & Equipment, Land Improvements, Vehicles

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

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

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

15.3 Financial Profile: Tax Funded Assets

15.3.1 Current Funding Position

The following tables show, by asset category, South Bruce Peninsula's average annual asset investment requirements, current funding positions, and funding increases required to achieve proposed level of service funding for assets funded by taxes.

Asset Category	Avg. Annual Require-ment	Annual Funding Available				Annual Deficit
		Taxes	CCBF	OCIF	Total Available	
Road Network	2,899,000	1,258,237	299,238	595,775	2,153,250	745,750
Stormwater Network	267,000		0	0	0	267,000
Bridges & Structural Culverts	283,500	123,046	0	0	123,046	160,454
Buildings	1,543,000	351,523	0	0	351,523	1,191,477
Machinery & Equipment	1,144,000	256,500	0	0	256,500	887,500
Land Improve-ments	249,750	78,371	0	0	78,371	171,379
Vehicles	673,323	673,323	0	0	673,323	0
Total	**7,059,573**	**2,741,000**	**299,238**	**595,775**	**3,636,013**	**3,423,560**

Table 69 Annual Available Funding for Tax Funded Assets

The average annual investment requirement for the above categories to achieve the proposed level of service is $7.06 million. Annual revenue currently allocated to these assets for capital purposes is $3.6 million leaving an annual deficit of $3.42 million. Put differently, these infrastructure categories are currently funded at 51.5% of their long-term requirements.

15.3.2 Full Funding Requirements

In 2024, the Town of South Bruce Peninsula had budgeted annual tax revenues of approximately $12.98 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	5.7%
Stormwater Network	2.1%
Bridges & Structural Culverts	1.2%
Buildings	9.2%
Machinery & Equipment	6.8%
Land Improvements	1.3%
Vehicles	0.0%
Total	**26.3%**

Table 70 Tax Increase Requirements for Full Funding

Our scenario modeling includes 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	3,423,560	3,423,560	3,423,560	3,423,560
Change in Debt Costs	873,655	823,636	599,553	0
Resulting Infrastructure Deficit:	**4,297,215**	**4,247,196**	**4,023,113**	**3,423,560**
Tax Increase Required	33.1%	32.7%	31.0%	26.4%
Annually:	**5.9%**	**2.9%**	**1.9%**	**1.2%**

Table 71 Tax Increase Options 5-20 Years

15.3.3 Financial Strategy Recommendations

Considering all the above information, we recommend the 15-year option. This involves the proposed level of service funding being achieved over 15 years by:

a) increasing tax revenues by 1.9% each year for the next 15 years solely for the purpose of phasing in the proposed level of service 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[5].
2. We realize that raising tax revenues by the amounts recommended above for infrastructure purposes will be very difficult to do. However, considering a longer phase-in window may have even greater consequences in terms of infrastructure failure.

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.

15.4 Financial Profile: Rate Funded Assets

15.4.1 Current Funding Position

The Town has completed an external rate study for the water and sanitary network which provides recommendations on the rate increases that should be implemented in order to achieve the proposed level of service funding levels. The following table displays the capital expenditure that the rate study has determined should be allocated to the water and sanitary asset categories:

[5] 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.

Categories	Available Capital Funding									
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Rate-Funded (Water)	$575k	$520k	$650k	$700k	$710k	$710k	$710k	$710k	$710k	$710k
Rate-Funded (Sanitary)	$673k	$841k	$951k	$1.1m	$1.3m	$1.3m	$1.3m	$1.3m	$1.3m	$1.3m

Table 72 Annual Funding for Rate Funded Assets

15.4.2 Full Funding Requirements

In 2024, South Bruce Peninsula had annual sanitary revenues of $1,508,000 and annual water revenues of $2,267,100. 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 Network	18.2%
Sanitary Sewer Network	23.5%

Table 73 Rate Increase Requirements for Full Funding

The water and sanitary revenue increases recommended by the Water and Wastewater System Financial Plan, to achieve the proposed level of service are as follows:

Description	2026	2027	2028	2029	2030
Total Water Rate Revenues	1,907,150	1,789,072	1,924,553	2,070,201	2,226,808
Annual Percent Change	-2.3%	-1.7%	8.8%	3.9%	1.8%
Total Wastewater Rate Revenues	1,565,702	1,684,665	1,812,611	1,950,215	2,098,201
Annual Percent Change	7.5%	7.8%	8.0%	7.7%	11.2%

Table 74 Water and Sanitary Rate Increase

15.4.3 Financial Strategy Recommendations

Considering all of the above information, we recommend following the rate increases recommended by the Water and Wastewater System Financial Plan. This involves proposed level of service funding being achieved by:

a) increasing rate revenues for water services and sanitary sewer services each year following the above proposed funding for the purpose of phasing in proposed 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 proposed funding on an annual basis in 7 years and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available.

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.

15.5 Use of Debt

Debt can be strategically utilized as a funding source within 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:

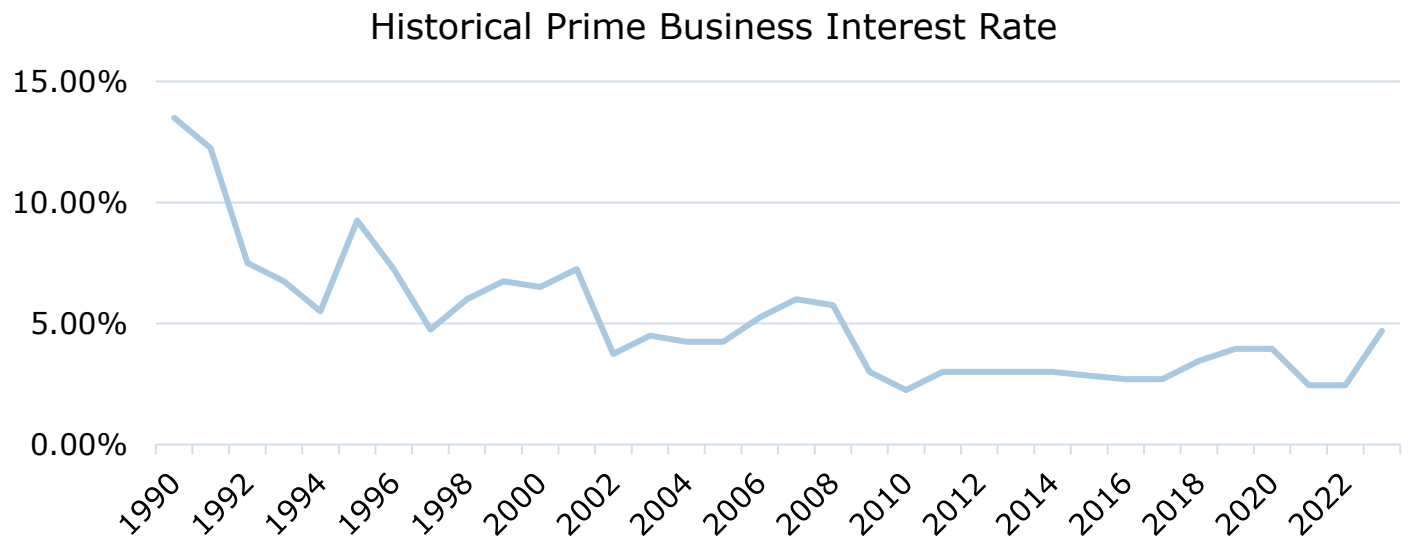


Figure 85 Historical Prime Rate

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%[6] 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.

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

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 75 Interest Premiums Paid

The following tables outline how South Bruce Peninsula has historically used debt for investing in the asset categories as listed. As of year-end 2024, there is currently $2.5 million of debt outstanding for the assets covered by this AMP with corresponding principal and interest payments of $43,000, well within its provincially prescribed maximum of $3.9 million.

Asset Category	Current Debt Outstanding	Use of Debt in the Last Five Years				
		2019	2020	2021	2022	2023
Road Network	0	0	0	0	0	0
Stormwater Network	0	0	0	0	0	0
Bridges & Structural Culverts	0	0	0	0	0	0
Buildings	2,523,009	0	0	0	0	0
Machinery & Equipment	0	0	0	0	0	0
Land Improvements	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0
Total Tax Funded	**2,523,009**	**0**	**0**	**0**	**0**	**0**
Water Network	0	0	0	0	0	0
Sanitary Sewer Network	0	86,356	86,356	86,356	86,356	86,356
Total Rate Funded	**0**	**0**	**0**	**0**	**0**	**0**

Table 76 South Bruce Peninsula Use of Debt 2019-2023

Asset Category	Principal & Interest Payments in the Next Ten Years						
	2024	2025	2026	2027	2028	2029	2034
Road Network	0	0	0	0	0	0	0
Stormwater Network	0	0	0	0	0	0	0
Bridges & Structural Culverts	0	0	0	0	0	0	0
Buildings	0	323,537	913,014	893,335	883,477	873,655	823,636
Machinery & Equipment	0	0	0	0	0	0	0
Land Improvements	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Total Tax Funded	**0**	**323,537**	**913,014**	**893,335**	**883,477**	**873,655**	**823,636**
Water Network	0	0	0	0	0	0	0
Sanitary Sewer Network	43,178	0	0	0	0	0	0
Total Rate Funded	**43,178**	**323,537**	**913,014**	**893,335**	**883,477**	**873,655**	**823,636**

Table 77 South Bruce Peninsula Principal and Interest Payments

The revenue options outlined in this plan allow the Town of South Bruce Peninsula to fully fund its long-term infrastructure requirements without further use of debt.

15.6 Use of Reserves

15.6.1 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 South Bruce Peninsula.

Asset Category	Balance at December 31, 2024
Road Network	8,391,368
Stormwater Network	356,272
Bridges & Structural Culverts	851,631
Buildings	2,081,937
Machinery & Equipment	3,943,497
Land Improvements	992,582
Vehicles	1,198,478
Total Tax Funded:	**17,815,768**
Water Network	330,067
Sanitary Sewer Network	3,484,573
Total Rate Funded:	**3,814,640**

Table 78 South Bruce Peninsula 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) range 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 South Bruce Peninsula'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.

15.6.2 Recommendation

In 2025, Ontario Regulation 588/17 required South Bruce Peninsula 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.

16. Recommendations & Key Considerations

16.1 Financial Strategies

1. Review the feasibility of adopting a full-funding scenario to achieve the proposed level of service annual funding requirement for the asset categories analyzed. This includes:
    a. Increasing taxes by 1.9% per year over a period of 15 years;
    b. Increasing water rates by the amounts recommended by the Financial Plan; and
    c. Increasing sanitary rates by the amounts recommended by the Financial Plan.

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.

16.2 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 labor 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 reduce the effect of moderate 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 analysis, 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.

4. As many buildings within the Citywide system are currently not componentized, it is recommended that staff review buildings assets and work towards developing a componentized asset inventory for more accurate reporting purposes.

5. A Data Governance Policy should be developed to address supporting documents and frequency for updating of supporting data.

16.3 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 in accordance with 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.

16.4 Next Steps

1. Town staff should work towards the development of an Asset Scorecard, which can be used for the annual reporting to council on Asset Management Progress, on or before July 1st. This will include reporting on the KPIs included in this AMP.

Appendices

Appendix A – Infrastructure Report Card

Asset Category	Replacement Cost	Average Condition	Financial Capacity		% Funded
Roads Network	**$249.0 m**	**Fair**	Annual Requirement:	$5,798,000	37%
			Funding Available:	$2,153,000	
			Annual Deficit:	**$3,644,000**	
Bridges & Structural Culverts	**$29.6 m**	**Good**	Annual Requirement:	$567,000	22%
			Funding Available:	$123,000	
			Annual Deficit:	**$444,000**	
Water Network	**$61.6 m**	**Fair**	Annual Requirement:	$1,200,000	66%
			Funding Available:	$788,000	
			Annual Deficit:	**$412,000**	
Sanitary Network	**$55.4 m**	**Fair**	Annual Requirement:	$970,000	64%
			Funding Available:	$616,000	
			Annual Deficit:	**$354,000**	
Stormwater Network	**$39.8 m**	**Good**	Annual Requirement:	$534,000	0%
			Funding Available:	$0	
			Annual Deficit:	**$534,000**	
Buildings	**$74.4 m**	**Fair**	Annual Requirement:	$1,543,000	23%
			Funding Available:	$352,000	
			Annual Deficit:	**$1,191,000**	
Land Improvements	**$6.1 m**	**Fair**	Annual Requirement:	$333,000	23%
			Funding Available:	$78,000	
			Annual Deficit:	**$254,000**	
Vehicles	**$9.0 m**	**Fair**	Annual Requirement:	$565,000	119%
			Funding Available:	$673,000	
			Annual Deficit:	**-$108,000**	
Machinery & Equipment	**$12.1 m**	**Fair**	Annual Requirement:	$1,144,000	22%
			Funding Available:	$257,000	
			Annual Deficit:	**$888,000**	

Appendix B – 10-Year Capital Requirements

Current Levels of Service (No consideration of available capital funding)

Road Network

Segment	2026	2027	2028	2029	2030	2031	2032	2033	2034
Paved Roads	**$2.1m**	**$1.8m**	**$5.5m**	**$1.3m**	**$5.1m**	**$15.2m**	**$1.8m**	**$732k**	**$2.2m**
Roadside Barriers	**-**	**-**	**-**	**$16k**	**-**	**-**	**-**	**-**	**$96k**
Sidewalks	**-**	**-**	**-**	**-**	**-**	**-**	**$47k**	**$141k**	**$309k**
Signs	**-**	**-**	**-**	**-**	**$11k**	**-**	**$19k**	**-**	**$102k**
Streetlights & Traffic Signals	**$29k**	**-**	**-**	**-**	**$35k**	**$936k**	**$117k**	**-**	**-**
Unpaved Roads									
Total	**$2.1m**	**$1.8m**	**$5.5m**	**$1.3m**	**$5.2m**	**$16.1m**	**$2.0m**	**$874k**	**$2.7m**

Table 79 System Generated 10-Year Capital Replacement Forecast: Road Network

Bridges & Structural Culverts

Segment	2026	2027	2028	2029	2030	2031	2032	2033	2034
Bridges	$2.1m	-	$75k	$1.2m	$1.2m	$987k	$804k	-	-
Structural Culverts	-	-	-	-	$20k	$357k	$20k	$850k	$1.6m
Total	**$2.1m**	**-**	**$75k**	**$1.2m**	**$1.3m**	**$1.3m**	**$824k**	**$850k**	**$1.6m**

Table 80 System Generated 10-Year Capital Replacement Forecast: Bridges & Stuctural Culverts

Water Network

Segment	2026	2027	2028	2029	2030	2031	2032	2033	2034
Hydrants	-	-	-	-	-	-	-	$20k	-
Pumping Stations	-	-	$91k	-	-	-	-	-	-
Tower/Booster Equipment	-	-	-	$52k	-	-	-	$88k	$10k
Treatment Equipment	$26k	$28k	$58k	$85k	$8k	-	$6k	-	$367k
Treatment Plant	$25k	$55k	$26k	$120k	-	-	$47k	$61k	$771k
Valves	-	-	-	$35k	-	-	-	$1k	$53k
Water Mains	-	-	$116k	-	-	-	-	-	$213k
Water Meters	-	-	-	-	-	-	-	$13k	-
Total	**$51k**	**$83k**	**$291k**	**$292k**	**$8k**	**-**	**$53k**	**$183k**	**$1.4m**

Table 81 System Generated 10-Year Capital Replacement Forecast: Water Network

Sanitary Network

Segment	2026	2027	2028	2029	2030	2031	2032	2033	2034
Lagoons	-	-	-	-	-	-	-	-	$58k
Manholes	-	-	-	-	-	$42k	-	-	$64k
Pumping Stations									
Sewage Treatment Plant	$174k	-	-	$26k	-	$3k	-	$53k	$3.2m
Sewermains	$142k	$202k	-	$409k	-	$6k	-	$432k	$52k
Total	**$317k**	**$202k**	**-**	**$434k**	**-**	**$52k**	**-**	**$485k**	**$3.4m**

Table 82 System Generated 10-Year Capital Replacement Forecast: Sanitary Sewer Network

Stormwater Network

Segment	2026	2027	2028	2029	2030	2031	2032	2033	2034
Catchbasins	-	-	-	-	-	-	-	-	$11k
Culverts	-	-	-	-	-	-	-	-	-
Manhole	-	-	-	-	-	$50k	-	-	-
Oil Grit Separator	-	-	-	-	-	-	-	-	-
Storm Mains	-	-	-	-	-	-	-	-	-
Total	**-**	**-**	**-**	**-**	**-**	**$50k**	**-**	**-**	**$11k**

Table 83 System Generated 10-Year Capital Replacement Forecast: Stormwater Network

Buildings

Segment	2026	2027	2028	2029	2030	2031	2032	2033	2034
Environmental Services	-	-	-	-	-	-	-	-	-
General Government	$164k	-	$16k	$85k	$147k	$41k	$44k	$17k	-
Legislative Services	-	-	-	-	-	-	$42k	-	-
Protection Services	-	-	$15k	-	$47k	$18k	$95k	$24k	-
Recreational Services	$286k	$12k	$697k	$351k	$2.9m	$33k	$1.1m	$661k	$357k
Transportation Services	$13k	$49k	$79k	$231k	-	$4k	$79k	-	$281k
Total	**$464k**	**$61k**	**$808k**	**$668k**	**$3.1m**	**$96k**	**$1.3m**	**$702k**	**$638k**

Table 84 System Generated 10-Year Capital Replacement Forecast: Buildings & Facilities

Land Improvements

Segment	2026	2027	2028	2029	2030	2031	2032	2033	2034
Cemetery Columbarium	-	-	-	-	-	-	-	-	-
Landfill Assets	-	-	-	-	-	-	-	-	-
Parking Lots	$513k	-	-	-	$193k	-	$129k	-	$23k
Parks	$9k	-	$438k	-	-	-	-	-	-
Playground Structures	$93k	$26k	$85k	$40k	$33k	-	$6k	$98k	-
Signage	-	-	-	-	-	-	-	-	$97k
Sport Structures	-	-	$42k	-	-	-	-	-	$5k
Trail Systems	$30k	-	-	-	-	$30k	-	-	$117k
Total	**$645k**	**$26k**	**$565k**	**$40k**	**$225k**	**$30k**	**$135k**	**$98k**	**$242k**

Table 85 System Generated 10-Year Capital Replacement Forecast: Land Improvements

Vehicles

Segment	2026	2027	2028	2029	2030	2031	2032	2033	2034
Legislative Services	-	-	-	-	$31k	-	-	-	-
Protection Services	-	-	$85k	-	-	-	-	-	$85k
Recreation Services	-	-	-	-	-	$70k	-	-	-
Transportation Services	-	$690k	$454k	$92k	$185k	$657k	$101k	-	$287k
Total	**-**	**$690k**	**$539k**	**$92k**	**$216k**	**$727k**	**$101k**	**-**	**$372k**

Table 86 System Generated 10-Year Capital Replacement Forecast: Vehicles

Machinery & Equipment

Segment	2026	2027	2028	2029	2030	2031	2032	2033	2034
Environmental Services	$15k	$3k	$53k	$6k	$876k	$33k	-	$35k	$489k
General Government	$496k	$81k	$135k	$169k	$325k	$152k	$77k	$103k	$159k
Legislative Services	-	$5k	$4k	-	$81k	-	$6k	$4k	$7k
Protection Services	$107k	$42k	$29k	$91k	$241k	$211k	$191k	$509k	$45k
Recreational Services	$8k	$21k	$319k	$81k	$131k	$96k	$313k	$109k	$3k
Transportation Services	$20k	$428k	$560k	$216k	$46k	$18k	$12k	$165k	$332k
Total	**$647k**	**$580k**	**$1.1m**	**$563k**	**$1.7m**	**$511k**	**$599k**	**$925k**	**$1.0m**

Table 87 System Generated 10-Year Capital Replacement Forecast: Machinery & Equipment

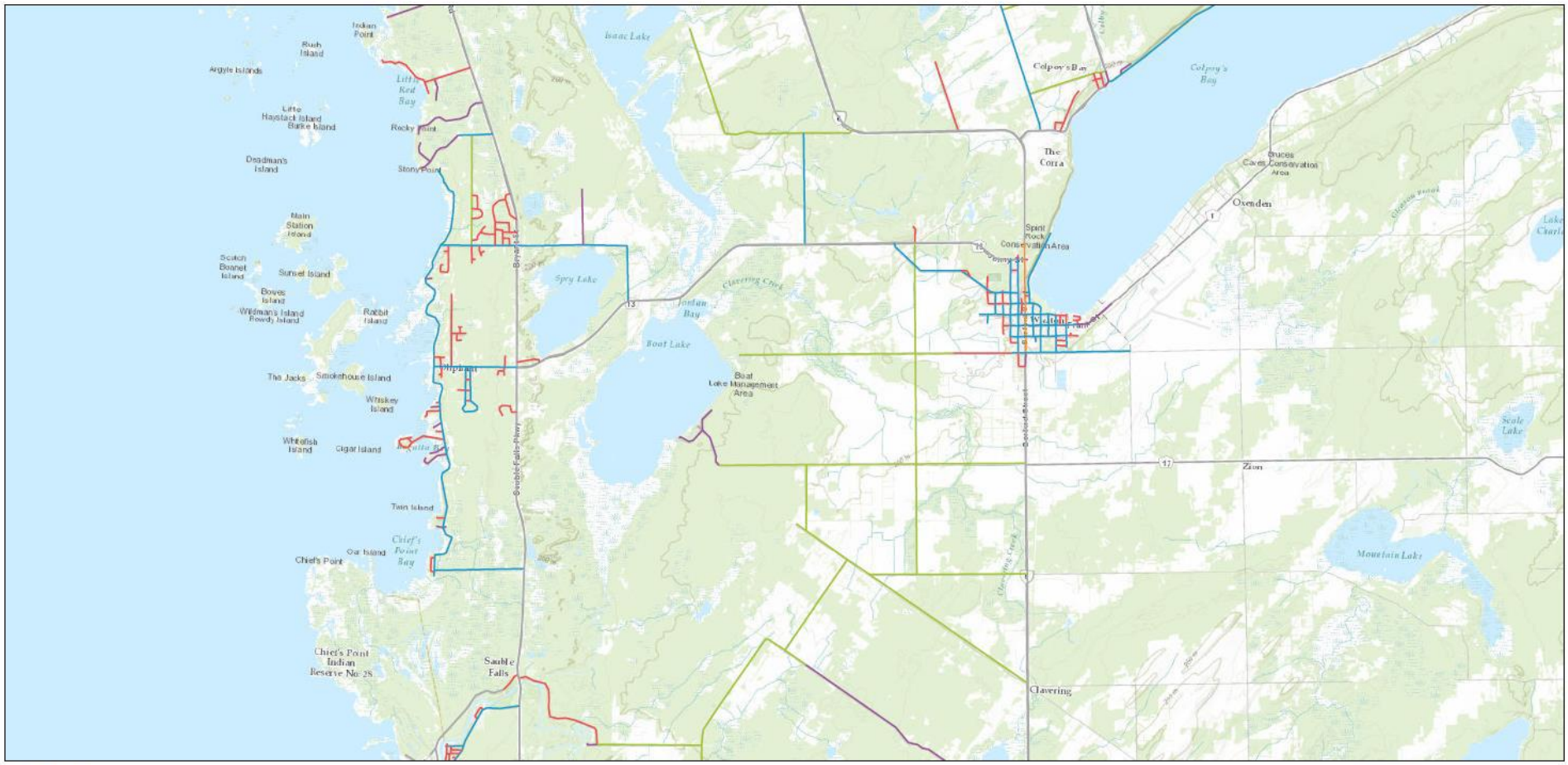
Proposed Levels of Service (Based on available capital funding, following recommended financial strategy)

Categories	Available Capital Funding									
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Tax-Funded	$3.06m	$3.31m	$3.57m	$3.83m	$4.09m	$4.36m	$4.64m	$4.92m	$5.21m	$5.51m
Rate-Funded (Water)	$575k	$520k	$650k	$700k	$710k	$710k	$710k	$710k	$710k	$710k
Rate-Funded (Sanitary)	$673k	$841k	$951k	$1.1m	$1.3m	$1.3m	$1.3m	$1.3m	$1.3m	$1.3m

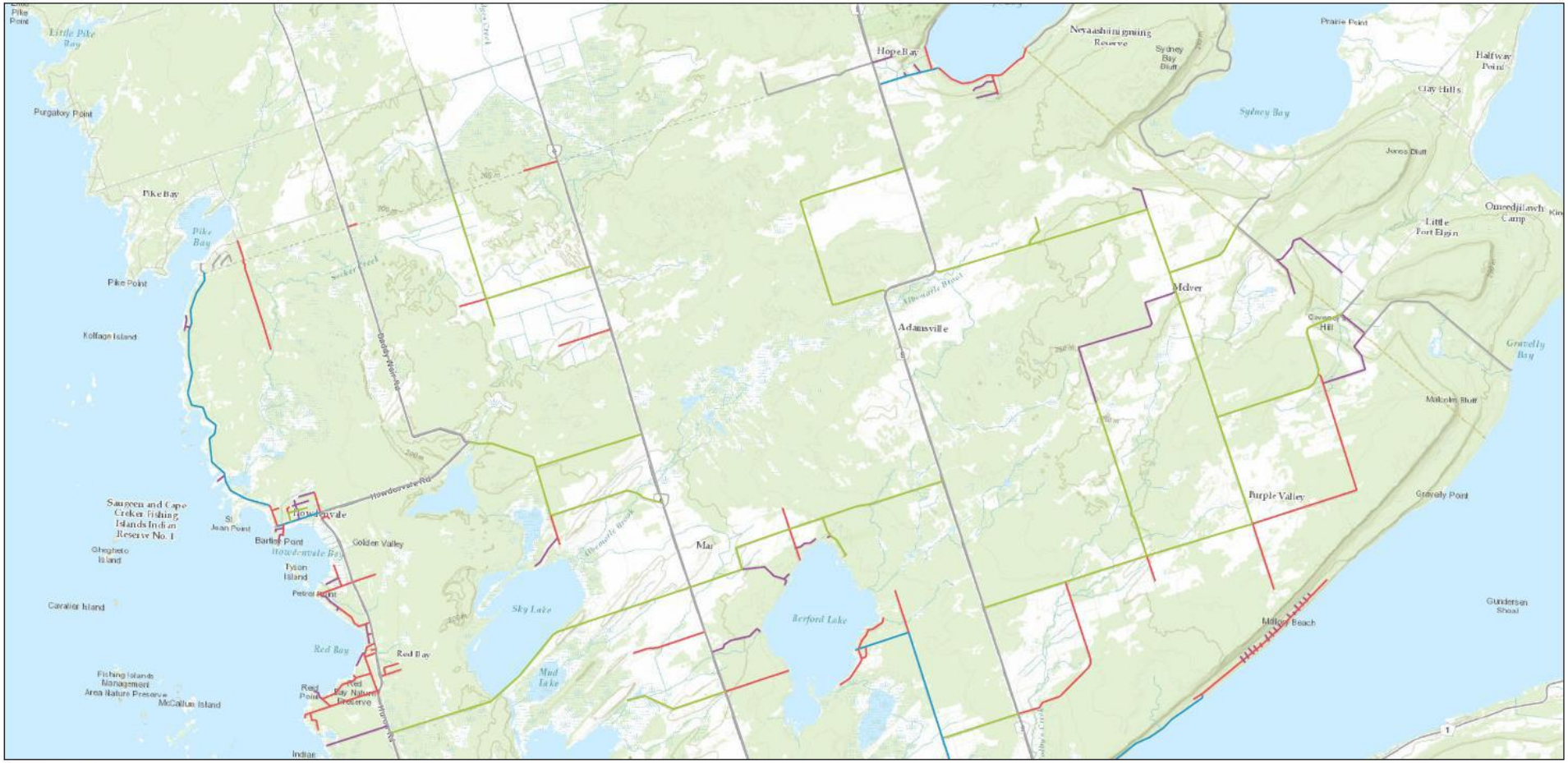
Table 88 Available Capital Funding Over Next 10 Years - Proposed Levels of Service

Appendix C – Level of Service Maps & Photos

Roads Network Map – Central



Roads Network Map – North



2024-05-31

Roads — 5 — 0 — 6 — 4 — Other

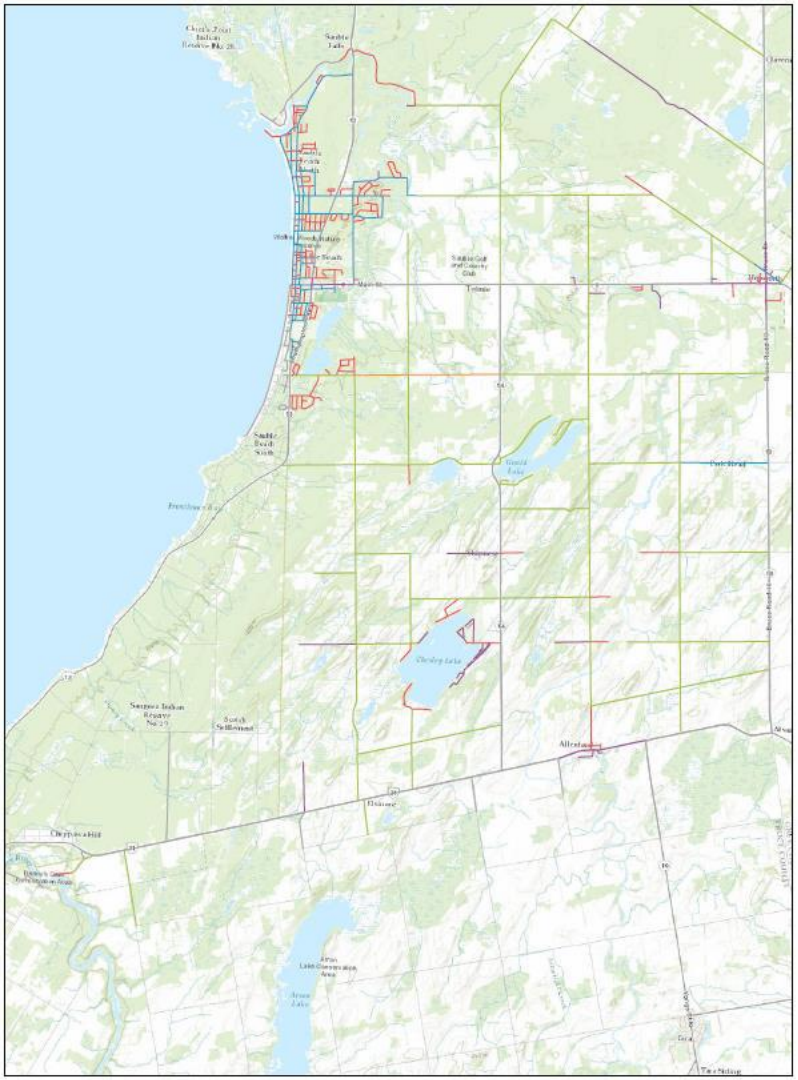
1:100,000

0 0.75 1.5 3 mi

0 1.25 2.5 5 km

Bruce County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA, AAFC, NRCan

Roads Network Map – South

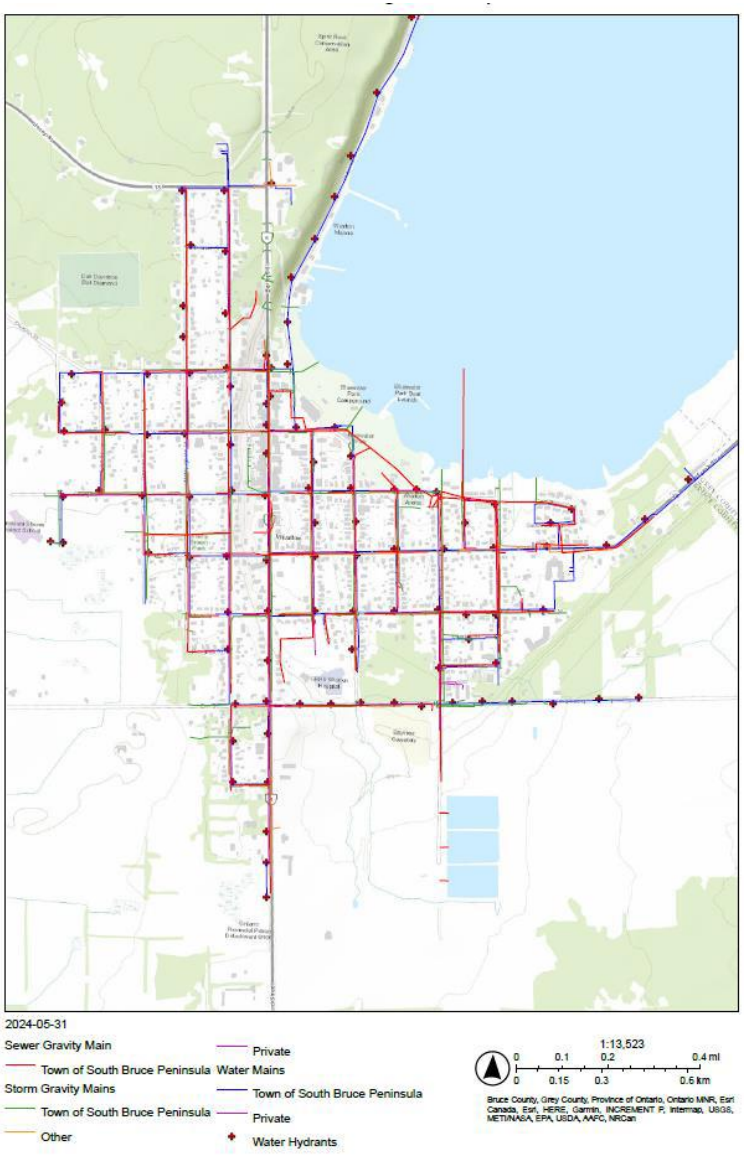


Roads Network Condition Assessment

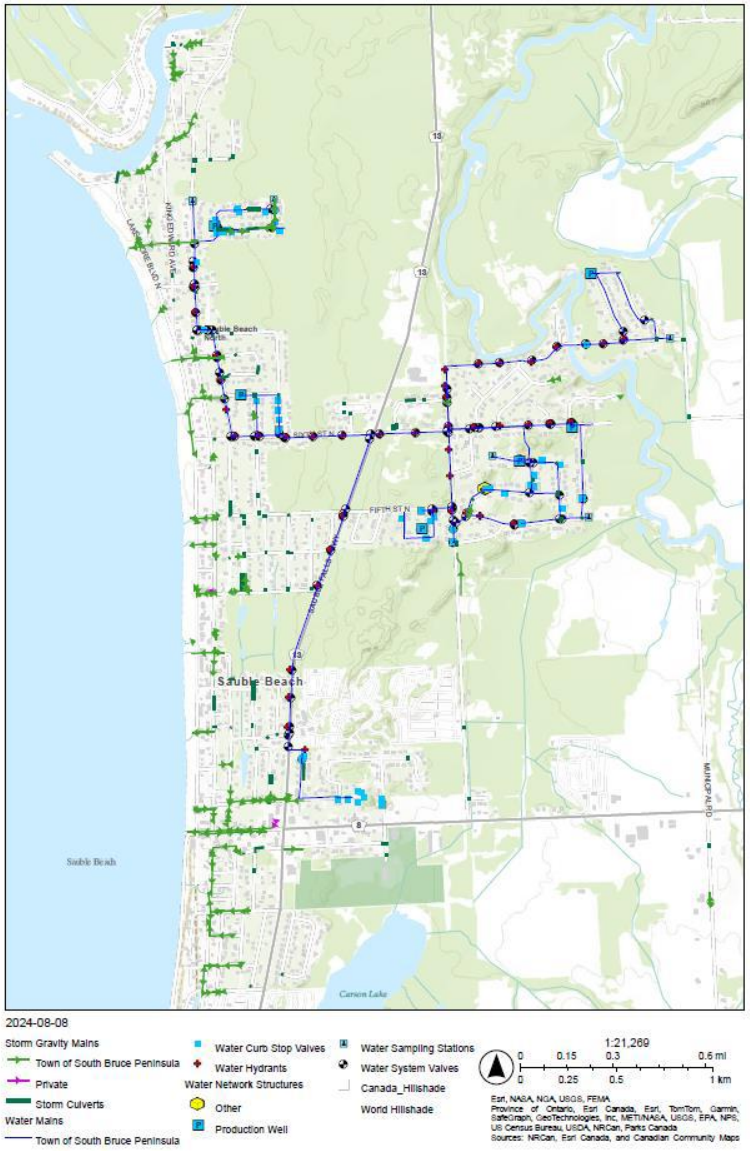
Road Surface Rating Value

Rating	Value
>= 9	1
8	2
7	3
6	4
< 6	5

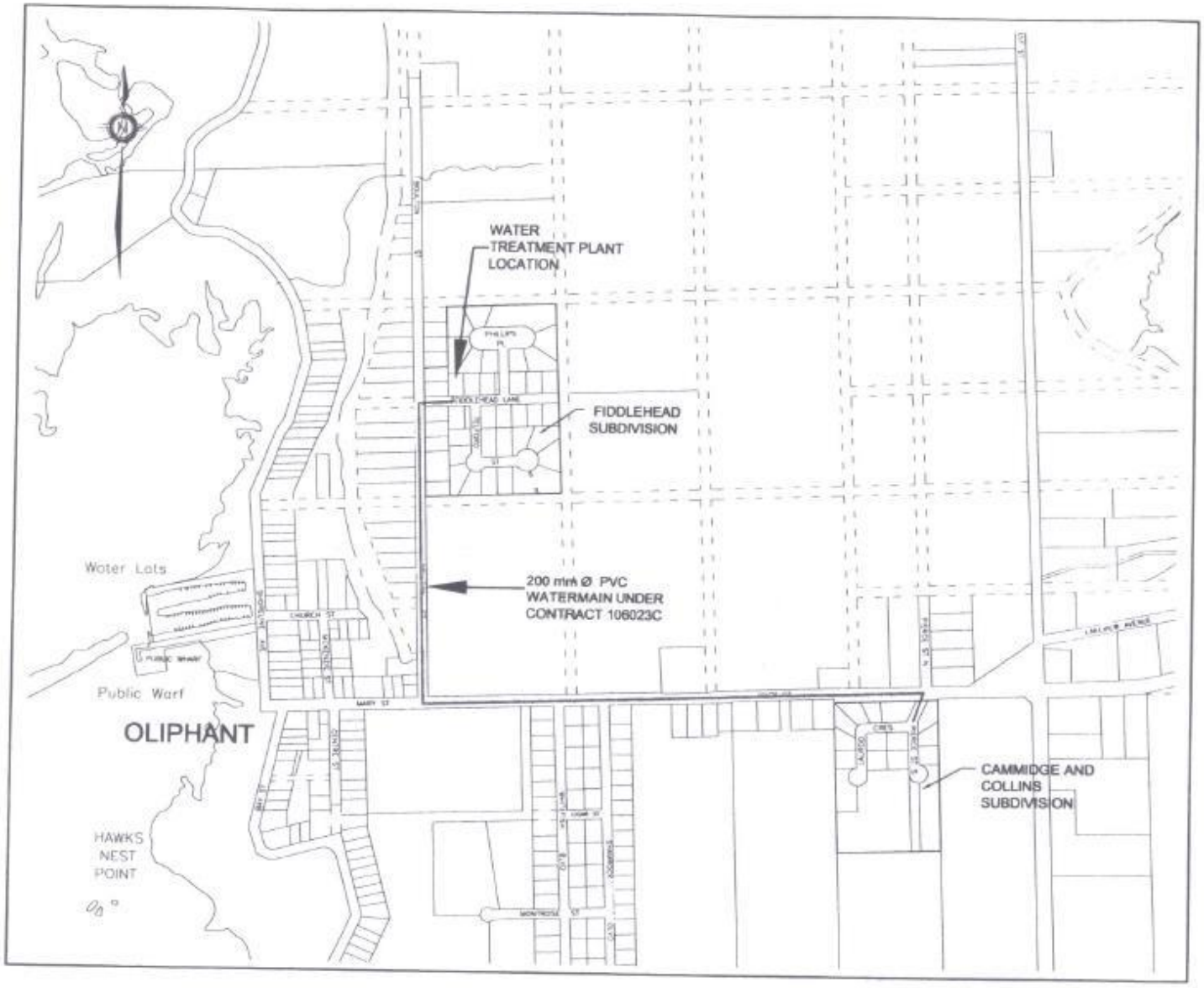
Existing Stormwater, Sewer and Water Network - Wiarton



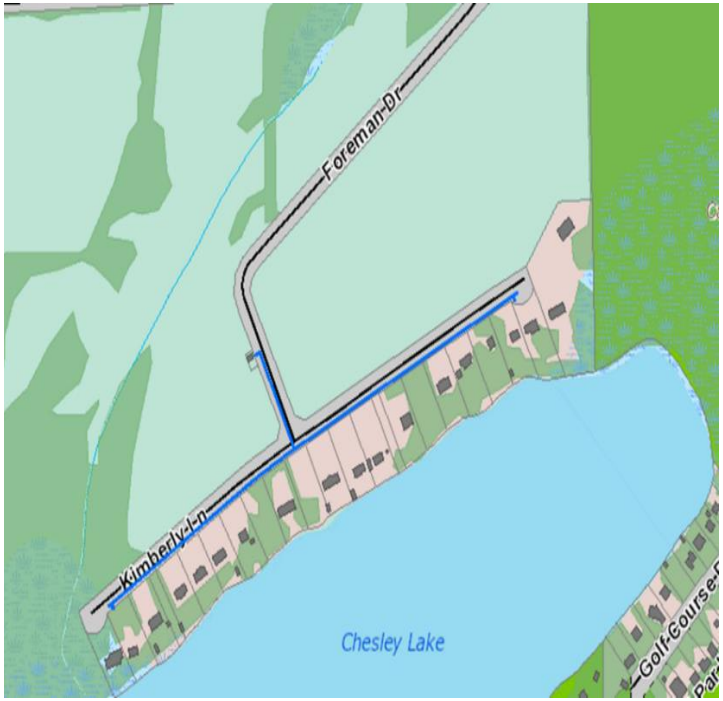
Existing Stormwater, Sewer and Water Network – Sauble Beach



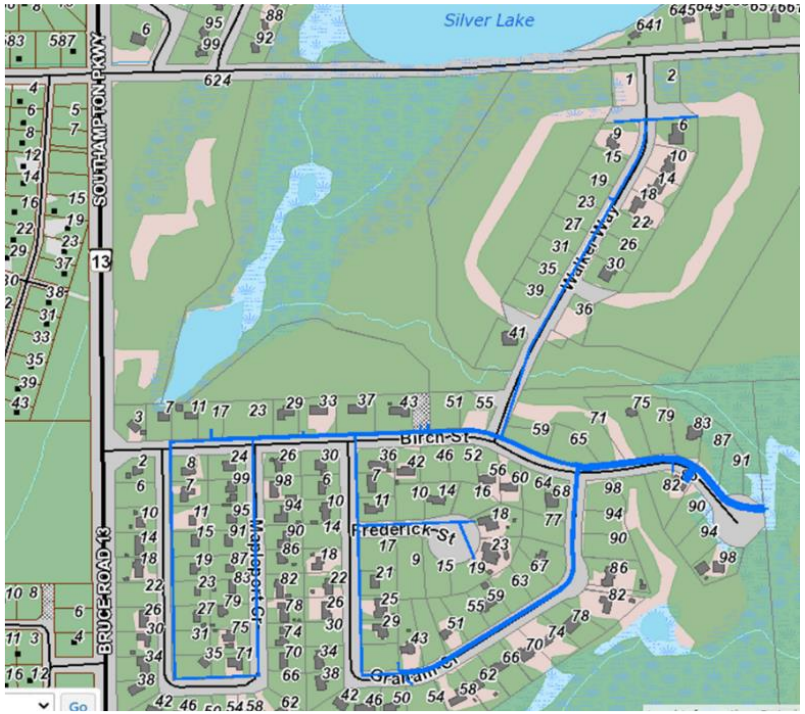
Water Network – Oilphant



Water Network – Foreman



Water Network – Huron Woods



Appendix D – Risk Rating Criteria

Probability of Failure

Asset Category	Risk Criteria	Criteria Weighting	Value/Range	Probability of Failure Score
Bridges & Structural Culverts	Condition	60%	90-100	1
			70-89	2
			50-69	3
			10-49	4
			0-9	5
	Needs Time Frame	40%	>10 Years	2
			6-10 Years	3
			1-5 Years	4
			<1 Years	5
Roads Network (HCB Roads)	Condition	25%	9-10	1
			7-9	2
			6-7	3
			3-6	4
			0-3	5
	Drainage	25%	Good	1
			Fair	3
			Poor	5
	Road Structure	50%	8.5-10	1
			7.5-8.5	2
			6.5-7.5	3
			5.5-6.5	4
			0-5.5	5

Asset Category	Risk Criteria	Criteria Weighting	Value/Range	Probability of Failure Score
Roads Network (LCB Roads)	Condition	25%	9+	1
			7-9	2
			6-7	3
			3-6	4
			0-3	5
	Drainage	25%	Good	1
			Fair	3
			Poor	5
	Road Structure	50%	8.5-10	1
			7.5-8.5	2
			6.5-7.5	3
			5.5-6.5	4
			0-5.5	5
Stormwater Network (Storm Main)	Condition	60%	80-100	1
			60-79	2
			40-59	3
			20-39	4
			0-19	5
	Pipe Material	40%	PVC	1
			Concrete	3
			AC	4
Sanitary Network (Sanitary Mains)	Condition	60%	80-100	1
			60-79	2
			40-59	3
			20-39	4
			0-19	5
	Pipe Material	40%	PVC	1
			Clay	3
			Concrete	3
			AC	4
Water Network (Water Mains)	Condition	50%	80-100	1
			60-79	2
			40-59	3
			20-39	4

Asset Category	Risk Criteria	Criteria Weighting	Value/Range	Probability of Failure Score
			0-19	5
	Soil Corrosion	10%	Low	2
			Medium	3
			High	4
	Breaks/ Segments	20%	0-2	1
			3-4	2
			5-6	3
			7-8	4
			9-10+	5
	Pipe Material	20%	PE	1
			PVC	1
			Copper	4
			Ductile Iron	4
			Cast Iron	5
Buildings Land Improvements Machinery & Equipment Vehicles	Condition	100%	80-100	1
			60-80	2
			40-60	3
			20-40	4
			0-20	5

Consequence of Failure

Asset Category	Risk Classification	Risk Criteria	Value/Range	Consequence of Failure Score
Bridges and Structural Culverts	Economic (60%)	Replacement Cost (100%)	$0-$100,000	1
			$100,001-$250,000	2
			$250,001-$750,000	3
			$750,001-$1,000,000	4
			$1,000,001+	5
	Operational (40%)	Structure Priority Number (100%)	80-100	1
			60-79	2
			40-59	3
			20-39	4
			0-19	5
Roads Network (HCB Roads)	Economic (50%)	Replacement Cost (100%)	$0-$10,000	1
			$10,001-$50,000	2
			$50,001-$150,000	3
			$150,001-$500,000	4
			$500,001-$2,000,000+	5
	Operational (25%)	Traffic Range (100%)	0-49	1
			50-199	2
			200-499	3
			500-999	4
			1000+	5
	Strategic (25%)	Criticality (33%)	None	1
			Fire, Public Works, Commercial, EMO	3
			School, Hospital	5
		Density (33%)	0 – 0.34	1
			0.35- 0.75	2
			0.76 – 1.19	3
			1.20 – 1.93	4
			1.94 - 3	5
		Connectivity (33%)	Dead End	1
			Local Through Road	3
			Conection Road/Truck or Detour Route	5
Roads Network (LCB Roads)	Economic (50%)	Replacement Cost (100%)	$0-$10,000	1
			$10,001-$50,000	2

Asset Category	Risk Classification	Risk Criteria	Value/Range	Consequence of Failure Score
			$50,001-$150,000	3
			$150,001-$500,000	4
			$500,001-$2,000,000+	5
	Operational (25%)	Traffic Range (100%)	0-49	1
			50-199	2
			200-499	3
			500-999	4
	Strategic (25%)	Density (33%)	0-0.34	1
			0.35-0.75	2
			0.76-1.19	3
			1.20-1.93	4
			1.93-3+	5
		Connectivity (33%)	Dead End	1
			Local Through Road	3
			Connecting Road/Truck or Detour Route	5
		Criticality (34%)	None	1
			Fire, Public Works, Commercial, EMO	3
			School, Hospital	5
Stormwater Network (Storm Main)	Economic (70%)	Replacement Cost (100%)	$0-$10,000	1
			$10,001-$20,000	2
			$20,001-$50,000	3
			$50,001-$100,000	4
			$100,001+	5
	Operational (30%)	Pipe Diameter – mm (100%)	0-250mm	1
			250-300mm	2
			300-450mm	3
			450-675mm	4
			>675mm	5
Sanitary Network (Sewer Mains)	Economic (70%)	Replacement Cost (100%)	$0-$10,000	1
			$10,001-$20,000	2
			$20,001-$50,000	3
			$50,001-$100,000	4
			$100,001+	5
	Operational (30%)	Pipe Diameter – mm (60%)	<150mm	2
			200-250mm	3

Asset Category	Risk Classification	Risk Criteria	Value/Range	Consequence of Failure Score
			300-450mm	4
			>525mm	5
		Inflow and Infiltration (I&I) (40%)	Low	2
			Medium	3
			High	4
Water Network (Water Mains)	Economic (60%)	Replacement Cost (100%)	$0-$10,000	1
			$10,001-$20,000	2
			$20,001-$50,000	3
			$50,001-$100,000	4
			$100,001+	5
	Operational (40%)	Pipe Diameter – mm (100%)	<100mm	1
			100-150mm	2
			150-250mm	3
			250-350mm	4
			350mm+	5
Buildings	Economic (100%)	Replacement Cost (100%)	$0-$10,000	1
			$10,001-$25,000	2
			$25,001-50,000	3
			$50,001-$100,000	4
			$100,001 +	5
Land Improvements	Economic (100%)	Replacement Cost (100%)	$0-$10,000	1
			$10.001-$15,000	2
			$15,001-$25,000	3
			$25,001-$50,000	4
			$50,001 +	5
Machinery & Equipment	Economic (100%)	Replacement Cost (100%)	$0-$10,000	1
			$10,001-$20,000	2
			$20,001-$50,000	3
			$50,001-$100,000	4
			$100,001 +	5
Vehicles			$0-$20,000	1

Asset Category	Risk Classification	Risk Criteria	Value/Range	Consequence of Failure Score
	Economic (100%)	Replacement Cost (100%)	$20,001-$50,000	2
			$50,001-$100,000	3
			$100,001-$500,000	4
			$500,001 +	5

Appendix E – Recommendations

General Recommendations

- Continuously review and refine data to update and maintain a complete and accurate dataset
- Develop a data governance policy to ensure Citywide data remains up to date
- Develop a condition assessment strategy with a regularly scheduled update and review process
- Build upon and review optimal lifecycle management strategies for all asset categories
- Develop and regularly review short-term and long-term plans to meet capital requirements. Work towards aligning the Town's Capital Budget with the AMP.
- Continue to measure current levels of service and identify sustainable proposed levels of service for all asset categories

Road Network Recommendations

- Continue to review and refine the road and sidewalk asset inventory to ensure new assets and betterments are reflected and attributes are detailed.
- Pooled assets, streetlights, traffic signals, and regulatory signs, should be reviewed on a regular basis to ensure their accuracy in quantity and cost.
- Consider breaking out pooled streetlights and regulator signs into individual line items so that findings from streetlight and sign evaluations can be accurately applied to assets.
- Continue to update Citywide data based on Road Needs Study every 5 years.
- Review and refine assets Estimated Useful Life on a regular basis as part of a regular review of the TCA policy.
- A comprehensive assessment of the roads and sidewalk network was recently completed and there are plans to conduct a network-wide assessment every 5 years. Prioritize regular cursory inspections in between comprehensive assessments using consistent and standardized condition rating criterion. Develop and conduct condition assessment programs for all other transportation assets (streetlight, traffic signals, and signs).
- Update and refine replacement cost information based on latest tender or project prices, every 2-5 years.
- Evaluate the efficacy of the Town's lifecycle management strategies at regular intervals to determine the impact to cost, performance, and risk.
- Re-evaluate the gravel road maintenance strategy with the goal of achieving the lowest total cost of ownership while meeting desired levels of service.
- Review risk models on a regular basis and adjust according to the availability of additional data

- Ongoing reviews of risk models as staff have also an evolving understanding of the probability and consequences of asset failure.
- Continue to measure current levels of service in accordance with the metrics identified in O. Reg. 588/17 and those metrics that the Town believes to provide meaningful and reliable inputs into asset management planning.

Bridges and Structural Culvert Recommendations

- Continue to review and validate inventory data, assessed condition data and replacement costs for all bridges and structural culverts upon the completion of OSIM inspections every 2 years.
- Update current asset replacement and event costs on a cyclical basis.
- Review and refine assets Estimated Useful Life on a regular basis as part of a regular review of the TCA policy.
- Ensure that bridge condition indices (BCIs) from OSIMs are updated regularly in the inventory to support planning for deterioration modeling.
- Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.
- Maintenance, rehabilitation, and replacement projects recommended by OSIM cannot all be met due to budget constraints. Incorporate recommendations, including timing and cost, in order to develop a realistic capital forecast, that will ensure capital rehabilitation and maintenance is achieved on schedule.
- Continue to measure current levels of service in accordance with the metrics identified in O. Reg. 588/17 and those metrics that the Town believe to provide meaningful and reliable inputs into asset management planning.

Stormwater Network Recommendations

- The Town has been working towards the development of a comprehensive inventory of the Stormwater Network. The Town should prioritize finalizing the inventory and ensuring it’s accuracy.
- Review and refine assets Estimated Useful Life on a regular basis as part of a regular review of the TCA policy.
- The development of a comprehensive inventory should be accompanied by a system-wide assessment of the condition of all assets in the Stormwater Network through CCTV or zoom camera inspections. The collection of CCTV inspection footage should be prioritized to develop a risk-driven and evidence-based maintenance, rehabilitation and replacement program that optimizes the allocation of limited capital funding. Once assessed, condition data is gathered a proactive rehabilitation and replacement program can be developed to manage infrastructure with the goal of achieving the lowest total cost of ownership.
- Review risk models on a regular basis and adjust according to the availability of data.

- Ongoing review of risk models as staff have an evolving understanding of the probability and consequences of asset failure.
- Document and review lifecycle management strategies for the Stormwater Network on a regular basis to achieve the lowest total cost of ownership while maintaining adequate service levels.
- Consider the development of preventative maintenance programs.
- Continue to measure current levels of service in accordance with the metrics that the Town has established in this AMP. Additional metrics can be established as they are determined to provide meaningful and reliable inputs into asset management planning.

Buildings Recommendations

- Continue to review and validate inventory data, assessed condition data and replacement costs for all buildings.
- Consider utilization components in Citywide to connect building components to their primary asset to allow for asset management planning on a componentized level.
- Review and refine assets Estimated Useful Life on a regular basis as part of a regular review of the TCA policy.
- Ensure that the condition ratings from the building condition assessments are entered into the asset inventory on continuous basis to support planning for deterioration modeling.
- Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.
- Maintenance, rehabilitation, and replacement projects recommended by building condition assessments cannot all be met due to budget constraints. Keep on prioritizing capital projects based on health and safety issues, as well as public feedback.

Land Improvements Recommendations

- Continue to review and validate inventory data, assessed condition data and replacement costs for all Land Improvements assets.
- Consider utilizing components within Citywide to attach Parks components to their primary assets for clarity of asset locations.
- Review Citywide inventory of Parks, Playground, and Trail Systems to ensure accuracy in quantities.
- Review and refine assets Estimated Useful Life on a regular basis as part of a regular review of the TCA policy.
- Identify condition assessment strategies for high value and high-risk assets.
- Review assets that have surpassed their estimated useful life to determine if immediate replacement is required or whether these assets are expected to remain in-service. Adjust the service life and/or condition ratings for these assets accordingly.
- Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

- Work towards developing lifecycle models to prolong estimated useful life and optimize funding.

Machinery & Equipment Recommendations

- Continue to review and refine the Machinery and Equipment asset inventory to ensure new assets and betterments are reflected and attributes are detailed.
- The Town does not have a high level of confidence in their Machinery and Equipment data. The Town is working towards ongoing review and refinement of their Machinery and Equipment inventory in Citywide.
- Review and refine assets Estimated Useful Life on a regular basis as part of a regular review of the TCA policy.
- Identify condition assessment strategies for high value and high-risk equipment.
- Review assets that have surpassed their estimated useful life to determine if immediate replacement is required or whether these assets are expected to remain in-service. Adjust the service life and/or condition ratings for these assets accordingly.
- Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Vehicles Recommendations

- Continue to review and validate inventory data, assessed condition data and replacement costs for all Vehicle assets.
- Review and refine assets Estimated Useful Life on a regular basis as part of a regular review of the TCA policy.
- Identify condition assessment strategies for high value and high-risk vehicles.
- Review assets that have surpassed their estimated useful life to determine if immediate replacement is required or whether these assets are expected to remain in-service. Adjust the service life and/or condition ratings for these assets accordingly.
- Review risk models on a regular basis and adjust according to the availability of data.
- Ongoing review of risk models as staff have an evolving understanding of the probability and consequences of asset failure.

Sanitary Network Recommendations

- There are a number of buildings including pumping stations and treatment plants that require further segmentation. Buildings consist of several separate capital components that have unique estimated useful lives and require asset-specific lifecycle strategies. Staff should work towards a component-based inventory of all sanitary buildings to allow for component-based lifecycle planning.
- Review and refine assets Estimated Useful Life on a regular basis as part of a regular review of the TCA policy.
- Identify condition assessment strategies for high value and high-risk Sanitary Network assets.

- Review risk models on a regular basis and adjust according to the availability of new data.
- Ongoing review of risk models as staff have an evolving understanding of the probability and consequences of asset failure.
- A trenchless re-lining strategy is expected to extend the service life of sanitary mains at a lower total cost of ownership and should be implemented to extend the life of infrastructure at the lowest total cost of ownership.
- Evaluate the efficacy of the Town's lifecycle management strategies at regular intervals to determine the impact cost, condition and risk.
- Continue to measure current levels of service in accordance with the metrics that the Town has established in this AMP. Additional metrics can be established as they are determined to provide meaningful and reliable inputs into asset management planning.

Water Network Recommendations

- Develop a more streamlined and refined breakdown of assets within the Water Network. Small equipment can be pooled to improve data accuracy.
- Water treatment plant assets and equipment, assets managed by OCWA, should be refined and cross-referenced with OCWA's inventory on a regular basis to ensure reliability and traceability.
- Review and refine assets Estimated Useful Life on a regular basis as part of a regular review of the TCA policy.
- Identify condition assessment strategies for high value and high-risk water network assets. Update condition ratings of assets that are inspected by OCWA on an annual basis, or when possible.
- Review risk models on a regular basis and adjust according to the availability of new data.
- Ongoing review of risk models as staff have an evolving understanding of the probability and consequences of asset failure.
- Determine the efficacy of the re-lining strategy to rehabilitate pipes that are approaching their end-of-life and continue to replace old cast iron and ductile iron pipes with PVC to address the potential for water main breaks.
- Continue to measure current levels of service in accordance with the metrics that the Town has established in this AMP. Additional metrics can be established as they are determined to provide meaningful and reliable inputs into asset management planning.

Appendix F – TR.17.3 Strategic Asset Management Policy

The Corporation of the Town of South Bruce Peninsula

By-Law Number 61-2019

Being a By-Law to Amend By-Law Number 44-2009 Being a By-Law to Adopt the Manual Governing the Policies and Procedures for the Corporation of the Town of South Bruce Peninsula (Strategic Asset Management Policy)

Whereas Section 8 of the Municipal Act, 2001, c.25, as amended, provides that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

And whereas Section 11 of the Municipal Act, 2001, c.25, as amended, authorizes municipalities to pass by-laws regarding the accountability and transparency of the municipality and its operations;

And whereas Section 270 (1) 5 of the Municipal Act, 2011, c.25, as amended authorizes the municipality to adopt and maintain policies with respect to the manner in which the municipality will try to ensure that it is accountable to the public for its actions, and the manner in which the municipality will try to ensure that its actions are transparent to the public;

And whereas the Council of the Corporation of the Town of South Bruce Peninsula adopted a Municipal Policy Manual and desires to amend said by-law by adding a policy regarding strategic asset management.

Now therefore the Council of the Corporation of the Town of South Bruce Peninsula enacts as follows:

1) **That** the policy named Strategic Asset Management Policy and numbered TR.17.3 and as attached hereto, shall hereby be included in the Municipal Policy Manual.

2) **That** all by-laws and polices inconsistent with this by-law are hereby repealed and replaced with this by-law.

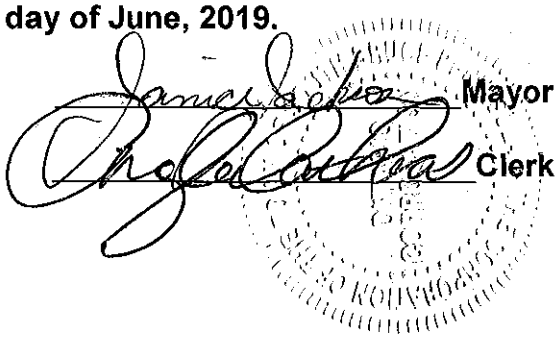
3) **That** this by-law shall come into full force and effect upon the final passing thereof.

Read a first and second time this 18th day of June, 2019.

Mayor

Clerk

Read a third time and finally passed this 18th day of June, 2019.



Mayor

Clerk

Strategic Asset Management Policy

1.0 Purpose

This strategic asset management policy provides a framework for the development and implementation of the asset management program at the Town of South Bruce Peninsula. This is the Town's first iteration of an asset management policy.

It is produced in compliance with Ontario Regulation (O. Reg.) 588/17 of the *Infrastructure for Jobs and Prosperity Act, 2015.* Upon adoption, the policy will formally embed asset management at the Town and ensure its continuity across different councils.

Sound asset management ensures that local infrastructure provides desired service levels in the most cost-effective manner, while mitigating risk. It requires a cross-functional team of experts, senior management buy-in, and continuous commitment by council. This policy will guide the consistent implementation of evidence-based **asset management** across the organization. As a result, it will support the delivery of sustainable community services now and in the future.

Linking service outcomes to infrastructure investment decisions will assist the Town in focusing on service, rather than budget-driven asset management approaches. This policy demonstrates an organization-wide commitment to the good stewardship of municipal infrastructure assets, and to improved accountability and transparency to the community through the adoption of best practices regarding asset management planning.

2.0 Background

The Town of South Bruce Peninsula is responsible for providing a range of essential infrastructure services to the community, including transportation networks, water treatment and distribution, wastewater collection and treatment, and stormwater management. To deliver these services to its residents, the Town owns and manages a diverse municipal infrastructure asset portfolio of roads, bridges, culverts, and underground infrastructure.

Together, the replacement cost of the Town's infrastructure assets is valued at over $216 million. As the social, economic, and environmental wellbeing of the community depends on the reliable performance of these assets, it is critical to implement a systematic, sustainable approach to their management.

Asset management is such an approach, and refers to the set of policies, practices and procedures that allow an organization to realize maximum value from its municipal infrastructure assets. Asset management allows organizations to make informed decisions regarding the planning, acquiring, operating, maintaining, renewing, replacing and disposing of municipal infrastructure assets through a wide range of **lifecycle activities**.

Furthermore, it is an organization-wide process that involves the coordination of activities across multiple departments and service areas such as Public Works, Community Services, Corporate Services and Emergency Services. As such, it is useful to adopt a structured approach to outlining the activities, roles, and responsibilities for key members of the organization, as well as the key principles that should guide all asset management decision-making.

A comprehensive and holistic asset management program will support cost-effective delivery of expected **levels of service** and ensure that due regard and process are applied to the long-term management and stewardship of all municipal infrastructure assets. In addition, it will align the Town with provincial and federal standards and regulations such as the *Infrastructure for Jobs and Prosperity Act, 2015* and Ontario Regulation 588/17, enabling the organization to take full advantage of available grant funding opportunities.

The approval of this policy is an important step towards integrating the Town's strategic mission, vision and goals with its asset management program, and ensuring that critical municipal infrastructure assets and vital services are maintained and provided to the community in a reliable, sustainable manner.

3.0 Alignment with the Town's Strategic Direction

This asset management policy aligns with *Creating Our Future*, the Town of South Bruce Peninsula's *Community Based Strategic Plan 2012*. The *Plan* was most recently updated in December 2016 and identifies five Goals as part of the Town's vision. Development of an asset management program will support the following specific goals listed in the *Plan:*

Goal 2: Healthy and Vibrant Communities

The Town of South Bruce Peninsula provides and supports important services that contribute to healthy and vibrant communities. These include recreation, health and social services, volunteer and community groups, housing, as well as arts and culture—the success of which depends on reliable infrastructure. The asset management policy will support this goal, especially the following Action items in Objective 2:

- **Action 2.1.3**: Develop a recreational master plan to support the current and future population recreation and leisure needs
- **Action 2.1.4**: Evaluate options to increase connectivity for non-vehicular and active transportation options (i.e., hiking, biking, and walking trails)
- **Action 2.1.5**: Continue further research and redevelopment initiatives for Bluewater Park in Wiarton

Goal 3: Sustainable Infrastructure and Built Environment
This goal promotes managing and developing infrastructure to meet the needs of the current population while planning for future generations. It encompasses all municipal infrastructure and community assets, including roads and bridges, water and wastewater systems, and municipally owned property (buildings and land). The *Plan* also identified revitalization of its four urban centers with identifiable downtowns—Sauble Beach, Wiarton, Hepworth, and Allenford.

The asset management policy will support both core Objectives in Goal 3 as well as the associated Action items:

- **Objective 3.1**: Development of local infrastructure that is viable, progressive and sustainable through a diverse range of opportunities and partnerships
- **Objective 3.2**: Continue to undertake revitalization initiatives to establish vibrant areas

Reliable infrastructure is also the foundation of a strong and adaptable economy. It contributes to attracting and retaining a skilled labour force, encourages investments from outside the Town, while creating growth opportunities for existing local businesses. The asset management policy will support the Town in developing and executing a strong economic development program, including its downtown revitalization efforts.

In addition to the *Community Based Strategic Plan 2012*, this policy is also aligned with other key documents and plans at the Town, including:

1. *Community Improvement Plan for the Urban Areas of Allenford, Hepworth, Sauble Beach and Wiarton*:

2.2 Goal

To Improve facilities and infrastructure in the Town's four urban areas that contribute to community health, social, environmental and economic priorities.

2. *Downtown Revitalization Strategic Plan*

2.1 Vision Statement
The Vision of the Economic Development Committee and the Town of South Bruce Peninsula is to have safe and vibrant downtown areas that are sustainable and that promote and preserve their heritage whereby creating a sense of community pride.

3. *Energy Management Plan 2019-2023*

Goal
We will continuously improve the energy efficiency of our facilities and processes to reduce our operating costs, our energy consumption and the associated greenhouse gas emissions. We will provide our staff with the equipment and training required to reduce energy consumption and demand in the facilities they manage. We will continue to implement energy saving retrofits in facilities where it makes sense. We will ensure that renovation and construction projects embody best practices in energy efficient design.

4.0 Policy Statement

To guide the Town, the following policy statements have been developed:

1. The Town will implement an enterprise-wide asset management program through all departments. The program will promote lifecycle and risk management of all municipal infrastructure assets, with the goal of achieving the lowest total cost of ownership while meeting desired levels of service.

2. The Town will implement continuous improvement protocols and adopt best practices regarding asset management planning, including:

   i. Complete and accurate asset data;
   ii. Condition assessment protocols;
   iii. Risk and criticality models;

iv. Whole lifecycle management;
v. Financial strategy development;
vi. Level of service framework

3. The Town will develop and maintain an asset inventory of all municipal infrastructure assets which includes a unique ID, description, location information, value (both historical and replacement), performance characteristics and/or condition, estimated remaining life and estimated repair, rehabilitation or replacement date; and estimated cost repair, rehabilitation or replacement costs.

4. The Town will develop an **asset management plan** that incorporates all municipal infrastructure assets that meet the **capitalization thresholds** outlined in the organization's Tangible Capital Asset Policy. The asset management plan will be updated at least every five years in accordance with O. Reg. 588/17 requirements, to promote, document and communicate continuous improvement of the asset management program. The Town most recently completed an asset management plan in December 2016.

   For management purposes, it can be advantageous to inventory, track, and document municipal infrastructure assets that fall below the relevant capitalization thresholds. Recognizing that it may be beneficial to include these types of assets in the asset management plan, the Town will consider incorporating such assets at its own discretion, based on the objective of sustainably managing municipal infrastructure assets.

5. The Town will integrate asset management plans and practices with its long-term financial planning and budgeting strategies. This includes the development of financial plans that determine the level of funding required to achieve short-term operating and maintenance needs, in addition to long-term funding needs to replace and/or renew municipal infrastructure assets based on full lifecycle costing.

6. The Town will explore innovative funding and service delivery opportunities, including but not limited to grant programs, public-private partnerships (P3), alternative financing and procurement (AFP) approaches, optimizing the use of debt, appropriate mix of development charges, and shared provision of services as feasible.

7. The Town will consider the risks and vulnerabilities of municipal infrastructure assets to climate change and the actions that may be required including, but not limited to, anticipated costs that could arise from these impacts, adaptation opportunities, mitigation approaches, disaster planning and contingency funding. Impacts may include matters relating to operations, levels of service and lifecycle management.

8. The Town will ensure that all asset management planning is aligned with any of its financial plans, including the following existing financial plans:

    i. Financial plans related to the Town's water assets including any financial plans prepared under the *Safe Drinking Water Act, 2002*;
    ii. Financial plans related to the Town's wastewater assets.

9. The Town will align all asset management planning with the Ontario's land-use planning framework, including any relevant policy statements issued under section 3(1) of the *Planning Act*; shall conform with the provincial plans that are in effect on that date; and, shall be consistent with all municipal official plans.

10. The Town will coordinate planning for asset management, where municipal infrastructure assets connect or are interrelated with those of its neighbouring municipalities or jointly-owned municipal bodies wherever viable and beneficial.

11. The Town will develop processes and provide opportunities for municipal residents and other interested parties to offer input into asset management planning wherever and whenever possible.

12. The Strategic Asset Management Policy should be reviewed and, if necessary, updated at least every five years.

13. Council will conduct an annual review of the Town's asset management progress on or before July 1 in each year, starting the year after the Town's asset management plan is completed to meet the requirements outlined in O. Reg. 588/17

    The annual review must address:

i. The Town's progress in implementing its asset management plan;
ii. Any factors impeding the Town's ability to implement its asset management plan;
iii. A strategy to address the factors identified as impeding the Town's ability to implement its asset management plan

14. The Town will post its asset management policy and asset management plan on a website that is available to the public, and will provide a copy of the policy and plan to any person who requests it.

5.0 Roles and Responsibilities

The development and continuous support of the Town's asset management program requires a wide range of duties and responsibilities. The following outline the stakeholders responsible for these tasks:

1. **Council**
   i. Represent the needs of community;
   ii. Approve the asset management policy and direction of the asset management program;
   iii. Maintain adequate organizational capacity to support the core practices of the asset management program;
   iv. Prioritize effective stewardship of assets in adoption and ongoing review of policy and budgets;
   v. Establish and monitor levels of service;
   vi. Approve the asset management plan by resolution;
   vii. Review the Town's asset management progress annually

2. **Senior Management Team**
   i. Development of policy, policy updates, and operational procedures;
   ii. Provide corporate oversight to goals and directions and ensure the asset management program aligns with the Town's strategic plan;
   iii. Ensure that adequate resources are available to implement and maintain core asset management practices;
   iv. Provide departmental staff coordination;
   v. Develop and monitor levels of service and make recommendations to Council;
   vi. Endorse the asset management plan

vii. Track, analyze and report on asset management program progress and results.

3. **Executive Lead (Director of Corporate Services/Treasurer)**
   i. Manage policy and policy updates;
   ii. Provide organization-wide leadership in asset management practices and concepts;
   iii. Provide departmental staff coordination;
   iv. Monitor levels of service;
   v. Coordinate and track asset management program implementation and progress;
   vi. Endorse the asset management plan.

4. **Departmental Staff**
   i. Use the new business processes and technology tools developed as part of the asset management program;
   ii. Participate in implementation task teams to carry-out asset management activities;
   iii. Implement and maintain levels of service;
   iv. Provide support and direction for asset management practices within their department;
   v. Track and analyze asset management program progress and results

6.0 Key Principles

The Town shall consider the following principles as outlined in section 3 of the *Infrastructure for Jobs and Prosperity Act, 2015*, when making decisions regarding asset management:

1. Infrastructure planning and investment should take a long-term view, and decision-makers should take into account the needs of citizens by being mindful of, among other things, demographic and economic trends.

2. Infrastructure planning and investment should take into account any applicable budgets or fiscal plans.

3. Infrastructure priorities should be clearly identified in order to better inform investment decisions respecting infrastructure.

4. Infrastructure planning and investment should ensure the continued provision of core public services, such as health care and education.

5. Infrastructure planning and investment should promote economic competitiveness, productivity, job creation and training opportunities.

6. Infrastructure planning and investment should ensure that the health and safety of workers involved in the construction and maintenance of infrastructure assets is protected.

7. Infrastructure planning and investment should foster innovation by creating opportunities to make use of innovative technologies, services and practices, particularly where doing so would utilize technology, techniques and practices developed in Ontario.

8. Infrastructure planning and investment should be evidence-based and transparent, and, subject to any restrictions or prohibitions under an Act or otherwise by law on the collection, use or disclosure of information,
   i. investment decisions respecting infrastructure should be made on the basis of information that is either publicly available or is made available to the public, and
   ii. information with implications for infrastructure planning should be shared between the Town and broader public sector entities, and should factor into investment decisions respecting infrastructure.

9. Where provincial or municipal plans or strategies have been established in Ontario, under an Act or otherwise, but do not bind or apply to the Town, as the case may be, the Town should nevertheless be mindful of those plans and strategies and make investment decisions respecting infrastructure that support them, to the extent that they are relevant.

10. Infrastructure planning and investment should promote accessibility for persons with disabilities.

11. Infrastructure planning and investment should minimize the impact of infrastructure on the environment and respect and help maintain ecological and biological diversity, and infrastructure should be designed to be resilient to the effects of climate change.

12. Infrastructure planning and investment should endeavour to make use of acceptable recycled aggregates.

13. Infrastructure planning and investment should promote community benefits, being the supplementary social and economic benefits arising from an infrastructure project that are intended to improve the well-being of a community affected by the project, such as local job creation and training opportunities, improvement of public space within the community, and any specific benefits identified by the community.

7.0 Definitions

1. **Asset management** – the coordinated activity of an organization to realize value from assets. It considers all asset types, and includes all activities involved in the asset's life cycle from planning and acquisition/creation; to operational and maintenance activities, rehabilitation, and renewal; to replacement or disposal and any remaining liabilities. Asset management is holistic and normally involves balancing costs, risks, opportunities and performance benefits to achieve the total lowest lifecycle cost for each asset.

2. **Asset management plan (AMP)** – documented information that specifies the activities, resources, and timescales required for an individual asset, or a grouping of assets, to achieve the organization's asset management objectives.

3. **Capitalization thresholds** – the minimum value of municipal infrastructure assets at or above which they must be capitalized. Assets below this value are expensed.

4. **Green infrastructure asset** – an infrastructure asset consisting of natural or human-made elements that provide ecological and hydrological functions and processes and includes natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces and green roofs.

5. **Level of service** – parameters, or combination of parameters, which reflect social, political, environmental and economic outcomes that the organization

delivers. Parameters can include, but are not necessarily limited to, safety, customer satisfaction, quality, quantity, capacity, reliability, responsiveness, environmental acceptability, cost, and availability.

6. **Lifecycle activities** – activities undertaken with respect to a municipal infrastructure asset over its service life, including constructing, maintaining, renewing, operating and decommissioning, and all engineering and design work associated with those activities.

7. **Municipal infrastructure asset** – an infrastructure asset, including a green infrastructure asset, directly owned by a municipality or included on the consolidated financial statements of a municipality, but does not include an infrastructure asset that is managed by a joint municipal water board.

Appendix G – TR.17.2 Tangible Capital Assets Policy

The Corporation of the Town of South Bruce Peninsula

By-Law Number 136-2020

Being a By-Law to Amend By-Law Number 44-2009 Being a By-Law to Adopt the Manual Governing the Policies and Procedures for the Corporation of the Town of South Bruce Peninsula (Tangible Capital Asset Policy)

Whereas Section 8 of the Municipal Act, 2001, c.25, as amended, provides that the powers of a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

And whereas Section 11 of the Municipal Act, 2001, c.25, as amended authorizes municipalities to pass by-laws regarding the accountability and transparency of the municipality and its operations;

And whereas Section 270 (1) 5 of the Municipal Act, 2001, c.25, as amended authorizes the municipality to adopt and maintain policies with respect to the manner in which the municipality will try to ensure that it is accountable to the public for its actions, and the manner in which the municipality will try to ensure that its actions are transparent to the public;

And whereas the Council of the Corporation of the Town of South Bruce Peninsula adopted a Municipal Policy Manual and desires to amend said by-law by making amendments to the Tangible Capital Assets Policy.

Now therefore the Council of the Corporation of the Town of South Bruce Peninsula enact as follows:

1) **That** Policy TR.17.2 Tangible Capital Assets Policy be amended as attached hereto and shall form part of the Municipal Policy Manual.

2) **That** all by-laws and policies inconsistent with this by-law are hereby repealed and replaced with this by-law.

3) **That** this by-law shall come into full force and effect upon the final passing thereof.

Read a first and second time this 15th day of December, 2020.

Mayor

Clerk

Read a third time and finally passed this 15th day of December, 2020.

Mayor

Clerk

Tangible Capital Assets Policy

PURPOSE

To ensure that tangible capital assets are recorded in accordance with generally accepted accounting principles as pronounced by the Canadian Institute of Chartered Accountants and the Public Sector Accounting Board.

SCOPE

This policy shall apply to all departments of the Town of South Bruce Peninsula.

POLICY:

This policy prescribes the accounting treatment for tangible capital assets so that users of the financial statements are provided with information about the investment in linear infrastructure, property, buildings and equipment and the changes in such investment. The principal issues in accounting for tangible capital assets are the recognition of the assets, the determination of their carrying amounts and amortization charges and the recognition of any related impairment losses.

This policy will ensure that:

- tangible capital assets are recorded and reported appropriately and accurately
- there is an accurate accounting of the use and investment in tangible capital assets
- management is provided with meaningful data upon which informed decisions can be made, and
- there is conformity with public sector generally accepted accounting principles.

Before an item is recognized as a tangible capital asset for financial reporting purposes, it must satisfy two criteria:

1) It must satisfy the definition of a tangible capital asset.
2) It must have a cost or other value that can be reliably measured.

All assets with an individual total value of less than $5,000 shall be expensed in the year of acquisition and charged against the operating budget of the respective department, with the exception of those meeting the requirements of pooled assets as defined within this Policy.

Studies and other initiatives that do not relate directly to the acquisition of a tangible capital asset shall not be capitalized, but expensed in the year(s) in which they occur.

In the event of disagreement in the interpretation and implementation of these policies, the Director of Financial Services shall make the final decision.

Tangible Capital Assets Policy

1 DEFINITIONS

Amortization

The accounting process of allocating the cost of a tangible capital asset, less any residual value, to operating periods as an expense over the useful life of the asset. This is also referred to as depreciation accounting, as it demonstrates the value of an asset declining over the life of the asset as its useful life is depleted.

Assets

Assets are economic resources controlled by the Town as a result of past transactions or events and from which future economic benefits may be obtained.

Betterments

Subsequent expenditures on tangible capital assets that:

a) increase previously assessed service capacity,
b) lower associated operating costs,
c) extend the useful life of the asset.

Any other expenditure would be considered a repair or maintenance and expensed in the period.

Capitalization Thresholds

Capitalization thresholds are minimum amounts that expenditures must exceed before they are capitalized as tangible capital assets. Items not meeting the threshold are recorded as expenses in the period.

Capital Lease

A capital lease is a lease with contractual terms that transfers substantially all the benefits and risks inherent in ownership of the property to the Town. For substantially all of the benefits and risks of ownership to be transferred to the Lessee, one or more of the following conditions must be met:

a) There is reasonable assurance that the Town will obtain ownership of the leased property by the end of the lease term.

b) The lease term is of such duration that the Town will receive substantially all of the economic benefits expected to be derived from the use of the leased property over its life span.
c) The lessor would be assured of recovering the investment in the leased property and of earning a return on the investment as a result of the lease agreement.

Cost

Cost is the gross amount of consideration given up to acquire, construct or develop a tangible capital asset. Gross cost includes all costs "directly attributable" to the acquisition, construction or development of the tangible capital asset. This includes installing the asset at the location and in the condition necessary for its intended use. Examples of directly attributable costs are:

- costs of site preparation,
- initial delivery and handling costs,
- installation and assembly costs,
- costs of testing that the asset is functioning properly prior to or during installation,
- professional fees,
- all non-refundable taxes and duties, freight and delivery charges.

Cost of land includes purchase price plus legal fees, land registration fees, transfer taxes, etc.

Costs would include any costs to make the land suitable for intended use, such as pollution mitigation, demolition and site improvements that become a part of the land.

Non-financial Assets

Non-financial assets are acquired, constructed or developed assets that do not normally provide resources to discharge existing liabilities, but instead:

a) are normally employed to deliver government services;
b) may be consumed in the normal course of operations; and
c) are not for sale in the normal course of operations.

Pooled Assets

Assets that have a unit value below the capitalization threshold but have a material value as a group. They are recorded as a single asset with one combined value. Although recorded in the financial records as a single item, each unit may be recorded in the asset sub-ledger for monitoring and control of its use and maintenance. Examples include;

- Computers and peripherals

- Fire hydrants
- Firefighter's uniforms
- Streetlights

Residual Value

Residual value is the amount that the Town expects to be able to realize on disposal of a capital asset at the end of its useful life.

Straight Line Basis

This is a method of amortization in which the periodic charge is computed by dividing the amortization base (cost) by the estimated number of periods or useful life.

Tangible Capital Assets

Tangible capital assets are non-financial assets having physical substance that:

a) are held for use in the supply of goods and services, for rental to others, for administrative purposes or for the development, construction, maintenance or repair of other tangible capital assets;
b) have useful economic lives extending beyond an accounting period;
c) are used on a continuing basis; and
d) are not for resale in the ordinary course of operations.

Useful Life

A tangible capital assets useful life is the time duration over which benefits are expected to be derived from the asset. It is not to be confused with the assets physical life.

2 ASSET CLASSIFICATION

The following principles shall be considered when determining the level of detail to be used in recording tangible capital assets:

a) Information necessary for an asset management system,
b) Factors determining further classification are:
    i. Different useful life
    ii. Variable timing of construction; for example, a road may have segments constructed at different time intervals

iii. Better data for costing, determining user fees and analyzing performance of departments, divisions or business units.

2.1 Major Classification

A major classification refers to a group of tangible capital assets that is significantly different in design and use.

Land – includes land purchased or acquired for value for parks and recreation, building sites, infrastructure (highways, dams, bridges, tunnels, etc.) and other program use, but not land held for resale.

Land Improvements – all improvements of a permanent nature to land such as parking lots, landscaping, lighting, pathways, and fences.

Buildings – permanent, temporary or portable building structures, such as offices, garages, warehouses, and recreation facilities intended to shelter persons and/or goods, machinery, equipment and working space.

Engineered Structures – permanent structural works such as roads, bridges, canals, dams, water and sewer. Further breakdown is defined for Minor Classifications in Section 2.2.

Machinery and Equipment – equipment that is heavy equipment for constructing infrastructure, smaller equipment in buildings and offices, furnishings, computer hardware, and software. This class does not include stationary equipment used in the engineered structure class.

Vehicles – rolling stock that is used primarily for transportation purposes.

Cultural and Historical Assets – works of art and historical treasures that have cultural, aesthetic or historical value that are worth preserving perpetually. These assets are not recognized as tangible capital assets in the financial statements, but the existence of such property should be disclosed. Buildings declared as heritage sites may be included in the asset classification.

2.2 Minor Classification – Engineered Structures

A minor classification is a classification within a major class that has unique characteristics.

Roadway System – assets intended for the direct purpose of vehicle or pedestrian travel. Includes roads, bridges, parkades, lights, sidewalks, and signage.

Water System – systems for the provision of water through pipes or other constructed convey. It is normally comprised of assets for the intake, distribution, storage and treatment of potable water. It may also be comprised of assets required to distribute non-potable water. Includes mains, services, pump and lift stations, plants and equipment, reservoirs and fire hydrants.

Wastewater System – wastewater is defined as water that has been used for household, business and other purposes, which flows from private plumbing systems to public sanitary sewers and on to a treatment plant. This system is comprised of assets used for the collection and treatment of non-potable water intended for return to a natural water system or other originating water source used for environmentally approved purposes. Included mains, services, pump and lift stations, plants and equipment and lagoons.

Storm System – assets used for the collection, storage and transfer of water as a result of rain, flood or other external source to a natural water system. Includes mains, services, catch basins, pump and lift stations, outfalls and retention ponds.

2.3 Subclass Classification

Subclass – a further classification that may be required due to unique tangible capital asset criteria, applications, methodologies, and asset lives. There is the option to classify further into subclass one, subclass two, subclass three, etc.

3 VALUATION

Capitalization shall be deemed to occur at the time of transfer of ownership from the Vendor to the Town.

Tangible capital assets should be recorded at cost plus all ancillary charges necessary to place the asset in its intended location and condition for use.

Appendix A – Capital Asset Addition Form

3.1 Purchased Assets

Purchased assets are recorded at cost.

When two or more assets are acquired for a single purchase price, it is necessary to allocate the purchase price to the various assets acquired. Allocation should be based

on the fair value of each asset at the time of acquisition or some other reasonable basis if fair value is not readily determinable.

Road allowances shall be capitalized at $1 per block or segment.

3.2 Acquired, Constructed, or Developed Assets

All costs, directly attributable to the acquisition, construction or development of the asset are capitalized. Carrying costs such as internal design, inspection, administrative and other similar costs may be capitalized. Capitalization of general administrative overheads is not allowed.

Capitalization of carrying costs ceases when no construction or development is taking place or when the tangible capital asset is ready for use.

Capitalization occurs on the earlier of the day that the asset goes into service or that ownership, responsibility, and control is transferred to the Town.

3.3 Capitalization of Interest Costs

Borrowing costs incurred by the acquisition, construction and production of an asset that takes a substantial period of time to get ready for its intended use should be capitalized as part of the cost of that asset.

Capitalization of interest costs should commence when expenditures are being incurred, borrowing costs are being incurred and activities that are necessary to prepare the asset for its intended use are in progress. Capitalization should be suspended during periods in which active development is interrupted. Capitalization should cease when substantially all of the activities necessary to prepare the asset for its intended use are complete.

3.4 Assets by Capital Lease

When a capital lease is recorded, the asset is treated as an acquisition of a capital asset and the recognition of an offsetting liability. A lease may be recorded as an operating lease when the net present value of the future minimum lease payments or fair value, whichever is less, is less than $5,000.

3.5 Donated or Contributed Assets

The cost of donated or contributed assets that meet the criteria for recognition is equal to the fair value at the date of construction or contribution. Fair value may be

determined using market or appraisal values. Cost may be determined by estimate of replacement. Ancillary costs should be capitalized.

3.6 Original Value of Asset is Unknown

In the case where historical records cannot be located in order to value an asset, it is necessary to develop costs in today's dollars and then discount them back to the date the asset was constructed/acquired. In the case where the year the asset was constructed or acquired is unknown, an estimate of the number of years remaining and the current value of the asset, working backward an estimated year and value can be determined.

3.7 Exact Acquired Date of Asset is Unknown

Where there is a record of the year an asset was acquired, but no record of the exact date, the acquired date of the asset is to be July 1st of that year to ensure the maximum deviation from the actual acquired date is six (6) months or less.

4 CAPITALIZATION THRESHOLDS

The capital asset and depreciation guideline is based on materiality of Tangible Capital Assets for the Town of South Bruce Peninsula and intended to co-ordinate with capital budgeting item thresholds.

Land	Capitalize Only
Land Improvement	$10,000
Building	$10,000
Machinery & Equipment	$ 5,000
Vehicles	$10,000
Linear Infrastructure	$25,000

5 AMORTIZATION

The cost, less any residual value, of a tangible capital asset with a limited life should be amortized over its useful life in a rational and systematic manner appropriate to its nature and use. The amortization method and estimate of useful life of the remaining unamortized portion should be reviewed on a regular basis and revised when the appropriateness of a change can be clearly demonstrated.

Useful life is normally the shortest of the asset's physical, technological, commercial or legal life.

The Town will use a straight line method for calculating the annual amortization.
Land and land components of tangible capital assets, shall be recorded at cost and not amortized, landfill sites excepted.

Tangible capital assets shall be deemed to have no residual value for the purposes of calculating amortization. Any eventual recovery will be recorded as a "gain on sale of asset."

Municipal departments are responsible for establishing an appropriate estimated useful life for assets acquired within the guidelines of Appendix A.

In the year of acquiring an asset, putting an asset into service or disposing of an asset, the Town shall record 50% of the annual amortization amount. Other generally accepted amortization methods may be consistently applied.

The useful life or amortization method of an asset may require revision during its life due to significant events as outlined in PS 3150.30. The effect of this change is a "change in estimate" and would be recorded in the year of revision and future years. Therefore, no adjustments are made for prior periods. Any such changes are disclosed in the financial statements.

There are also significant events that may indicate a need to revise the estimate of the remaining useful life of a tangible capital asset. Some of these examples are:

- A material change to how much the asset is used
- A change in what it is used for
- Removal from service for an extended period of time
- Damaged – physically
- Significant technical improvements
- Obsolescence
- Change in the demand of the asset
- Environmental or legal effects on the item
- Etc.

Appendix A – Maximum Useful Life

6 RESPONSIBILITY OF DEPARTMENTS

When tangible capital assets are acquired, taken out of service, destroyed or replaced due to obsolescence, scrapping or dismantling, the department head or designate must complete the appropriate notification form and forward to the Asset Management

Analyst. The Finance Department is responsible for adjusting the asset registers and accounting records recording a loss/gain on disposal.
Forms for notification of asset acquisitions and disposals will be updated each year by Finance to as to best collect all relevant and useful data applicable to maintaining an optimized asset registry.

7 POLICY REVIEW

This policy shall be reviewed every five years.

Tangible Capital Assets

Maximum Useful Life in Years as of 2020

Land Improvements	
Parking Lot	
- gravel	15
-asphalt	25
Playground Structures	15
Dock	
- permanent	50
- floating	10
Landscaping	25
Retaining Walls	20
Fountains	10
Heated Pad	25
Fences	20
Sprinkler Systems	15
Signs (Landmark/ Destination)	25
Tennis Courts	20
Ball Diamonds	20
Skate Park	25
Running Tracks	15
Outdoor Lighting	15
Bike/ Jogging Paths	
-gravel	15
-asphalt	20
Landfill	
Transfer Stations	25
Buildings	
Permanent Structures	
- Frame	50
- Metal	50
- Concrete	50
Portable Structures	
- Metal	25
- Frame	25
Leasehold Improvements	variable

Engineered Structures

Roadway Systems	
- Bridges	variable
- Curb & Gutter	25
Roads & Streets	
Lanes/ Alleys	
- HCB	20
- LCB	15
- Gravel	15
Local/ Collector/ Arterial/ Major Arterial	
- Concrete	25
- HCB	20
- LCB	10
- Chip Seal	10
- Gravel	20
Granual Road Base	40

Road Signs

Traffic Control	15
Information	10

Lights

Street	25
Traffic	25

Guard Rails

Rails	25

Sidewalks

Sidewalks	20
Sidewalk ramps	20

Water System

Distribution System	
- Mains	
- Metallic Pipe	40
-PVC	65
- Services	65
Pump, Lift, and Transfer Stations	45
Plants and Facilities	
- Structures	45
- Treatment Equipment	
-Mechanical	25
- Electrical	25
- General	25
-Pumping Equipment	25
Hydrants/ Fire Protection	25
Reservoirs	45

Wastewater System

Collection System	
- Mains	75
- Services	75
Pump, Lift, and Transfer Stations	45
Plants and Facilities	
- Structures	45
- Treatment Equipment	
- Mechanical	25
- Electrical	25
- General	25
- Pumping Equipment	25
Lagoons	45

Storm System

Collection System	
- Mains	75
- Services	75
Pump, Lift, and Transfer Stations	45
Catch Basins	75
Outfalls	50
Constructed Wetlands	75
Retention Ponds	75
Stormwater Quality Control Device	60

Machinery and Equipment

Heavy Construction Equipment	15
Snowplow Blades/ Sanders	10
Fueling Stations/ Fuel Containment	15
Fire Equipment	12
PPE	10
Defibrillators	5
Breathing Compressor	25
SCBA	20
SCBA cylinders	15
Portable Pump	25
Gas detector	10
Portable Radio	10
Fire Hoses/ Nozzles	20
Pager	15
Fitness and Wellness Equipment	15
Turf Equipment	10
Parks Equipment	10
Lawnmowers	15
Generators	15
Picnic Tables	10
Ice Resurfacer	10
Tools, Shop and Garage Equipment	15
Scales	15
Bins	15
Water Meters	10
Parking Meter Structures and Splitters	20
Communications	
- Radios	10
- Telephone Systems	10

Control Systems	
- Communication Links	20
- SCADA System	10
- Locks	5
HVAC Units	10
Office Furniture and Equipment	
Furniture	20
Office Equipment	
- Audiovisuals	10
- Photocopiers	5
Computer Systems	
Hardware	5
Software	10

Vehicles

Light Duty <4500 kg	10
Medium Duty 4500 to 9000 kg	12
Heavy Duty >9000 kg	12
Fire Trucks	25

Appendix H – 2025 Approved Capital Budget Summary

Town of South Bruce Peninsula
2024 Approved Capital Budget Summary

	Tax Supported Projects:		
Project #	**Corporate Services**		
82401	IT-Servers, Access Points & Switches		$ 127,500
	Emergency Services		
82402	Fire-PPE & Misc Equipment		$ 60,000
82403	Fire - Windows (Sauble)		$ 35,000
82404	Fire - Windows (Wiarton)		$ 35,000
82405	Fire - Sauble Well		$ 22,000
	Parks and Facilities		
82406	Red Clay for BWP Ball Diamond		$ 20,000
82407	Upgrade BWP Ball diamond lights to LED		$ 30,000
82408	Bear-Proof Garbage Cans (8)		$ 10,000
82409	Dividers Red Bay Park Area		$ 10,000
82410	SBMC Mitsubishi Ductless AC		$ 10,000
82411	SBMC Carrier Condensor		$ 10,000
82412	SBMC Replace Roof		$ 60,000
82413	Lawnbowling - Domestic Water Upgrades		$ 10,000
82414	SBCC Replace kitchen cabinets		$ 10,000
82415	SBCC - Replace geo thermal water heaters x2		$ 20,000
82416	SBCC Upgrade to LED Lighting		$ 54,000
82417	SBCC & Arena Upgrading to Key Fob System		$ 60,000
82418	Sauble Library_Doors and Operators		$ 10,000
82419	RWC - Packaged Heating and Cooling Unit		$ 30,000
82420	Pool_Fix Leak		$ 17,500
82421	Arena_Zamboni room floor and floor dump station		$ 20,000
82422	Arena_Replace High Capacity Hot Water Heater		$ 17,500
82423	Arena_Replace Ceiling Fans		$ 25,000
82424	Camp_Hydro Servicing Replacement		$ 35,000
82425	Camp_Washroom - Water Heater & Lighting		$ 20,000
82426	Camp_Gravel to extend parking area		$ 10,000
82427	Town Hall Key Fob entrance system		$ 10,000
82445	BWP Storage Building		$ 25,000
	Public Works	**Unit #**	
82428	Bridge - Guiderail Installation		$ 50,000
82429	Bridge - Park Head Rd	10	$ 1,200,000
82430	Second Ave N (Sixth St N to Gremik Cres)		$ 300,000
82431	Spry Lake Rd - Shoreline Ave to Old Red Bay Rd		$ 150,000
82432	Mallory Beach Rd - Bruce Road 9 to Kathleen Ave		$ 250,000
82433	Single Axle Plow / Sander	412	$ 380,000
82434	Backhoe (Albemarle)	132	$ 235,000
82435	Roadside Mower	E-4	$ 20,000
82436	Gould Street incl Pengally		$ 3,000,000
	User Pay Projects:		
	Water		
82437	Wiarton WTP Low-lift Pump		$ 50,000
82438	Wiarton WTP High-Lift Pump		$ 60,000
82439	Wiarton Chlorine Dosing Panel		$ 40,000
82440	Huron Woods Electrical Panel		$ 12,000
82441	Huron Woods Backwash Wastewater Holding Tank		$ 20,000
82446	Water Tanker Truck		$ 350,000
	Waste Water		
82442	Sewer Relining/Replacement Pipes TBD		$ 140,000
82443	Grit Removal System		$ 100,000
82444	Air Lift Piping for Filtration System		$ 50,000
	TOTALS		**$ 7,210,500**