

Asset Management Plan

Town of South Bruce Peninsula

2024

This Asset Management Plan was prepared by:



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asset management, budgeting & GIS solutions

Key Statistics

Replacement Cost of
asset portfolio

\$531.2 million

Replacement Cost of
infrastructure per
household

\$75,000

Percentage of assets in fair
or better condition

69%

Percentage of assets with
assessed condition data

74%

Annual Capital
Infrastructure Deficit

\$7.0 million

Recommended timeframe
for eliminating annual
infrastructure deficit

15 Years

Target Reinvestment
Rate

2.3%

Actual Reinvestment
Rate

0.9%

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Executive Summary


Municipal infrastructure supports the economic, social, and environmental health and growth of a community through the delivery of critical services. The goal of asset management is to deliver an adequate level of service in the most cost-effective manner. This involves the development and implementation of asset management strategies and long-term financial planning.

Scope

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

This AMP includes the following asset categories:

Asset Categories

 Road Network	 Machinery & Equipment
 Bridges & Culverts	 Vehicles
 Stormwater Network	 Sanitary Network
 Buildings	 Water Network
 Land Improvements	

With the development of this AMP the municipality has achieved compliance with O. Reg. 588/17 to the extent of the requirements that must be completed by July 1, 2024. There are still additional requirements concerning proposed levels of service and growth that must be met by July 1, 2025.

Findings

The overall replacement cost of the asset categories included in this AMP totals \$531.2 million. 69% of all assets analyzed in this AMP are in fair or better condition and assessed condition data was available for 74% of assets. For the remaining 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 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 million.

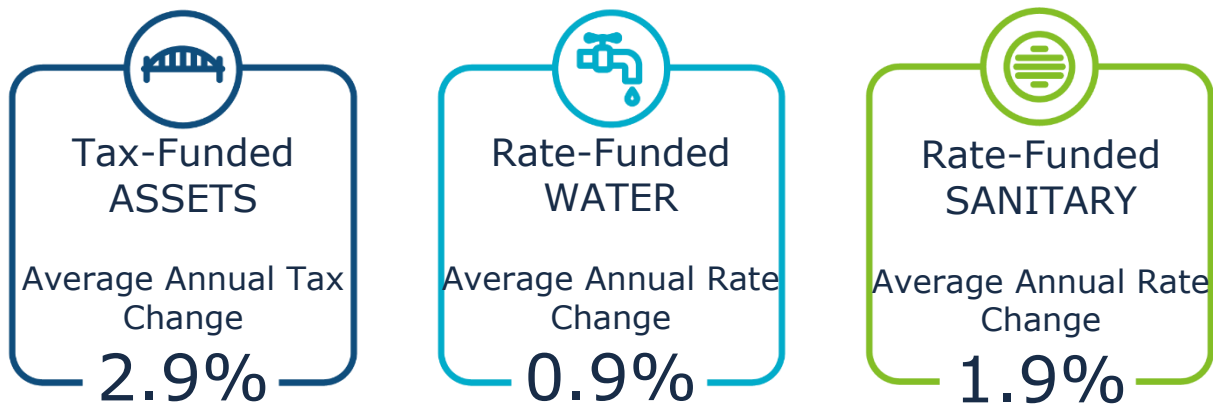
It is important to note that this AMP represents a snapshot in time and is based on the best available processes, data, and information at the Town. Strategic asset management planning is an ongoing and dynamic process that requires continuous improvement and dedicated resources.

Annual Capital Requirements per Household



Recommendations

A financial strategy was developed to address the annual capital funding gap. The following graphics show annual tax/rate change required to eliminate the Town's infrastructure deficit based on a 15-year plan for both tax-funded and rate-funded assets¹:



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

- 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

¹ The average annual rate change for the Water Network incorporates the two water systems, Warton and Amabel.

1 Introduction & Context

Key Insights

- The goal of asset management is to minimize the lifecycle costs of delivering infrastructure services, manage the associated risks, while maximizing the value tax that residents and ratepayers receive from the asset portfolio
- The Town's asset management policy provides clear direction to staff on their roles and responsibilities regarding asset management
- An asset management plan is a living document that should be updated regularly to inform long-term planning
- Ontario Regulation 588/17 outlines several key milestones and requirements for asset management plans in Ontario between July 1, 2022 and 2025

1.1 South Bruce Peninsula 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

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 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. The commitment to preserving its natural habitats is evident in the community's support for sustainable tourism and educational programs aimed at protecting local wildlife. 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

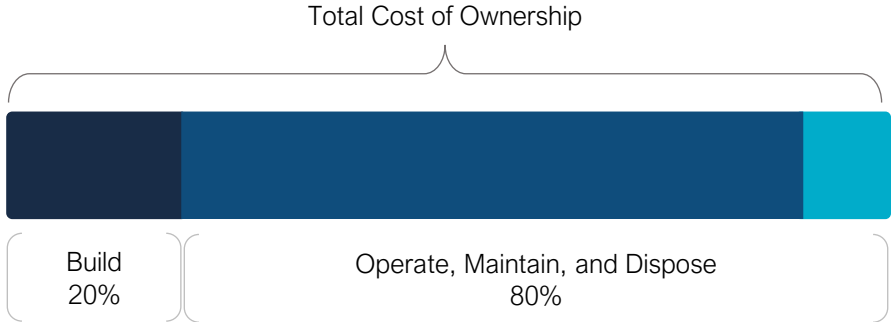
culture drives the economy and makes the Town a dynamic place for residents and tourists, promoting growth and vitality.

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.

1.2 An Overview of Asset Management

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% derives from operations and maintenance. This AMP focuses its analysis on the capital costs to maintain, rehabilitate, and replace existing municipal infrastructure assets.



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

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

1.2.1 Asset Management Policy

An asset management policy represents a statement of the principles guiding the municipality'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 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.

1.2.2 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 municipality plans to achieve asset management objectives through planned activities and decision-making criteria.

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

1.2.3 Asset Management Plan

The asset management plan (AMP) presents the outcomes of the municipality'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 municipality to re-evaluate the state of infrastructure and identify how the organization's asset management and financial strategies are progressing.

1.2.4 Data Governance Policy

The objective of an asset management data governance policy is to establish a framework for the governance of asset management data. Asset data plays an integral role in the Town's Asset Management practices, enabling the town to better understand the magnitude of the asset inventory as well as develop and implement strategies that maintain or improve the level of service provided.

Accurate and reliable asset data increases the efficiency and improves the performance of staff that are responsible for managing the Town's infrastructure assets and providing services to the community. To ensure a high standard of data quality, it is critical that the Town clearly defines these standards and the procedures that are required to enforce them. A Data Governance Policy is recommended to develop these standards and procedures. Items that should be considered are:

- Roles and responsibilities for data stewardship
- Process for data integration
 - Data updates from OSIM and Road Needs Study
 - Departmental condition assessments
- Compliance with regulations and standards

1.3 Key Concepts in Asset Management

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

1.3.1 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 generally fall within the categories of maintenance, rehabilitation, and replacement. The following table provides a description of each type of activity and the general difference in cost.

Lifecycle Activity	Description	Example (Roads)	Cost
Maintenance	Activities that prevent defects or deteriorations from occurring	Crack Seal	\$
Rehabilitation/ Renewal	Activities that rectify defects or deficiencies that are already present and may be affecting asset performance	Mill & Re-surface	\$\$
Replacement/ Reconstruction	Asset end-of-life activities that often involve the complete replacement of assets	Full Reconstruction	\$\$\$

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.

The Town’s approach to lifecycle management is described within each asset category outlined in this AMP. Developing and implementing a proactive lifecycle strategy will help staff 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.

1.3.2 Risk Management Strategies

Municipalities generally take a ‘worst-first’ approach to infrastructure spending. Rather than prioritizing assets based on their importance to service delivery, assets in the worst condition are fixed first, regardless of their criticality. However, not all assets are created equal. Some are more important than others, and their failure or disrepair poses more risk to the community than that of others. For example, a road with a high volume of traffic that provides access to critical services poses a higher risk than a low volume rural road. These high-value assets should receive funding before others.

By identifying the various impacts of asset failure and the likelihood that it will fail, risk management strategies can identify critical assets, and determine where maintenance efforts, and spending, should be focused.

This AMP includes a high-level 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.

1.3.3 Levels of Service

A level of service (LOS) is a measure of what the Town is providing to the community and the nature and quality of that service. 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.

These measures include a combination of those that have been outlined in O. Reg. 588/17 in addition to performance measures identified by the Town as worth measuring and evaluating. 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 (Road Network, Bridges & Culverts, Storm Services, Water Services, Sanitary Services) the Province, through O. Reg. 588/17, has provided qualitative descriptions that are required to be included in this AMP. For non-core asset categories, the Town has chosen the qualitative descriptions that will be used to determine the community level of service provided. These descriptions can be found in the Levels of Service subsection within each asset category.

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 municipality's asset management strategies on the physical condition of assets or the quality/capacity of the services they provide.

For core asset categories (Road Network, Bridges & Culverts, Storm Services, Water Services, Sanitary Services) the Province, through O. Reg. 588/17, has provided technical metrics that are required to be included in this AMP. For non-core asset categories, the Town has chosen the technical metrics that will be used

to determine the technical level of service provided. These metrics can be found in the Levels of Service subsection within each asset category.

Current and Proposed Levels of Service

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

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

1.4 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.

1.4.1 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 °C
- Under a high emissions scenario, the annual average temperatures are projected to increase by 4.8 °C by the year 2050 and over 6.6 °C 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.

1.4.2 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 km². The physical impacts of climate change are most noticeable from: flooding, extreme weather events such as windstorms and tornados, 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 tornados 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 anthropogenic 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.

1.4.3 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.

1.5 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). Along with creating better performing organizations, more liveable and sustainable communities, the regulation is a key, mandated driver of asset management planning and reporting. It places substantial emphasis on current and proposed levels of service and the lifecycle costs incurred in delivering them.

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

2019

Strategic Asset Management Policy

2024

Asset Management Plan for Core and Non-Core Assets

2022

Asset Management Plan for Core Assets with the following components:

1. Current levels of service
2. Inventory analysis
3. Lifecycle activities to sustain LOS
4. Cost of lifecycle activities
5. Population and employment forecasts
6. Discussion of growth

2025

Asset Management Policy Update and an Asset Management Plan for All Assets with the following additional components:

- Proposed levels of service for next 10 years
- Updated inventory analysis
- Lifecycle management strategy
- Financial strategy and addressing shortfalls
- Discussion of how growth assumptions impacted lifecycle and financial

1.5.1 O. Reg. 588/17 Compliance Review

The following table identifies the requirements outlined in Ontario Regulation 588/17 for municipalities to meet by July 1, 2024 for core and non-core assets. Next to each requirement a page or section reference is included in addition to any necessary commentary.

Requirement	O. Reg. Section	AMP Section Reference	Status
Summary of assets in each category	S.5(2), 3(i)	4.1.1 - 5.2.1	Complete
Replacement cost of assets in each category	S.5(2), 3(ii)	4.1.1 - 5.2.1	Complete
Average age of assets in each category	S.5(2), 3(iii)	4.1.3 - 5.2.3	Complete
Condition of core assets in each category	S.5(2), 3(iv)	4.1.2 - 5.2.2	Complete
Description of municipality's approach to assessing the condition of assets in each category	S.5(2), 3(v)	4.1.2 - 5.2.2	Complete
Current levels of service in each category	S.5(2), 1(i-ii)	4.1.6 - 5.2.6	Complete
Current performance measures in each category	S.5(2), 2	4.1.6 - 5.2.6	Complete
Lifecycle activities needed to maintain current levels of service for 10 years	S.5(2), 4	4.1.4 - 5.2.4	Complete
Costs of providing lifecycle activities for 10 years	S.5(2), 4	Appendix A	Complete
Growth assumptions	S.5(2), 5(i-ii) S.5(2), 6(i-vi)	6.1-6.2	Complete

2 Scope and Methodology

Key Insights

- This asset management plan includes 9 asset categories and is divided between tax-funded and rate-funded categories
- The source and recency of replacement costs impacts the accuracy and reliability of asset portfolio valuation
- 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

2.1 Asset categories included in this AMP

This asset management plan for the Town of South Bruce Peninsula is produced in compliance with Ontario Regulation 588/17. The July 2024 deadline under the regulation—the second of three AMP deadlines—requires analysis of core and non-core assets.

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 performance indicators (KPIs), outlines lifecycle strategies for optimal asset management and performance, and provides financial strategies to reach sustainability for the asset categories listed below.

Asset Category	Source of Funding
Roads Network	Tax Levy
Bridges and Culverts	
Stormwater Network	
Buildings	
Land Improvements	
Machinery & Equipment	
Vehicles	
Sanitary Network	User Rates
Water Network	

2.2 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/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 cost of the asset is 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.

The replacement costs derived in this AMP rely solely on the cost to replace the tangible capital asset, excluding any Asset Retirement Obligations (AROs). AROs are legal obligations that are associated with the retirement of long-lived assets that result from the acquisition, construction, development or the normal operation of the asset. These are not included in the replacement costs of assets for the purposes of this AMP.

2.3 Estimated Useful Life

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 Tangible Capital Asset (TCA) policy governs the EUL assigned for each asset in this AMP. In some cases, staff have made amendments to the EULs for the AMP, based on the knowledge and expertise of municipal staff and supplemented by existing industry standards when necessary.

2.4 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:

$$\text{Target Reinvestment Rate} = \frac{\text{Annual Capital Requirement}}{\text{Total Replacement Cost}}$$

$$\text{Actual Reinvestment Rate} = \frac{\text{Annual Capital Funding}}{\text{Total Replacement Cost}}$$

2.5 Deriving Asset Condition

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

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

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

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. Appendix D includes additional information on the role of asset condition data and provides basic guidelines for the development of a condition assessment program.

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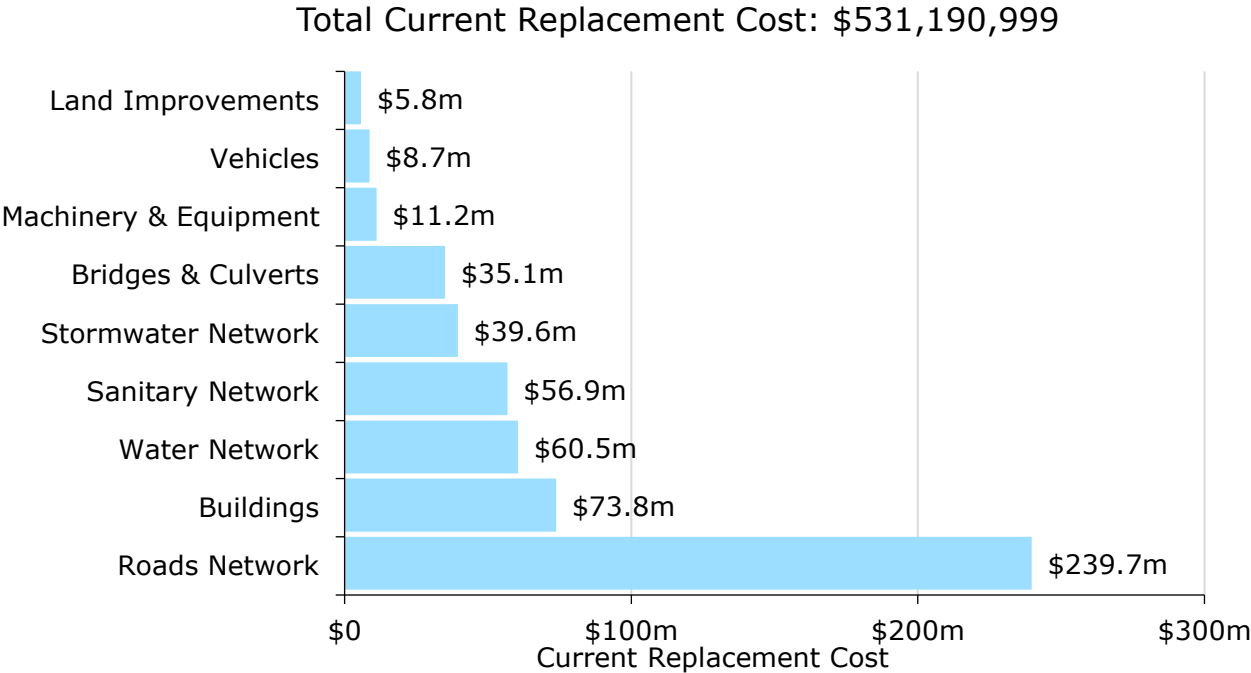
Portfolio Overview

Key Insights

- The total replacement cost of the Town's asset portfolio is \$531.2 million
- The Town's target re-investment rate is 2.3%, and the actual re-investment rate is 0.9%, contributing to an expanding infrastructure deficit
- 69% of all assets are in fair or better condition
- Average annual capital requirements total \$12 million per year across all assets

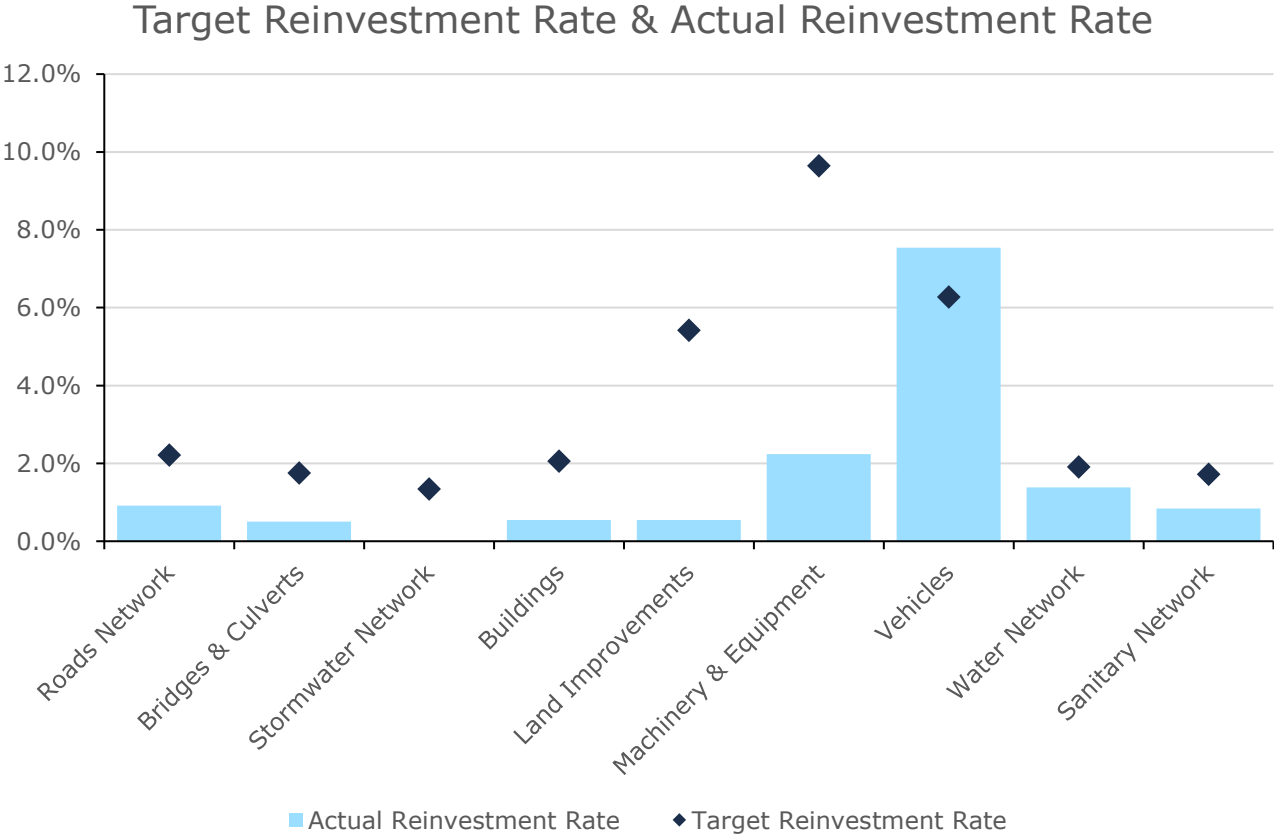
3.1 Total Replacement Cost of Asset Portfolio

The asset categories analysed in this AMP have a total replacement cost of \$531.2 million based on inventory data from December 31, 2023. This total was determined based on a combination of user-defined costs and historical cost inflation. This estimate reflects replacement of historical assets with similar, not necessarily identical, assets available for procurement today.



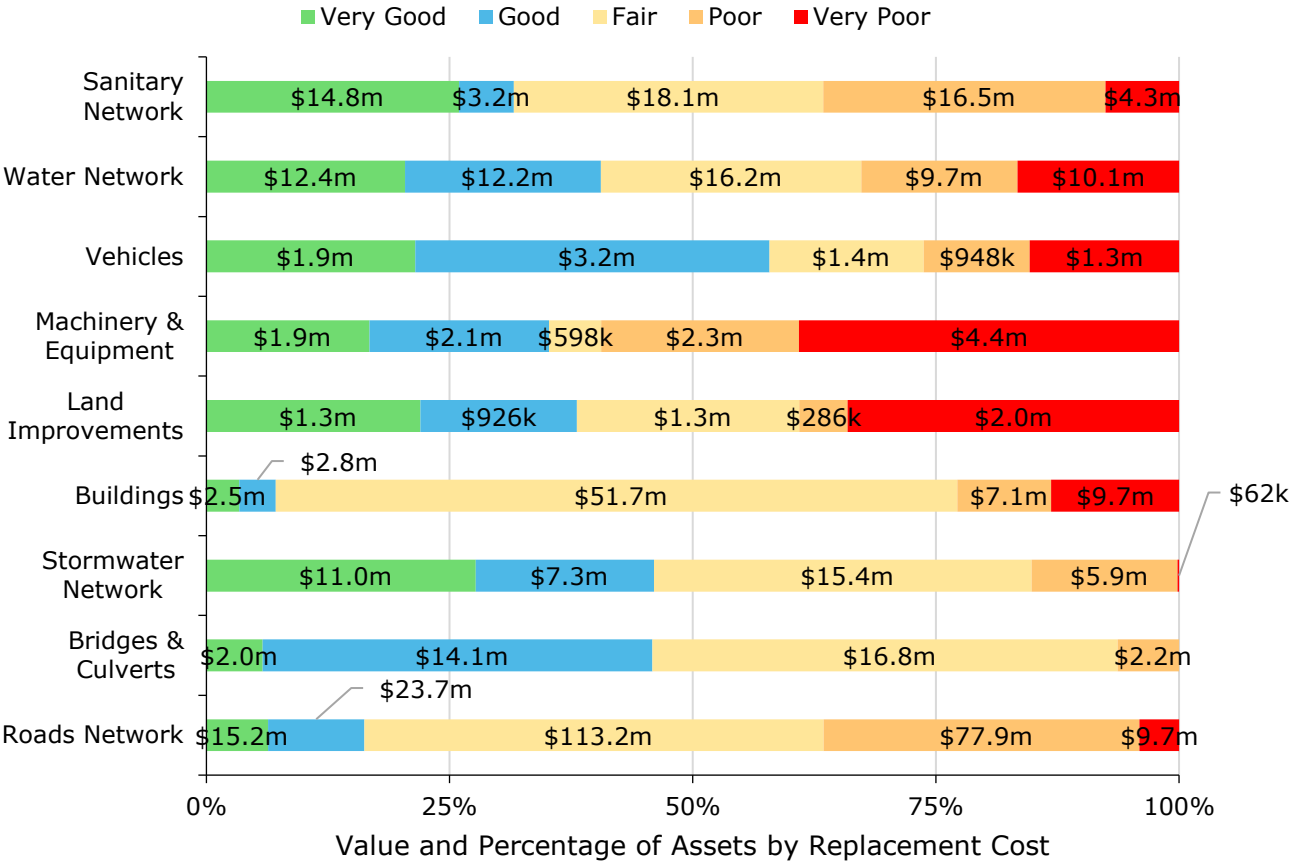
3.2 Target vs. Actual Reinvestment Rate

The graph below depicts funding gaps or surpluses by comparing target vs actual reinvestment rate. To meet the long-term replacement needs, the Town should be allocating approximately \$12 million annually, for a target reinvestment rate of 2.3%. Actual annual spending on infrastructure totals approximately \$5 million, for an actual reinvestment rate of 0.9%.



3.3 Condition of Asset Portfolio

The current condition of the assets is central to all asset management planning. Collectively, 69% of assets in South Bruce Peninsula are in fair or better condition. This estimate relies on both age-based and field condition data.



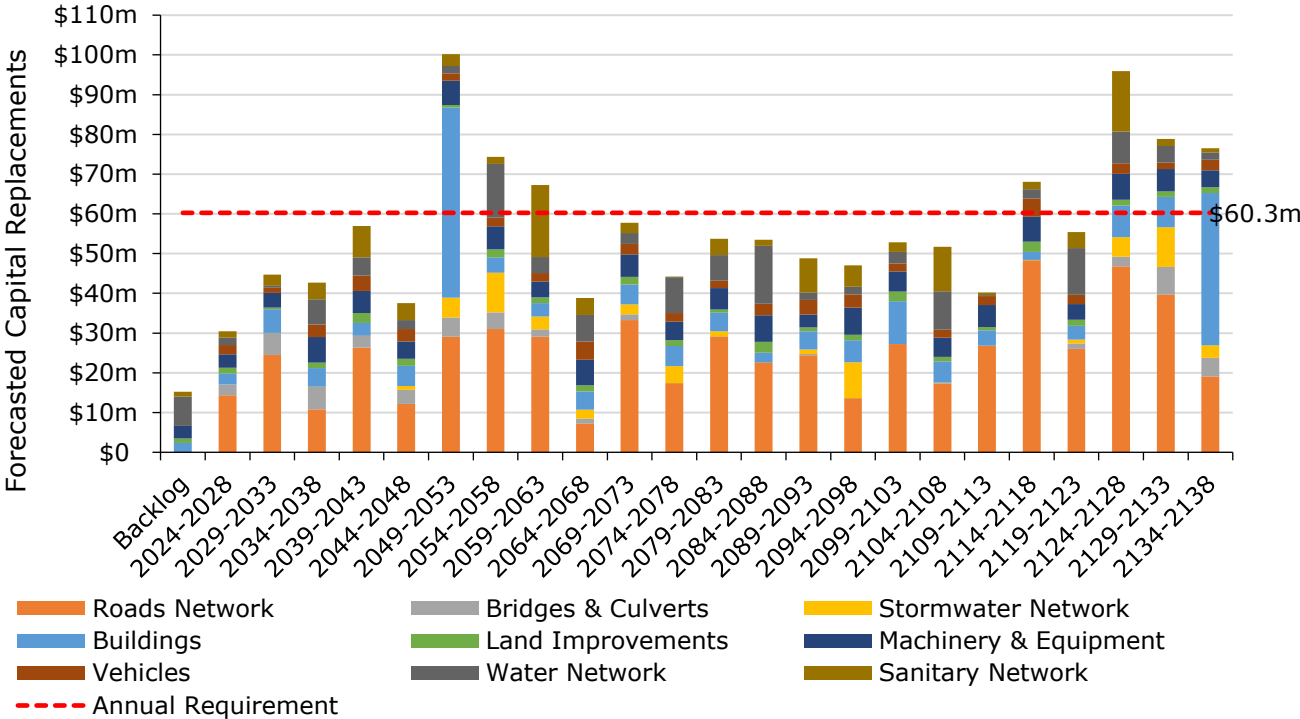
This AMP relies on assessed condition data for 74% of assets; for the remaining portfolio, age is used as an approximation of condition. Assessed condition data is invaluable in asset management planning as it reflects the true condition of the asset and its ability to perform its functions. The table below identifies the source of condition data used throughout this AMP.

Asset Category	Asset Segment	% of Assets with Assessed Condition	Source of Condition Data
Roads Network	Paved Roads	92% Assessed	Roads Needs Assessment 2019
	Roadside Barriers	0% Assessed	Age-Based
	Sidewalks	100% Assessed	Sidewalk Evaluation
	Signs	100% Assessed	2023 Traffic Signs Evaluation
	Streetlights & Traffic Signals	0% Assessed	Age-Based
Bridges and Culverts	Unpaved Roads	99% Assessed	Road Needs Study 2019
	Bridges	100% Assessed	OSIM 2022
Stormwater Network	Culverts	100% Assessed	OSIM 2022
	Catchbasins	6% Assessed	Municipal Staff
	Culverts	99% Assessed	Municipal Staff
	Manholes	43% Assessed	Municipal Staff
	Oil Grit Separator	0% Assessed	Age-Based
Buildings	Storm Mains	13% Assessed	Municipal Staff
	Environmental Services	100% Assessed	Building Condition Assessment 2020 & Municipal Staff
	General Government	19% Assessed	
	Health Services	0% Assessed	
	Protection Services	100% Assessed	
	Recreational Services	90% Assessed	
Transportation Services	100% Assessed		
Land Improvements	Cemetery	0%	Age-Based
	Columbarium	0%	Age-Based
	Landfill Assets		
	Parking Lots	5%	Building Condition Assessment 2020
	Parks	14% Assessed	Staff Assessments
	Playground Structures	23% Assessed	Staff Assessments
	Signage	0% Assessed	Age-Based
	Sport Structures	15% Assessed	Staff Assessments
Trail Systems	11% Assessed	Staff Assessments	

Asset Category	Asset Segment	% of Assets with Assessed Condition	Source of Condition Data
Machinery & Equipment	Environmental Services	83%	Staff Assessments
	General Government	35%	Staff Assessments
	Protection Services	6%	Staff Assessments
	Recreational Services	32%	Staff Assessments
	Transportation Services	71%	Staff Assessments
Vehicles	Protection Services	100%	Staff Assessments
	Recreation Services	100%	Staff Assessments
	Transportation Services	100%	Staff Assessments
Sanitary Network	Lagoons	99% Assessed	OCWA 2020
	Manholes	5% Assessed	Staff Assessments
	Pumping Stations	0% Assessed	Age-Based
	Sewage Treatment Plant	58% Assessed	OCWA 2020
Water Network	Sewer mains	63% Assessed	2021 CCTV Report
	Hydrants	7% Assessed	Staff Assessments
	Pumping Stations	0% Assessed	Age-Based
	Tower/Booster Equipment	97% Assessed	OCWA 2020
	Treatment Equipment	70% Assessed	OCWA 2020
	Treatment Plants	29% Assessed	OCWA 2020
	Valves	81% Assessed	OCWA 2020
	Water Mains	6% Assessed	Staff Assessments
Water Meters	0% Assessed	Age-Based	

3.4 Forecasted Capital Requirements

The development of a long-term capital forecast should include both asset rehabilitation and replacement requirements. With the development of asset-specific lifecycle strategies that include the timing and cost of future capital events, the Town can produce an accurate long-term capital forecast. The following graph identifies capital requirements over the next 115 years. This projection is used as it ensures that every asset has gone through one full iteration of replacement. The forecasted requirements are aggregated into 5-year bins and the trend line represents the average 5-year capital requirements.



The Town has developed and approved their 2024 Capital Plan, which can be seen in Appendix F. This has been developed externally from the findings of this AMP. Town staff are working towards aligning future capital plans with the long-term capital forecasts developed based on the Citywide inventory.

4 Analysis of Tax-funded Assets

Key Insights

- Tax-funded assets are valued at \$413.8 million
- 70% of tax-funded assets are in fair or better condition
- The average annual capital requirement to sustain the current level of service for tax-funded assets is approximately \$9.9 million
- Critical assets should be evaluated to determine appropriate risk mitigation activities and treatment options

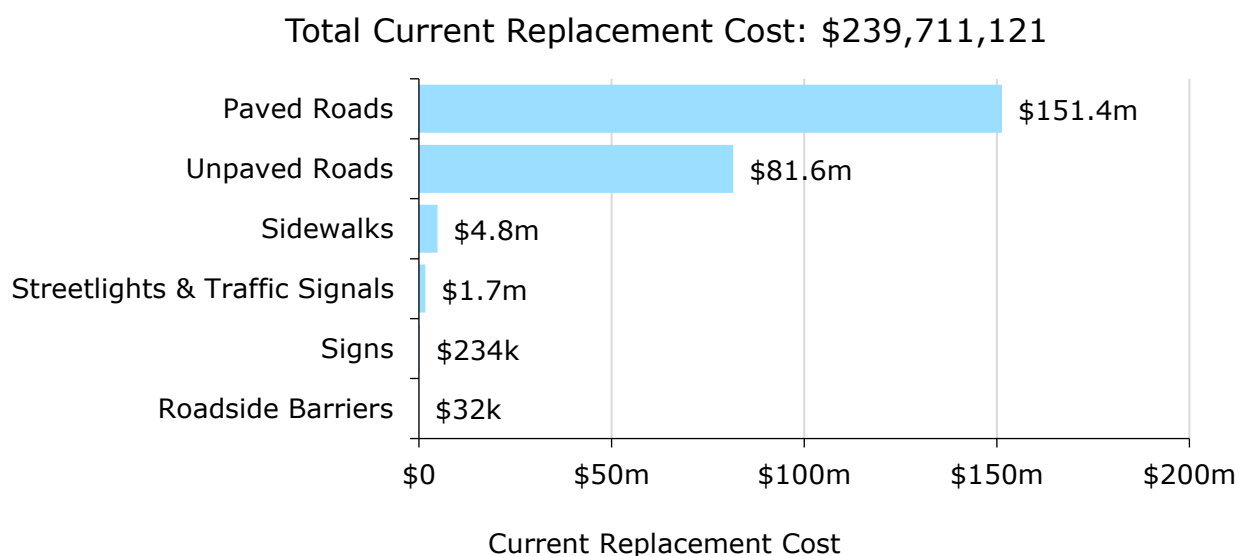
4.1 Roads Network

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.

4.1.1 Asset Inventory & Replacement Cost

The table below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Town’s Road Network inventory.

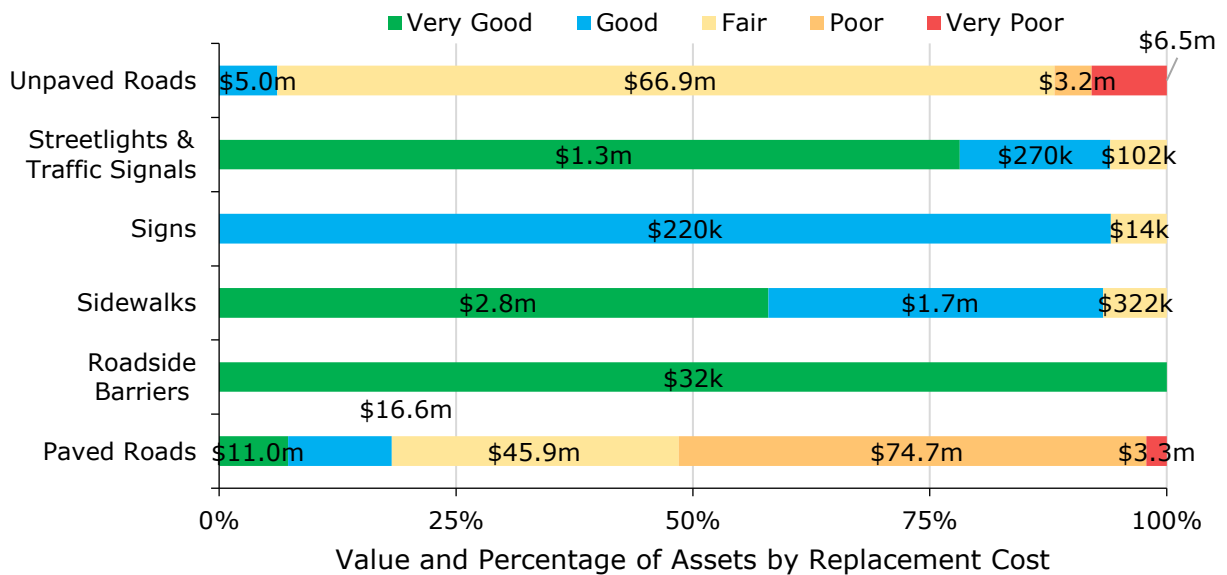
Asset Segment	Quantity	Replacement Cost Method	Total Replacement Cost
Paved Roads	240,507 m	Cost/Unit	\$151,387,000
Roadside Barriers	586	CPI Tables	\$32,000
Sidewalks	38,397 m ²	User-Defined	\$4,800,000
Signs	3,495	User-Defined	\$234,000
Streetlights & Traffic Signals	853	CPI Tables	\$1,706,000
Unpaved Roads	187,852 m	Cost/Unit	\$88,554,000
			\$239,711,000



4.1.2 Asset Condition

The table below identifies the current average condition and source of available condition data for each asset segment. The Average Condition (%) is a weighted value based on replacement cost.

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Paved Roads	57%	Fair	92% Assessed
Roadside Barriers	94%	Very Good	Age-Based
Sidewalks	80%	Very Good	100% Assessed
Signs	69%	Good	100% Assessed
Streetlights & Traffic Signals	83%	Very Good	Age-Based
Unpaved Roads	55%	Fair	99% Assessed
	57%	Fair	94% Assessed



Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the municipality’s current approach:

- The Town completed a Roads Needs Assessment in 2019 and plans 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.
- The 2024 Road Needs Assessment is currently underway.

4.1.3 Estimated Useful Life & Average Age

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. The Average Age of each asset is based on the number of years each asset has been in-service.

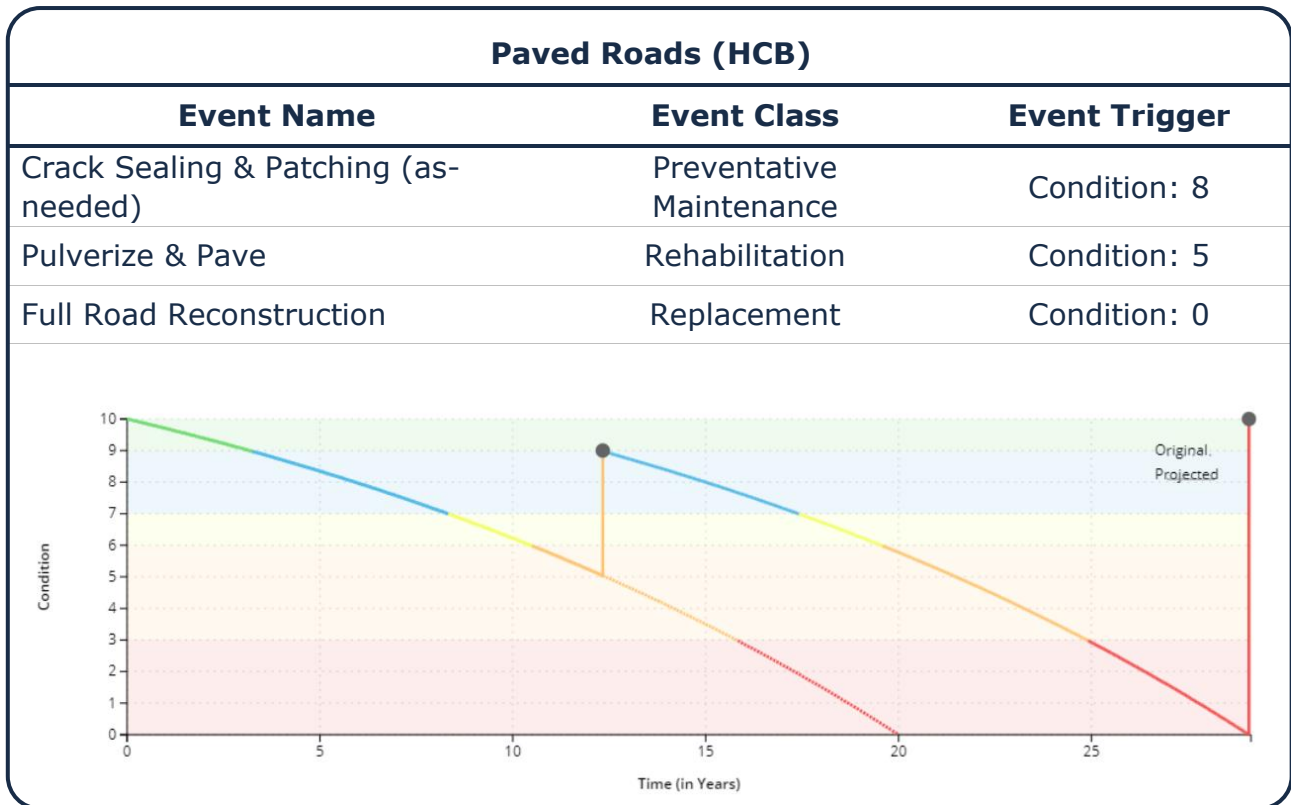
Asset Segment	Weighted Average Estimated Useful Life (Years)	Weighted Average Age (Years)
Paved Roads	18	46.8
Roadside Barriers	74	1.0
Sidewalks	21	3.9
Signs	29	25.1
Streetlights & Traffic Signals	27	3.7
Unpaved Roads	15	78.1

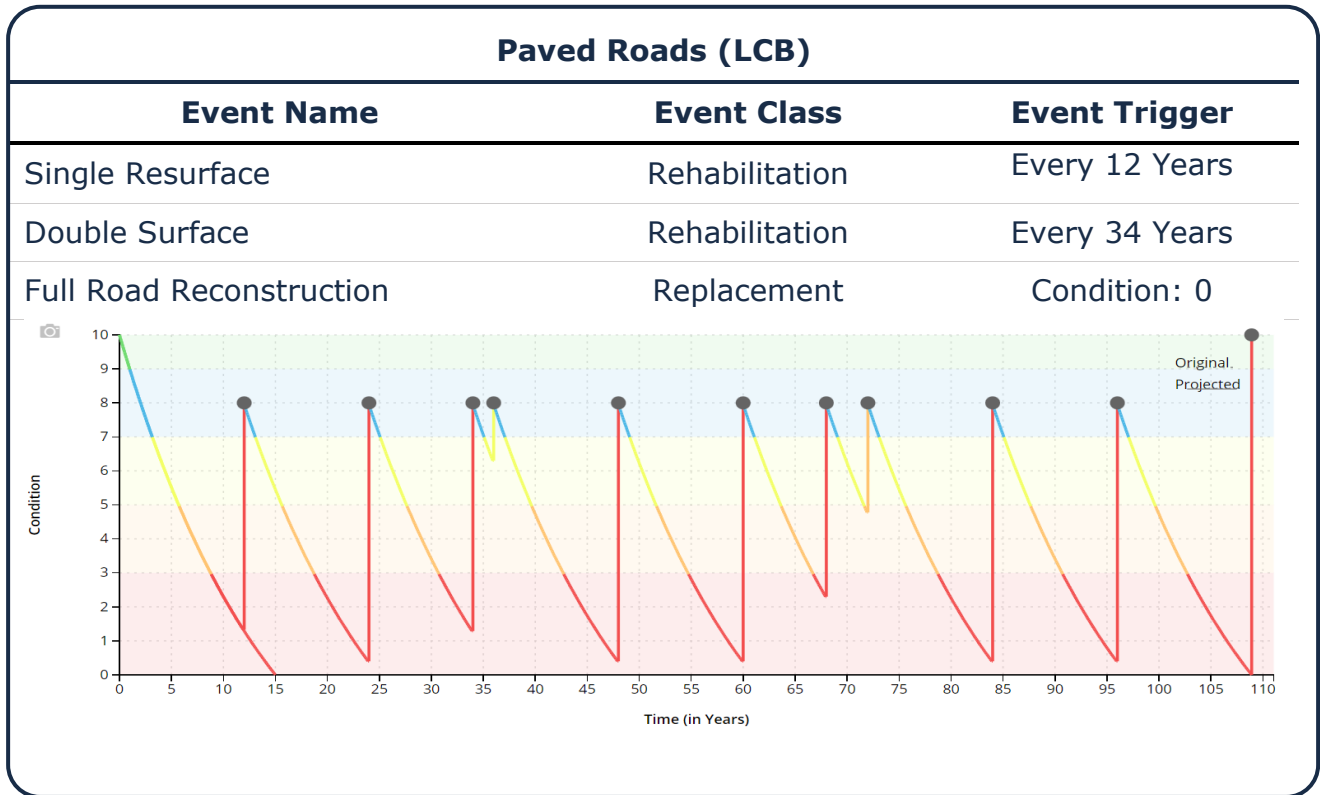
Each asset’s Estimated Useful Life should be reviewed periodically as part of the TCA policy review to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

4.1.4 Lifecycle Management Strategy

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 LCB and HCB 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.





The following table further expands on the Town’s current approach to lifecycle management:

Activity Type	Description of Current Strategy
Maintenance	<p>Annual winter control activities to meet Minimum Maintenance Standards including road and sidewalk plowing, and snow removal.</p> <p>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.</p> <p>Gravel roads undergo ongoing maintenance activities including:</p> <ul style="list-style-type: none"> • 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.

Activity Type	Description of Current Strategy
Rehabilitation	<p>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.</p> <p>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.</p> <p>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.</p>
Replacement	<p>Full road reconstruction is coordinated effectively with other Right-of-Way assets, including linear underground assets.</p>

Forecasted Capital Requirements

Based on the lifecycle strategies identified previously for paved Roads, and assuming the end-of-life replacement of all other assets in this category, the following graph forecasts capital requirements for the Road Network.

The annual capital requirement represents the average amount per year that the Town should allocate towards funding rehabilitation and replacement needs to meet future capital needs.

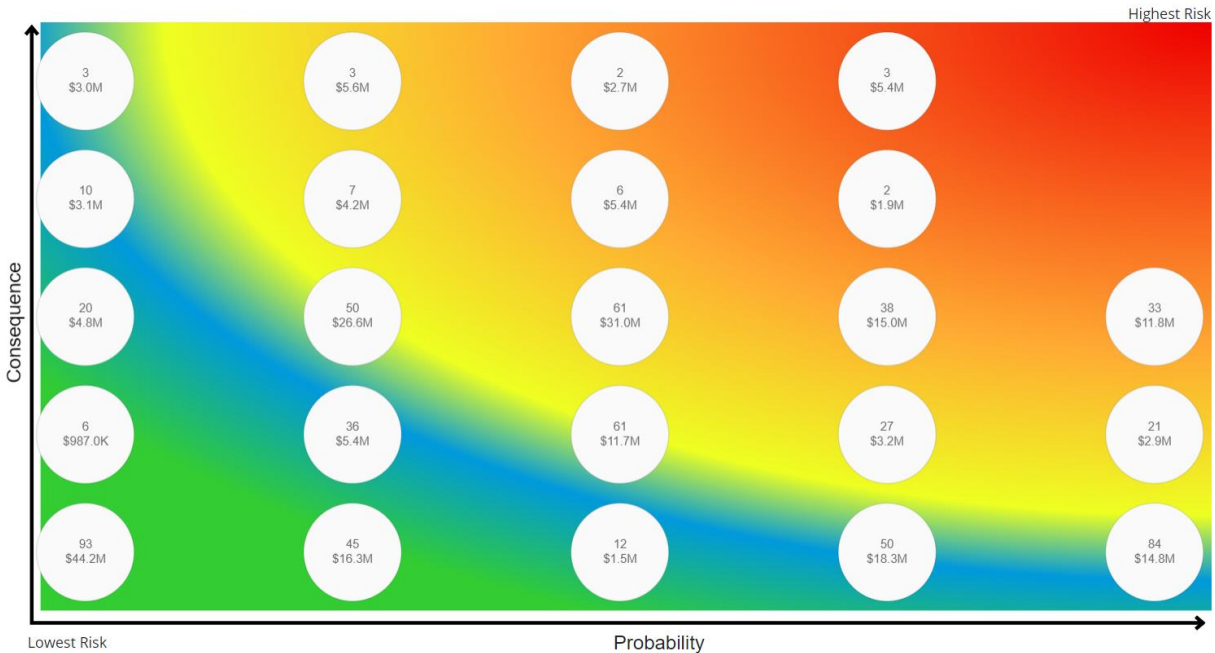


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix A.

4.1.5 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the level of risk exposure for this asset category. It considers both the probability of failure and consequence of failure. The metrics that have been used to determine both can be found in Appendix C.



Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Town is currently facing:



Climate Change & Extreme Weather Events

An increase in freeze/thaw cycles causes road pavement to heave and settle. This can cause the accelerated deterioration of road surface pavement which leads to an increased need for maintenance and rehabilitation. The uncertainty surrounding the impact of extreme weather events can make changing conditions difficult to plan for.



Lifecycle Management Strategies

The current lifecycle management strategy for roads is considered more reactive than proactive. It is a challenge to find the right balance between maintenance, capital rehabilitation and the reconstruction of roads. Staff hope to develop better defined strategies that will extend pavement lifecycle and a lower total cost. These strategies will require sustainable annual funding to minimize the deferral of capital works.



Budget Restraints

Major capital rehabilitation projects for roads are subject to budget restraints and competing priorities. Therefore, many projects may get postponed, delayed, or canceled.

4.1.6 Levels of Service

The following tables identify the Town’s current level of service for the Roads Network. These metrics include the technical and community level of service metrics that are required as part of O. Reg. 588/17 as well as any additional performance measures that the Town has selected for this AMP.

Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by the Road Network.

Service Attribute	Qualitative Description	Current LOS (2023)
Scope	Description, which may include maps, of the road network in the municipality and its level of connectivity	See Appendix B
Quality	Description or images that illustrate the different levels of road class pavement condition	As illustrated in Appendix B, 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.

Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the Road Network.

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2023)
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 municipality	58%	57%
	Average surface condition for unpaved roads in the municipality (e.g. excellent, good, fair, poor)	Good	Fair
Performance	Capital reinvestment rate	0.9%	0.9%

4.1.7 Recommendations

Asset Inventory

- 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.

Condition Assessment Strategies

- 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).

Lifecycle Management Strategies

- 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.

Risk Management Strategies

- Review risk models on a regular basis and adjust according to the availability of additional data
- Ongoing reviews as staff have an evolving understanding of the probability and consequences of asset failure.

Levels of Service

- 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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

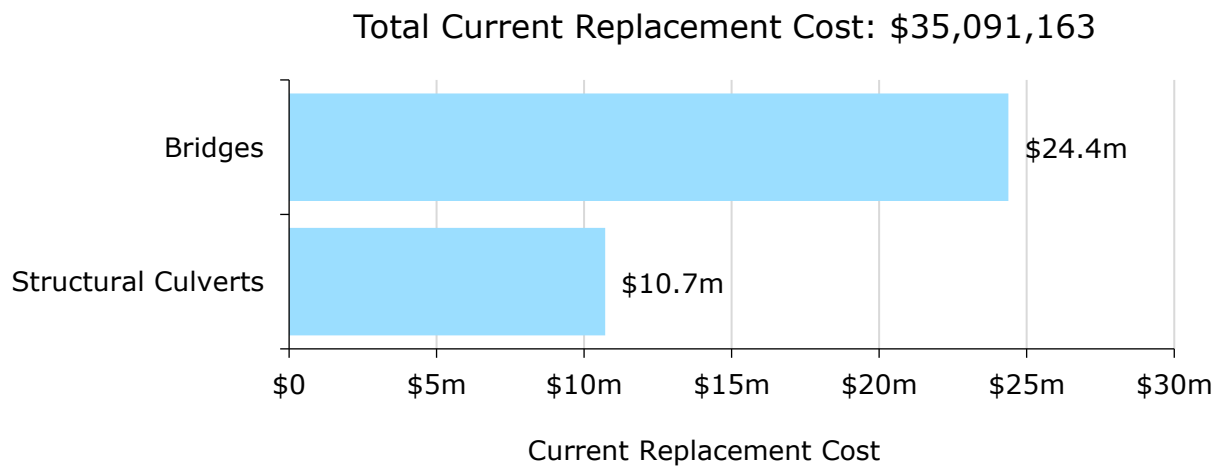
4.2 Bridges & Culverts

Bridges & Culverts represent a critical portion of the transportation services provided to the community. The Town is responsible for 35 structural bridges and 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 2022.

4.2.1 Asset Inventory & Replacement Cost

The table below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Town’s Bridges & Culverts inventory.

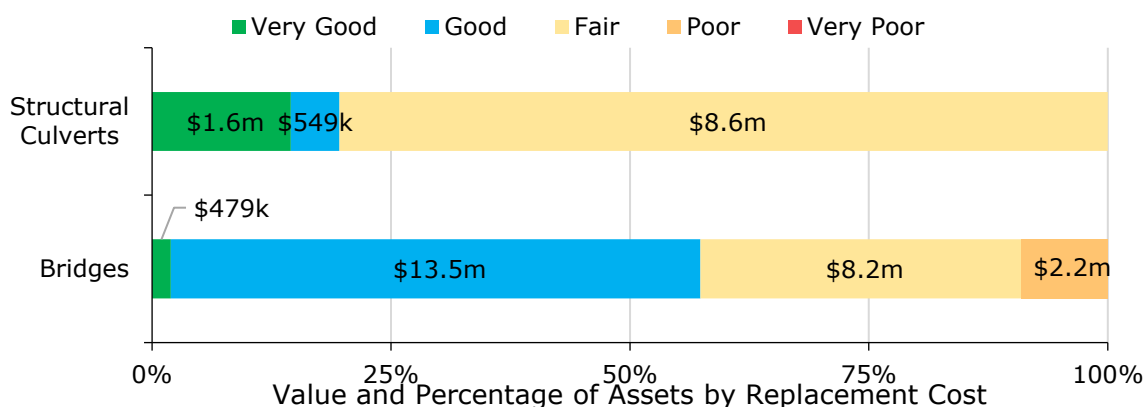
Asset Segment	Quantity	Replacement Cost Method	Total Replacement Cost
Bridges	19	User-Defined Costs	\$24,382,000
Structural Culverts	16	User-Defined Costs	\$10,709,000
	35		\$35,091,000



4.2.2 Asset Condition

The table below identifies the current average condition and source of available condition data for each asset segment. The Average Condition (%) is a weighted value based on replacement cost.

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Bridges	69%	Good	100% Assessed
Structural Culverts	65%	Good	100% Assessed
	68%	Good	100% Assessed



To ensure that the Town’s Bridges & Culverts continue to provide an acceptable level of service, the Town should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation, and replacement activities is required to increase the overall condition of the Bridges & Culverts.

Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the municipality’s current approach:

- Staff perform visual inspections regularly
- Bridges and culverts are required to be inspected every 2 years according to the Ontario Structure Inspection Manual (OSIM). The latest inspections were performed in 2022

4.2.3 Estimated Useful Life & Average Age

The Estimated Useful Life for Bridges & Culverts assets has been assigned according to a combination of established industry standards and staff knowledge. The Average Age of each asset is based on the number of years each asset has been in-service.

Asset Segment	Weighted Average Estimated Useful Life (Years)	Weighted Average Age (Years)
Bridges	60	58.7
Structural Culverts	51	43.5

Each asset’s Estimated Useful Life should be reviewed periodically as part of a TCA policy review to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

4.2.4 Lifecycle Management Strategy

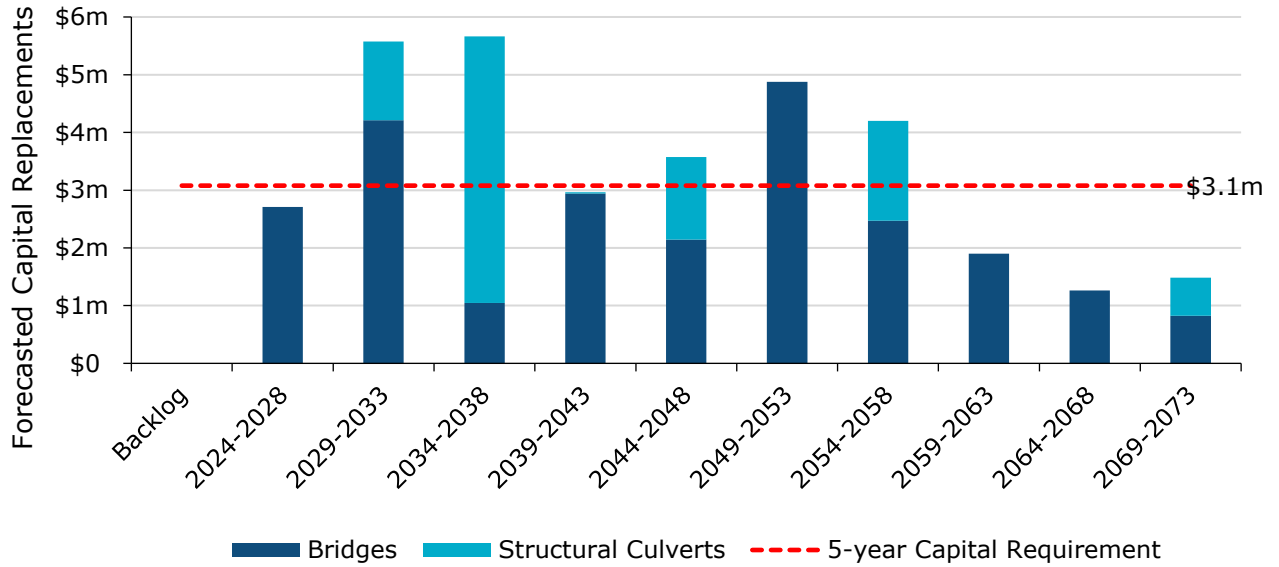
The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

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.

Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Town should allocate towards funding rehabilitation and replacement needs.

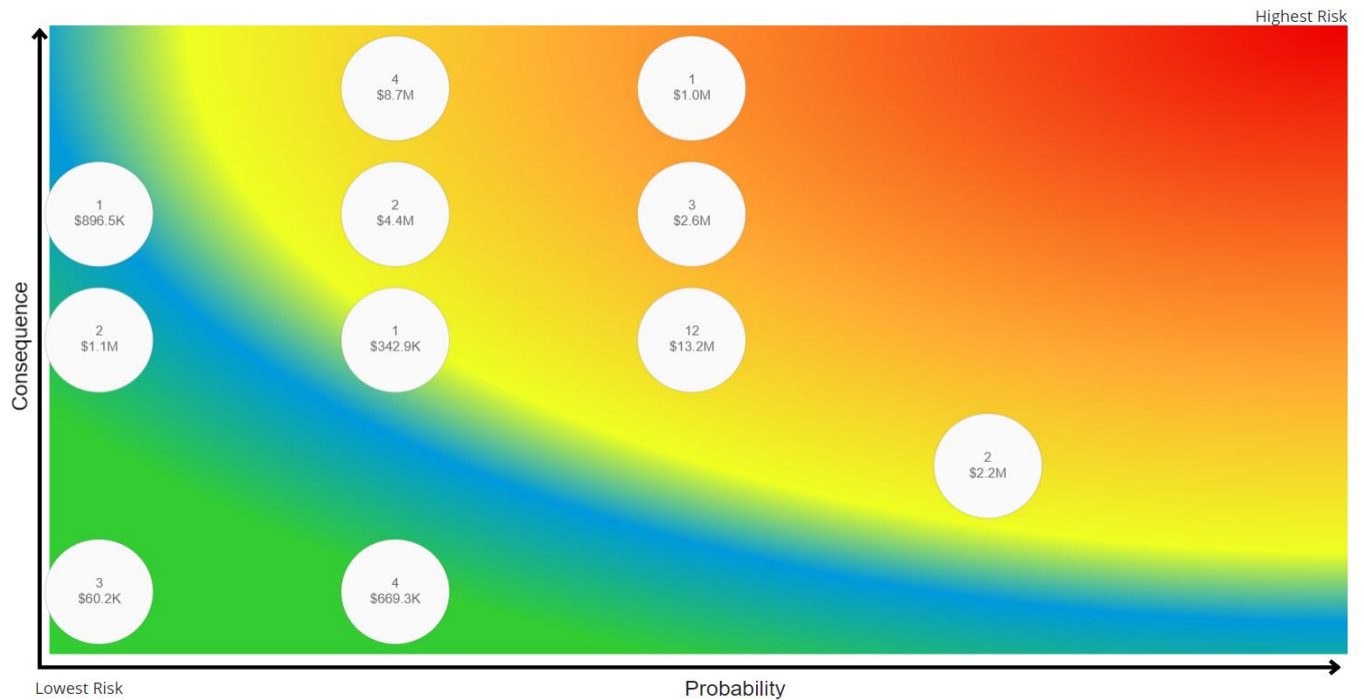


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix A.

4.2.5 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the level of risk exposure for this asset category. It considers both the probability of failure and consequence of failure. The metrics that have been used to determine both can be found in Appendix C.



Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Town is currently facing:



Aging Infrastructure

As municipal bridges continue to age, there are a handful of structures that are approaching their original useful life. There is currently no decision-making process in place to determine how to plan for structures that will require replacement or disposal. Current practice is reliant on OSIM recommendations. A decision-making policy should be developed to incorporate OSIM recommendations where applicable, supplemented by staff knowledge.



Capital Funding Strategies

Major capital rehabilitation projects for bridges and culverts are entirely dependant on the availability of grant funding opportunities. When grants are not available, bridge rehabilitation projects may be deferred. An annual capital funding strategy reduce dependency on grant funding and help prevent deferral of capital works.

4.2.6 Levels of Service

The following tables identify the Town’s current level of service for Bridges & Culverts. These metrics include the technical and community level of service metrics that are required as part of O. Reg. 588/17 as well as any additional performance measures that the Town has selected for this AMP.

Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by Bridges & Culverts.

Service Attribute	Qualitative Description	Current LOS (2023)
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 and culverts and how this would affect their use	<p>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.</p> <p>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.</p> <p>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.</p>

Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by Bridges & Culverts.

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2023)
Scope	% of bridges in the Town with loading or dimensional restrictions	26%	50%
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%	65%
Performance	Capital re-investment rate	1.1%	0.5%

4.2.7 Recommendations

Data Review/Validation

- 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 asset Estimated Useful Life on a regular basis as part of the regular TCA policy review.

Condition

- Ensure that bridge condition indices (BCIs) from OSIMs are updated regularly in the inventory to support planning for deterioration modeling.

Risk Management Strategies

- Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Lifecycle Management Strategies

- 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.

Levels of Service

- 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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

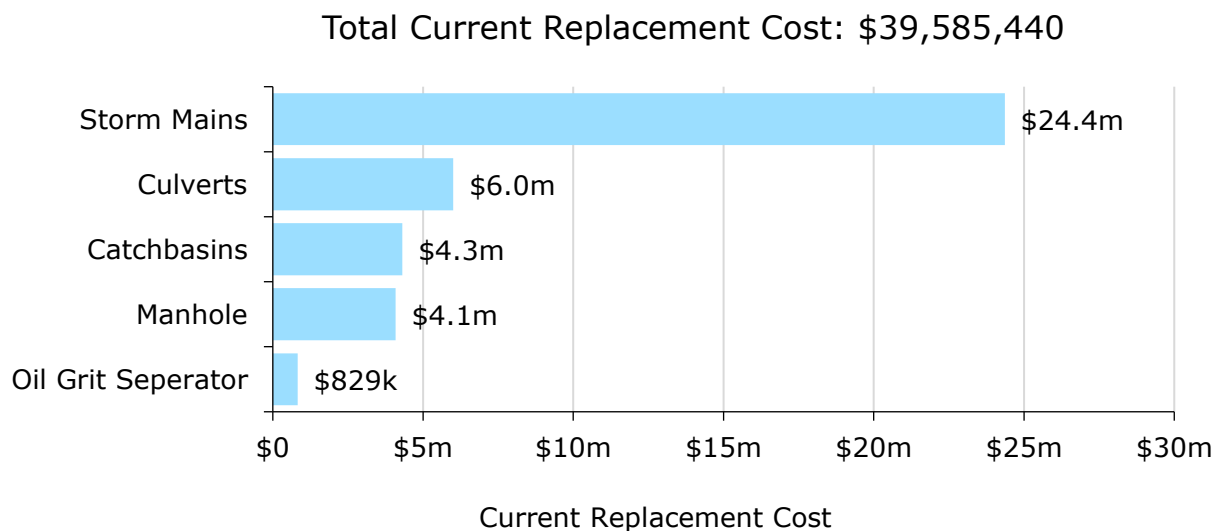
4.3 Stormwater Network

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.

4.3.1 Asset Inventory & Replacement Cost

The table below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Town’s Stormwater Network inventory.

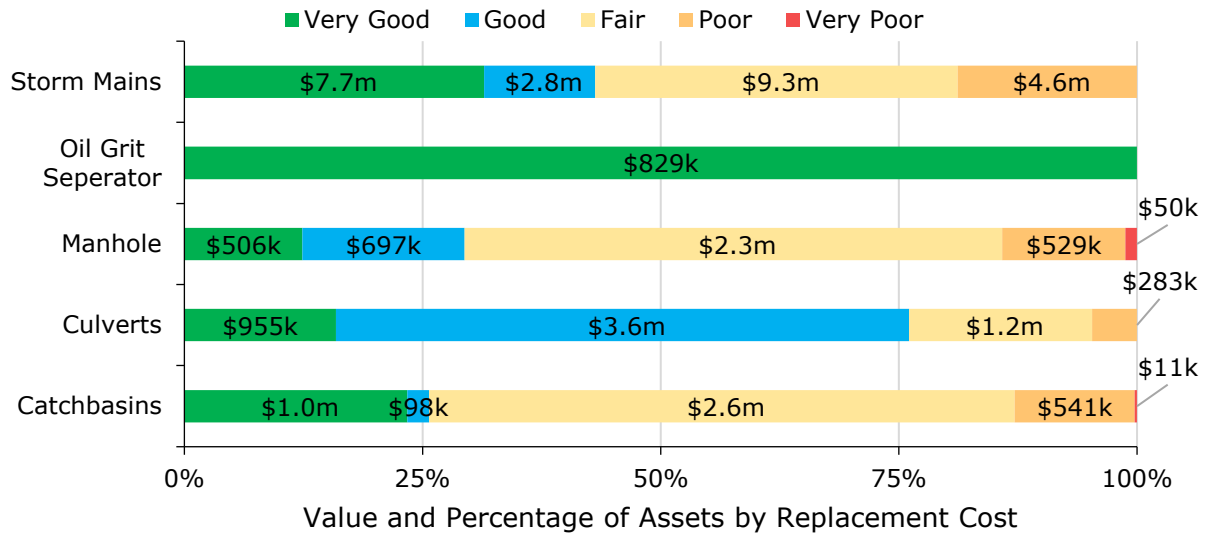
Asset Segment	Quantity	Replacement Cost Method	Total Replacement Cost
Catchbasins	653	Cost/Unit	\$4,306,000
Culverts	11,664	Cost/Unit	\$6,004,000
Manholes	246	Cost/Unit	\$4,089,000
Oil Grit Seperator	1	CPI Tables	\$829,000
Storm Mains	33,867 m	Cost/Unit	\$24,357,000
			\$39,585,000



4.3.2 Asset Condition

The table below identifies the current average condition and source of available condition data for each asset segment. The Average Condition (%) is a weighted value based on replacement cost.

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Catchbasins	55%	Fair	6% Assessed
Culverts	68%	Good	99% Assessed
Manholes	52%	Fair	43% Assessed
Oil Grit Seperator	94%	Very Good	Age-Based
Storm Mains	61%	Good	13% Assessed
	61%	Good	61% Assessed



To ensure that the Town’s Stormwater Network continues to provide an acceptable level of service, the Town should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation and replacement activities is required to increase the overall condition of the Stormwater Network.

Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the municipality’s current approach:

- CCTV camera inspections are completed on an as-needed basis

4.3.3 Estimated Useful Life & Average Age

The Estimated Useful Life for Stormwater Network assets have been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable. The Average Age of each asset is based on the number of years each asset has been in-service.

Asset Segment	Weighted Average Estimated Useful Life (Years)	Weighted Average Asset Age (Years)
Catchbasins	75	33.1
Culverts	75	26.7
Manholes	75	36.9
Oil Grit Separator	60	3.0
Storm Mains	63	23.8

Each asset’s Estimated Useful Life should be reviewed periodically as part of the TCA policy review to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

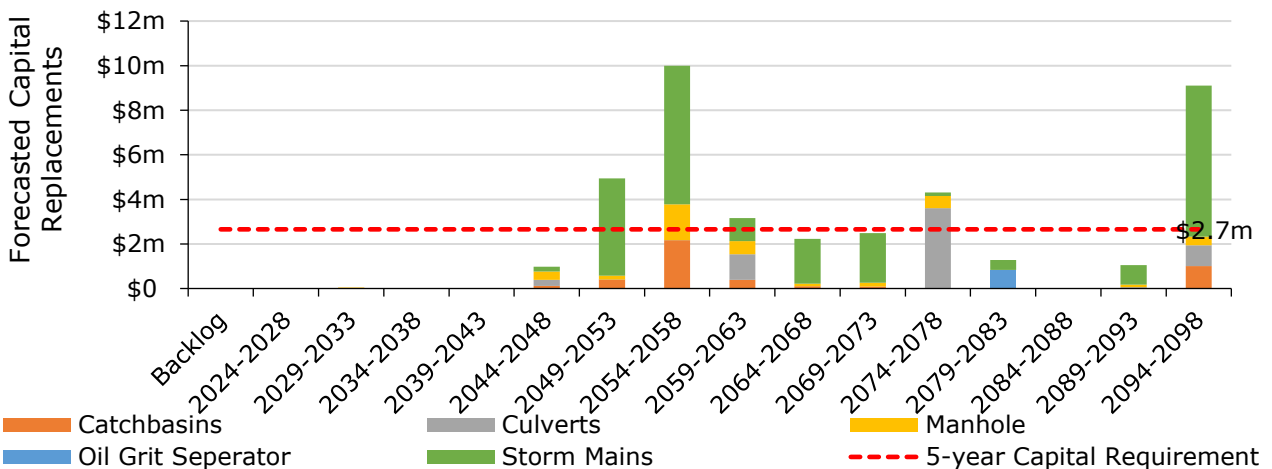
4.3.4 Lifecycle Management Strategy

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

Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Town should allocate towards funding rehabilitation and replacement needs.

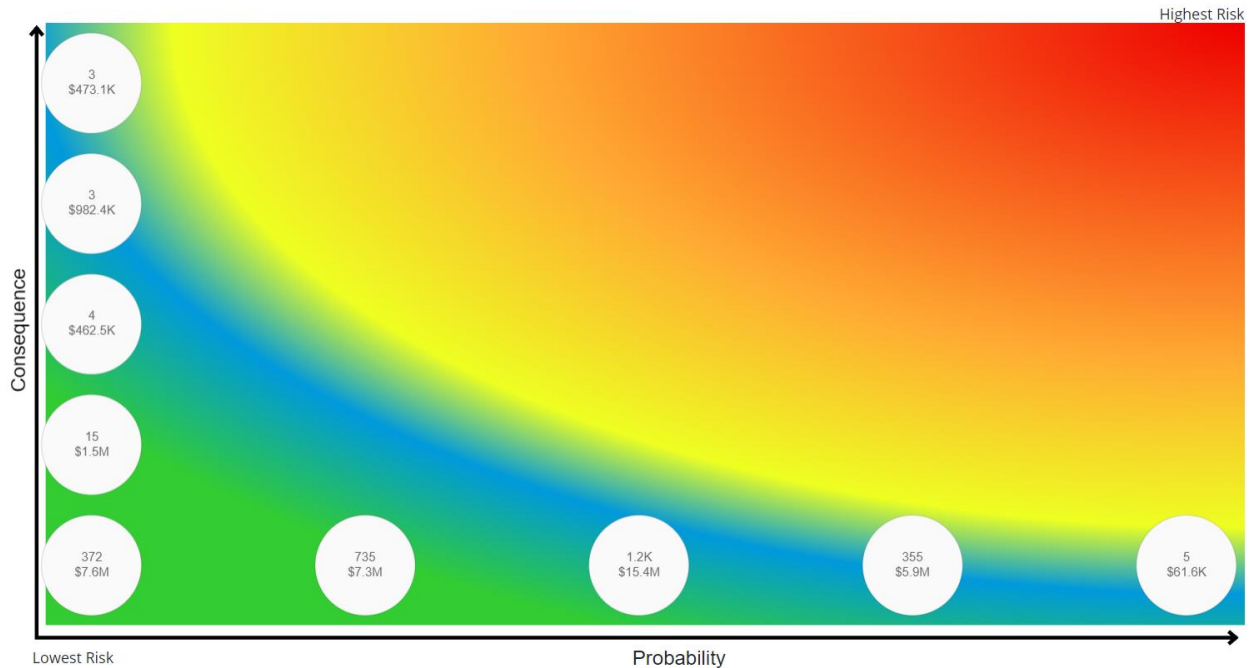


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix A.

4.3.5 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the level of risk exposure for this asset category. It considers both the probability of failure and consequence of failure. The metrics that have been used to determine both can be found in Appendix C.



Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Town is currently facing:



Asset Data & Information

There is a lack of confidence in the available inventory data for stormwater network. Staff plan to prioritize data refinement efforts to increase confidence in the accuracy and reliability of asset data and information. Once completed there will be greater confidence in the development of data-driven strategies to address infrastructure needs.

4.3.6 Levels of Service

The following tables identify the Town’s current level of service for the Stormwater Network. These metrics include the technical and community level of service metrics that are required as part of O. Reg. 588/17 as well as any additional performance measures that the Town has selected for this AMP.

Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by Stormwater Services.

Service Attribute	Qualitative Description	Current LOS (2023)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are protected from flooding, including the extent of protection provided by the municipal stormwater system	See Appendix B

Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the Stormwater Services.

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2023)
Scope	% of properties in the municipality resilient to a 100-year storm	TBD	TBD ²
	% of the municipal stormwater management system resilient to a 5-year storm	25%	25%
Performance	Capital reinvestment rate	1.4%	0%

² The Town does not currently have data available to confidently determine the resilience of the stormwater management system.

4.3.7 Recommendations

Asset Inventory

- 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 asset Estimated Useful Life on a regular basis as part of the regular TCA policy review.

Condition Assessment Strategies

- 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.

Risk Management Strategies

- Review risk models on a regular basis and adjust according to the availability of data.
- Ongoing review of risk models as staff has an evolving understanding of the probability and consequences of asset failure.

Lifecycle Management Strategies

- 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.

Levels of Service

- 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.

Stormwater Network

- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

4.4 Buildings

The Town owns and maintains several facilities and recreation centres 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

4.4.1 Asset Inventory & Replacement Cost

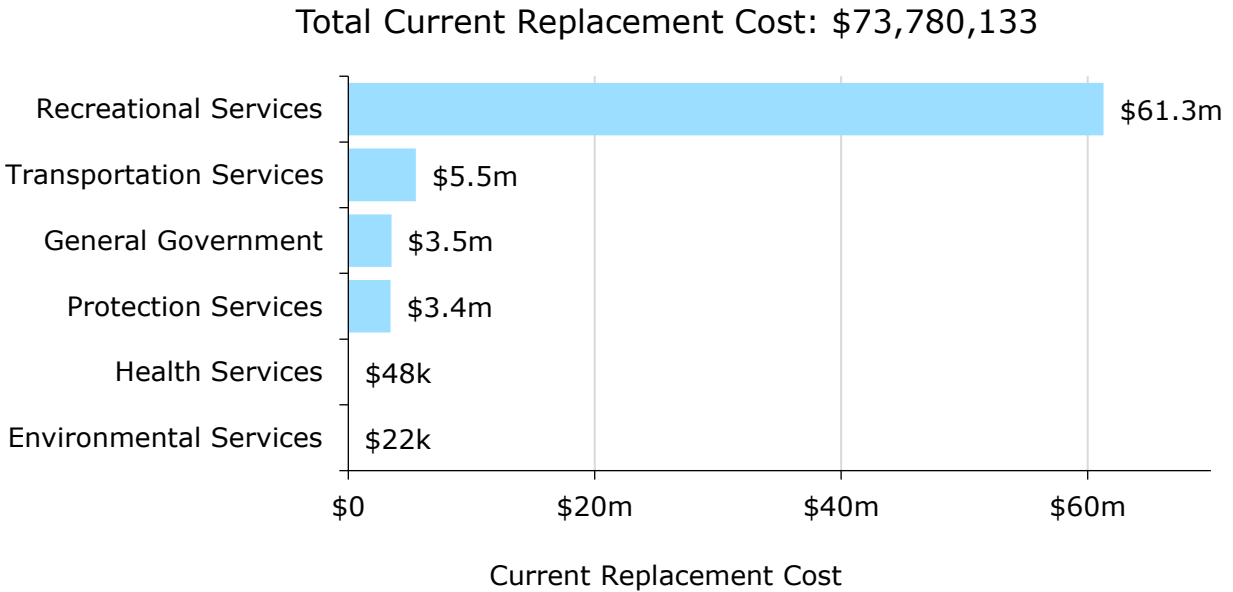
The table below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Town's Buildings inventory.

Asset Segment	Name	Quantity (# of Components)	Replacement Cost Method	Total Replacement Cost
Environmental Services	Landfill Buildings	1	User-Defined	\$22,000
General Government	Town Hall	1 (55)	User-Defined	\$3,500,000
Health Services	Bayview Cemetery Mortuary	1	User-Defined	\$48,000
Protection Services	Sauble Beach OPP & Fire Station	1 (49)	User-Defined	\$1,686,000
	Warton Fire Station	1 (37)		\$1,739,000
Recreational Services	Berford Lake Park	1 (5)	User-Defined	\$48,000
	Bluewater Park	1 (80)		\$2,960,000
	Coal Shed	1 (41)		\$1,274,000
	Elsinore Community Center	1		\$500,000
	Hepworth Community Center	1 (5)		\$600,000
	Hope Bay Washrooms	1 (3)		\$45,000

Buildings

Asset Segment	Name	Quantity (# of Components)	Replacement Cost Method	Total Replacement Cost
	North Beach Washrooms	1		\$89,000
	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)		\$45,000
	Ross Whicher Center	1 (47)		\$2,824,000
	Sauble Beach Community Center	1 (63)		\$4,321,000
	Sauble Beach Lawn Bowling	1 (33)		\$850,000
	Sauble Beach Library	1 (36)		\$1,500,000
	Sauble Medical Clinic	1 (9)		\$2,650,000
	Sauble Town Square	1 (3)		\$1,178,000
	South Beach Washroom	1		\$82,000
	Train Station	1 (22)		\$1,138,000
	Wiarion Arena & Community Center	1 (79)		\$40,000,000
	Wiarion Willie House	1		\$45,000
Transportation Services	Albemarle Public Works Shop	1 (37)	User-Defined	\$919,000
	Amabel Public Works Shop	1 (35)		\$3,391,000
	Wiarion Public Works Shop	1 (34)		\$1,124,000
				\$73,780,000

Buildings

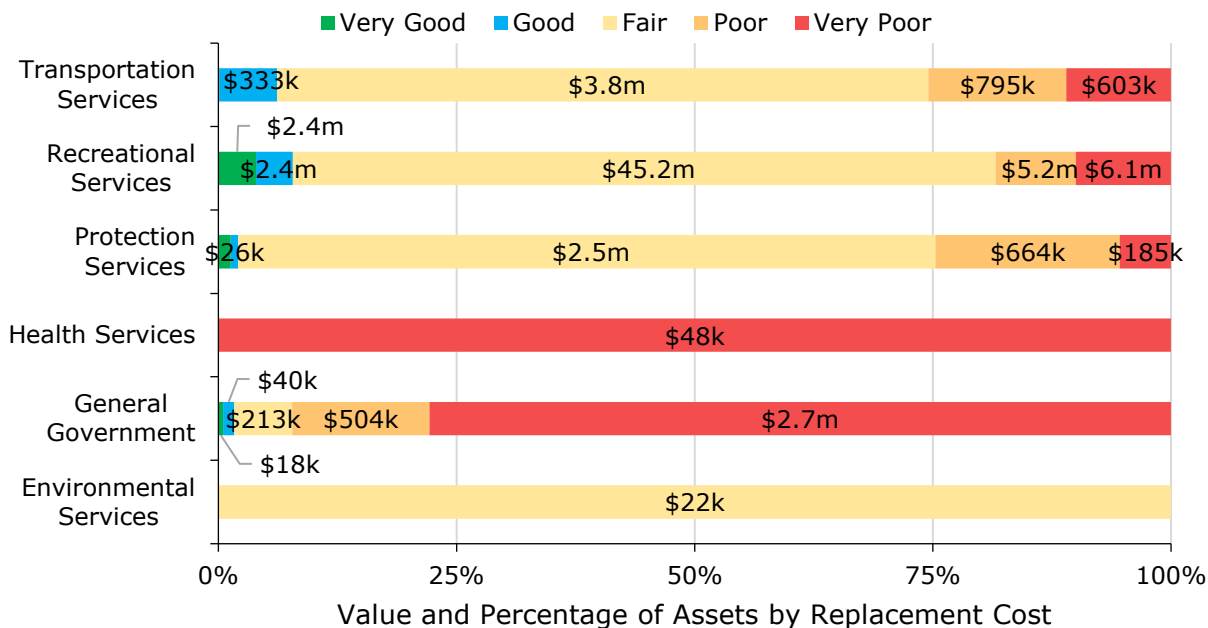


4.4.2 Asset Condition

The table below identifies the current average condition and source of available condition data for each asset segment. The Average Condition (%) is a weighted value based on replacement cost.

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Environmental Services	59%	Fair	100% Assessed
General Government	19%	Very Poor	99% Assessed
Health Services	0%	Very Poor	Age-Based
Protection Services	48%	Fair	100% Assessed
Recreational Services	51%	Fair	90% Assessed
Transportation Services	46%	Fair	100% Assessed
	49%	Fair	92% Assessed

Buildings



To ensure that the Town's Buildings continue to provide an acceptable level of service, the Town should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation, and replacement activities is required to increase the overall condition of the Buildings.

Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the municipality's current approach:

- 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.

4.4.3 Estimated Useful Life & Average Age

The Estimated Useful Life for Buildings assets has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable. The Average Age of each asset is based on the number of years each asset has been in-service.

Asset Segment	Weighted Average Estimated Useful Life (Years)	Weighted Average Age (Years)
Environmental Services	50	22.0
General Government	44	47.7
Health Services	50	66.0
Protection Services	45	36.3
Recreational Services	64	41.7
Transportation Services	38	27.5

Each asset's Estimated Useful Life should be reviewed periodically as part of the regular TCA policy review to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

4.4.4 Lifecycle Management Strategy

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.

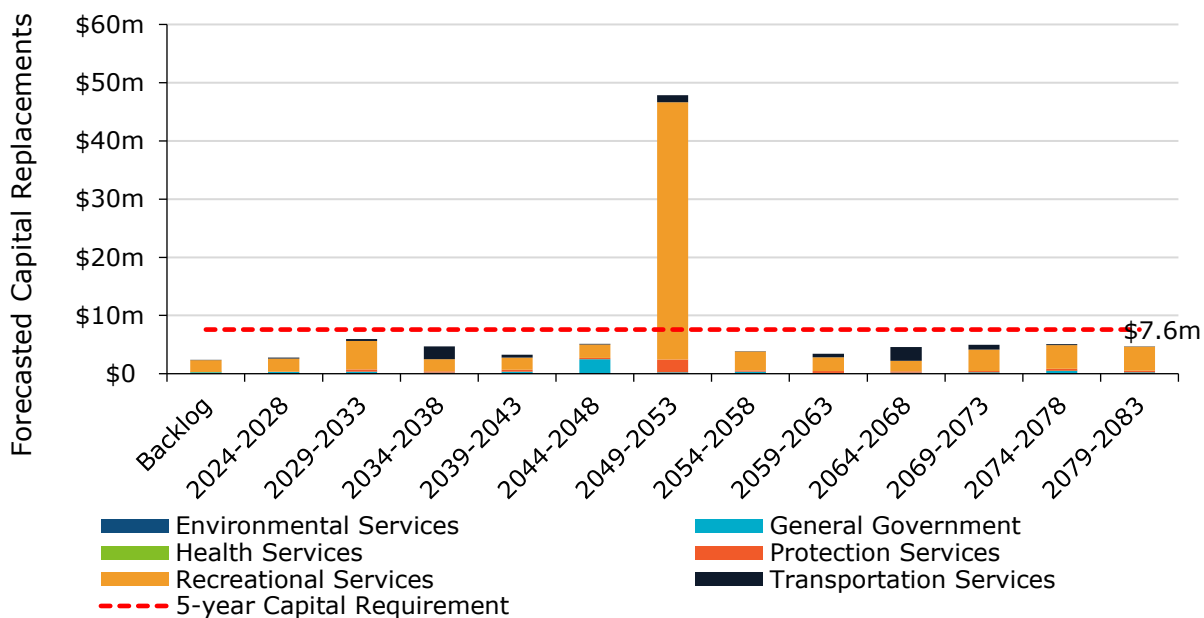
The following table outlines the Town's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance / Rehabilitation	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.

Activity Type	Description of Current Strategy
Replacement	<p>Critical buildings have a detailed maintenance and rehabilitation schedule, while the maintenance of other facilities are dealt with on a case-by-case basis.</p> <p>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.</p> <p>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.</p>

Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Town should allocate towards funding rehabilitation and replacement needs.



The spike in capital replacements in the years 2049-2053 is due to the Wiarion 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 Wiarion Arena & Community Center to determine if replacement will be required.

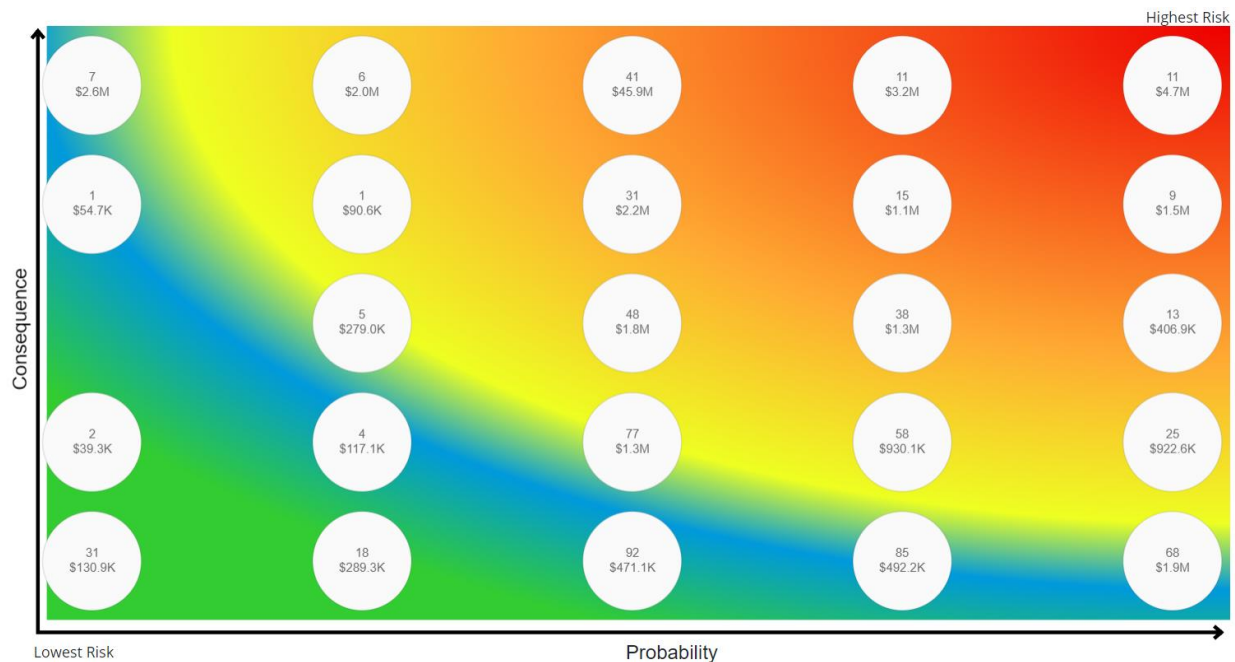
Buildings

The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix A.

4.4.5 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the level of risk exposure for this asset category. It considers both the probability of failure and consequence of failure. The metrics that have been used to determine both can be found in Appendix C.



Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Town is currently facing:



Organizational Capacity

Both short and long-term planning requires the regular collection of infrastructure data to support asset management decision-making. Staff find it a continuous challenge to dedicate staff resource time towards data collection to ensure that building components are documented, and condition and asset attribute data is regularly reviewed and updated.



Aging Infrastructure

As municipal buildings continue to age, there are a handful of structures that are approaching their original useful life. There is currently no decision-making process in place to determine how to plan for structures that will require replacement or disposal.

4.4.6 Levels of Service

The following tables identify the Town’s current level of service for Buildings. These metrics include the technical and community level of service metrics that the Town has selected for this AMP.

Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by Buildings.

Service Attribute	Qualitative Description	Current LOS (2023)
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.

Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by Buildings.

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2023)
Scope	% of facilities that are in good or very good condition	2%	7%
	% of facilities that are in poor or very poor condition	24%	23%
Performance	Capital reinvestment rate	0.5%	0.5%

4.4.7 Recommendations

Data Review/Validation

- 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 asset Estimated Useful Life on a regular basis as part of the regular TCA policy review.

Condition

- Ensure that the condition ratings from the building condition assessments are entered into the asset inventory on a continuous basis to support planning for deterioration modeling.

Risk Management Strategies

- Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Lifecycle Management Strategies

- 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.

Levels of Service

- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

4.5 Land Improvements

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

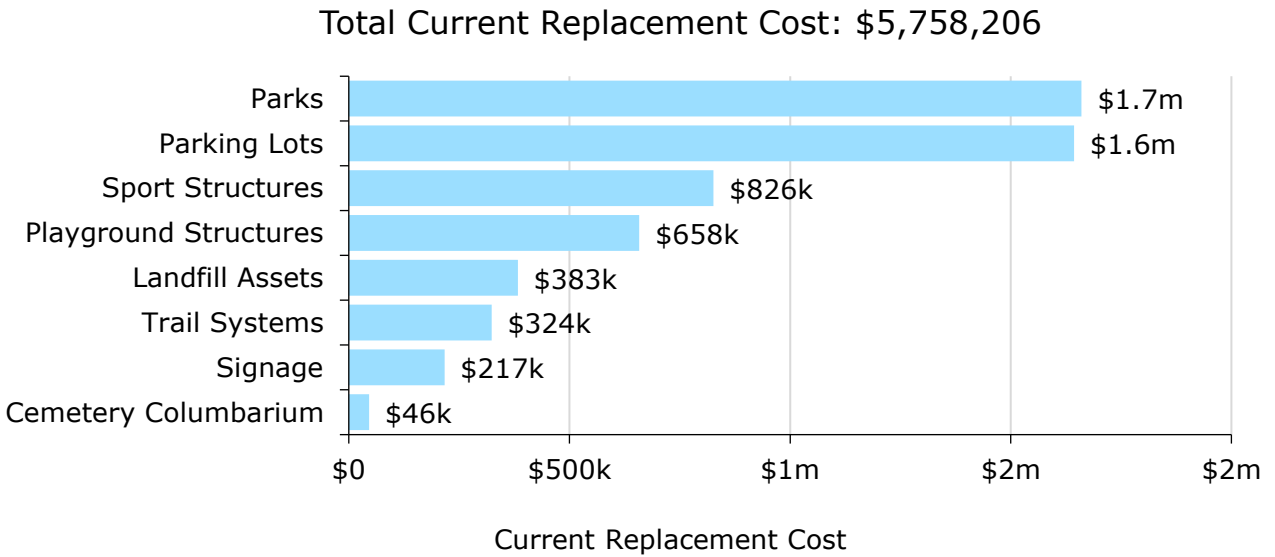
- Cemetery Columbarium
- Landfill Assets
- Parking Lots
- Parks
- Playground Structures
- Signage
- Sport Structures
- Trail Systems

4.5.1 Asset Inventory & Replacement Cost

The table below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Town’s Land Improvements inventory.

Asset Segment	Quantity (# of component)	Replacement Cost Method	Total Replacement Cost
Cemetery Columbarium	1	CPI Tables	\$46,000
Landfill Assets	1 (6)	CPI Tables	\$383,000
Parking Lots	24	CPI Tables	\$1,643,000
Parks	7 (146)	CPI Tables	\$1,660,000
Playground Structures	12 (28)	User-Defined	\$658,000
Signage	17	CPI Tables	\$217,000
Sport Structures	12	User-Defined	\$826,000
Trail Systems	6	User-Defined	\$324,000
			\$5,758,000

Land Improvements

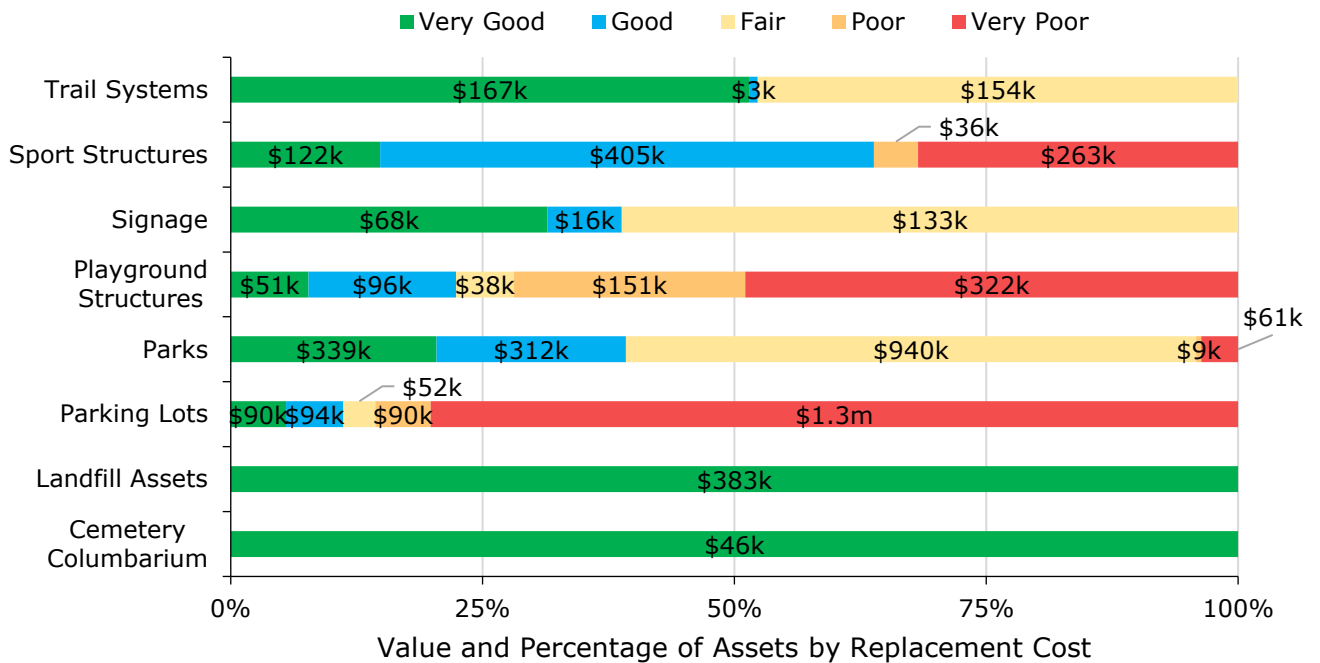


4.5.2 Asset Condition

The table below identifies the current average condition and source of available condition data for each asset segment. The Average Condition (%) is a weighted value based on replacement cost.

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Cemetery Columbarium	99%	Very Good	Age-Based
Landfill Assets	87%	Very Good	Age-Based
Parking Lots	17%	Very Poor	5% Assessed
Parks	59%	Fair	14% Assessed
Playground Structures	29%	Poor	23% Assessed
Signage	64%	Good	Age-Based
Sport Structures	53%	Fair	15% Assessed
Trail Systems	71%	Good	11% Assessed
	46%	Fair	11% Assessed

Land Improvements



To ensure that the Town’s Land Improvements continues to provide an acceptable level of service, the Town should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation, and replacement activities is required to increase the overall condition of the Land Improvements.

Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the municipality’s current approach:

- Staff perform visual inspections for most of the assets on regular basis
- Parks are assessed based on the Parks, Recreation and Culture Master Plan (2019)

4.5.3 Estimated Useful Life & Average Age

The Estimated Useful Life for Land Improvements assets has been assigned based on the TCA policy, and according to a combination of established industry standards and staff knowledge where applicable. The Average Age of each asset is based on the number of years each asset has been in-service.

Asset Segment	Weighted Average Estimated Useful Life (Years)	Weighted Average Age (Years)
Cemetery Columbarium	50	1.6
Landfill Assets	24	1.7
Parking Lots	20	25.1
Parks	27	8.1
Playground Structures	13	9.1
Signage	21	5.8
Sport Structures	13	7.8
Trail Systems	20	6

Each asset’s Estimated Useful Life should be reviewed periodically as part of the regular TCA policy review to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

4.5.4 Lifecycle Management Strategy

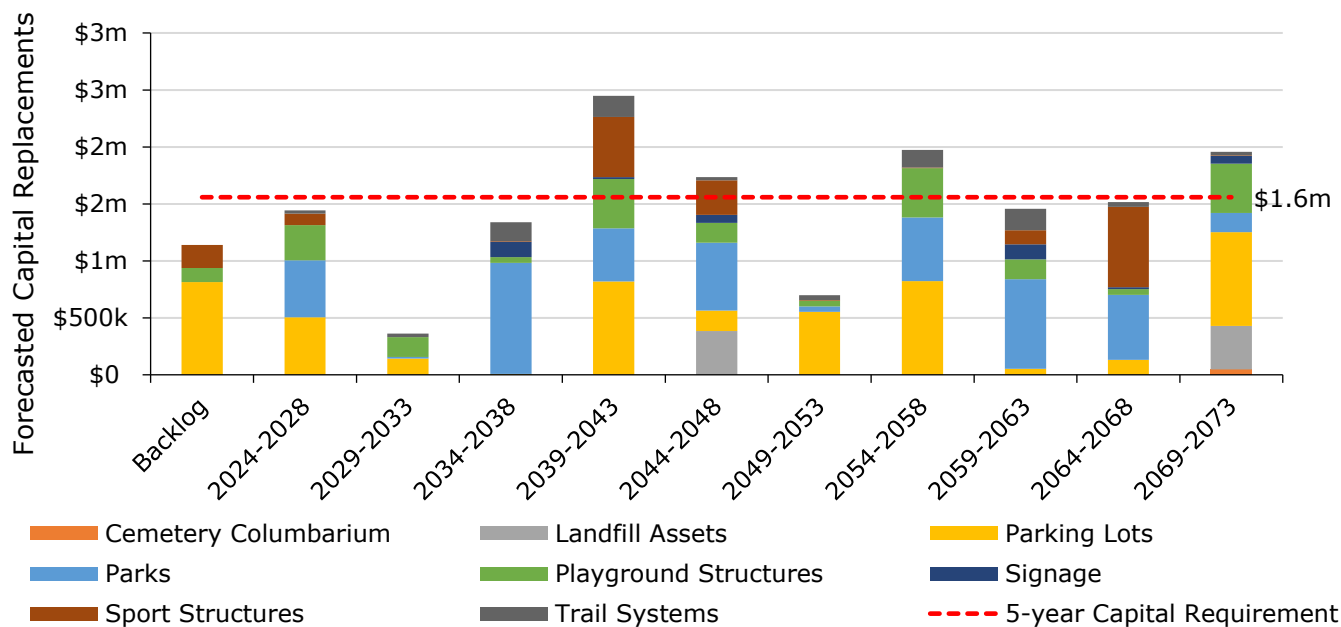
The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

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

Activity Type	Description of Current Strategy
Maintenance, Rehabilitation & 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.

Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Town should allocate towards funding rehabilitation and replacement needs.

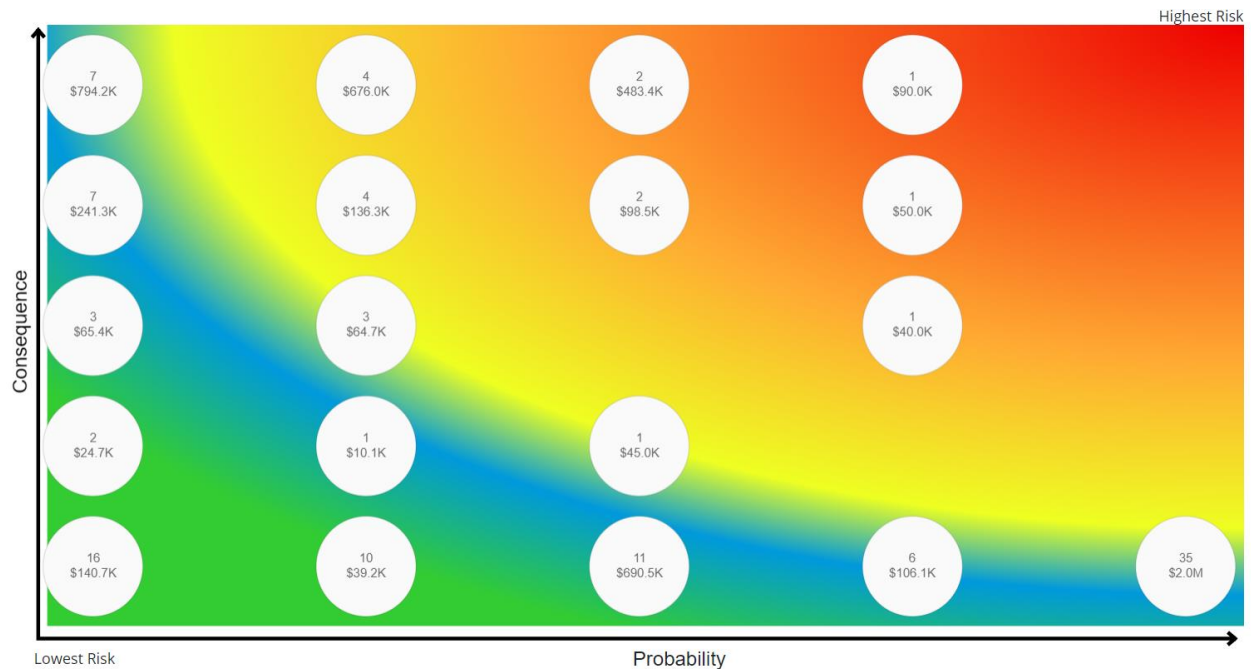


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix A.

4.5.5 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the level of risk exposure for this asset category. It considers both the probability of failure and consequence of failure. The metrics that have been used to determine both can be found in Appendix C.



Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Town is currently facing:



Asset Data & Information

There is a lack of confidence in the available inventory and condition data for land improvement assets. Staff plan to prioritize data refinement efforts to increase confidence in the accuracy and reliability of asset data and information. Once completed there will be greater confidence in the development of data-driven strategies to address infrastructure needs.



Public Expectations

The Land Improvements assets are citizen facing. Therefore, the service levels must be maintained at a certain level at all times to meet public expectations.

4.5.1 Levels of Service

The following tables identify the Town’s current level of service for Land Improvements. These metrics include the technical and community level of service metrics that the Town has selected for this AMP.

Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by Land Improvements.

Service Attribute	Qualitative Description	Current LOS (2023)
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.

Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the Land Improvements.

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2023)
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%	38%
	% of land improvement assets that are in poor or very poor condition	41%	39%
Performance	Capital reinvestment rate	1.9%	0.5%

4.5.2 Recommendations

Data Review/Validation

- 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 asset Estimated Useful Life on a regular basis as part of the regular TCA policy review.

Condition

- 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.

Risk Management Strategies

- Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Land Improvements

Lifecycle Management Strategies

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

Levels of Service

- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

4.6 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:

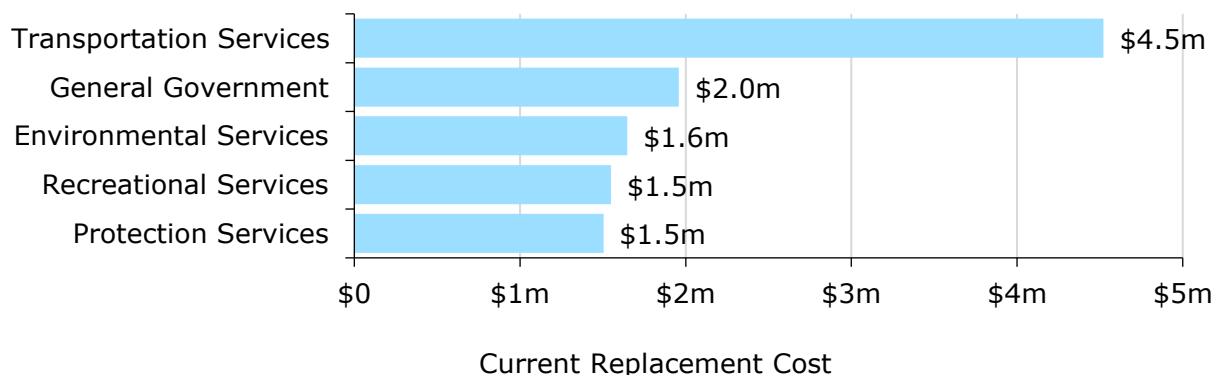
- Environmental Services (ex: Landfill Weigh Scales, Utility Meter Reader)
- General Government (ex: Office Furniture, Computer Hardware)
- Protection Services (ex: Generators, Personal Protective Equipment, Portable Radios)
- Recreational Services (ex: Mowers, Zamboni Ice Resurfacer, Portable Stage)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

4.6.1 Asset Inventory & Replacement Cost

The table below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Town’s Machinery & Equipment inventory.

Asset Segment	Quantity	Replacement Cost Method	Total Replacement Cost
Environmental Services	37	CPI Tables	\$1,647,000
General Government	2,499	CPI Tables	\$1,959,000
Protection Services	1,558	CPI Tables	\$1,504,000
Recreational Services	433	CPI Tables	\$1,549,000
Transportation Services	140	CPI Tables	\$4,522,000
			\$11,182,000

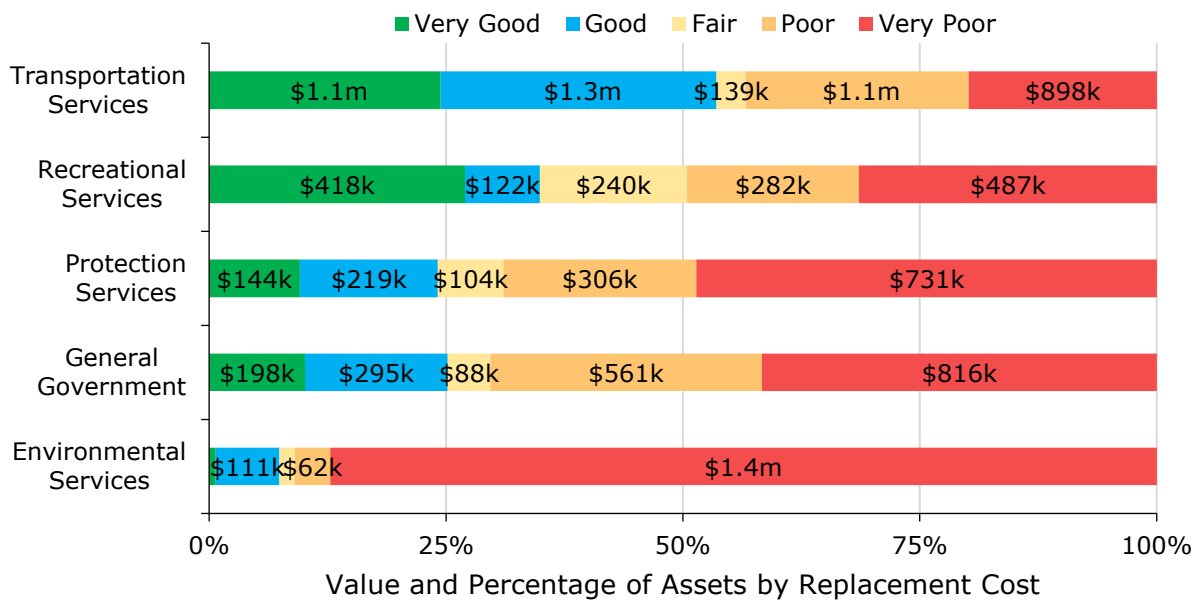
Total Current Replacement Cost: \$11,181,711



4.6.2 Asset Condition

The table below identifies the current average condition and source of available condition data for each asset segment. The Average Condition (%) is a weighted value based on replacement cost.

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Environmental Services	8%	Very Poor	83% Assessed
General Government	32%	Poor	35% Assessed
Protection Services	30%	Poor	6% Assessed
Recreational Services	44%	Fair	35% Assessed
Transportation Services	52%	Fair	72% Assessed
	38%	Poor	52% Assessed



Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the municipality’s current approach:

- 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.

4.6.3 Estimated Useful Life & Average Age

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. The Average Age of each asset is based on the number of years each asset has been in-service.

Asset Segment	Weighted Average Estimated Useful Life (Years)	Weighted Average Age (Years)
Environmental Services	8	4.8
General Government	10	10.3
Protection Services	11	9.9
Recreational Services	11	5.6
Transportation Services	15	8.1

Each asset’s Estimated Useful Life should be reviewed periodically as part of the regular TCA policy review to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

4.6.4 Lifecycle Management Strategy

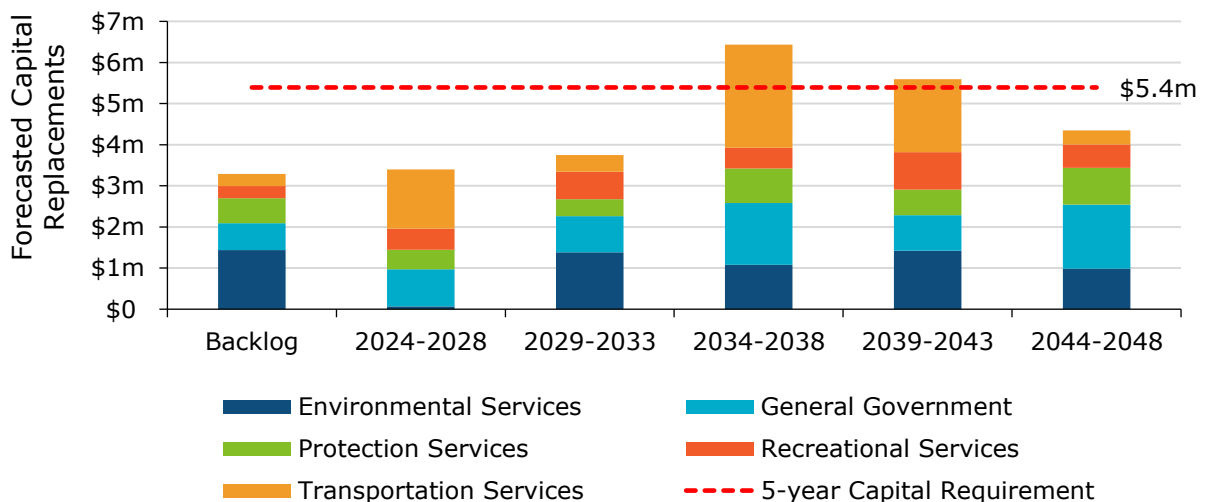
The condition or performance of most assets will deteriorate over time. This process is affected by a range of factors including an asset’s characteristics, location, utilization, maintenance history and environment.

The following table further expands on the Town’s current approach to lifecycle management:

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.

Forecasted Capital Requirements

Based on the lifecycle strategies identified previously, and assuming the end-of-life replacement of all other assets in this category, the following graph forecasts capital requirements for the Machinery and Equipment Assets.



Machinery & Equipment

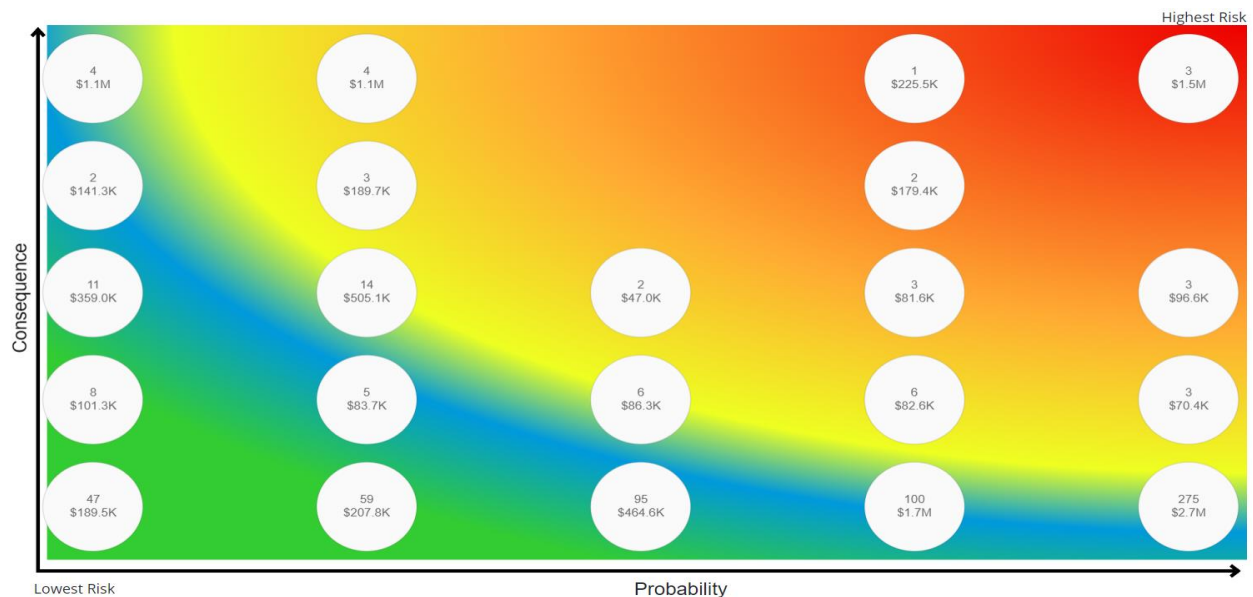
The annual capital requirement represents the average amount per year that the Town should allocate towards funding rehabilitation and replacement needs to meet future capital needs.

The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix A.

4.6.5 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the level of risk exposure for this asset category. It considers both the probability of failure and consequence of failure. The metrics that have been used to determine both can be found in Appendix C.



Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Town is currently facing:



Organizational Capacity

Both short-term and long-term planning requires the regular collection of infrastructure data to support asset management decision-making. Staff find it a continuous challenge to dedicate staff resource time towards data collection to ensure that machinery and equipment components are documented and condition and asset attribute data is regularly reviewed and updated.

4.6.6 Levels of Service

The following tables identify the Town’s current Level of Service for Machinery and Equipment. These metrics include the technical and community level of service metrics that the Town has selected for this AMP.

Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by Machinery and Equipment.

Service Attribute	Qualitative Description	Current LOS (2023)
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.

Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the Machinery and Equipment.

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2023)
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% ³
	% of other machinery & equipment that is in poor or very poor condition	27%	58%
Performance	Capital reinvestment rate	4.2%	2.2%

³ 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.

4.6.7 Recommendations

Asset Inventory

- 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 asset Estimated Useful Life on a regular basis as part of the regular TCA policy review.

Condition Assessment Strategies

- 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.

Risk Management Strategies

- Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Levels of Service

- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

4.7 Vehicles

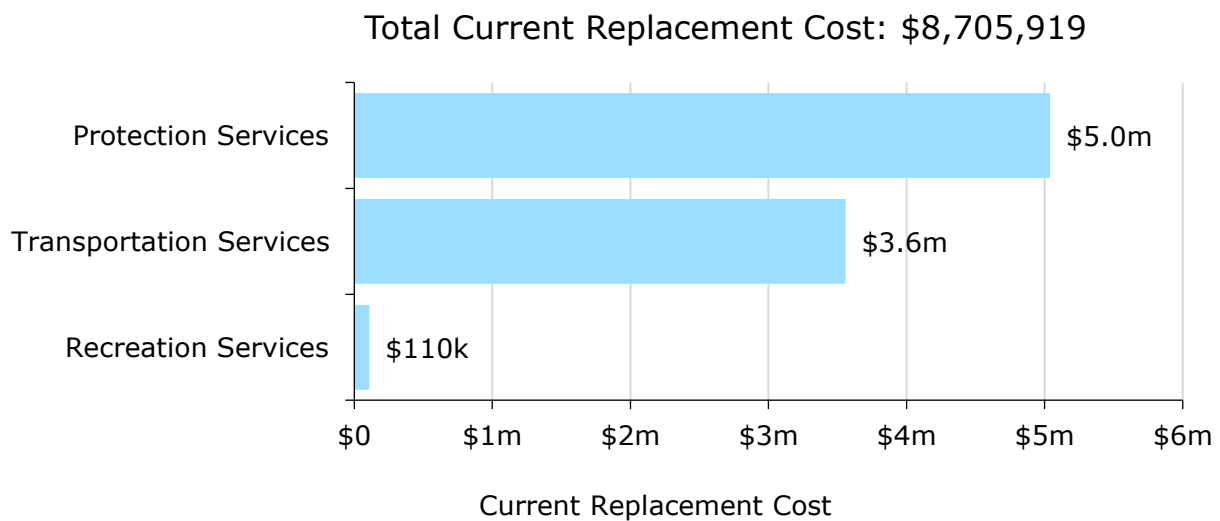
Vehicles allow staff to efficiently deliver municipal services and personnel. Municipal vehicles are used to support several service areas, including:

- Protection Services
- Transportation Services
- Recreational Services

4.7.1 Asset Inventory & Replacement Cost

The table below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Town’s Vehicles inventory.

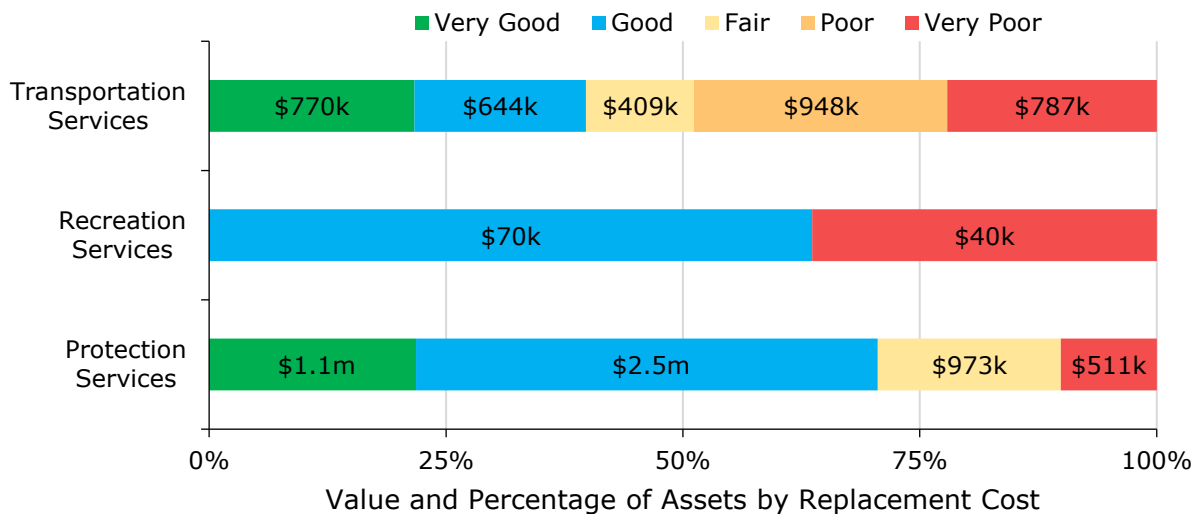
Asset Segment	Sub-Segment	Quantity	Replacement Cost Method	Total Replacement Cost
Protection Services	Fire	7	User-Defined	\$5,039,000
	Light Duty	1		
Recreational Services	Light Duty	2	User-Defined	\$110,000
Transportation Services	Heavy Duty	4	User-Defined	\$3,557,000
	Medium Duty	6		
	Light Duty	15		
				\$8,706,000



4.7.2 Asset Condition

The table below identifies the current average condition and source of available condition data for each asset segment. The Average Condition (%) is a weighted value based on replacement cost.

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Protection Services	62%	Good	100% Assessed
Recreational Services	39%	Poor	100% Assessed
Transportation Services	53%	Fair	100% Assessed
	58%	Fair	100% Assessed



To ensure that the Town’s Vehicles continue to provide an acceptable level of service, the Town should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation and replacement activities is required to increase the overall condition of the Vehicles assets.

Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the municipality’s current approach:

- 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.

4.7.3 Estimated Useful Life & Average Age

The Estimated Useful Life for vehicles has been assigned according to the TCA policy, and a combination of established industry standards and staff knowledge where applicable. The Average Age of each asset is based on the number of years each asset has been in-service.

Asset Segment	Weighted Average Estimated Useful Life (Years)	Weighted Average Age (Years)
Protection Services	25	14.6
Recreational Services	8	1.3
Transportation Services	13	8.6

Each asset’s Estimated Useful Life should be reviewed periodically as part of the regular TCA policy review to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

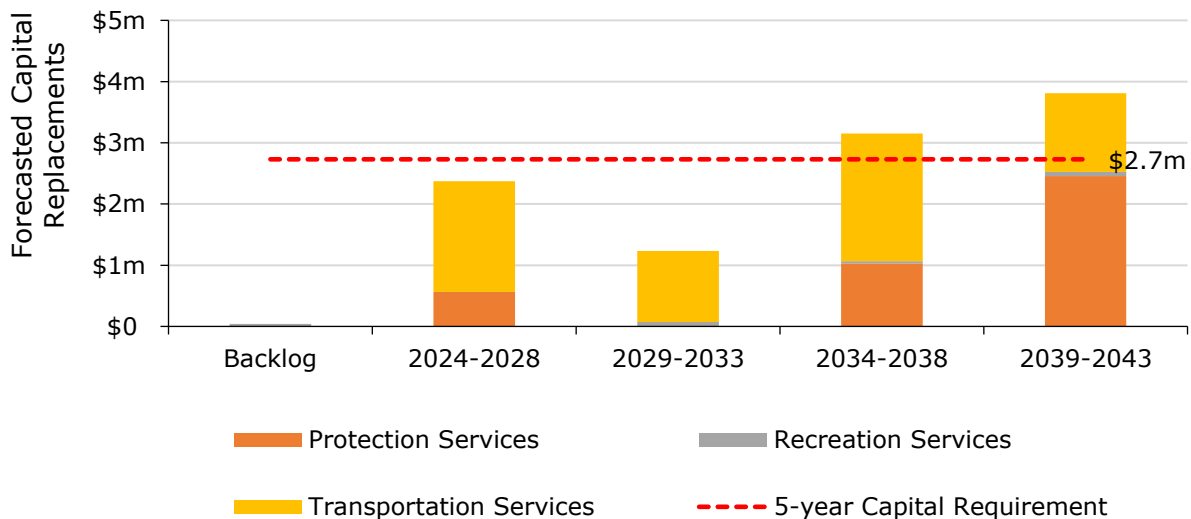
4.7.4 Lifecycle Management Strategy

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, kilometres and annual repair costs are taken into consideration when determining appropriate treatment options.

Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Town should allocate towards funding rehabilitation and replacement needs.

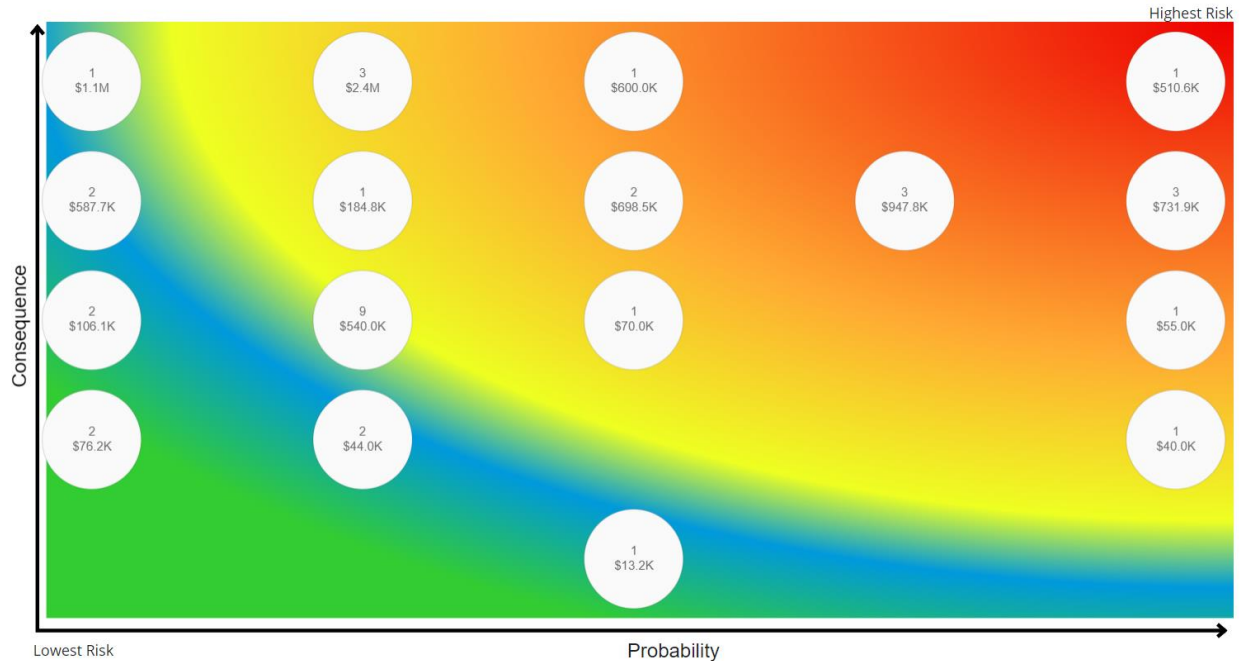


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix A.

4.7.5 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the level of risk exposure for this asset category. It considers both the probability of failure and consequence of failure. The metrics that have been used to determine both can be found in Appendix C.



Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Town is currently facing:



Aging Infrastructure & Capital Funding

As municipal vehicles continue to age, there are a handful of assets that are approaching their original useful life. There is currently no decision-making process in place to determine how to budget for asset replacement. Current practice does include an assessment of leasing versus buying options where applicable to ensure best practices for financial planning.

4.7.6 Levels of Service

The following tables identify the Town’s current level of service for Vehicles. These metrics include the technical and community level of service metrics the Town has selected for this AMP.

Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by Vehicles.

Service Attribute	Qualitative Description	Current LOS (2023)
Scope	Description of the Fleet Management and Safety Program	<p>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.</p> <p>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.</p> <p>Public Works staff perform daily circle checks, and visual inspections twice a year on their vehicles.</p>
Performance	Description of the current condition of municipal vehicles and plans that are in place to maintain or improve the provided level of service	<p>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.</p> <p>Recreation and Transportation vehicles are in fair condition and provide an acceptable level of service.</p>

Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by Vehicles.

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2023)
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%

4.7.7 Recommendations

Asset Inventory

- Continue to review and validate inventory data, assessed condition data and replacement costs for all vehicles.
- Review and refine asset Estimated Useful Life on a regular basis as part of the regular TCA policy review.

Condition Assessment Strategies

- 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.

Risk Management Strategies

- Review risk models on a regular basis and adjust according to the availability of data.
- Ongoing review of risk models as staff has an evolving understanding of the probability and consequences of asset failure.

Vehicles

Levels of Service

- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

5 Analysis of Rate-funded Assets

Key Insights

- Rate-funded assets are valued at \$117.4 million
- 65% of rate-funded assets are in fair or better condition
- The average annual capital requirement to sustain the current level of service for rate-funded assets is approximately \$2.1 million
- Critical assets should be evaluated to determine appropriate risk mitigation activities and treatment options

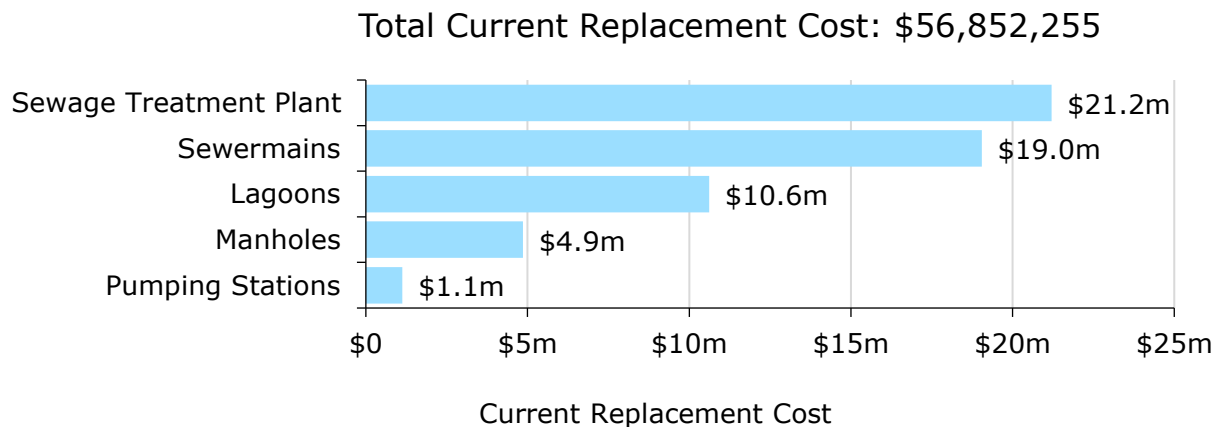
5.1 Sanitary Network

The Town is responsible for approximately 32 kilometres 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).

5.1.1 Asset Inventory & Replacement Cost

The table below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Town’s Sanitary Network inventory.

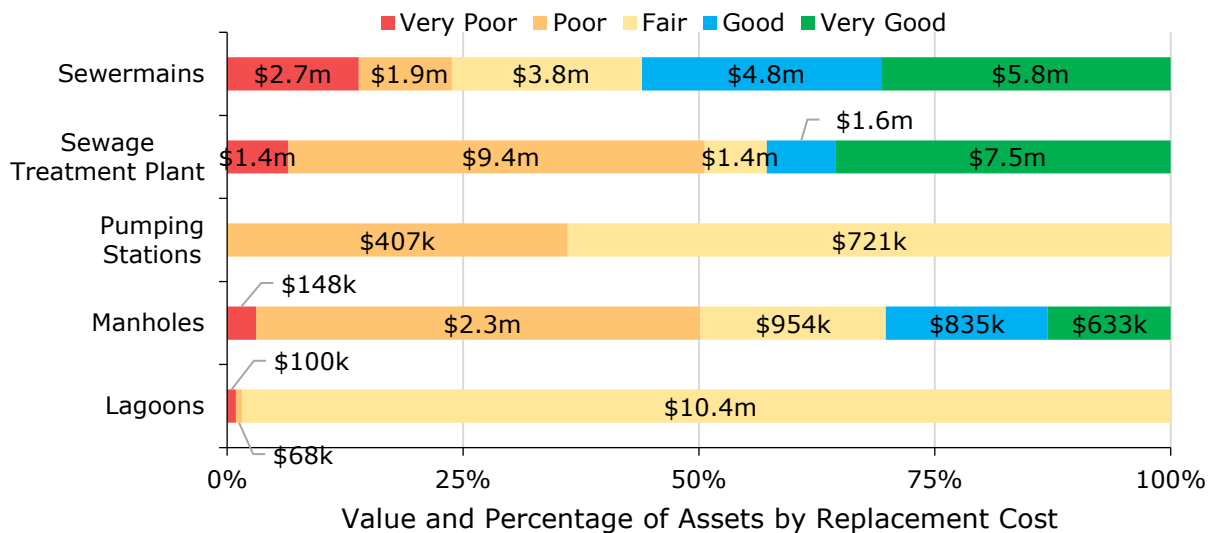
Asset Segment	Quantity (# of components)	Replacement Cost Method	Total Replacement Cost
Lagoons	1 (17)	CPI Tables	\$10,613,000
Manholes	232	Cost/Unit	\$4,861,000
Pumping Stations	2	CPI Tables	\$1,128,000
Sewage Treatment Plant	1 (177)	CPI Tables	\$21,205,000
Sewer mains	32,000 m	Cost/Unit	\$19,046,000
			\$56,852,000



5.1.2 Asset Condition

The table below identifies the current average condition and source of available condition data for each asset segment. The Average Condition (%) is a weighted value based on replacement cost.

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Lagoons	54%	Fair	99% Assessed
Manholes	49%	Fair	5% Assessed
Pumping Stations	47%	Fair	Age-Based
Sewage Treatment Plant	51%	Fair	58% Assessed
Sewer mains	63%	Good	63% Assessed
	54%	Fair	45% Assessed



To ensure that the Town’s Sanitary Network continues to provide an acceptable level of service, the Town should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation and replacement activities is required to increase the overall condition of the Sanitary Network.

Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the municipality’s current approach:

- OCWA performs regular inspections and assessments on the Town’s wastewater treatment plant, lagoon systems, and pumping stations.
- CCTV camera inspections are completed on an as-needed basis.

5.1.3 Estimated Useful Life & Average Age

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. The Average Age of each asset is based on the number of years each asset has been in-service.

Asset Segment	Weighted Average Estimated Useful Life (Years)	Weighted Average Age (Years)
Lagoons	64	79.4
Manholes	75	36.7
Pumping Stations	50	24.9
Sewage Treatment Plant	46	22.7
Sewer mains	75	30.2

Each asset’s Estimated Useful Life should be reviewed periodically as part of the regular TCA policy review to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

5.1.4 Lifecycle Management Strategy

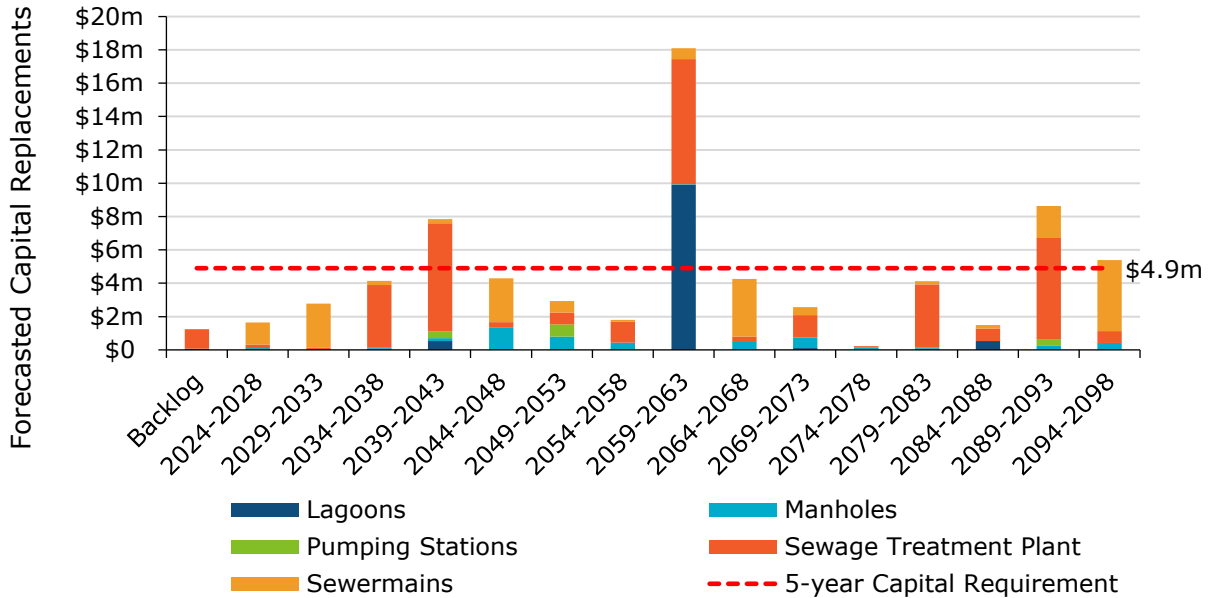
The condition or performance of most assets will deteriorate over time. This process is affected by a range of factors including an asset’s characteristics, location, utilization, maintenance history and environment. To ensure that municipal assets are performing as expected and meeting the needs of 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.
	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.
Rehabilitation	CCTV camera inspections are completed on an-as needed basis. However, Staff plan to conduct a network-wide camera inspection of their sewer systems.

Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Town should allocate towards funding rehabilitation and replacement needs.



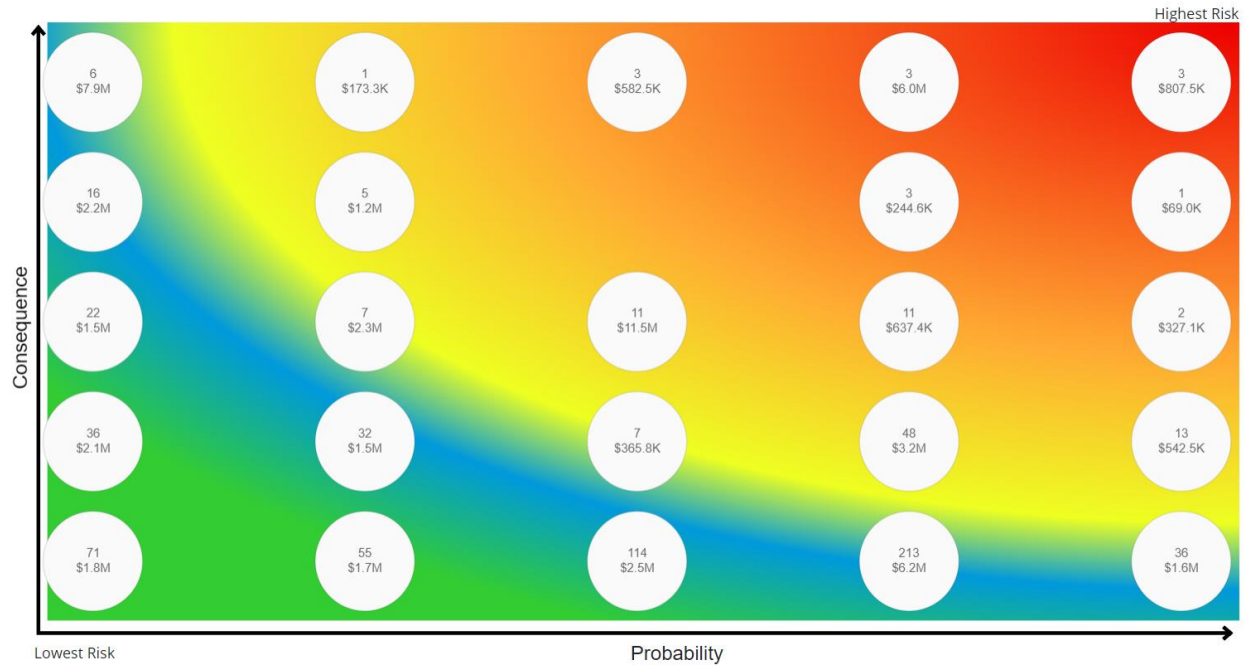
The spike in forecasted capital replacements in the years 2064-2068 is due to the Warton Wastewater Treatment Plant Expansion Lagoon reaching the end of its useful life in this period, forecasting a replacement cost of \$7.5 million. The Town should continue to monitor the condition of this Lagoon to determine if replacement will be required.

The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix A.

5.1.5 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the level of risk exposure for this asset category. It considers both the probability of failure and consequence of failure. The metrics that have been used to determine both can be found in Appendix C.



Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Town is currently facing:



Lifecycle Management Strategies

There are still a handful of cracked sanitary mains in the Town that are a high priority for replacement to ensure that no stormwater can enter the sanitary network. Staff aim to reduce the amount of stormwater that is conveyed to wastewater treatment plants.

5.1.6 Levels of Service

The following tables identify the Municipality’s current level of service for the Sanitary Network. These metrics include the technical and community level of service metrics that the Town has selected for this AMP.

Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by the Sanitary Network.

Service Attribute	Qualitative Description	Current LOS (2023)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal wastewater system	The Warton Wastewater Treatment plant services 937 households in the Town of South Bruce Peninsula. See Appendix B
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 of water and sewage that exceeds its designed capacity. In some

Service Attribute	Qualitative Description	Current LOS (2023)
		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.
Reliability	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.

Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the Sanitary Network.

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2023)
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

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2023)
	# of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system	0	0
Performance	Capital re-investment rate	0.3%	0.8%

5.1.7 Recommendations

Asset Inventory

- 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 asset Estimated Useful Life on a regular basis as part of the regular TCA policy review.

Condition Assessment Strategies

- Identify condition assessment strategies for high value and high-risk Sanitary Network assets.

Risk Management Strategies

- Review risk models on a regular basis and adjust according to the availability of new data
- Ongoing review of risk models as staff has an evolving understanding of the probability and consequences of asset failure.

Lifecycle Strategies

- 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.

Levels of Service

- 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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

5.2 Water Network

The Town is responsible for approximately 32 kilometres of water mains, 136 hydrants, 1,105 water meters, 9 water pumping stations, 39 tower/booster equipment, 377 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 using a combination of valves and hydrants that signify the start and end of each segment.

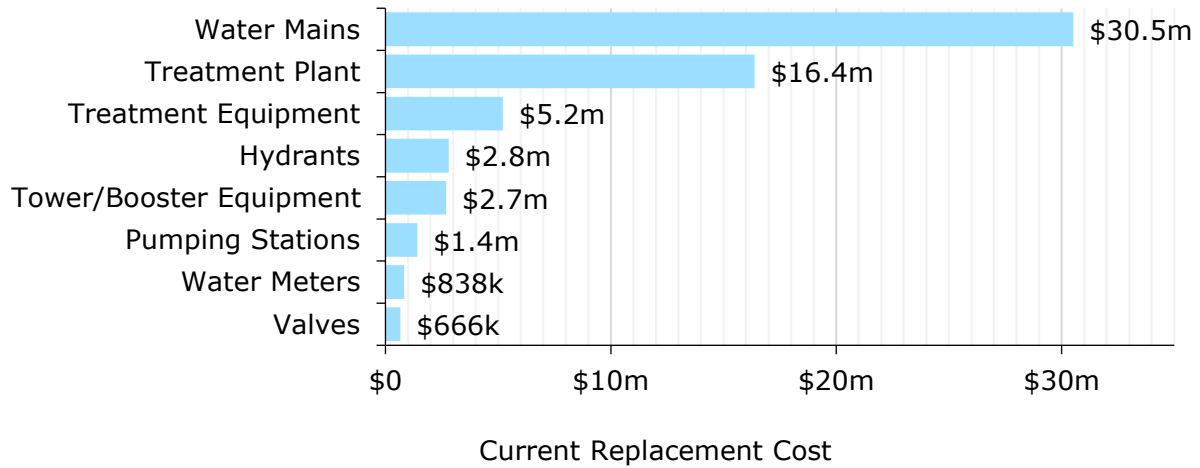
Staff completed their 2020 Rate Study and retained a contractor to develop their Water Financial Plan in accordance with O.Reg. 453/07. Staff have identified opportunities for capacity upgrades and expansions in the Amabel Sauble Drinking Water system.

5.2.1 Asset Inventory & Replacement Cost

The table below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Town's Water Network inventory.

Asset Segment	Quantity (# of components)	Replacement Cost Method	Total Replacement Cost
Hydrants	136	User-Defined	\$2,808,000
Pumping Stations	9	Cost/Unit	\$1,408,000
Tower/Booster Equipment	39	CPI Tables	\$2,689,000
Treatment Equipment	377	CPI Tables	\$5,213,000
Treatment Plant	5 (284)	CPI Tables	\$16,380,000
Valves	187	CPI Tables	\$666,000
Water Mains	32,763 m	CPI Tables	\$30,524,000
Water Meters	1,105	Cost/Unit	\$838,000
			\$60,525,000

Total Current Replacement Cost: \$60,525,052

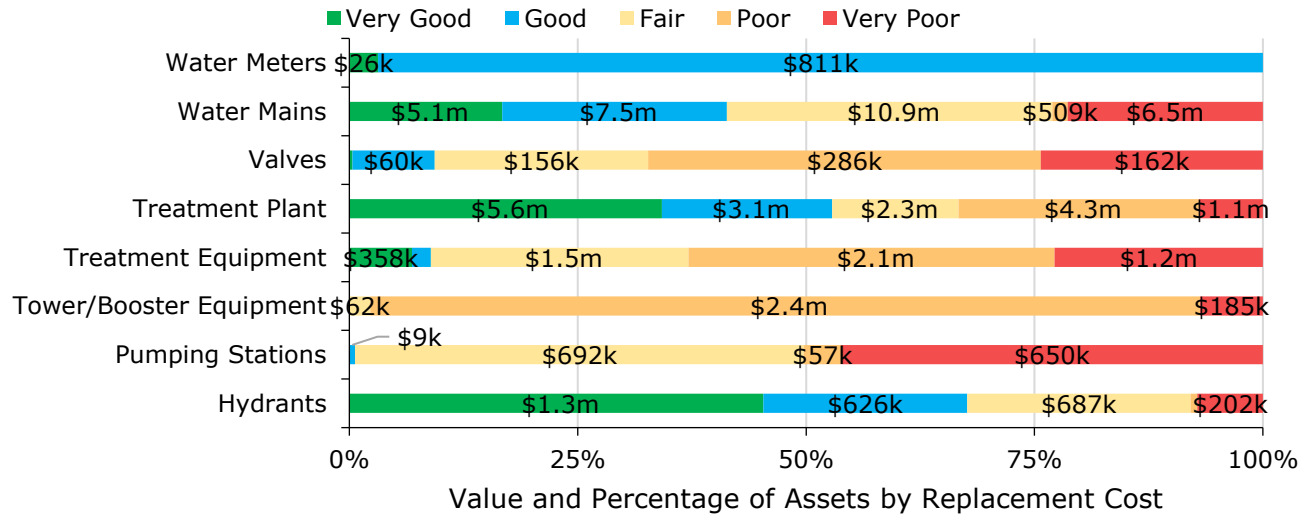


5.2.2 Asset Condition

The table below identifies the current average condition and source of available condition data for each asset segment. The Average Condition (%) is a weighted value based on replacement cost.

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Hydrants	66%	Good	7% Assessed
Pumping Stations	30%	Poor	Age-Based
Tower/Booster Equipment	31%	Poor	97% Assessed
Treatment Equipment	34%	Poor	70% Assessed
Treatment Plants	56%	Fair	29% Assessed
Valves	32%	Poor	81% Assessed
Water Mains	63%	Good	6% Assessed
Water Meters	73%	Good	Age-Based
	57%	Fair	22% Assessed

Water Network



To ensure that the Town's Water Network continues to provide an acceptable level of service, the Town should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation and replacement activities is required to increase the overall condition of the Water Network.

Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the Town's current approach:

- OCWA performs regular visual inspections and condition assessments of the water treatment plants, water tower, and booster/pumping stations.

5.2.3 Estimated Useful Life & Average Age

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. The Average Age of each asset is based on the number of years each asset has been in-service. Each asset's Estimated Useful Life should be reviewed periodically as part of the regular TCA policy review to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

Asset Segment	Weighted Average Estimated Useful Life (Years)	Weighted Average Age (Years)
Hydrants	75	34
Pumping Stations	50	38
Tower/Booster Equipment	45	34
Treatment Equipment	45	28
Treatment Plants	45	18
Valves	45	24
Water Mains	60	29
Water Meters	40	8

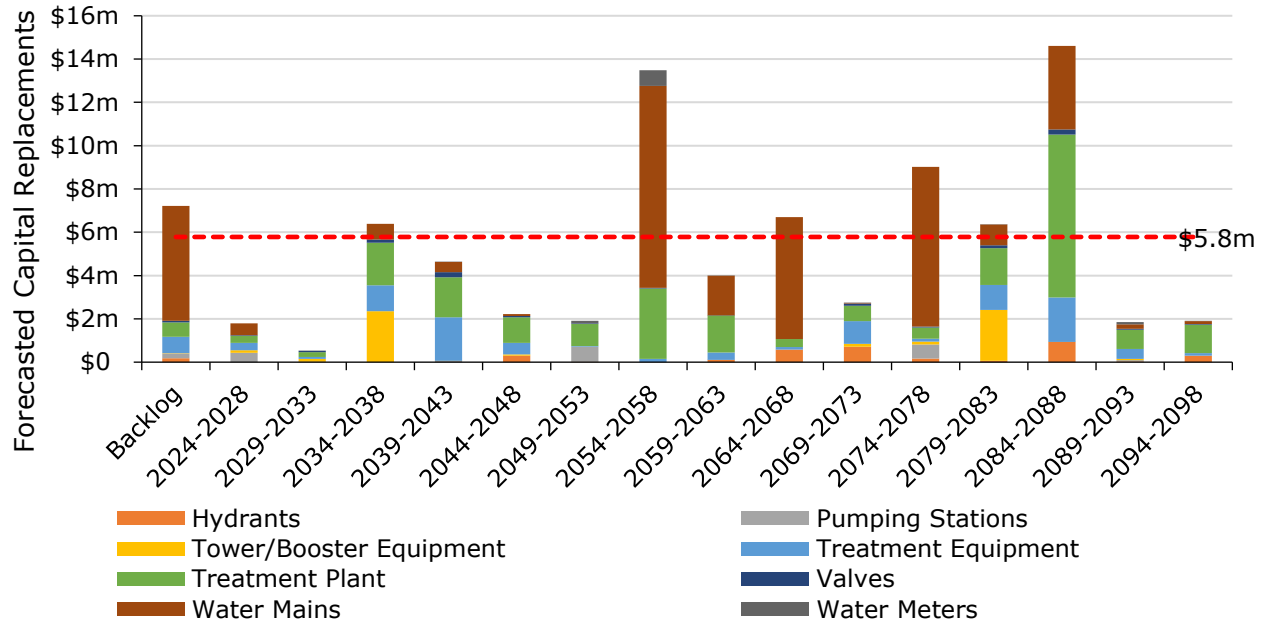
5.2.4 Lifecycle Management Strategy

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.
	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.

Forecasted Capital Requirements

The following graph forecasts long-term capital requirements. The annual capital requirement represents the average amount per year that the Town should allocate towards funding rehabilitation and replacement needs.

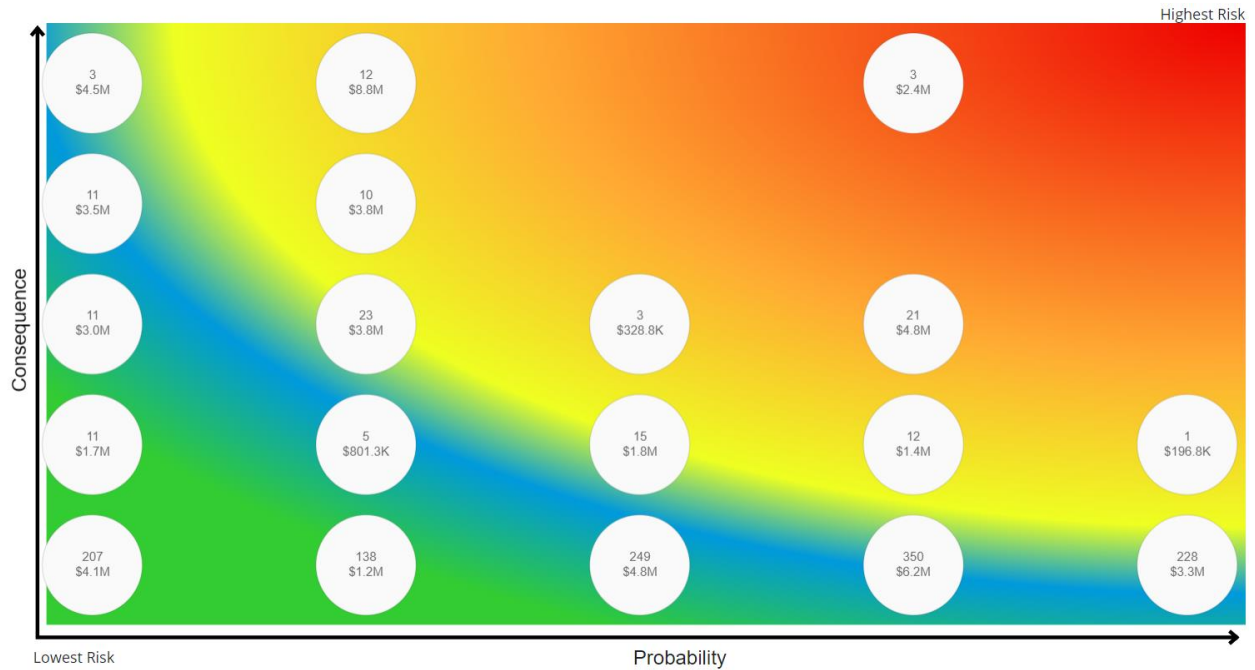


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix A.

5.2.5 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the level of risk exposure for this asset category. It considers both the probability of failure and consequence of failure. The metrics that have been used to determine both can be found in Appendix C.



Risks to Current Asset Management Strategies

The following section summarizes key trends, challenges, and risks to service delivery that the Town is currently facing:



Asset Data & Information

There is a lack of confidence in the available inventory and condition data for water network assets. Staff plan to prioritize data refinement efforts to increase confidence in the accuracy and reliability of asset data and information. Once completed there will be greater confidence in the development of data-driven strategies to address infrastructure needs.



Assessed Condition Data

Watermains are much more difficult to inspect unlike sanitary and storm sewer mains where CCTV camera inspection is possible. Currently staff rely on age-based estimates of current condition and pipe material to try and predict when pipes need to be replaced.

5.2.6 Levels of Service

The following tables identify the Town’s current level of service for the Water Network. These metrics include the technical and community level of service metrics that are required as part of O. Reg. 588/17 as well as any additional performance measures that the Town has selected for this AMP.

Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by the Water Network.

Service Attribute	Qualitative Description	Current LOS (2023)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system	<p>The Town has multiple distribution systems; they are listed below:</p> <ul style="list-style-type: none"> • 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.

Service Attribute	Qualitative Description	Current LOS (2023)
	Description, which may include maps, of the user groups or areas of the municipality that have fire flow	See Appendix B 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 2023. Staff maintain the system following their Drinking Water Quality Management System (DWQMS), in regulation with the Safe Drinking Water Act, 2002.

Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the Water Network.

Service Attribute	Technical Metric	LOS (2020)	Current LOS (2023)
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 re-investment rate	1.4%	1.4%

5.2.7 Recommendations

Asset Inventory

- 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 asset Estimated Useful Life on a regular basis as part of the regular TCA policy review.

Condition Assessment Strategies

- 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.

Risk Management Strategies

- 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.

Lifecycle Strategies

- 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.

Levels of Service

- 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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

6

Impacts of Growth

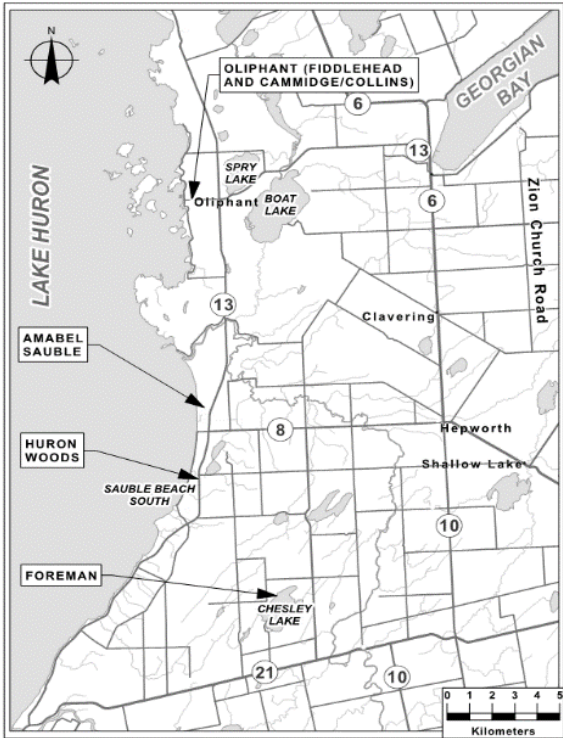
Key Insights

- Understanding the key drivers of growth and demand will allow the Town to more effectively plan for new infrastructure and the upgrade or disposal of existing infrastructure
- Moderate population and employment growth is expected
- The costs of growth should be considered in long-term funding strategies that are designed to maintain the current level of service

6.1 Description of Growth Assumptions

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.

The Town of South Bruce Peninsula has initiated a Water, Wastewater and Stormwater Master Servicing Plan (MSP) for Warton 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 will address current service levels, policy, practices and procedures as well as identify 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.



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.

6.1.1 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.

6.1.2 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 centres 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	8,583	8,840	8,840
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

6.1.3 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.

Wiarnton 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 Wiarnton.

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

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

6.2 Impact of Growth on Lifecycle Activities

By July 1, 2024, the Town’s asset management plan must include a discussion of how the assumptions regarding future changes in population and economic activity informed the preparation of the lifecycle management and financial strategy.

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.

7

Financial Strategy

Key Insights

- The Town is committing approximately \$5 million towards capital projects per year from sustainable revenue sources
- Given the annual capital requirement of \$12 million, there is currently a funding gap of \$7 million annually
- For tax-funded assets, we recommend increasing tax revenues by 2.9% each year for the next 15 years to achieve a sustainable level of funding
- For the Sanitary Services, we recommend increasing rate revenues by 1.9% annually for the next 15 years to achieve a sustainable level of funding
- For the Water Services, we recommend increasing rate revenues by 0.9% annually for the next 15 years to achieve a sustainable level of funding

7.1 Financial Strategy Overview

For an asset management plan (AMP) to be effective and meaningful, it must be integrated with a long-term financial plan (LTFP).⁴ The development of a comprehensive LTFP plan will allow 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 serves as a starting point for initial financial planning, specific for existing capital assets, by presenting several scenarios for consideration and culminating with final recommendations. As outlined below, the scenarios presented model different combinations of the following.

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. Reserves
 - d. Debt
 - e. 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. Gas tax
 - b. Annual grants

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

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

1. In order to reduce financial requirements, consideration has been given to revising service levels downward.

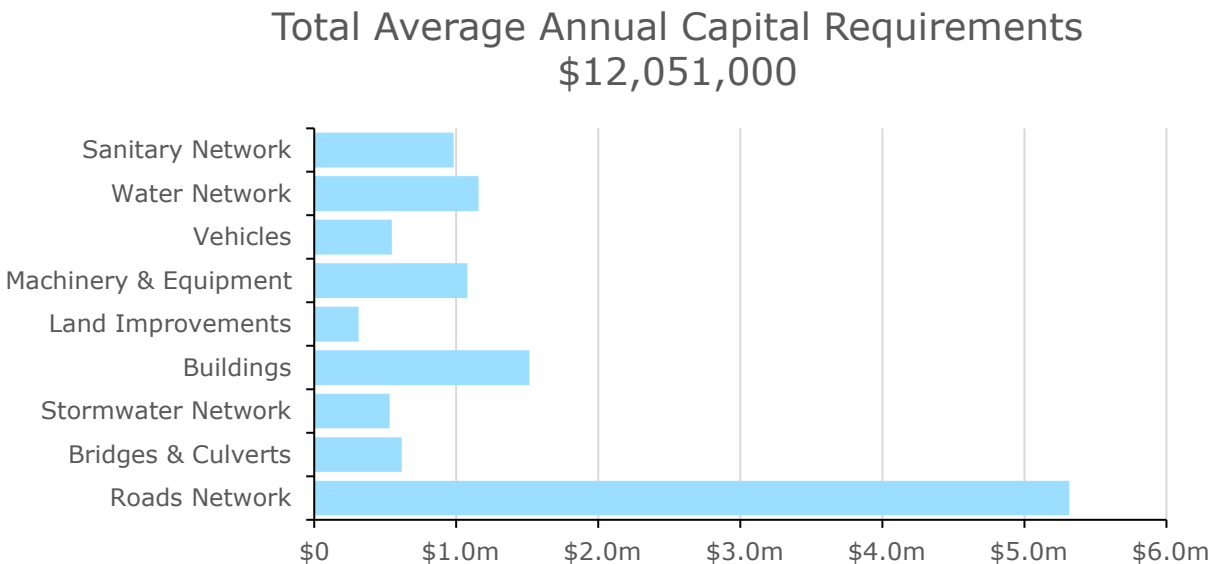
⁴ PSD understands the Town has not prepared a corporate-wide Long-term Financial Plan (LTFP).

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.

7.1.1 Annual Requirements & Capital Funding

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 million annually to address capital expenditures (CapEx) for the assets included in this AMP.



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

However, for the Road Network, Bridges and 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.

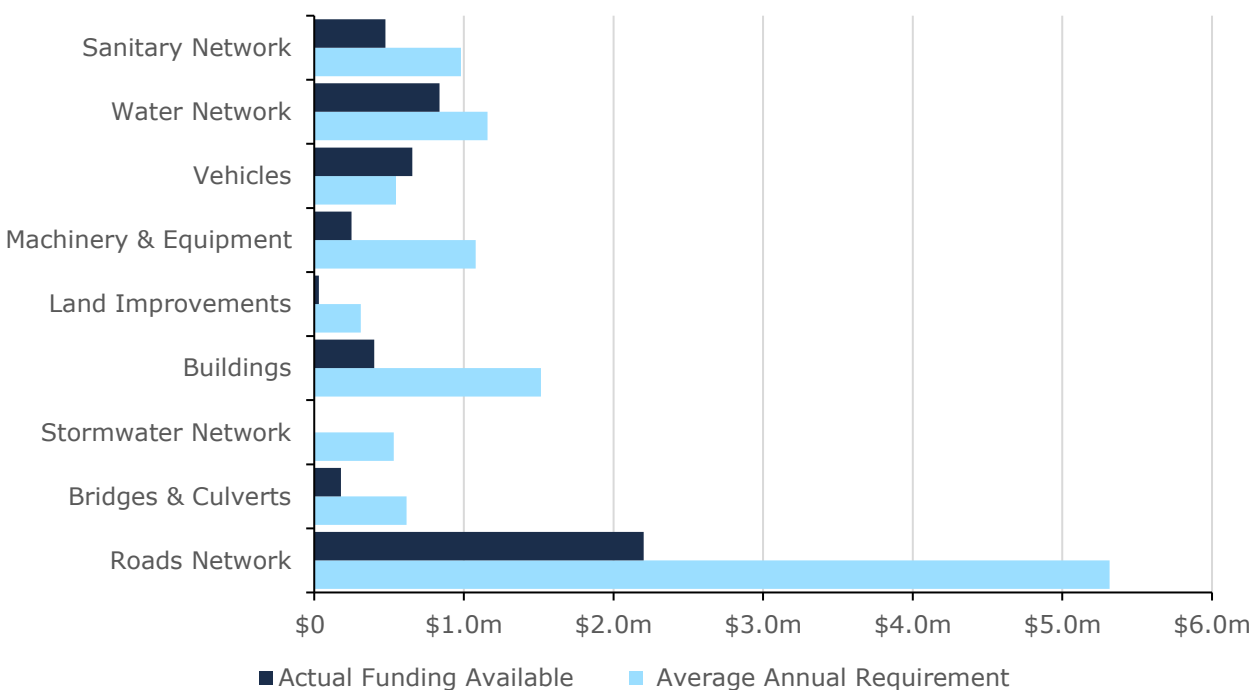
1. **Replacement Only Scenario:** Based on the assumption that assets deteriorate and without regularly scheduled maintenance and rehabilitation are replaced at the end of their service life.
2. **Lifecycle Strategy Scenario:** Based on the assumption that lifecycle activities are performed at strategic 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 a potential annual cost avoidance. The effectiveness of the lifecycle strategy depends on many factors, such as timing, current material and labour costs, and condition of underground infrastructure.

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 million there is currently a funding gap of \$7 million annually.

Annual Requirements & Capital Funding Available



7.2 Funding Objective

We have developed a scenario that would enable South Bruce Peninsula to achieve full funding within 1 to 20 years for the following assets:

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

7.3 Financial Profile: Tax Funded Assets

7.3.1 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 full funding on assets funded by taxes.

Asset Category	Avg. Annual Requirement	Annual Funding Available				Annual Deficit (Surplus)
		Taxes	Gas Tax	OCIF	Total Available	
Road Network	5,315,000	1,213,573	287,268	700,912	2,201,753	3,113,247
Stormwater Network	531,000	0	0	0	0	531,000
Bridges & Culverts	616,000	177,707	0	0	177,707	438,293
Buildings	1,516,000	400,820	0	0	400,820	1,115,180
Machinery & Equipment	1,078,000	250,000	0	0	250,000	828,000
Land Improvements	312,000	31,500	0	0	31,500	280,500
Vehicles	546,000	656,260	0	0	656,260	-110,260
	9,914,000	2,729,860	287,268	700,912	3,718,040	6,195,960

The average annual investment requirement for the above categories is \$9.9 million. Annual revenue currently allocated to these assets for capital purposes is \$3.7 million leaving an annual deficit of \$6.2 million. Put differently, these infrastructure categories are currently funded at 38% of their long-term requirements.

7.3.2 Full Funding Requirements

In 2024, Town of South Bruce Peninsula has budgeted for annual tax revenues of \$12.4 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	25.1%
Stormwater Network	4.3%
Bridges & Culverts	3.5%
Buildings & Facilities	9.0%
Machinery & Equipment	6.7%
Land Improvements	2.3%
Vehicles	-0.9%
	50%

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

- a) South Bruce Peninsula’s debt payments for these asset categories will be decreasing by \$99,000 over the next 20 years

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

	Without Capturing Changes				With Capturing Changes			
	5 Years	10 Years	15 Years	20 Years	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	6,195,960	6,195,960	6,195,960	6,195,960	6,195,960	6,195,960	6,195,960	6,195,960
Change in Debt Costs	N/A	N/A	N/A	N/A	283,942	238,843	184,724	0
Change in OCIF Grants	N/A	N/A	N/A	N/A	0	0	0	0
Resulting Infrastructure Deficit:	6,195,960	6,195,960	6,195,960	6,195,960	6,479,902	6,434,803	6,380,684	6,195,960
Tax Increase Required	50%	50%	50%	50%	52.3%	52.0%	51.5%	50.0%
Annually:	8.5%	4.2%	2.8%	2.1%	8.8%	4.3%	2.9%	2.1%

7.3.3 Financial Strategy Recommendations

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

- when realized, reallocating the debt cost reductions to the infrastructure deficit as outlined above.
- increasing tax revenues dedicated to CapEx by approx. 2.9% each year for the next 15 years solely for the purpose of phasing in full funding to the asset categories covered in this section of the AMP.
- allocating the government transfer revenues (e.g. Gas Tax and OCIF) for capital assets as outlined previously.
- increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

Notes:

- 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 commitment⁵.

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.

2. We realize that raising tax revenues by the amounts recommended above for infrastructure purposes will be very difficult to do. However, considering a longer phase-in window may have even greater consequences in terms of infrastructure failure.

Although this option achieves full funding on an annual basis in 15 years and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available. Current data shows a pent-up investment demand of \$2.3 million for Buildings, \$1.1 million for Land Improvements, \$3.3 million for Machinery & Equipment and \$40 thousand for Vehicles.

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.

7.4 Financial Profile: Rate Funded Assets

7.4.1 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 full funding on assets funded by taxes.

Asset Category	Avg. Annual Requirement	Annual Funding Available				Annual Deficit
		Rates	To Oper	OCIF	Total Available	
Water Network	1,157,000	2,299,500	-1,461,900	0	837,600	319,400
Sanitary Network	980,000	1,320,600	-844,550	0	476,050	503,950
	2,137,000	3,629,100	-2,306,450	0	1,313,650	823,350

The average annual investment requirement for the above categories is \$2.1 million. Annual revenue currently allocated to these assets for capital purposes is \$1.3 million leaving an annual deficit of \$823 thousand. Put differently, these infrastructure categories are currently funded at 62% of their long-term requirements.

7.4.2 Full Funding Requirements

In 2024, South Bruce Peninsula has budgeted annual sanitary revenues of \$1.3 million and annual water revenues of \$2.3 million. 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	Tax Change Required for Full Funding
Water Network	13.9%
Sanitary Network	38.2%

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

	Water Network				Sanitary Sewer Network			
	5 Years	10 Years	15 Years	20 Years	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	319,400	319,400	319,400	319,400	503,950	503,950	503,950	503,950
Tax Increase Required	13.9%	13.9%	13.9%	13.9%	38.2%	38.2%	38.2%	38.2%
Annually:	2.7%	1.4%	0.9%	0.7%	6.7%	3.3%	2.2%	1.7%

	Water Network				Sanitary Sewer Network			
	5 Years	10 Years	15 Years	20 Years	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	319,400	319,400	319,400	319,400	503,950	503,950	503,950	503,950
Less: decrease in debt payment	0	0	0	0	-86,356	-86,356	-86,356	-86,356
Tax Increase Required	13.8%	13.9%	13.9%	13.9%	31.6%	31.6%	31.6%	31.6%
Annually:	2.7%	1.4%	0.9%	0.7%	5.7%	2.8%	1.9%	1.4%

7.4.3 Financial Strategy Recommendations

Considering all of the above information, we recommend the 15-year option that includes debt cost reallocations. This involves full funding being achieved over 15 years by:

- a) when realized, reallocating the debt cost reductions to the infrastructure deficit as outlined above.
- b) increasing rate revenues by 1.9% for sanitary services and 0.9% for water services each year for the next 15 years solely for the purpose of phasing in full funding to the asset categories covered in this section of the AMP.
- c) increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

Notes:

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

Although this option achieves full funding on an annual basis in 15 years and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available. Current data shows a pent-up investment demand of \$7.2 million for the Water Network and \$1.2 million for the Sanitary Network.

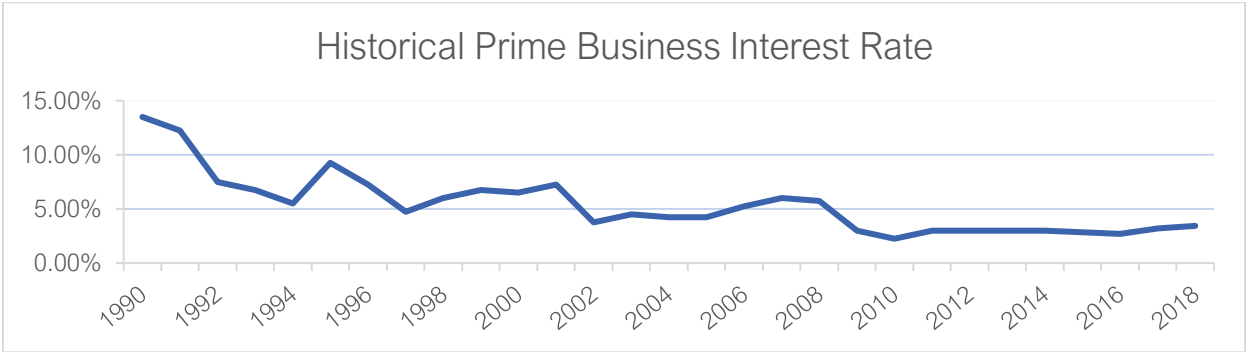
Prioritizing future projects will require the current data to be replaced by condition-based data. Although our recommendations include no further use of debt, the results of the condition-based analysis may require otherwise.

7.5 Use of Debt

For reference purposes, the following table outlines the premium paid on a project if financed by debt. For example, a \$1M project financed at 3.0%⁶ over 15 years would result in a 26% premium or \$260,000 of increased costs due to interest payments. For simplicity, the table does not consider the time, value of money or the effect of inflation on delayed projects.

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

It should be noted that current interest rates are near all-time lows. Sustainable funding models that include debt need to incorporate the risk of rising interest rates. The following graph shows where historical lending rates have been:



A change in 15-year rates from 3% to 6% would change the premium from 26% to 54%. Such a change would have a significant impact on a financial plan.

⁶ Current municipal Infrastructure Ontario rates for 15-year money is 3.2%.

The following tables outline how South Bruce Peninsula has historically used debt for investing in the asset categories as listed. There is currently \$2,745,779 of debt outstanding for the assets covered by this AMP with corresponding principal and interest payments of \$86,356 in 2023, within its provincially prescribed maximum of \$3,861,000.

Asset Category	Current Debt Outstanding	Use of Debt over Five Years				
		2019	2020	2021	2022	2023
Road Network	0	0	0	0	0	0
Stormwater Network	0	0	0	0	0	0
Bridges & Culverts	0	0	0	0	0	0
Buildings	2,703,225	100	0	0	0	2,703,225
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:	0	0	0	0	0	0
Water Network	0	0	0	0	0	0
Sanitary Network	42,554	361,602	285,286	206,717	125,829	42,554
Total Rate Funded:	42,554	0	0	0	0	42,554

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 & Culverts	0	0	0	0	0	0	0
Buildings	323,537	313,461	303,621	293,782	283,942	274,102	224,083
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:	323,537	313,461	303,621	293,782	283,942	274,102	224,083
Water Network	0	0	0	0	0	0	0
Sanitary Network	43,178	0	0	0	0	0	0
Total Rate Funded:	43,178	0	0	0	0	0	0

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

7.6 Use of Reserves

7.6.1 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, 2023
Road Network	4,074,106
Stormwater Network	989,970
Bridges & Culverts	1,787,657
Buildings	1,429,745
Machinery & Equipment	2,374,023
Land Improvements	1,983,747
Vehicles	1,323,132
Total Tax Funded:	13,962,379
Water Network	5,324,373
Sanitary Network	2,358,132
Total Rate Funded:	7,682,505

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

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

These reserves are available for use by applicable asset categories during the phase-in period to full funding. This coupled with 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.

7.6.2 Recommendation

In 2025, Ontario Regulation 588/17 will require 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.

8

Appendices

Key Insights

- Appendix A identifies projected 10-year capital requirements for each asset category
- Appendix B includes several maps that have been used to visualize the current level of service
- Appendix C identifies the criteria used to calculate risk for each asset category
- Appendix D provides additional guidance on the development of a condition assessment program
- Appendix E identifies projected 10-year capital requirements for each department/division
- Appendix F provides a summary of the approved 2024 capital budget
- Appendix G summarizes all recommendations provided throughout this AMP
- Appendix H displays the Town's Strategic Asset Management Policy
- Appendix I displays the Town's Tangible Capital Assets Policy

Appendix A: 10-Year Capital Requirements

The following tables identify the capital cost requirements for each of the next 10 years in order to meet projected capital requirements and maintain the current level of service.

Road Network												
Segment	Backlog	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Paved Roads	\$0	\$2.2m	\$2.1m	\$1.8m	\$5.6m	\$1.2m	\$5.1m	\$15.2m	\$1.8m	\$732k	\$2.6m	\$1.4m
Roadside Barriers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sidewalks	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$322k	\$0	\$0
Signs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14k	\$0	\$0	\$0	\$0
Streetlights & Traffic Signals	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Unpaved Roads	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$2.2m	\$2.1m	\$1.8m	\$5.6m	\$1.2m	\$5.1m	\$15.2m	\$1.8m	\$1.1m	\$2.6m	\$1.4m

Bridges & Culverts												
Segment	Backlog	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Bridges	\$0	\$580k	\$2.1m	\$0	\$75k	\$1.2m	\$1.2m	\$987k	\$804k	\$0	\$0	\$400k
Structural Culverts	\$0	\$0	\$0	\$0	\$0	\$0	\$20k	\$357k	\$20k	\$969k	\$2.1m	\$0
Total	\$0	\$580k	\$2.1m	\$0	\$75k	\$1.2m	\$1.3m	\$1.3m	\$824k	\$969k	\$2.1m	\$400k

Stormwater Network												
Segment	Backlog	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Catch basins	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11k	\$0
Culverts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Manhole	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50k	\$0	\$0	\$0	\$0
Oil Grit Separator	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Storm Mains	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50k	\$0	\$0	\$11k	\$0

Buildings												
Segment	Backlog	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Environmental Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
General Government	\$259k	\$40k	\$161k	\$0	\$16k	\$84k	\$144k	\$40k	\$66k	\$11k	\$40k	\$0
Health Services	\$48k	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Protection Services	\$14k	\$7k	\$34k	\$0	\$39k	\$63k	\$178k	\$44k	\$85k	\$45k	\$9k	\$95k
Recreational Services	\$2.0m	\$1.1m	\$282k	\$12k	\$693k	\$386k	\$2.8m	\$33k	\$1.0m	\$589k	\$384k	\$538k
Transportation Services	\$9k	\$35k	\$13k	\$0	\$78k	\$234k	\$5k	\$4k	\$82k	\$0	\$274k	\$0
Total	\$2.3m	\$1.2m	\$490k	\$12k	\$826k	\$766k	\$3.1m	\$122k	\$1.3m	\$645k	\$707k	\$632k

Land Improvements												
Segment	Backlog	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Cemetery Columbarium	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Landfill Asstets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Parking Lots	\$813k	\$0	\$504k	\$0	\$0	\$0	\$90k	\$0	\$52k	\$0	\$0	\$7k
Parks	\$0	\$0	\$9k	\$0	\$431k	\$0	\$0	\$0	\$0	\$15k	\$0	\$3k
Playground Structures	\$125k	\$20k	\$92k	\$26k	\$85k	\$40k	\$32k	\$0	\$6k	\$96k	\$0	\$0
Signage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41k	\$0
Sport Structures	\$203k	\$0	\$0	\$0	\$41k	\$0	\$0	\$0	\$0	\$0	\$5k	\$0
Trail Systems	\$0	\$0	\$30k	\$0	\$0	\$0	\$0	\$30k	\$0	\$0	\$116k	\$11k
Total	\$1.1m	\$20k	\$635k	\$26k	\$557k	\$40k	\$122k	\$30k	\$58k	\$111k	\$162k	\$21k

Machinery & Equipment												
Segment	Backlog	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Environmental Services	\$1.4m	\$0	\$16k	\$3k	\$52k	\$861k	\$0	\$38k	\$0	\$481k	\$956k	\$99k
General Government	\$657k	\$19k	\$494k	\$102k	\$143k	\$423k	\$49k	\$172k	\$127k	\$115k	\$690k	\$16k
Protection Services	\$602k	\$93k	\$35k	\$30k	\$256k	\$92k	\$90k	\$60k	\$125k	\$44k	\$411k	\$70k
Recreational Services	\$300k	\$36k	\$7k	\$6k	\$314k	\$79k	\$129k	\$76k	\$224k	\$160k	\$364k	\$35k
Transportation Services	\$292k	\$527k	\$101k	\$559	\$811k	\$258k	\$102k	\$665	\$42k	\$4k	\$519k	\$859k
Total	\$3.3m	\$674k	\$653k	\$142k	\$1.6m	\$1.7m	\$370k	\$347k	\$518k	\$804k	\$2.9m	\$1.1m

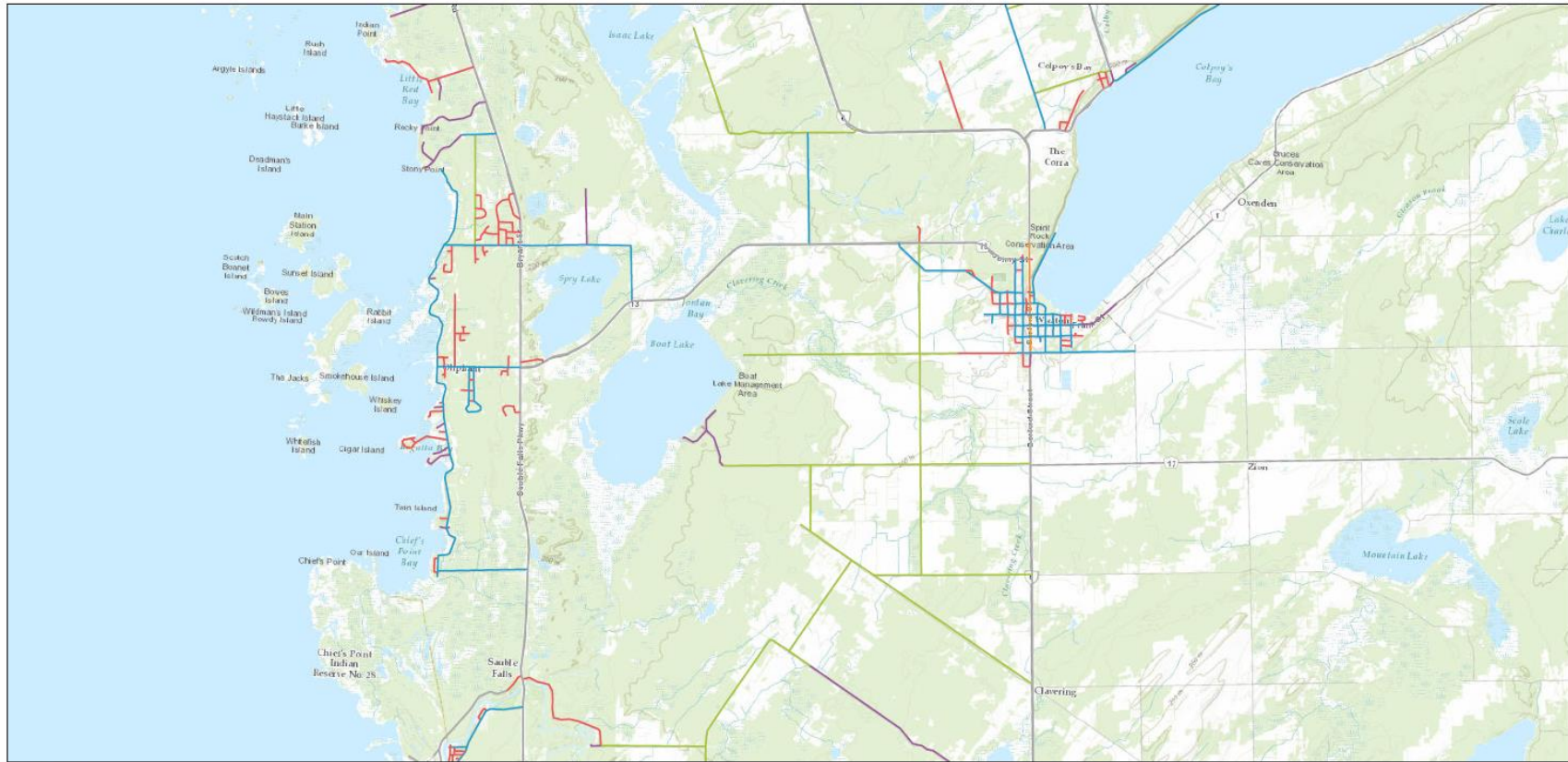
Vehicles												
Segment	Backlog	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Protection Services	\$0	\$0	\$0	\$0	\$566k	\$0	\$0	\$0	\$0	\$0	\$55k	\$600k
Recreation Services	\$40k	\$0	\$0	\$0	\$0	\$0	\$0	\$70k	\$0	\$0	\$40k	\$0
Transportation Services	\$0	\$732k	\$0	\$609k	\$409k	\$0	\$288k	\$541k	\$336k	\$0	\$337k	\$727k
Total	\$40k	\$732k	\$0	\$609k	\$974k	\$0	\$288k	\$611k	\$336k	\$0	\$432k	\$1.3m

Sanitary Network												
Segment	Backlog	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Lagoons	\$43k	\$57k	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$57k	\$0
Manholes	\$21k	\$42k	\$0	\$0	\$0	\$0	\$0	\$42k	\$0	\$0	\$64k	\$0
Pumping Stations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sewage Treatment Plant	\$1.2m	\$52k	\$171k	\$0	\$0	\$25k	\$0	\$0	\$0	\$52k	\$3.2m	\$296k
Sewer mains	\$0	\$639k	\$142k	\$388k	\$146k	\$438k	\$90k	\$0	\$6k	\$2.1m	\$34k	\$18k
Total	\$1.2m	\$791k	\$314k	\$388k	\$146k	\$463k	\$90k	\$42k	\$6k	\$2.2m	\$3.3m	\$314k

Water Network												
Segment	Backlog	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Hydrants	\$182k	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20k	\$0	\$0
Pumping Stations	\$218k	\$342k	\$0	\$0	\$90k	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tower/Booster Equipment	\$11k	\$122k	\$0	\$0	\$0	\$51k	\$0	\$0	\$0	\$86k	\$10k	\$0
Treatment Equipment	\$760k	\$108k	\$26k	\$21k	\$106k	\$81k	\$0	\$0	\$0	\$0	\$404k	\$9k
Treatment Plant	\$666k	\$59k	\$24k	\$54k	\$26k	\$118k	\$0	\$0	\$46k	\$61k	\$1.1m	\$0
Valves	\$78k	\$26k	\$0	\$7k	\$0	\$45k	\$0	\$0	\$6k	\$1k	\$70k	\$0
Water Mains	\$5.3m	\$538k	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$97k	\$0
Water Meters	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11k	\$0	\$0
Total	\$7.2m	\$1.2m	\$50k	\$82k	\$221k	\$295k	\$0	\$0	\$52k	\$180k	\$1.7m	\$9k

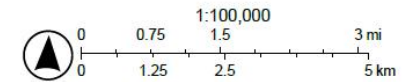
Appendix B: Level of Service Maps

Roads Network Map – Central



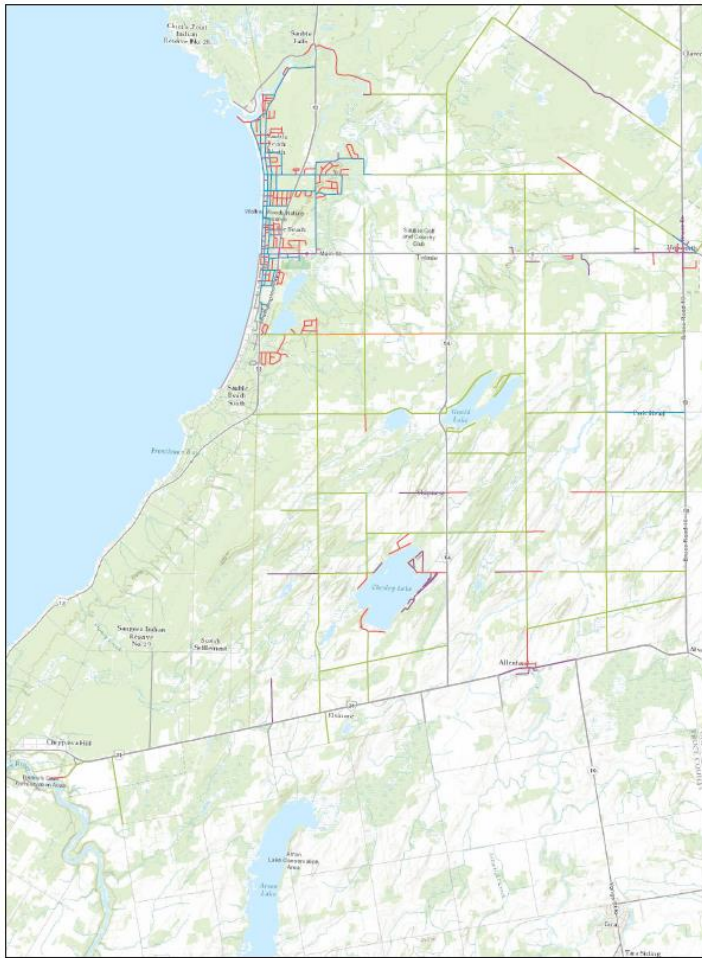
2024-05-31

Roads 5 0 Other
6 4 3

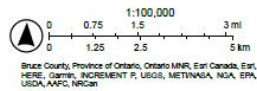


Bruce County, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, MET/NASA, NGA, EPA, USDA, AAFC, NRCan

Roads Network Map – South



2024-05-31
 Roads 4 3
 6 0 Other
 5

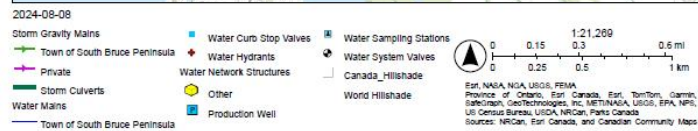
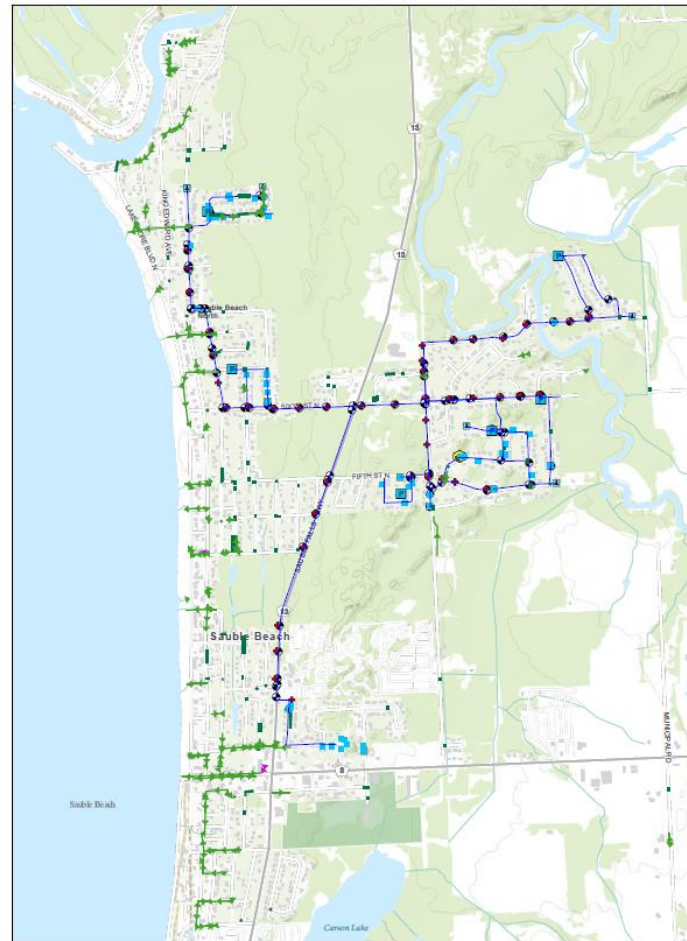


Roads Network Condition Assessment

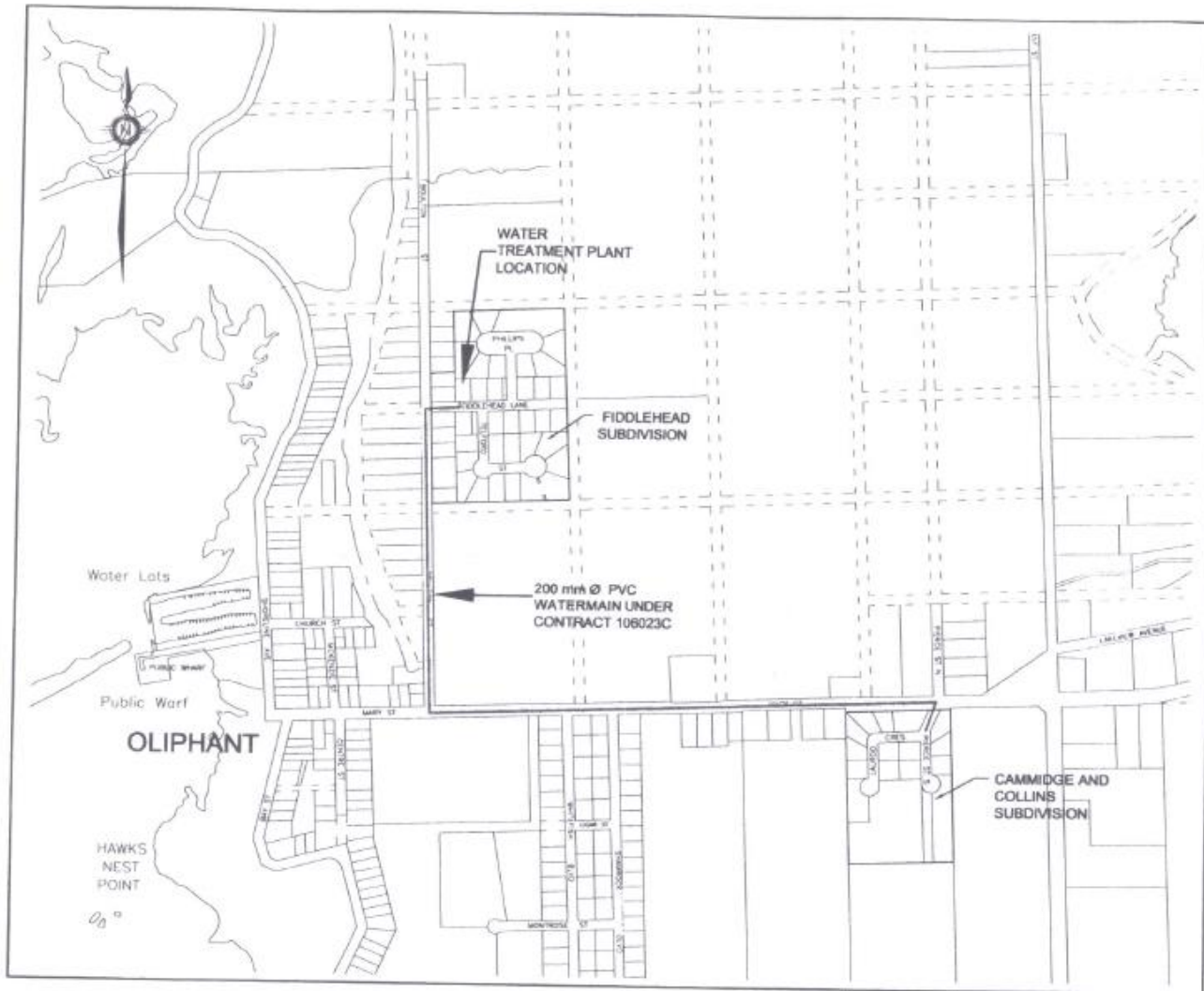
Road Surface Rating Value

Rating	Value
≥ 9	1
8	2
7	3
6	4
< 6	5

Existing Stormwater, Sewer and Water Network – Sauble Beach



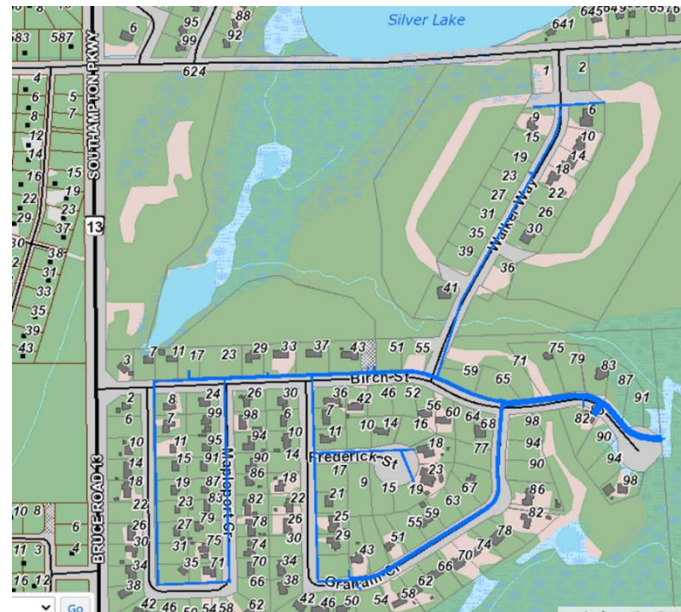
Water Network – Oilphant



Water Network – Foreman



Water Network – Huron Woods



Appendix C: Risk Rating Criteria

Probability of Failure

Asset Category	Risk Criteria	Criteria Weighting	Value/Range	Probability of Failure Score
Bridges & 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

Asset Category	Risk Criteria	Criteria Weighting	Value/Range	Probability of Failure Score
Water Network (Water Mains)	Condition	50%	80-100	1
			60-79	2
			40-59	3
			20-39	4
			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 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	

Asset Category	Risk Classification	Risk Criteria	Value/Range	Consequence of Failure Score
		Connectivity (33%)	Dead End	1
			Local Through Road	3
			Connection Road/Truck or Detour Route	5
Roads Network (LCB 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
	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

Asset Category	Risk Classification	Risk Criteria	Value/Range	Consequence of Failure Score
	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
			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

Asset Category	Risk Classification	Risk Criteria	Value/Range	Consequence of Failure Score
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	Economic (100%)	Replacement Cost (100%)	\$0-\$20,000	1
			\$20,001-\$50,000	2
			\$50,001-\$100,000	3
			\$100,001-\$500,000	4
			\$500,001 +	5

Appendix D: Condition Assessment Guidelines

The foundation of good asset management practice is accurate and reliable data on the current condition of infrastructure. Assessing the condition of an asset at a single point in time allows staff to have a better understanding of the probability of asset failure due to deteriorating condition.

Condition data is vital to the development of data-driven asset management strategies. Without accurate and reliable asset data, there may be little confidence in asset management decision-making which can lead to premature asset failure, service disruption and suboptimal investment strategies. To prevent these outcomes, the Town's condition assessment strategy should outline several key considerations, including:

- The role of asset condition data in decision-making
- Guidelines for the collection of asset condition data
- A schedule for how regularly asset condition data should be collected

Role of Asset Condition Data

The goal of collecting asset condition data is to ensure that data is available to inform maintenance and renewal programs required to meet the desired level of service. Accurate and reliable condition data allows municipal staff to determine the remaining service life of assets, and identify the most cost-effective approach to deterioration, whether it involves extending the life of the asset through remedial efforts or determining that replacement is required to avoid asset failure.

In addition to the optimization of lifecycle management strategies, asset condition data also impacts the Town's risk management and financial strategies. Assessed condition is a key variable in the determination of an asset's probability of failure. With a strong understanding of the probability of failure across the entire asset portfolio, the Town can develop strategies to mitigate both the probability and consequences of asset failure and service disruption. Furthermore, with condition-based determinations of future capital expenditures, the Town can develop long-term financial strategies with higher accuracy and reliability.

Guidelines for Condition Assessment

Whether completed by external consultants or internal staff, condition assessments should be completed in a structured and repeatable fashion, according to consistent and objective assessment criteria. Without proper guidelines for the completion of condition assessments there can be little confidence in the validity of condition data and asset management strategies based on this data.

Condition assessments must include a quantitative or qualitative assessment of the current condition of the asset, collected according to specified condition rating criteria, in a format that can be used for asset management decision-making. As a result, it is important that staff adequately define the condition rating criteria that should be used and the assets that require a discrete condition rating. When engaging with external consultants to complete condition assessments, it is critical that these details are communicated as part of the contractual terms of the project.

There are many options available to the Town to complete condition assessments. In some cases, external consultants may need to be engaged to complete detailed technical assessments of infrastructure. In other cases, internal staff may have sufficient expertise or training to complete condition assessments.

Developing a Condition Assessment Schedule

Condition assessments and general data collection can be both time-consuming and resource intensive. It is not necessarily an effective strategy to collect assessed condition data across the entire asset inventory. Instead, the Town should prioritize the collection of assessed condition data based on the anticipated value of this data in decision-making. The International Infrastructure Management Manual (IIMM) identifies four key criteria to consider when making this determination:

1. **Relevance:** every data item must have a direct influence on the output that is required
2. **Appropriateness:** the volume of data and the frequency of updating should align with the stage in the assets life and the service being provided
3. **Reliability:** the data should be sufficiently accurate, have sufficient spatial coverage and be appropriately complete and current
4. **Affordability:** the data should be affordable to collect and maintain

Appendix E: 10-Year Capital Requirement by Department/Division

The following tables identify the capital cost requirements for each of the next 10 years in order to meet projected capital requirements and maintain the current level of service.

Emergency Services	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Emergency Management	\$26k	\$0	\$0	\$0	\$0	\$26k	\$0	\$0	\$0	\$0	\$26k
Fire - Amabel	\$74k	\$69k	\$30k	\$861k	\$149k	\$242k	\$108k	\$210k	\$64k	\$431k	\$738k
Fire - Wiarnton	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25k	\$0	\$0
Emergency Services Total	\$100k	\$69k	\$30k	\$861k	\$149k	\$269k	\$108k	\$210k	\$89k	\$431k	\$764k

Financial Services	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
General Admin	\$59k	\$673k	\$82k	\$149k	\$455k	\$282k	\$203k	\$136k	\$125k	\$523k	\$16k
Financial Services Total	\$59k	\$673k	\$82k	\$149k	\$455k	\$282k	\$203k	\$136k	\$125k	\$523k	\$16k

Legislative Services	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Building	\$0	\$0	\$0	\$0	\$6k	\$32k	\$0	\$0	\$1k	\$44k	\$0
Council	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$942	\$0	\$0	\$0
Parking	\$4k	\$0	\$10k	\$0	\$0	\$78k	\$0	\$24k	\$0	\$4k	\$72k
Planning	\$0	\$0	\$0	\$0	\$52k	\$0	\$0	\$0	\$0	\$89k	\$0
Wiarnton Willie	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11k	\$45k
Legislative Services Total	\$4k	\$0	\$10k	\$0	\$58k	\$109k	\$0	\$25k	\$1k	\$148k	\$117k

Parks and Recreation	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Arena	\$76k	\$26k	\$0	\$142k	\$230k	\$470k	\$0	\$188k	\$60k	\$67k	\$323k
Campground	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15k	\$0	\$0
Library	\$0	\$0	\$12k	\$0	\$0	\$93k	\$0	\$13k	\$28k	\$603	\$14k
Parks	\$1.0m	\$658k	\$32k	\$1.3m	\$106k	\$203k	\$118k	\$715k	\$200k	\$723k	\$56k

Parks and Recreation	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Pool	\$7k	\$132k	\$0	\$5k	\$3k	\$142k	\$0	\$123k	\$6k	\$174k	\$86k
Recreation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14k	\$49k	\$0
Ross Whicher Centre	\$0	\$2k	\$0	\$0	\$18k	\$1.7m	\$0	\$0	\$0	\$0	\$40k
Sauble CC	\$38k	\$95k	\$0	\$137k	\$147k	\$353k	\$24k	\$310k	\$10k	\$38k	\$28k
Sauble Medical Clinic	\$0	\$0	\$9k	\$0	\$0	\$0	\$0	\$9k	\$521k	\$0	\$0
Visitor Information Centre	\$0	\$0	\$0	\$0	\$0	\$0	\$15k	\$0	\$0	\$0	\$0
Parks and Recreation Total	\$1.1m	\$913k	\$53k	\$1.6m	\$505k	\$3.0m	\$158k	\$1.4m	\$853k	\$1.1m	\$548k

Public Works	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
AMA Water	\$71k	\$24k	\$71k	\$195k	\$138k	\$0	\$0	\$52k	\$9k	\$992k	\$0
Bridges & Culverts	\$580k	\$2.1m	\$0	\$75k	\$1.2m	\$1.3m	\$1.3m	\$824k	\$969k	\$2.1m	\$400k
Cemetery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Disposal	\$0	\$8k	\$0	\$52k	\$840k	\$0	\$12k	\$0	\$481k	\$859k	\$99k
Fleet	\$732k	\$0	\$609k	\$409k	\$0	\$92k	\$611k	\$336k	\$0	\$337k	\$727k
Hardtop	\$2.2m	\$2.1m	\$1.8m	\$5.6m	\$1.2m	\$5.1m	\$15.2m	\$1.8m	\$725k	\$2.3m	\$1.4m
Housing	\$539k	\$114k	\$559	\$874k	\$491k	\$173k	\$7k	\$113k	\$4k	\$793k	\$768k
Loosetop	\$0	\$0	\$24k	\$16k	\$0	\$7k	\$0	\$0	\$8k	\$80k	\$0
No Division	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$199k	\$0
Public Works	\$0	\$0	\$0	\$7k	\$0	\$0	\$0	\$0	\$7k	\$0	\$0
Recycling	\$0	\$0	\$0	\$4k	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Safety	\$19k	\$0	\$0	\$0	\$0	\$21k	\$14k	\$0	\$0	\$0	\$19k
Shoulder	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$322k	\$0	\$0
Storm	\$0	\$0	\$0	\$0	\$0	\$0	\$61k	\$0	\$0	\$11k	\$0
WIA Sewer	\$791k	\$314k	\$392k	\$146k	\$468k	\$90k	\$42k	\$6k	\$2.2m	\$3.3m	\$314k
WIA Water	\$1.1m	\$26k	\$11k	\$26k	\$173k	\$0	\$0	\$0	\$169k	\$759k	\$9k
Winter	\$0	\$0	\$0	\$15k	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Public Works Total	\$6.1m	\$4.6m	\$2.9m	\$7.4m	\$4.5m	\$6.8m	\$17.3m	\$3.2m	\$4.9m	\$11.7m	\$3.8m

Total	\$7.4m	\$6.3m	\$3.0m	\$9.9m	\$5.7m	\$10.4m	\$17.8m	\$4.9m	\$5.9m	\$13.9m	\$5.2m
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Appendix F: 2024 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 (Warton)	\$ 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	Warton WTP Low-lift Pump	\$ 50,000
82438	Warton WTP High-Lift Pump	\$ 60,000
82439	Warton 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

Appendix G: 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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

Bridges and 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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

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 of risk models as staff have an evolving understanding of the probability and consequences of asset failure.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

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.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service by July 1st, 2025.

Appendix H: 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;

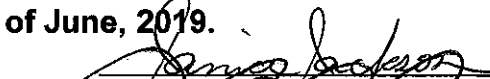
And whereas Section 270 (1) 5 of the Municipal Act, 2011, c.25, as amended authorizes the municipality to adopt and maintain policies with respect to the manner in which the municipality will try to ensure that it is accountable to the public for its actions, and the manner in which the municipality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

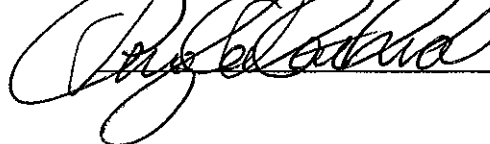
Now therefore the Council of the Corporation of the Town of South Bruce Peninsula enacts as follows:

- 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.



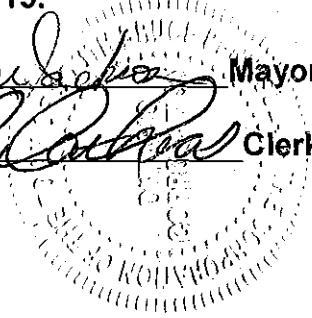
Mayor



Clerk

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

James L. ... Mayor
... Clerk

The seal of the City of Chicago is partially visible behind the signatures. It features a circular design with the text "CITY OF CHICAGO" and "1837" around the perimeter, and a central emblem.

Section: Treasury	Policy Number: TR.17.3
Sub-section: Asset Management	Effective Date: June 18, 2019
Subject: Strategic Asset Management Policy	Revision Date:

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.

Section: Treasury	Policy Number: TR.17.3
Sub-section: Asset Management	Effective Date: June 18, 2019
Subject: Strategic Asset Management Policy	Revision Date:

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:

Section: Treasury	Policy Number: TR.17.3
Sub-section: Asset Management	Effective Date: June 18, 2019
Subject: Strategic Asset Management Policy	Revision Date:

- **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 Warton

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, Warton, 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 Warton:*

2.2 Goal

Section: Treasury	Policy Number: TR.17.3
Sub-section: Asset Management	Effective Date: June 18, 2019
Subject: Strategic Asset Management Policy	Revision Date:

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;

Section: Treasury	Policy Number: TR.17.3
Sub-section: Asset Management	Effective Date: June 18, 2019
Subject: Strategic Asset Management Policy	Revision Date:

- 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.

Section: Treasury	Policy Number: TR.17.3
Sub-section: Asset Management	Effective Date: June 18, 2019
Subject: Strategic Asset Management Policy	Revision Date:

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:

Section: Treasury	Policy Number: TR.17.3
Sub-section: Asset Management	Effective Date: June 18, 2019
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- 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

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- 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.

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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.

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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

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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 I: 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;

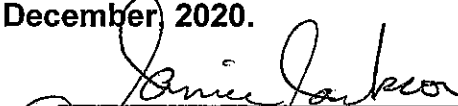
And whereas Section 270 (1) 5 of the Municipal Act, 2001, c.25, as amended authorizes the municipality to adopt and maintain policies with respect to the manner in which the municipality will try to ensure that it is accountable to the public for its actions, and the manner in which the municipality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

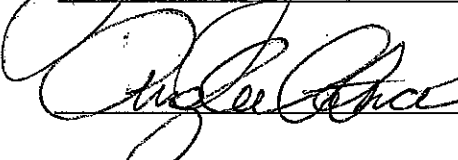
Now therefore the Council of the Corporation of the Town of South Bruce Peninsula enact as follows:

- 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.

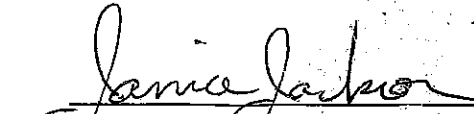


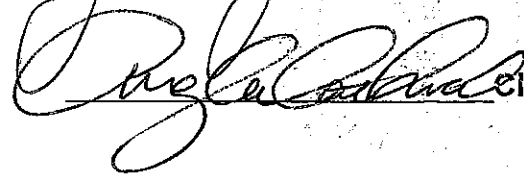
Mayor



Clerk

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


Mayor


Clerk

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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.

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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.

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- 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

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- 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

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- 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.

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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

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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

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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.

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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

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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 Resurfacers	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
- SCADA System
- Locks

20
10
5
10

HVAC Units

Office Furniture and Equipment

- Furniture
- Office Equipment
 - Audiovisuals
 - Photocopiers

20
10
5

Computer Systems

- Hardware
- Software

5
10

Vehicles

- Light Duty <4500 kg
- Medium Duty 4500 to 9000 kg
- Heavy Duty >9000 kg
- Fire Trucks

10
12
12
25