Asset Management Plan

Town of Gore Bay

2024

This Asset Management Program was prepared by Michael Lalonde and Gore Bay Staff

Key Statistics

Replacement cost of asset portfolio
$123 million

Replacement cost of infrastructure per household
$292,513

Percentage of assets in fair or better condition
48%

Percentage of assets with assessed condition data
22%

Annual capital infrastructure deficit
$2.1 million

Recommended timeframe for eliminating annual infrastructure deficit
20 Years

Target reinvestment rate
2.2%

Actual reinvestment rate
0.5%

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The preparation of this project was carried out with assistance from the Government of Canada and the Federation of Canadian Municipalities. Notwithstanding this support, the views expressed are the personal views of the authors, and the Federation of Canadian Municipalities and the Government of Canada accept no responsibility for them.

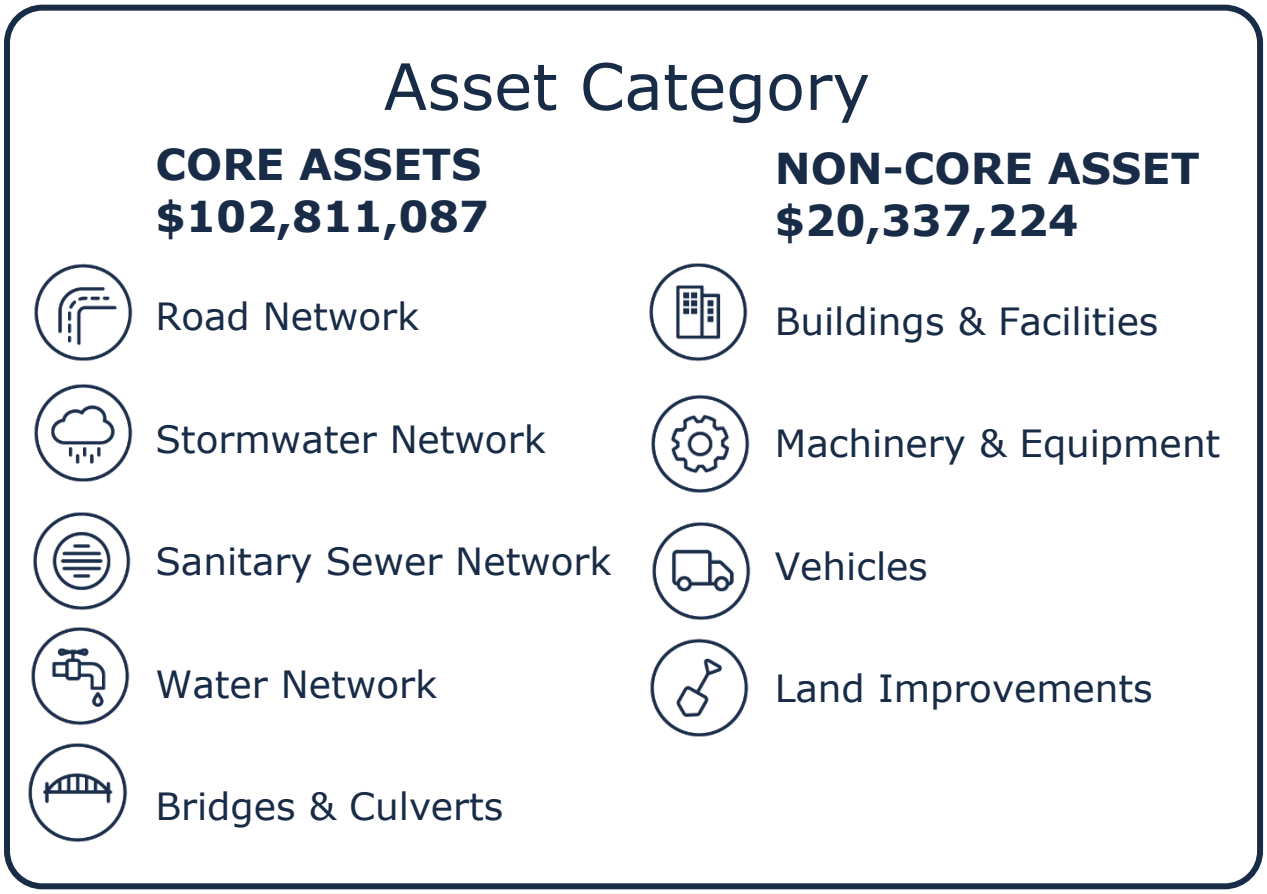
Executive Summary

Municipal infrastructure provides the foundation for 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 include the following asset categories:



With the development of this AMP the Town has achieved compliance with O. Reg. 588/17 to the extent of the requirements that must be completed by July 1, 2024. There are 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 $123 million. This includes Core Assets of $102.8 million and Non-Core Assets of $20.3 million. 48% of all assets analysed in this AMP are in fair or better condition and assessed condition data was available for 22% of assets. For the remaining 78% of assets, assessed condition data was unavailable, and asset age was used to approximate condition – a data gap that persists in most municipalities. Generally, age misstates the true condition of assets, making assessments essential to accurate asset management planning, and a recurring recommendation in this AMP.
The development of a long-term, sustainable financial plan requires an analysis of whole lifecycle costs. This AMP uses a combination of proactive lifecycle strategies (paved roads) and replacement only strategies (all other assets) to determine the lowest cost option to maintain the current level of service.

To meet capital replacement and rehabilitation needs for existing infrastructure, prevent infrastructure backlogs, and achieve long-term sustainability, the Town's average annual capital requirement totals $2.7 million. Based on a historical analysis of sustainable capital funding sources, the Town is committing approximately $532,000 towards capital projects or reserves per year. As a result, there is currently an annual funding gap of $2.1 million.

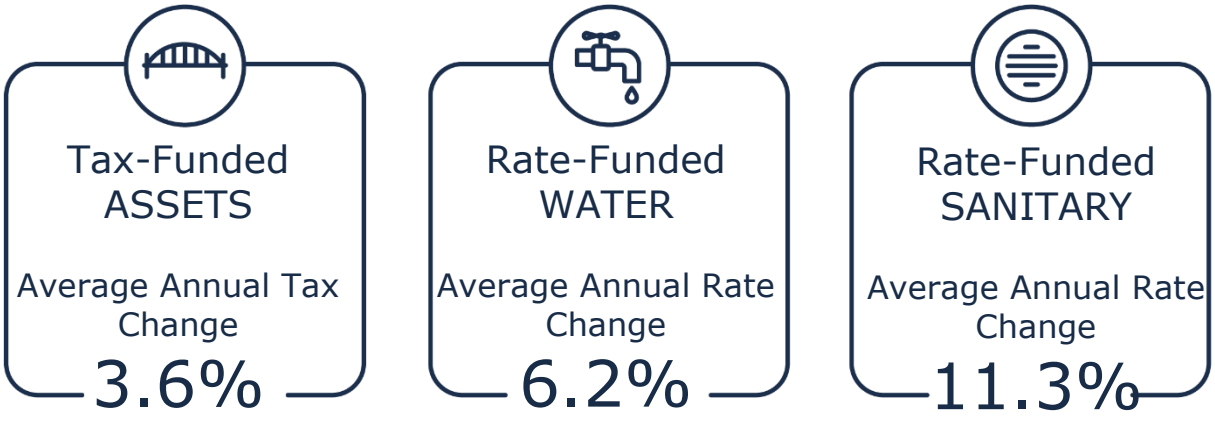
The average annual requirements for core assets is $2.0 million with a funding gap of $1.7 million. The average annual requirements of non-core assets is $635,162 with a funding gap of $433,162.

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 Deficit per Household

Recommendations

A financial strategy was developed to address the annual capital funding gap. The following graphics shows annual tax/rate change required to eliminate the Town's infrastructure deficit based on a 20-year plan:



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

- Review data to update and maintain a complete and accurate dataset
- Develop a condition assessment strategy with a regular schedule
- Review and update lifecycle management strategies
- Development and regularly review short- and long-term plans to meet capital requirements
- Measure current levels of service and identify sustainable proposed levels of service

1 Introduction & Context

Key Insights

- The Town of Gore Bay is a small town in Northern Ontario and has identified the water and sanitary networks as infrastructure priorities.
- 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 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 milestone and requirements for asset management plans in Ontario between July 1, 2022 and 2025.

1.1 Gore Bay Community Profile

Census Characteristic	Town of Gore Bay	Ontario
Population 2021	808	14,223,942
Population Change 2016-2021	-6.8	5.8
Total Private Dwellings	421	5,929,250
Population Density	157.2/km^2	15.9/km^2
Land Area	5.14 km^2	892,411.76 km^2

The Town of Gore Bay is an incorporated town located in Northeastern Ontario on Manitoulin Island. The Town is located on Lake Huron's North Channel and has one of the largest marinas on Manitoulin Island. Gore Bay is the judicial centre of Manitoulin Island, and one of the island's commercial and professional centres.

Gore Bay has a long history involving the farming, fishing, and lumber industries. Settlement on Manitoulin Island began in 1862 when small towns began to emerge. Manitoulin Island, especially Gore Bay, was one of the regular ports of call for boats travelling from Sault Ste. Marie, Collingwood, and Owen Sound. The Island welcomed commercial travellers, workers from the fishing and lumber industries, and tourists. However, by the 1940s, the lumber and fishing industries were in decline.

Today, Gore Bay remains an inviting community that offers all-kinds of services for residents and visitors. During the summer season, the Town's unique location, summer activities, and cottage services attract numerous boaters and tourists from all over Ontario.

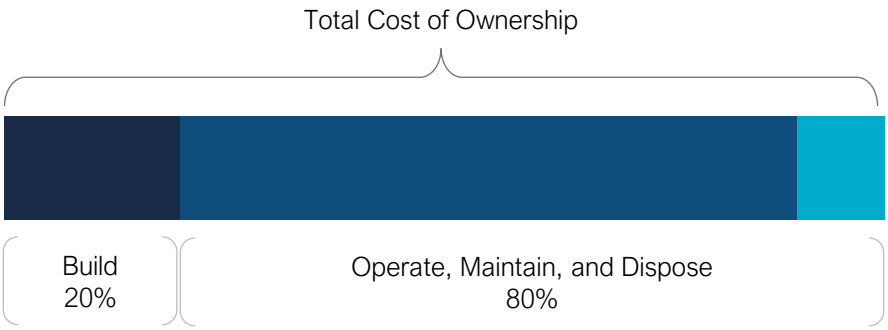
Manitoulin Island is currently experiencing labour shortages, population decline, and an aging population. Demand in the region is notably driven by a budding summer cottage community and an aging population above the provincial average. In 2024, the Town generated a total revenue of around $1.8 million from taxes and rates and has an annual capital budget of $1,201,000.

Staff have identified the water and sanitary networks as their infrastructure priorities. The water and sanitary networks have the highest replacement value and the highest annual capital deficit based on sustainable funding sources. According to age-based condition, over 60% of the assets within the water and sanitary network are in poor and very poor condition. Staff aim to improve the level of service through a series of rehabilitation and replacement projects.

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

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

Asset Management Policy

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

The Town adopted the Asset Management Policy in accordance with Ontario Regulation 588/17 in June of 2019.

The approval of this policy is important to integrate 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 and sustainable manner. The essential services include transportation networks, water, sewer, facilities, and other infrastructure.

Asset Management Strategy

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

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

Asset Management Plan

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

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

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

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.

Lifecycle Management Strategies

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

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

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

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.

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.

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 (roads, bridges and culverts, water, wastewater, stormwater) 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 determined 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 Town's asset management strategies on the physical condition of assets or the quality/capacity of the services they provide.

For core asset categories (roads, bridges and culverts, water, wastewater, stormwater) the Province, through O. Reg. 588/17, has provided technical metrics that are required to be included in this AMP.

Current and Proposed Levels of Service

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

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

Gore Bay Climate Profile

The Town of Gore Bay is located at Lake Huron's North Channel on Manitoulin Island in Northern Ontario. 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 Gore Bay may experience the following trends:

Higher Average Annual Temperature:

1. Between the years 1971 and 2000, the annual average temperature was 5.2 ºC
2. Under a high emissions scenario, the annual average temperatures are projected to increase by 2.6 ºC by the year 2050 and over 6.5 ºC by the end of the century.

Increase in Total Annual Precipitation:

3. Under a high emissions scenario, Gore Bay is projected to experience an 14% increase in precipitation by the year 2080 and a 17% increase by the end of the century.

Increase in Frequency of Extreme Weather Events:

4. It is expected that the frequency and severity of extreme weather events will change.
5. In some areas, extreme weather events will occur with greater frequency and severity than others especially those impacted by Great Lake winds.

Lake Huron

The Great Lakes are one of the largest sources of fresh water on earth, containing 21 percent of the world's surface freshwater. There are 35 million people living in the Great Lakes watershed and Lake Huron is the second largest of the Great Lakes. The area of Lake Huron Watershed is approximately 131,100 km^2. The physical impacts of climate change are most noticeable from: flooding, extreme weather events such as windstorms and 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.

Integration 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. The District of Manitoulin is currently developing the Natural Heritage System Draft Policies to mitigate the effects of climate change and facilitate the maintenance of ecosystem health resilience. This document along with others will further advance the Town’s capacity to develop asset management strategies that incorporate climate change mitigation and adaptation considerations.

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

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 impacts

2024

Asset Management Plan for Core and Non-Core Assets (same components as 2022) and Asset Management Policy Update

2025

Asset Management Plan for All Assets with the following additional components:

1. Proposed levels of service for next 10 years
2. Updated inventory analysis
3. Lifecycle management strategy
4. Financial strategy and addressing shortfalls
5. Discussion of how growth assumptions impacted lifecycle and financial

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. 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 – 12.1	Complete
Replacement cost of assets in each category	S.5(2), 3(ii)	4.1 – 12.1	Complete
Average age of assets in each category	S.5(2), 3(iii)	4.2 – 12.2	Complete
Condition of core assets in each category	S.5(2), 3(iv)	4.2 – 12.2	Complete
Description of town's approach to assessing the condition of assets in each category	S.5(2), 3(v)	4.2.1 – 12.2.1	Complete
Current levels of service in each category	S.5(2), 1(i-ii)	4.5.1 - 12.5.1	Complete
Current performance measures in each category	S.5(2), 2	4.5.2 - 12.5.2	Complete
Lifecycle activities needed to maintain current levels of service for 10 years	S.5(2), 4	4.3 – 12.3	Complete
Costs of providing lifecycle activities for 10 years	S.5(2), 4	Appendix B	Complete
Growth assumptions	S.5(2), 5(i-ii) S.5(2), 6(i-vi)	13	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 Gore Bay is produced in compliance with Ontario Regulation 588/17. The July 2024 deadline under the regulation—the first of three AMPs—requires analysis of both 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
Road Network	Tax Levy
Bridges & Culverts	
Stormwater Network	
Buildings	
Vehicles	
Machinery & Equipment	
Land Improvements	
Water Network	User Rates
Sanitary Sewer 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.

2.3 Estimated Useful Life and Service Life Remaining

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

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

$$Service\ Life\ Remaining\ (SLR) = In\ Service\ Date + Estimated\ Useful\ Life(EUL) - Current\ Year$$

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:

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

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

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

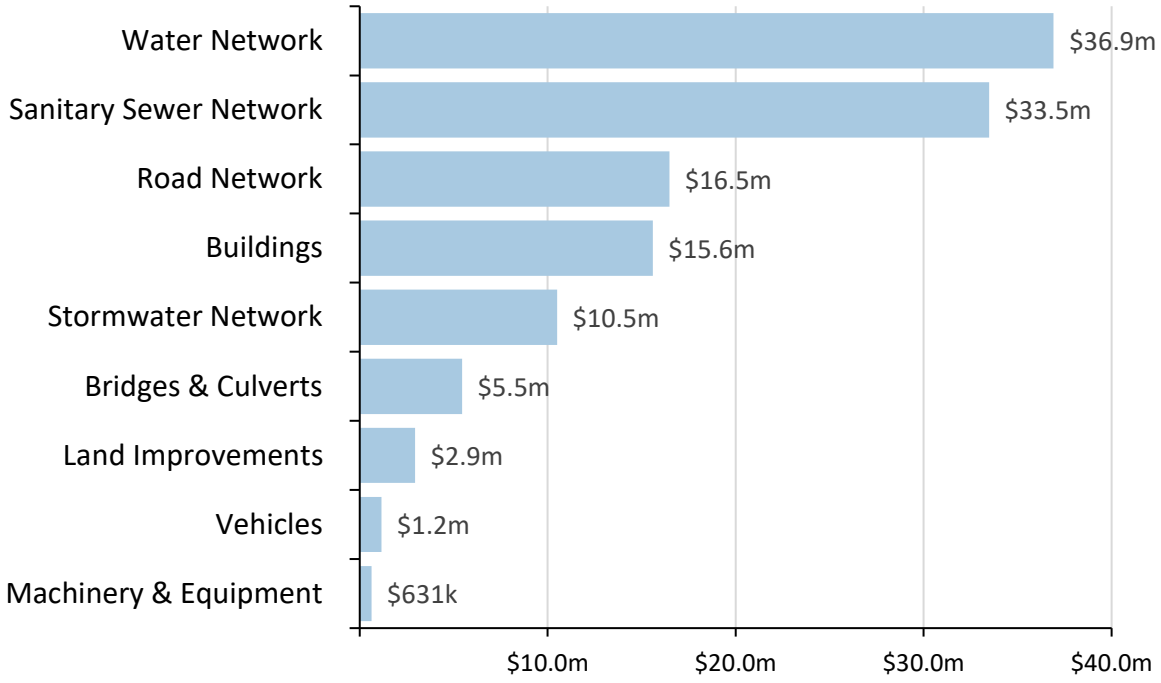
3 Portfolio Overview

Key Insights

- The total replacement cost of the Town’s asset portfolio is $123 million.
- The Town’s target re-investment rate is 2.7%, and the actual re-investment rate is 0.5%, contributing to an expanding infrastructure deficit.
- 48% of all assets are in fair or better condition.
- 40% of assets are projected to require replacement in the next 10 years.
- Average annual capital requirements total $2.6 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 $123 million based on inventory data from 2024. 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.

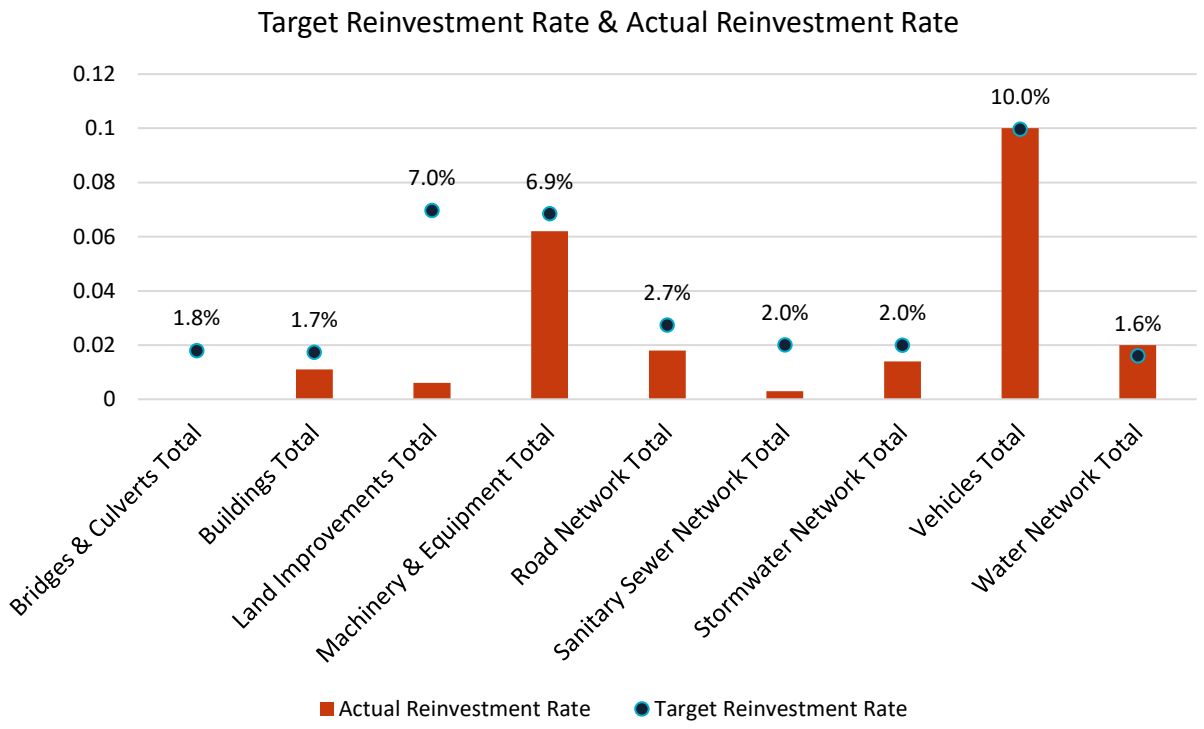


The following table identifies the methods employed to determine replacement costs across each asset category:

Asset Category	Replacement Cost Method	
	User-Defined & Cost/Unit	Data Source
Road Network	95%	Staff estimate based on recent projects and contractor quotes
Bridges & Culverts	100%	2022 Ontario Structure Inspection Manual (OSIM) report
Stormwater Network	100%	Staff estimate based on recent projects and price matching
Water Network	100%	Staff estimate based on recent projects, price matching, and insurance valuation
Sanitary Sewer Network	100%	Staff estimate based on recent projects, price matching, and insurance valuation
Buildings	85%	Staff Estimate based on construction of similar facilities
Machinery & Equipment	24%	Staff estimate based on recent purchases
Vehicles	42%	Staff estimate based on recent purchases
Land Improvements	13%	Staff estimate based on recent purchases
Overall	**95%**	

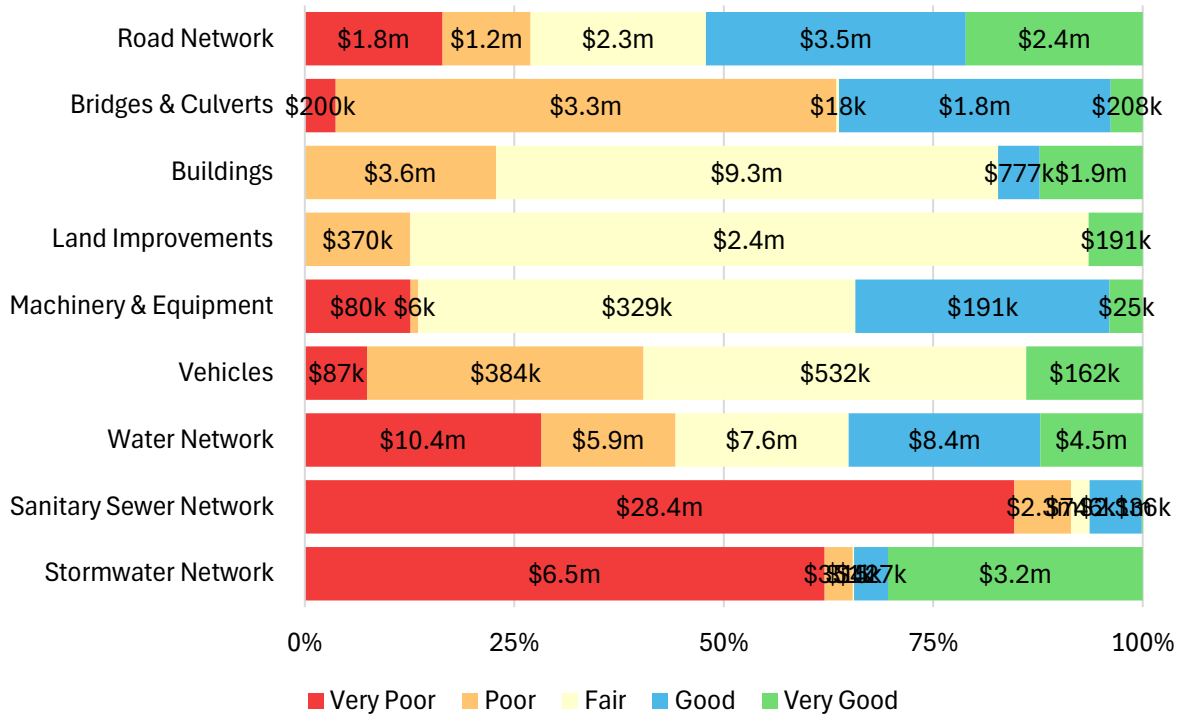
3.2 Target vs. Actual Reinvestment Rate

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 $3.2 million annually, for a target reinvestment rate of 2.7%. Actual annual spending on infrastructure totals approximately $532,000, for an actual reinvestment rate of 0.5%.



3.3 Condition of Asset Portfolio

The current condition of the assets is central to all asset management planning. Collectively, 48% of assets in Gore Bay 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 20% 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.

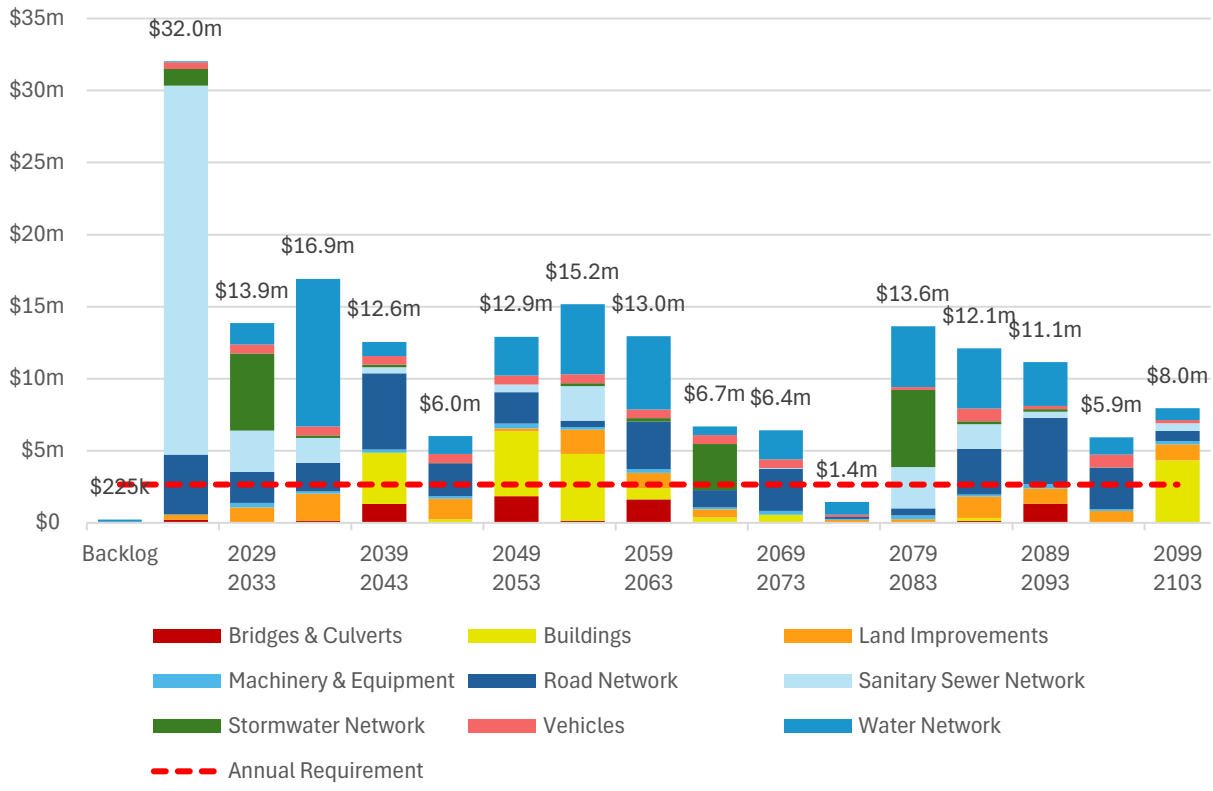
Asset Category	% of Assets with Assessed Condition	Source of Condition Data
Road Network	99%	Staff Estimates
Bridges & Culverts	100%	2022 OSIM Report
Stormwater Network	0%	N/A
Buildings & Facilities	67%	Staff Estimates
Machinery & Equipment	80%	Staff Estimates
Vehicles	100%	Staff Estimates
Land Improvements	50%	Staff Estimates
Water Network	0%	N/A
Sanitary Sewer Network	0%	N/A

3.4 Service Life Remaining

Based on asset age, available assessed condition data and estimated useful life, 40% of the Town's assets will require replacement within the next 10 years. Capital requirements over the next 10 years are identified in Appendix B.

3.5 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 80 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. The trend line represents the average annual capital requirement of $2.6 million; this amount does not account for inflation.



4 Road Network

The road network is a critical component of the provision of safe and efficient transportation services and represents the highest value asset category in the Town's asset portfolio. It includes all municipally owned and maintained roadways in addition to supporting roadside infrastructure including sidewalks, street signs, and streetlights.

The Town's roads and sidewalks are maintained by municipal staff who is also responsible for winter snow clearing, ice control, and street cleaning.

The state of the infrastructure for the road network is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$12.9 million	Good (63%)	Annual Requirement:	$452,037
		Funding Available:	$197,000
		Annual Deficit:	$255,037

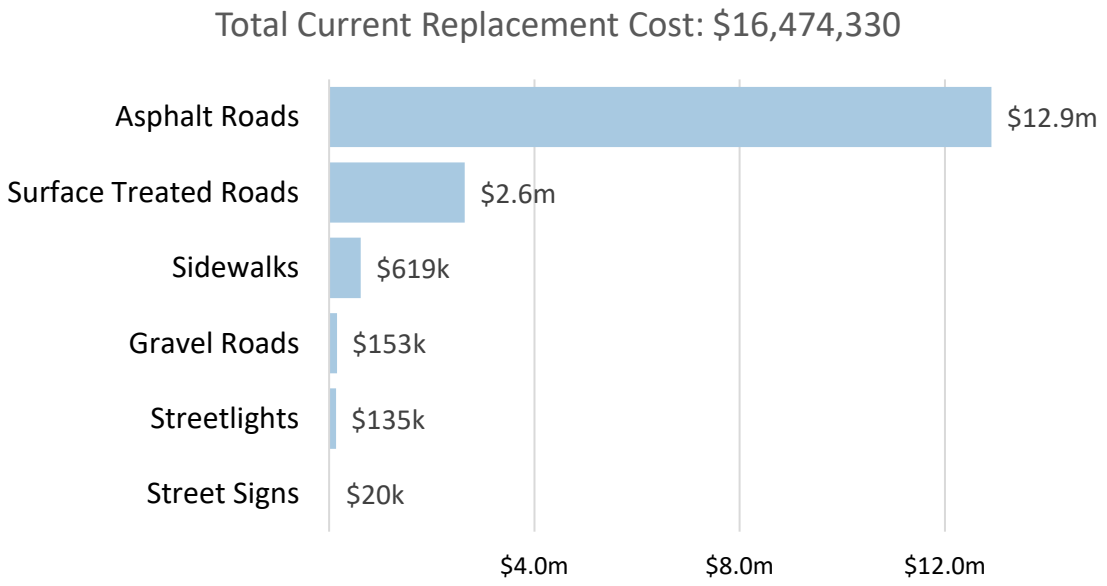
The following core values and level of service statements are a key driving force behind the Town's asset management planning:

Service Attribute	Level of Service Statement
Scope	The road network service is conveniently accessible to the whole community in sufficient capacity (meets traffic demands) and is available under all weather conditions.
Quality	The road network is in good condition with minimal unplanned service interruptions and road closures.

4.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost and annual capital requirements of each asset segment in the town's road network inventory.

Asset Segment	Quantity	Replacement Cost	Annual Capital Requirement
Asphalt Roads	13,406 m	12,905,701	$274,589
Gravel Roads	360 m	153,148	$10,210
Sidewalks	2,056 m	618,899	$41,260
Street Signs	50	20,000	$1,333
Streetlights	98	135,240	$8,114
Surface Treated Roads	2,991 m	2,641,343	$116,530
Total		**$16,474,330**	**$452,037**



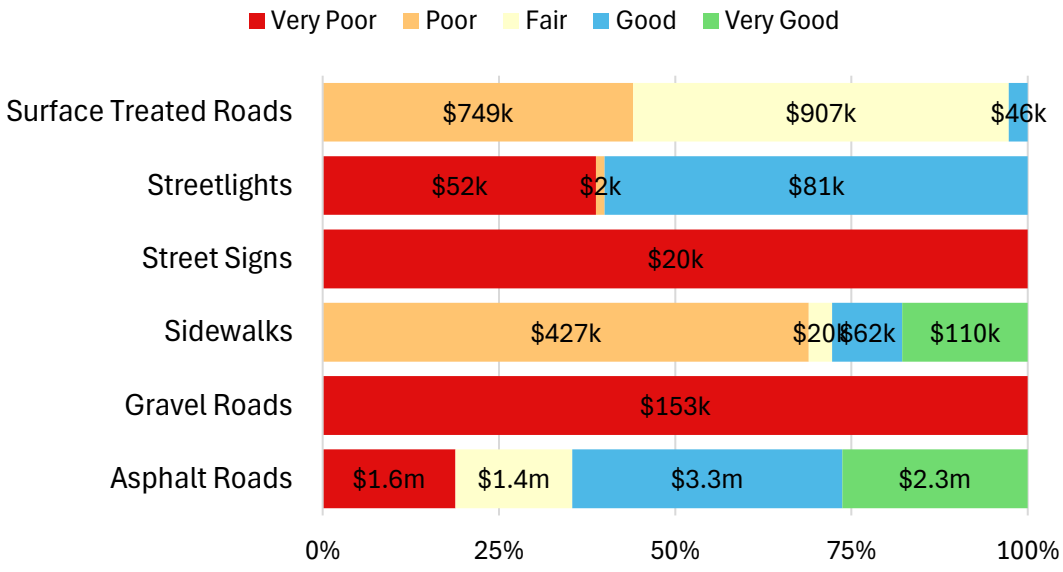
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

4.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Asphalt Roads	15	24.3	Good (69%)
Gravel Roads	15	32.0	Very Poor (16%)
Sidewalks	15	40.4	Fair (48%)
Street Signs	15	28.3	Fair (50%)
Streetlights	15	17.8	Fair (50%)
Surface Treated Roads	15	26.3	Fair (53%)
Average			**Good (63%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor.



To ensure that the Town's road 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 roads.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

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:

- A Road Needs Study was completed in 2019 that included a detailed assessment of the condition of each road segment.
- The Road Needs Study is reviewed every 5 year by external contractors.
- Visual inspections are performed on an as-needed basis by municipal staff.

In this AMP the following rating criteria is used to determine the current condition of road segments and forecast future capital requirements:

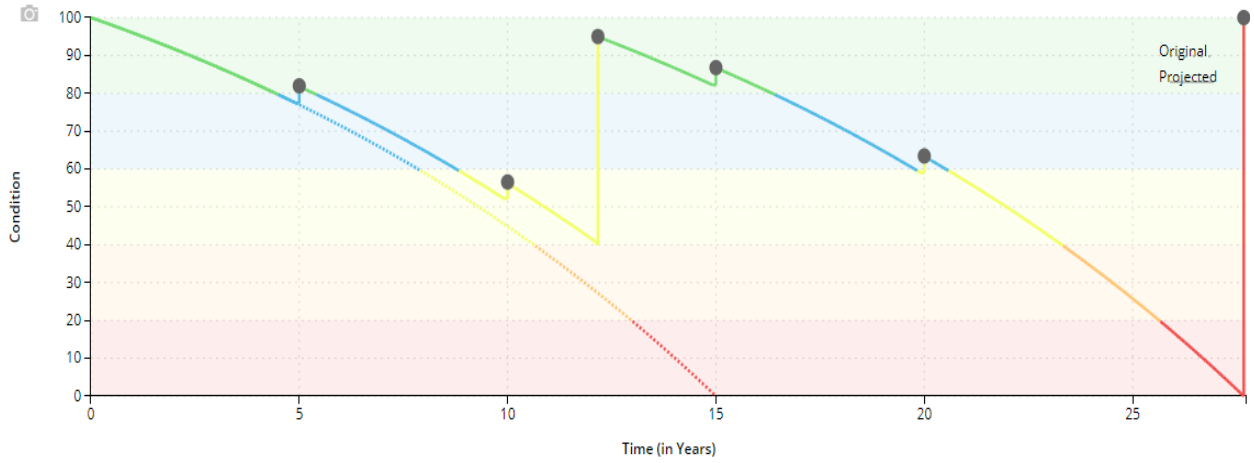
Condition	Rating
Very Good	80-100
Good	60-80
Fair	40-60
Poor	20-40
Very Poor	0-20

4.3 Lifecycle Management Strategy

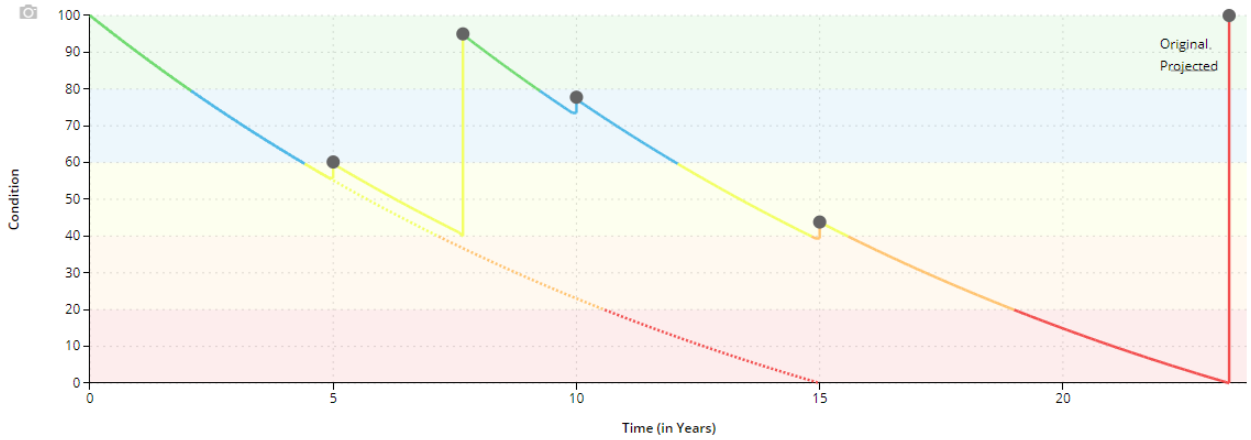
The condition or performance of most assets will deteriorate over time. This process is affected by a range of factors including an asset's characteristics, location, utilization, maintenance history and environment.

The following lifecycle strategies have been developed as a proactive approach to managing the lifecycle of asphalt roads and surface treated 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.

Asphalt Roads		
Event Name	**Event Class**	**Event Trigger**
Crack Sealing	Maintenance	5 Years (Repeated Until Poor Condition)
Mill and Pave	Rehabilitation	40 Condition (1 Time)
Full Reconstruction	Replacement	0 Condition



Surface Treated Roads		
Event Name	**Event Class**	**Event Trigger**
Crack Sealing	Maintenance	5 Years (Repeated Until Poor Condition)
Surface Treatment	Rehabilitation	40 Condition (1 Time)
Full Reconstruction	Replacement	0 Condition



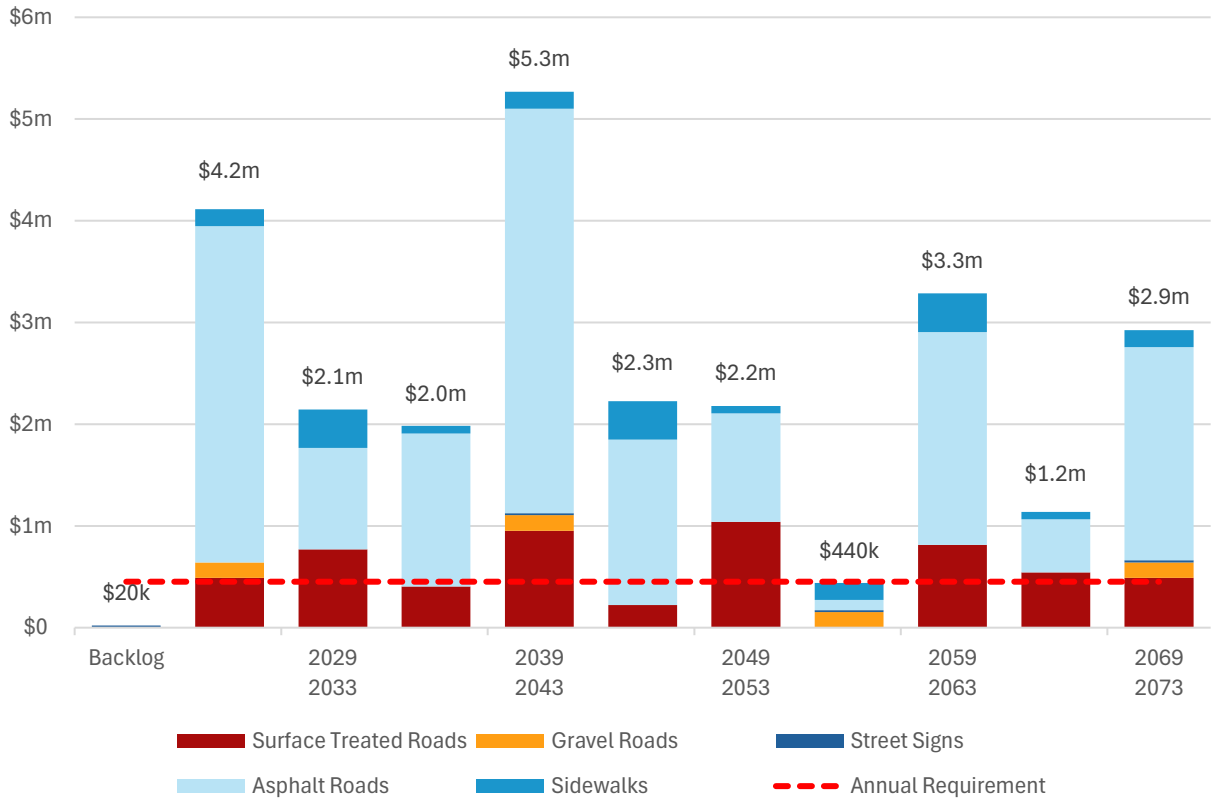
The following table outlines the Town's current lifecycle management strategies that are not included in the tables above for asphalt and surface treated roads.

Activity Type	Description of Current Strategy
Maintenance	Regular maintenance such as winter maintenance and cleaning are completed seasonally.
	Pothole patching is performed performed on yearly basis as needed.
	Crack sealing is completed as needed, based on the defects identified during inspections.
Rehabilitation	Surface treatment and mill and pave are completed when the condition is fair and following the freeze thaw cycles.
Replacement	The Road Needs Study is reviewed every 5 years to identify needs of rehabilitation and replacement. Full replacement for roads is dependent on funding. The Town looks to coordinate projects that involve both rehabilitation of surface and sub-surface infrastructure.

4.3.1 Forecasted Capital Requirements

Based on the lifecycle strategies identified previously for asphalt roads and surface treated 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 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 following graph identifies capital requirements over the next 50 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. The trend line represents the average annual capital requirement of $452,037; this amount does not account for inflation.

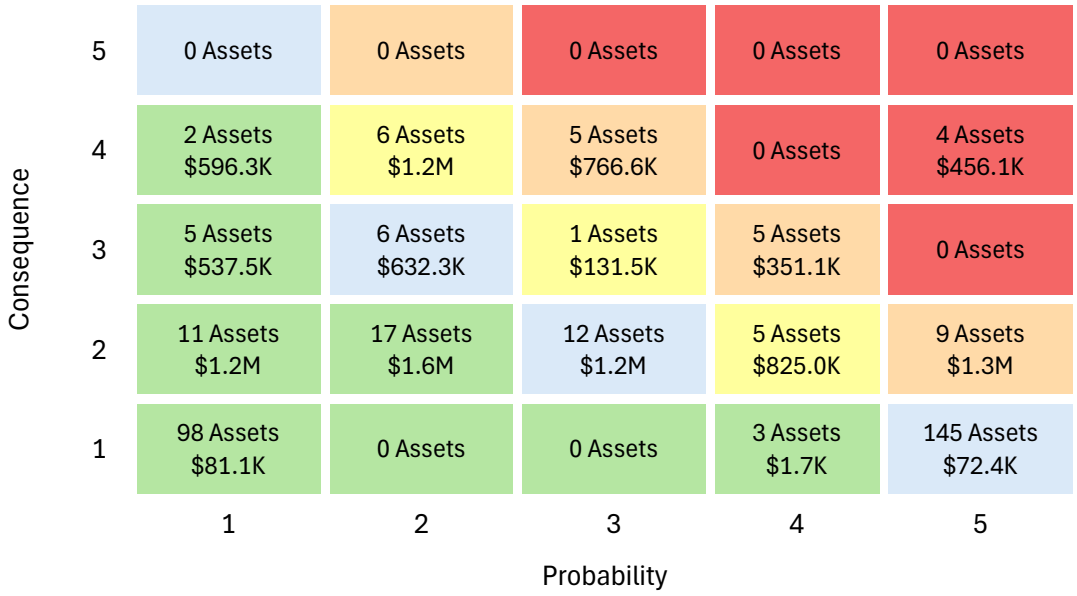


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

4.4 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2024 inventory data.



This is a high-level model developed for the purposes of this AMP and Town staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of the road network are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost
Service Life Remaining	Road Classification

The identification of critical assets allows the Town to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

4.5 Levels of Service

The following tables identify the Town's current level of service for the road 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.

4.5.1 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 (2024)
Scope	Description, which may include maps, of the road network in the municipality and its level of connectivity	See Appendix C
Quality	Description or images that illustrate the different levels of road class pavement condition	Very Poor: Widespread signs of deterioration. Requires remedial work to bring road up to standard. Service is affected. Poor: Large portions of road exhibiting deterioration with rutting, potholes, distortions, longitude and lateral cracking. Road is mostly below standard. Fair: Some sections of road starting to deteriorate. Requires some remedial work and surface upgrade in near future. Good: Road is in overall good condition. Few sections are starting to show signs of minimal deterioration. Very Good: Road is well maintained and in excellent condition. Surface was newly or recently upgraded. No signs of deterioration or remedial work required.

4.5.2 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	Current LOS (2024)
Scope	Lane-km of arterial roads (MMS classes 1 and 2) per land area (km/km^2)	0.29
	Lane-km of collector roads (MMS classes 3 and 4) per land area (km/km^2)	0.96
	Lane-km of local roads (MMS classes 5 and 6) per land area (km/km^2)	1.99
Quality	Average pavement condition index for paved roads in the town	66%
	Average surface condition for unpaved roads in the town (e.g. excellent, good, fair, poor)	Poor
Performance	Operating and maintenance costs for winter control	$63,877
	Capital reinvestment rate	1.8%

4.6 Recommendations

Asset Data

- Many assets are still in fair working condition despite their age being beyond their useful life. The estimated useful life (EUL) of the assets should be reviewed, particularly for the streetlights and street signs.

Condition Assessment Strategies

- Adopt a standardized condition assessment strategy for the road network to ensure condition information is up-to-date and accurate and allows staff to improve lifecycle strategies.

Lifecycle Management Strategies

- Implement the identified lifecycle management strategies for asphalt and surface treated roads to realize potential cost avoidance and maintain a high quality of road pavement condition.
- Evaluate the efficacy of the Town's lifecycle management strategies at regular intervals to determine the impact cost, condition and risk.

Risk Management Strategies

- Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation 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

- 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.

5 Bridges & Culverts

Bridges and culverts represent a critical portion of the transportation services provided to the community. Municipal staff is responsible for the maintenance of all bridges and culverts located across municipal roads with the goal of keeping structures in an adequate state of repair and minimizing service disruptions.

The state of the infrastructure for bridges and culverts is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$5.5 million	Fair (46%)	Annual Requirement:	$98,358
		Funding Available:	$0
		Annual Deficit:	$98,358

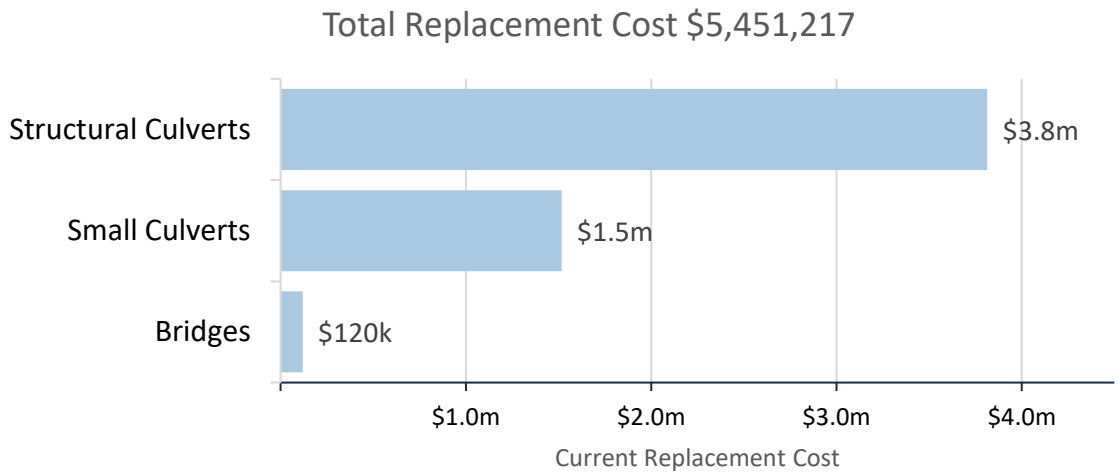
The following core values and level of service statements are a key driving force behind the Town's asset management planning:

Service Attribute	Level of Service Statement
Scope	Most of the bridges and culverts are conveniently accessible to the whole community in sufficient capacity (meets traffic demands) and are available under all weather conditions. Only one bridge in the Town has loading restrictions.
Quality	The bridges and culverts are in fair condition with minimal unplanned service interruptions and closures.

5.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost and annual capital requirements of each asset segment in the Town's bridges and culverts inventory.

Asset Segment	Quantity (Components)	Replacement Cost	Annual Capital Requirement
Structural Culverts	3(5)	3,814,240	$64,285
Small Culverts	1,834 m	1,517,242	$30,345
Bridges	4	119,735	$3,728
Total		**$5,451,217**	**$98,358**



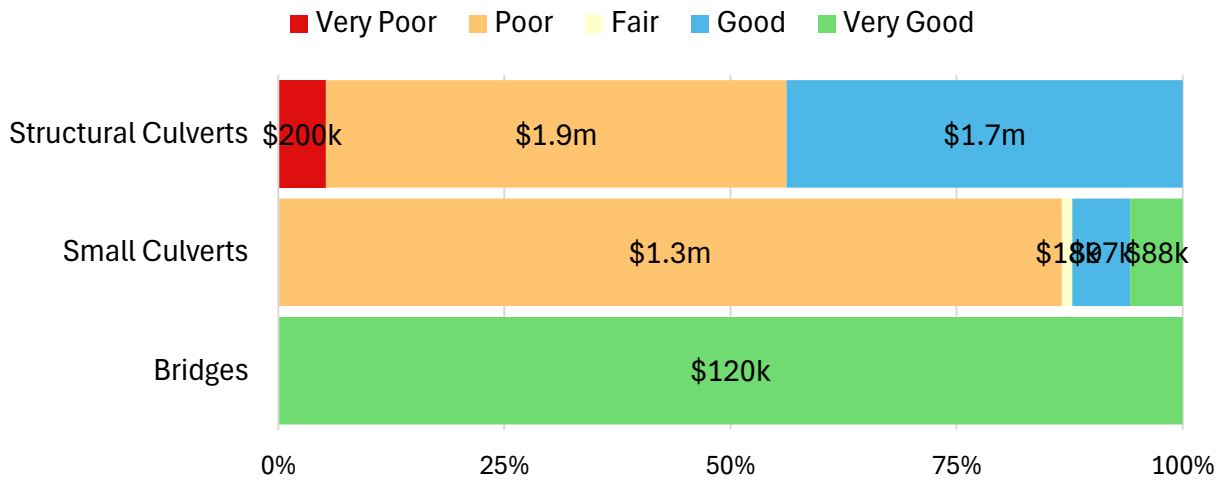
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

5.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Structural Culverts	50	85.0	Fair (52%)
Small Culverts	50	30.3	Fair (40%)
Bridges	35	2.3	Very Good (99%)
Average			**Fair (50%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor scale.



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 and culverts.

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

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:

- Condition assessments of all bridges and culverts with a span greater than or equal to 3 meters are completed every 2 years in accordance with the Ontario Structure Inspection Manual (OSIM).
- Visual inspections are completed on a regular basis by municipal staff for all bridges and culverts both structural and non-structural.

In this AMP, the following rating criteria is used to determine the current condition of bridges and culverts and forecast future capital requirements:

Condition	Rating
Very Good	80-100
Good	60-80
Fair	40-60
Poor	20-40
Very Poor	0-20

5.3 Lifecycle Management Strategy

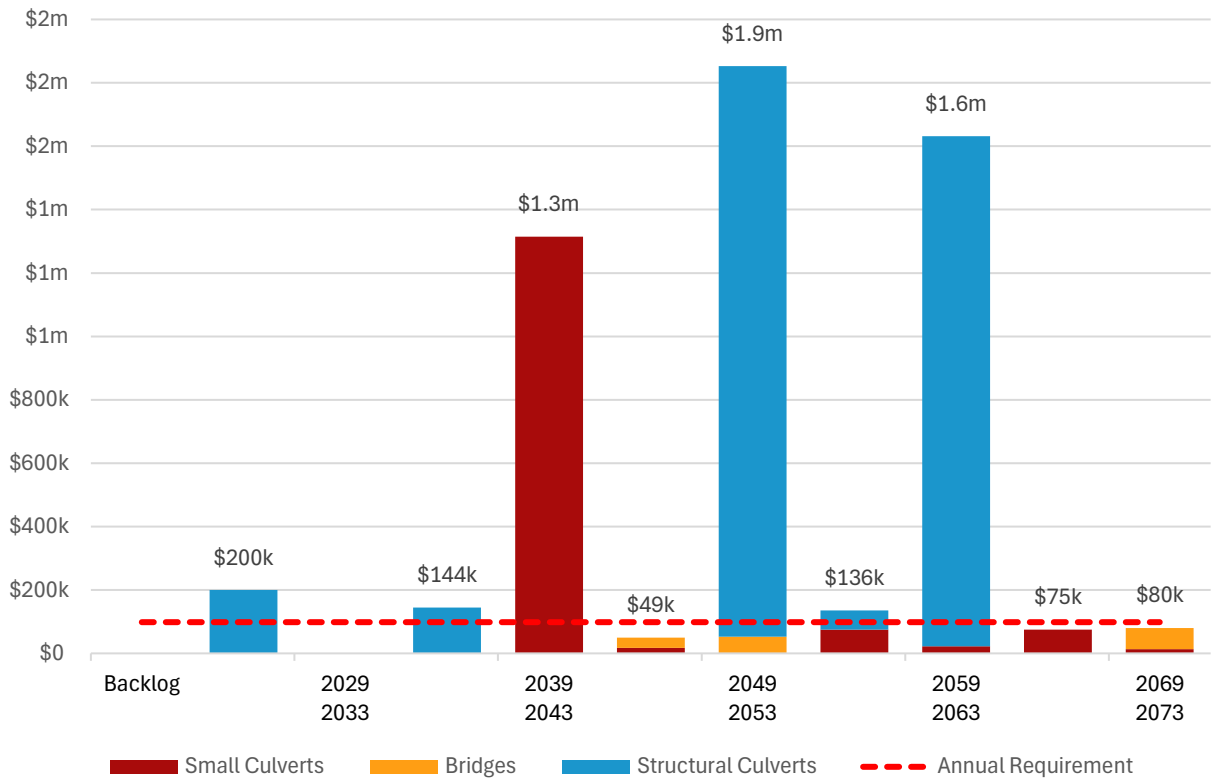
The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

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

Activity Type	Description of Current Strategy
Inspection	The most recent inspection report was completed in 2022.
Maintenance, Rehabilitation and Replacement	All lifecycle activities are driven by the results of mandated structural inspections competed according to the Ontario Structure Inspection Manual (OSIM).

5.3.1 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 following graph identifies capital requirements over the next 55 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. The trend line represents the average annual capital requirement of $110,000; this amount does not account for inflation.

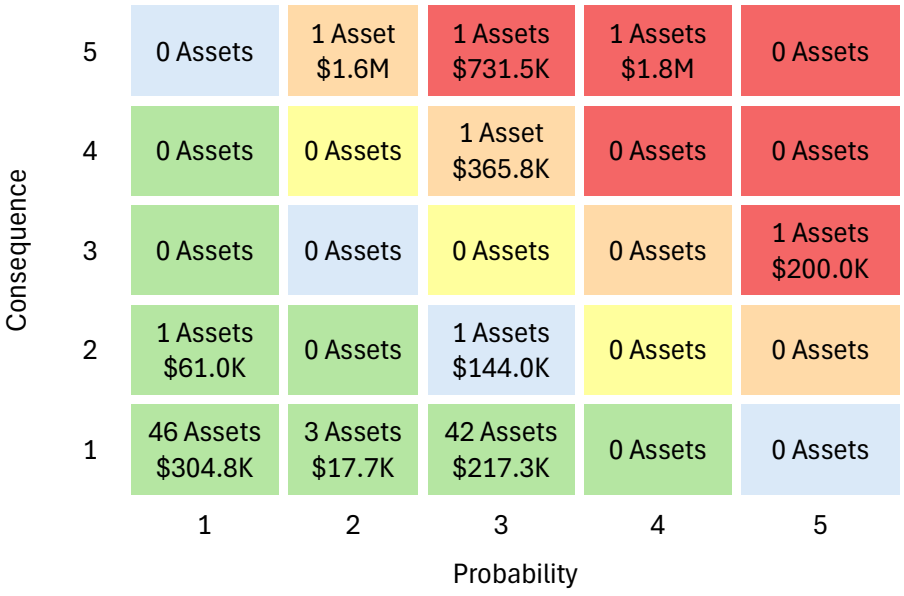


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

5.4 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2024 inventory data.



This is a high-level model developed for the purposes of this AMP and Town staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure. The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of bridges and culverts are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)
Service Life Remaining	

The identification of critical assets allows the Town to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

5.5 Levels of Service

The following tables identify the Town's current level of service for bridges and 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.

5.5.1 Community Levels of Service

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

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description of the traffic that is supported by municipal structural bridges (e.g. heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists)	The Town's bridges are pedestrian bridges that support pedestrians and cyclists. The Town owns three structural culverts that support all types of traffic including motor vehicles, heavy transport vehicles, emergency vehicles, pedestrians, and cyclits. However, one bridge has a 5 tonne restriction.
Quality	Description or images of the condition of bridges and culverts and how this would affect use of the bridges and culverts	See Appendix C

5.5.2 Technical Levels of Service

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

Service Attribute	Technical Metric	Current LOS (2024)
Scope	% of structural bridges/culverts in the Town with loading or dimensional restrictions	33.3%
Quality	Average bridge condition index value for bridges in the Town	N/A
	Average bridge condition index value for structural culverts in the Town	52
Performance	Operating and maintenance costs per square meter	$5,000
	Capital re-investment rate	0%

5.6 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.

Risk Management Strategies

- Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation 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

- This AMP only includes capital costs associated with the reconstruction of bridges and culverts. The Town should work towards identifying projected capital rehabilitation and renewal costs for bridges and culverts and integrating these costs into long-term planning.

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.

6 Stormwater Network

The Town is responsible for maintaining a stormwater network of a 4.7 kilometer of storm mains and over 100 catch basins.

The state of the infrastructure for the stormwater network is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$10.4 million	Poor (38%)	Annual Requirement:	$208,879
		Funding Available:	$0
		Annual Deficit:	$208,879

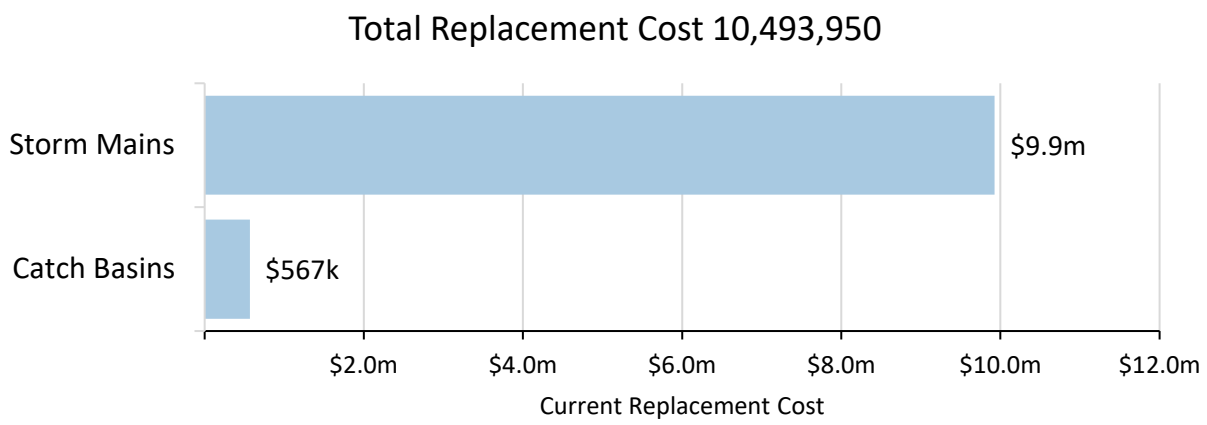
The following core values and level of service statements are a key driving force behind the Town's asset management planning:

Service Attribute	Level of Service Statement
Scope	The stormwater network service is conveniently accessible to the whole community in sufficient capacity and is resilient to 5-year storms and mostly resilient to 100-year storms according to staff observations.
Quality	The stormwater network is in poor condition with minimal unplanned service interruptions and road closures.

6.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost and annual capital requirements of each asset segment in the Town's stormwater network inventory.

Asset Segment	Quantity	Replacement Cost	Annual Capital Requirement
Catch Basins	113	$567,215	$11,344
Storm Mains	4,774 m	$9,926,735	$197,535
Total		**$10,493,950**	**$208,879**



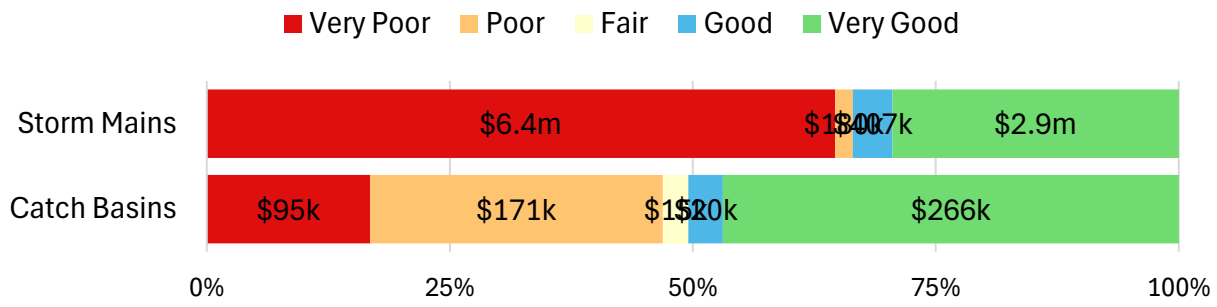
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

6.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Catch Basins	50	21.5	Fair (57%)
Storm Mains	50	31.7	Poor (37%)
Average			**Poor (38%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor.



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.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

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:

- There are no formal condition assessment programs in place for the stormwater network.
- The Town how has begun conducting a CCTV inspection of the storm mains to gather assessed condition.
- As the Town refines the available asset inventory for the stormwater network a regular assessment cycle should be established.

In this AMP the following rating criteria is used to determine the current condition of road segments and forecast future capital requirements:

Condition	Rating
Very Good	80-100
Good	60-80
Fair	40-60
Poor	20-40
Very Poor	0-20

6.3 Lifecycle Management Strategy

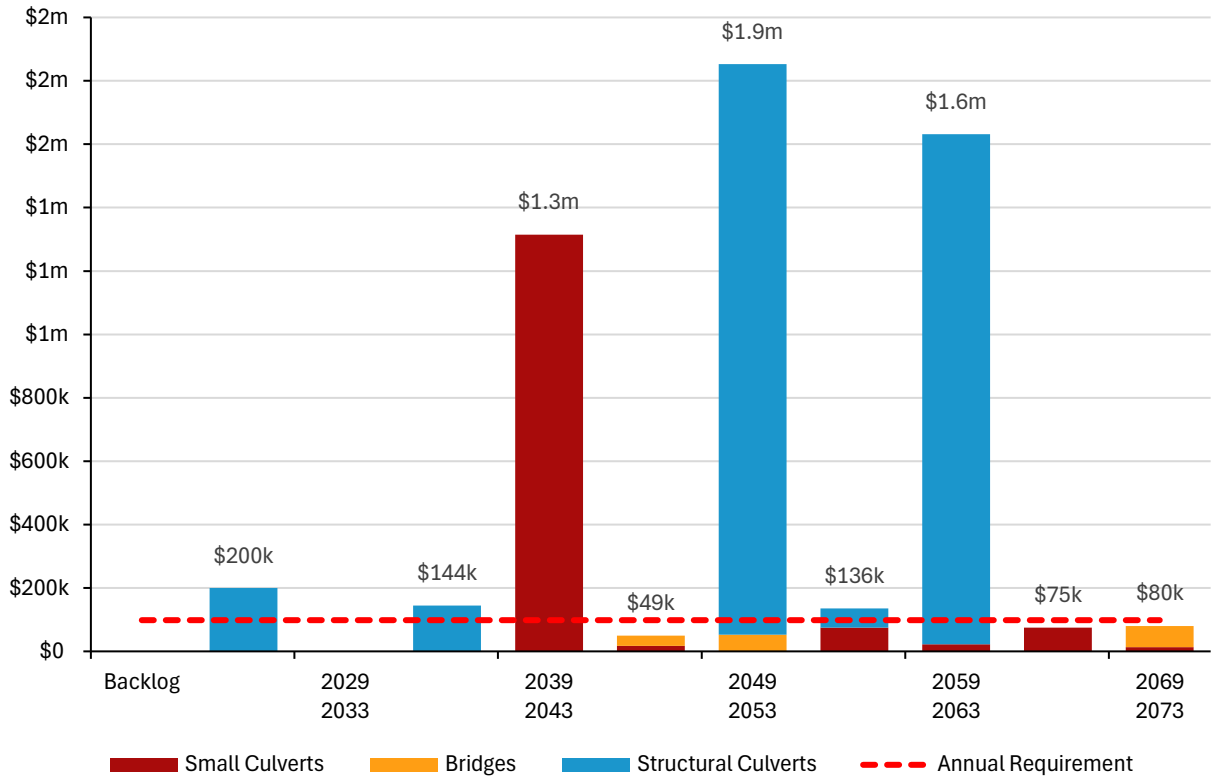
The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

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

Activity Type	Description of Current Strategy
Maintenance	Primary activities include catch basin cleaning and storm main flushing, but only a small percentage of the entire network is completed per year.
	CCTV inspections and cleaning may be completed as budget becomes available and this information would be used to drive forward rehabilitation and replacement plans.
Rehabilitation	Trenchless re-lining has the potential to reduce total lifecycle costs but would require a formal condition assessment program to determine viability.
Replacement	Without the availability of up-to-date condition assessment information replacement activities are purely reactive in nature.

6.3.1 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 following graph identifies capital requirements over the next 55 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. The trend line represents the average annual capital requirement of $10.4 million; this amount does not account for inflation.

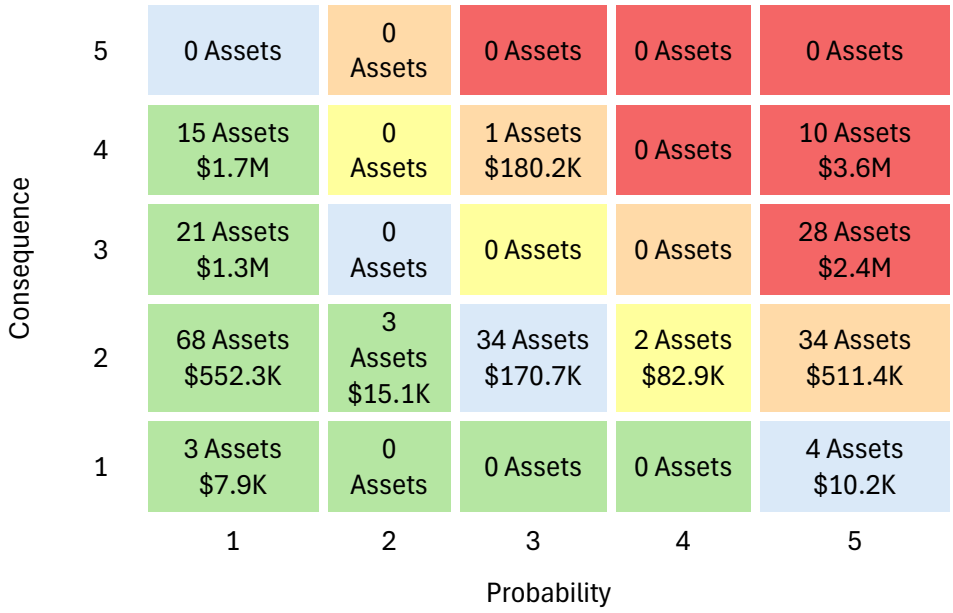


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

6.4 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2024 inventory data.



This is a high-level model developed for the purposes of this AMP and Town staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of the stormwater network are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)
Service Life Remaining	Pipe Diameter (Operational)

The identification of critical assets allows the Town to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

6.5 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.

6.5.1 Community Levels of Service

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

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

6.5.2 Technical Levels of Service

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

Service Attribute	Technical Metric	Current LOS (2024)
Scope	% of properties in town resilient to a 100-year storm	95%[1]
	% of the municipal stormwater management system resilient to a 5-year storm	100%[2]
Performance	Capital reinvestment rate	0%

[1] This is based on the observations of municipal staff.
[2] This is based on the observations of municipal staff.

6.6 Recommendations

Asset Inventory

- Review the stormwater network inventory to ensure all active assets are accounted for. The development of a comprehensive inventory of the stormwater network should be priority.

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 inspections if/when funding becomes available.

Risk Management Strategies

- Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation 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

- Continue to 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.

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.

7 Buildings

The Town of Gore Bay owns and maintains several facilities and recreation centres that provide key services to the community. These include:

- Administrative buildings
- Museums
- A medical centre and fitness centre
- Public works buildings
- An arena, marina, and community hall

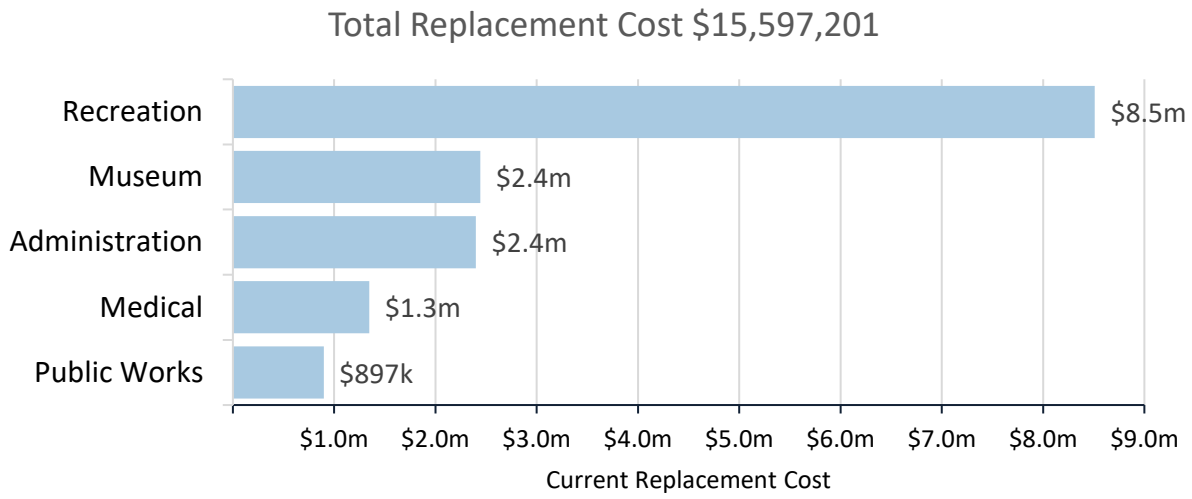
The state of the infrastructure for the buildings is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$15.6 million	Fair (45%)	Annual Requirement:	$270,639
		Funding Available:	$167,000
		Annual Deficit:	$103,639

7.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost and annual capital requirements of each asset segment in the Town's buildings inventory.

Asset Segment	Quantity	Replacement Cost	Annual Capital Requirement
Administration	3	$2,400,000	$40,000
Medical	1	$1,346,300	$22,438
Museum	2	$2,443,815	$40,730
Public Works	2	$897,300	$14,955
Recreation	9	$8,509,786	$152,516
Total		**$15,597,201**	**$270,639**



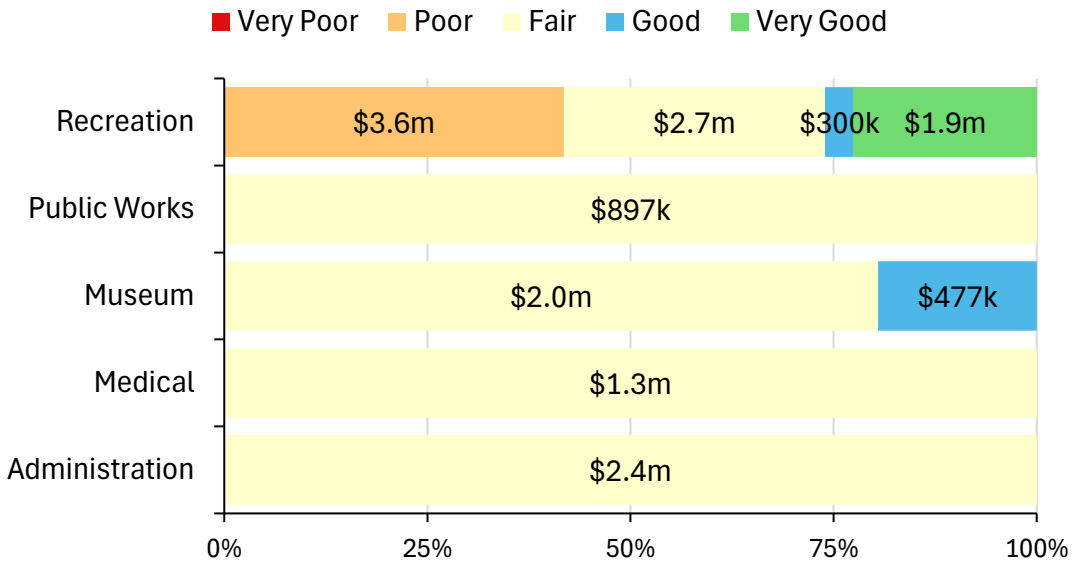
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

7.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Administration	60	35.2	Fair (49%)
Medical	60	38.0	Fair (40%)[3]
Museum	60	33.3	Fair (53%)
Public Works	60	31.0	Fair (54%)
Recreation	60	53.4	Fair (48%)
Average			**Fair (45%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor.



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

[3] The building needs rehabilitation and capital projects are planned for the near future.

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.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

Current Approach to Condition Assessment

In this AMP the following rating criteria is used to determine the current condition of road segments and forecast future capital requirements:

Condition	Rating
Very Good	80-100
Good	60-80
Fair	40-60
Poor	20-40
Very Poor	0-20

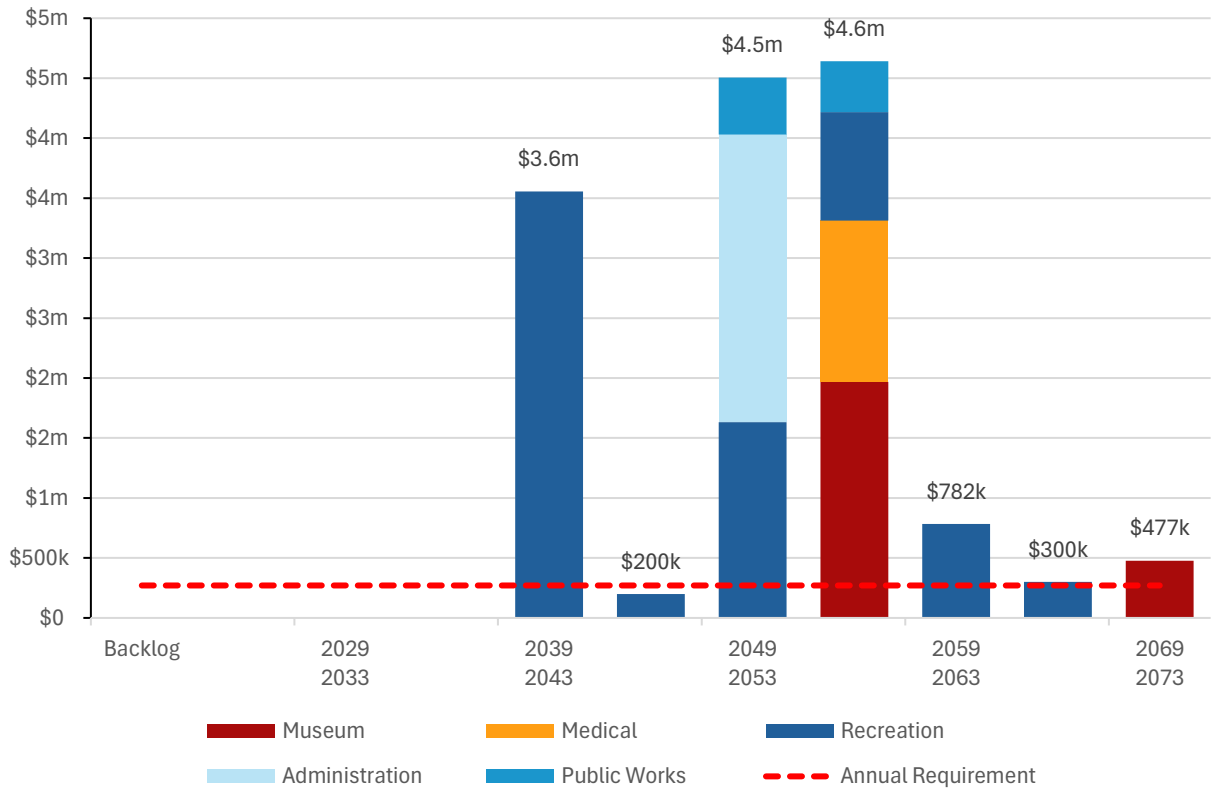
7.3 Lifecycle Management Strategy

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 and Rehabilitation	Municipal buildings are subject to regular inspections to identify structural deficiencies that require additional attention.
Replacement	Components of facilities are usually replaced when they fail.

7.3.1 Forecasted Capital Requirements

The annual capital requirement represents the average amount per year that the Town should allocate towards funding rehabilitation and replacement needs. The following graph identifies capital requirements over the next 60 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. The trend line represents the average annual capital requirement of $598,000; this amount does not account for inflation.

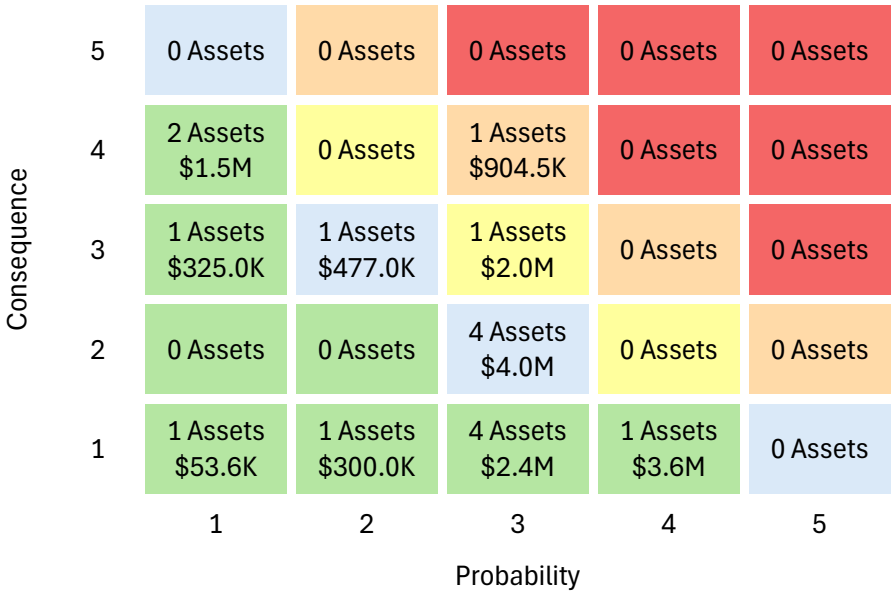


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

7.4 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2024 inventory data.



This is a high-level model developed for the purposes of this AMP and Town staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of the stormwater network are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)

The identification of critical assets allows the Town to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

7.5 Levels of Service

The following tables identify the Town's current level of service for the buildings. 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.

7.5.1 Community Levels of Service

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

Service Attribute	Qualitative Description	Current LOS (2024)
Accessible and Reliable	Appropriate actions and interventions are taken to ensure the regular safe use of Facility assets. Facility assets are diverse and serve the needs of residents and the operations of the Municipality.	Using age-based condition, facility assets range in condition from poor (26) to very good (95) and are on average in good (60) condition: Recreation focused facility assets include arena, marina, community hall, outdoor pavilions, museums, and park washrooms. Municipal operations facilities include public works garage, and the Township Office.
Safe and Regulatory	Description of inspections processes in place for facilities	Routine inspections are conducted of all facilities at least annually as part of fire inspections. Many buildings are inspected more often based on age or condition.

7.5.2 Technical Levels of Service

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

Service Attribute	Technical Metric	Current LOS (2024)
Affordable	Annual maintenance rate (total maintenance and repair budgets / total ft2 of all facilities)	$ 0.70 / Sq Ft
	Total utility costs / ft2 of all facilities	$ 2.88 / Sq Ft
Safe and Regulatory	% of facilities where monthly inspections have been completed	100%
Accessible and Reliable	% of facilities with accessible entrances and washrooms	100%

7.6 Recommendations

Asset Inventory & Replacement costs

- The Town's asset inventory contains a single record for all buildings. 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 facilities to allow for component-based lifecycle planning.
- Many assets are still in fair working condition despite their age being beyond their useful life.
- Continue to gather accurate replacement costs and update on a regular basis to ensure the accuracy of capital projections.

Condition Assessment & Lifecycle Strategies

- The Town should implement regular condition assessments for all buildings to better inform short- and long-term capital requirements.
- Document and review lifecycle management strategies for buildings on a regular basis to achieve the lowest total cost of ownership while maintaining adequate service levels.

Risk Management Strategies

- Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation strategies.
- Develop risk models and review on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Levels of Service

- Begin measuring 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.

8 Vehicles

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

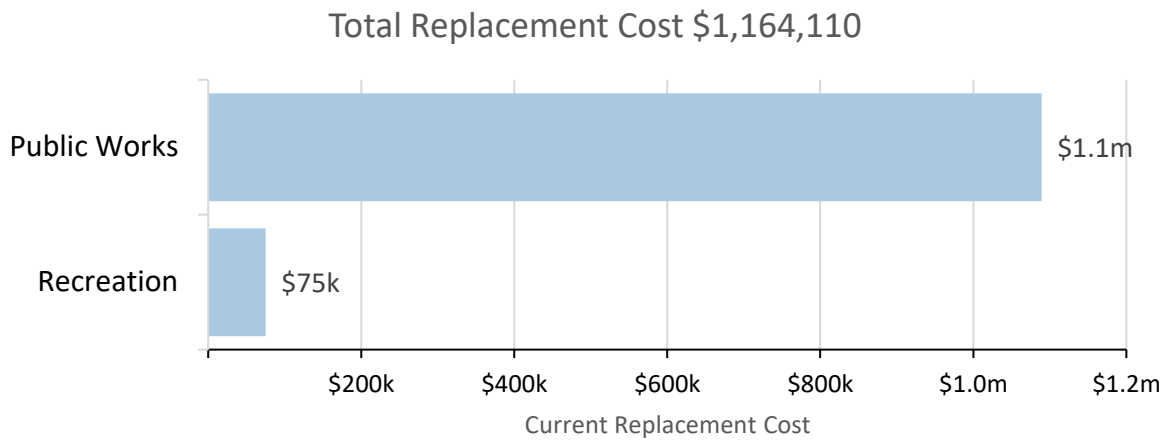
The state of the infrastructure for the vehicles is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$1.16 million	Fair (45%)	Annual Requirement:	$116,100.33
		Funding Available:	$0
		Annual Deficit:	$116,100.33

8.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost, and annual capital requirements of each asset segment in the Town's vehicle inventory.

Asset Segment	Quantity	Replacement Cost	Annual Requirement
Public Works	11	$1,089,110	$108,600
Recreation	1	$75,000	$7,500
Total		**$1,164,110**	**$116,100**



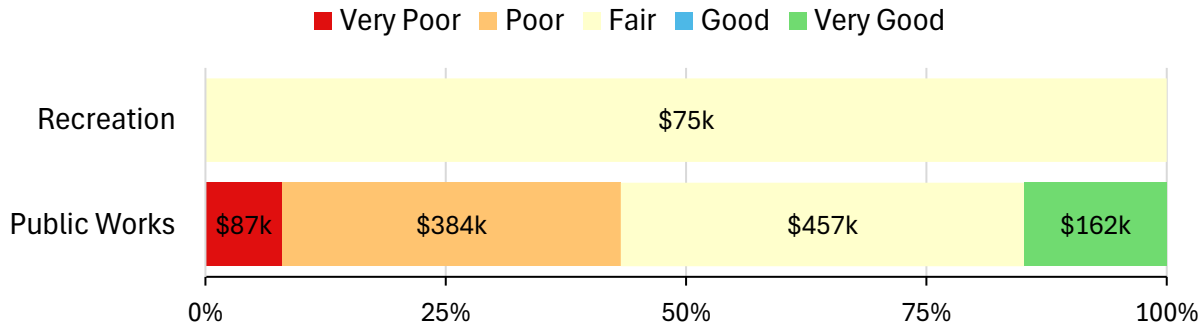
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

8.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Public Works	10	10.8	Fair (45%)
Recreation	10	9.0	Fair (44%)
Average			**Fair (45%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor scale.



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.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

Current Approach to Condition Assessment

In this AMP the following rating criteria is used to determine the current condition of road segments and forecast future capital requirements:

Condition	Rating
Very Good	80-100
Good	60-80
Fair	40-60
Poor	20-40
Very Poor	0-20

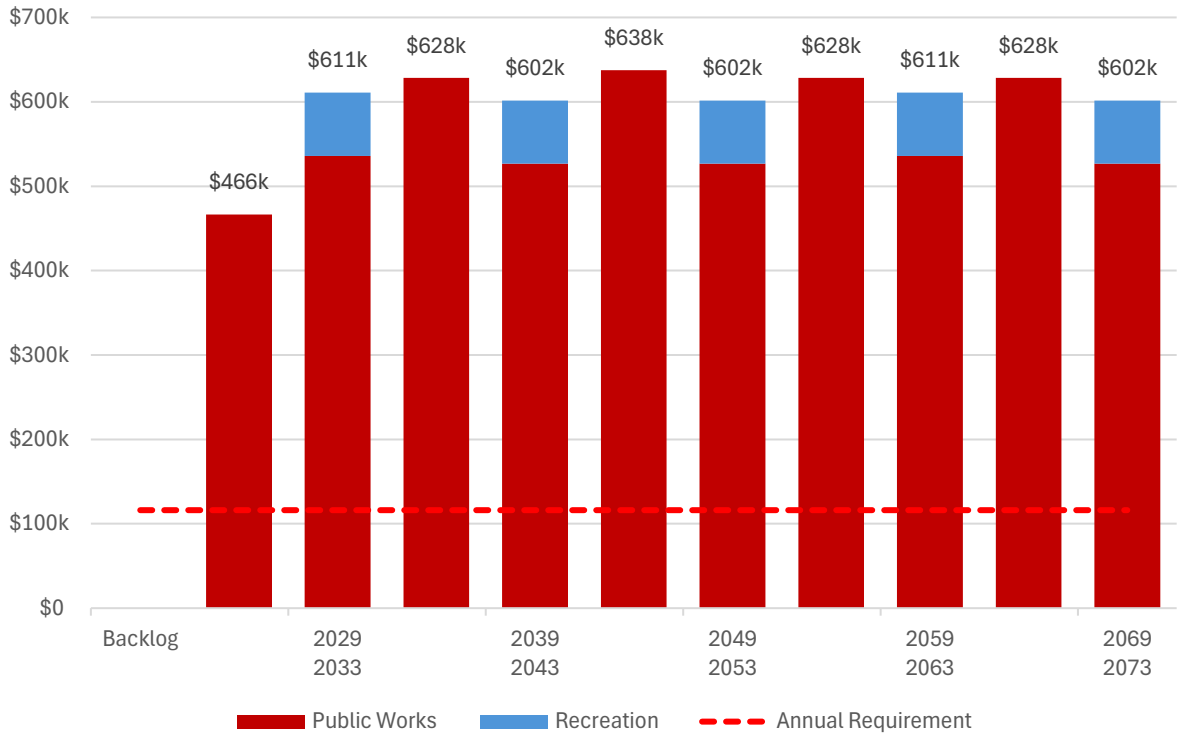
8.3 Lifecycle Management Strategy

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 Township's current lifecycle management strategy.

Lifecycle Activity	Description of Current Strategy
Maintenance	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

8.3.1 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 following graph identifies capital requirements over the next 15 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. The trend line represents the average annual capital requirement of $97,000; this amount does not account for inflation.

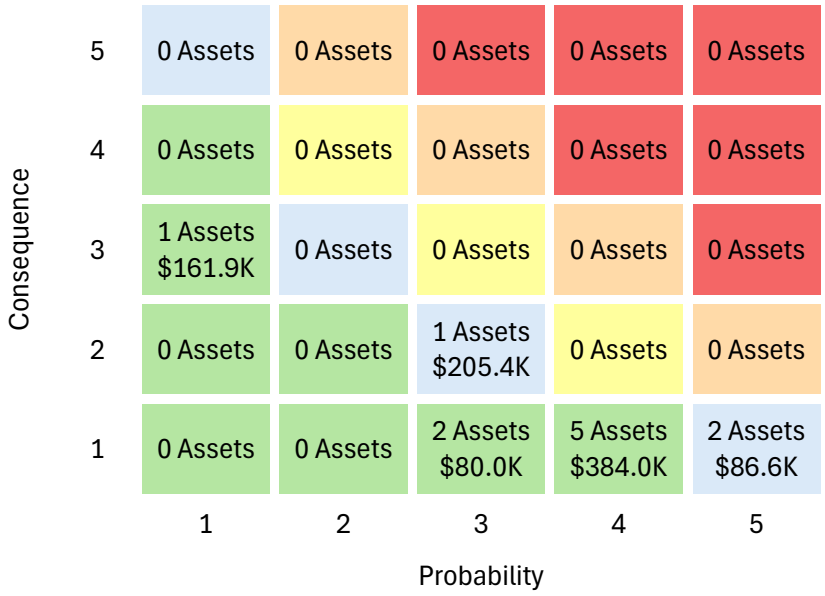


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

8.4 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2024 inventory data.



This is a high-level model developed for the purposes of this AMP and Town staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of the buildings are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)

The identification of critical assets allows the Town to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

8.5 Levels of Service

The following tables identify the Town's current level of service for the vehicles. 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.

8.5.1 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 (2024)
Scope	List of vehicles, an explanation of uses and the service areas	See Appendix C

8.5.2 Technical Levels of Service

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

Service Attribute	Technical Metric	Current LOS (2024)
Sustainable	Average Risk for vehicles	4.75
	Average condition of vehicles	30.3
Safe and Regulatory	% of Assets where Age < Useful Life	50%

8.6 Recommendations

Replacement Costs

- Continue to gather accurate replacement costs and update on a regular basis to ensure the accuracy of capital projections.

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

- Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation strategies.
- Develop risk models and review on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Lifecycle Strategies

- Document and review lifecycle management strategies for vehicles on a regular basis to achieve the lowest total cost of ownership while maintaining adequate service levels.

Levels of Service

- Begin measuring 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.

9 Machinery & Equipment

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

- Public works equipment to support transportation services and lawn maintenance,
- Office equipment to support administration services, and
- Other equipment to support community services and medical services.

Keeping machinery and equipment in an adequate state of repair is important to maintain a high level of service.

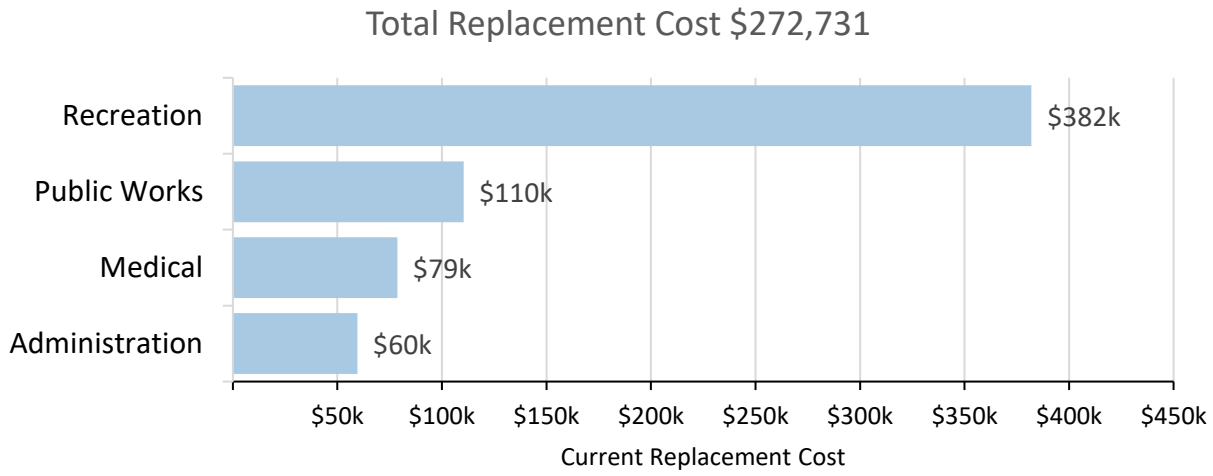
The state of the infrastructure for the machinery and equipment is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$630,745	Poor (23%)	Annual Requirement:	$43,215
		Funding Available:	$17,000
		Annual Deficit:	$26,215

9.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost and annual capital requirements of each asset segment in the Town's machinery and equipment inventory.

Asset Segment	Quantity	Replacement Cost	Annual Capital Requirement
Administration	18	$59,646	$6,210
Medical	1	$78,764	$3,938
Public Works	16	$110,350	$7,147
Recreation	34	$381,985	$25,921
Total		**$272,731**	**$43,215**



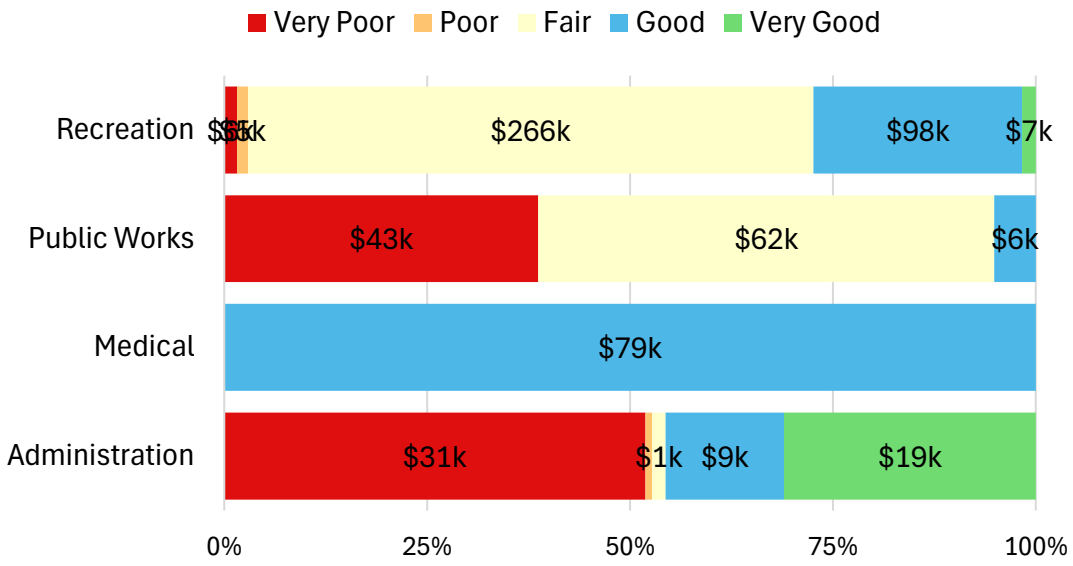
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

9.2 Asset Condition & Age

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	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Administration	45	49.7	Very Poor (5%)
Medical	20	13.0	Good (50%)
Public Works	10	18.7	Very Poor (5%)
Recreation	50	27.8	Fair (44%)
Average			**Poor (23%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor.



To ensure that the Town's machinery and equipment 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 machinery and equipment.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

Current Approach to Condition Assessment

In this AMP the following rating criteria is used to determine the current condition of road segments and forecast future capital requirements:

Condition	Rating
Very Good	80-100
Good	60-80
Fair	40-60
Poor	20-40
Very Poor	0-20

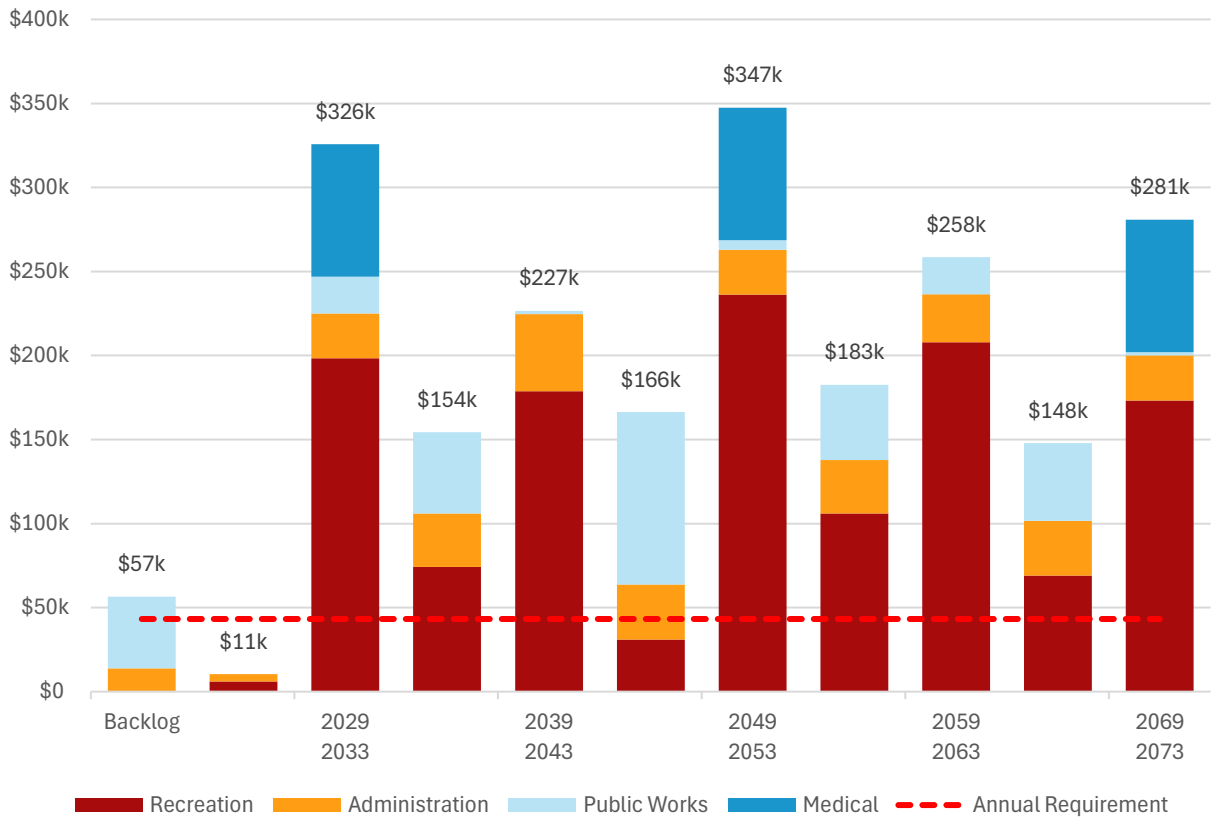
9.3 Lifecycle Management Strategy

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.

Lifecycle Activity	Description of Current Strategy
Maintenance	Maintenance program varies by department
	Equipment is maintained according to manufacturer recommended actions and supplemented by the expertise of municipal staff
Replacement	The replacement of equipment depends on deficiencies identified by operators that may impact their ability to complete required tasks

9.3.1 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 following graph identifies capital requirements over the next 50 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. The trend line represents the average annual capital requirement of $43,215; this amount does not account for inflation.

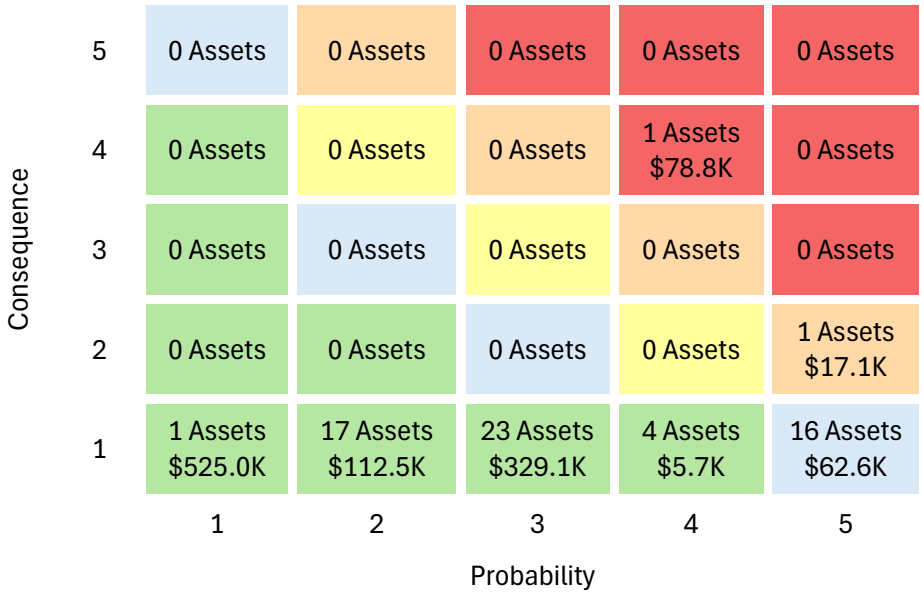


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

9.4 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2024 inventory data.



This is a high-level model developed for the purposes of this AMP and Town staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of the machinery and equipment are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)

The identification of critical assets allows the Town to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

9.5 Levels of Service

The following tables identify the Town's current level of service for the machinery and equipment. 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.

9.5.1 Community Levels of Service

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

Service Attribute	Qualitative Description	Current LOS (2024)
Safe and Reliable	Description of the machinery & equipment inspection process and any licensing requirements for operators	The machinery and equipment receive a minimum of two inspections per year. The Town seeks to employ drivers who have a D class license. However, not all departments require this. For example, lawn mowers employed by the parks department only require a G class license.
Affordable	Description of the lifecycle activities (maintenance, rehabilitation and replacement) performed on machinery and equipment assets	Machinery and Equipment assets are maintained as needed. Usually, these assets are replaced when they fail or are no longer in a functional state.

9.5.2 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	Current LOS (2024)
Safe and Regulatory	% of Assets where Age > Useful Life	60%
Sustainable	Average condition of machinery & equipment	45.18%

9.6 Recommendations

Replacement Costs

- The majority of replacement costs used in this AMP were based on the inflation of historical costs. These costs should be evaluated to determine their accuracy and reliability. Replacement costs should be updated according to the best available information on the cost to replace the asset in today's value.

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.

Lifecycle Strategies

- Document and review lifecycle management strategies for machinery and equipment on a regular basis to achieve the lowest total cost of ownership while maintaining adequate service levels.

Risk Management Strategies

- Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation strategies.
- Develop risk models and review on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.

Levels of Service

- Begin measuring 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.

10 Land Improvements

The Town of Gore Bay owns a small number of assets that are considered land improvements. This category includes marina and park assets.

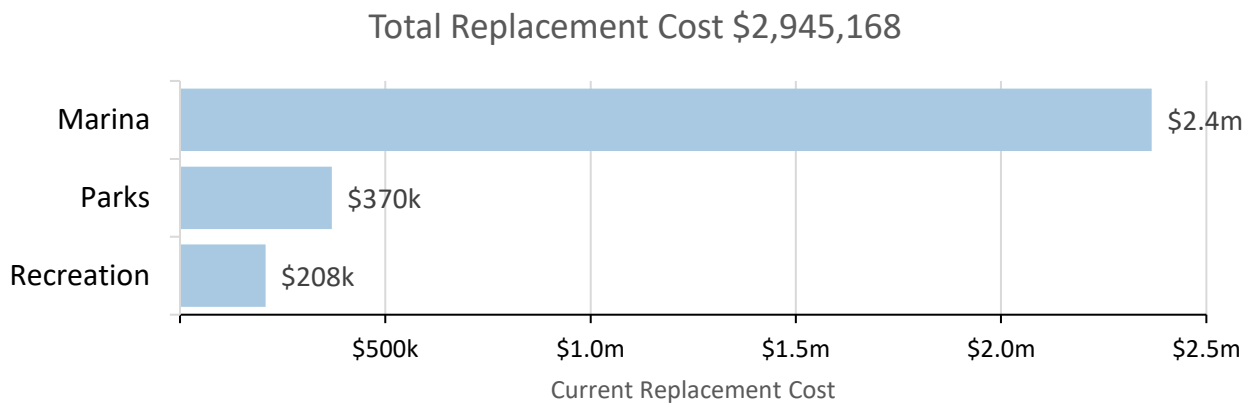
The state of the infrastructure for the land improvements is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$2.9 million	Poor (29%)	Annual Requirement:	$205,208
		Funding Available:	$18,000
		Annual Deficit:	$187,208

10.1 Asset Inventory & Costs

The table below includes the quantity, total replacement cost and annual capital requirements of each asset segment in the Town's land improvements inventory.

Asset Segment	Quantity	Replacement Cost	Annual Capital Requirement
Marina	137	$2,366,775	$157,785
Recreation	2	208,324	$10,416
Parks	1,353 m	$370,069	$37,007
Total		**$2,945,168**	**$205,208**



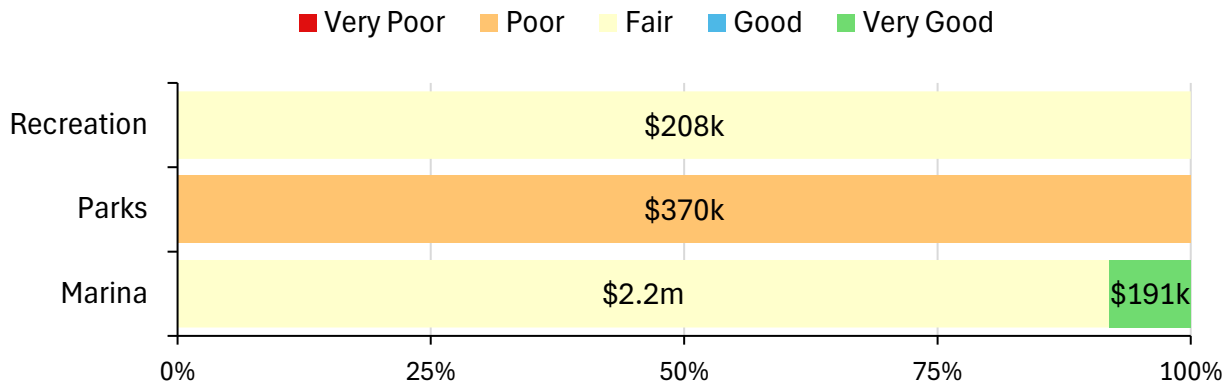
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

10.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Marina	15	14.7	Poor (28%)
Recreation	15	17.7	Fair (47%)
Parks	10	6.0	Poor (28%)
Average			**Poor (28%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor.



To ensure that the Town's land improvements 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 land improvements.

Each asset's estimated useful life should also be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

Current Approach to Condition Assessment

In this AMP the following rating criteria is used to determine the current condition of road segments and forecast future capital requirements:

Condition	Rating
Very Good	80-100
Good	60-80
Fair	40-60
Poor	20-40
Very Poor	0-20

10.3 Lifecycle Management Strategy

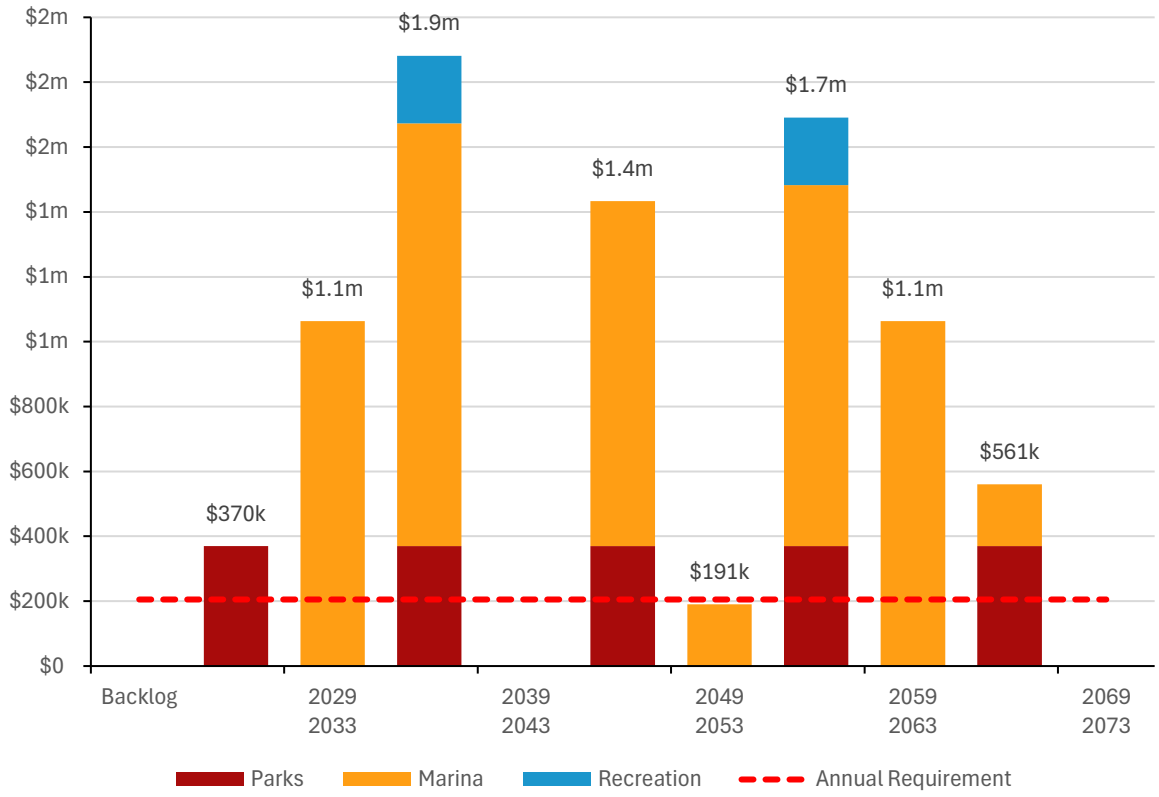
The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

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

Lifecycle Activity	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 varies by department

10.3.1 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 following graph identifies capital requirements over the next 50 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. The trend line represents the average annual capital requirement of $205,208; this amount does not account for inflation.

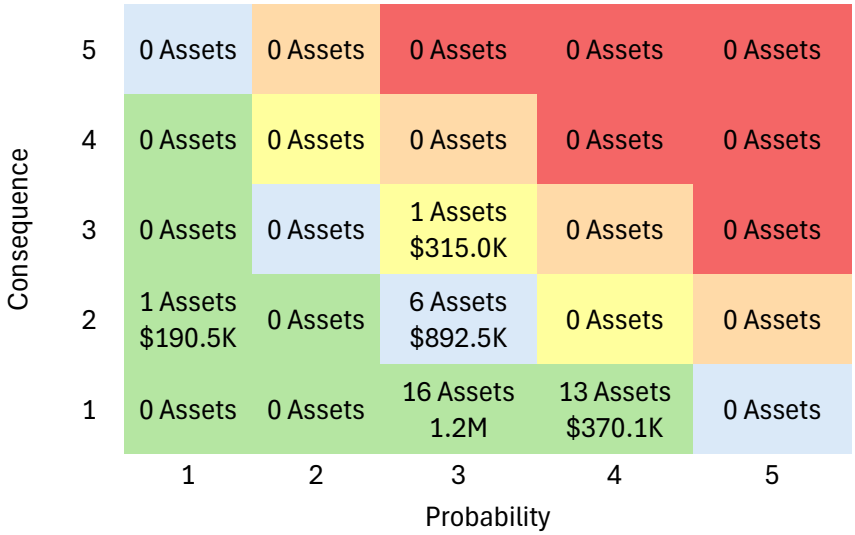


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

10.4 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2024 inventory data.



This is a high-level model developed for the purposes of this AMP and Town staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of the land improvements are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)

The identification of critical assets allows the Town to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

10.5 Levels of Service

The following tables identify the Town's current level of service for the land improvements. 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.

10.5.1 Community Levels of Service

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

Service Attribute	Qualitative Description	Current LOS (2024)
Accessible & Reliable	A map of the municipality with all municipal parks and marinas highlighted	See Appendix

10.5.2 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	Current LOS (2024)
Safe and Regulatory	# of customer complaints about conditions in parks	3
	% of monthly park inspections completed	50%
Performance	Capital reinvestment rate	2%

10.6 Recommendations

Replacement Costs

- The majority of replacement costs used in this AMP were based on the inflation of historical costs. These costs should be evaluated to determine their accuracy and reliability. Replacement costs should be updated according to the best available information on the cost to replace the asset in today's value.

Condition Assessment Strategies

- 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.

Lifecycle Strategies

- Document and review lifecycle management strategies for land improvement assets on a regular basis to achieve the lowest total cost of ownership while maintaining adequate service levels.

Risk Management Strategies

- Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation 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

- Begin measuring 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.

11 Water Network

The Town is responsible for a water treatment plant, water distribution, and fire hydrants. The Town owns approximately 17 kilometres of water mains and 55 fire hydrants. The Ontario Clean Water Agency (OCWA) is responsible for the operations and maintenance (O&M) of the treatment plant and some other aspects of the system.

The state of the infrastructure for the water network is summarized in the following table:

Replacement Cost	Condition	Financial Capacity	
$36.9 million	Fair (47%)	Annual Requirement:	$592,841
		Funding Available:	$27,000
		Annual Deficit:	$565,841

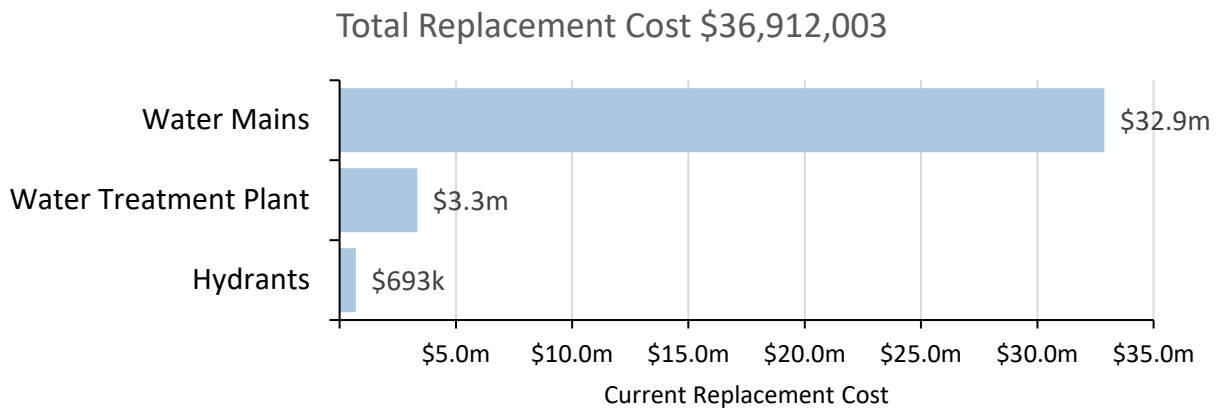
The following core values and level of service statements are a key driving force behind the Town's asset management planning:

Service Attribute	Level of Service Statement
Scope	The Municipal water is conveniently accessible to 82% of the community in sufficient capacity (does not exceed maximum use). The Municipal fire flow system is accessible to 80% of the community in sufficient capacity.
Quality/Reliability	The water network is in fair condition with no unplanned service interruptions due to main breaks and boil water advisories.

11.1 Asset Inventory & Costs

The table below includes the quantity, replacement cost method, and annual capital requirements of each asset segment in the Town's water network inventory.

Asset Segment	Quantity	Replacement Cost	Annual Capital Requirement
Hydrants	55	$693,132	$23,104
Water Mains	16,761 m	$32,883,520	$446,615
Water Treatment Plant	1	$3,335,350	$131,290
Total		**$36,912,002**	**$601,009**



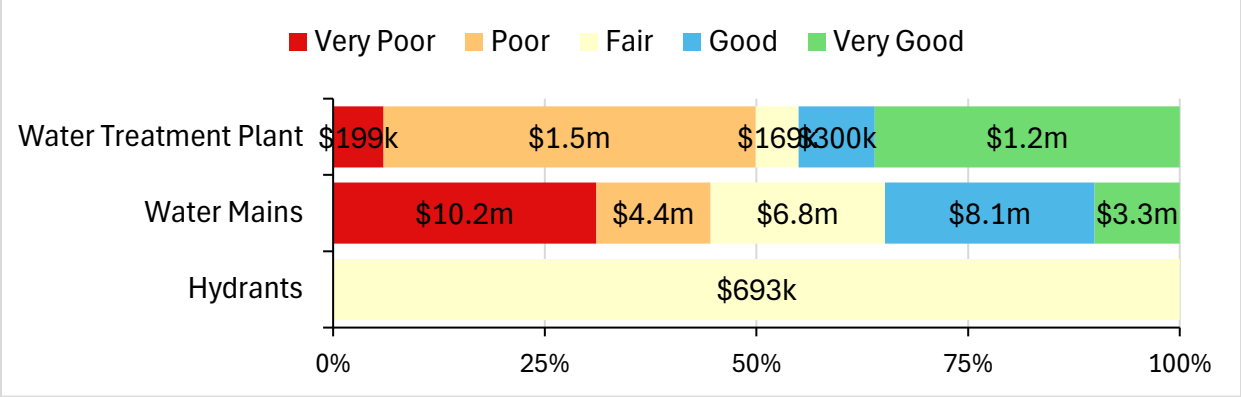
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

11.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age (Years)	Average Condition
Hydrants	30	29.6	Fair (47%)
Water Mains	75	38.0	Fair (46%)
Water Treatment Plant	27	16.1	Fair (50%)
Average			**Fair (46%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor scale.



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.

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

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:

- The Town relies primarily on the age and material of water mains and hydrants to determine the projected condition.
- The water treatment plant is comprehensively assessed on a regular schedule in compliance with regulatory requirements.

In this AMP the following rating criteria is used to determine the current condition of water network assets and forecast future capital requirements:

Condition	Rating
Very Good	80-100
Good	60-80
Fair	40-60
Poor	20-40
Very Poor	0-20

11.3 Lifecycle Management Strategy

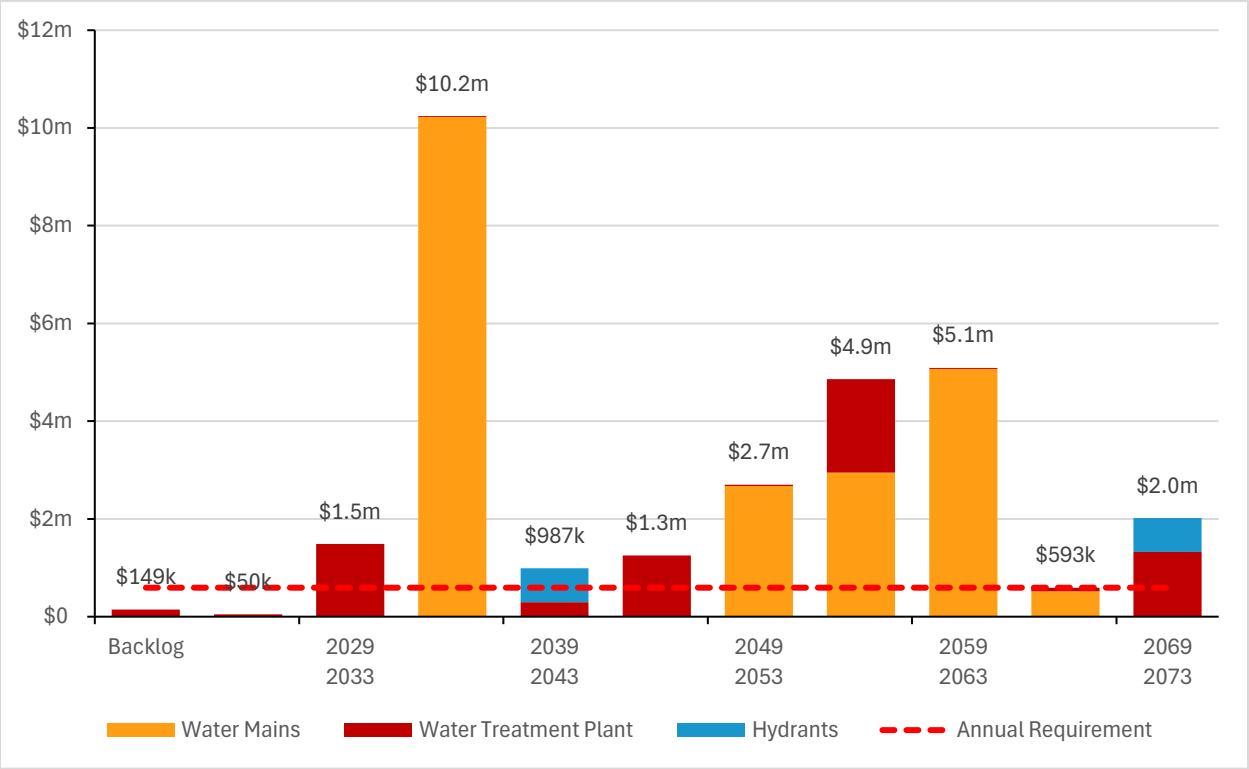
The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

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

Activity Type	Description of Current Strategy
Maintenance	Equipment servicing, calibration, and verification is regularly scheduled – daily, weekly, monthly, quarterly, or annually – depending on the type of the equipment/asset.
	Main flushing and valve turning is completed on an annual basis. Periodic pressure testing to identify deficiencies and potential leaks.
Rehabilitation	Rehabilitation of assets is prioritized based on the condition of the asset, O&M Manual of the assets, and usage.
Replacement	Comparisons of the rehabilitation and replacement costs inform the rehabilitation and/or renewal strategies.
	Full replacement is determined based on the current state of the operation costs, performance, lifecycle, and age of the assets.

11.3.1 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 following graph identifies capital requirements over the next 80 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.

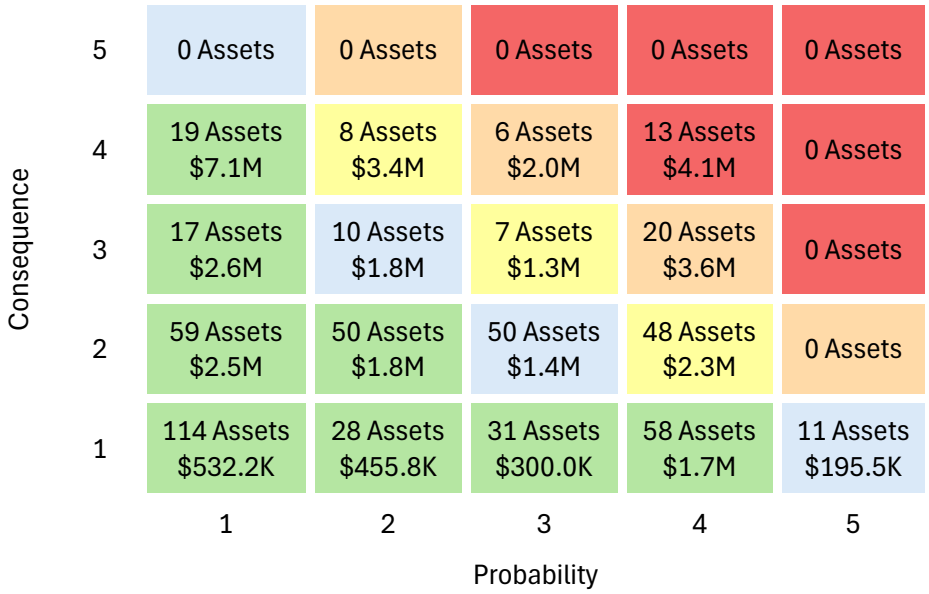


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

11.4 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2024 inventory data.



This is a high-level model developed for the purposes of this AMP and Town staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of the water network are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)
Service Life Remaining	Pipe Diameter (Operational)

The identification of critical assets allows the Town to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

11.5 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.

11.5.1 Community Levels of Service

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

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description, which may include maps, of the user groups or areas of the town that are connected to the municipal water system	See Appendix C
	Description, which may include maps, of the user groups or areas of the town that have fire flow	Fire flow in the Town is accessible to approximately 75% of properties. See Appendix C for a map.
Reliability	Description of boil water advisories and service interruptions	Water main breaks are identified by road patrols, citizen reports, or OCWA reports. Service interruptions are avoided where possible. Notices are provided to affected residents in accordance with established guidelines. Once repairs are completed water testing is conducted by OCWA. Appropriate levels of warnings are provided to affected residents in accordance.

11.5.2 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	Current LOS (2024)
Scope	% of properties connected to the municipal water system	82%
	% of properties where fire flow is available	80%
Reliability	# of connection-days per year where a boil water advisory notice is in place compared to the total number of properties connected to the municipal water system	0
	# of connection-days per year where water is not available due to water main breaks compared to the total number of properties connected to the municipal water system	0
Performance	Capital re-investment rate	0.1%

11.6 Recommendations

Asset Inventory

- Review the inventory to ensure all active assets are accounted for. The development of a comprehensive inventory of the water network should be priority.

Condition Assessment Strategies

- Identify condition assessment strategies for high value and high-risk water network assets.
- To approximate condition of water mains, optimize other attributes such as age, material, soil type, and history of main breaks.

Risk Management Strategies

- Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation 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

- 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.

12 Sanitary Sewer Network

The Town is responsible for the operations and maintenance if a sanitary distribution system. The Town owns approximately 16 kilometres of sanitary mains and 2 sewage pumping stations.

The state of the infrastructure for the sanitary sewer network is summarized in the following table.

Replacement Cost	Condition	Financial Capacity	
$33.5 million	Very Poor (13%)	Annual Requirement:	$672,000
		Funding Available:	$106,000
		Annual Deficit:	$566,000

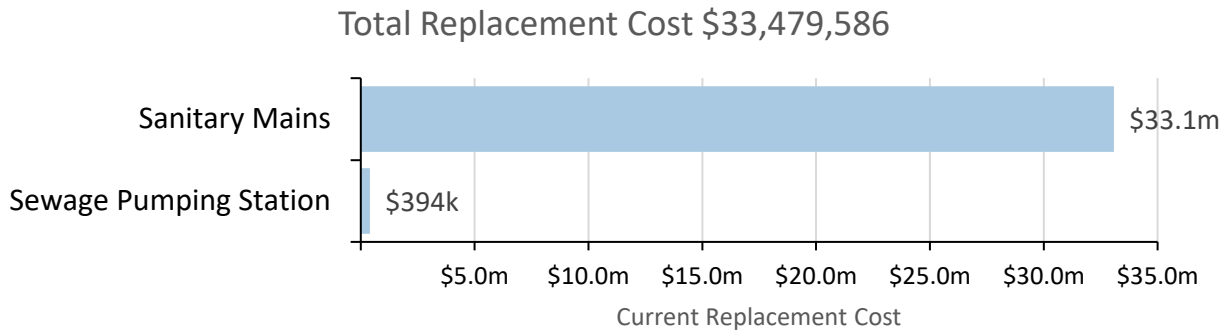
The following core values and level of service statements are a key driving force behind the Town's asset management planning.

Service Attribute	Level of Service Statement
Scope	The Municipal sanitary sewer system is accessible to 68% of the community in sufficient capacity (does not exceed maximum capacity).
Quality/Reliability	The sewer network is in poor condition with no unplanned service interruptions due to backups and effluent violations.

12.1 Asset Inventory & Costs

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

Asset Segment	Quantity (Components)	Replacement Cost	Annual Capital Requirement
Sanitary Mains	15,959 m	$33,085,586	$661,712
Sewage Pumping Station	9	$394,000	$10,440
Total		**$33,479,586**	**$672,152**



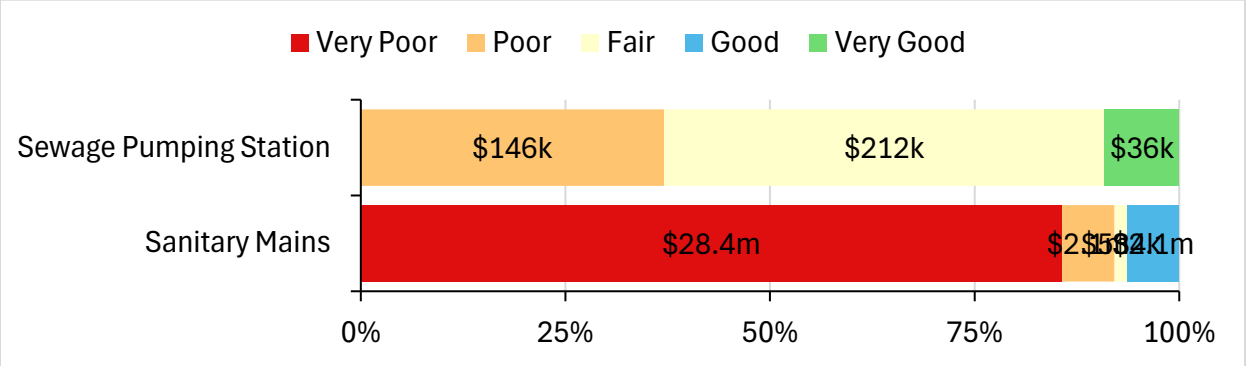
Each asset's replacement cost should be reviewed periodically to determine whether adjustments are needed to more accurate represent realistic capital requirements.

12.2 Asset Condition & Age

The table below identifies the current average condition, the average age, and the estimated useful life for each asset segment. The average condition (%) is a weighted value based on replacement cost.

Asset Segment	Estimated Useful Life (Years)	Average Age	Average Condition (%)
Sanitary Mains	50	42.0	Very Poor (12%)
Sewage Pumping Station	42	30.3	Fair (50%)
Average			**Very Poor (13%)**

The graph below visually illustrates the average condition for each asset segment on a very good to very poor scale.



To ensure that the Town's sanitary sewer 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 sewer network.

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

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:

- There is no formal condition assessment strategy for sanitary sewer network assets. Age and asset material is used to determine the condition of sanitary mains. Visual assessments take place to identify defects in above ground assets.
- The Town how has begun conducting a CCTV inspection of the sanitary mains to gather assessed condition.
- Annual inspections take place in coordination with storm network inspections.

In this AMP the following rating criteria is used to determine the current condition of sewer network assets and forecast future capital requirements:

Condition	Rating
Very Good	80-100
Good	60-80
Fair	40-60
Poor	20-40
Very Poor	0-20

12.3 Lifecycle Management Strategy

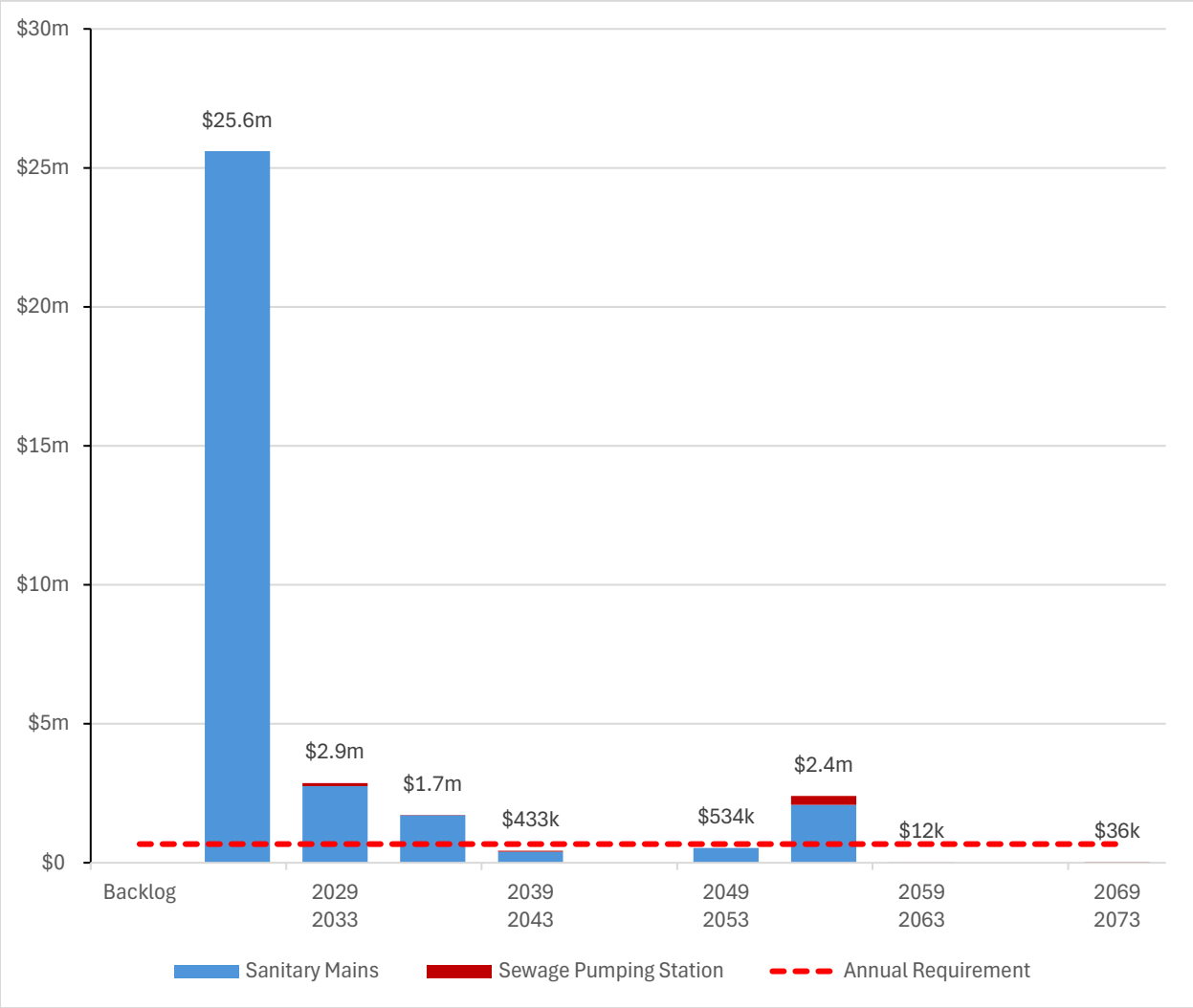
The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

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

Activity Type	Description of Current Strategy
Maintenance	Equipment servicing, calibration, and verification is regularly scheduled – daily, weekly, monthly, quarterly, or annually – depending on the type of the equipment/asset.
Rehabilitation	A main relining program is not considered financially viable for the small water network.
	Rehabilitation of assets is prioritized based on the condition of the asset, O&M Manual of the assets, and usage.
Replacement	Full replacement is determined based on the current state of the operation costs, performance, lifecycle, and age of the assets.
	Comparisons of the rehabilitation and replacement costs inform the rehabilitation and/or renewal strategies.

12.3.1 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 following graph identifies capital requirements over the next 50 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.

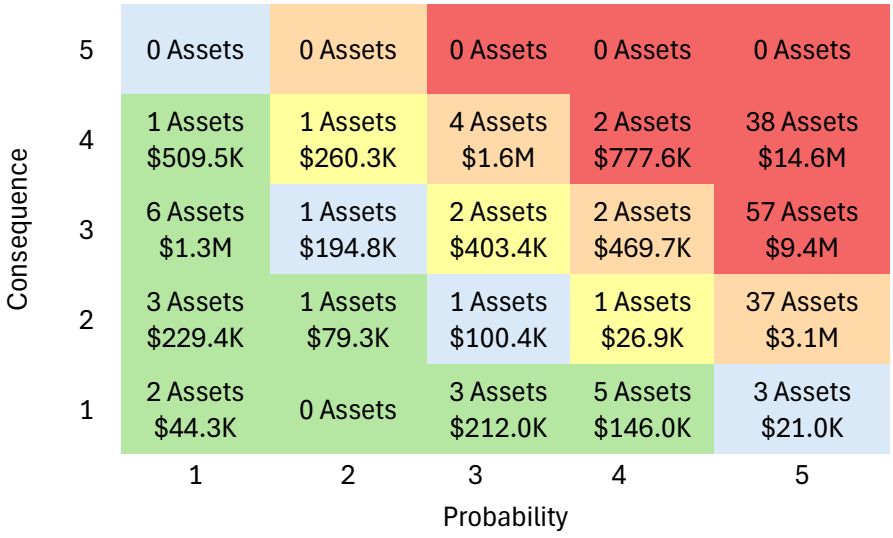


The projected cost of lifecycle activities that will need to be undertaken over the next 10 years to maintain the current level of service can be found in Appendix B.

12.4 Risk & Criticality

Risk Matrix

The following risk matrix provides a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within this asset category based on 2024 inventory data.



This is a high-level model developed for the purposes of this AMP and Town staff should review and adjust the risk model to reflect an evolving understanding of both the probability and consequences of asset failure.

The asset-specific attributes that municipal staff utilize to define and prioritize the criticality of the sanitary sewer network are documented below:

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Financial)
Service Life Remaining	Pipe Diameter (Operational)

The identification of critical assets allows the Town to determine appropriate risk mitigation strategies and treatment options. Risk mitigation may include asset-specific lifecycle strategies, condition assessment strategies, or simply the need to collect better asset data.

12.5 Levels of Service

The following tables identify the Town's current level of service for sanitary sewer 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.

12.5.1 Community Levels of Service

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

Service Attribute	Qualitative Description	Current LOS (2024)
Scope	Description, which may include maps, of the user groups or areas of the town that are connected to the municipal wastewater system	See Appendix C
Reliability	Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place which allow overflow during storm events to prevent backups into homes	The Town does not own any combined sewers
	Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches	The Town does not own any combined sewers
	Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to	Stormwater can enter into sanitary sewers due to cracks in sanitary mains or through indirect connections (e.g. weeping tiles). In the case of heavy rainfall events, sanitary sewers may experience a volume of water and

Service Attribute	Qualitative Description	Current LOS (2024)
	overflow into streets or backup into homes	sewage that exceeds its designed capacity. This has occurred twice in the last 5 years. A manual bypass of the sewage pumping station may be required. In older serviced areas, building foundation drains and roof water leaders were directly connected to the sanitary sewer system. Ground water also enters the sanitary sewer system from leaking pipe joints and at manhole penetrations. Illegal sump pump connections to internal sanitary plumbing also contributes storm water to the sanitary sewer system.
	Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to stormwater infiltration	The Town 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 and in accordance with the Ministry of the Environment design factors.
	Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system	Effluent refers to water pollution that is discharged from a wastewater treatment plant, and may include suspended solids, total phosphorous and biological oxygen demand. The Environmental Compliance Approval (ECA) identifies the effluent criteria for municipal wastewater treatment plants.

12.5.2 Technical Levels of Service

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

Service Attribute	Technical Metric	Current LOS (2024)
Scope	% of properties connected to the municipal wastewater system	68%
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	0
	# of connection-days per year having wastewater backups compared to the total number of properties connected to the municipal wastewater system	0
	# of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system	0
Performance	Capital re-investment rate	0.3%

12.6 Recommendations

Asset Inventory

- Review the inventory to ensure all active assets are accounted for. The development of a comprehensive inventory of the sanitary network should be priority.

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 wastewater network through CCTV inspections. Identify condition assessment strategies for high value and high-risk buildings and machinery and equipment.

Risk Management Strategies

- Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation 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

- 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.

13 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.
- The population is expected to remain the same and/or moderately fluctuate.
- The costs of changes in demand should be considered in long-term funding strategies that are designed to maintain the current level of service.

13.1 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 more effectively plan for new infrastructure, 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.

District of Manitoulin Official Plan (2018)

The Manitoulin Planning area defined in the District of Manitoulin Official Plan includes most of the municipalities on Manitoulin Island including the Town of Gore Bay. The Official Plan was adopted in 2018 which bases its projections on the Growth Plan for Northern Ontario and reflects the goals of the Planning Act.

The purpose of the Official Plan is to facilitate decision-making for land use planning and infrastructure development, encourage economic development and to improve sustainability of the district over the next 20 years. The District will aim to accommodate population projections over the 20-year planning horizon to 2036. The Official Plan will guide development of municipal sewage and water services within the municipalities in the district including the Town of Gore Bay. The developed services will aim to be sustainable, financially viable and prioritize health of residents and natural resources while supporting future growth.

The settlement area within Town of Gore Bay will be the focus of growth for residential, commercial, community-related employment, institutional, entertainment, cultural and recreational spaces. This will be done by identifying and promoting intensification and infill and redevelopment of designated and vacant sites. Existing building stock, availability of existing or planned infrastructure and public service facilities will also be considered for future growth.

Census data over the passed 20 years has indicated a moderate fluctuation in population. The following table was developed using census data from 1996 to 2021 for the Town of Gore Bay.

Historical Figures	1996	2001	2006	2011	2016	2021
Population	907	898	924	850	867	808
Population Change	N/A	-1%	3%	-1%	2%	-7%
Private Dwellings	N/A	413	458	414	447	421

The population of Gore Bay ranged from 907 in 1996 to 808 in 2021. Between the years of 1996 and 2016 there were minor drops and increases in population. In

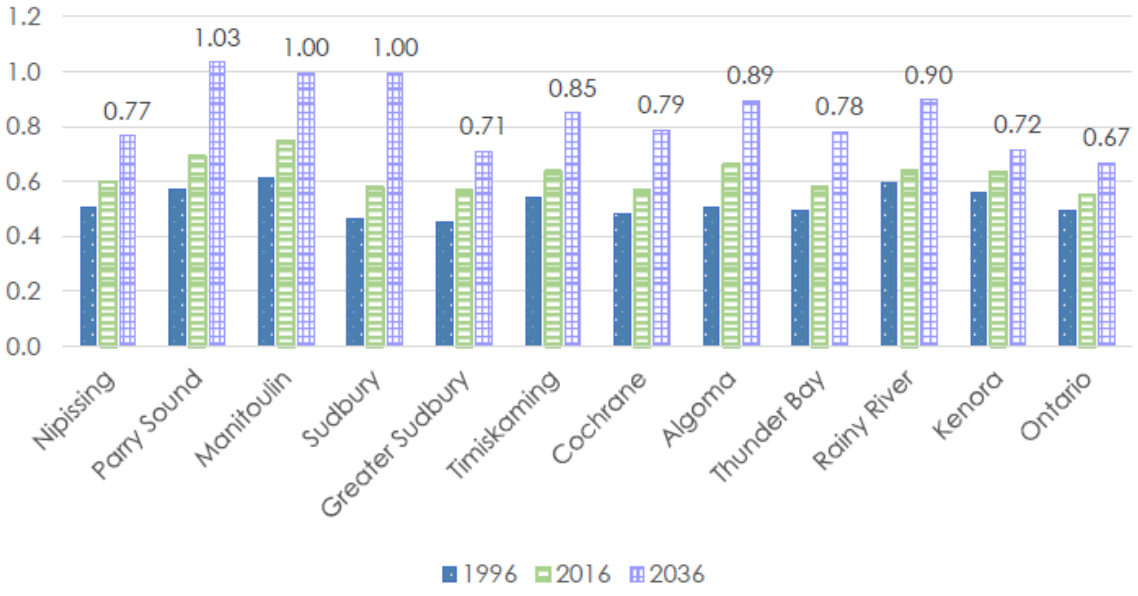
2021, there was a more significant decrease in population which could indicate a decline in population.

Regional Growth

In 2021 the Come North Conference Report was produced by FedNor and the Government of Canada. The document describes short, medium, and long-term objectives for all communities in Northern Ontario as it relates to population growth.

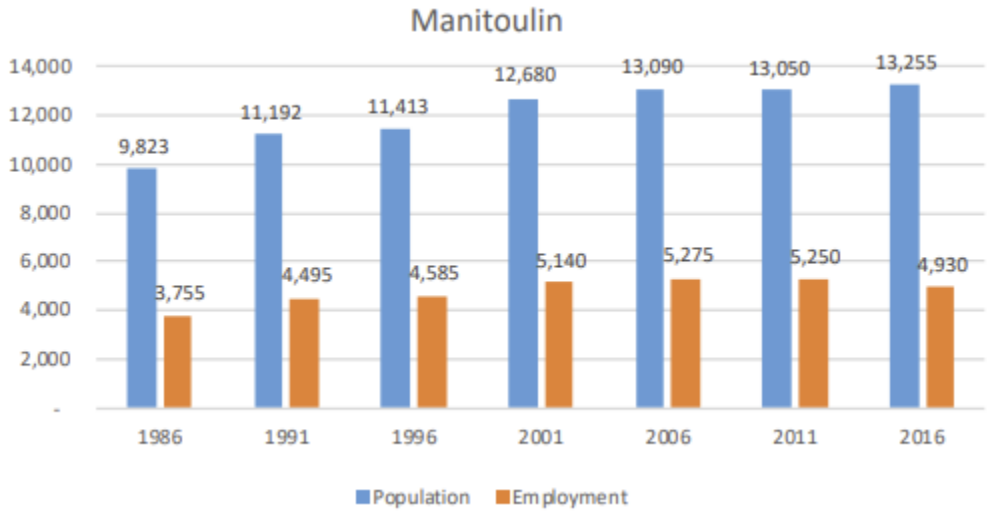
According to the report all 11 Census Districts in Northern Ontario (Nipissing, Parry Sound, Manitoulin, Sudbury, Greater Sudbury, Timiskaming, Cochrane, Algoma, Thunder Bay, Rainy River, Kenora) are currently experiencing the following trends: population decline, population aging, or labour shortages. The report highlights a risk of these communities becoming economically unsustainable unless population retention and attraction numbers improve. The risk is the result of the dependency ratio increasing. The dependency ratio is the ratio of people unable to support themselves without assistance; people between the ages of 0 and 14 and 64 and older.

The goal is to achieve a dependency ratio of 0.5. In 1996, every Census District was at or near the goal but by 2016, none were below and more than half had a ratio in excess of 0.6. The following graph displays the dependency ratio for each Census District in 1996 and 2016 along with a projected ratio for the year 2036.



The Town of Gore Bay is found in the Manitoulin district, which is expected to reach a dependency ratio of 1.00.

The population trends overall in the Manitoulin District are in decline. The following graph from the 2019 Northern Projections Manitoulin District Human Capital Series report by the Northern Policy Institute, displays the population trends from 1986 to 2016.



The following table, found in the same report, shows population projections in the Manitoulin District for the years 2021 to 2041.

Year	Ages 0-19	Ages 20-64	Ages 65+	Total
2021	2,863	7,132	3,564	13,559
2026	2,881	6,727	4,063	13,671
2031	2,850	6,352	4,530	13,732
2036	2,842	6,159	4,760	13,761
2041	2,831	6,127	4,831	13,789

The most recent census data from 2021, shows a slight increase in the population, reaching a total of 13,935. According to census data, there was a significant increase in population for the age group of 65 years and over; thus, further increasing the dependency ratio.

13.2 Impact of Growth on Lifecycle Activities

By July 1, 2025, the Municipality’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.

As the municipality’s population is expected to remain the same with potential moderate increases and declines in the coming years, demand will evolve, and it is likely that funding will need to be reprioritized. As growth-related assets are constructed, retired, or acquired, they should be integrated into the AMP. Furthermore, the municipality 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, to maintain the current level of service.

14 Financial Strategy

Key Insights

- The Town is committing approximately $532,000 towards capital projects per year from sustainable revenue sources
- Given the annual capital requirement of $2,660,429 there is currently a funding gap of $2,128,429 annually
- For tax-funded assets, we recommend increasing tax revenues by 3.6% each year for the next 20 years to achieve a sustainable level of funding
- For the water network, we recommend increasing rate revenues by 6.2% annually for the next 20 years to achieve a sustainable level of funding
- For the sanitary sewer network, we recommend increasing rate revenues by 11.3% annually for the next 20 years to achieve a sustainable level of funding

14.1 Financial Strategy Overview

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

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

1. The financial requirements for:
    a. Existing assets
    b. Existing service levels
    c. Requirements of contemplated changes in service levels (none identified for this plan)
    d. Requirements of anticipated growth (none identified for this plan)
2. Use of traditional sources of municipal funds:
    a. Tax levies
    b. User fees
    c. Reserves
    d. Debt
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:

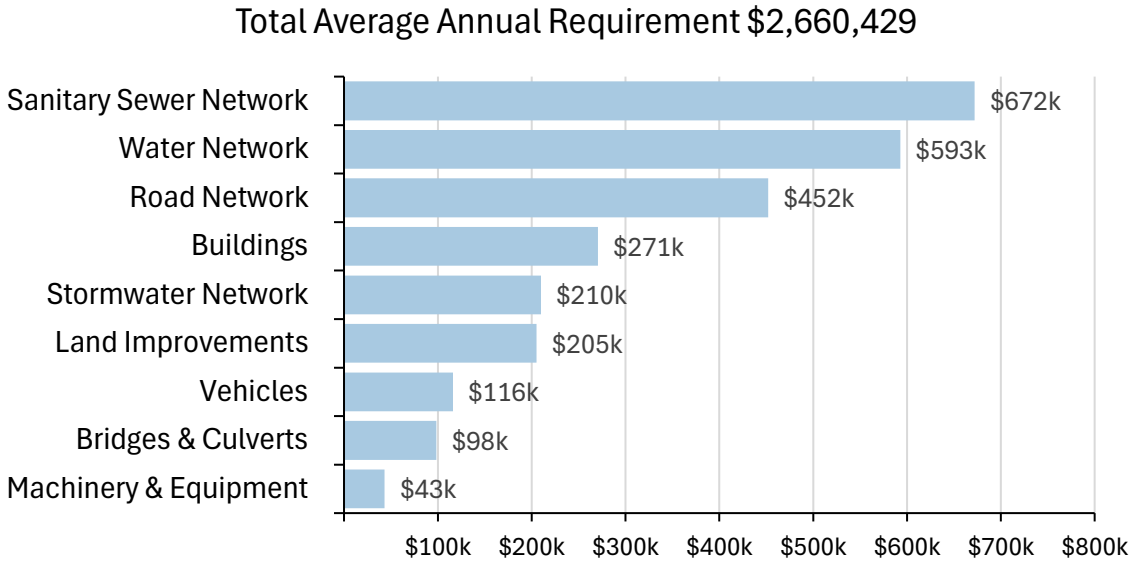
1. In order to reduce financial requirements, consideration has been given to revising service levels downward.

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.

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 $2.7 million annually to address capital requirements 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 capital costs are only incurred at the construction and replacement of each asset.

However, for the road network, lifecycle management strategies have been developed to identify capital costs that are realized through strategic rehabilitation and renewal of the Town's roads. The development of these strategies allows for a comparison of potential cost avoidance if the strategies were to be implemented. The following table compares two scenarios for the road network:

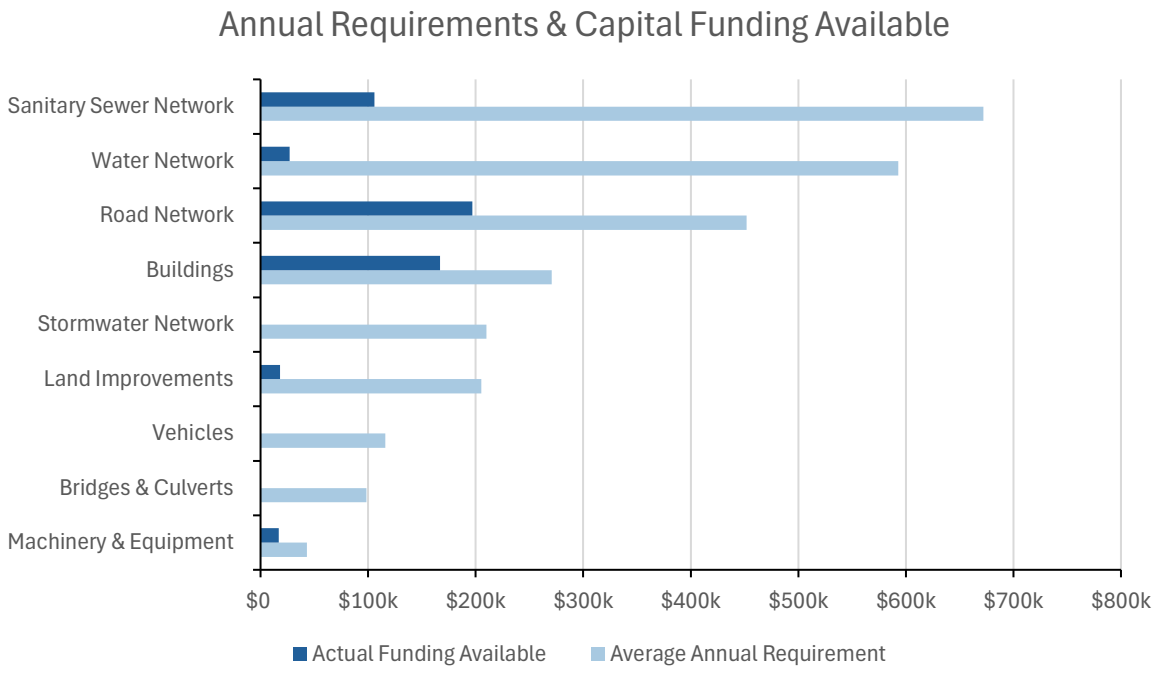
1. **Replacement Only Scenario**: Based on the assumption that assets deteriorate and – without regularly scheduled maintenance and rehabilitation – are replaced at the end of their service life.
2. **Lifecycle Strategy Scenario**: Based on the assumption that lifecycle activities are performed at strategic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

Asset Segment	Annual Requirements (Replacement Only)	Annual Requirements (Lifecycle Strategy)	Difference
Paved Roads	$686,000	$628,870	$81,000

The implementation of a proactive lifecycle strategy for paved roads leads to a potential annual cost avoidance of $81,000 for the road network. This represents an overall reduction of the annual requirements by 12%. As the lifecycle strategy scenario represents the lowest cost option available to the Town, we have used these annual requirements in the development of the financial strategy.

Annual Funding Available

Based on a historical analysis of sustainable capital funding sources, the Town is committing approximately $519,000 towards capital projects per year. Given the annual capital requirement of $2,660,429, there is currently a funding gap of $2,141,429 annually.



14.2 Funding Objective

We have developed a scenario that would enable Gore Bay to achieve full funding within 20 years for the following assets:

1. **Tax Funded Assets:** Road Network, Buildings, Bridges & Culverts, Land Improvements, Machinery & Equipment, Vehicles and Stormwater Network.
2. **Rate-Funded Assets:** Water Network, Sanitary Sewer 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.

14.3 Financial Profile: Tax Funded Assets

Current Funding Position

The following tables show, by asset category, Gore Bay'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
		Taxes	CCBF	OCIF	Total Available	
Road Network	452,037	5,000	55,000	137,000	197,000	255,037
Bridges & Culverts	98,358				0	98,358
Buildings	270,639	117,000		50,000	167,000	103,639
Land Improvements	205,208	18,000			18,000	187,208
Vehicles	116,100				0	116,100
Machinery & Equipment	43,215	17,000			17,000	26,215
Stormwater Network	209,879				0	209,879
Total	**1,395,436**	**157,000**	**55,000**	**187,000**	**399,000**	**996,436**

The average annual investment requirement for the above categories is $1.39 million. Annual revenue currently allocated to these assets for capital purposes is $399,000 leaving an annual deficit of $996 thousand. Put differently, these infrastructure categories are currently funded at 28% of their long-term requirements.

Full Funding Requirements

In 2024, Town of Gore Bay has annual tax revenues of $1,375,285. 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	18.5%
Bridges & Culverts	7.2%
Buildings	7.5%
Land Improvements	13.6%
Vehicles	8.4%
Machinery & Equipment	1.9%
Stormwater Network	15.3%
Total	**72.5%**

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

	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	996,436	996,436	996,436	996,436
Net Tax Increase Required	72.5%	72.5%	72.5%	72.5%
Annual Tax Increase	14.5%	7.3%	4.8%	3.6%

Financial Strategy Recommendations

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

a) Increasing tax revenues by 3.6% each year for the next 20 years solely for the purpose of phasing in full funding to the asset categories covered in this section of the AMP,
b) Allocating the current CCBF and OCIF revenue as outlined previously.
c) Reallocating appropriate revenue from categories in a surplus position to those in a deficit position.
d) Increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

Notes:

1. As in the past, periodic senior government infrastructure funding will most likely be available during the phase-in period. By Provincial AMP rules, this periodic funding cannot be incorporated into an AMP unless there are firm commitments in place. We have included OCIF formula-based funding, if applicable, since this funding is a multi-year commitment[4].
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 20 years and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available. Current data shows a capital requirement backlog of $20,000 for the Road Network and $56,567 for Machinery & Equipment.

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.

[4] 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.

14.4 Financial Profile: Rate Funded Assets

Current Funding Position

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

Asset Category	Avg. Annual Requirement	Annual Funding Available			Annual Deficit
		Rates	To Operations	Total Available	
Water Network	592,000	356,000	(353,000)	3,000	589,000
Sanitary Sewer Network	672,000	245,000	(128,000)	117,000	555,000
Total	**1,264,000**	**601,000**	**(428,000)**	**120,000**	**1,144,000**

The average annual investment requirement for the above categories is $1.2 million. Annual revenue currently allocated to these assets for capital purposes is $601,000 leaving an annual deficit of $1.1 million. Put differently, these infrastructure categories are currently funded at 10% of their long-term requirements.

Full Funding Requirements

In 2024, Gore Bay forecasts annual water revenues of $356,169 and annual sanitary revenues of $244,972. 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	165.4%
Sanitary Sewer Network	226.6%

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

a) Gore Bay's debt payments for the Water Network will be decreasing by $147,000 over the next 7 years.

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							
	No reallocation of decrease in debt payment				Reallocation of decrease in debt payments			
	5 Years	10 Years	15 Years	20 Years	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	589k	589k	589k	589k	589k	589k	589k	589k
Decrease in debt payments	n/a	n/a	n/a	n/a	0	(147k)	(147k)	(147k)
Resulting Infrastructure Deficit	**589k**	**589k**	**589k**	**589k**	**589k**	**442k**	**442k**	**442k**
Net Rate Increase Required	165.4%	165.4%	165.4%	165.4%	165.4%	124.1%	124.1%	124.1%
Annual Rate Increase	**33.1%**	**16.5%**	**11.0%**	**8.3%**	**22.3%**	**12.4%**	**8.3%**	**6.2%**

	Sanitary Sewer Network			
	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	555,000	555,000	555,000	555,000
Net Rate Increase Required	226.6%	226.6%	226.6%	226.6%
Annual Rate Increase	**45.3%**	**22.7%**	**15.1%**	**11.3%**

Financial Strategy Recommendations

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

a) Increasing rate revenues by 6.2% for water services and 11.3% for sanitary services each year for the next 20 years solely for the purpose of phasing in full funding to the asset categories covered in this section of the AMP.
b) Increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.
c) When realized, reallocating the debt cost reductions of $147 thousand to the infrastructure deficit as outlined above.

Notes:

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

Although this option achieves full funding on an annual basis in 20 years and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available. Current data shows a capital requirement backlog of $148,500 for the Water Network.

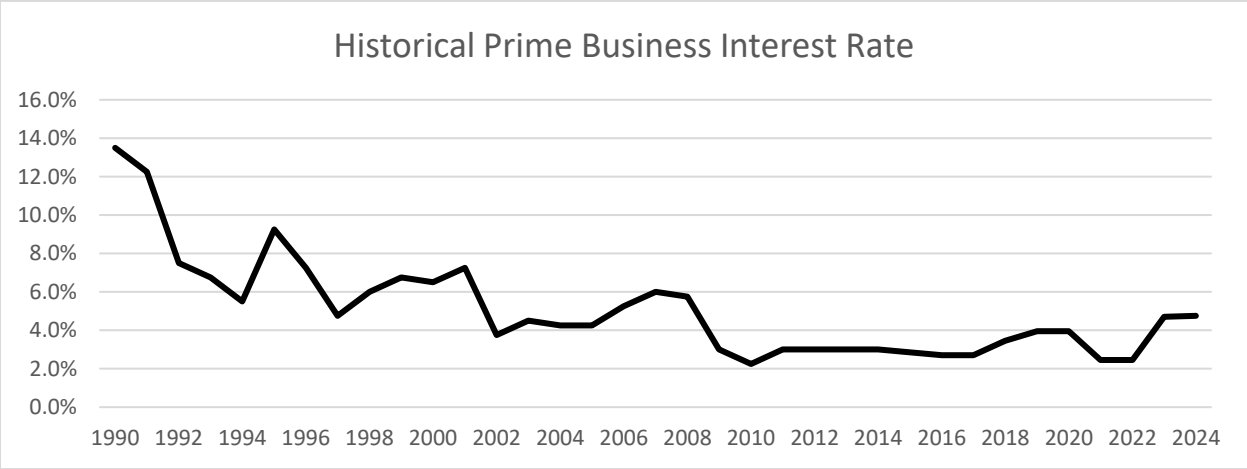
Prioritizing future projects will require the current data to be replaced by condition-based data. Although our recommendations include no further use of debt, the results of the condition-based analysis may require otherwise.

14.5 Use of Debt

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

a) the ability to stabilize tax and user rates when dealing with variable and uncontrollable factors,
a) equitable distribution of the cost and benefits of infrastructure over its useful life,
b) a secure source of funding,
c) the ability to proceed with projects sooner than waiting to save enough in cash or grants to pay for the project all at once and,
d) flexibility in cash flow management.

However, there needs to be consideration given to the fact that interest rates have been rising. To mitigate increasing commodity prices and inflation, interest rates have increased quickly and therefore, sustainable funding models that include debt need to incorporate the realized risk of increasing rates. The following graph shows the historical changes to lending rates:



A change in 15-year rates from 4% to 6% would change the premium from 35% to 54%. Such a change would have a significant impact on a financial plan.

For reference purposes, the following table outlines the premium paid on a project if financed by debt. For example, a $1M project financed at 4.0%[5] over 15 years would result in a 35% premium or $350,000 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%

[5] As of February 2023, the municipal Infrastructure Ontario rates for 15-year money is 4.3%.

The following tables outline how Gore Bay has historically used debt for investing in the asset categories as listed. There is currently $910,229 of debt outstanding for the assets covered by this AMP with corresponding principal and interest payments of $147,000, well within its provincially prescribed maximum of $1,063,415.

Asset Category	Current Debt Outstanding	Use of Debt in the Last Five Years				
		2019	2020	2021	2022	2023
Road Network	0	0	0	0	0	0
Bridges & Culverts	0	0	0	0	0	0
Buildings	0	0	0	0	0	0
Land Improvements	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0
Machinery & Equipment	0	0	0	0	0	0
Stormwater Network	0	0	0	0	0	0
Total Tax Funded	0	0	0	0	0	0
Water Network	910,229	0	0	0	0	0
Sanitary Sewer Network	0	0	0	0	0	0
Total Rate Funded	**910,229**	**0**	**0**	**0**	**0**	**0**

Asset Category	Principal & Interest Payments in the Next Ten Years						
	2024	2025	2026	2027	2028	2029	2030
Road Network	0	0	0	0	0	0	0
Bridges & Culverts	0	0	0	0	0	0	0
Buildings	0	0	0	0	0	0	0
Land Improvements	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Machinery & Equipment	0	0	0	0	0	0	0
Stormwater Network	0	0	0	0	0	0	0
Total Tax Funded	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Water Network	147,000	147,000	147,000	147,000	147,000	147,000	147,000
Sanitary Sewer Network	0	0	0	0	0	0	0
Total Rate Funded	**147,000**	**147,000**	**147,000**	**147,000**	**147,000**	**147,000**	**147,000**

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

14.6 Use of Reserves

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 Gore Bay.

Asset Category	Balance at December 31, 2023
Road Network	10,800
Bridges & Culverts	36,493
Buildings	250,520
Land Improvements	46,993
Vehicles	40,900
Machinery & Equipment	36,493
Stormwater Network	72,987
Total Tax Funded	**495,186**
Water Network	645,000
Sanitary Sewer Network	645,000
Total Rate Funded	**1,290,000**

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

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

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

Recommendation

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

15 Appendices

Key Insights

- Appendix A includes a one-page report card with an overview of key data from each asset category.
- Appendix B identifies projected 10-year capital requirements for each asset category.
- Appendix C includes several maps and images that have been used to visualize the current levels of service for core assets.
- Appendix D provides additional guidance on the development of a condition assessment program.

Appendix A: Infrastructure Report Card

Asset Category	Replacement Cost (millions)	Asset Condition	Financial Capacity	
Road Network	$12.9	Good	Annual Requirement:	$452,037
			Funding Available:	$197,000
			Annual Deficit:	**$255,037**
Bridges & Culverts	$5.5	Fair	Annual Requirement:	$98,358
			Funding Available:	$0
			Annual Deficit:	**$98,358**
Stormwater Network	$10.4	Poor	Annual Requirement:	$209,000
			Funding Available:	$0
			Annual Deficit:	**$209,000**
Buildings & Facilities	$15.6	Fair	Annual Requirement:	$270,639
			Funding Available:	$167,000
			Annual Deficit:	**$103,639**
Vehicles	$1.1	Poor	Annual Requirement:	$116,100
			Funding Available:	$0
			Annual Deficit:	**$116,100**
Machinery & Equipment	$0.6	Poor	Annual Requirement:	$43,215
			Funding Available:	$17,000
			Annual Deficit:	**$26,215**
Land Improvement	$2.9	Very Poor	Annual Requirement:	$205,208
			Funding Available:	$18,000
			Annual Deficit:	**$187,208**
Water Network	$36.9	Fair	Annual Requirement:	$592,841
			Funding Available:	$27,000
			Annual Deficit:	**$565,841**
Sanitary Sewer Network	$33.5	Very Poor	Annual Requirement:	$672,000
			Funding Available:	$106,000
			Annual Deficit:	**$566,000**
Overall	$123.1	Poor	Annual Requirement:	$2,660,429
			Funding Available:	$532,000
			Annual Deficit:	**$2,128,429**

Appendix B: 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											
Asset Segment	Backlog	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Asphalt Roads	$0	$282k	$678k	$1.1m	$18k	$1.3m	$330k	$0	$0	$445k	$220k
Gravel Roads	$0	$0	$153k	$0	$0	$0	$0	$0	$0	$0	$0
Sidewalks	$0	$0	$0	$0	$0	$68k	$0	$358k	$20k	$0	$0
Street Signs	$20k	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Streetlights	$0	$52k	$0	$0	$0	$0	$0	$2k	$0	$0	$0
Surface Treated Roads	$0	$0	$221k	$0	$268k	$0	$22k	$749k	$0	$0	$0
Total	**$20k**	**$334k**	**$1.1m**	**$1.1m**	**$286k**	**$1.3m**	**$352k**	**$1.1m**	**$20k**	**$445k**	**$220k**

Bridges & Culverts											
Asset Segment	Backlog	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Bridges	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Small Culverts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Structural Culverts	$0	$0	$0	$0	$200k	$0	$0	$0	$0	$0	$0
Total	**$0**	**$0**	**$0**	**$0**	**$200k**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Stormwater Network											
Asset Segment	Backlog	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Catch Basins	$0	$0	$0	$0	$0	$0	$65k	$30k	$0	$0	$0
Storm Mains	$0	$0	$0	$0	$0	$0	$1.1m	$5.2m	$83k	$0	$0
Total	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1.2m**	**$5.3m**	**$83k**	**$0**	**$0**

Buildings & Facilities											
Asset Segment	Backlog	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Administration	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Medical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Museum	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Public Works	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Recreation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Vehicles											
Asset Segment	Backlog	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Public Works	$0	$0	$0	$87k	$244k	$136k	$205k	$250k	$0	$0	$5k
Recreation	$0	$0	$0	$0	$0	$0	$75k	$0	$0	$0	$0
Total	**$0**	**$0**	**$0**	**$87k**	**$244k**	**$136k**	**$280k**	**$250k**	**$0**	**$0**	**$5k**

Machinery & Equipment											
Asset Segment	Backlog	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Administration	$14k	$0	$0	$500	$0	$4k	$17k	$0	$700	$3k	$7k
Marina and Parks	$0	$0	$0	$0	$0	$0	$0	$0	$8k	$0	$0
Medical Centre	$0	$0	$0	$0	$0	$0	$0	$79k	$0	$0	$0
Public Works	$33k	$0	$0	$0	$0	$0	$0	$0	$22k	$0	$0
Recreation	$0	$0	$0	$6k	$0	$0	$115k	$26k	$43k	$0	$7k
Transfer Station	$10k	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total	**$57k**	**$0**	**$0**	**$7k**	**$0**	**$4k**	**$131k**	**$105k**	**$73k**	**$3k**	**$14k**

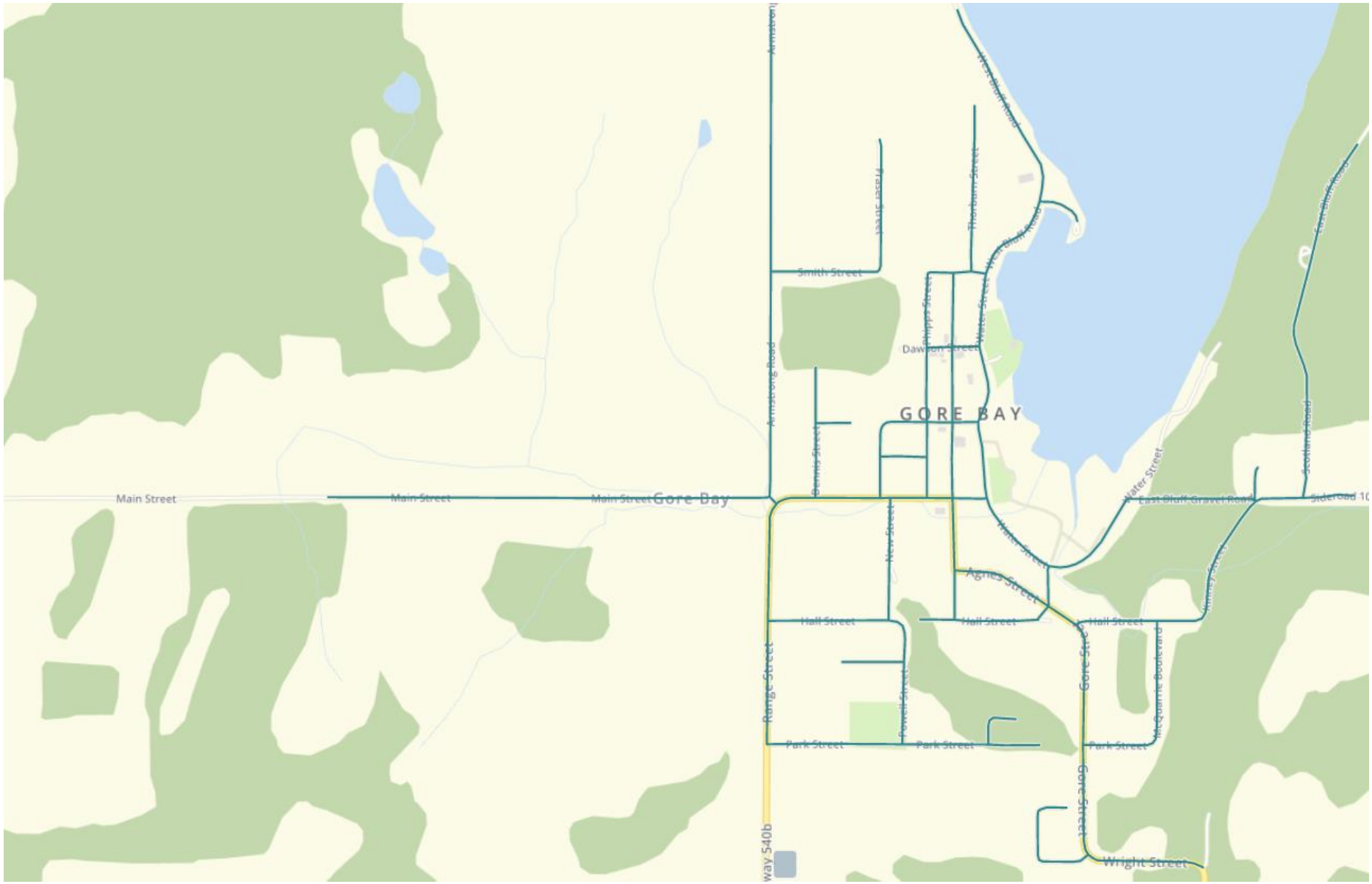
Land Improvements											
Asset Segment	Backlog	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Marina	$0	$0	$0	$0	$0	$0	$0	$0	$1.1m	$0	$0
Parks	$0	$0	$0	$0	$370k	$0	$0	$0	$0	$0	$0
Recreation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total	**$0**	**$0**	**$0**	**$0**	**$370k**	**$0**	**$0**	**$0**	**$1.1m**	**$0**	**$0**

Water Network											
Asset Segment	Backlog	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Hydrants	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Water Mains	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Water Treatment Plant	$149k	$0	$0	$0	$50k	$0	$0	$0	$0	$1.5m	$0
Total	**$149k**	**$0**	**$0**	**$0**	**$50k**	**$0**	**$0**	**$0**	**$0**	**$1.5m**	**$0**

Sanitary Sewer Network											
Asset Segment	Backlog	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Sanitary Mains	$0	$0	$0	$0	$0	$25.6m	$1.5m	$0	$0	$514k	$761k
Sewage Pumping Station	$0	$0	$0	$0	$0	$0	$0	$0	$0	$116k	$0
Total	**$0**	**$0**	**$0**	**$0**	**$0**	**$25.6m**	**$1.5m**	**$0**	**$0**	**$630k**	**$761k**

Appendix C: Level of Service Maps & Images

Road Network Map



Images of the Condition of Structural Culverts (2022 OSIM Report)

Kinney Street Bridge

Fair Condition Abutment Wall Extension

Poor Condition Deck

Poor Condition Guiderail

Main Street Culvert

Good Condition Barrel

Good Condition Inlet Components

Poor Condition Handrail

Walker Road Culvert

Fair-Poor Condition Barrel

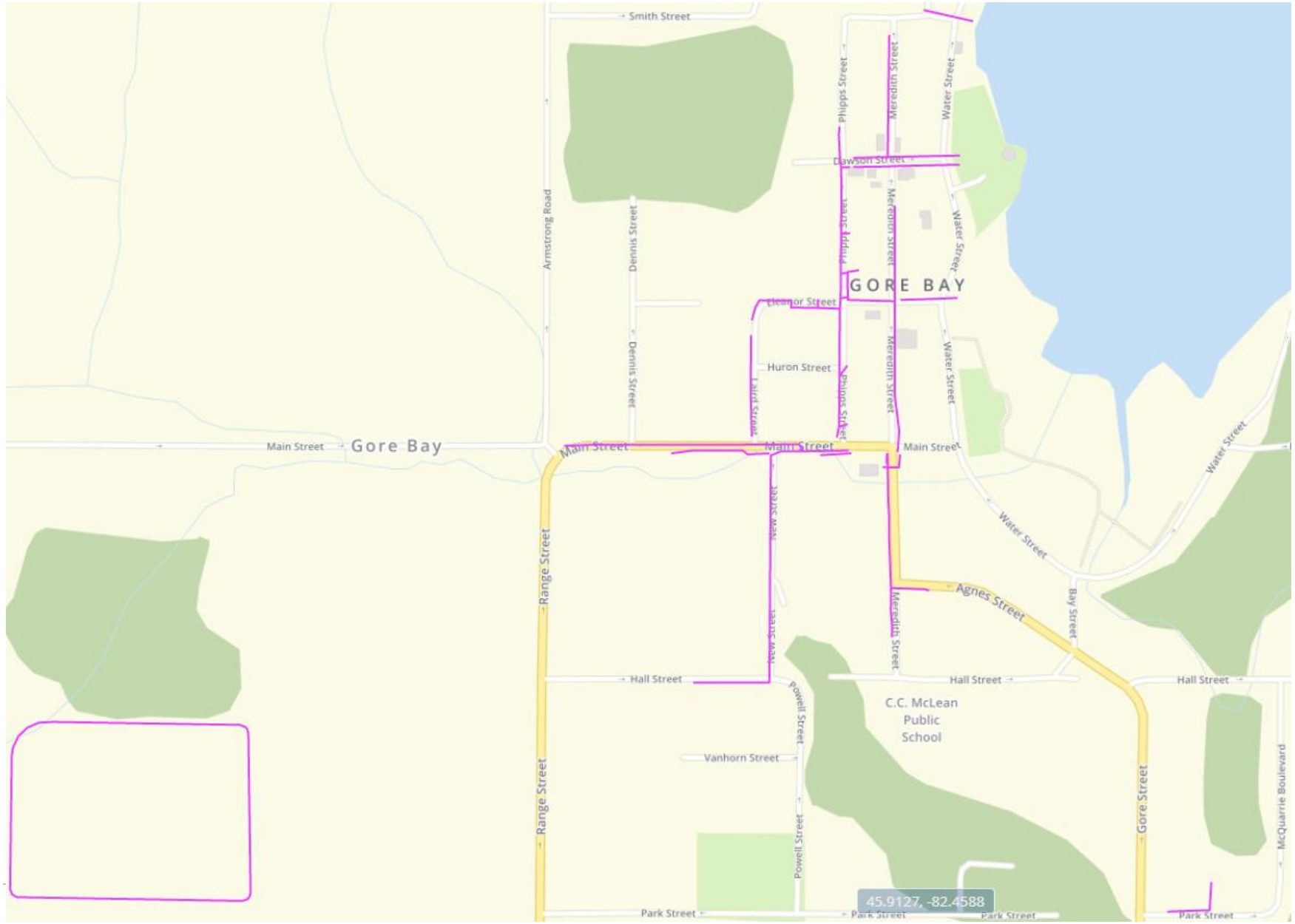
Fair Condition Rock Retaining Wall

Mostly Fair Condition Deck Surface

Vehicles

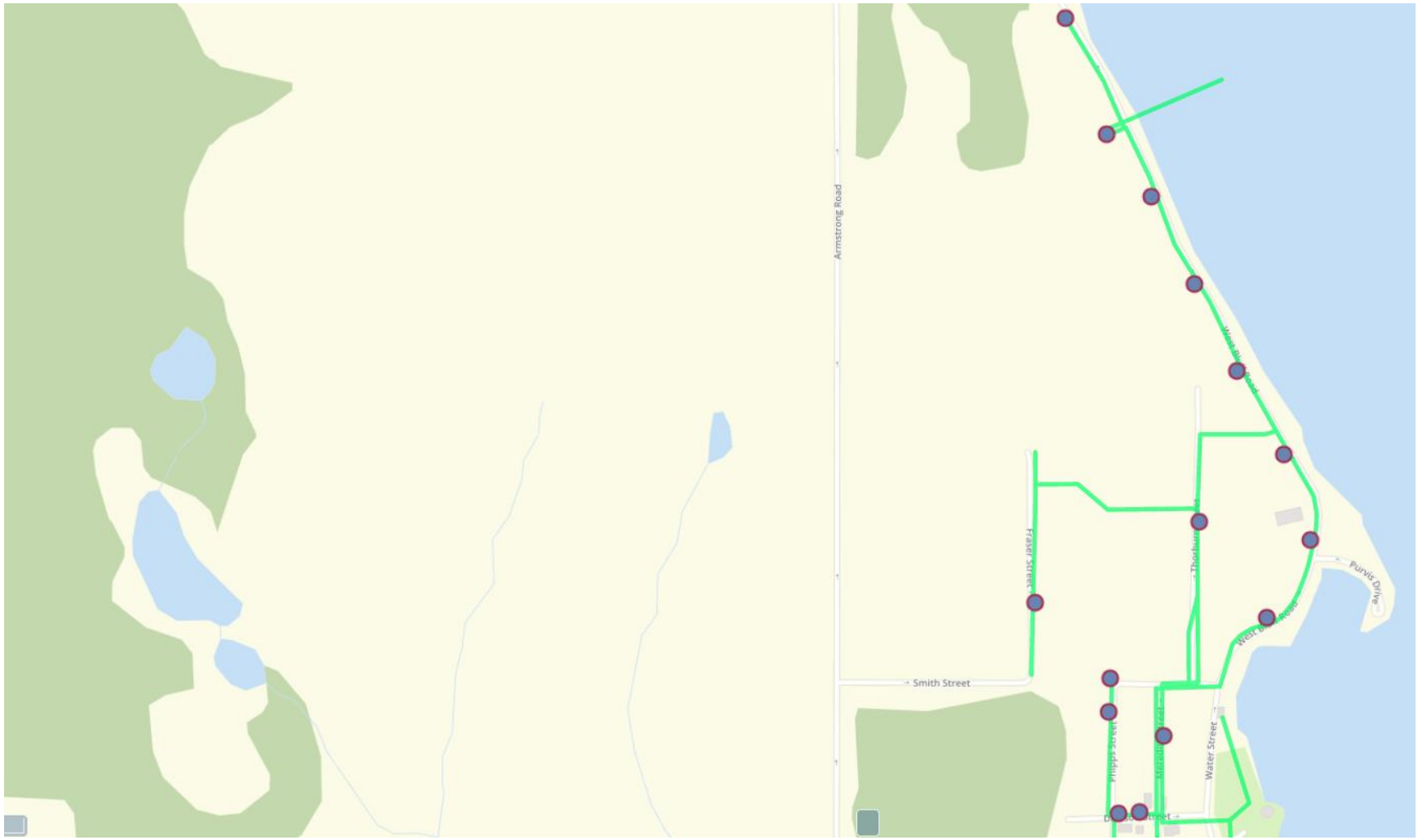
2024 Trackless	Used in multiple roles. Primarily Grass cutting, street sweeping and snow clearing (sidewalks).	Used by Public Works staff for the roads and recreation service areas.
2019 International Snowplow	Used to support snow clearing and can be used as a dump truck to carry material at other times of year.	Used by Public Works staff primarily roads.
2010 International Snowplow	Used solely for primary road snow clearing	Used by Public Works staff during snow clearing operations
Pickup Trucks – (3)	Used for various tasks such as garbage collection, etc.	Used by Public Works staff as required
Cub Cadet Lawn Tractors (2)	Used for grass cutting	Used by Recreation areas
Zamboni	Arena ice maintenance	Arena
1994 Cummings Dump Truck	Red dump truck used for various requirements.	Used by Public Works
New Holland Backhoe	Used for excavation and various related tasks	Used by Public Works as required.
1986 Vactor Truck	Used for stormwater manhole clearing, vacuuming and pressure washing of any storm or sanitary sewer lines.	Used by Public Works as required.

Stormwater Network Map

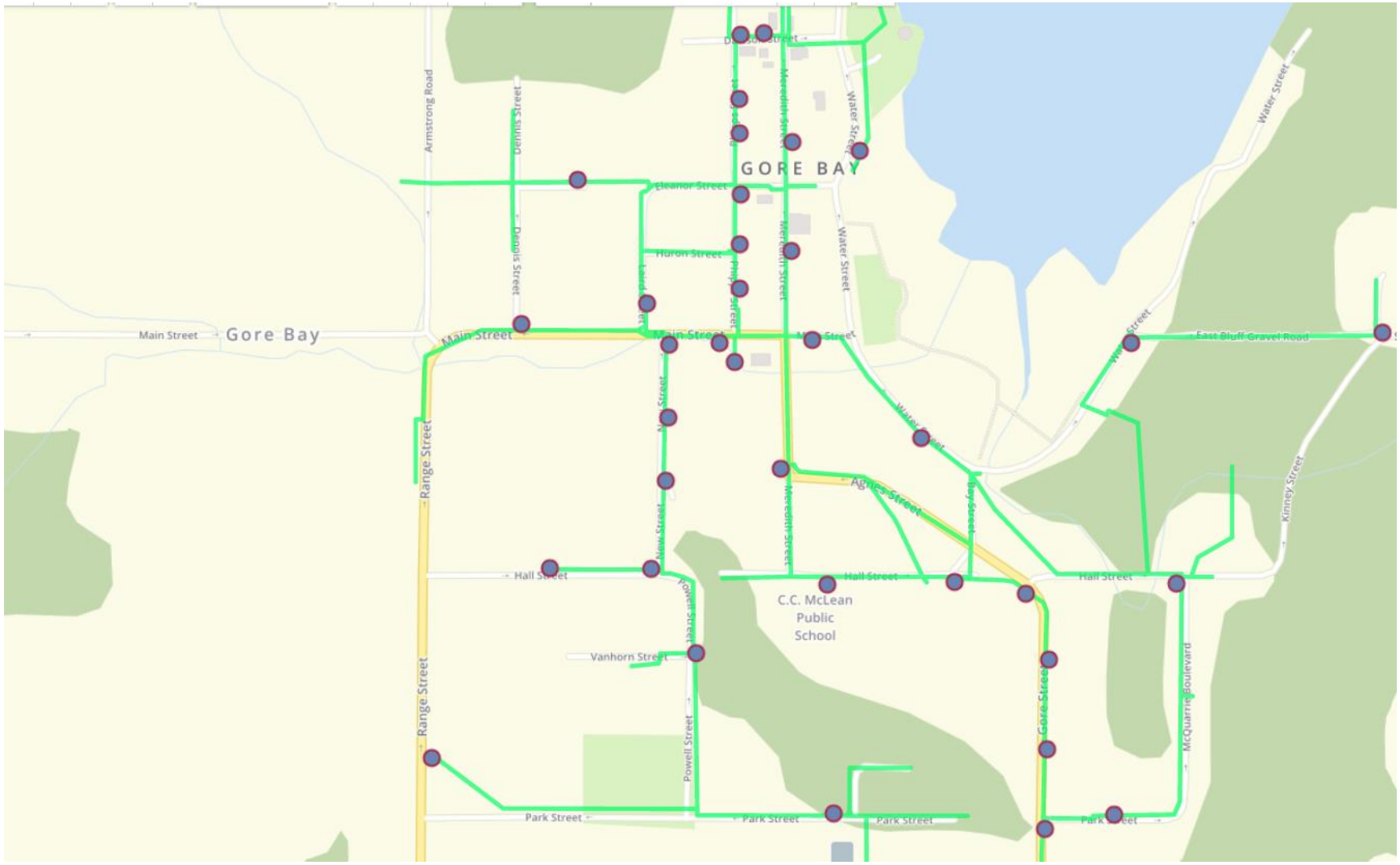


Water Network Map

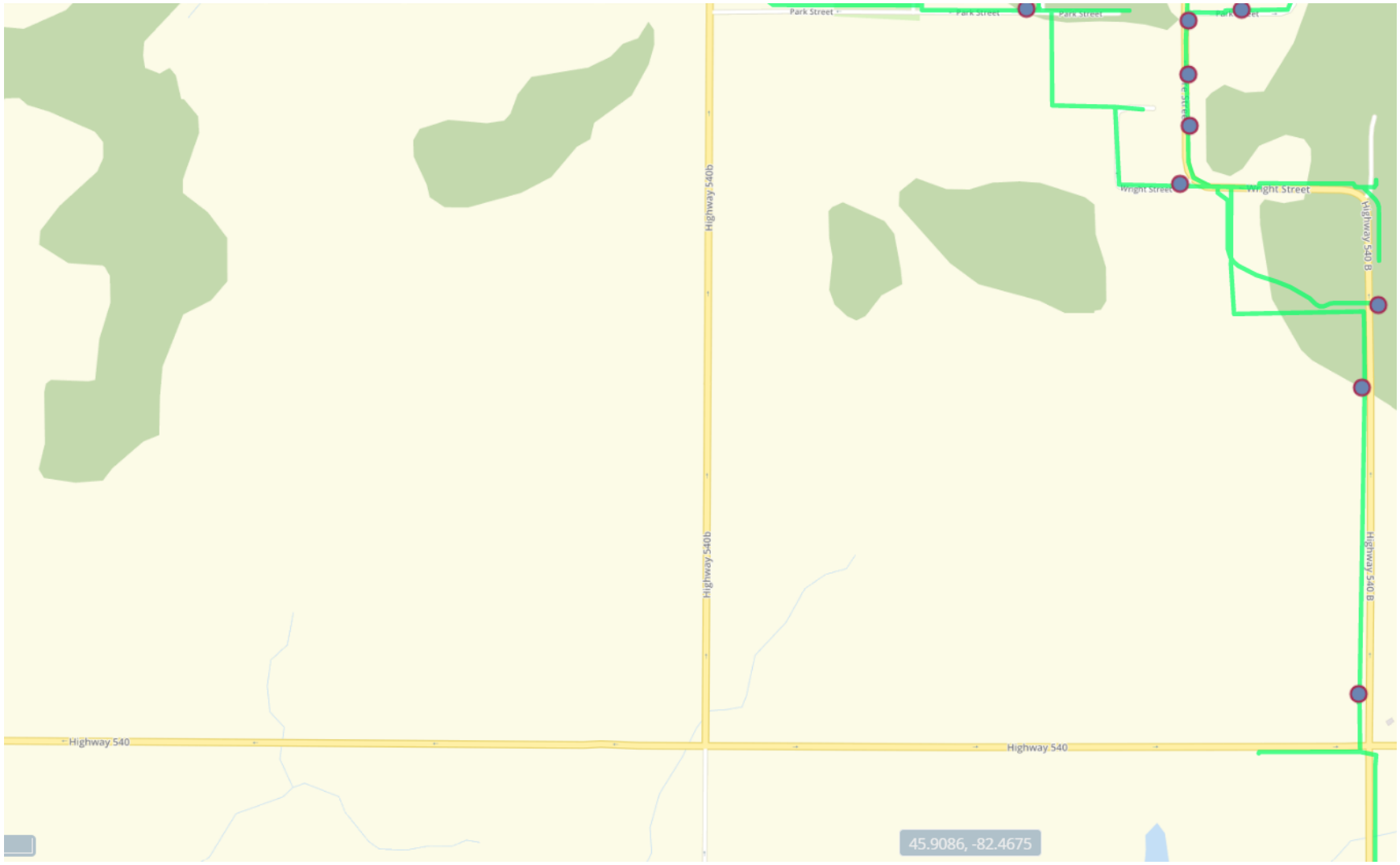
Part 1



Part 2


GORE BAY
Gore Bay
Main Street
Armstrong Road
Dennis Street
Eleanor Street
Huron Street
Water Street
Range Street
Agnes Street
Hall Street
Vanhorn Street
Powell Street
Park Street
C.C. McLean
Public
School
East Bluff Gravel Road
Kinney Street
McQuarrie Boulevard
Gore Street

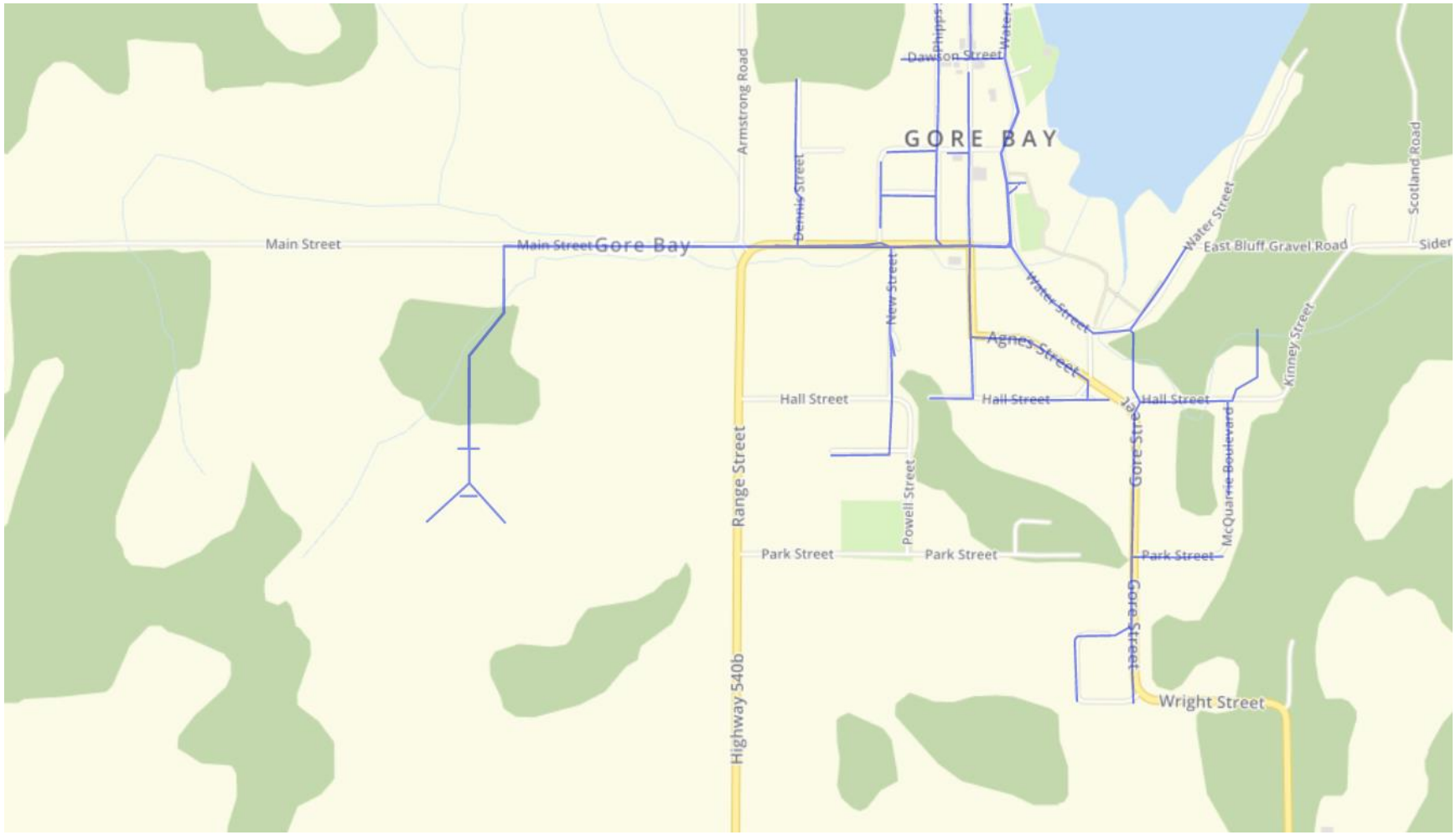
Part 3


Park Street
Wright Street
Highway 540b
Highway 540 B
Highway 540
45.9086, -82.4675

Sanitary Sewer Network Map

Part 1

Part 2

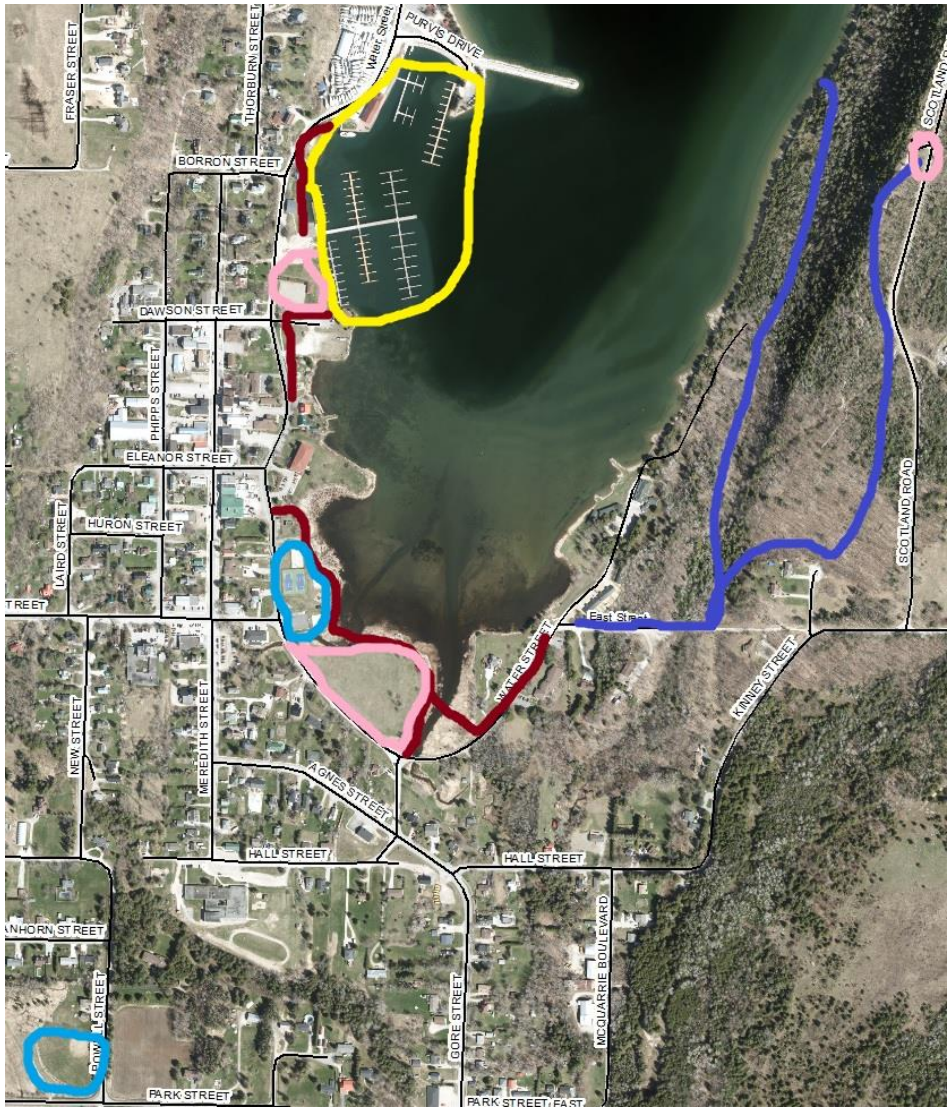

GORE BAY
Armstrong Road
Dawson Street
Dennis Street
Main Street
Main Street Gore Bay
New Street
Water Street
East Bluff Gravel Road
Scotland Road
Agnes Street
Hall Street
Hall Street
Hall Street
Kinney Street
Range Street
Powell Street
Gore Street
McQuarrie Boulevard
Park Street
Park Street
Park Street
Gore Street
Highway 540b
Wright Street

Park and Marina (Land Improvement) Map

Blue – Specialty Parks Areas including:

- Ball Diamond
- Splash Pad
- Basketball Court
- Tennis Courts
- Play Structures
- Ball Hockey Pad

Yellow – Marina
Pink – Open Air Parks and Pavilions
Purple – Wilderness Trails
Burgundy – Boardwalk Trail and Bridges



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