

Asset Management Plan 2025

Municipality of Sioux Lookout

April 2026



This Asset Management Plan was prepared by:



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

Key Statistics

\$343m	2025 Replacement Cost of Asset Portfolio
\$130k	Replacement Cost of Infrastructure Per Household
45%	Percentage of Assets in Fair or Better Condition
18%	Percentage of Assets with Assessed Condition Data
\$9.4m	Annual Capital Infrastructure Deficit
5 Years	Recommended Timeframe to reach Proposed Levels of Service
2.0%	Target Reinvestment Rate to meet Proposed Levels of Service
0.7%	Actual Reinvestment Rate

Table of Contents

1. Executive Summary	1
1.1 Scope	1
1.2 O. Reg. 588/17 Compliance	2
1.3 Findings	2
1.4 Recommendations	3
2. Introduction & Context.....	4
2.1 Community Profile	4
2.2 Climate Change	5
2.2.1 Municipality of Sioux Lookout Climate Profile	5
2.2.2 Integration of Climate Change and Asset Management	6
2.3 Asset Management Overview	6
2.3.1 Foundational Asset Management Documentation.....	7
2.3.2 Key Concepts in Asset Management	9
2.4 Scope & Methodology	15
2.4.1 Asset Categories for this AMP	15
2.4.2 Data Effective Date	15
2.4.3 Deriving Replacement Costs	16
2.4.4 Estimated Service Life & Service Life Remaining	16
2.4.5 Reinvestment Rate	17
2.4.6 Deriving Asset Condition	17
2.5 Ontario Regulation 588/17	19
2.5.1 O. Reg. 588/17 Compliance Review	20
3. Portfolio Overview – State of the Infrastructure	22
3.1 Asset Hierarchy & Data Classification	22

3.2 Portfolio Overview	23
3.2.1 Total Replacement Cost of Asset Portfolio	23
3.2.2 Target vs. Actual Reinvestment Rate.....	23
3.2.3 Condition of Asset Portfolio	24
3.2.4 Service Life Remaining	26
3.2.5 Risk Matrix.....	27
3.2.6 Forecasted Capital Requirements	28
4. Proposed Levels of Service Analysis	30
4.1 Overview.....	30
4.1.1 O. Reg. 588/17 Proposed Levels of Service Requirements	30
4.1.2 Considerations.....	30
4.2 Proposed Levels of Service Targets.....	32
4.2.1 Resilient Growth	32
4.2.2 Community Safety and Preparedness	33
4.2.3 Connected and Inclusive Community	34
4.2.4 Vibrant and Welcoming Spaces	35
4.2.5 Service Excellence	35
4.3 Financial Analysis	36
4.3.1 Affordability/Achievability of Proposed Levels of Service.....	37
4.3.2 Appropriateness of Proposed Levels of Service to Meet the Municipality’s Needs	38
4.4 Risk Analysis	38
5. Road Network.....	40
5.1 Inventory & Valuation	40
5.2 Asset Condition	41
5.3 Age Profile.....	42
5.4 Current Approach to Lifecycle Management	43

5.5 Forecasted Long-Term Replacement Needs.....	45
5.6 Risk Analysis	46
5.7 Levels of Service	47
5.7.1 Community Levels of Service.....	47
5.7.2 Technical Levels of Service	48
6. Water Network	49
6.1 Inventory & Valuation	50
6.2 Asset Condition	51
6.3 Age Profile.....	52
6.4 Current Approach to Lifecycle Management	53
6.5 Forecasted Long-Term Replacement Needs.....	55
6.6 Risk Analysis	56
6.7 Levels of Service	57
6.7.1 Community Levels of Service.....	57
6.7.2 Technical Levels of Service	58
7. Wastewater Network.....	59
7.1 Inventory & Valuation	59
7.2 Asset Condition	61
7.3 Age Profile.....	62
7.4 Current Approach to Lifecycle Management	63
7.5 Forecasted Long-Term Replacement Needs.....	64
7.6 Risk Analysis	65
7.7 Levels of Service	66
7.7.1 Community Levels of Service.....	66
7.7.2 Technical Levels of Service	68

8. Stormwater Network	70
8.1 Inventory & Valuation	70
8.2 Asset Condition	71
8.3 Age Profile.....	72
8.4 Current Approach to Lifecycle Management	72
8.5 Forecasted Long-Term Replacement Needs.....	73
8.6 Risk Analysis	75
8.7 Levels of Service	75
8.7.1 Community Levels of Service.....	76
8.7.2 Technical Levels of Service	76
9. Buildings	78
9.1 Inventory & Valuation	78
9.2 Asset Condition	79
9.3 Age Profile.....	80
9.4 Current Approach to Lifecycle Management	81
9.5 Forecasted Long-Term Replacement Needs.....	82
9.6 Risk Analysis	84
9.7 Levels of Service	84
9.7.1 Community Levels of Service.....	85
9.7.2 Technical Levels of Service	85
10. Land Improvements	86
10.1 Inventory & Valuation	86
10.2 Asset Condition	87
10.3 Age Profile	88
10.4 Current Approach to Lifecycle Management.....	88
10.5 Forecasted Long-Term Replacement Needs	89

10.6	Risk Analysis	90
10.7	Levels of Service	91
10.7.1	Community Levels of Service	91
10.7.2	Technical Levels of Service	91
11.	Fleet	92
11.1	Inventory & Valuation	92
11.2	Asset Condition	93
11.3	Age Profile	94
11.4	Current Approach to Lifecycle Management.....	94
11.5	Forecasted Long-Term Replacement Needs	95
11.6	Risk Analysis	96
11.7	Levels of Service	97
11.7.1	Community Levels of Service	97
11.7.2	Technical Levels of Service	98
12.	Machinery & Equipment.....	99
12.1	Inventory & Valuation	99
12.2	Asset Condition	100
12.3	Age Profile	102
12.4	Current Approach to Lifecycle Management.....	103
12.5	Forecasted Long-Term Replacement Needs	103
12.6	Risk Analysis	104
12.7	Levels of Service	105
12.7.1	Community Levels of Service	105
12.7.2	Technical Levels of Service	106
13.	Airside Network.....	107

13.1	Inventory & Valuation	107
13.2	Asset Condition	108
13.3	Age Profile	109
13.4	Current Approach to Lifecycle Management.....	109
13.5	Forecasted Long-Term Replacement Needs	110
13.6	Risk Analysis.....	111
13.7	Levels of Service	112
13.7.1	Community Levels of Service	112
13.7.2	Technical Levels of Service	113
14.	Growth	115
14.1	Municipality of Sioux Lookout Official Plan.....	115
14.2	Municipality of Sioux Lookout Community Improvement Plan ...	116
14.3	Impact of Growth on Lifecycle Activities.....	116
15.	Financial Strategy.....	118
15.1	Annual Requirements & Capital Funding	119
15.1.1	Annual Requirements.....	119
15.1.2	Annual Funding Available	120
15.2	Funding Objective.....	121
15.3	Financial Profile: Tax Funded Assets.....	122
15.3.1	Current Funding Position	122
15.3.2	Full Funding Requirements	122
15.3.3	Financial Strategy Recommendations.....	124
15.4	Financial Profile: Rate Funded Assets	125
15.4.1	Current Funding Position	125
15.4.2	Full Funding Requirements	125
15.4.3	Financial Strategy Recommendations.....	127

15.5	Use of Debt.....	127
15.5.1	Recommendation	131
16.	Recommendations & Key Considerations	132
16.1	Financial Strategies.....	132
16.2	Asset Data	132
16.3	Risk & Levels of Service.....	133
	Appendix A – Infrastructure Report Card	135
	Appendix B – 10-Year Capital Requirements	136
	Road Network.....	136
	Airside Network.....	137
	Water Network.....	137
	Wastewater Network	138
	Storm Water Network	138
	Buildings.....	139
	Land Improvements	140
	Fleet.....	140
	Machinery & Equipment	141
	Appendix C – Level of Service Maps & Photos.....	142
	Appendix D – Risk Rating Criteria.....	147
	Probability of Failure.....	147
	Consequence of Failure	149

1. Executive Summary

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

1.1 Scope

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

This AMP include the following asset categories:

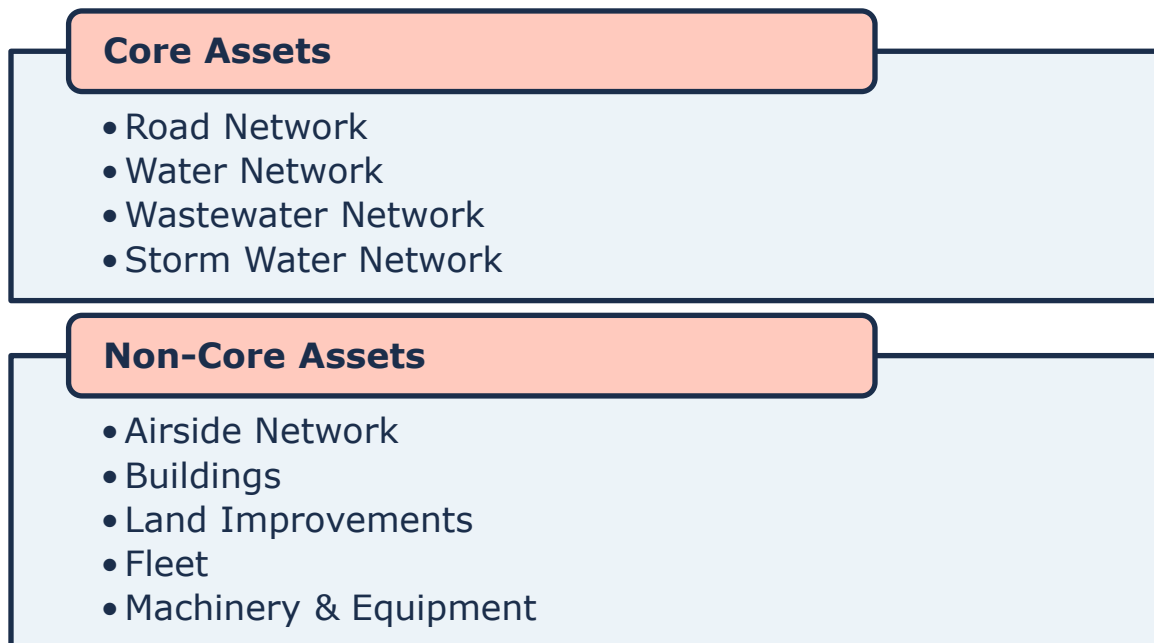


Figure 1 Core and Non-Core Asset Categories

1.2 O. Reg. 588/17 Compliance

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

1.3 Findings

The overall replacement cost of the asset categories included in this AMP totals \$343.1 million. 45% of all assets analyzed in this AMP are in fair or better condition and assessed condition data was available for 18% of assets. For the remaining 82% 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 Municipality's average annual capital requirement totals \$11.9 million. Based on a historical analysis of sustainable capital funding sources, the Municipality is committing approximately \$2.5 million towards capital projects or reserves per year. As a result, there is currently an annual funding gap of \$9.39 million.

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

1.4 Recommendations

A financial strategy was developed to address the annual capital funding gap. The following graphics shows annual tax/rate change required achieve the defined proposed level of service based on a 5-year plan:

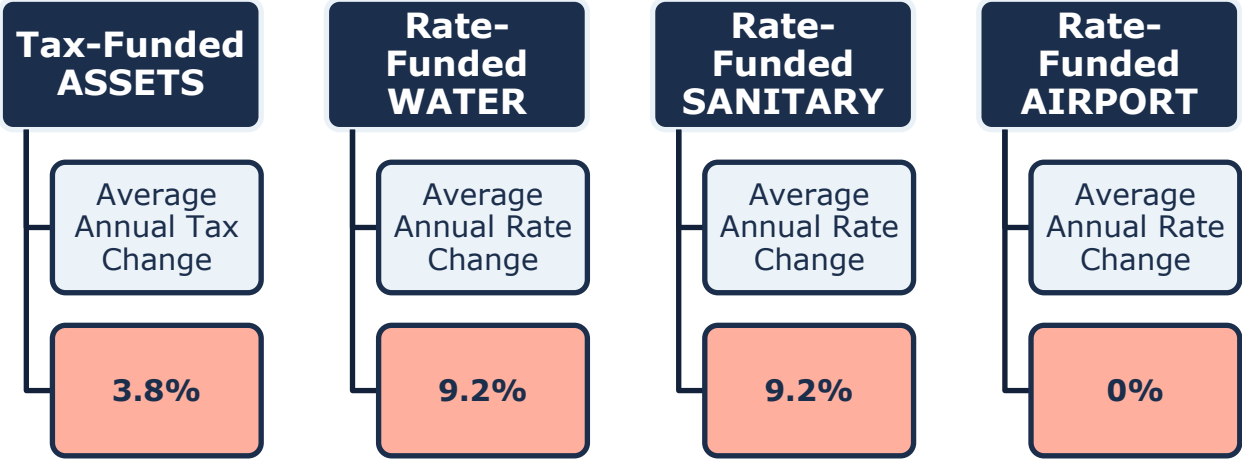


Figure 2 Proposed Tax/Rate Changes

2. Introduction & Context

2.1 Community Profile

The Municipality of Sioux Lookout is a single-tier municipality located in northwestern Ontario within the District of Kenora. Beyond the town of Sioux Lookout, the Municipality encompasses the community of Hudson, along with several railway points and flag stops within its jurisdiction.

Originally founded as a railway town in the early twentieth century, the Municipality of Sioux Lookout has evolved into a vital service hub for the region, including Indigenous communities in the more northern areas of Ontario. Due to its strategic location, Sioux Lookout is renowned for its abundant outdoor recreational opportunities such as fishing, boating, camping, and more, further enriched by its numerous cultural events and festivals throughout the year. These attractions contribute to the vibrant community spirit, characterized by a unique blend of cultural heritage, economic diversity, and natural beauty, solidifying its role in connecting the northern parts of Ontario.

The Municipality has experienced significant growth between the past two census years (2016-2021). During this period, the Municipality saw a 10.8% increase in population, resulting in 567 new residents. The demographic profile of the Municipality reveals a youthful population, with 18% of residents between the ages of 0-14, which is 3% higher than the provincial average. Conversely, the 65+ age group constitutes 13.6% of the population, 5% below the provincial average.

This demographic diversity, combined with Sioux Lookout's role as a regional hub, underscores the Municipality's importance and continued development as a vibrant, dynamic community in Ontario's north.

Census Characteristic	Municipality of Sioux Lookout	Ontario
Population 2021	5,839	14,223,942
Population Change 2016-2021	10.8%	5.8%
Total Private Dwellings	2,647	5,929,250
Population Density	15.4/km ²	15.9/km ²
Land Area	378.02 km ²	892,411.76 km ²

Table 1 Municipality of Sioux Lookout Community Profile

2.2 Climate Change

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

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

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

2.2.1 Municipality of Sioux Lookout Climate Profile

Sioux Lookout is located in Northern Ontario along Highway 72, around 375km northwest of Thunder Bay and Lake Superior. The Municipality 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 Municipality of Sioux Lookout may experience the following trends:

Higher Average Annual Temperature:

- Between the years 1971 and 2000 the annual average temperature was 1.8 °C
- Under a high emissions scenario, the annual average temperatures are projected to increase to 4.2 °C by the year 2050 and over 8.3°C by the end of the century.

Increase in Total Annual Precipitation:

- Under a high emissions scenario, Sioux Lookout is projected to experience a 9% increase in precipitation by the year 2050 and a 14% increase by the end of the century.

Increase in Frequency of Extreme Weather Events:

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

2.2.2 Integration of Climate Change and Asset Management

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

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

2.3 Asset Management Overview

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

The acquisition of capital assets accounts for only 10-20% of their total cost of ownership. The remaining 80-90% comes from operations and

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

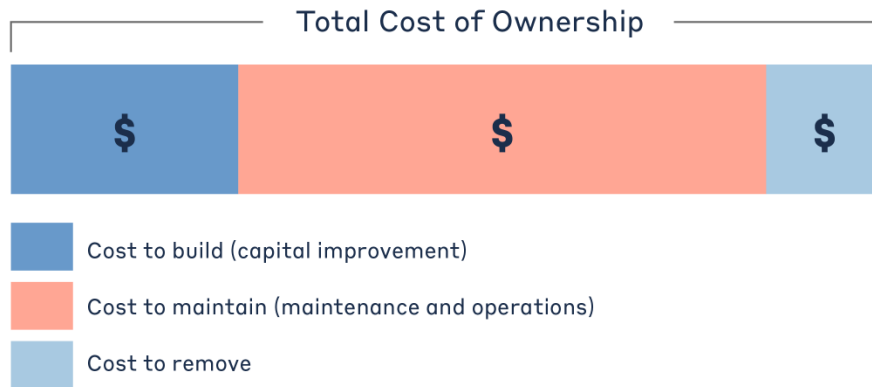


Figure 3 Total Cost of Asset Ownership

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

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

2.3.1 Foundational Asset Management Documentation

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

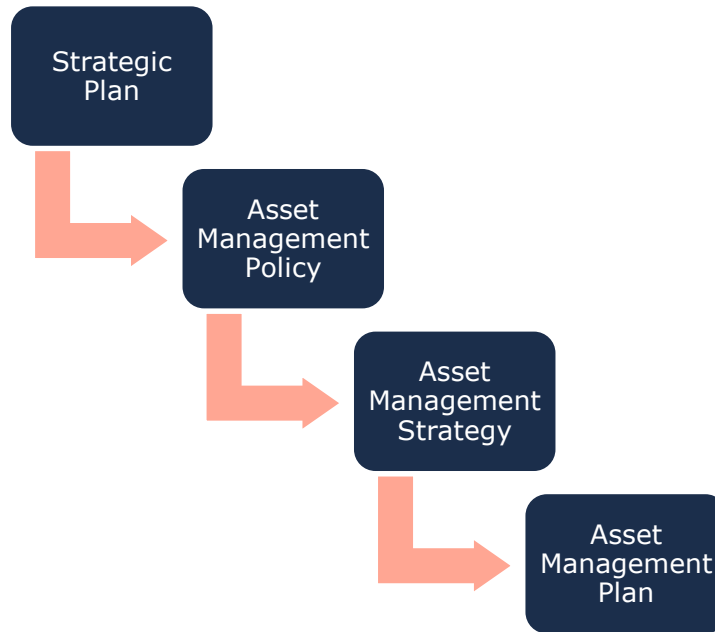


Figure 4 Foundational Asset Management Documents

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

Asset Management Policy

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

The Municipality adopted By-law No. 39-19 "A By-law to Adopt the Municipality of Sioux Lookout Policy No.1-17, The Strategic Asset Management Policy" on May 15th, 2019, in accordance with Ontario Regulation 588/17.

The policy outlines the assets that are within scope, defines staff and council roles and responsibility for asset management, and details the principles that the policy seeks to support and advance. These principles are:

- Service Delivery to Customers
- Long-term Sustainability and Resilience
- Fiscal Responsibility & Asset Management Decision Making
- Innovation & Continual Improvement

Asset Management Strategy

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

Several of the recommendations throughout this report highlight specific actions and practices that are expected to improve the Municipality's Asset management practices, internal capacity and cognizance, and resultant decisions. Thus, these recommendations serve informally as an Asset Management Strategy and provide a framework of planned activities to operationalize and support the delivery of the asset management objectives as defined in the policy.

Asset Management Plan

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

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

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

2.3.2 Key Concepts in Asset Management

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

Lifecycle Management Strategies

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

intended function, and may be characterized by increased cost, risk and even service disruption.

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

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

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

Lifecycle Activity	Cost	Typical Associated Risks
<p><i>Maintenance</i> Activities that prevent defects or deteriorations from occurring</p>	<p>\$</p>	<ul style="list-style-type: none"> • Balancing limited resources between planned maintenance and reactive, emergency repairs and interventions; • Diminishing returns associated with excessive maintenance activities, despite added costs; • Intervention selected may not be optimal and may not extend the useful life as expected, leading to lower payoff and potential premature asset failure;
<p><i>Rehabilitation/ Renewal</i> Activities that rectify defects or deficiencies that are already present and may be affecting asset performance</p>	<p>\$\$\$</p>	<ul style="list-style-type: none"> • Useful life may not be extended as expected; • May be costlier in the long run when assessed against full reconstruction or replacement; • Loss or disruption of service, particularly for underground assets;

Lifecycle Activity	Cost	Typical Associated Risks
<p>Replacement/ Reconstruction</p> <p>Asset end-of-life activities that often involve the complete replacement of assets</p>	<p>\$\$\$\$ \$</p>	<ul style="list-style-type: none"> • Incorrect or unsafe disposal of existing asset; • Costs associated with asset retirement obligations; • Substantial exposure to high inflation and cost overruns; • Replacements may not meet capacity needs for a larger population; • Loss or disruption of service, particularly for underground assets;

Table 2 Lifecycle Management: Typical Lifecycle Interventions

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

Risk & Criticality

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

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

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

Formula to Assess Risk of Assets

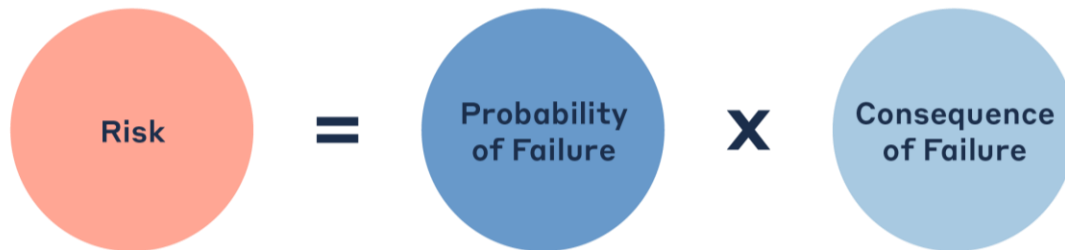


Figure 5 Risk Equations

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

Probability of Failure

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

Consequence of Failure

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

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

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

Table 3 Risk Analysis: Types of Consequences of Failure

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

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

Levels of Service

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

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

Community Levels of Service

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

Technical Levels of Service

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

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

Current and Proposed Levels of Service

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

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

requires municipalities to demonstrate the achievability of their selected metrics.

2.4 Scope & Methodology

2.4.1 Asset Categories for this AMP

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

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

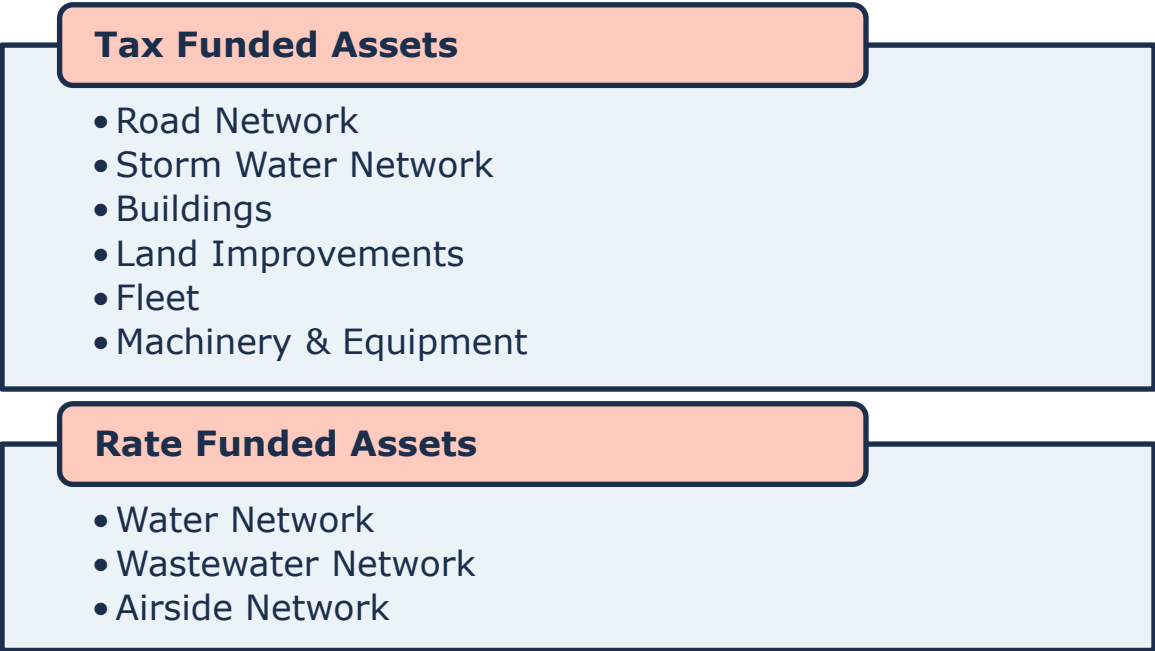


Figure 6 Tax Funded and Rate Funded Asset Categories

2.4.2 Data Effective Date

It is important to note that this plan is based on data as of **December 2025**; therefore, it represents a snapshot in time using the best available processes, data, and information at the Municipality. Strategic asset

management planning is an ongoing and dynamic process that requires continuous data updates and dedicated data management resources.

2.4.3 Deriving Replacement Costs

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

User-Defined Cost and Cost Per Unit

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

Cost Inflation / CPI Tables

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

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

2.4.4 Estimated Service Life & Service Life Remaining

The estimated useful life (EUL) of an asset is the period over which the Municipality 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 Municipality can determine the service life remaining (SLR) for each asset. Using condition data and the asset's SLR, the Municipality can more accurately forecast when it will require replacement. The SLR is calculated as follows:



Figure 7 Service Life Remaining Calculation

2.4.5 Reinvestment Rate

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

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



Figure 8 Target Reinvestment Rate Calculation

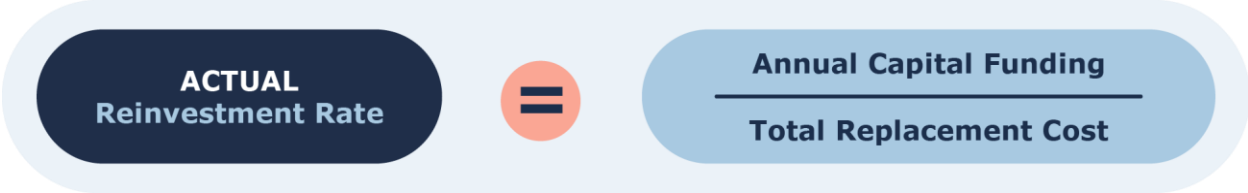


Figure 9 Actual Reinvestment Rate Calculation

2.4.6 Deriving Asset Condition

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

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

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

Table 4 Standard Condition Rating Scale

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

Condition vs. Suitability

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

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

2.5 Ontario Regulation 588/17

As part of the Infrastructure for Jobs and Prosperity Act, 2015, the Ontario government introduced Regulation 588/17 - Asset Management Planning for Municipal Infrastructure (O. Reg 588/17)¹. Along with creating better performing organizations, more liveable and sustainable communities, the regulation is a key, mandated driver of asset management planning and reporting. It places substantial emphasis on current and proposed levels of service and the lifecycle costs incurred in delivering them.

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

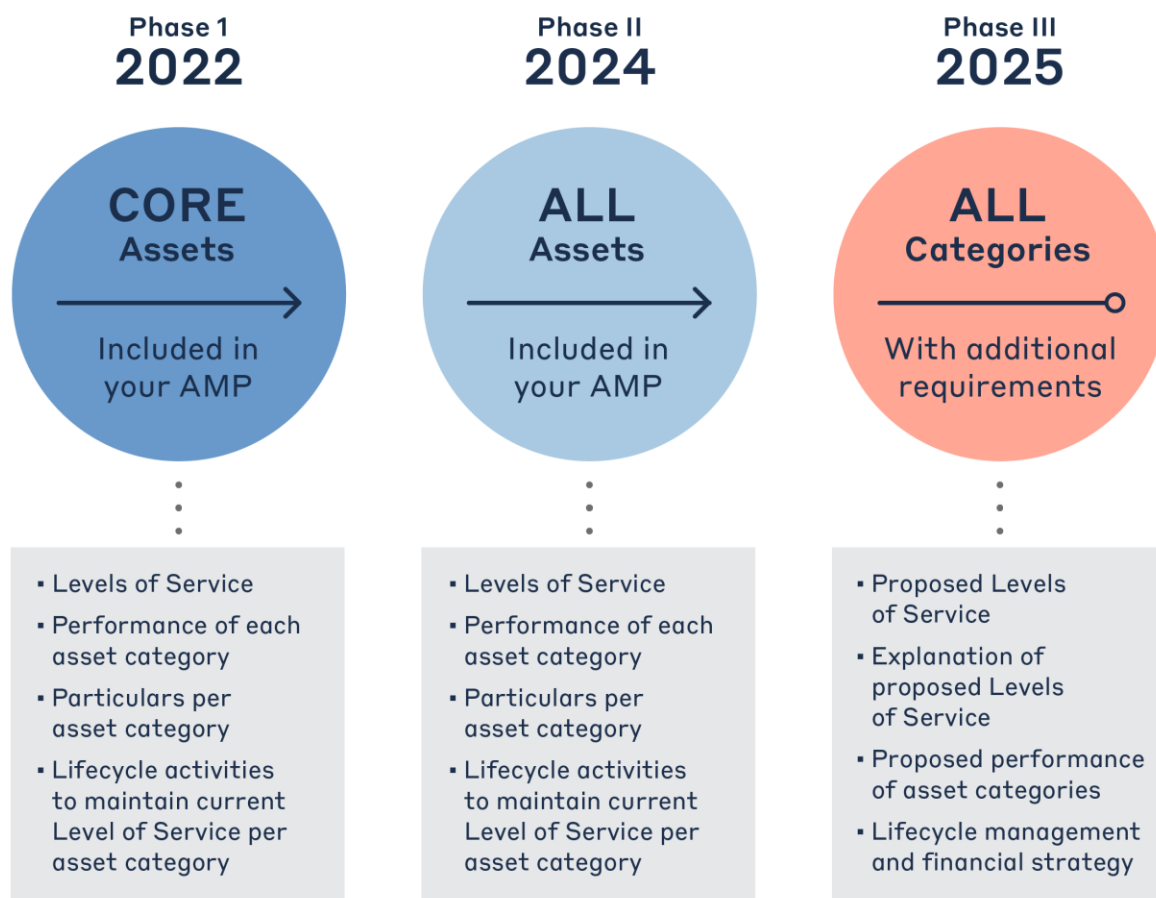


Figure 10 O. Reg. 588/17 Requirements and Reporting Deadlines

¹ O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure
<https://www.ontario.ca/laws/regulation/170588>

2.5.1 O. Reg. 588/17 Compliance Review

Requirement	O. Reg. 588/17 Section	AMP Section Reference	Status
Summary of assets in each category	S.5(2), 3(i)	5.1 – 13.1	Complete
Replacement cost of assets in each category	S.5(2), 3(ii)	5.1 – 13.1	Complete
Average age of assets in each category	S.5(2), 3(iii)	5.3 – 13.3	Complete
Condition of core assets in each category	S.5(2), 3(iv)	5.2 – 13.2	Complete
Description of municipality’s approach to assessing the condition of assets in each category	S.5(2), 3(v)	5.4 – 13.4	Complete
Current levels of service in each category	S.5(2), 1(i-ii)	5.7 – 13.7	Complete
Current performance measures in each category	S.5(2), 2	5.7 – 13.7	Complete
Lifecycle activities needed to maintain current levels of service for 10 years	S.5(2), 4	5.4 – 13.4	Complete
Costs of providing lifecycle activities for 10 years	S.5(2), 4	Appendix B	Complete
Growth assumptions	S.5(2), 5(i-ii) S.5(2), 6(i-vi)	14.1 – 14.2	Complete
Proposed levels of service for each category for next 10 years	S.6(1), 1(i-ii)	4.1	Complete

Requirement	O. Reg. 588/17 Section	AMP Section Reference	Status
Explanation of appropriateness of proposed levels of service	S.6(1), 2(i-iv)	4.2	Complete
Lifecycle management activities for proposed levels of service	S.6(1), 4(i)	4.2	Complete
10-year capital costs for proposed levels of service	S.6(1), 4(ii)	Appendix B	Complete
Annual funding availability projections	S.6(1), 4(iii)	4.2	Complete

Table 5 O. Reg. 588/17 Compliance Review

3. Portfolio Overview – State of the Infrastructure

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

3.1 Asset Hierarchy & Data Classification

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



Figure 11 Asset Hierarchy and Data Classification

3.2 Portfolio Overview

3.2.1 Total Replacement Cost of Asset Portfolio

The nine asset categories analyzed in this Asset Management Plan have a total current replacement cost of \$343 million. This estimate was calculated using user-defined costing, as well as inflation of historical or original costs to current date. This estimate reflects replacement of historical assets with similar, not necessarily identical, assets available for procurement today. Figure 12 illustrates the replacement cost of each asset category; at 27% of the total portfolio, the road network forms the largest share of the Municipality’s asset portfolio, followed by buildings at 25%.

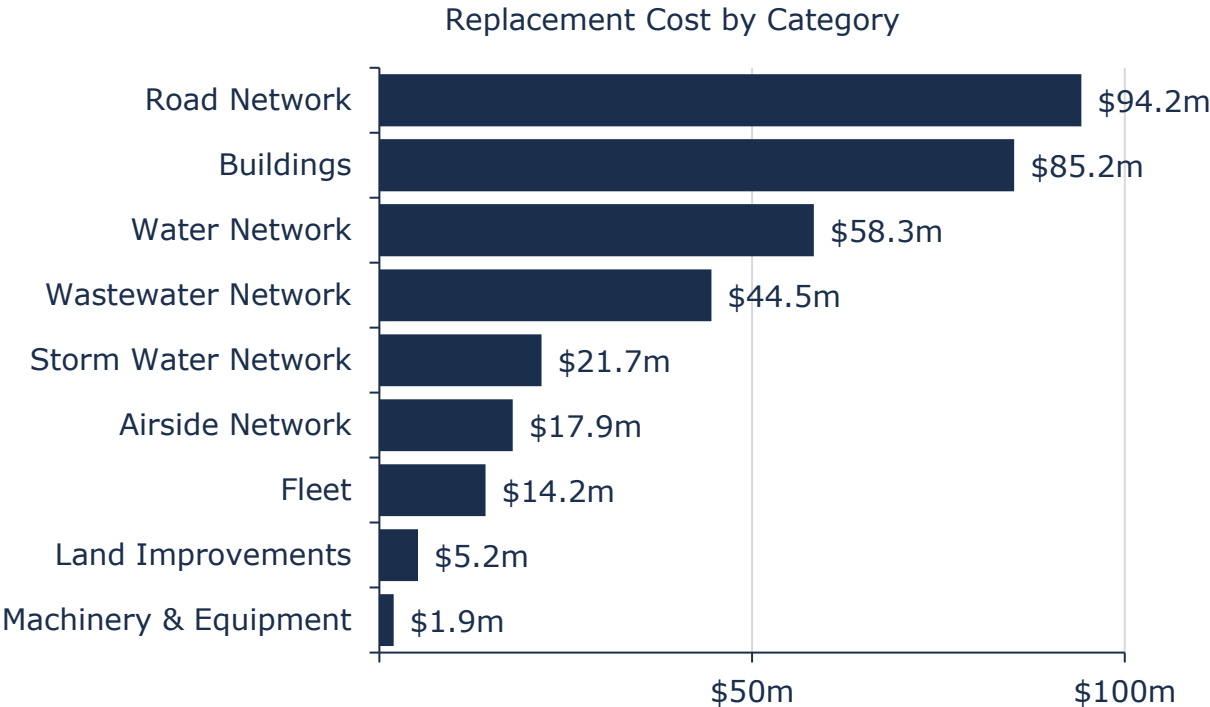


Figure 12 Current Replacement Cost by Asset Category

3.2.2 Target vs. Actual Reinvestment Rate

The graph below depicts funding gaps by comparing the target to the current reinvestment rate. To meet the existing long-term capital requirements, the Municipality requires an annual capital investment of \$11.9 million, for a target portfolio reinvestment rate of 3.47%. Currently, the annual investment from sustainable revenue sources is \$2.5 million, for a current portfolio reinvestment rate of 0.73%. Target and current re-investment rates by asset category are detailed below.

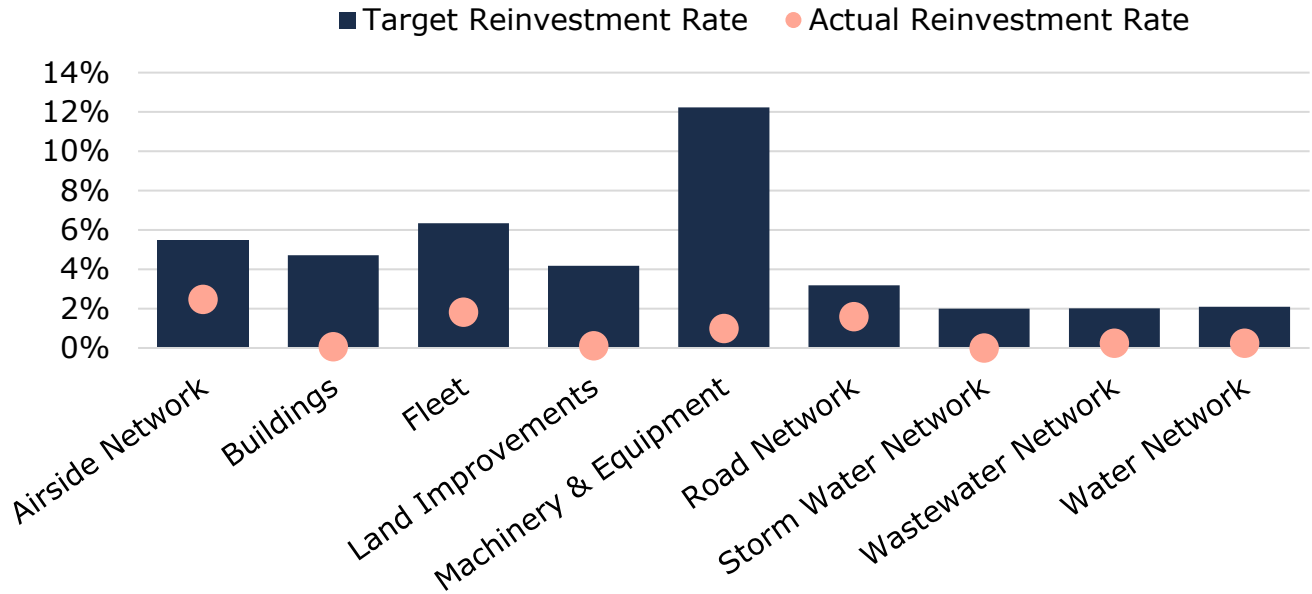


Figure 13 Current Vs. Target Reinvestment Rate

3.2.3 Condition of Asset Portfolio

Figure 14 and Figure 15 summarize asset condition at the portfolio and category levels, respectively. Based on both assessed condition and age-based analysis, 45% of the Municipality’s infrastructure portfolio is in fair or better condition, with the remaining 55% in poor or worse condition. Typically, assets in poor or worse condition may require replacement or major rehabilitation in the immediate or short-term. Targeted condition assessments may help further refine the list of assets that may be candidates for immediate intervention, including potential replacement or reconstruction.

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

Condition data was available for 47% of the road network and a small portion of buildings, land improvements, the water network and the wastewater network. For all remaining assets, including major infrastructure such as storm mains and buildings, age was used as an approximation of condition for most of these assets. Age-based condition estimations can skew data and lead to potential under- or overstatement of asset needs.

Further, when assessed condition data was available, it was projected to current year (2025). This ‘projected condition’ can generate lower condition

ratings than those established at the time of the condition assessment. The rate of this deterioration will also depend on lifecycle curves used to project condition over time.

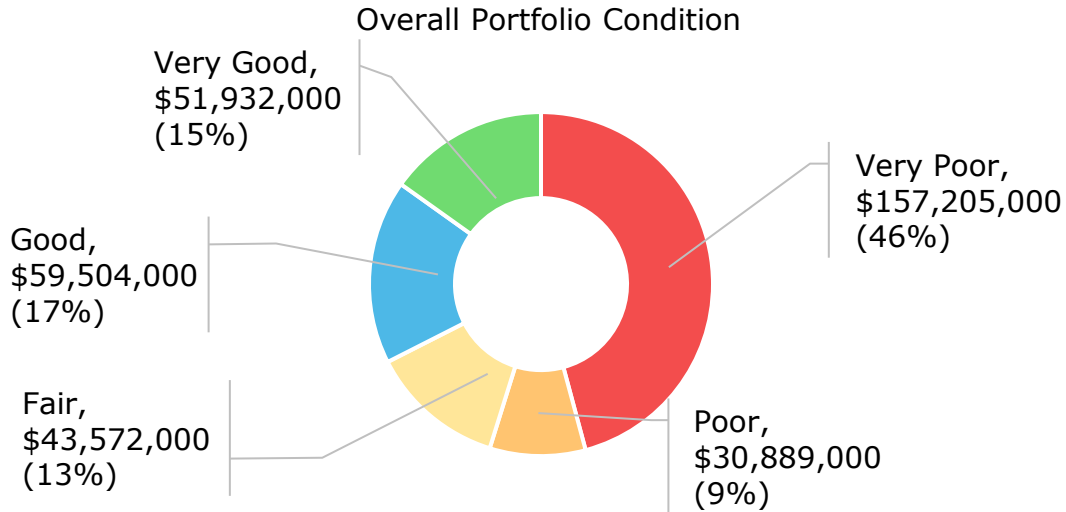
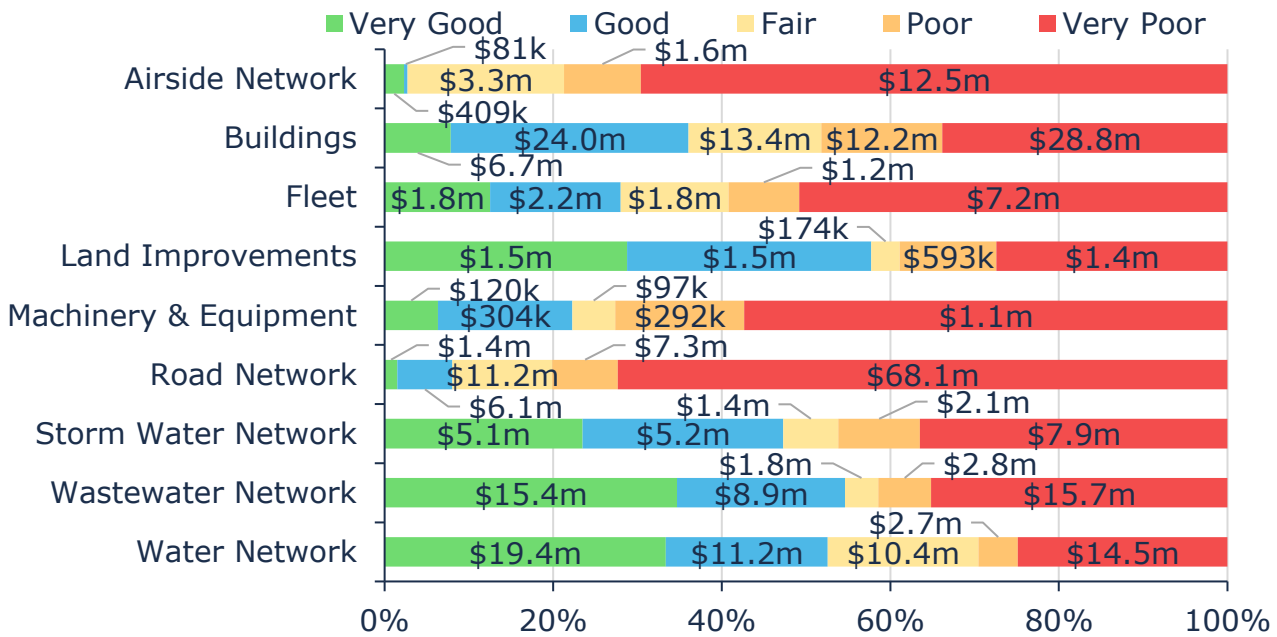


Figure 14 Asset Condition: Portfolio Overview

Figure 15 illustrates the condition breakdown at the category level, based on in-field condition assessment data and age-based condition projections. See Table 6 for details on how condition data was derived for each asset segment.



Value and Percentage of Asset Segments by Replacement Cost

Figure 15 Asset Condition by Asset Category

Source of Condition Data

This AMP relies on assessed condition for 18% of assets, based on and weighted by replacement cost. For the remaining assets, age is used as an approximation of condition. Assessed condition data is invaluable in asset management planning as it reflects the true condition of the asset and its ability to perform its functions. The table below identifies the source of condition data used throughout this AMP.

Asset Category	Asset Segment(s)	% of Assets with Assessed Conditions	Source of Condition Data
Road Network	Paved Roads	47%	Sioux Lookout Internal Assessments
Water Network	All	9%	2020 Nadine Consulting Engineers Report
Wastewater Network	All	9%	2020 Nadine Consulting Engineers Report
Storm Water Network	All	0%	N/A
Airside Network	All	0%	N/A
Buildings	All	9%	Sioux Lookout Internal Assessments
Land Improvements	All	16%	Sioux Lookout Internal Assessments
Fleet	All	0%	N/A
Machinery & Equipment	All	0%	N/A

Table 6 Source of Condition Data

3.2.4 Service Life Remaining

Based on asset age, available assessed condition data and estimated useful life, 52% of the Municipality's assets will require replacement within the next 10 years (not accounting for asset replacement backlog).

3.2.5 Risk Matrix

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

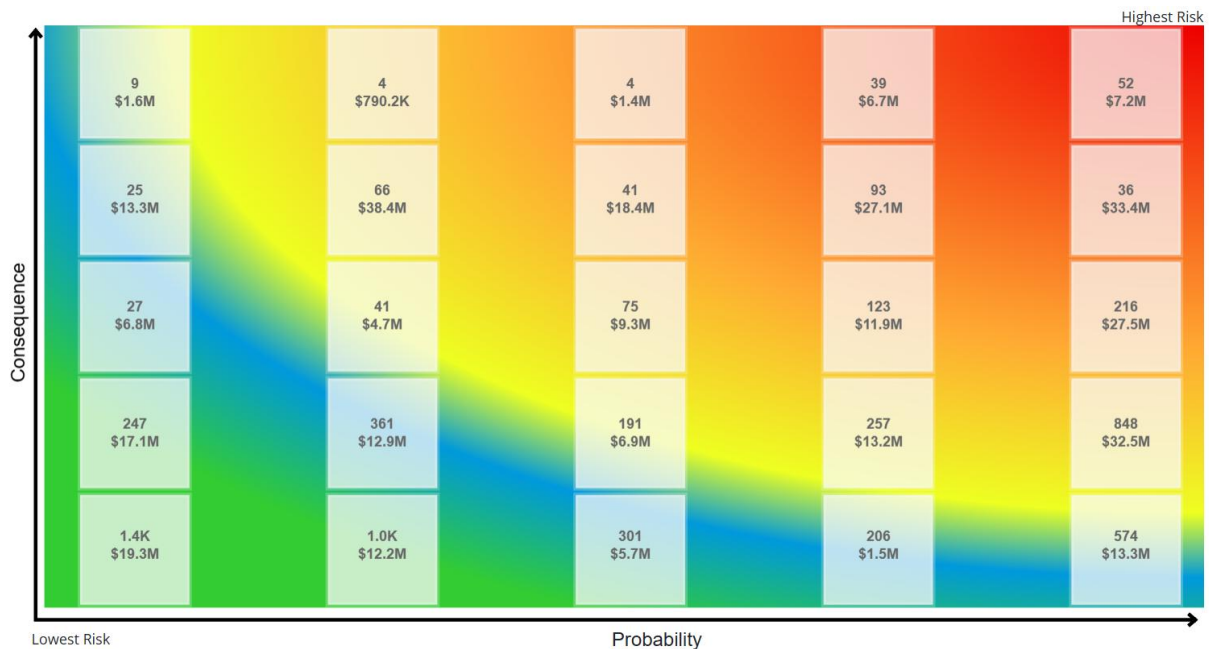


Figure 16 Risk Matrix: All Assets

The analysis shows that based on current risk models, approximately 32% of the Municipality’s assets, with a current replacement cost of approximately \$112 million, carry a risk rating of 15 or higher (red) out of 25. Assets in this group may have a high probability of failure based on available condition data and age-based estimates and were considered to be most essential to the Municipality.

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

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

Similarly, assets with very high condition ratings can receive a moderate to high-risk rating despite a low probability of failure. These assets may be

deemed as highly critical to the Municipality based on their costs, economic importance, social significance, and other factors. Continued calibration of an asset’s criticality and regular data updates are needed to ensure these models more accurately reflect an asset’s actual risk profile.

3.2.6 Forecasted Capital Requirements

Aging assets require maintenance, rehabilitation, and replacement. Figure 17 below illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for all asset categories analyzed in this AMP over a 195-year time horizon. On average, \$11.9 million is required each year to remain current with capital replacement needs for the Municipality’s asset portfolio, represented by the red dotted line. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise. This figure relies on age and available condition data.

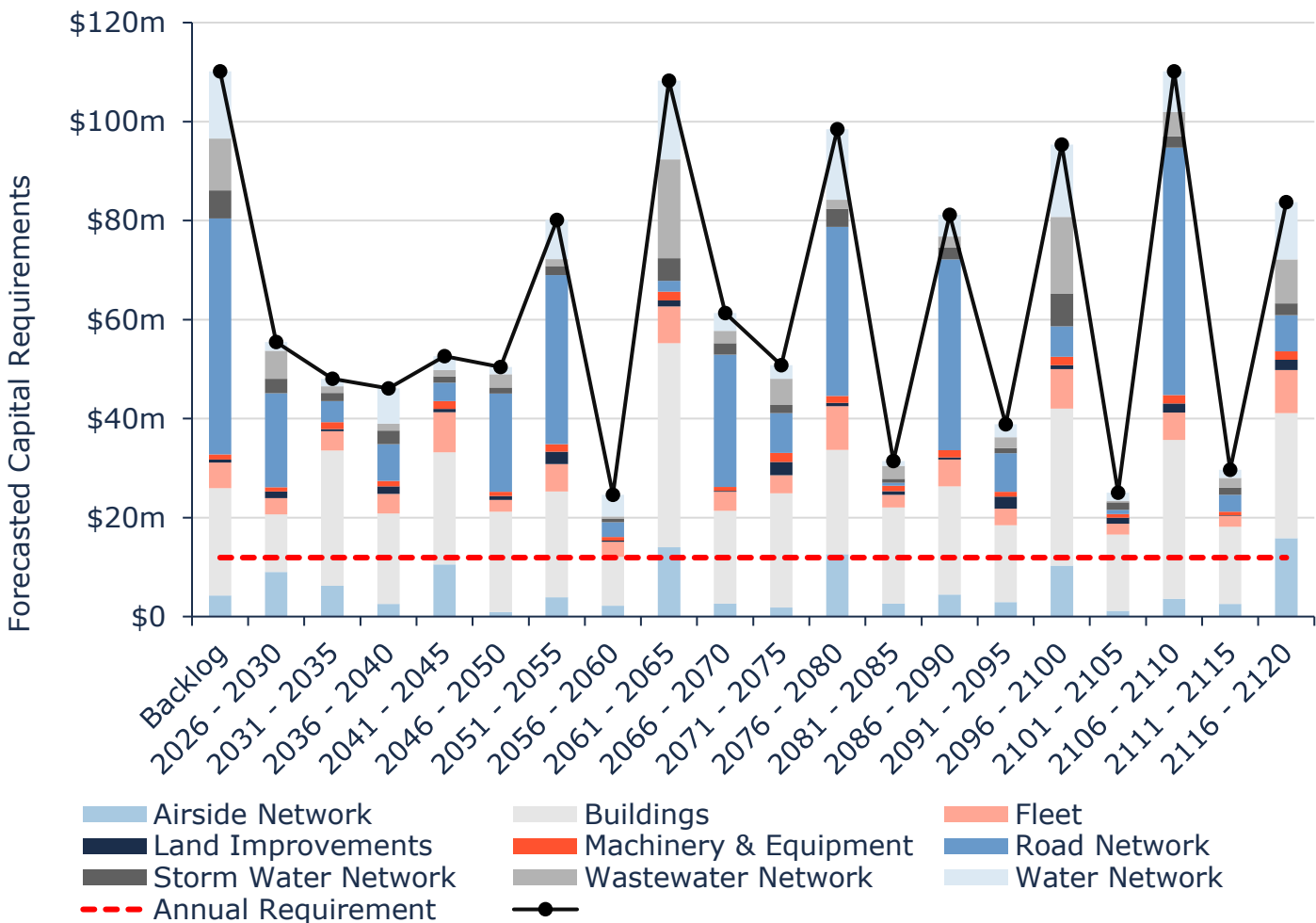


Figure 17 Capital Replacement Needs: Portfolio Overview 2026-2120

The chart also illustrates a backlog of more than \$110.1 million, comprising assets that remain in service beyond their estimated useful life. It is unlikely that all such assets are in a state of disrepair, requiring immediate replacements. This makes continued and expanded targeted and consistent condition assessments integral. Risk frameworks, proactive lifecycle strategies, and levels of service targets can then be used to prioritize projects, continuously refine estimates for both backlogs and ongoing capital needs and help select the right treatment for each asset. In addition, more effective componentization of buildings will improve these projections, including backlog estimates.

4. Proposed Levels of Service Analysis

4.1 Overview

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

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

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

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

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

4.1.2 Considerations

Proposed LOS for the Municipality have been developed through comprehensive engagement with Municipal staff. In order to achieve any target LOS goal, careful consideration of the following should be given to the following:

Financial Impact Assessments

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

Infrastructure Condition Assessments

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

Service Metrics

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

Service Impact Assessments

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

Key Lifecycle Activities

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

Risk Management

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

Infrastructure Condition Enhancements

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

Timelines

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

Stakeholder Engagement

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

Flexibility

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

4.2 Proposed Levels of Service Targets

The Municipality has aligned its proposed levels of service with the strategic goals set out in the Strategic Plan adopted in December 2025. The Strategic Plan establishes a clear roadmap for the Municipality's future and defines specific strategic priorities across the following service areas:

- Resilient growth
- Community safety and preparedness
- Connectivity and inclusive community
- Vibrant and welcoming spaces
- Service excellence

The sections that follow outline the proposed levels of service associated with each of these priority areas.

4.2.1 Resilient Growth

The following key performance measures have been established as the proposed levels of service to be achieved by 2031 in support of resilient growth. These measures are intended to guide coordinated infrastructure planning, informed land use decision-making, and effective asset

management practices that foster sustainable growth, strengthen the municipal tax base, and ensure long-term financial sustainability and service reliability.

Focus Area	Key Performance Measure	Target (by 2031)
Asset Management	% of municipal assets with up-to-date condition assessments	100%
Infrastructure Renewal	% of capital projects completed on-budget	50%
	% of capital projects delivered on or ahead of planned schedule	40%
Climate Resilience	% of projects incorporating climate risk assessments	80%
Interdepartmental Integration	# of shared data systems or dashboards implemented	3
Local Business Development	# of businesses engaged through BR+E outreach and follow-up	50
	# of entrepreneur support guides distributed (digital & print)	100
	# of investment leads generated through promotion efforts	25
	# of local success stories or funding recipients profiled	10
Financial Sustainability	Annual reinvestment rate (as a % of total asset replacement value)	2%

Table 7: Resilient Growth - Proposed Levels of Service

4.2.2 Community Safety and Preparedness

The following key performance measures have been established as the proposed levels of service to be achieved by 2031 in support of community safety and preparedness. These measures are intended to strengthen community safety and resilience by mitigating risks associated with natural and human-caused hazards, and by responding proactively through coordinated planning, collaborative partnerships, and adaptable service delivery.

Focus Area	Key Performance Measure	Target (by 2031)
Community Awareness & Prevention	# of community safety workshops and outreach initiatives	50 programs
	Public satisfaction with safety initiative	85%
Emergency Response	Reduce call volume through community education and prevention initiatives	Reduce by 10%
	% of personnel trained in deescalation and mental health literacy training	75%
Traffic & Infrastructure Safety	# of safety infrastructure improvements implemented	10 projects
Collaborative Partnerships	# of joint safety initiatives with regional partners	20 initiatives

Table 8: Community Safety and Preparedness - Proposed Levels of Service

4.2.3 Connected and Inclusive Community

The following key performance measures have been established as the proposed levels of service to be achieved by 2031 in support of a connected and inclusive community. These measures are intended to cultivate an inclusive and culturally vibrant community by promoting wellness initiatives, advancing reconciliation through meaningful and respectful relationships, and ensuring all residents experience a strong sense of belonging, connection, and trust.

Focus Area	Key Performance Measure	Target (by 2031)
Community Engagement	# of community wellness events or initiatives	5 initiatives
Recreation & Culture	% of residents satisfied with recreation events/programs	10% increase
Accessibility	% of residents reporting sense of belonging	85%
	# of accessibility improvements in public spaces	2 improvements

Focus Area	Key Performance Measure	Target (by 2031)
Diverse Representation	# of partnerships with organizations representing marginalized groups	12 partnerships

Table 9: Connected and Inclusive Community - Proposed Levels of Service

4.2.4 Vibrant and Welcoming Spaces

The following key performance measures have been established as the proposed levels of service to be achieved by 2031 in support of vibrant and welcoming spaces. These measures are intended to foster a dynamic and engaged community by investing in recreation, culture, and public spaces, while maintaining attractive and welcoming environments that enhance quality of life, draw visitors, and support tourism throughout the year.

Focus Area	Key Performance Measure	Target (by 2031)
Public Spaces & Amenities	# of upgrades to parks, trails, and public facilities	12 projects
Tourism Development & Operator Capacity	# of seasonal training sessions & mentorship offered to local tourism operators	6 sessions
	# of tourism packages developed in collaboration with local outfitters	5 packages
Programming Activities	# of community programs, events, and recreational activities offered	75 programs
Community Use & Satisfaction	% of residents satisfied with recreational programming	85%
Partnerships & Collaboration	# of partnerships with local organizations to enhance community spaces	12 partnerships

Table 10: Vibrant and Welcoming Spaces - Proposed Levels of Service

4.2.5 Service Excellence

The following key performance measures have been established as the proposed levels of service to be achieved by 2031 in support of service excellence. These measures are intended to enhance governance and accountability by promoting a culture of continuous improvement, improving

process efficiency, and delivering responsive, high-quality services that build efficiency and maintain public confidence.

Focus Area	Key Performance Measure	Target (by 2031)
Customer-Centered Service Delivery	% of residents satisfied with municipal services (baseline: 56%)	70%
	# of service improvements implemented based on feedback	20 improvements
Data-Driven Decision Making	% of major decisions supported by up-to-date data/analytics	100%
	# of performance dashboards developed and actively used	5 dashboards
Technology Integration	% of key municipal processes digitalized	50
	# of technology training sessions completed by staff	12 sessions/year
	# of water meter installations	125
Employee Engagement & Development	Succession planning framework implemented for critical roles	100% of critical roles assessed
	# of participants receiving leadership development recognition	5
	% of staff with clear role expectations and regular performance check-ins	10% annual increase
	% of new hires completing enhanced onboarding and mentorship program	100%

Table 11: Service Excellence - Proposed Levels of Service

4.3 Financial Analysis

The proposed level of service targets assumes gradual tax and rate increases, stabilizing at an annual reinvestment rate of 2% in 5 years.

- Annual Tax Increase ~ 3.3% annually for 5 years
- Annual Water Rate Increase ~ 9.2% annually for 5 years

- Annual Sanitary Rate Increase ~ 9.2% annually for 5 years

No increase to airport rates was considered for the proposed levels of service, as the current reinvestment rate for airside network assets is 2.47%.

4.3.1 Affordability/Achievability of Proposed Levels of Service

Reaching a 2% reinvestment rate immediately would require an increase of 20.4% in tax revenue. This is not reasonable or realistic to achieve in a short period of time. With the recommended implementation timeframe of 5 years, tax revenue would be increased gradually from \$12.86 million to \$15.6 million, water revenue from \$1.78 million to \$3.01 million, and sanitary revenue from \$1.37 million to \$2.31 million. Airport rates would remain the same. Based on these proposed increases, while maintaining existing sustainable grant funding, the available capital funding over the next 10 years is indicated in the table below:

Categories	Available Capital Funding									
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Tax-Funded	\$2.2m	\$2.7m	\$3.1m	\$3.6m	\$4.1m	\$4.6m	\$4.6m	\$4.6m	\$4.6m	\$4.6m
Rate-Funded (Water)	\$303k	\$481k	\$676k	\$889k	\$1.1m	\$1.4m	\$1.4m	\$1.4m	\$1.4m	\$1.4m
Rate-Funded (Sanitary)	\$231k	\$369k	\$519k	\$683k	\$861k	\$1.1m	\$1.1m	\$1.1m	\$1.1m	\$1.1m
Rate-Funded (Airport)	\$442k	\$442k	\$442k	\$442k	\$442k	\$442k	\$442k	\$442k	\$442k	\$442k

Table 12 Proposed Levels of Service - Available Capital Funding Over Next 10 Years

A further breakdown of project capital expenditures by asset category can be found in Appendix B – 10-Year Capital Requirements.

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

4.3.2 Appropriateness of Proposed Levels of Service to Meet the Municipality's Needs

Municipal staff emphasized a need to balance financial impacts on residents with the reality of the current state of infrastructure within the municipality. The selected target reinvestment rate was determined an appropriate option to be subjectively manageable to implement, while creating a sustainable future for the Municipality's infrastructure. The risks associated with relying on conditional grants from higher levels of government were deemed to be too great considering the country-wide trend of downloading responsibilities (and costs) to municipal governments and reducing funding opportunities.

4.4 Risk Analysis

There are pros and cons associated with the proposed level of service analyzed, and each benefit is counter-balanced with consequences. For the selected target reinvestment rate, the following risks have been identified:

- Increased infrastructure backlog
 - While mitigating the impact of financial increases on residents and businesses, taking 5 years to reach the targeted funding levels means 5 years of sub-optimal lifecycle management. Being unable to complete strategic lifecycle interventions and replacements may result in increased asset failures, reduced reliability, and the potential for costly unbudgeted repairs to maintain services.
- Missed opportunities for efficiencies
 - While analyzing the proposed levels of service, no alternative lifecycle strategies were proposed. Mid-lifecycle interventions, such as asphalt overlays and sewer lining, can result in extended lifespans of assets and reduced costs over the lifetime of the assets. By relying on existing lifecycle strategies, the Municipality risks paying more than necessary to maintain their asset inventory.

Core Assets

Road Network



Replacement Cost	Average Condition	Financial Capacity	
\$94.2 m	Poor	Annual Requirement:	\$3,007,000
		Funding Available:	\$1,495,000
		Annual Deficit:	\$1,512,000

Water Network



Replacement Cost	Average Condition	Financial Capacity	
\$58.2 m	Fair	Annual Requirement:	\$1,226,000
		Funding Available:	\$139,000
		Annual Deficit:	\$1,087,000

Wastewater Network



Replacement Cost	Average Condition	Financial Capacity	
\$44.5 m	Fair	Annual Requirement:	\$896,000
		Funding Available:	\$106,000
		Annual Deficit:	\$763,000

Storm Water Network



Replacement Cost	Average Condition	Financial Capacity	
\$21.7 m	Fair	Annual Requirement:	\$434,000
		Funding Available:	\$0
		Annual Deficit:	\$434,000

5. Road Network

The Municipality’s road network comprises the largest share of its infrastructure portfolio, with a current replacement cost of more than \$94 million. The Municipality also owns and manages other supporting infrastructure and capital assets, including sidewalks, curbs and streetlights.

5.1 Inventory & Valuation

Table 13 summarizes the quantity and current replacement cost of the Municipality’s various road network assets as managed in its primary asset management register, Citywide.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Gravel Roads	2,549	Length (m)	Not Planned for Replacement	
Paved Roads	369,998	Length (m)	\$78,718,000	Cost/Unit
Sidewalks & Curbs	44,728	Length (m)	\$14,844,000	CPI
Streetlights	532	Quantity	\$597,000	CPI
TOTAL			\$94,159,000	

Table 13 Detailed Asset Inventory: Road Network

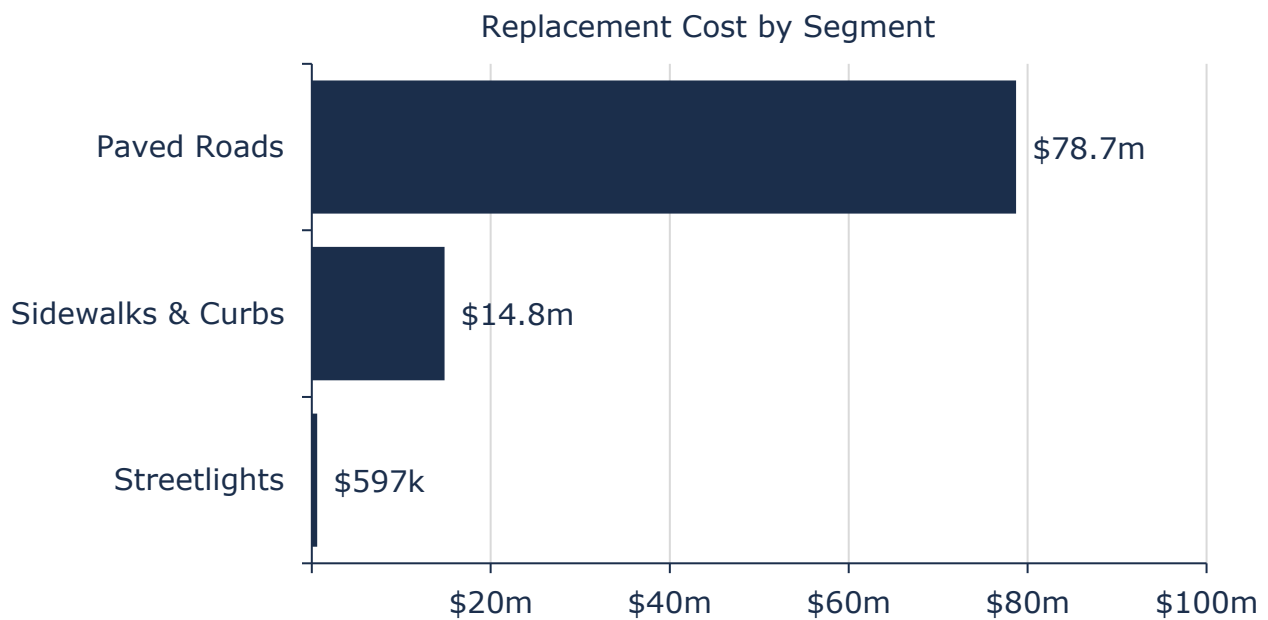


Figure 18 Portfolio Valuation: Road Network

5.2 Asset Condition

Figure 19 summarizes the replacement cost-weighted condition of the Municipality’s road network. Based on a combination of field inspection data and age, 20% of assets are in fair or better condition; the remaining 80% of assets are in poor to very poor condition.

Assets in poor or worse condition may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition. As illustrated in Figure 19, the majority of the Municipality’s road network assets are in poor or worse condition.

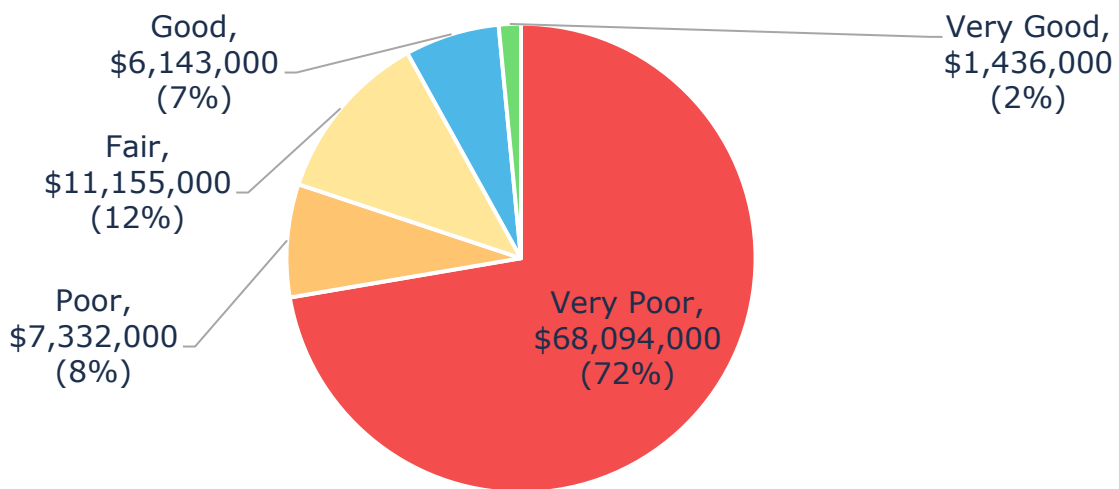


Figure 19 Asset Condition: Road Network Overall

As illustrated in Figure 20, based on condition assessments, the majority of the Municipality’s paved roads are in poor or worse condition.

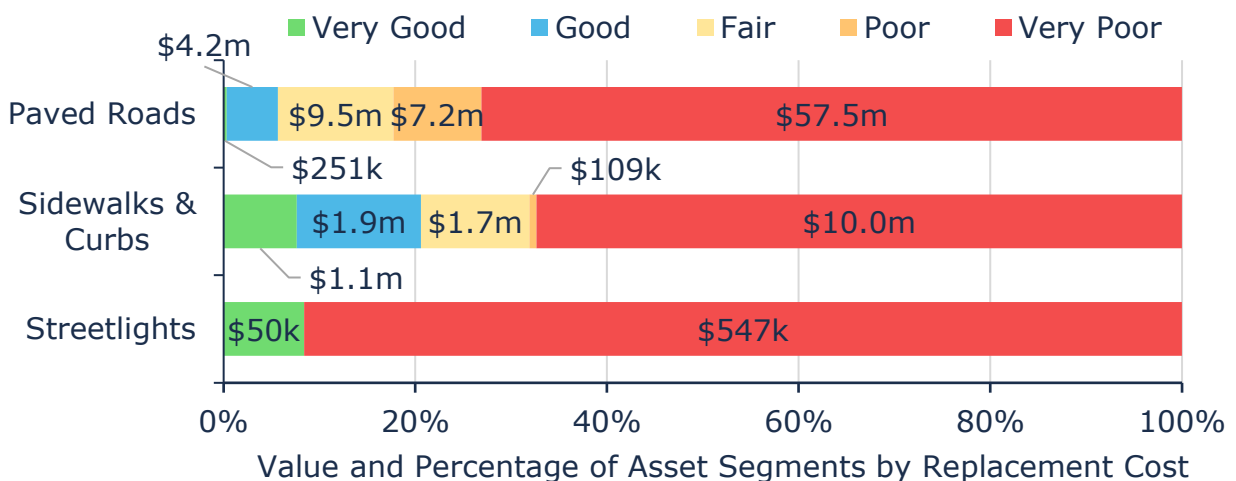


Figure 20 Asset Condition: Road Network by Segment

5.3 Age Profile

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

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

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

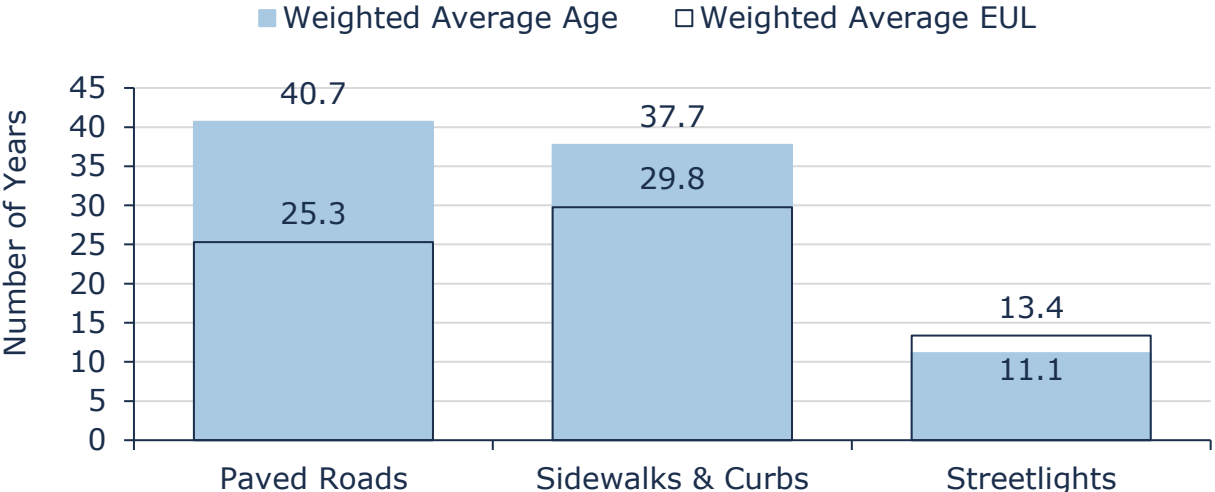


Figure 21 Estimated Useful Life vs. Asset Age: Road Network

Age analysis shows that the majority of paved roads have surpassed their expected useful life, with an average age of 40 years against a design life of 25. Streetlights are currently within their expected useful lives, with sidewalks and curbs having exceeded their proposed end of life.

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

5.4 Current Approach to Lifecycle Management

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

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

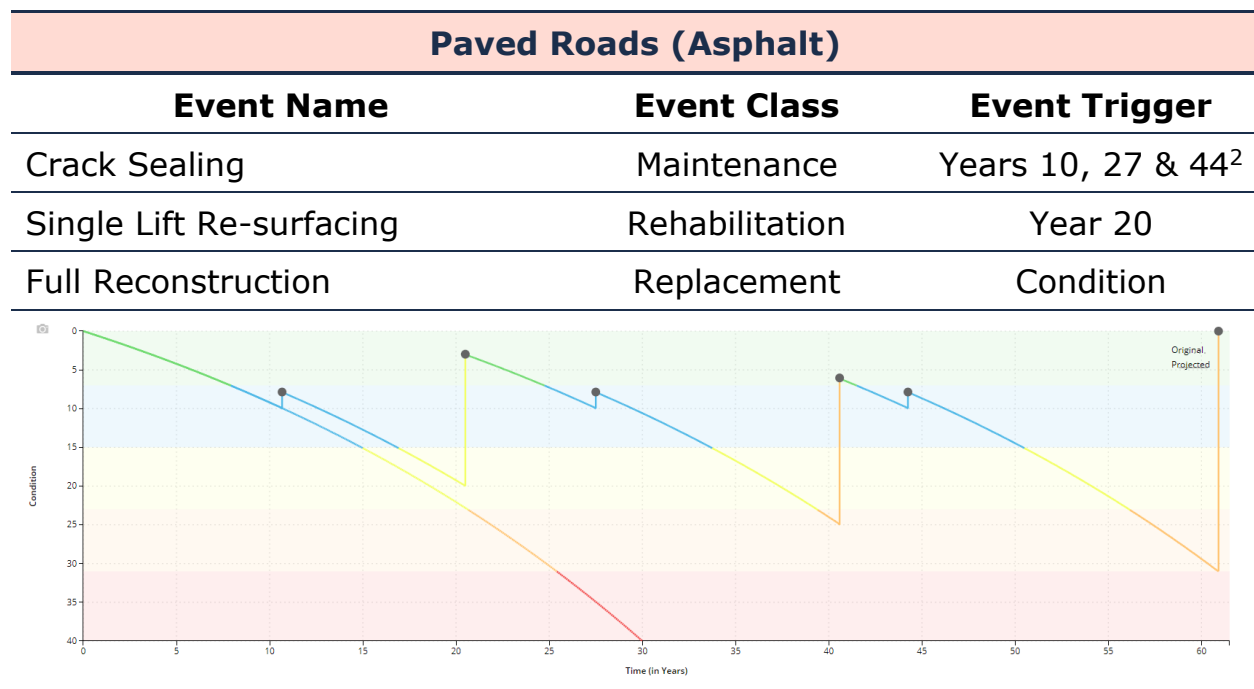


Table 14 Lifecycle Management Strategy: Road Network (Asphalt Roads)

² Additional treatments may occur as needed but are typically completed in the years noted.

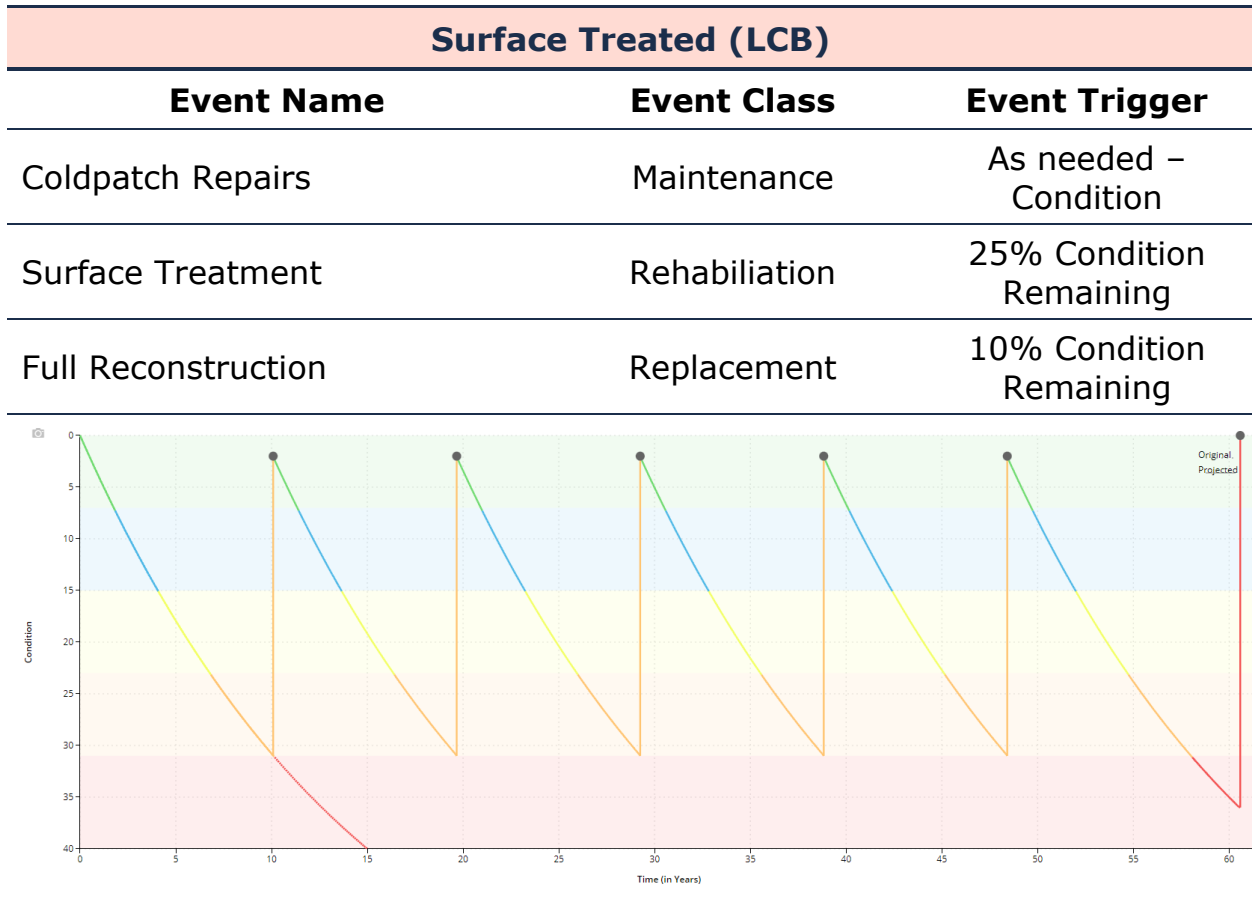


Table 15 Lifecycle Management Strategy: Road Network (Surface Treated Roads)

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

Activity Type	Description of Current Strategy
Inspection	A staff conducted road condition assessment of the entire road network was completed in 2018, providing an overall condition score for each road segment. Road appurtenances including sidewalks, signs, and traffic lights are patrolled once per calendar year in accordance with Minimum Maintenance Standards (MMS). In addition, streetlights and traffic signs are also inspected during regular road patrols and in the event of a customer complaint.

Table 16 Lifecycle Management Strategy: Road Network

5.5 Forecasted Long-Term Replacement Needs

Figure 22 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Municipality’s road network. This analysis was run until 2085 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Municipality’s primary asset management system and asset register. The Municipality’s average annual requirements (red dotted line) total \$3.0 million for all assets in the road network. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

The chart illustrates substantial capital needs throughout the forecast period. It also shows a backlog of \$47.7 million, dominated by paved roads. These projections are based on asset replacement costs, age analysis, and condition data when available, as well as lifecycle modeling (roads only). They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

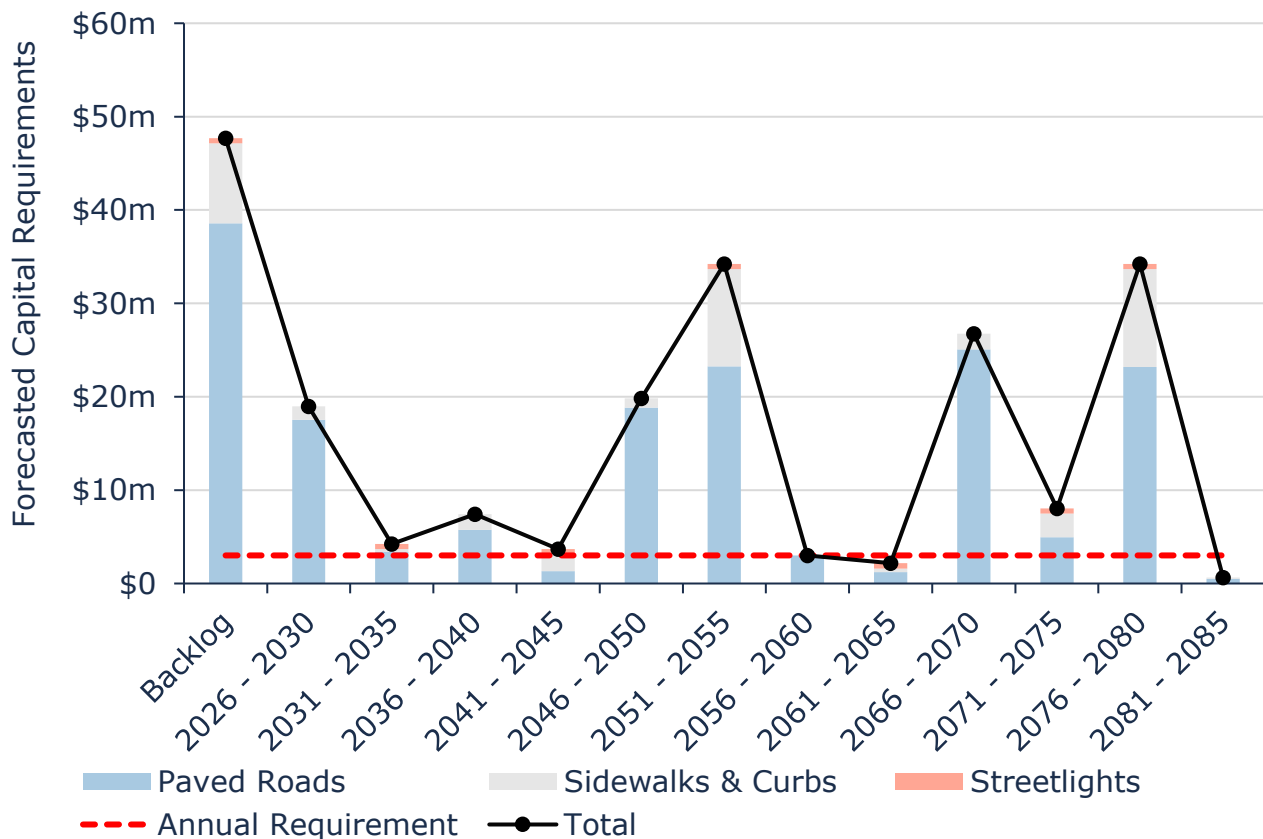


Figure 22 Forecasted Capital Replacement Needs: Road Network 2026-2085

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

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

5.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, surface condition, road base problems, drainage problems observed, road hierarchy, width, and replacement cost. The risk ratings for assets without useful attribute data were calculated using only condition, and their replacement costs.

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

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

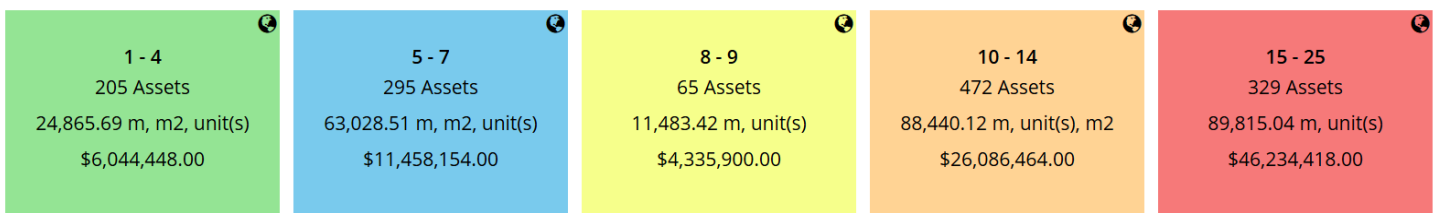


Figure 23 Risk Matrix: Road Network

5.7 Levels of Service

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

5.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2025)
Scope	Description, which may include maps, of the road network in the municipality and its level of connectivity	The Municipality’s road network contains over 50 kilometers of paved and gravel local and collector roads as well as pedestrian infrastructure located in the core settlement areas. The road network is predominantly within the settlement areas of Sioux Lookout and Hudson. For a map of the road network please refer to Appendix C
Quality	Description or images that illustrate the different levels of road class pavement condition	The Municipality completed an internal road condition assessment in 2018 and rated surface condition on a five (5) point scale which ranged from excellent to critical condition.

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

5.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2025)
Scope	Lane-km of arterial roads (MMS classes 1 and 2) per land area (km/km ²)	0
	Lane-km of collector roads (MMS classes 3 and 4) per land area (km/km ²)	12.65
	Lane-km of local roads (MMS classes 5 and 6) per land area (km/km ²)	126.77
Quality	Average pavement condition index for paved roads in the Municipality	20%
	Average surface condition for unpaved roads in the Municipality (e.g. excellent, good, fair, poor)	Poor
Performance	Capital reinvestment rate	1.59%

Table 18 O. Reg. 588/17 Technical Levels of Service: Road Network

6. Water Network

The water services provided by the Municipality are administered by the Public Works Department in conjunction with Northern Waterworks Incorporated (NWI). NWI primarily oversees the operations, reporting, and rehabilitation of the water treatment plant and lift stations. NWI completes all required ministerial reporting for any unplanned maintenance events. Typically, the Municipality completes unplanned maintenance tasks for the distribution system.

The water network is comprised of a variety of asset segments used to treat, distribute, and support the operations of the water network. These asset segments can be described as follows:

- **Booster Stations:** support the distribution of water at adequate pressures and flow throughout the distribution system, and especially across different land elevations.
- **Hydrants & Valves:** Hydrants provide water for fire protection services; valves enable water mains to be temporarily shut off often for maintenance purposes.
- **Water Fleet:** Cube van to support water operations.
- **Water Mains:** Distribute water from the water treatment plant throughout the Municipality
- **Water Services:** small distribution pipes collected to the water mains. Water Services distribute water directly to properties.
- **Water Tower:** Elevated structure supporting a water tank to enable the delivery of water at a sufficient pressure.
- **Water Treatment Plant:** A building comprised of various machinery and equipment to enable the treatment of water such that is safe for drinking.

6.1 Inventory & Valuation

Table 19 summarizes the quantity and current replacement cost of the Municipality’s various water network assets as managed in its primary asset management register, Citywide.

Segment	Quantity (# of components)	Unit of Measure	Replacement Cost	Primary RC Method
Booster Station	11	Quantity	\$869,000	User-Defined
Hydrants & Valves	985	Quantity	\$11,192,000	Cost/Unit
Water Mains	68,000	Length (m)	\$34,691,000	Cost/Unit
Water Service	3,684	Length (m)	\$3,495,000	Cost/Unit
Water Tower	1	Quantity	\$3,740,000	CPI
Water Treatment Plant	2 (88)	Quantity	\$4,300,000	CPI
TOTAL			\$58,288,000	

Table 19 Detailed Asset Inventory: Water Network

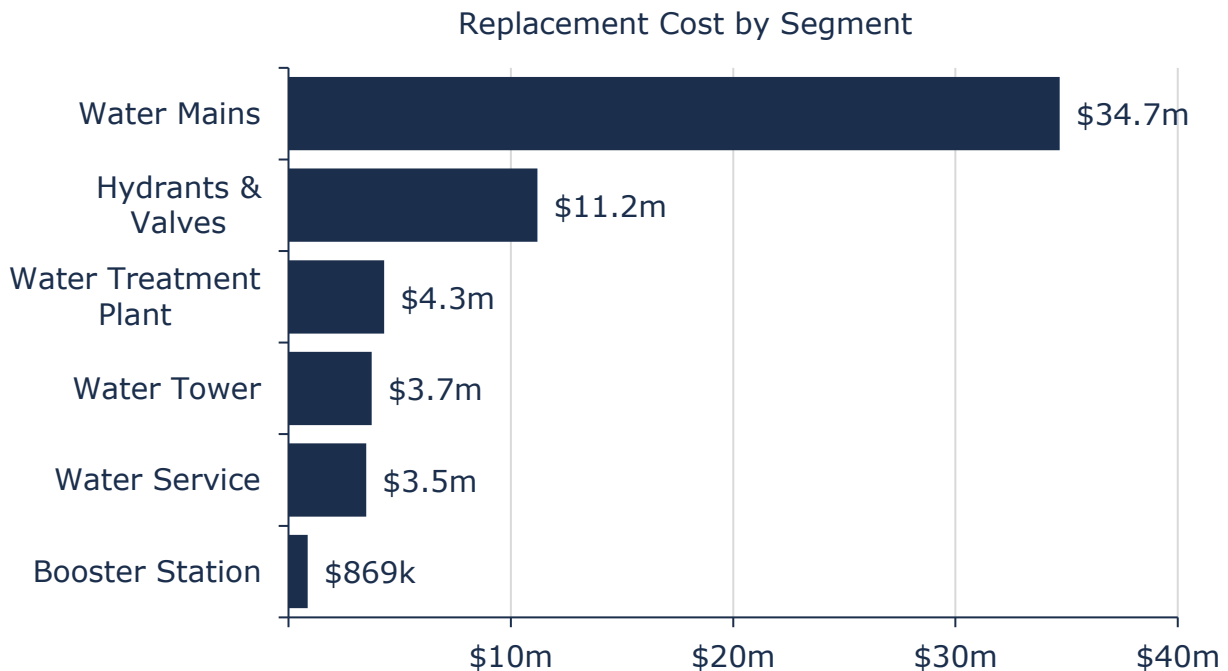


Figure 24 Portfolio Valuation: Water Network

6.2 Asset Condition

Figure 25 summarizes the replacement cost-weighted condition of the Municipality's water network. Based on a combination of field inspection data and age, 70% of assets are in fair or better condition; the remaining 30% of assets are in poor to very poor condition. Condition assessments were available for 82% of booster station assets, and 100% of water treatment plant assets, based on replacement cost. This condition data was projected from inspection date to current year to estimate their condition today. No condition data was available for the remainder of water network assets.

Assets in poor or worse condition may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition. As illustrated in Figure 25, the majority of the Municipality's water network assets are in fair or better condition.

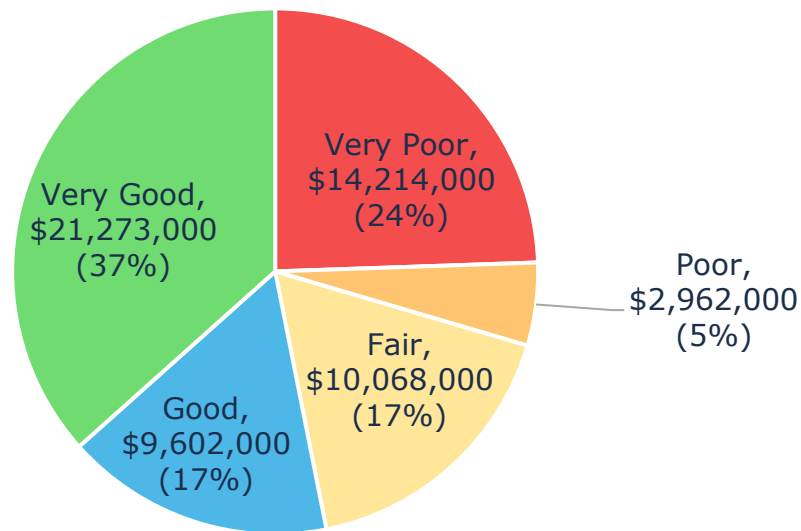


Figure 25 Asset Condition: Water Network Overall

As illustrated in Figure 26, based on condition assessments and age-based conditions, the majority of the Municipality's water mains is in very good condition; however, 98% of water tower assets are in poor or worse condition.

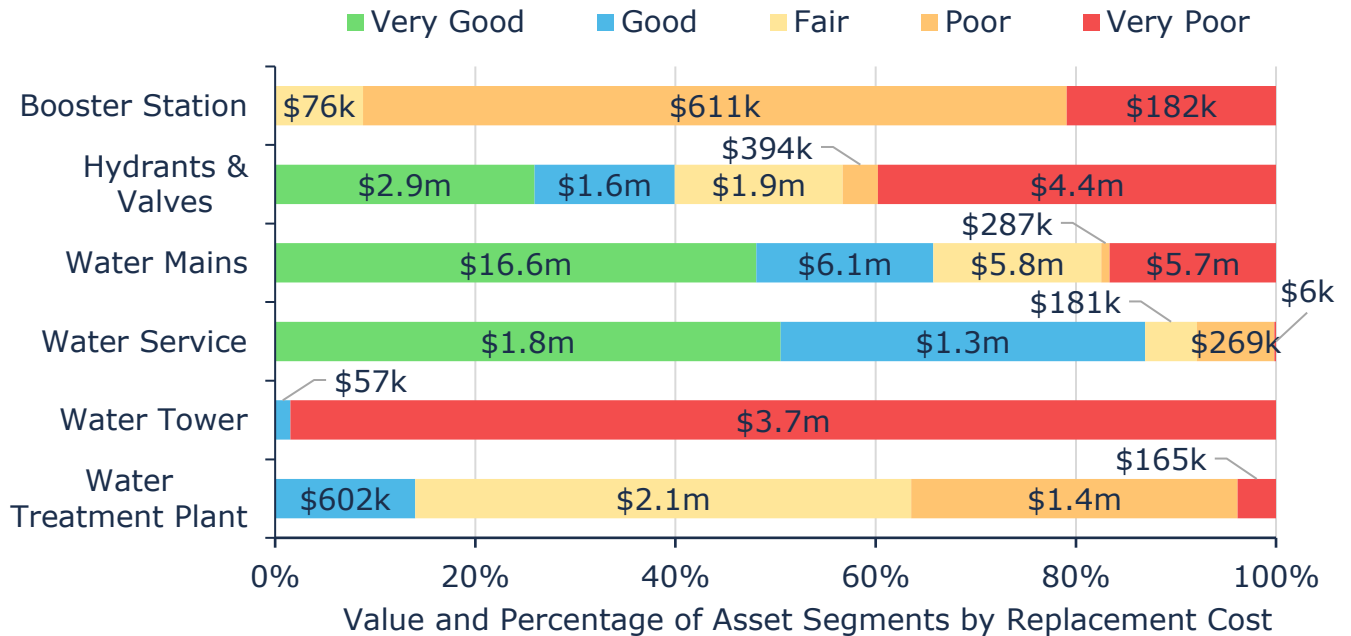


Figure 26 Asset Condition: Water Network by Segment

6.3 Age Profile

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

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

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

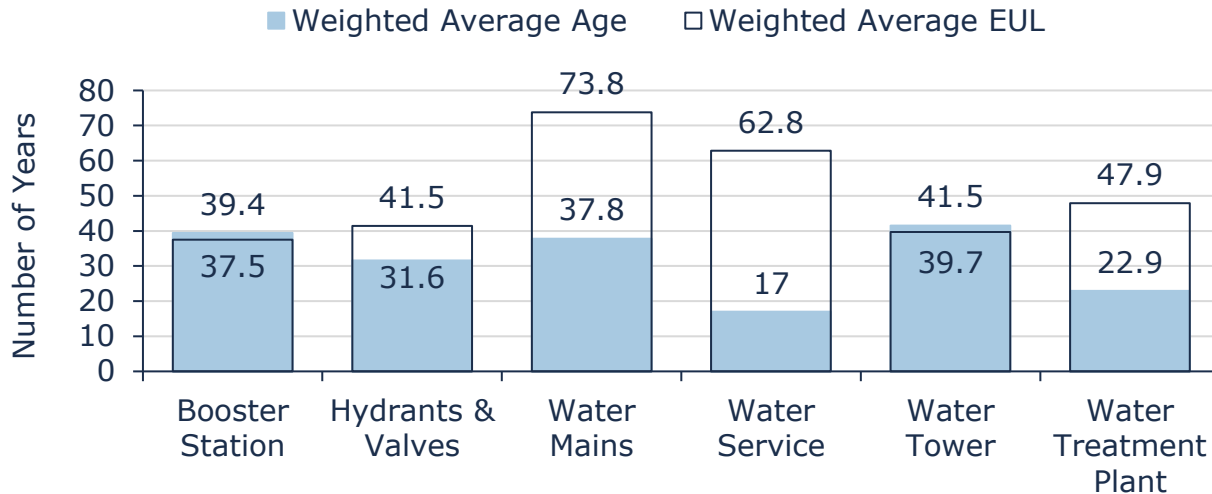


Figure 27 Estimated Useful Life vs. Asset Age: Water Network

6.4 Current Approach to Lifecycle Management

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

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

Activity Type	Description of Current Strategy
Maintenance	NWI conducts distribution system flushing and routine hydrant maintenance on a semi-annual to annual basis. At this time, any major deficiencies are identified.
	On an annual basis valve turning is completed for the entire network.
	In an effort to prepare for and mitigate unplanned maintenance events at the Water Treatment plant the following measures are in place: equipment interchangeability and redundancy, spare parts inventories, and the availability of relevant operations and maintenance manuals.
	After a watermain break, NWI monitors flow rates to ensure the issue has been fully resolved.

Activity Type	Description of Current Strategy
Rehabilitation	<p>Rehabilitation of distribution network assets does not occur currently.</p> <hr/> <p>NWI’s annual review of booster stations and water treatment plants may result in recommendations for asset rehabilitation. NWI provides these recommendations to the Municipality for their review and approval.</p>
Replacement	<p>In the absence of mid-lifecycle rehabilitative events, water mains are maintained with the goal of full replacement once it reaches its end-of-life.</p> <hr/> <p>Replacement activities for the distribution network are identified based on an analysis of condition, as well as the assets’ location and coordination with the replacement of other asset systems.</p> <hr/> <p>Annually, NWI evaluates overall infrastructure adequacy and provision which includes the identification of deficiencies and the application of recommendations to address those deficiencies. This review is the main input to the annual capital budgets prepared by NWI for consideration and approval by the Municipality of Sioux Lookout.</p>
Inspection	<p>Staff primarily rely on the age and material of water mains to determine the projected condition of water mains.</p> <hr/> <p>Where a pipe is excavated, staff informally collect and document condition information.</p> <hr/> <p>NWI inspects booster stations bi-annually and the water treatment plant annually.</p> <hr/> <p>In late 2020 third-party conducted Building Condition Assessments were completed on the Water facilities (excluding equipment). Based on Uniformat II, buildings were componentized and assigned assessed condition ratings based on a 1-5 scale.</p>

Table 20 Lifecycle Management Strategy: Water Network

6.5 Forecasted Long-Term Replacement Needs

Figure 28 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Municipality’s water network. This analysis was run until 2110 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Municipality’s primary asset management system and asset register. The Municipality’s average annual requirements (red dotted line) total \$1.2 million for all assets in the water network. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

The chart illustrates substantial capital needs throughout the forecast period. It also shows a backlog of \$13.6 million, dominated by water mains. These projections are based on asset replacement costs, age analysis, and condition data when available. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

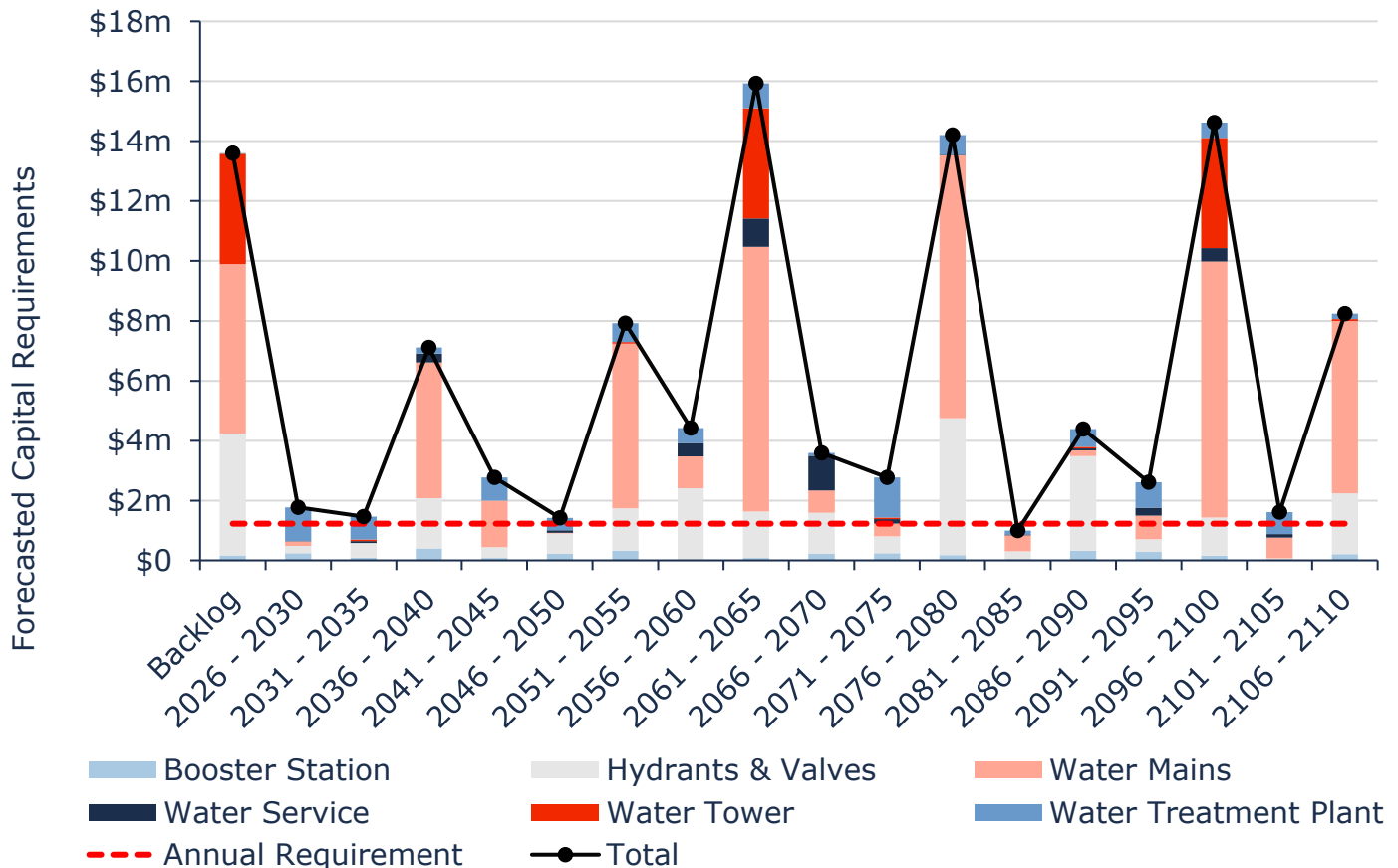


Figure 28 Forecasted Capital Replacement Needs: Water Network 2026-2110

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

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

6.6 Risk Analysis

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

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

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

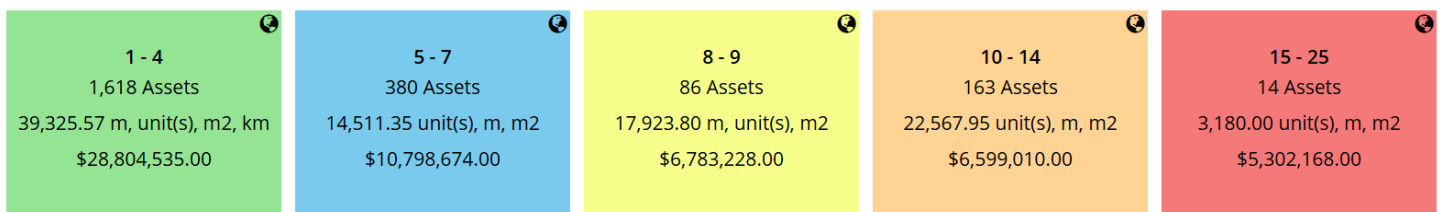


Figure 29 Risk Matrix: Water Network

6.7 Levels of Service

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

6.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2025)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system	The Municipal water system services the settlement areas of Sioux Lookout and Hudson and provides water to a variety of users including residential, commercial, and light industrial. See Appendix C
	Description, which may include maps, of the user groups or areas of the municipality that have fire flow	At this time, it is assumed that where there are water services there is sufficient fire flow. Please refer to Appendix C for a map of watermains.
Reliability	Description of boil water advisories and service interruptions	The Municipality experienced no boil water advisories in 2025. However, water service interruptions may occur due to main breaks, maintenance activities or reconstruction projects. Staff attend to these interruptions in a timely manner, when possible.

Table 21 O. Reg. 588/17 Community Levels of Service: Water Network

6.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2025)
Scope	% of properties connected to the municipal water system	62%
	% of properties where fire flow is available	62% ³
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	0.24%

Table 22 O. Reg. 588/17 Technical Levels of Service: Water Network

³ Figure assumes that any properties connected to municipal water have adequate fire flow. Currently, there are no fire flow studies.

7. Wastewater Network

Wastewater services provided by the Municipality are overseen by the Public Works department in conjunction with NWI. Together, the Municipality and NWI manage and operate wastewater treatment (including one communal septic field) and collection assets.

The wastewater network is comprised of sanitary collection (force mains, sewers, pumping stations) and treatment assets alongside assets that support the maintenance and operation of the system (chambers, manholes). These can be described as follows:

- Chambers: Used to inspect the collection system. Typically, smaller than manholes.
- Manholes: vertical access shaft from the ground surface used to inspect, clean, and repair the sewer.
- Force mains and Valves: Pressurized sewer pipe used to convey wastewater.
- Sewers: convey wastewater from properties to the treatment plant through gravity conveyance.
- Fleet: Vacuum truck, sewer flusher, and dump trailer used for wastewater purposes.
- Wastewater Treatment Plant: A building containing a variety of machinery and equipment used to treat wastewater through preliminary, primary, secondary, and tertiary treatment.

7.1 Inventory & Valuation

Table 23 summarizes the quantity and current replacement cost of the Municipality's various Wastewater network assets as managed in its primary asset management register, Citywide Assets.

Segment	Quantity (# of components)	Unit of Measure	Replacement Cost	Primary RC Method
Chambers & Valves	4	Quantity	\$77,000	CPI
Manholes	566	Quantity	\$5,953,000	Cost/Unit
Pumping Stations	10	Quantity	\$599,000	CPI

Segment	Quantity (# of components)	Unit of Measure	Replacement Cost	Primary RC Method
Sanitary Force mains & Valves	12,657	Length (m)	\$5,560,000	CPI
Wastewaters	47,506	Length (m)	\$24,874,000	CPI
Wastewater Treatment Plant	1 (55)	Quantity	\$7,468,000	CPI
TOTAL			\$44,531,000	

Table 23 Detailed Asset Inventory: Wastewater Network

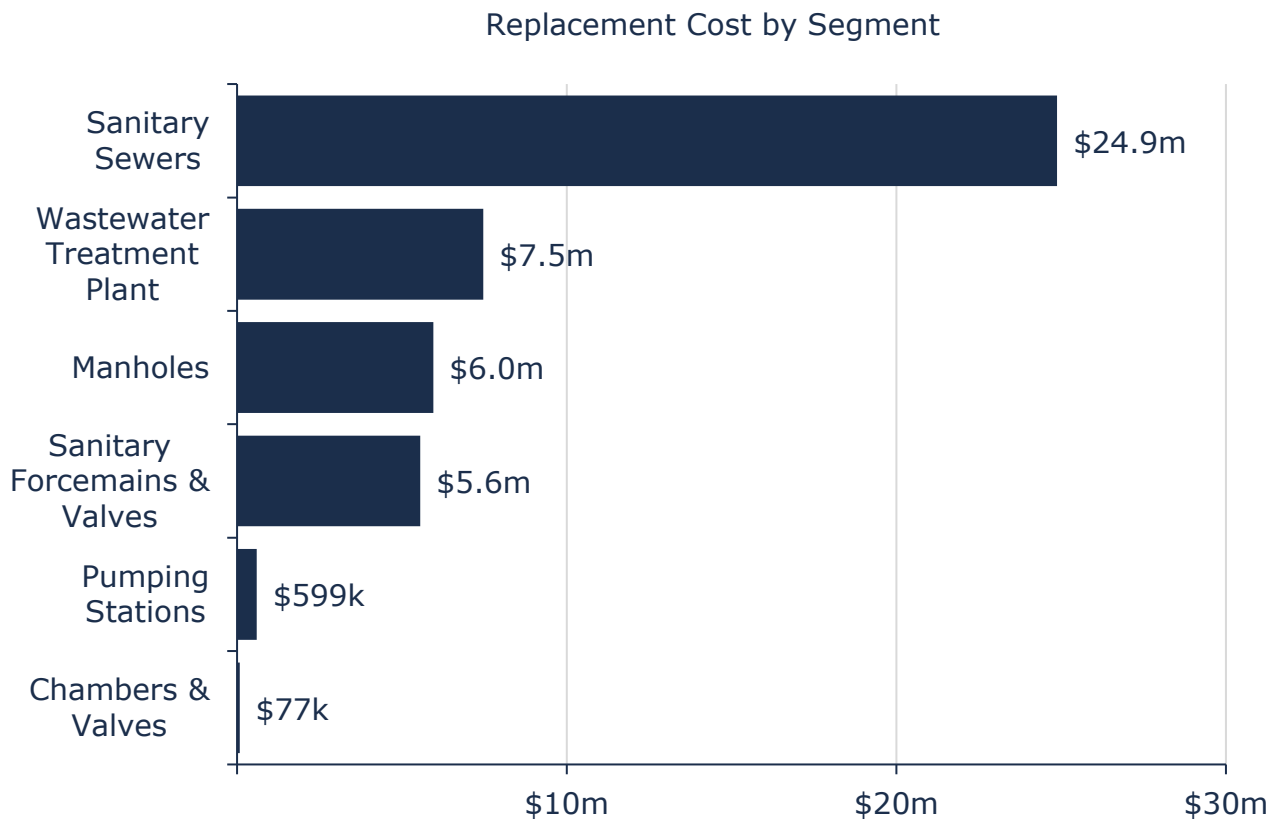


Figure 30 Portfolio Valuation: Wastewater Network

7.2 Asset Condition

Figure 31 summarizes the replacement cost-weighted condition of the Municipality's Wastewater network. Based on a combination of field inspection data and age, 59% of assets are in fair or better condition; the remaining 41% of assets are in poor to very poor condition. Condition assessments were available for 100% of pumping stations, and 45% of wastewater treatment plant assets, based on replacement cost. This condition data was projected from inspection date to current year to estimate their condition today.

Assets in poor or worse condition may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition. As illustrated in Figure 31 the majority of the Municipality's wastewater network assets are in fair or better condition.

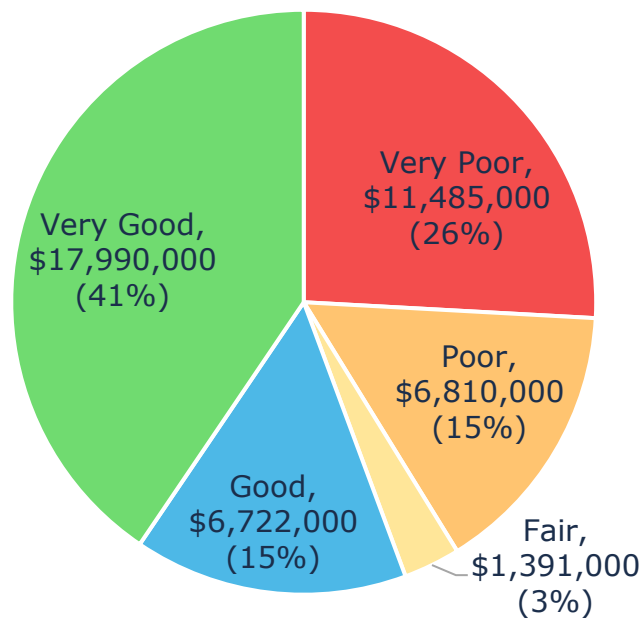


Figure 31 Asset Condition: Wastewater Network Overall

As illustrated in Figure 32, based on condition assessments and age-based conditions, the majority of the Municipality's sanitary forcemains and sewers are in fair or better condition however, 79% of wastewater treatment plant assets are in poor or worse condition.

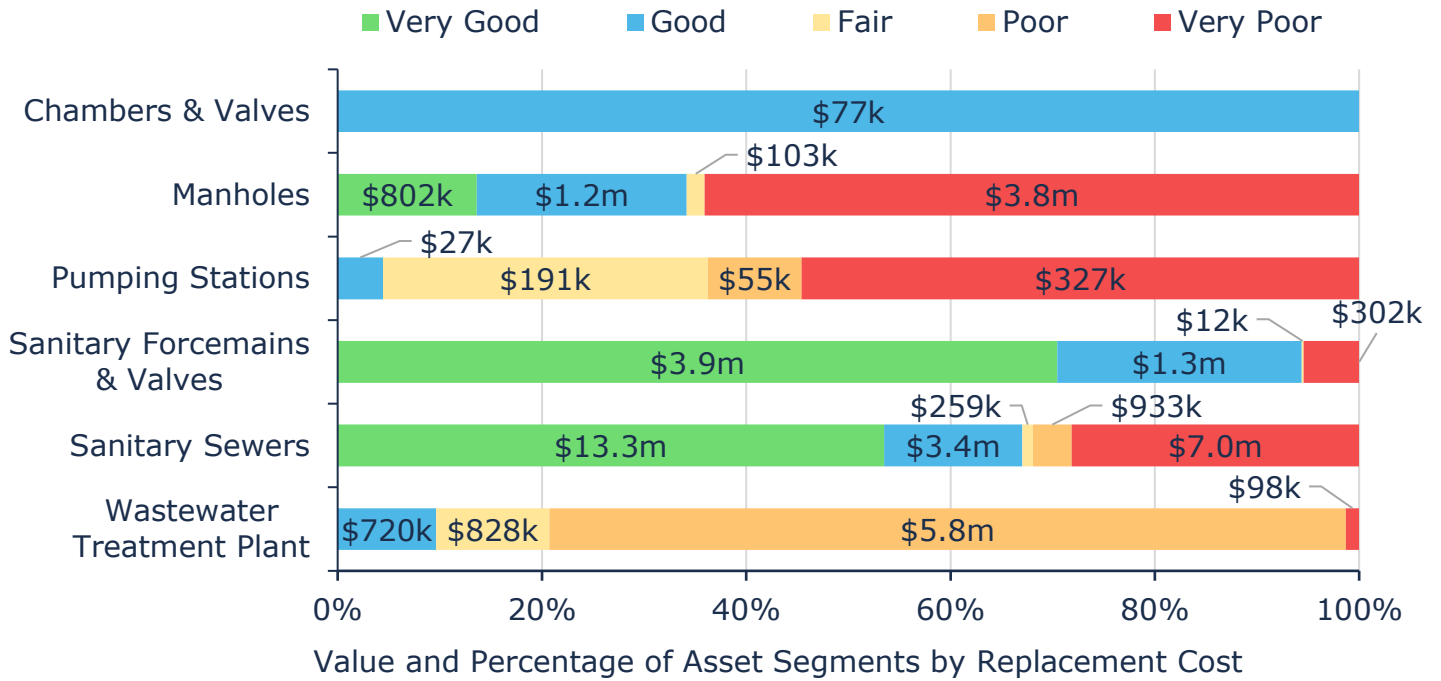


Figure 32 Asset Condition: Wastewater Network by Segment

7.3 Age Profile

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

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

Figure 33 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

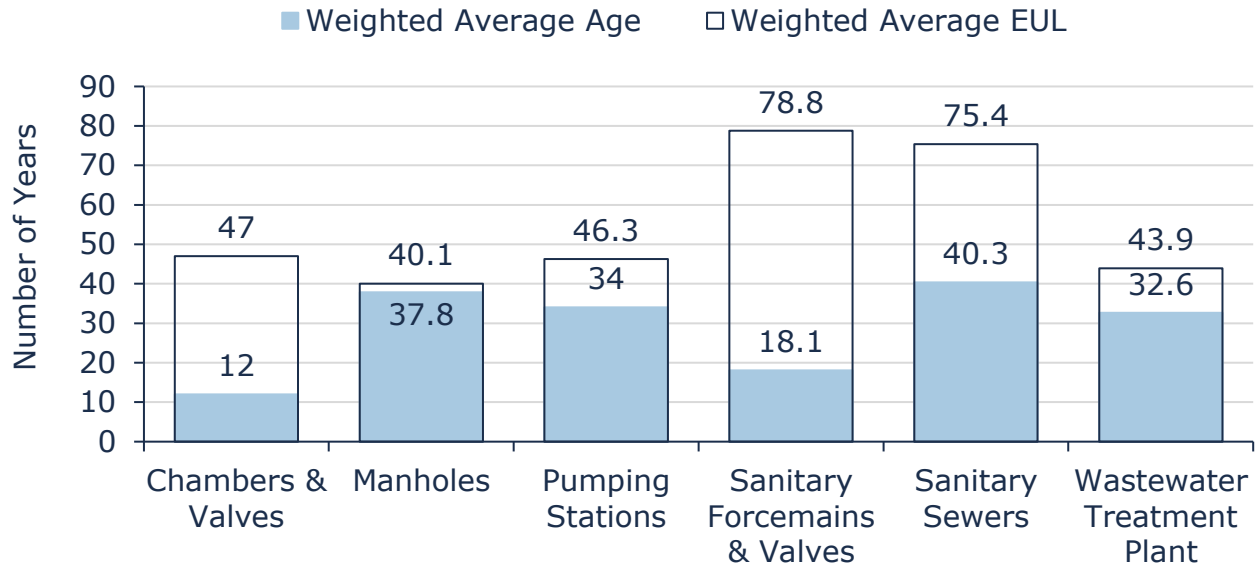


Figure 33 Estimated Useful Life vs. Asset Age: Wastewater Network

7.4 Current Approach to Lifecycle Management

The condition or performance of most assets will deteriorate over time. This process is affected by a range of factors including an asset’s characteristics, location, utilization, maintenance history and environment. The table below outlines the Municipality’s current maintenance, rehabilitation, replacement and inspections strategies for the wastewater network.

Activity Type	Description of Current Strategy
Maintenance & Inspection	Annually, the entire network is flushed. Problematic areas are flushed quarterly.
	CCTV inspections were complete between 2013 and 2020. Going forward there are tentative plans to conduct subsequent inspections where issues have been previously identified.
Rehabilitation	Staff are investigating trenchless relining as a rehabilitation strategy for select wastewater linear assets that are in unique locations (i.e., extend underneath rail lines) which would pose significant challenges for full replacement.

Activity Type	Description of Current Strategy
	Apart from uniquely located mains, most mains maintained with the goal of full replacement once it reaches its end-of-life.
Replacement	Replacement activities for the distribution network assets consider the assets condition, number of backups, location, and coordination with other infrastructure projects (i.e., water main replacements).
	Annually, NWI evaluates overall infrastructure adequacy and provision which includes the identification of deficiencies and the application of recommendations to address those deficiencies. This review is the main input to the annual capital budgets prepared by NWI for consideration and approval by the Municipality of Sioux Lookout.

Table 24 Lifecycle Management Strategy: Wastewater Network

7.5 Forecasted Long-Term Replacement Needs

Figure 34 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Municipality’s Wastewater network. This analysis was run until 2120 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Municipality’s primary asset management system and asset register. The Municipality’s average annual requirements (red dotted line) total \$896,000 for all assets in the wastewater network. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

The chart illustrates substantial capital needs throughout the forecast period. It also shows a backlog of \$10.5 million split between manholes and sanitary sewers. These projections are based on asset replacement costs, age analysis, and condition data when available. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

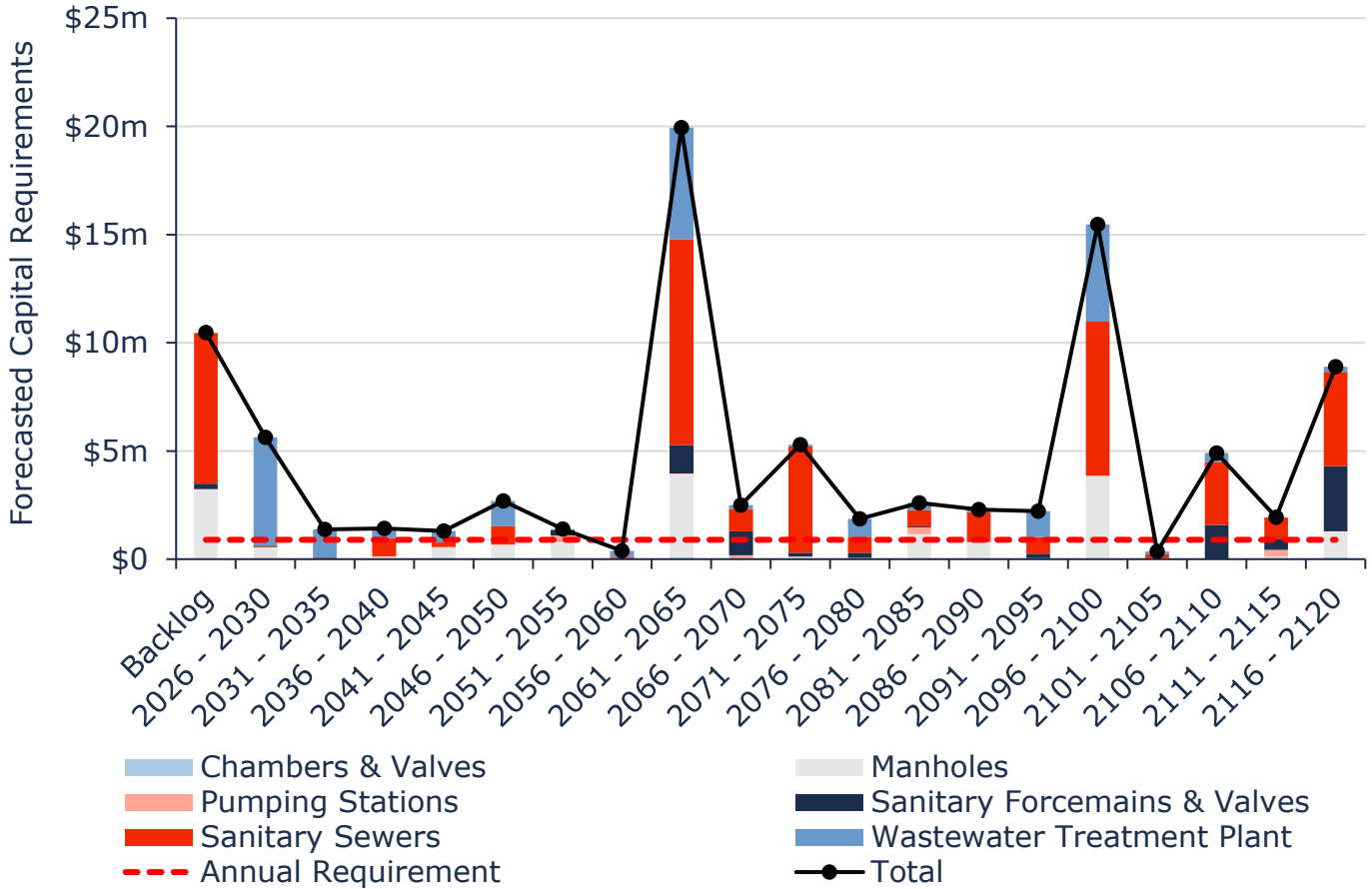


Figure 34 Forecasted Capital Replacement Needs: Wastewater Network 2026-2120

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

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

7.6 Risk Analysis

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

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

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

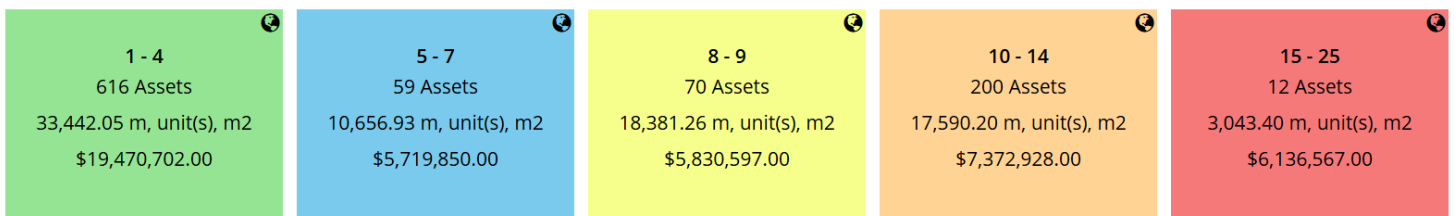


Figure 35 Risk Matrix: Wastewater Network

7.7 Levels of Service

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

7.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2025)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal wastewater system	The Municipal wastewater system services the settlement area of Sioux Lookout. A variety of users, including residential, commercial, and light industrial, are connected to the wastewater network. See Appendix C.

Service Attribute	Qualitative Description	Current LOS (2025)
	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 Municipality 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 Municipality does not own any combined sewers
Reliability	Description of how stormwater can get into Wastewaters in the municipal wastewater system, causing sewage to overflow into streets or backup into homes	Storm water can get into sanitary sewers because of illegal drains connected to the sanitary system, and infiltration related to aging and damaged infrastructure. In the case of heavy rainfall events, sanitary sewers may experience a volume of water that exceeds its designed capacity. The use of sump pumps and pits directing storm water to the storm drain system can help to reduce the chance of backups occurring.
	Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to stormwater infiltration	The municipality follows a series of design standards that integrate servicing requirements and land use considerations when constructing or replacing Wastewaters. These standards have been determined with consideration of the minimization of sewage overflows and backups.

Service Attribute	Qualitative Description	Current LOS (2025)
	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. Approximately 795,000 m ³ of influent was treated in 2020; the resultant effluent was within all compliance limit parameters except for pH.

Table 25 O. Reg. 588/17 Community Levels of Service: Wastewater Network

7.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2025)
Scope	% of properties connected to the municipal wastewater system	54%
Reliability	# of events per year where combined sewer flow in the municipal wastewater system exceeds system capacity compared to the total number of properties connected to the municipal wastewater system	N/A
	# of connection-days per year having wastewater backups compared to the total number of properties connected to the municipal wastewater system	0

Service Attribute	Technical Metric	Current LOS (2025)
	# of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system	0.002
Performance	Capital re-investment rate	0.24%

Table 26 O. Reg. 588/17 Technical Levels of Service: Wastewater Network

8. Stormwater Network

The Municipality owns and maintains a stormwater network which contains storm sewer mains, catch basins and manholes.

Stormwater assets enable the collection and distribution of stormwater in developed areas with less natural capacity to absorb runoff. In this AMP, stormwater segments can be generally described as follows:

- Catch Basins: Collect stormwater and provide pre-treatment through removal of sediment and large debris.
- Manholes: Provide access to the storm mains and catch basins.
- Storm Mains: Used to distribute stormwater collected from roads and streets to the discharge area (i.e., river).

8.1 Inventory & Valuation

Table 27 summarizes the quantity and current replacement cost of all stormwater management assets available in the Municipality’s asset register.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Catch Basins	507	Quantity	\$2,356,000	Cost/Unit
Manholes	241	Quantity	\$2,719,000	Cost/Unit
Storm Mains	28,220	Length (m)	\$16,667,000	Cost/Unit
TOTAL			\$21,742,000	

Table 27 Detailed Asset Inventory: Stormwater Network

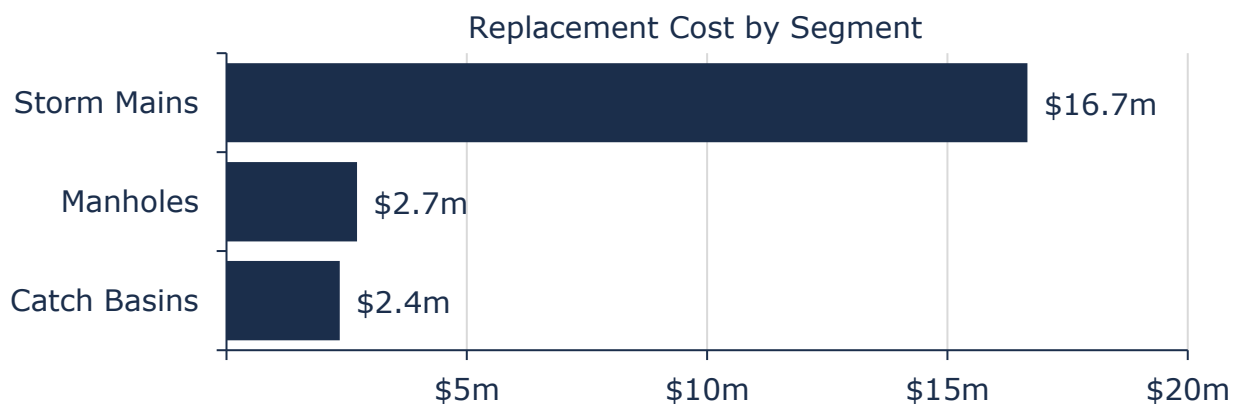


Figure 36 Portfolio Valuation: Stormwater Network

8.2 Asset Condition

Figure 37 summarizes the replacement cost-weighted condition of the Municipality’s stormwater management assets. Based on age data only, approximately 46% of assets are in poor to very poor condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

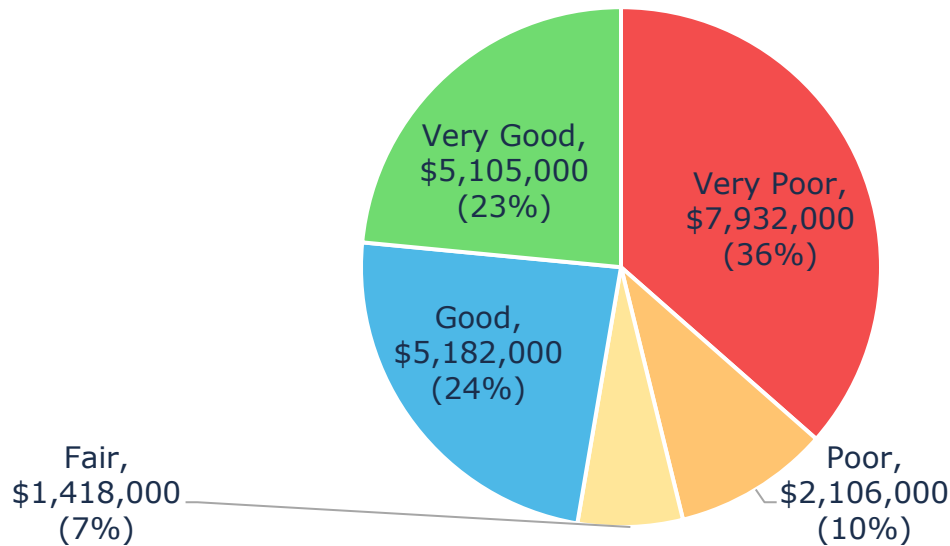


Figure 37 Asset Condition: Stormwater Network Overall

Figure 38 summarizes the age-based condition of stormwater assets. The analysis illustrates that the majority of stormwater mains are in fair or better condition. However, 44% of mains, with a current replacement cost of \$7,319,000, are in poor or worse condition.

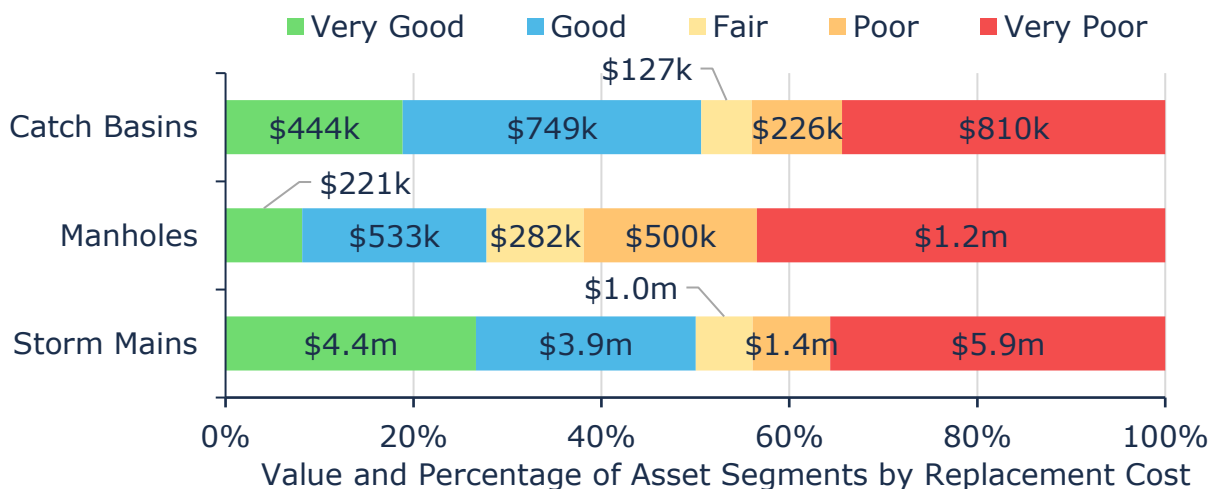


Figure 38 Asset Condition: Stormwater Network by Segment

8.3 Age Profile

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

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

Figure 39 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

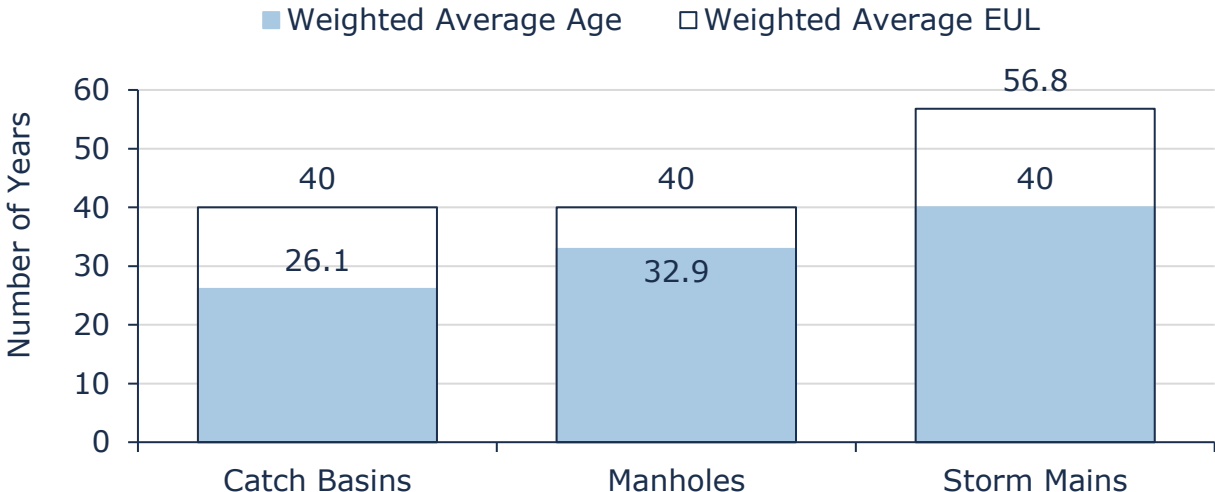


Figure 39 Estimated Useful Life vs. Asset Age: Stormwater Network

8.4 Current Approach to Lifecycle Management

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

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

Activity Type	Description of Current Strategy
Maintenance & Inspection	All catch basins and manholes are inspected annually.
	All catch basins and manholes receive annual vacuuming.
	Based on findings from annual manhole and catch basin inspections and as otherwise needed, Storm mains are flushed.
	In 2021 CCTV inspections were completed for the entire network. This information will be used to drive forward rehabilitation and replacement plans.
Replacement	Storm replacement considers the assets condition, and potential for coordinated replacement with other assets (i.e., replacement of related road).

Table 28 Lifecycle Management Strategy: Stormwater Network

8.5 Forecasted Long-Term Replacement Needs

Figure 40 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Municipality’s stormwater network assets. This analysis was run until 2120 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Municipality’s primary asset management system and asset register. The Municipality’s average annual requirements (red dotted line) total \$434,000 for all assets in the stormwater network. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

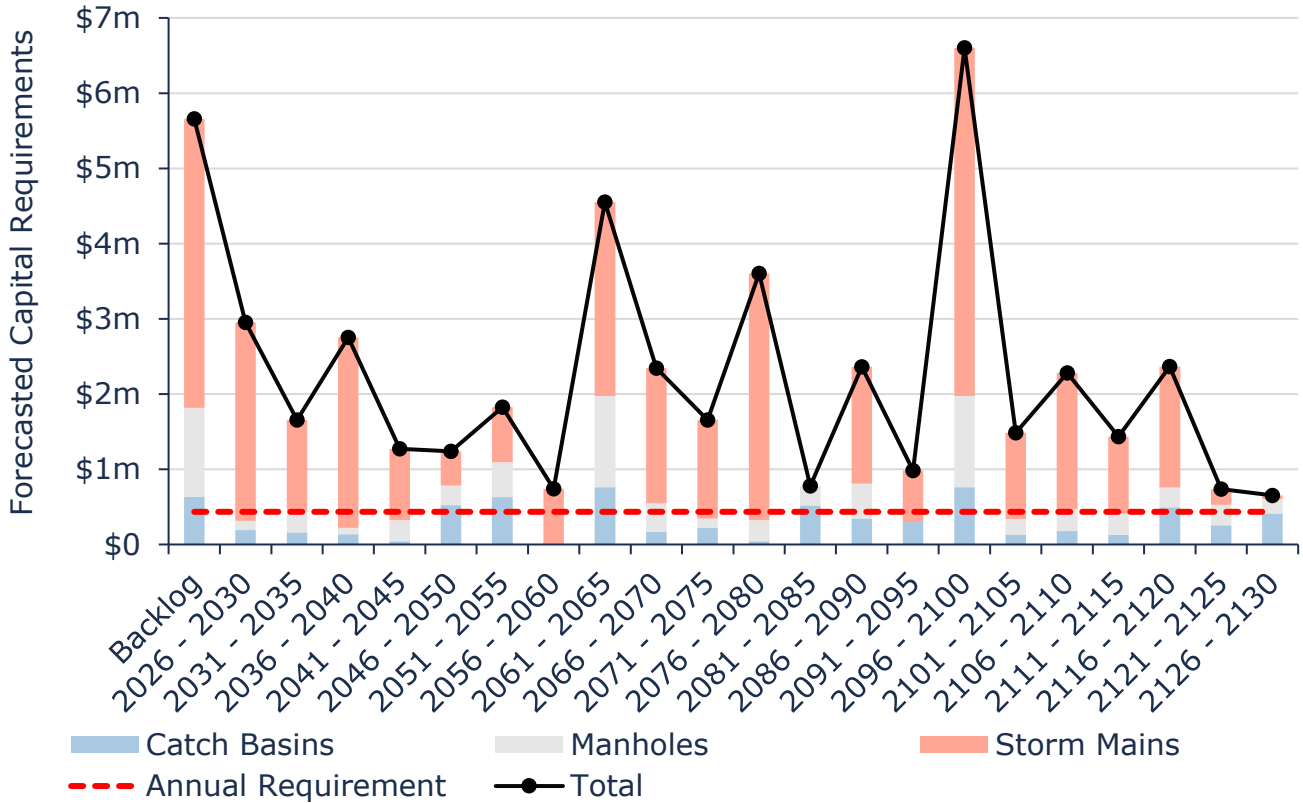


Figure 40 Forecasted Capital Replacement Needs Stormwater Network 2026-2120

The chart illustrates a backlog of \$5.7 million, split between manholes and storm mains. These projections and estimates are based on asset replacement costs and age analysis. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. Forthcoming CCTV inspections may reveal a higher backlog. The inspections may also help reduce long-term projections by providing more accurate condition data for mains than age. In addition, a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

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

8.6 Risk Analysis

The risk matrix below is generated using available asset data, including condition, pipe material, service life remaining, diameter and replacement cost.

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

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

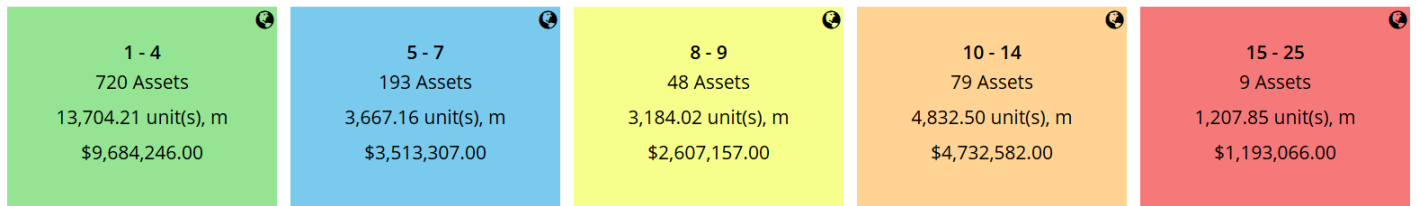


Figure 41 Risk Matrix: Stormwater Network

8.7 Levels of Service

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

8.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2025)
Scope	Description, which may include map, of the user groups or areas of the Municipality that are protected from flooding, including the extent of protection provided by the municipal storm water network	At this time, the Municipality does not have flood mapping to determine its flood resilience, including the number of properties protected. The Municipality has identified the need for more information of storm resilience and is working on a strategy to develop and collect such information.

Table 29 O. Reg. 588/17 Community Levels of Service: Stormwater Network

8.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2025)
Scope	% of properties in municipality designed to be resilient to a 100-year storm	TBD ⁴
	% of the municipal stormwater management system designed to be resilient to a 5-year storm	100% ⁵
Performance	Current capital reinvestment rate	0%

Table 30 O. Reg. 588/17 Technical Levels of Service: Stormwater Network

⁴ The Municipality does not currently have data available to determine this technical metric. The rate of properties that are expected to be resilient to a 100-year storm is expected to be low.

⁵ This is based on the observations of municipal staff.

Non-Core Assets

Buildings



Replacement Cost	Average Condition	Financial Capacity	
\$85.2 m	Poor	Annual Requirement:	\$4,017,000
		Funding Available:	\$50,000
		Annual Deficit:	\$3,967,000

Land Improvements



Replacement Cost	Average Condition	Financial Capacity	
\$5.2 m	Fair	Annual Requirement:	\$216,000
		Funding Available:	\$6,000
		Annual Deficit:	\$210,000

Fleet



Replacement Cost	Average Condition	Financial Capacity	
\$14.2 m	Poor	Annual Requirement:	\$902,000
		Funding Available:	\$260,000
		Annual Deficit:	\$642,000

Machinery & Equipment



Replacement Cost	Average Condition	Financial Capacity	
\$ 1.9 m	Poor	Annual Requirement:	\$233,000
		Funding Available:	\$19,000
		Annual Deficit:	\$214,000

Airside Network



Replacement Cost	Average Condition	Financial Capacity	
\$17.9 m	Very Poor	Annual Requirement:	\$976,000
		Funding Available:	\$442,000
		Annual Deficit:	\$534,000

9. Buildings

The Municipality’s buildings portfolio includes various buildings used to support municipal operations and provide recreational services. Includes fire halls, museums, library, recreation centers, medical center, municipal offices, and operational buildings.

9.1 Inventory & Valuation

Table 31 summarizes the quantity and current replacement cost of all buildings assets available in the Municipality’s asset register.

Segment	Quantity (# of components)	Unit of Measure	Replacement Cost	Primary RC Method
Administrative Services	2 (5)	Quantity	\$2,876,000	CPI
Environmental Services	17 (79)	Quantity	\$16,418,000	CPI
Health and Social Services	5 (31)	Quantity	\$2,984,000	CPI
Protective Services	2 (109)	Quantity	\$5,846,000	CPI
Recreation Services	13 (27)	Quantity	\$21,736,000	CPI
Transportation Services	13 (85)	Quantity	\$35,314,000	CPI
TOTAL			\$85,174,000	

Table 31 Detailed Asset Inventory: Buildings

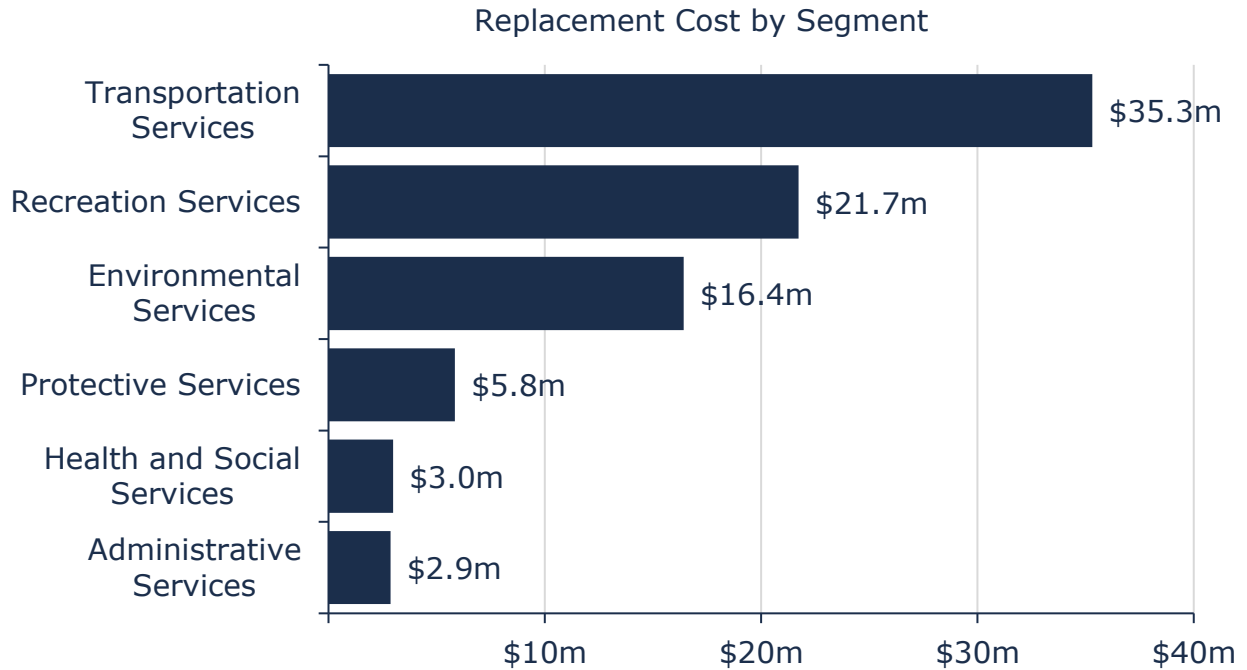


Figure 42 Portfolio Valuation: Buildings

9.2 Asset Condition

Figure 43 summarizes the replacement cost-weighted condition of the Municipality’s buildings portfolio. Based mostly on age-based data, 52% of buildings assets are in fair or better condition; however, 48%, with a current replacement cost of more than \$41 million are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

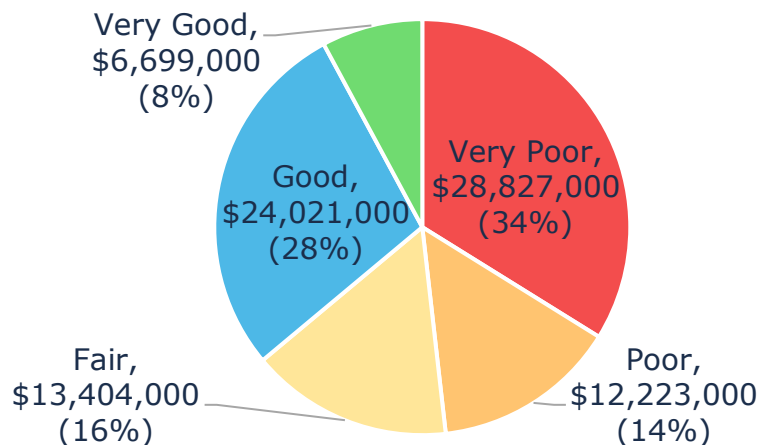


Figure 43 Asset Condition: Buildings Overall

Figure 44 summarizes the age-based condition of buildings by each department. A substantial portion of protective services assets and the majority of administrative services assets are in poor to worse condition.

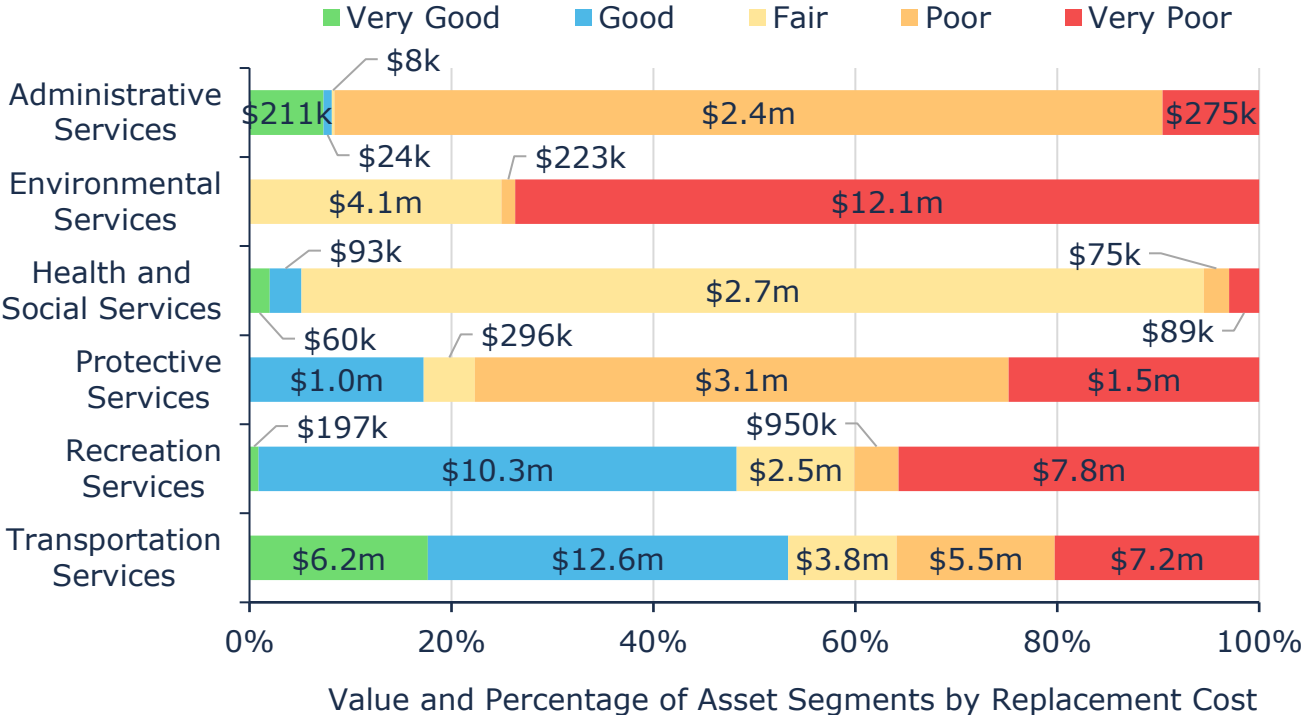


Figure 44 Asset Condition: Buildings by Segment

9.3 Age Profile

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

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

Figure 45 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

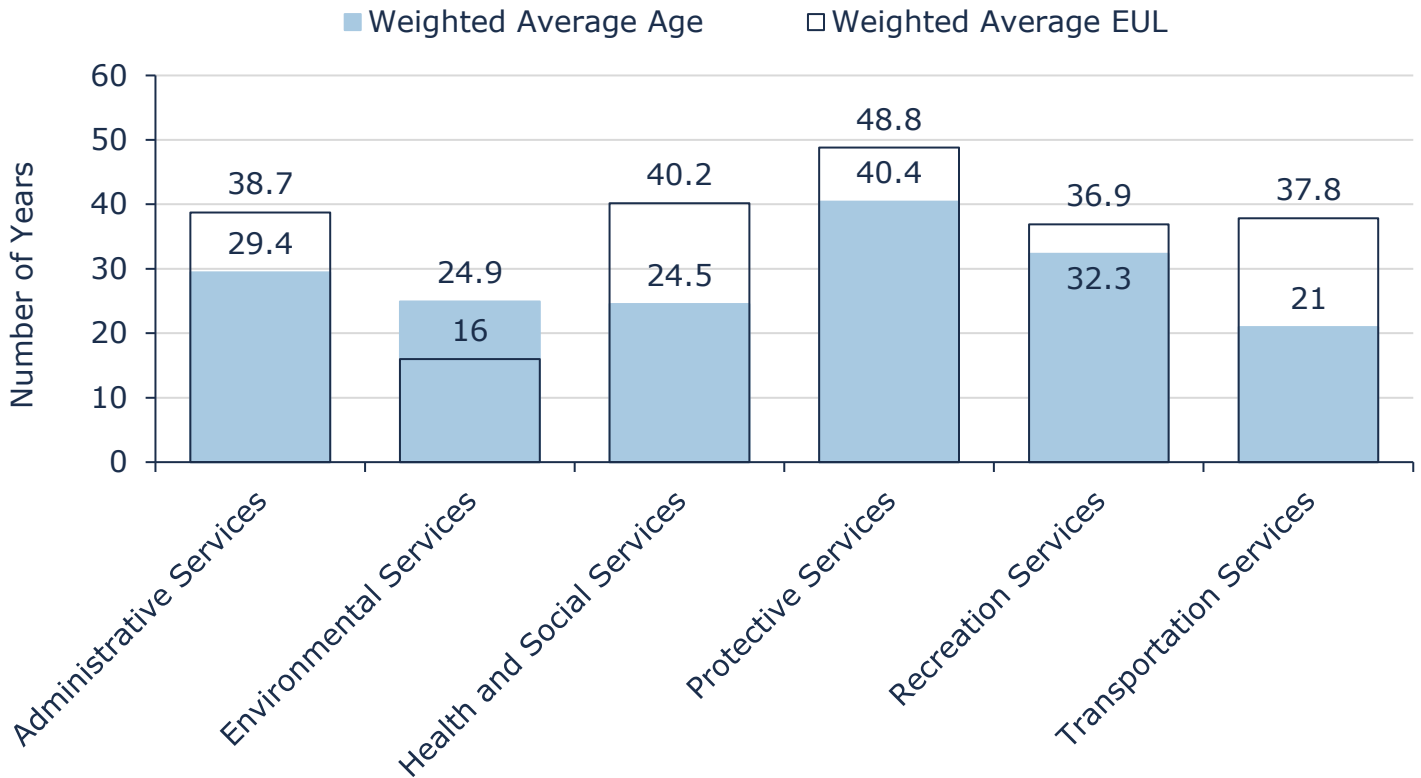


Figure 45 Estimated Useful Life vs. Asset Age: Buildings

Age analysis reveals that, on average, buildings assets have not surpassed their serviceable life. However, based on acquisition years, most environmental assets have consumed nearly 100% of their established useful life. This analysis presented only at the site level, rather than at the individual element or component level. Useful and meaningful age analysis for buildings is entirely predicated on effective componentization.

9.4 Current Approach to Lifecycle Management

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

Table 32 outlines the Municipality’s current lifecycle management strategy.

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

Table 32 Lifecycle Management Strategy: Buildings

9.5 Forecasted Long-Term Replacement Needs

Figure 46 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Municipality’s buildings portfolio. This analysis was run until 2080 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Municipality’s primary asset management system and asset register. The Municipality’s average annual requirements (red dotted line) total \$4.0 million for all buildings. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

The chart illustrates a backlog of more than \$21.7 million comprising assets that have reached the end of their useful life but still remain in operation. These projections and estimates are based on current asset records, their replacement costs, and age analysis. They are designed to provide a long-

term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

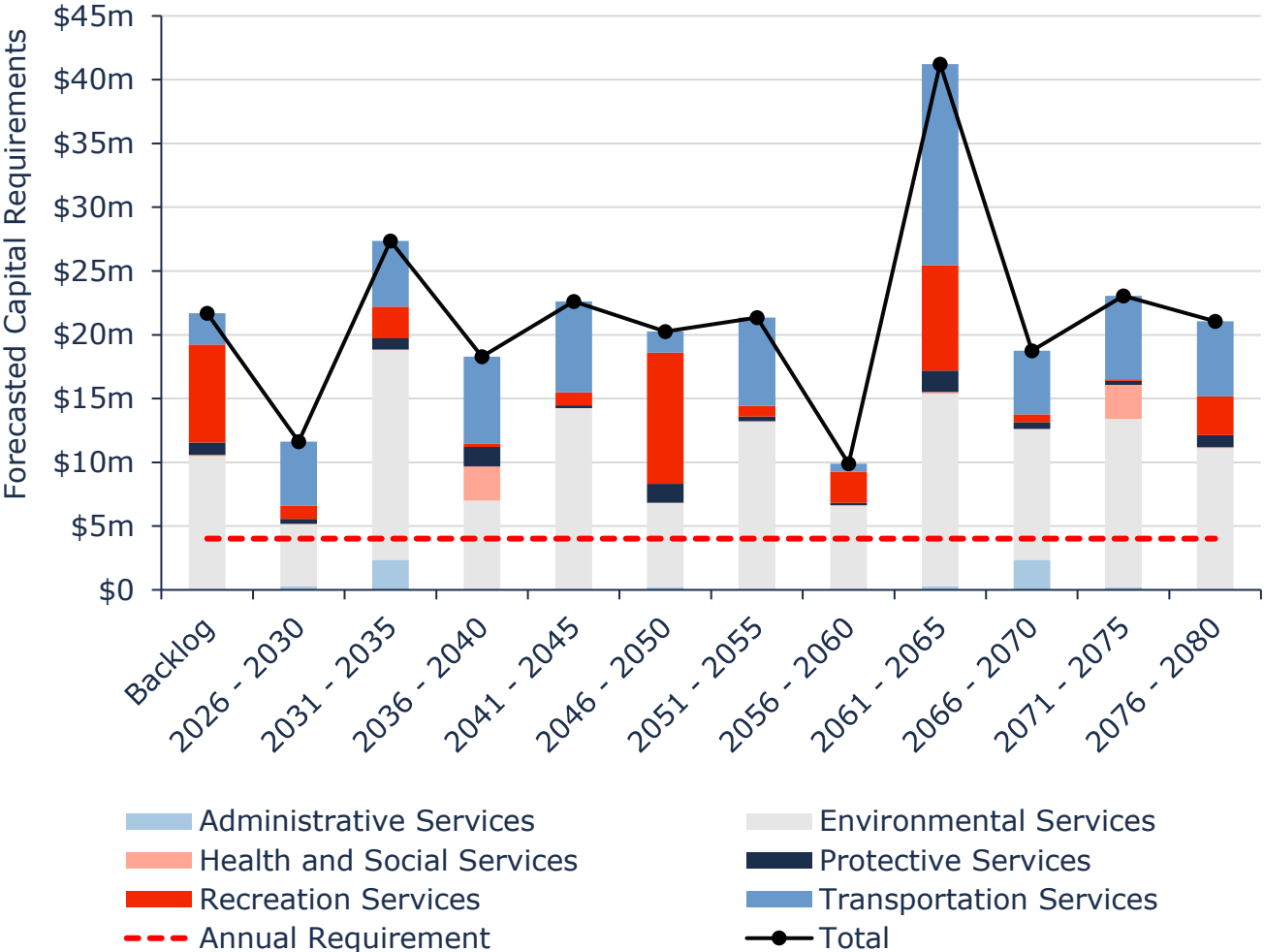


Figure 46 Forecasted Capital Replacement Needs Buildings 2026-2080

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

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

9.6 Risk Analysis

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

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

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

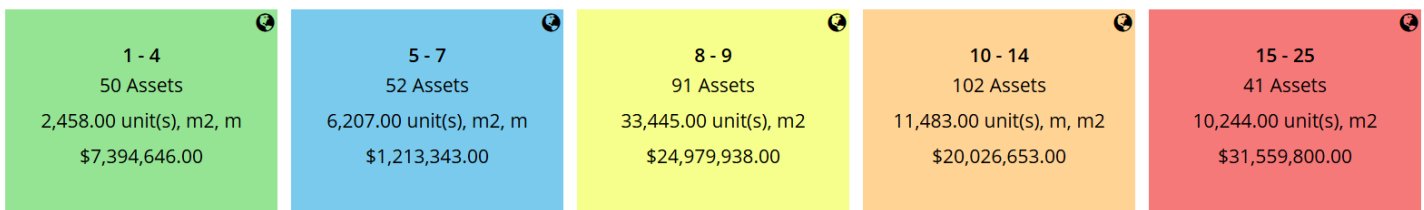


Figure 47 Risk Matrix: Buildings

9.7 Levels of Service

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

9.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2025)
Sustainability	Description of any initiatives and plans to make municipal buildings more energy efficient	The Municipality has developed an energy plan to move towards making municipal buildings more energy efficient. The plan includes transitioning to LED lighting, implementing more efficient water components (toilets, faucets, etc.), and biofuel for public works buildings.
Accessibility	List of facilities that meet accessibility standards and description of any work that has been undertaken to achieve alignment	90% of facilities in Sioux Lookout are considered accessible. The Municipality's buildings have undergone extensive renovations to ensure accessibility.

Table 33 Community Levels of Service: Buildings

9.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2025)
Quality	Average facility condition index value for facilities in the municipality	38%
Scope	% of building assets in poor or worse condition	48%
Performance	Current capital reinvestment rate	0.06%

Table 34 Technical Levels of Service: Buildings

10. Land Improvements

The Municipality’s land improvements portfolio includes a variety of assets, in most cases constructed outdoors, that support recreational activities. Assets include sports fields and courts, playgrounds, park shelters and concession stand and walkways.

10.1 Inventory & Valuation

Table 35 summarizes the quantity and current replacement cost of all land improvements assets available in the Municipality’s asset register.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Outdoor Recreation	30	Quantity	\$1,696,000	CPI
Park Fixtures	2	Quantity	\$334,000	CPI
Parking Lots	30	Quantity	\$3,003,000	CPI
Playgrounds	4	Quantity	\$139,000	CPI
TOTAL			\$5,172,000	

Table 35 Detailed Asset Inventory: Land Improvements

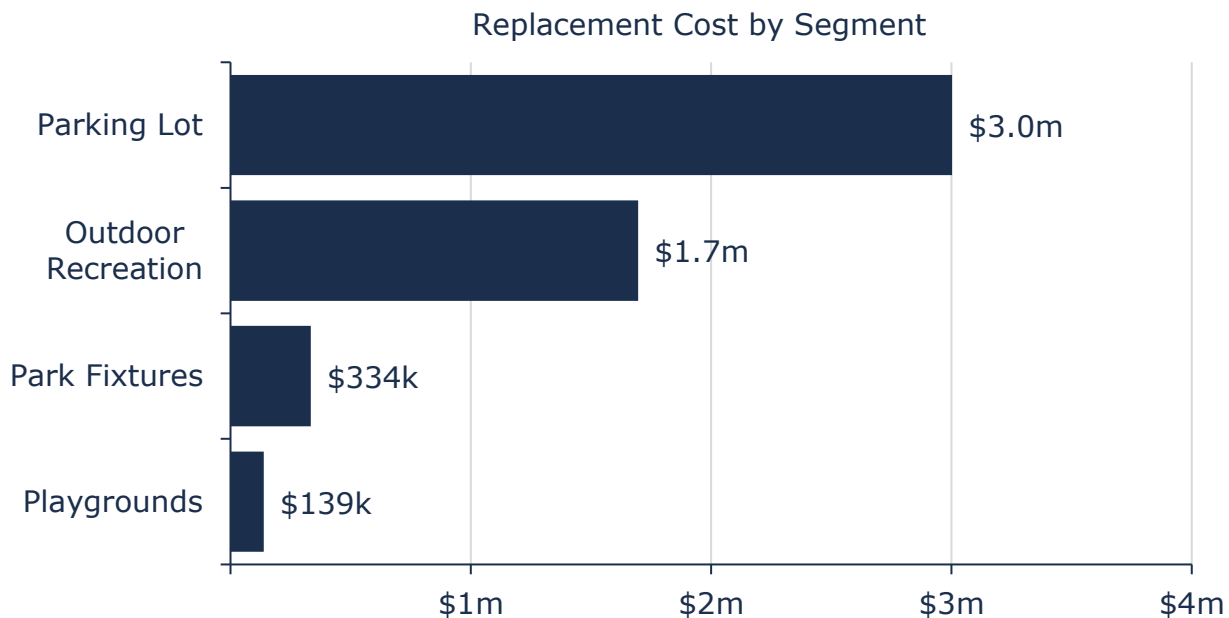


Figure 48 Portfolio Valuation: Land Improvements

10.2 Asset Condition

Figure 49 summarizes the replacement cost-weighted condition of the Municipality’s land improvement portfolio. Based mostly on age data, 61% of assets are in fair or better condition, the remaining 39% are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

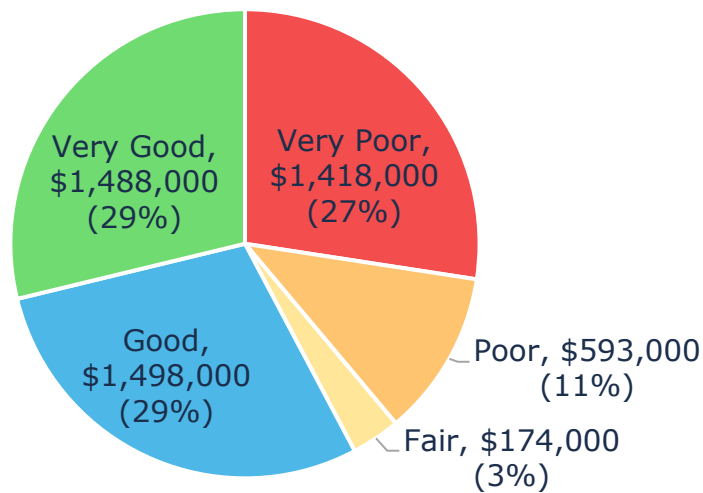


Figure 49 Asset Condition: Land Improvements Overall

Figure 50 summarizes the age-based condition of land improvements by each department. Assets in poor or worse condition are primarily concentrated in playgrounds.

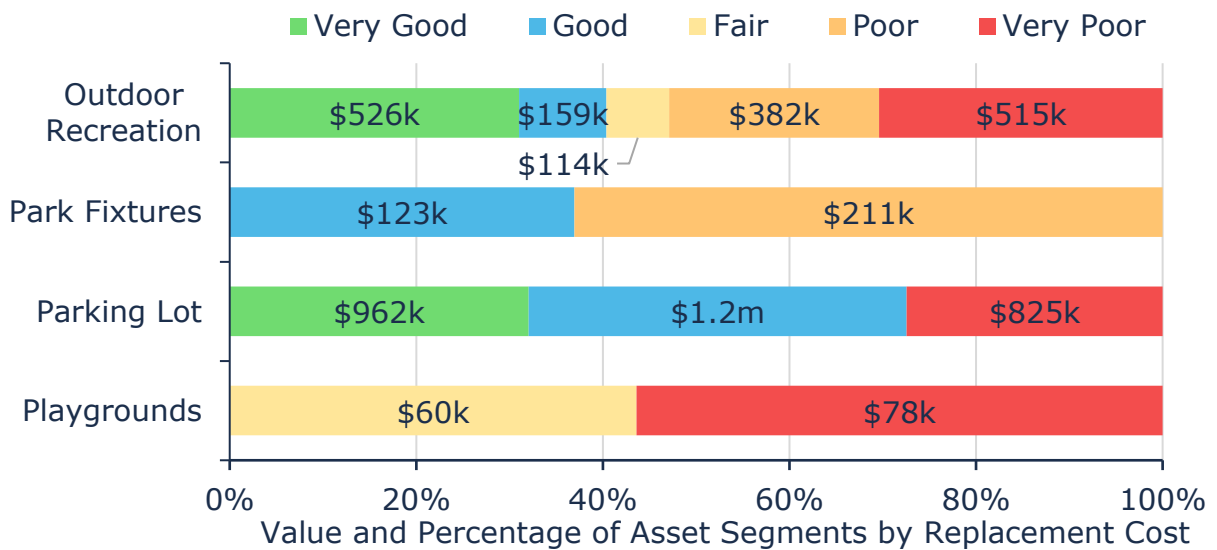


Figure 50 Asset Condition: Land Improvements by Segment

10.3 Age Profile

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

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

Figure 51 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

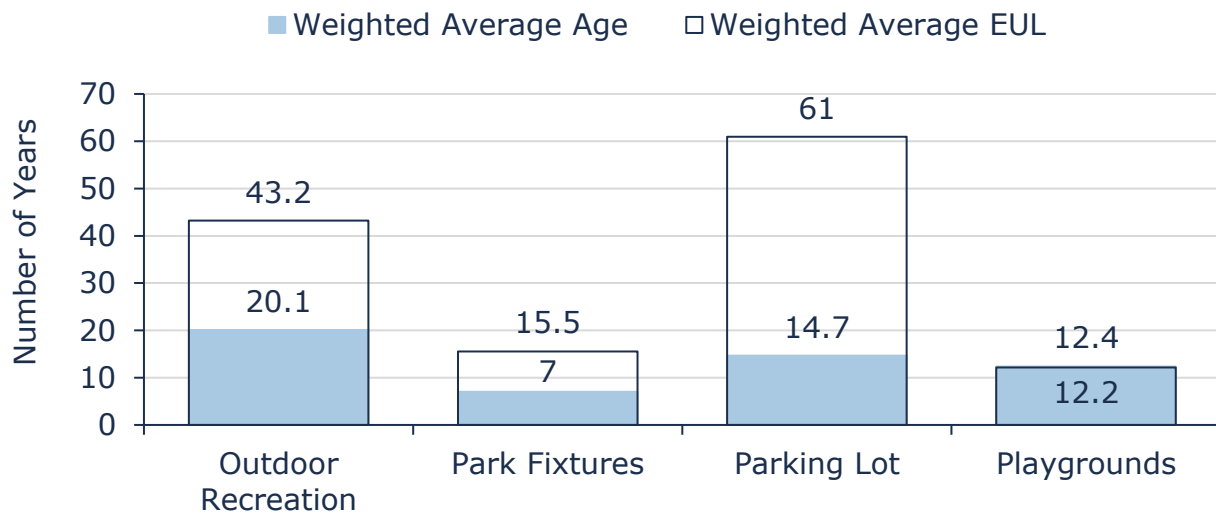


Figure 51 Estimated Useful Life vs. Asset Age: Land Improvements

10.4 Current Approach to Lifecycle Management

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

Table 36 outlines the Municipality’s current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance	Maintenance activities are completed on a reactive basis when operational issues are identified, through complaints, service requests, or inspections
Rehabilitation / Replacement	Rehabilitation and replacement occurs based on condition ratings, issue identified during regular inspections, and in tandem with established replacement schedules
Inspections	Inspections are conducted daily for parks and playgrounds to identify deficiencies or safety concerns. An external contractor assessed the land improvements in 2023

Table 36 Lifecycle Management Strategy: Land Improvements

10.5 Forecasted Long-Term Replacement Needs

Figure 52 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Municipality’s land improvements portfolio. This analysis was run until 2105 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Municipality’s primary asset management system and asset register. The Municipality’s average annual requirements (red dotted line) total \$216,000 for all land improvements. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

These projections and estimates are based on asset replacement costs and age analysis. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

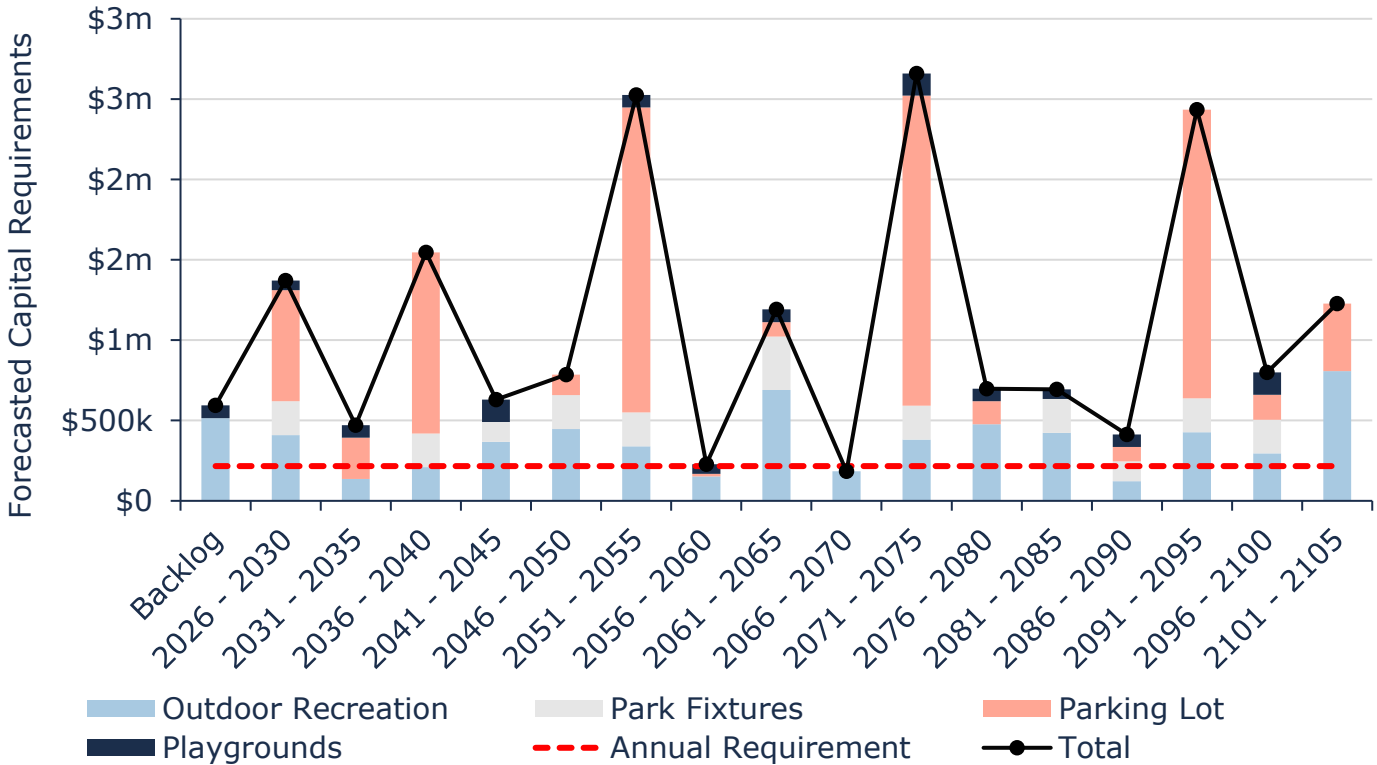


Figure 52 Forecasted Capital Replacement Needs: Land Improvements 2026-2105

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

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

10.6 Risk Analysis

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

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

information that improves confidence in the criteria used to assess asset risk and criticality.

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

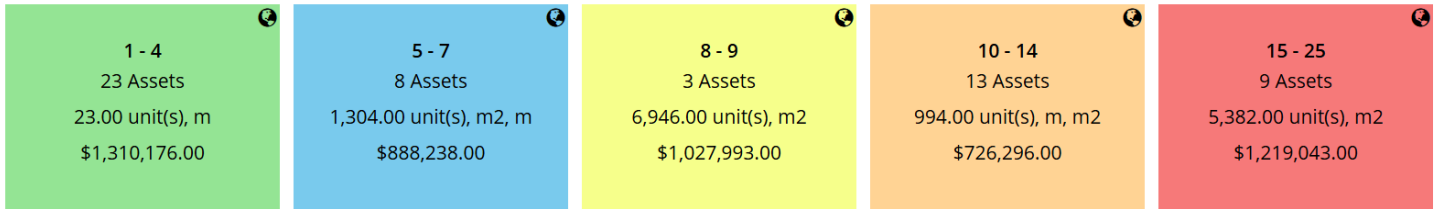


Figure 53 Risk Matrix: Land Improvements

10.7 Levels of Service

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

10.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2025)
Scope	Description, which may include maps, of the outdoor recreational facilities that the municipality operates and maintains	The Municipality operates a variety of outdoor supporting infrastructure such as parking lots, parks, and recreational infrastructure (i.e. playgrounds and sports fields).

Table 37 Community Levels of Service: Land Improvements

10.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2025)
Quality	Average condition of outdoor recreation facilities and land improvements in the municipality	52%
Performance	Current capital reinvestment rate	0.12%

Table 38 Technical Levels of Service: Land Improvements

11. Fleet

The Municipality’s vehicles portfolio includes 85 assets that support a variety of general and essential services, including public works, emergency services, the airport, and recreation. The total current replacement of vehicles is estimated at approximately \$14 million.

11.1 Inventory & Valuation

Table 39 summarizes the quantity and current replacement cost of all vehicle assets available in the Municipality’s asset register.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Airport	25	Quantity	\$3,992,000	User-Defined
Emergency Services	9	Quantity	\$2,140,000	User-Defined
Facilities	4	Quantity	\$413,000	User-Defined
Public Works	44	Quantity	\$7,275,000	User-Defined
Recreation & Culture	5	Quantity	\$418,000	User-Defined
TOTAL			\$14,237,000	

Table 39 Detailed Asset Inventory: Fleet

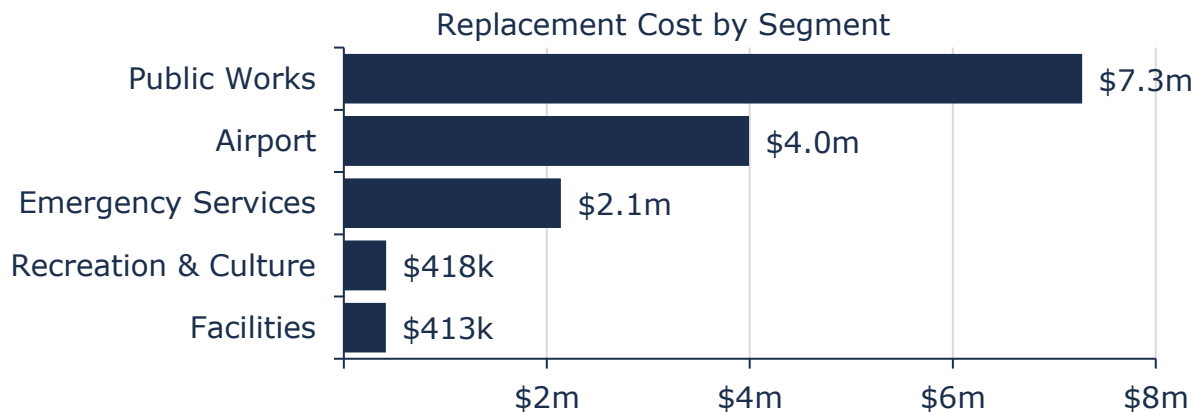


Figure 54 Portfolio Valuation: Fleet

11.2 Asset Condition

Figure 55 summarizes the replacement cost-weighted condition of the Municipality’s vehicles portfolio. Based primarily on age-based data, 41% of vehicles are in fair or better condition, with the remaining 59% are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

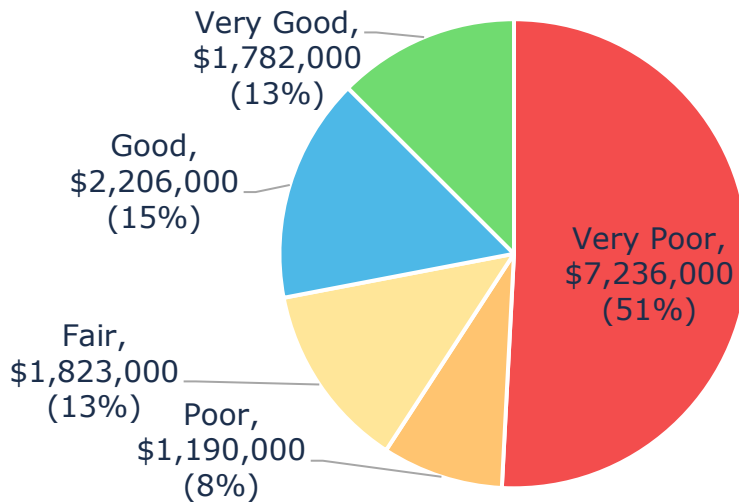
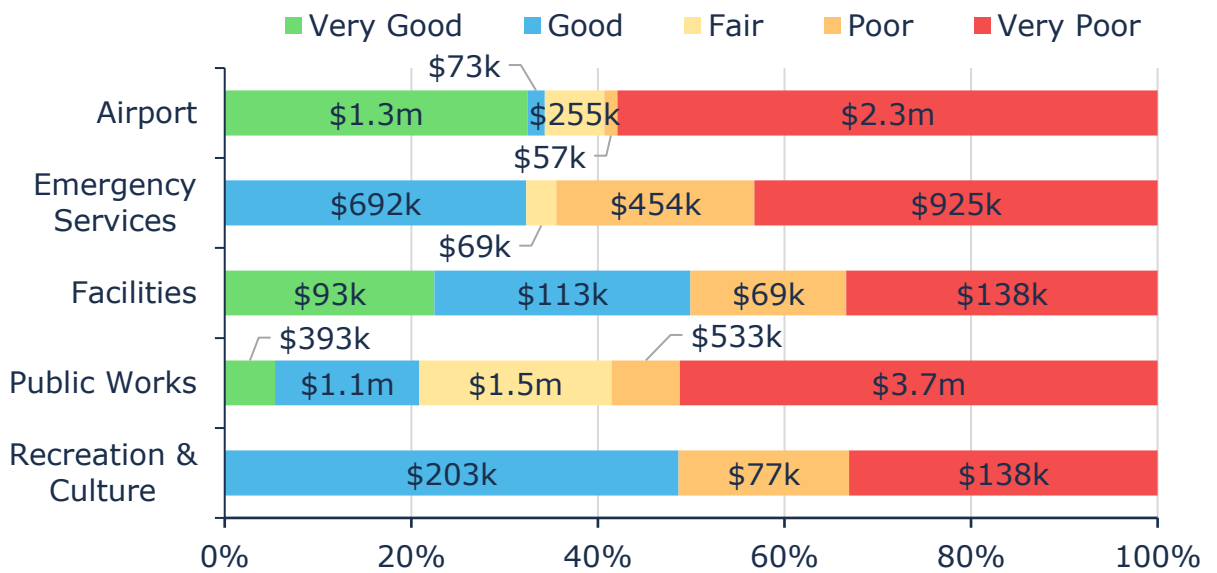


Figure 55 Asset Condition: Fleet Overall

Figure 56 summarizes the condition of vehicles by each department.



Value and Percentage of Asset Segments by Replacement Cost

Figure 56 Asset Condition: Fleet by Segment

11.3 Age Profile

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

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

Figure 57 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

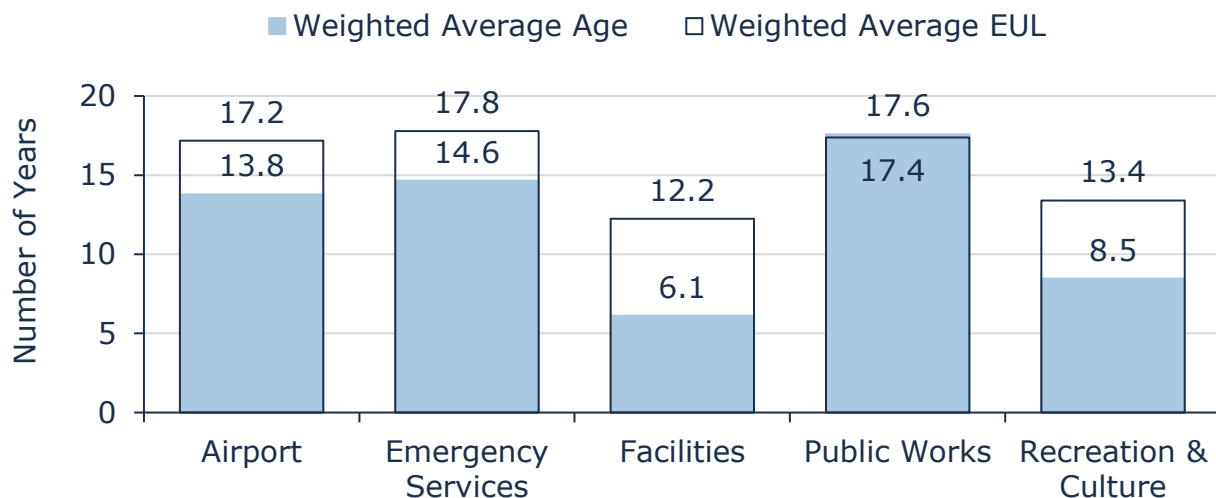


Figure 57 Estimated Useful Life vs. Asset Age: Fleet

11.4 Current Approach to Lifecycle Management

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

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

Activity Type	Description of Current Strategy
	Oil changes and routine maintenance is completed on a regular basis
Maintenance	All other maintenance activities are completed on a reactive basis when operational issues are identified (e.g., mechanical breakdown, deficiencies identified during daily inspections)
Replacement	Replacements are considered on an as-needed basis and when maintenance is no longer cost effective, as well as on a predetermined schedule for certain assets
Inspection	Vehicles are inspected by the operator daily before use, however, these inspections identify deficiencies but do not provide overall condition ratings
	External contractors assess vehicles during preventative maintenance

Table 40 Lifecycle Management Strategy: Fleet

11.5 Forecasted Long-Term Replacement Needs

Figure 58 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Municipality’s vehicles portfolio. This analysis was run until 2045 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Municipality’s primary asset management system and asset register. The Municipality’s average annual requirements (red dotted line) total \$902,000 for all vehicles. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

These projections and estimates are based on asset replacement costs and age analysis. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

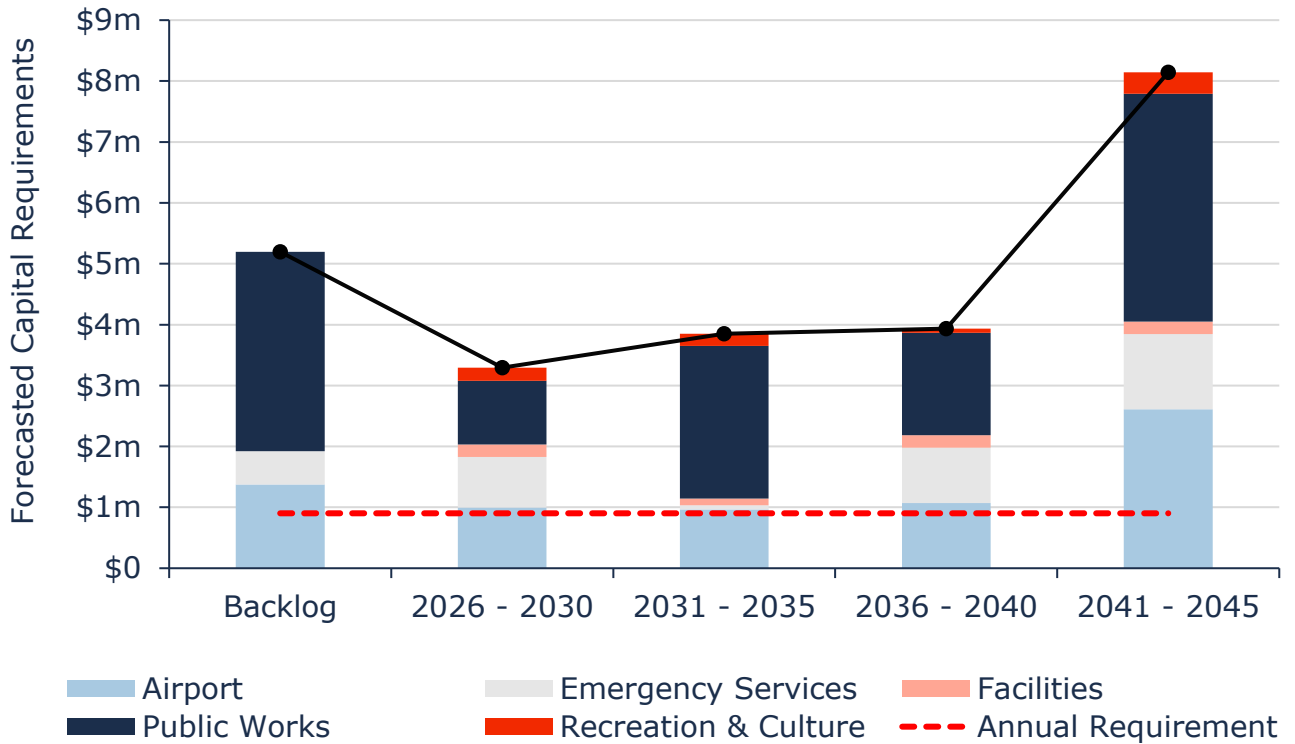


Figure 58 Forecasted Capital Replacement Needs: Vehicles 2026-2045

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

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

11.6 Risk Analysis

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

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

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

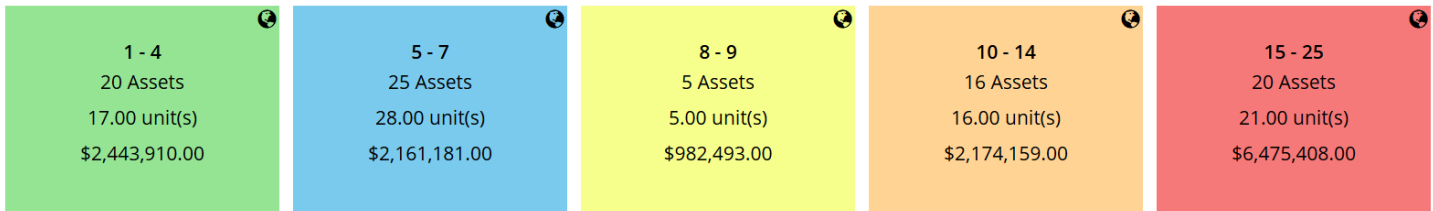


Figure 59 Risk Matrix: Fleet

11.7 Levels of Service

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

11.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2025)
Scope	Description, which may include images, of the types of vehicles (i.e. light, medium, and heavy duty) that the municipality operates and the services that they help to provide to the community	<p>Emergency services vehicles include water tankers, pumpers, service trucks, and rescue trucks, ensuring readiness for emergency response.</p> <p>Recreation vehicles include light duty pick-up trucks for services such as park maintenance.</p> <p>Public Works vehicles include light and heavy duty trucks ranging from pick-up trucks to snow plows to ensure safe road conditions and managing infrastructure during inclement weather and construction projects.</p>

Table 41 Community Levels of Service: Fleet

11.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2025)
Quality	Average condition of vehicles	32%
Performance	Current capital reinvestment rate	1.83%

Table 42 Technical Levels of Service: Fleet

12. Machinery & Equipment

The Municipality’s machinery and equipment portfolio includes a variety of assets that support a combination of general and essential services, including recreation and fire. The total current replacement of machinery & equipment is estimated at approximately \$1.8 million.

12.1 Inventory & Valuation

Table 43 summarizes the quantity and current replacement cost of all machinery & equipment assets available in the Municipality’s asset register.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Fire Equipment	124	Quantity	\$682,000	CPI
Furniture & Fixtures	3	Quantity	\$235,000	CPI
General Equipment	5	Quantity	\$358,000	CPI
Public Works Equipment	6	Quantity	\$213,000	CPI
Recreation Equipment	6	Quantity	\$114,000	CPI
Technology & Communications Equipment	23	Quantity	\$302,000	CPI
TOTAL			\$1,905,000	

Table 43 Detailed Asset Inventory: Machinery & Equipment

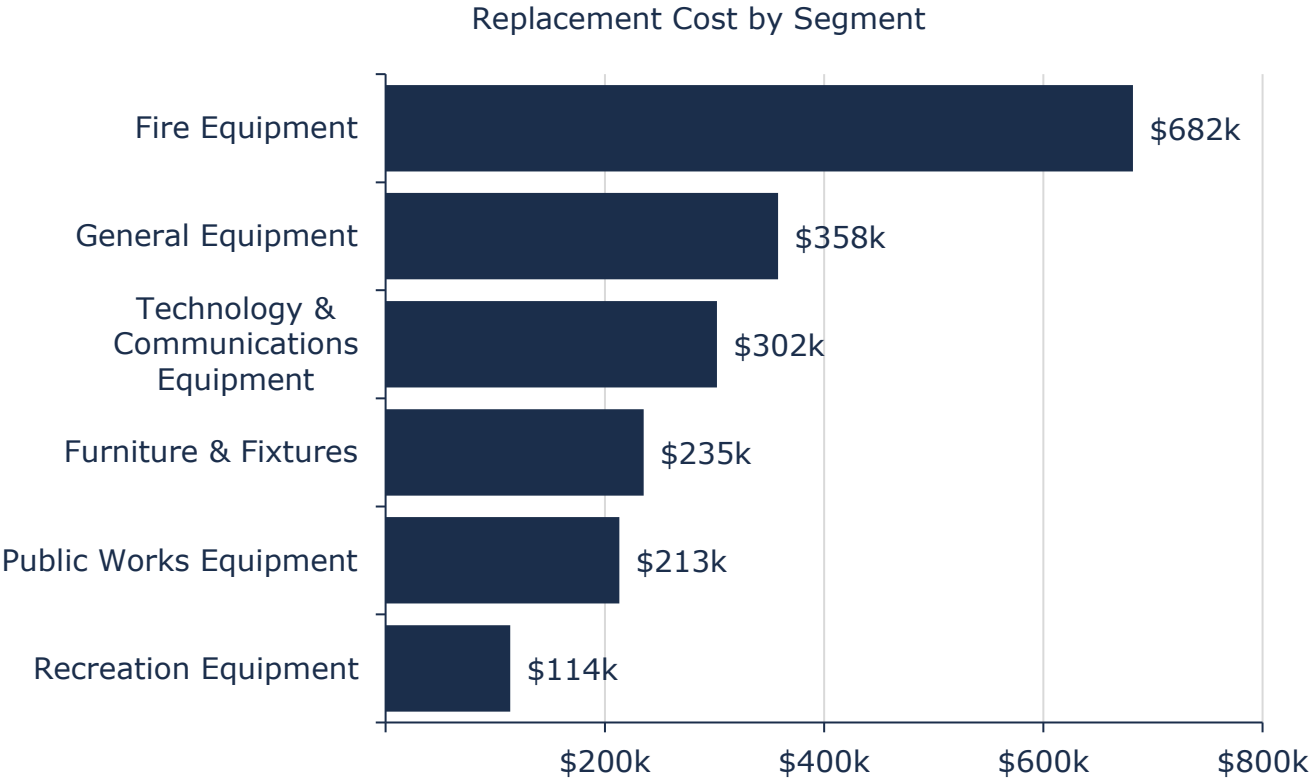


Figure 60 Portfolio Valuation: Machinery & Equipment

12.2 Asset Condition

Figure 61 summarizes the replacement cost-weighted condition of the Municipality’s machinery and equipment portfolio. Based on a combination of assessed conditions and age data, 27% of assets are in fair or better condition; the remaining 73% are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

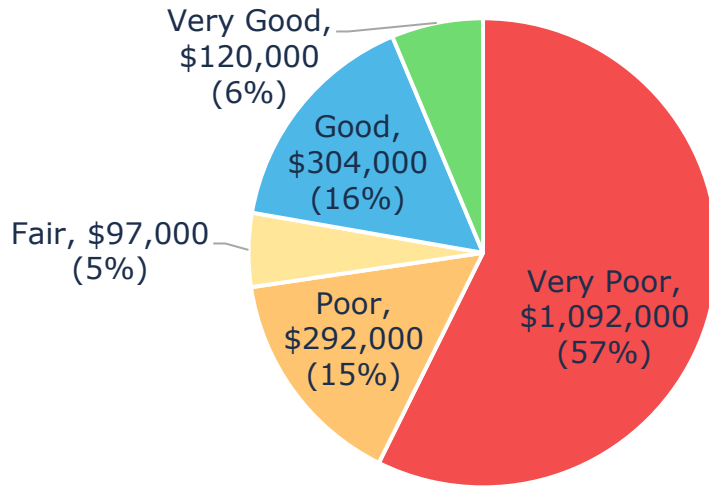
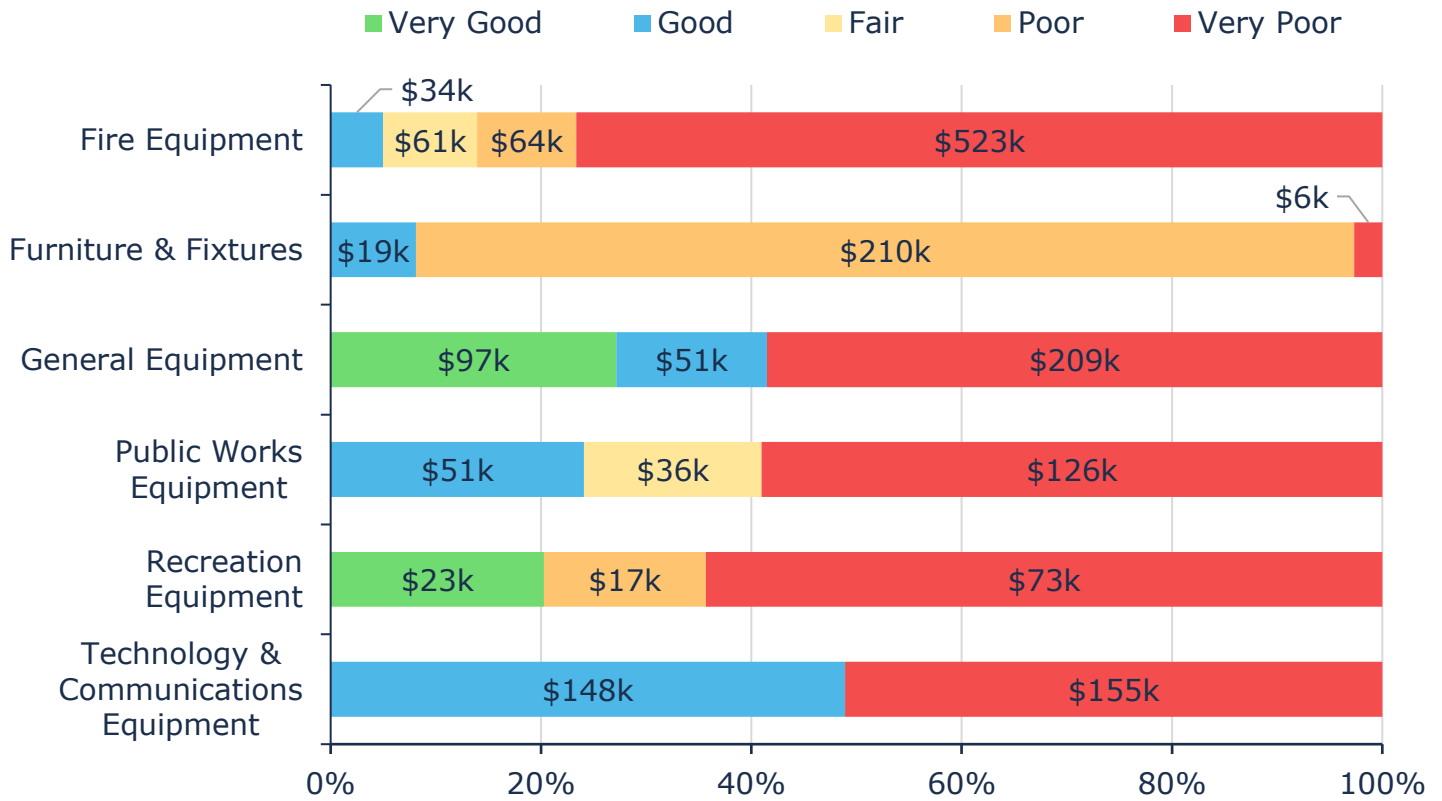


Figure 61 Asset Condition: Machinery & Equipment Overall

Figure 62 summarizes the age-based condition of machinery & equipment by each department. The majority of all assets are in poor or worse condition.



Value and Percentage of Asset Segments by Replacement Cost

Figure 62 Asset Condition: Machinery & Equipment by Segment

12.3 Age Profile

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

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

Figure 63 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

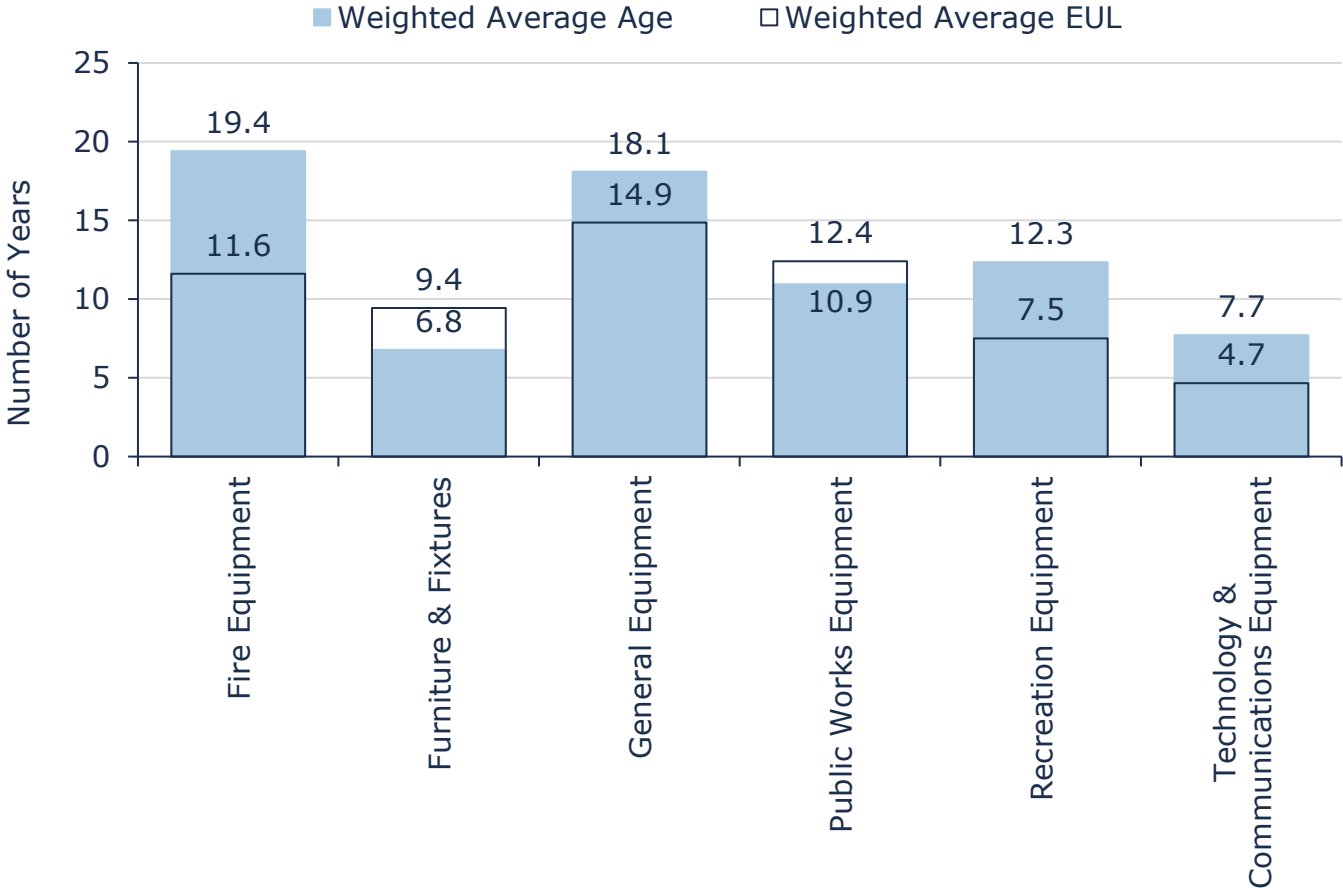


Figure 63 Estimated Useful Life vs. Asset Age: Machinery & Equipment

12.4 Current Approach to Lifecycle Management

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

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

Activity Type	Description of Current Strategy
Maintenance	<p>Maintenance activities vary by department and are specific to each piece of equipment, but typically as per manufacturer recommendations</p> <hr/> <p>Fire Protection Services equipment is subject to a much more rigorous inspection and maintenance program compared to most other departments</p>
Replacement	<p>The replacement of machinery & equipment depends on deficiencies identified by operators that may impact their ability to complete required tasks</p>
Inspection	<p>Specific machinery and equipment assets have set inspection schedules</p>

Table 44 Lifecycle Management Strategy: Machinery & Equipment

12.5 Forecasted Long-Term Replacement Needs

Figure 64 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Municipality’s machinery and equipment portfolio. This analysis was run until 2045 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Municipality’s primary asset management system and asset register. The Municipality’s average annual requirements (red dotted line) total \$233,000 for all machinery and equipment. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

These projections and estimates are based on asset replacement costs and age analysis. They are designed to provide a long-term, portfolio-level

overview of capital needs and should be used to support improved financial planning over several decades.

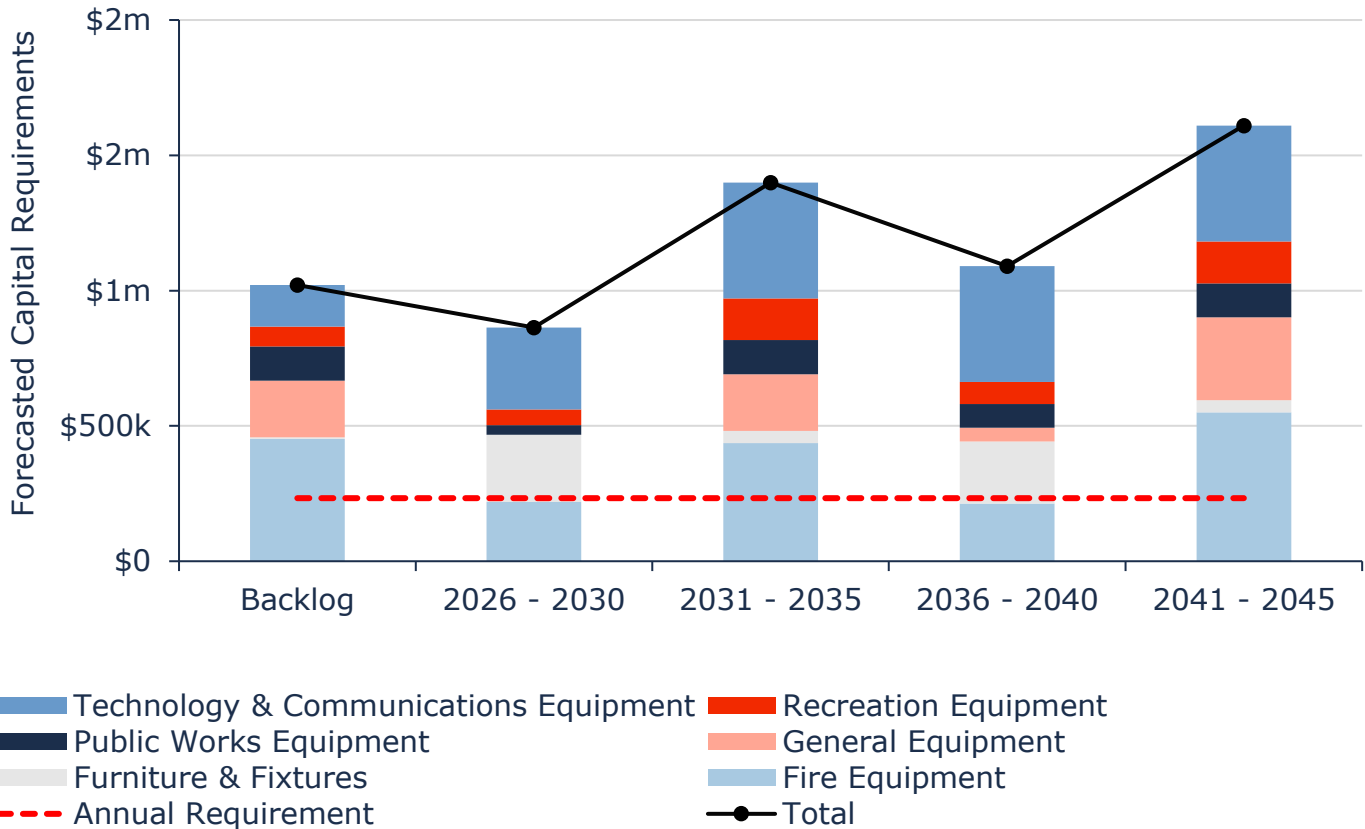


Figure 64 Forecasted Capital Replacement Needs: Machinery & Equipment 2026-2045

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

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

12.6 Risk Analysis

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

The matrix stratifies assets based on their individual probability and consequence of failure, each scored from 1 to 5. Their product generates a

risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Municipality may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

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

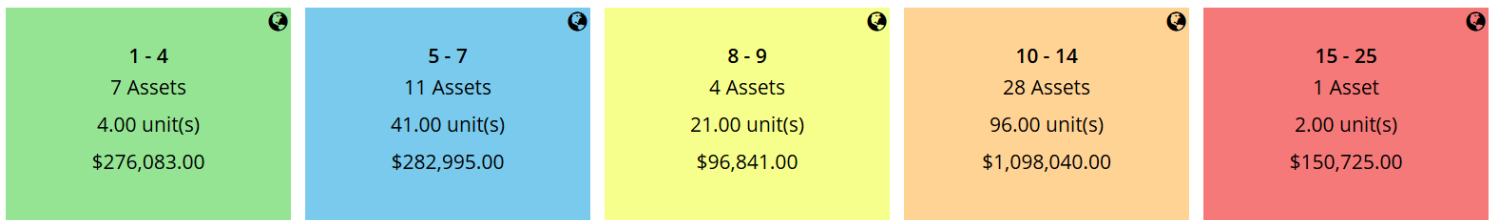


Figure 65 Risk Matrix: Machinery & Equipment

12.7 Levels of Service

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

12.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2025)
Scope	Description, which may include images, of the types of equipment that the municipality operates and the services that they help to provide to the community	Administration is supported by equipment such as phone systems and software. Fire is supported by equipment such as thermal imaging cameras, SCBAs, and defibrillators. Recreation is supported by playground structures, ball diamonds, score clocks, and tractors.

Service Attribute	Qualitative Description	Current LOS (2025)
		Public Works is supported by equipment such as graders, snowplows, trailers, mowers, and heavy equipment.

Table 45 Community Levels of Service: Machinery & Equipment

12.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2025)
Quality	Average condition of equipment	23%
Performance	Current capital reinvestment rate	1.00%

Table 46 Technical Levels of Service: Machinery & Equipment

13. Airside Network

As Northern Ontario’s busiest airport, the Sioux Lookout Municipal Airport serves to provide essential service to the community. In the Municipality’s 2020 Strategic Plan the Airport is identified as a critical enabler of the Municipality’s innovation and development.

This non-core asset category contains a diverse array of assets. Information on airport specific funding and the assets included are detailed in the following sections. The airport contains a wide variety of assets which serve various functions.

13.1 Inventory & Valuation

Table 47 summarizes the quantity and current replacement cost of all airside network assets available in the Municipality’s asset register.

Segment	Quantity	Unit of Measure	Replacement Cost	Primary RC Method
Movement and Maneuvering Area	9,754	Length (m)	\$15,557,000	CPI
Navigation Aids and Lighting	25	Quantity	\$2,337,000	CPI
TOTAL			\$17,893,000	

Table 47 Detailed Asset Inventory: Airside Network

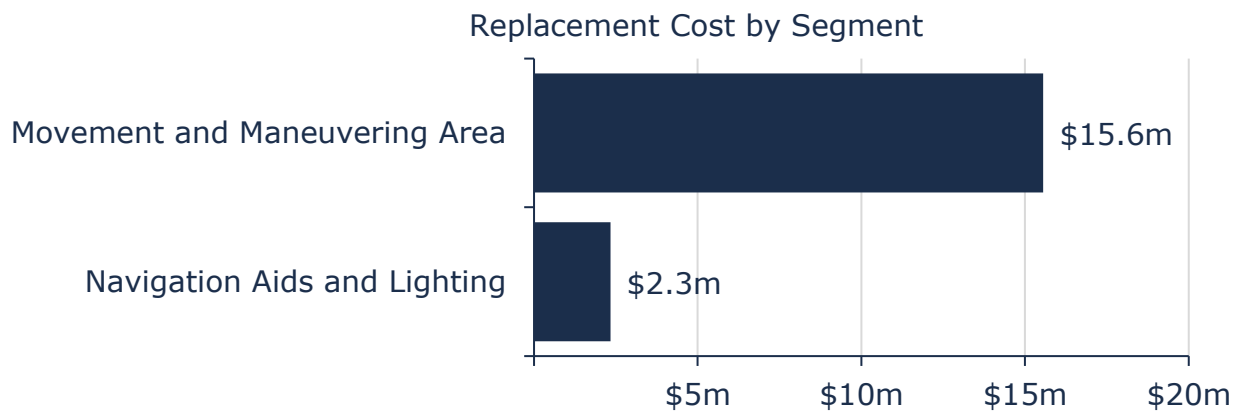


Figure 66 Portfolio Valuation: Airside Network

13.2 Asset Condition

Figure 67 summarizes the replacement cost-weighted condition of the Municipality’s airside network portfolio. Based on a combination of assessed conditions and age data, 21% of assets are in fair or better condition; the remaining 79% are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

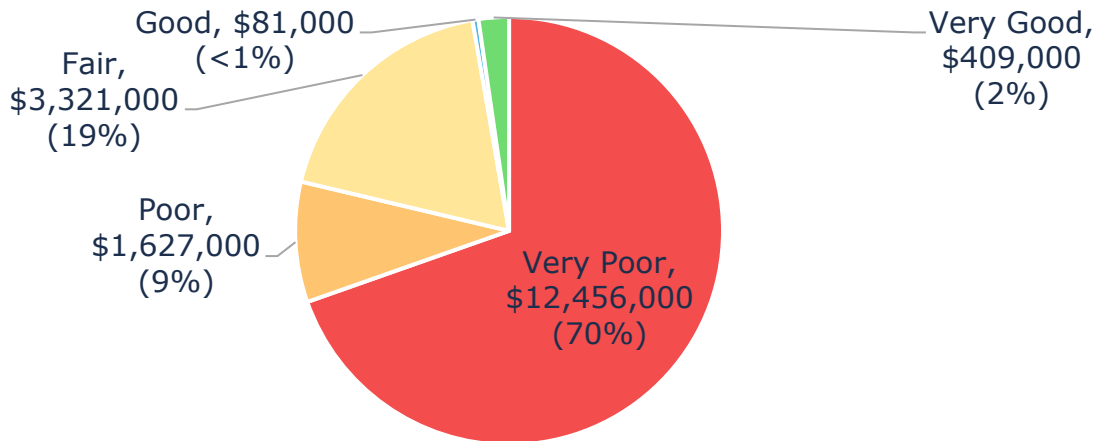


Figure 67 Asset Condition: Airside Network Overall

Figure 68 summarizes the age-based condition of airside network by each department. The majority of all assets are in poor or worse condition.

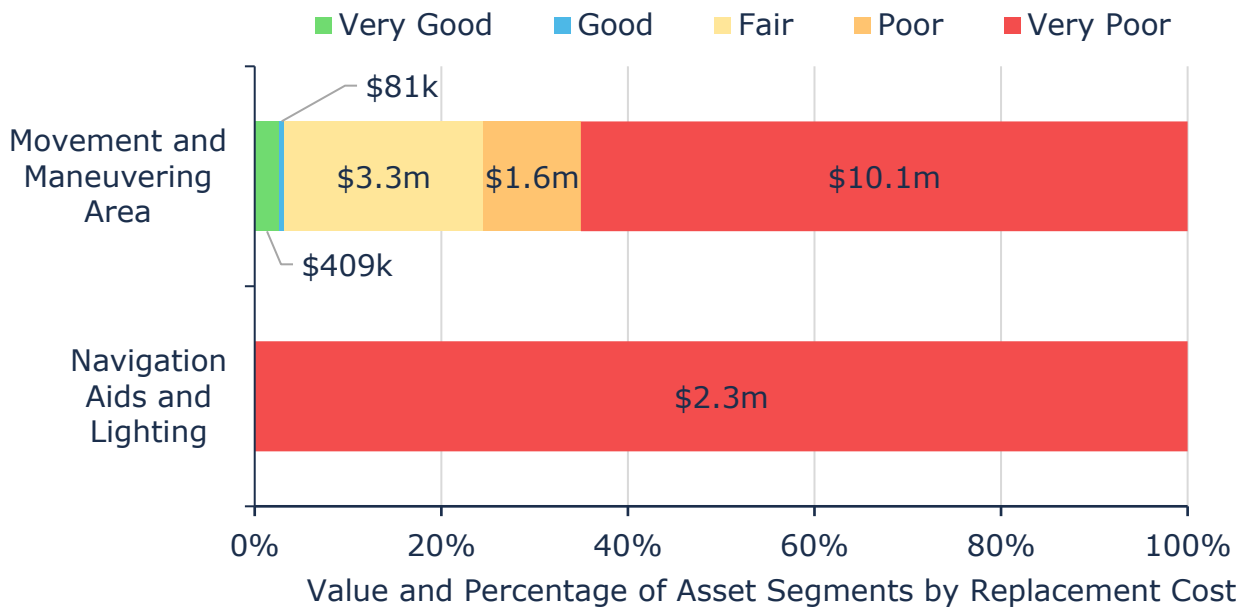


Figure 68 Asset Condition: Airside Network by Segment

13.3 Age Profile

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

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

Figure 69 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

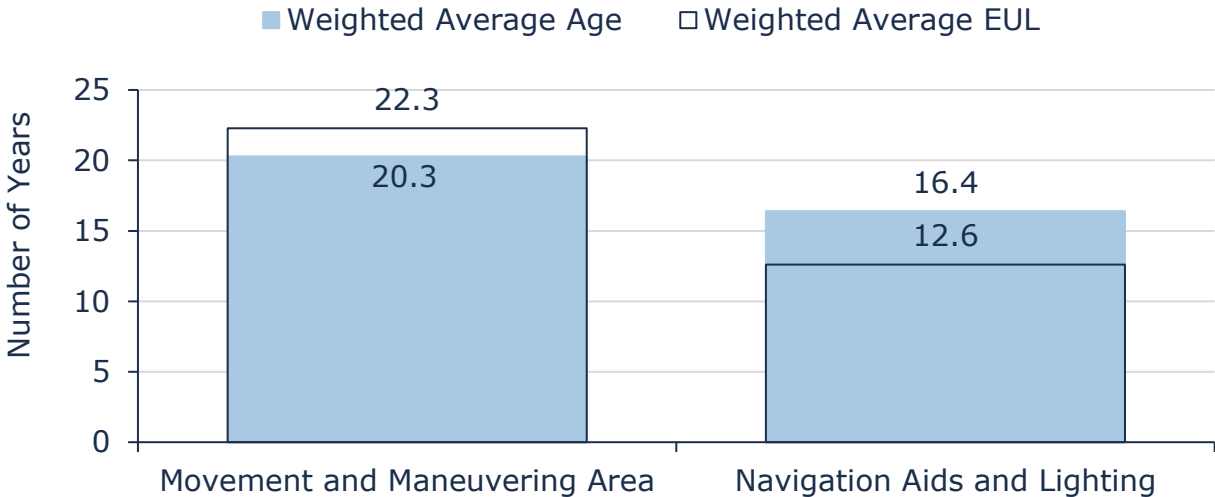


Figure 69 Estimated Useful Life vs. Asset Age: Airside Network

13.4 Current Approach to Lifecycle Management

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

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

Activity Type	Description of Current Strategy
Maintenance	Maintenance activities are specific to each piece of airport equipment and vehicles, but typically as per manufacturer recommendations
Replacement	The replacement airside network assets depend on deficiencies identified staff and health and safety concerns
Inspection	Airport buildings were assessed as part of the Building Condition Assessment.

Table 48 Lifecycle Management Strategy: Airside Network

13.5 Forecasted Long-Term Replacement Needs

Figure 70 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Municipality’s airside network portfolio. This analysis was run until 2040 to capture at least one iteration of replacement for the longest-lived asset in Citywide Assets, the Municipality’s primary asset management system and asset register. The Municipality’s average annual requirements (red dotted line) total \$976,000 for all airside network assets. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

These projections and estimates are based on asset replacement costs and age analysis. They are designed to provide a long-term, portfolio-level overview of capital needs and should be used to support improved financial planning over several decades.

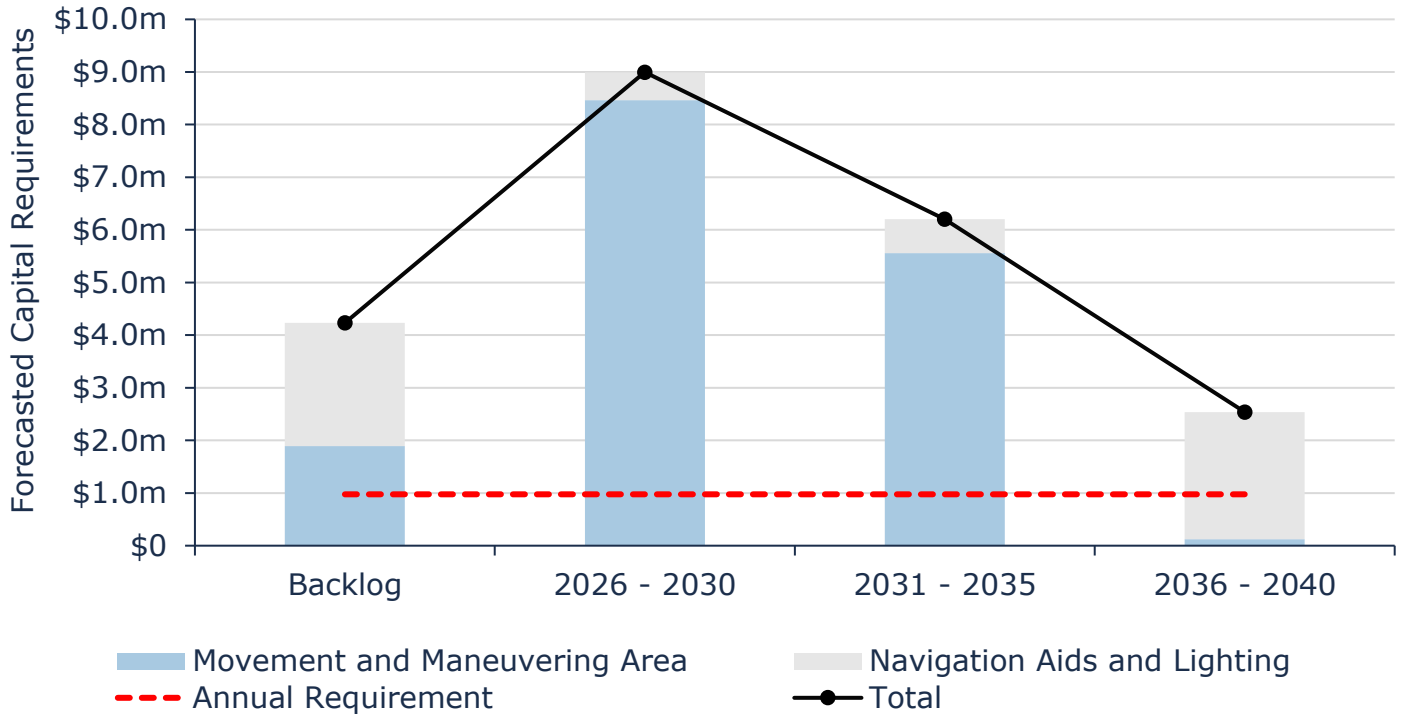


Figure 70 Forecasted Capital Replacement Needs: Airside Network 2026-2040

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

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

13.6 Risk Analysis

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

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

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

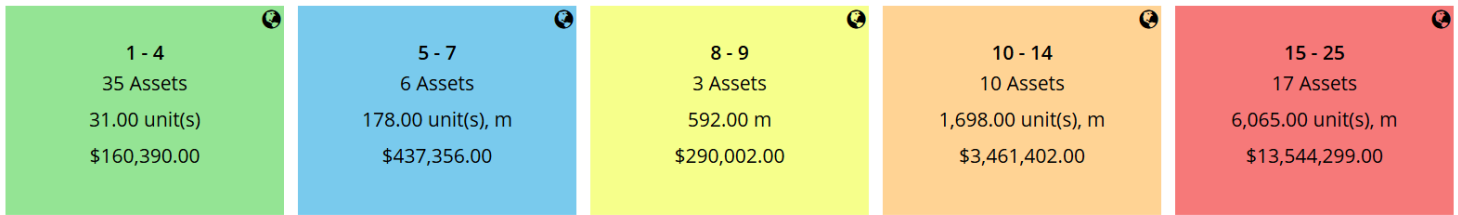


Figure 71 Risk Matrix: Airside Network

13.7 Levels of Service

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

13.7.1 Community Levels of Service

Service Attribute	Qualitative Description	Current LOS (2025)
Scope	Description, which may include images, of the types of airside network assets that the municipality operates	<p>Airfield Lighting: Various airfield lighting assets located on runways, taxiways, and aprons.</p> <p>Airport Buildings: The buildings located at the airport including the components (i.e., doors, flooring) within. Main assets include the airport garage, administration building, and fuel service building.</p> <p>Airport Machinery & Equipment: Assets used to support the operations and administration of the airport. Assets include computers, security cameras and airstrip maintenance equipment.</p>

Service Attribute	Qualitative Description	Current LOS (2025)
		Airport Vehicles: Licensed and unlicensed vehicles used to support the summer and winter maintenance of the airport parking lots, runways, and taxiway. Assets include trucks, plows, sweepers, tractors, and attachments.

Table 49 Community Levels of Service: Airside Network

13.7.2 Technical Levels of Service

Service Attribute	Technical Metric	Current LOS (2025)
Quality	Average condition of airside network assets	19%
Performance	Current capital reinvestment rate	2.47%

Table 50 Technical Levels of Service: Airside Network

Strategies



Growth



Financial Strategy



Recommendations

14. Growth

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

14.1 Municipality of Sioux Lookout Official Plan

The Municipality of Sioux Lookout's Official Plan outlines its vision for the continuous development of a vibrant, sustainable community that leverages its unique position as a service hub for surrounding First Nations communities and capitalizes on its rich natural environment and recreational opportunities.

Within the Official Plan, Sioux Lookout has defined several goals and objectives to foster growth and improve the community. Key objectives include upgrading and maintaining essential municipal services, encouraging the preservation and rehabilitation of heritage resources, and fostering private sector investment to strengthen the economic base. Significant efforts are aimed at revitalizing built-up areas, promoting the redevelopment of brownfield sites, and encouraging the construction of affordable housing. These initiatives are expected to enhance the visual appearance of the community, improve energy efficiency, and support sustainable development.

The Official Plan is structured to guide land use planning for the next two decades, incorporating broad policy directions, specific land use designations, and implementation measures. The plan projects a population increase to 6,200 by 2038, necessitating the development of 462 housing units and the creation of 631 jobs to accommodate this growth.

Sioux Lookout's strategic location and its role as a regional service hub place increased demand on the municipality to provide modern services such as transportation, communication, health, and education. The Meno Ya Win Health Centre and the municipal airport are central to these services, catering to both the local population and the surrounding First Nations communities. The plan emphasizes the importance of maintaining and enhancing these relationships to support the community's growth and development.

In summary, the Municipality of Sioux Lookout's Official Plan envisions a sustainable, growing community that leverages its strategic location and

unique relationships with First Nations communities. Through targeted improvements and sustainable development initiatives, the plan aims to foster a vibrant, economically strong, and visually appealing community.

14.2 Municipality of Sioux Lookout Community Improvement Plan

The Sioux Lookout Official Plan outlines a comprehensive vision for the future development of the municipality, focusing on sustainable growth, economic diversification, and community enhancement. It aims to promote compact development within existing settlement areas, such as Urban Sioux Lookout and Hudson, to efficiently use land and infrastructure while preserving the natural environment. The plan also emphasizes the importance of protecting natural and cultural heritage, improving air quality, and ensuring the availability of affordable housing.

Economic growth is a key priority in the Official Plan. The municipality seeks to maintain and expand a diversified economy by supporting key sectors such as health care, tourism, and government services. The plan encourages the development of employment opportunities, particularly around the Sioux Lookout Airport, and fosters partnerships with Indigenous communities to identify mutual economic benefits. Additionally, the plan promotes adaptive reuse of former industrial areas and brownfield sites to stimulate economic activity and create vibrant mixed-use areas.

Community improvement is another focal point, with objectives aimed at upgrading essential municipal services, enhancing the visual appeal of community areas, and incentivizing private sector investment. The plan outlines the use of Community Improvement Plans (CIPs) to achieve these goals, focusing on the rehabilitation and reuse of vacant or underutilized buildings, intensification within settlement areas, and construction of affordable housing. By implementing these initiatives, Sioux Lookout aims to create a prosperous, inclusive, and sustainable community for current and future generations.

14.3 Impact of Growth on Lifecycle Activities

By July 1, 2025, the Municipality's asset management was required to include a discussion of how the assumptions regarding future changes in population and economic activity informed the preparation of the lifecycle management and financial strategy.

Planning for forecasted population growth may require the expansion of existing infrastructure and services. As growth-related assets are

constructed or acquired, they should be integrated into the Municipality's AMP. While the addition of residential units will add to the existing assessment base and offset some of the costs associated with growth, the 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, maintain the current level of service.

15. Financial Strategy

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

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

1. The financial requirements for:
 - a. Existing assets
 - b. Existing service levels
 - c. Requirements of contemplated changes in service levels (none identified for this plan)
 - d. Requirements of anticipated growth (none identified for this plan)
2. Use of traditional sources of municipal funds:
 - a. Tax levies
 - b. User fees
 - c. Debt
 - d. Development charges
3. Use of non-traditional sources of municipal funds:
 - a. Reallocated budgets
 - b. Partnerships
 - c. Procurement methods
4. Use of Senior Government Funds:
 - a. Canada Community-Building Fund (CCBF)
 - b. Annual grants

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

If the financial plan component results in a funding shortfall, the Province requires the inclusion of a specific plan as to how the impact of the shortfall

will be managed. In determining the legitimacy of a funding shortfall, the Province may evaluate a Municipality’s approach to the following:

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

15.1 Annual Requirements & Capital Funding

15.1.1 Annual Requirements

The annual requirements represent the amount the Municipality 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 Municipality must allocate approximately \$11.9 million annually to address capital requirements for the assets included in this AMP.

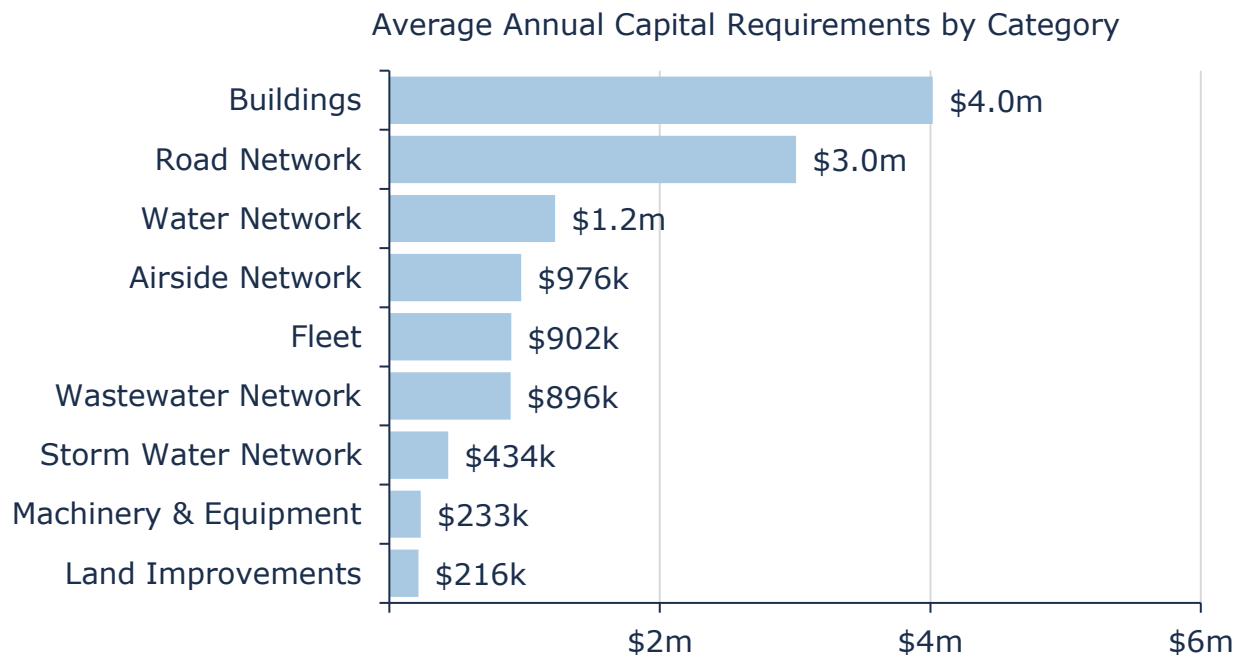


Figure 72 Annual Capital Funding Requirements by Asset Category

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

However, for the Road Network, lifecycle management strategies have been developed to identify capital costs that are realized through strategic rehabilitation and renewal of the Municipality’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 Category	Annual Requirements (Replacement Only)	Annual Requirements (Lifecycle Strategy)	Difference
Road Network	\$3,885,000	\$3,007,000	\$878,000

Table 51 Lifecycle Strategies Annual Savings

The implementation of a proactive lifecycle strategy for roads leads to a potential annual cost avoidance of \$878,000 for the Road Network. This represents an overall reduction of the annual requirements by 23%. As the lifecycle strategy scenario represents the lowest cost option available to the Municipality, we have used these annual requirements in the development of the financial strategy.

15.1.2 Annual Funding Available

Based on a historical analysis of sustainable capital funding sources, the Municipality is committing approximately \$2.5 million towards capital projects per year. Given the annual capital requirement of \$11.9 million, there is currently a funding gap of \$9.4 million annually.

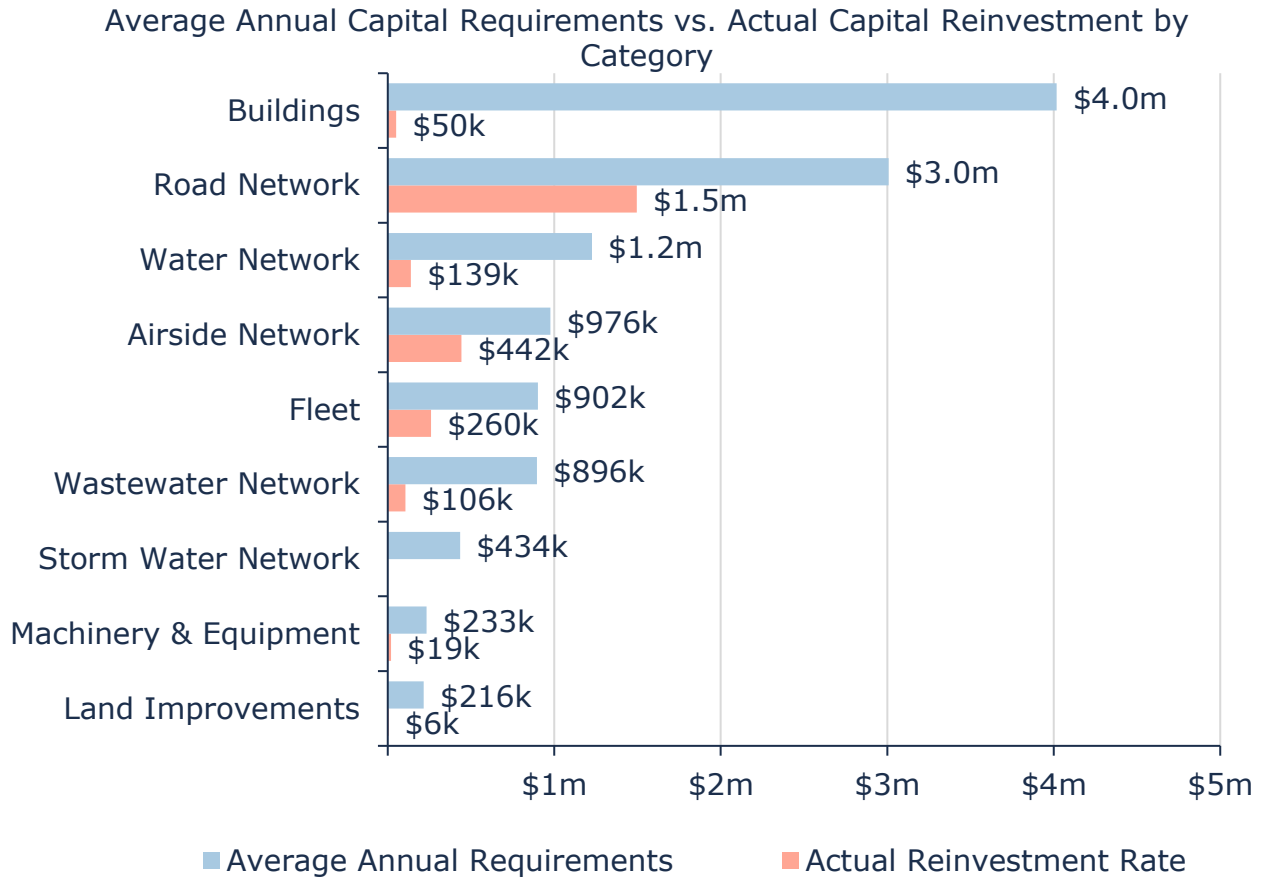


Figure 73 Annual Requirements vs. Capital Funding Available

15.2 Funding Objective

We have developed a scenario that would enable Sioux Lookout to achieve proposed funding within 5 years for the following assets:

1. **Tax Funded Assets:** Road Network, Storm Water Network, Buildings, Machinery & Equipment, Land Improvements, Fleet
2. **Rate-Funded Assets:** Water Network, Wastewater Network, Airside Network

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

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

15.3 Financial Profile: Tax Funded Assets

15.3.1 Current Funding Position

The following tables show, by asset category, Sioux Lookout’s average annual asset investment requirements for proposed funding, current funding positions, and funding increases required to achieve proposed funding on assets funded by taxes.

Asset Category	Avg. Annual Requirement	Annual Funding Available				Annual Deficit
		Taxes	CCBF	OCIF	Total Available	
Road Network	1,883,188	350,000	190,000	955,160	1,495,160	388,028
Storm Water Network	434,849				0	434,849
Buildings	1,703,488	50,000			50,000	1,653,488
Machinery & Equipment	38,094	19,000			19,000	19,094
Land Improvements	103,435	6,000			6,000	97,435
Fleet	284,743	260,000			260,000	24,743
Total	4,447,796	685,000	190,000	955,160	1,830,160	2,617,636

Table 52 Annual Available Funding for Tax Funded Assets

The average annual investment requirement to achieve proposed levels of service for the above categories is \$4.45 million. Annual revenue currently allocated to these assets for capital purposes is \$1.83 million leaving an annual deficit of \$2.62 million. Put differently, these infrastructure categories are currently funded at 41.4% of their long-term requirements.

15.3.2 Full Funding Requirements

In 2024, the Municipality of Sioux Lookout had budgeted annual tax revenues of approximately \$12.9 million. As illustrated in the following table, without consideration of any other sources of revenue or cost containment strategies, proposed funding would require the following tax change over time:

Asset Category	Tax Change Required for Full Funding
Road Network	3.0%
Storm Water Network	3.4%
Buildings	12.9%
Machinery & Equipment	0.1%
Land Improvements	0.8%
Fleet	0.2%
Total	20.4%

Table 53 Tax Increase Requirements for Full Funding

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

- a) Sioux Lookout’s debt payments for these asset categories will be decreasing \$902,000 by 2044.

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

	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	2,617,636	2,617,636	2,617,636	2,617,636
Change in Debt Costs	-412,166	-479,206	-837,510	-902,350
Resulting Infrastructure Deficit:	2,205,470	2,138,430	1,780,126	1,715,286
Tax Increase Required	17.1%	16.6%	13.8%	13.3%
Annually:	3.3%	1.6%	0.9%	0.7%

Table 54 Tax Increase Options 5-20 Years

15.3.3 Financial Strategy Recommendations

Considering all the above information, we recommend the 5-year option, as outlined in the Strategic Plan. This involves proposed funding being achieved over 5 years by:

- a) increasing tax revenues by 3.3% each year for the next 5 years solely for the purpose of phasing in proposed 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 commitment⁶.
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 proposed funding on an annual basis in 5 years and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available. Current data shows a pent-up investment demand of \$21.7 million for the Buildings, \$5.2 million for Fleet, \$594k for Land Improvements, \$1.0m for Machinery & Equipment, \$47.7 million for the Road Network, and \$5.7 million for the Storm 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.

⁶ The Municipality 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.

15.4 Financial Profile: Rate Funded Assets

15.4.1 Current Funding Position

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

Asset Category	Avg. Annual Requirement	Annual Funding Available			Total Available	Annual Deficit
		Rates	To Oper	To Debt		
Water Network	1,165,752	1,775,500	-1,399,140	-236,992	139,368	1,026,384
Wastewater Network	890,613	1,367,520	-1,169,829	-92,166	105,525	785,088
Airside Network	357,869	442,263			442,263	-84,394
Total	2,414,234	3,585,283	-2,568,969	-329,158	687,156	1,727,078

Table 55 Annual Available Funding for Rate Funded Assets

The average annual investment requirement to achieve proposed levels of service for the above categories is \$2.4 million. Annual revenue currently allocated to these assets for capital purposes is \$687,000 leaving an annual deficit of \$1.7 million. Put differently, these infrastructure categories are currently funded at 28.5% of their long-term requirements.

15.4.2 Full Funding Requirements

Averaging from 2021-2024, Sioux Lookout had annual sanitary revenues of \$1,367,520 and annual water revenues of \$1,775,500, and average airside network revenues of 442,263. As illustrated in the table below, without consideration of any other sources of revenue, full funding would require the following changes over time:

Asset Category	Rate Change Required for Full Funding
Water Network	57.8%
Wastewater Network	57.4%
Airside Network	-19.1%

Table 56 Rate Increase Requirements for Full Funding

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

Water Network				
	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	1,026,384	1,026,384	1,026,384	1,026,384
Changes in debt costs	-50,326	-66,775	-212,179	-213,464
Rate Increase Required	55.0%	54.0%	45.9%	45.8%
Annually:	9.2%	4.5%	2.6%	2.0%

Table 57 Water Rate Increase Options 5-20 Years

Wastewater Network				
	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	785,088	785,088	785,088	785,088
Changes in debt costs	-38,597	-38,597	-39,807	-40,412
Rate Increase Required	54.6%	4.6%	54.5%	54.5%
Annually:	9.2%	4.5%	3.0%	2.2%

Table 58 Sanitary Rate Increase Options 5-20 Years

Airside Network				
	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	-84,394	-84,394	-84,394	-84,394
Rate Increase Required	-19.1%	-19.1%	-19.1%	-19.1%
Annually:	-4.2%	-2.1%	-1.5%	-1.1%

Table 59 Airport Rate Increase Options 5-20 Years

15.4.3 Financial Strategy Recommendations

Considering all of the above information, we recommend the 5-year option, as outlined in the Strategic Plan. This involves full funding being achieved over 5 years by:

- a) increasing rate revenues by 9.2% for water services and wastewater services each year for the next 5 years solely for the purpose of phasing in proposed funding to the asset categories covered in this section of the AMP. Airport rates would remain the same.
- b) increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

Notes:

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

Although this option achieves proposed funding on an annual basis in 5 years and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available. Current data shows a pent-up investment demand of \$10.5 million for the Water Network, \$13.6 million for the Wastewater Network and \$4.2 million for the Airside 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.

15.5 Use of Debt

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

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

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

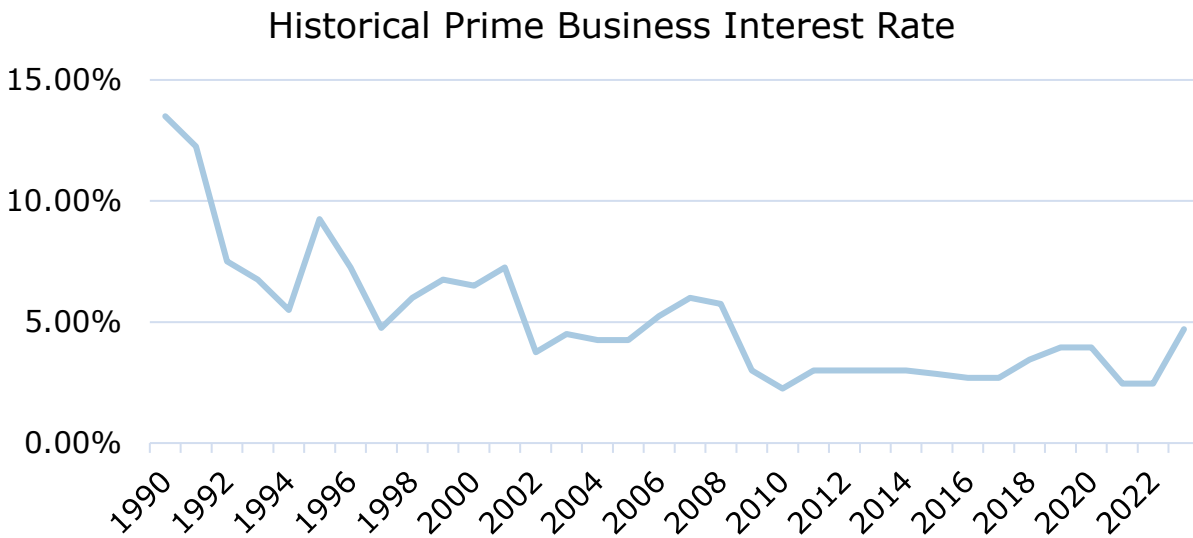


Figure 74 Historical Prime Rate

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

For reference purposes, the following table outlines the premium paid on a project if financed by debt. For example, a \$1 million project financed at 3.0%⁷ over 15 years would result in a 26% premium or \$260 thousand of increased costs due to interest payments. For simplicity, the table does not consider the time value of money or the effect of inflation on delayed projects.

⁷ Current municipal Infrastructure Ontario rates for 15-year money is 3.2%.

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

Table 60 Interest Premiums Paid

The following tables outline how Sioux Lookout has historically used debt for investing in the asset categories as listed. As of year-end 2023, there is currently \$5.6 million of debt outstanding for the assets covered by this AMP with corresponding principal and interest payments of \$357,000, well within its provincially prescribed maximum of \$3.6 million.

Asset Category	Current Debt Outstanding	Use of Debt in the Last Five Years				
		2019	2020	2021	2022	2023
Road Network	3,329,874	172,085	280,325	287,613	287,368	220,590
Storm Water Network						
Buildings	9,109,709	494,011	632,256	647,507	643,820	644,830
Machinery & Equipment	36,199	32,623	32,712	32,803	32,911	24,864
Land Improvements	72,970	45,664	44,803	43,908	43,030	42,152
Fleet	263,332	21,830	68,344	69,441	70,568	69,010
Total Tax Funded	12,742,084	766,214	1,058,440	1,081,272	1,077,698	1,001,445
Water Network	1,820,366	164,892	167,506	170,153	172,903	175,753
Wastewater Network	123,451	37,967	37,966	37,964	38,013	38,013
Airside Network						
Total Rate Funded	1,943,817	202,859	205,472	208,117	210,916	213,766

Table 61 Sioux Lookout Use of Debt 2019-2023

Asset Category	Principal & Interest Payments in the Next Ten Years						
	2025	2026	2027	2028	2029	2030	2035
Road Network	288,790	282,965	264,042	263,483	262,801	261,369	226,702
Storm Water Network							
Buildings	828,854	844,112	796,037	743,877	635,045	573,516	541,144
Machinery & Equipment	16,158	20,933					
Land Improvements	40,396	34,768					
Vehicles	72,854	60,280	54,515	48,529	42,611		
Total Tax Funded	1,247,052	1,243,057	1,114,594	1,055,888	940,456	834,886	767,846
Water Network	220,452	189,733	170,897	170,694	170,383	170,125	153,677
Wastewater Network	43,700	24,167	5,466	5,445	5,224	5,103	5,103
Airside Network							
Total Rate Funded	264,151	213,900	176,363	176,139	175,607	175,228	158,780

Table 62 Sioux Lookout Principal and Interest Payments

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

15.5.1 Recommendation

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

16. Recommendations & Key Considerations

16.1 Financial Strategies

1. Review the feasibility of adopting a proposed-funding scenario to achieve a target reinvestment rate of 2% for the asset categories analyzed. This includes:
 - a. Increasing taxes by 3.3% per year over a period of 5 years;
 - b. Increasing water rates by 9.2% per year over a period of 5 years;
 - c. Increasing wastewater rates by 9.2% per year over a period of 5 years and;
 - d. Maintaining airport rates
2. Continued allocation of OCIF and CCBF funding as previously outlined.
3. Reallocating appropriate revenue from categories in a surplus position to those in a deficit position.
4. Increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.
5. Continue to apply for project specific grant funding to supplement sustainable funding sources.

16.2 Asset Data

1. Continuously review, refine, and calibrate lifecycle and risk profiles to better reflect actual practices and improve capital projections. In particular:
 - a. the timing of various lifecycle events, the triggers for treatment, anticipated impacts of each treatment, and costs
 - b. the various attributes used to estimate the likelihood and consequence of asset failures, and their respective weightings
2. Asset management planning is highly sensitive to replacement costs. Periodically update replacement costs based on recent projects, invoices, or estimates, as well as condition assessments, or any other technical reports and studies. Material and labour costs can fluctuate due to local, regional, and broader market trends, and substantially so during major world events. Accurately estimating the replacement cost of like-for-like assets can be challenging. Ideally, several recent

projects over multiple years should be used. Staff judgement and historical data can help attenuate extreme and temporary fluctuations in cost estimates and keep them realistic.

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

16.3 Risk & Levels of Service

1. Risk models and matrices can play an important role in identifying high-value assets, and developing an action plan which may include repair, rehabilitation, replacement, or further evaluation through condition assessments. As a result, project selection and the development of multi-year capital plans can become more strategic and objective. Initial models have been built into Citywide for all asset groups. These models reflect current data, which was limited. As the data evolves and new attribute information is obtained, these models should also be refined and updated.
2. Available data on current performance should be centralized and tracked to support any calibration of service levels in accordance with O. Reg. 588's 2025 requirements on proposed levels of service.
3. Staff should monitor evolving local, regional, and environmental trends to identify factors that may shape the demand and delivery of infrastructure programs. These can include population growth, and the nature of population growth; climate change and extreme weather events; and economic conditions and the local tax base. This data can also be used to review service level targets.

Appendices

Appendix A – Infrastructure Report Card

Appendix B – 10-Year Capital Requirements

Appendix C – Level of Service Maps

Appendix D – Risk Rating Criteria

Appendix A – Infrastructure Report Card

Asset Category	Replacement Cost	Average Condition	Financial Capacity	
Road Network	\$94.2 m	Poor	Annual Requirement:	\$3,007,000
			Funding Available:	\$1,495,000
			Annual Deficit:	\$1,512,000
Water Network	\$58.2 m	Fair	Annual Requirement:	\$1,226,000
			Funding Available:	\$139,000
			Annual Deficit:	\$1,087,000
Wastewater Network	\$44.5 m	Fair	Annual Requirement:	\$896,000
			Funding Available:	\$106,000
			Annual Deficit:	\$763,000
Stormwater Network	\$21.7 m	Fair	Annual Requirement:	\$434,000
			Funding Available:	\$0
			Annual Deficit:	\$434,000
Buildings	\$85.2 m	Poor	Annual Requirement:	\$4,017,000
			Funding Available:	\$50,000
			Annual Deficit:	\$3,967,000
Land Improvements	\$5.2 m	Fair	Annual Requirement:	\$216,000
			Funding Available:	\$6,000
			Annual Deficit:	\$210,000
Fleet	\$14.2 m	Poor	Annual Requirement:	\$902,000
			Funding Available:	\$260,000
			Annual Deficit:	\$642,000
Machinery & Equipment	\$ 1.9 m	Poor	Annual Requirement:	\$233,000
			Funding Available:	\$19,000
			Annual Deficit:	\$214,000
Airside Network	\$17.9 m	Very Poor	Annual Requirement:	\$976,000
			Funding Available:	\$442,000
			Annual Deficit:	\$534,000

Appendix B – 10-Year Capital Requirements

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

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

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

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

Road Network

Segment	Backlog	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Paved Roads	\$38.6m	\$9.3m	\$575k	\$5.8m	\$1.3m	\$564k	\$436k	\$1.3m	\$1.3m	\$91k	\$232k
Sidewalks & Curbs	\$8.6m	\$1.3m	\$135k	-	-	-	-	-	-	\$109k	\$194k
Streetlights	\$547k	-	-	-	-	-	-	-	-	-	\$547k
Total	\$47.7m	\$10.6m	\$710k	\$5.8m	\$1.3m	\$564k	\$436k	\$1.3m	\$1.3m	\$199k	\$973k

Table 63 System Generated 10-Year Capital Replacement Forecast: Road Network

Airside Network

Segment	Backlog	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Movement and Maneuvering Area	\$1.9m	\$8.2m	-	\$127k	\$75k	\$40k	\$1.4m	\$45k	\$36k	\$80k	\$4.0m
Navigation Aids and Lighting	\$2.3m	-	-	\$98k	-	\$433k	\$98k	-	-	\$98k	\$450k
Total	\$4.2m	\$8.2m	-	\$225k	\$75k	\$473k	\$1.5m	\$45k	\$36k	\$177k	\$4.4m

Table 64 System Generated 10-Year Capital Replacement Forecast: Airside Network

Water Network

Segment	Backlog	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Booster Station	\$168k	\$32k	\$2k	\$36k	\$160k	\$6k	-	\$16k	-	-	\$71k
Hydrants & Valves	\$4.1m	-	-	-	\$182k	\$62k	-	-	\$135k	\$3k	\$353k
Water Mains	\$5.7m	\$58k	\$96k	-	-	-	-	-	-	-	-
Water Service	-	\$6k	-	-	-	-	-	-	-	-	\$64k
Water Tower	\$3.7m	-	-	-	-	-	-	-	-	-	\$57k
Water Treatment Plant	\$15k	\$4k	\$11k	-	\$975k	\$141k	-	\$126k	-	-	\$644k
Total	\$13.6m	\$101k	\$108k	\$36k	\$1.3m	\$209k	-	\$142k	\$135k	\$3k	\$1.2m

Table 65 System Generated 10-Year Capital Replacement Forecast: Water Network

Wastewater Network

Segment	Backlog	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Chambers & Valves	-	-	-	-	-	-	-	-	-	-	-
Manholes	\$3.2m	\$532k	-	-	-	-	-	-	-	-	-
Pumping Stations	-	-	\$17k	-	\$2k	\$13k	-	\$15k	-	-	-
Sanitary Forcemains & Valves	\$254k	-	-	-	\$48k	-	-	-	-	-	\$12k
Sanitary Sewers	\$7.0m	-	-	-	\$27k	-	-	-	-	\$44k	-
WWTP	\$17k	\$405k	-	\$4.1m	\$17k	\$461k	-	\$836k	\$186k	\$249k	\$29k
Total	\$10.5m	\$936k	\$17k	\$4.1m	\$93k	\$474k	-	\$851k	\$186k	\$293k	\$40k

Table 66 System Generated 10-Year Capital Replacement Forecast: Wastewater Network

Storm Water Network

Segment	Backlog	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Catch Basins	\$636k	\$94k	-	-	-	\$97k	-	-	\$33k	\$42k	\$85k
Manholes	\$1.2m	-	-	-	-	\$125k	-	-	\$83k	\$168k	\$41k
Storm Mains	\$3.8m	\$2.1m	-	-	-	\$539k	-	-	\$187k	\$1.0m	-
Total	\$5.7m	\$2.2m	-	-	-	\$761k	-	-	\$304k	\$1.2m	\$126k

Table 67 System Generated 10-Year Capital Replacement Forecast: Storm Water Network

Buildings

Segment	Backlog	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Administrative Services	-	\$275k	-	-	-	-	\$2.4m	-	-	-	-
Environmental Services	\$10.5m	\$1.5m	-	\$3.4m	-	-	\$3.3m	-	\$3.2m	\$3.5m	\$6.5m
Health and Social Services	\$86k	\$1k	-	-	-	\$2k	\$5k	\$40k	-	-	\$2k
Protective Services	\$978k	\$89k	-	\$27k	\$128k	\$157k	\$4k	\$396k	\$17k	\$377k	\$83k
Recreation Services	\$7.7m	\$69k	-	\$508k	\$441k	-	\$9k	-	\$453k	\$1.9m	\$125k
Transportation Services	\$2.4m	\$57k	\$185k	\$4.6m	-	\$161k	\$5k	\$247k	\$9k	\$4.8m	\$91k
Total	\$21.7m	\$2.0m	\$185k	\$8.5m	\$569k	\$320k	\$5.7m	\$684k	\$3.6m	\$10.6m	\$6.8m

Table 68 System Generated 10-Year Capital Replacement Forecast: Buildings

Land Improvements

Segment	Backlog	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Outdoor Recreation	\$515k	-	-	\$59k	\$323k	\$28k	-	\$14k	-	-	\$122k
Park Fixtures	-	-	-	\$211k	-	-	-	-	-	-	-
Parking Lots	-	\$6k	\$39k	\$6k	\$635k	\$4k	\$47k	\$101k	\$2k	\$16k	\$90k
Playgrounds	\$78k	-	-	-	-	\$60k	-	-	-	-	\$78k
Total	\$594k	\$6k	\$39k	\$276k	\$958k	\$93k	\$47k	\$115k	\$2k	\$16k	\$291k

Table 69 System Generated 10-Year Capital Replacement Forecast: Land Improvements

Fleet

Segment	Backlog	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Airport	\$1.4m	\$558k	\$379k	\$57k	-	-	-	\$73k	\$255k	\$61k	\$574k
Emergency Services	\$548k	\$377k	\$386k	\$69k	-	-	\$69k	-	-	-	-
Facilities	-	\$69k	\$69k	-	\$69k	-	-	\$73k	\$40k	-	-
Public Works	\$3.3m	\$87k	\$365k	\$108k	\$412k	\$73k	\$266k	\$71k	\$810k	\$461k	\$893k
Recreation & Culture	-	-	\$138k	\$8k	\$69k	-	-	\$142k	\$61k	-	-
Total	\$5.2m	\$1.1m	\$1.3m	\$242k	\$551k	\$73k	\$335k	\$360k	\$1.2m	\$523k	\$1.5m

Table 70 System Generated 10-Year Capital Replacement Forecast: Fleet

Machinery & Equipment

Segment	Backlog	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Fire Equipment	\$452k	\$71k	\$37k	-	-	\$112k	-	\$22k	\$12k	-	\$403k
Furniture & Fixtures	\$6k	-	\$19k	\$210k	-	\$19k	-	-	\$19k	-	\$25k
General Equipment	\$209k	-	-	-	-	-	-	-	-	-	\$209k
Public Works Equipment	\$126k	-	-	-	\$36k	-	-	-	-	-	\$126k
Recreation Equipment	\$73k	\$17k	-	\$23k	\$17k	-	\$23k	\$17k	-	\$41k	\$73k
Technology & Communications Equipment	\$155k	-	-	\$126k	\$148k	\$29k	\$126k	-	-	\$274k	\$29k
Total	\$1.0m	\$88k	\$56k	\$359k	\$201k	\$159k	\$149k	\$40k	\$31k	\$314k	\$866k

Table 71 System Generated 10-Year Capital Replacement Forecast: Machinery & Equipment

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

The Municipality has developed the following 10-Year Capital Forecast to align with the proposed levels of service, as defined in the Strategic Plan.



The Municipality of Sioux Lookout
2026-2035 Capital Projects

Index	Relationship to Strategic Priorities	Investment	Capital Project Name	2027	2028	2029	2030	2031	2032	2033	2034	2035	Funding Sources
001-CP-APT-26	Priority 1.4 - Align Investmnet with Growth Priorities	Strategic Initiative	Airport Parking Lot Expansion										Reserves/LTD
001-CP-DS-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Masonry Repairs/Replace HVAC in Basement & Main Floor/Backflow Preventer										TBD
001-CP-ENG-26	Priority 1.3 - Modernize and Maintain Infrastructure	Strategic Initiative	Wastewater Treatment Plant Expansion - Part 1										Funding/LTD
002-CP-ENG-26	Priority 4.3 Enhance Public Spaces	Strategic Initiative	Pedestrian Bridge Rehabilitation										Funding
003-CP-ENG-26	Priority 1.3 - Modernize and Maintain Infrastructure	Operational Enhancement	Inflow/Infiltration Study										Infrastructure
004-CP-ENG-26	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Pelican Park Infrastructure Improvements - Part 2										Long Term Debt
005-CP-ENG-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Standpipe Replacement - Part 1										Long Term Debt
006-CP-ENG-26	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Hillcreat Hub - Landscaping and Signage										Funding/LTD/MAT
007-CP-ENG-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Chip Seal - Cedar Point Drive, Hudson, and West Point										Funding
008-CP-ENG-26	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Chip Seal - Sturgeon River Road										Funding
009-CP-ENG-26	Priority 2.5 - Monitoring & Resposive Enhancement	Strategic Initiative	Cedar Bay Access Assessment & Design										Infrastructure
010-CP-ENG-26	Priority 2.5 - Monitoring & Adaptive Safety Measures	Strategic Initiative	Front & Third - Safety Control - Assessment										Infrastructure
001-CP-HF-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	New Runway Sweeper										AIF Reserve/LTD
002-CP-HF-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	New Spreader										AIF Reserve
003-CP-HF-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Fire Apparatus Truck										Long Term Debt
004-CP-HF-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Trackless for Winter Operations										Long Term Debt
005-CP-HF-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Street Sweeper										Long Term Debt
006-CP-HF-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Box Blade for Loader										Heavy Fleet
001-CP-LF-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 858 - Replacement - 2018 Chevrolet Silverado										Light Fleet
002-CP-LF-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 930 - Replacement - 2016 Chevrolet Silverado										Light Fleet
003-CP-LF-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 863 - Replacement - 2016 Ford Transit Connect - (Van)										Waste & Water Reserve
001-CP-NWI-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Filter Media Replacement - Hudson Filter #1										Water Network
002-CP-NWI-26	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Transition to Sodium Hypochlorite - Hudson WTP										Water Network
001-CP-PW-26	Priority 1.3 - Modernize and Maintain Infrastructure	Operational Enhancement	Replacement of 10 Streetlight Poles										Roads Reserve
002-CP-PW-26	Priority 2.5 - Monitoring & Adaptive Safety Measures	Strategic Initiative	20 New Streetlights on Sturgeon River Road										MAT
001-CP-REC-26	Priority 1.3 - Modernize and Maintain Infrastructure	Strategic Initiative	Boat Launch Cement Pads- 90 total (Sturgeon River & 5 Mile)										MAT
002-CP-REC-26	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Sturgeon River Launch (new dock)										Boat Launch Reserve
003-CP-REC-26	Priority 1.1 - Advance A.M. Practices	Essential Asset Management	Canopy replacements (Travel Info Centre) - replace every 10 years										Recreation Reserve
004-CP-REC-26	Priority 2.5 - Monitoring & Adaptive Safety Measures	Strategic Initiative	Rubber Matting installation at Playground (Travel Info Centre)										MAT
005-CP-REC-26	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Soccer Field - Design and Location Assessments - Part 1										Infrastructure
006-CP-REC-26	Priority 4.1 - Invest in Recreation Infrastructure	Operational Enhancement	Multi-functional Lift										Recreation Reserve
007-CP-REC-26	Priority 4.1 - Invest in Recreation Infrastructure	Operational Enhancement	Town Dock Lift										Recreation Reserve
001-CP-APT-27	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Engineering & Design - Equipment Garage	250,000									AIF
001-CP-DS-27	Priority 4.3 Enhance Public Spaces	Strategic Initiative	Upgrades to Hudson Fire Hall for Community Centre	300,000									Long Term Debt
002-CP-DS-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Removal of Hudson Lost Lake Centre	293,750									Building
003-CP-DS-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Install Vehicle Exhaust System	120,000									TBD
004-CP-DS-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace subsurface geothermal piping & WAHP Development Services	165,000									TBD
005-CP-DS-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace 2 Rooftop AHU's	110,000									TBD
001-CP-EMS-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Air lifting bag kits	16,500									Taxation
001-CP-ENG-27	Priority 1.3 - Modernize and Maintain Infrastructure	Strategic Initiative	Wastewater Treatment Plant Expansion - Part 2	7,797,108									Long Term Debt
002-CP-ENG-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Standpipe Replacement - Part 2	3,950,000									Long Term Debt
003-CP-ENG-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Road Overlay	380,000									Long Term Debt
004-CP-ENG-27	Priority 1.3 - Modernize and Maintain Infrastructure	Strategic Initiative	Infrastructure Assessment at Boreal Sub-division	150,000									Infrastructure
005-CP-ENG-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Queen St (2nd Ave to 8th Ave) Infrastructure Replacement - Part 1	1,034,894									Long Term Debt
001-CP-HF-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Compactor for Landfill	500,000									Landfill Reserve/LTD
001-CP-LF-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	New Tandem Trailer for sludge	20,000									Wastewater Reserve

001-CP-ENG-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Third Pump at Robert Street Lift Station - Part 1	35,000	Wastewater Network
001-CP-NWI-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Install New Caustic Lines - WWTP	80,000	Wastewater Network
002-CP-NWI-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Filter Media Replacement - Hudson Filter #2	65,000	Water Network
001-CP-PW-27	Priority 1.3 - Modernize and Maintain Infrastructure	Operational Enhancement	Replacement of 10 Streetlight Poles	25,000	Roads Reserve
001-CP-REC-27	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Soccer Field - Design and Location Assessments - Part 2	20,000	Infrastructure
002-CP-REC-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Netting replacements	6,000	Recreation
003-CP-REC-27	Priority 2.5 - Monitoring & Adaptive Safety Measures	Strategic Initiative	Additional Ball Diamond Hydro Poles replacements (2)	17,000	Recreation
004-CP-REC-27	Priority 4.1 - Invest in Recreation Infrastructure	Strategic Initiative	Bothams Bag (Big Vermillion) new dock	20,000	Boat Launch Reserve
005-CP-REC-27	Priority 4.3 - Enhance Public Spaces	Strategic Initiative	West Point Cove - 2nd dock	35,000	MAT
006-CP-REC-27	Priority 2.5 - Monitoring & Adaptive Safety Measures	Strategic Initiative	Ruber Matting Installation at Playground (Town Beach)	75,000	MAT
007-CP-REC-27	Priority 4.1 - Invest in Recreation Infrastructure	Operational Enhancement	Multi-use Quad	20,000	Light Fleet
008-CP-REC-27	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Recondition Conditioner - Old Olympia	40,000	Recreation
009-CP-REC-27	Priority 4.1 - Invest in Recreation Infrastructure	Operational Enhancement	Puck board	5,000	Taxation
010-CP-REC-27	Priority 4.1 - Invest in Recreation Infrastructure	Strategic Initiative	Spin Bikes	3,000	Taxation
001-CP-APT-28	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Equipment Garage Building - (2028-2030)	1,689,860	Airport Capital/LTD
002-CP-APT-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Runway/Taxiway/Apron Rehabilitation	9,754,223	Funding/AIF/LTD
001-CP-DS-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Renovate Library Basement	250,000	TBD
002-CP-DS-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Roof Membrane on Second Bay Stall	100,000	Long Term Debt
003-CP-DS-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Basement Flooring	30,000	Taxation
004-CP-DS-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Windows and Doors	110,000	Wastewater Network
005-CP-DS-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Windows and Doors	45,000	Water Network
001-CP-ENG-28	Priority 2.5 - Monitoring & Responsive Enhancement	Strategic Initiative	New - 2nd, Atwood & 1st Avenue Sidewalks - Part 1	119,793	Infrastructure
002-CP-ENG-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace - Meadwell Watermain & Road	68,780	Infrastructure
003-CP-ENG-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Queen St (2nd Ave to 8th Ave) Infrastructure Replacement - Part 2	9,546,904	Long Term Debt
001-CP-HF-28	Priority 2.2 - Emergency Preparedness & Response	Strategic Initiative	Replace Foam Response Truck	460,000	Long Term Debt
001-CP-LF-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 854 Replacement - 2008 Ford Super Duty	85,325	Light Fleet
002-CP-LF-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 836 - Cub XT1 Mower	6,000	Taxation
001-CP-NWI-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Third Pump at Robert Street Lift Station - Part 2	130,000	Wastewater Network
002-CP-NWI-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace MMC Panels - Hudson Low Lift Station	50,000	Water Network
003-CP-NWI-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Septic Tank & Pump Chamber Replacement - Hudson	60,000	Water Network
001-CP-PW-28	Priority 1.3 - Modernize and Maintain Infrastructure	Operational Enhancement	Replacement of 10 Streetlight Poles	30,000	Roads
001-CP-REC-28	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Compressor Overhaul - every 2 years	16,000	Taxation
002-CP-REC-28	Priority 4.1 - Invest in Recreation Infrastructure	Strategic Initiative	Deception- 2nd dock	30,000	Boat Launch
003-CP-REC-28	Priority 4.1 - Invest in Recreation Infrastructure	Strategic Initiative	Boat Bay- 2nd dock	30,000	MAT
004-CP-REC-28	Priority 4.3 - Enhance Public Spaces	Strategic Initiative	Additional Ball Diamond Hydro Poles additions (3)	17,000	Recreation
005-CP-REC-28	Priority 4.3 - Enhance Public Spaces	Strategic Initiative	Netting additions	6,000	Taxation
006-CP-REC-28	Priority 4.1 - Invest in Recreation Infrastructure	Strategic Initiative	Rubber Matting Installation at Playground (7th Ave)	75,000	MAT
007-CP-REC-28	Priority 4.1 - Invest in Recreation Infrastructure	Operational Enhancement	Treadmill	7,500	Taxation
001-CP-APT-29	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Equipment Garage Building - (2028-20230)	1,689,860	Airport Capital/LTD
002-CP-APT-29	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Industrial Park (desing and layout)	500,000	AIF/Capital
001-CP-DS-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Condensing Unites, Air Handlers 7 Water Heater	40,000	Airport Capital
002-CP-DS-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Repair, upgrade and insulate Roof	200,000	AIF/Capital
003-CP-DS-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace AHU	68,000	TBD
004-CP-DS-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Windows	200,000	Long Term Debt
005-CP-DS-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Windows & Exterior Doors	35,000	Taxation
006-CP-DS-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Condensing Units	30,000	Taxation
001-CP-ENG-29	Priority 2.5 - Monitoring & Responsive Enhancement	Strategic Initiative	New - 2nd, Atwood & 1st Avenue Sidewalks - Part 2	1,071,582	Long Term Debt
002-CP-ENG-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Overlay Project	380,000	Funding
003-CP-ENG-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Front Street(4th to 6th) Infrastructure Replacement - Part 1	108,660	Infrastructure
004-CP-ENG-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace - Meadwell Watermain & Road	628,623	Long Term Debt
001-CP-HF-29	Priority 1.3 - Modernize and Maintain Infrastructure	Strategic Initiative	5-Tone Plow Combo	188,564	Heavy Fleet
002-CP-HF-29	Priority 1.3 - Modernize and Maintain Infrastructure	Strategic Initiative	Runway Sweeper Replacement	650,000	Long Term Debt

001-CP-LF-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 906 - Replacement - 2019 Chev Silverado 1500	78,565	Light Fleet
002-CP-LF-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 905 - Replacement - 2019 Chev Silverado 1500	78,565	Light Fleet
001-CP-NWI-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Generator Replacement - Robert St. Lift Station	180,000	Wastewater Network
002-CP-NWI-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Install Injector Vacuum System	60,000	Water Network
001-CP-PW-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replacement of 10 Streetlight Poles	35,000	Roads
001-CP-REC-29	Priority 4.3 - Enhance Public Spaces	Essential Asset Management	Additional Ball Diamond Hydro Poles replacements (3)	17,000	Recreation
002-CP-REC-29	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Purchase 60 additional concrete pads	40,000	MAT
003-CP-REC-29	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Five Mile - new dock	30,000	Boat Launch
004-CP-REC-29	Priority 4.3 - Enhance Public Spaces	Strategic Initiative	Elliptical	5,300	Taxation
001-CP-APT-30	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Equipment Garage Building - (2028-2030)	1,689,860	Airport Capital/LTD
002-CP-APT-30	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Industrial Park (development) - 2030-2034	1,750,000	Airport Capital/LTD
001-CP-DS-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Restore & Replace Damaged Metal Siding	25,000	Airport Capital
002-CP-DS-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Exterior Doors	55,000	Taxation
003-CP-DS-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace oil fired furnaces	20,000	Taxation
004-CP-DS-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace WWHP and Exterior Doors	120,000	Long Term Debt
005-CP-DS-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Exterior Doors	30,000	Taxation
001-CP-ENG-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Front Street(4th to 6th) Infrastructure Replacement - Part 1	5,047,049	Long Term Debt/Roads
002-CP-ENG-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	CN Rail Corridor - CIPP Relining	385,000	Wastewater Network
003-CP-ENG-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Prince St (3rd to 5th Ave) Infrastructure Replacement - Part 1	257,711	Infrastructure
001-CP-HF-30	Priority 1.3 - Modernize and Maintain Infrastructure	Strategic Initiative	Runway Blower Replacement	650,000	Long Term Debt
002-CP-HF-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	New/Used Grader	300,000	Heavy Fleet
001-CP-LF-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 501 - Replacement	45,774	Light Fleet
001-CP-NWI-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	New Bar Screen & Grit Removal System	200,000	Wastewater Network
002-CP-NWI-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Lift Station Panel - Bay Street	30,000	Wastewater Network
001-CP-PW-30	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replacement of 10 Streetlight Poles	40,000	Roads
001-CP-REC-30	Priority 4.3 - Enhance Public Spaces	Essential Asset Management	West Hudson- new dock	30,000	Boat Launch
002-CP-REC-30	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Canopy replacements (Town Beach)	15,000	Recreation
003-CP-REC-30	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Compressor Overhaul - every 2 years	16,000	Taxation
004-CP-REC-30	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Netting replacements	15,000	Recreation
005-CP-REC-30	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Spin Bikes	3,000	Taxation
001-CP-APT-31	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Industrial Park (development) - 2030-2034	1,750,000	Long Term Debt
001-CP-DS-31	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Windows	25,000	Taxation
001-CP-ENG-31	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Overlay Project	380,000	Funding
002-CP-ENG-31	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	King Street (3rd to 8th) Infrastructure Replacement - Part 1	965,386	Long Term Debt/Roads
003-CP-ENG-31	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	4th Avenue (King to Queen) Infrastructure Replacement - Part 1	114,615	Infrastructure
004-CP-ENG-31	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Loop Watermain from 2nd Ave to Fuller Street	100,000	Water Network
005-CP-ENG-31	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Prince St (3rd to 5th Ave) Infrastructure Replacement - Part 2	2,377,386	Long Term Debt/Roads
001-CP-LF-31	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Tandem Equipment Trailer	20,000	Heavy Fleet
002-CP-LF-31	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 836 - Husq Z248F Replacement	6,400	Recreation
003-CP-LF-31	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 911 - Replacement - 2021 GM Sierra 1500	88,864	Light Fleet
001-CP-REC-31	Priority 4.1 - Invest in Recreation Infrastructure	Operational Enhancement	Treadmill	7,500	Recreation
002-CP-REC-31	Priority 4.3 - Enhance Public Spaces	Strategic Initiative	Parking lot expansions- Deception	60,000	TBD
001-CP-APT-32	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Industrial Park (development) - 2030-2034	1,750,000	Long Term Debt
001-CP-DS-32	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Exterior Doors	30,000	Taxation
002-CP-DS-32	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Replace Roof Membrane	470,000	Long Term Debt
001-CP-ENG-32	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	King Street (3rd to 8th) Infrastructure Replacement - Part 2	9,070,602	Long Term Debt/Roads
002-CP-ENG-32	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	4th Avenue (King to Queen) Infrastructure Replacement - Part 2	1,076,903	Long Term Debt/Roads
003-CP-ENG-32	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Front St (7th to West End) Infrastructure Replacement - Part 1	230,145	Long Term Debt/Roads
001-CP-HF-32	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Loader Replacement	500,000	Funding/LTD
002-CP-HF-32	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Loader Replacement - Landfill	330,000	Landfill/LTD
001-CP-LF-32	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 670 - Replacement - 2017 GMS Sierra 1500	83,922	Airport Capital
002-CP-LF-32	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 683 - Replacement - 2022 Chev Silverado 1500	83,922	Airport Capital

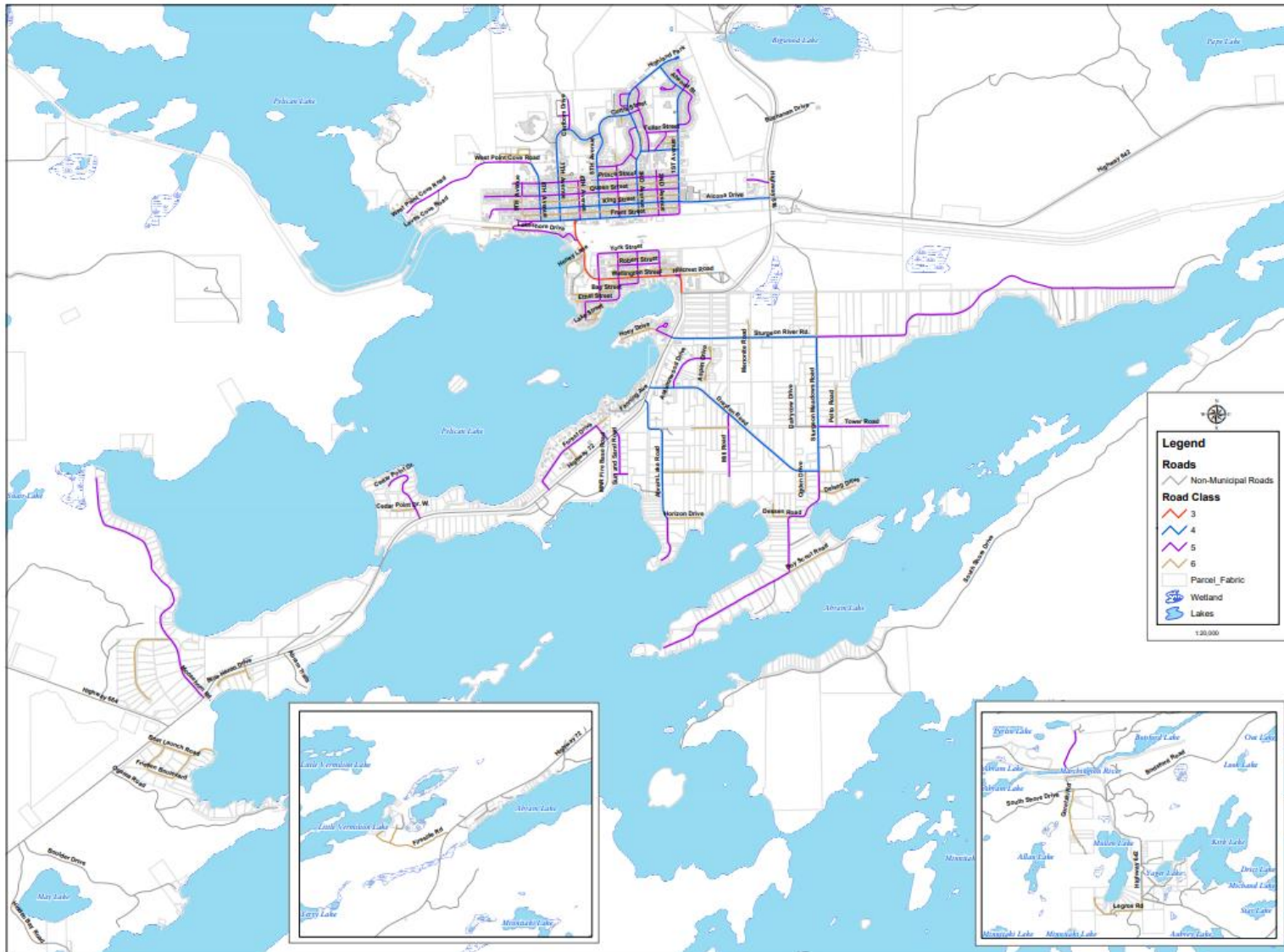
003-CP-LF-32	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 910 - Replacement - 2022 Chev Silverado 2500	86,624	Light Fleet
001-CP-REC-32	Priority 4.3 - Enhance Public Spaces	Strategic Initiative	Parking lot enhancements - Boat Bay	60,000	TBD
002-CP-REC-32	Priority 4.1 - Invest in Recreation Infrastructure	Operational Enhancement	Compressor Overhaul - every 2 years	16,000	Taxation
003-CP-REC-32	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Olympia replacement	165,000	Long Term Debt
004-CP-REC-32	Priority 4.1 - Invest in Recreation Infrastructure	Operational Enhancement	Elliptical	53,000	Recreation
001-CP-APT-33	Priority 1.4 - Align Investment with Growth	Strategic Initiative	Industrial Park (development) - 2030-2034	1,750,000	Long Term Debt
001-CP-ENG-33	Priority 4.3 Enhance Public Spaces	Strategic Initiative	Centennial Park Redevelopment	2,073,015	Long Term Debt
002-CP-ENG-34	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Front St (7th to West End) Infrastructure Replacement - Part 2	2,162,396	Long Term Debt/Roads
001-CP-APT-33	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Tracked Skid Steer	115,000	Heavy Fleet
002-CP-HF-33	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Garbage Truck	250,000	Landfill/LTD
001-CP-LF-33	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 801 - Replacement - 2023 Ford F-150	85,567	Light Fleet
002-CP-LF-33	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 989 - Replacement - 2023 Ford F-150	85,707	Long Term Debt
003-CP-LF-33	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 865 - Replacement - 2023 Ford F-150	85,707	Long Term Debt
001-CP-REC-33	Priority 4.1 - Invest in Recreation Infrastructure	Operational Enhancement	Spin Bikes	3,000	Recreation
002-CP-REC-33	Priority 4.3 - Enhance Public Spaces	Strategic Initiative	Parking lot enhancements - West Point Cove	60,000	TBD
003-CP-REC-33	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Speakers & sounds system upgrades	10,000	Recreation
001-CP-APT-34	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Terminal Upgrades	1,500,000	Long Term Debt
001-CP-EMS-34	Priority 2.2 - Emergency Preparedness & Response	Essential Asset Management	Self Contained Breathing Apparatus (SCBA)	375,000	Heavy Fleet/LTD
001-CP-ENG-34	Priority 4.3 Enhance Public Spaces	Strategic Initiative	Umfreville Trail Restoration - Part 1	764,476	Long Term Debt
001-CP-HF-34	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Tandem Dump Truck	250,000	Heavy Fleet/LTD
002-CP-HF-34	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 908 - Replacement - 2024 Chev Silverado	103,846	Heavy Fleet
001-CP-LF-34	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 607 - Replacement - 2024 GMC Sierra 1500	87,309	Airport Capital
002-CP-LF-34	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Unit 836 - Riding Mower	7,000	Taxation
003-CP-LF-34	Priority 1.3 - Modernize and Maintain Infrastructure	Essential Asset Management	Hoist	15,000	Taxation
001-CP-REC-34	Priority 4.1 - Invest in Recreation Infrastructure	Operational Enhancement	Treadmill	7,500	Recreation
002-CP-REC-34	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Compressor Overhaul - every 2 years	16,000	Taxation
003-CP-REC-34	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Plant replacement	500,000	TBD
004-CP-REC-34	Priority 4.3 Enhance Public Spaces	Strategic Initiative	Purchase 60 additional concrete pads	60,000	Boat Launch
001-CP-ENG-35	Priority 4.3 Enhance Public Spaces	Strategic Initiative	Umfreville Trail Restoration - Part 2	4,202,879	Long Term Debt
001-CP-HF-35	Priority 2.2 - Emergency Preparedness & Response	Strategic Initiative	Pumper Truck - Replacement of Unit # 914	1,000,000	Long Term Debt
001-CP-REC-35	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Canopy replacements (Travel Info Centre) - replace every 10 years	10,000	Recreation
002-CP-REC-35	Priority 4.1 - Invest in Recreation Infrastructure	Essential Asset Management	Zero Turn Lawn or Cub Cadet mower replacements	15,000	Recreation

Appendix C – Level of Service Maps & Photos

Road Network Map - Hudson



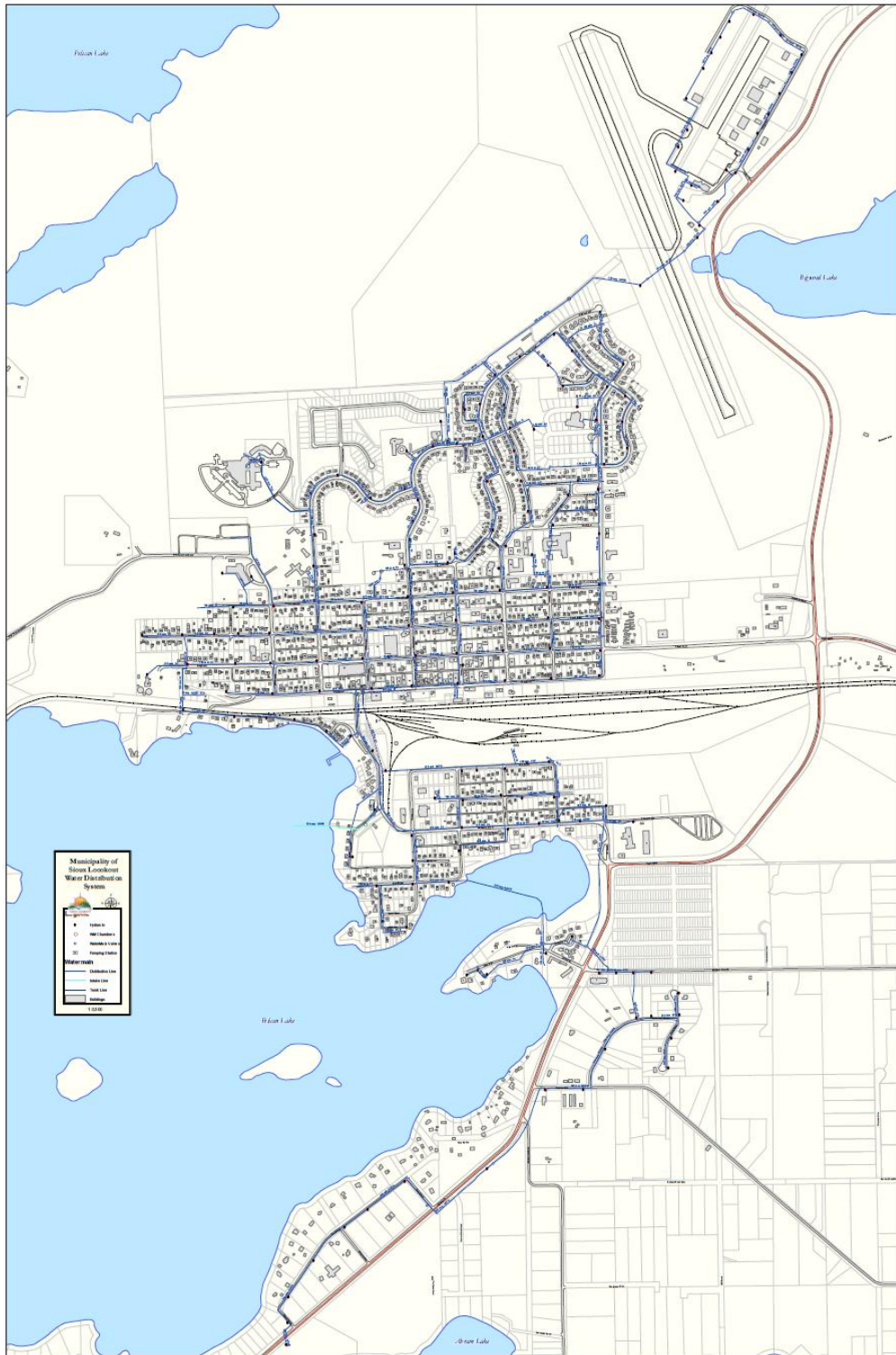
Road Network Map – Sioux Lookout



Water Distribution System – Hudson



Water Distribution System – Sioux Lookout



Appendix D – Risk Rating Criteria

Probability of Failure

Asset Category	Risk Criteria	Criteria Weighting (%)	Value/Range	Probability of Failure Score
Asphalt & LCB Roads	Condition	60	7 and below	1 - Rare
			15 and below	2 - Unlikely
			23 and below	3 - Possible
			31 and below	4 - Likely
			40 and below	5 - Almost Certain
	Surface Condition	10	5 - Good	2 - Unlikely
			10 - Fair	3 - Possible
			15 - Poor	4 - Likely
			20 - Critical	5 - Almost Certain
	Road Base Problems	15	No	2 - Unlikely
			Yes	4 - Likely
	Drainage Problems Observed	15	No	2 - Unlikely
			Yes	4 - Likely
	Water and Wastewater Facilities	Condition	100	0 and above
1.1 and above				2 - Unlikely
2.1 and above				3 - Possible
3.1 and above				4 - Likely
4.1 and above				5 - Almost Certain
80-100				1 - Rare

Asset Category	Risk Criteria	Criteria Weighting (%)	Value/Range	Probability of Failure Score
Stormwater and Wastewater Linear (Mains)			60-79	2 - Unlikely
			40-59	3 - Possible
			20-39	4 - Likely
			0-19	5 - Almost Certain
			HDPE	2 - Unlikely
	Pipe Material	16	PVC/PVC SDR 35	2 - Unlikely
			Ductile Iron	3 - Possible
			Concrete	4 - Likely
			80-100	1 - Rare
	Service Life Remaining	20	60-79	2 - Unlikely
			40-59	3 - Possible
			20-39	4 - Likely
0-19			5 - Almost Certain	
80-100			1 - Rare	
Water Network (Mains)	Condition	80	60-79	2 - Unlikely
			40-59	3 - Possible
			20-39	4 - Likely
			0-19	5 - Almost Certain
			Perforated Polytubing	2 - Unlikely
	Pipe Material	20	HDPE	2 - Unlikely
			PVC/PVC SDR 28,35	2 - Unlikely
			Copper	4 - Likely

Consequence of Failure

Asset Category	Risk Classification (weighting)	Risk Criteria (weighting)	Value/Range	Consequence of Failure Score
Surface Treated (LCB) Roads	Economic (80%)	Replacement Cost (100%)	\$5,000 and below	1 - Insignificant
			\$25,000 and below	2 - Minor
			\$50,000 and below	3 - Moderate
			\$100,000 and below	4 - Major
			\$200,000 and below	5 - Severe
Asphalt & LCB Roads	Strategic	Road Hierarchy (80%)	Local	2 - Minor
			Collector	3 - Moderate
			Arterial	4 - Major
Asphalt	Economic (80%)	Replacement Cost (100%)	\$5,000 and below	2 - Minor
			\$25,000 and below	2 - Minor
			\$100,000 and below	3 - Moderate
			\$200,000 and below	4 - Major
			\$250,000	5 - Severe
		Width (m) (20%)	4 and below	2 - Minor
			8 and below	3 - Moderate
			10 and below	4 - Major
			15 and below	5 - Severe
Water Mains	Economic (80%)	Replacement Cost (100%)	\$5,000 and below	1 - Insignificant
			\$25,000 and below	2 - Minor

Asset Category	Risk Classification (weighting)	Risk Criteria (weighting)	Value/Range	Consequence of Failure Score
Storm Mains			\$50,000 and below	3 - Moderate
			\$75,000 and below	4 - Major
			\$100,000 and below	5 - Severe
	Strategic (20%)	Diameter (mm) (100%)	50 and below	1 - Insignificant
			150 and below	2 - Minor
			250 and below	3 - Moderate
			400 and below	4 - Major
			1,000 and below	5 - Severe
	Economic (75%)	Replacement Cost (100%)	\$5,000 and below	1 - Insignificant
			\$25,000 and below	2 - Minor
\$50,000 and below			3 - Moderate	
\$75,000 and below			4 - Major	
\$100,000 and below			5 - Severe	
Strategic (25%)	Diameter (mm) (100%)	50 and below	1 - Insignificant	
		150 and below	2 - Minor	
		250 and below	3 - Moderate	
		400 and below	4 - Major	
		1,000 and below	5 - Severe	

Asset Category	Risk Classification (weighting)	Risk Criteria (weighting)	Value/Range	Consequence of Failure Score
Wastewater Mains	Economic (80%)	Replacement Cost (80%)	\$5,000 and below	1 - Insignificant
			\$25,000 and below	2 - Minor
			\$50,000 and below	3 - Moderate
			\$75,000 and below	4 - Major
			\$100,000 and below	5 - Severe
			Segment (20%)	Service Line
	Sewer	4 - Major		
	Forcemain	5 - Severe		
	Strategic (25%)	Diameter (mm) (100%)	150 and below	1 - Insignificant
			300 and below	2 - Minor
			600 and below	3 - Moderate
			900 and below	4 - Major
1,200 and below			5 - Severe	
Water & Wastewater Facilities	Economic (80%)	Replacement Cost (80%)	\$5,000 and below	1 - Insignificant
			\$25,000 and below	2 - Minor
			\$75,000 and below	3 - Moderate
			\$100,000 and below	4 - Major
			\$300,000 and below	5 - Severe
	Operational (20%)	Interior Finishes, Equipment, Furnishing	1 - Insignificant	

Asset Category	Risk Classification (weighting)	Risk Criteria (weighting)	Value/Range	Consequence of Failure Score
		Level 2 Component (20%)	Interior Construction , Site Improvements	2 - Minor
			Special Construction, Site Mechanical Utilities, Site Electric Utilities	3 - Moderate
			Foundations, Basement Construction	4 - Major
			Superstructure, Exterior Enclosures, Roofing, Plumbing, HVAC, Electrical, Electronic safety & security, Stairs	4 - Major
			Conveying, Fire Protection	5 - Severe