



Asset Management Plan

Current Levels of Service – Non Core Infrastructure

May, 2024
Final Report



Prepared by SLBC Inc.

EXECUTIVE SUMMARY

The Town of Stouffville (the Town) provides a range of services to its residents, businesses and visitors, including parks and recreation, culture, libraries, and fire supported by facilities, fleet and information technology “internal” services. This Asset Management Plan (AM Plan) identifies the asset lifecycle actions needed to sustain the current Levels of Service (LOS) for the Town’s non-core services over the next 10 years, along with their forecast cost. Risks associated with the current funding levels are identified and mitigations recommended. This AM Plan fulfils the requirements of the Ontario Regulation (O.Reg.) 588/17 Asset Management Planning for Municipal Infrastructure for July 2024.

Non-Core Asset Inventory

The estimated replacement value of the Town’s non-core assets included is \$ 297.2 million (2023\$), as shown in Table ES-1. The Table includes a breakdown of the inventory by service.

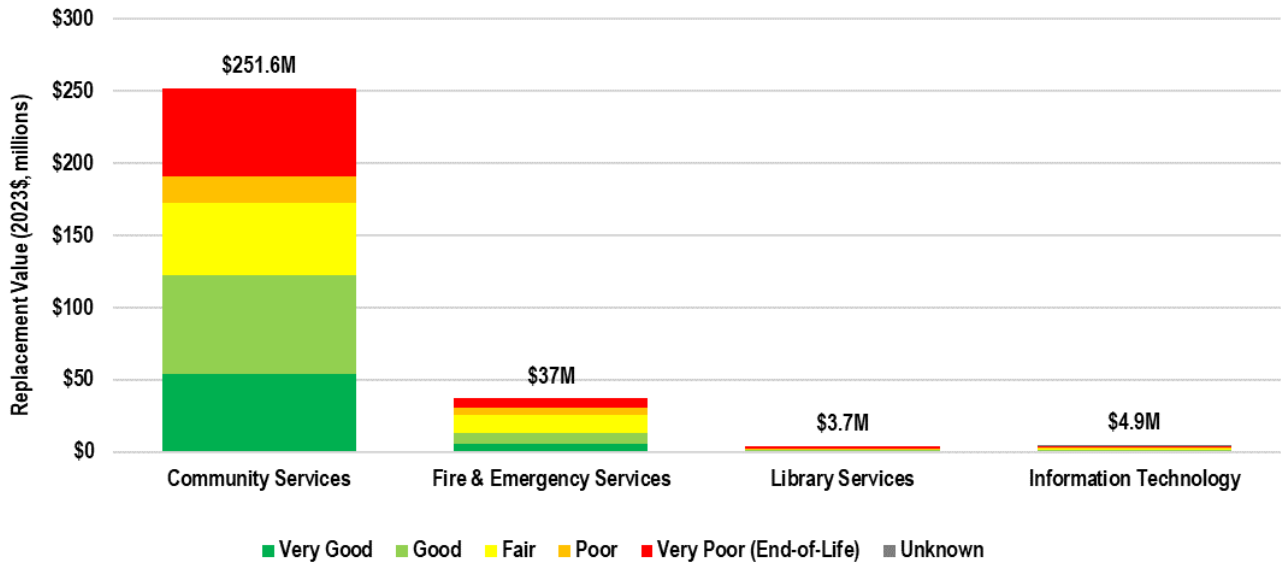
Table ES-1-1 Assets covered by this AM Plan

Service	Asset Categories	Replacement Value (\$2023, millions)	Replacement Value (%)
Community Services	Facilities - Leisure & Community, Facilities - Municipal Office, Facilities - Transportation, Parks Land Improvements, Playgrounds & Pergolas, Fleet - Leisure & Community, Equipment	\$251.6	84.65%
Fire & Emergency Services	Fleet, Equipment, Facilities - Fire Stations	\$37.0	12.46%
Library Services	Books/Media, Hardware, Software, Institutional Equipment	\$3.7	1.24%
Information Technology	End User Devices, Server Equipment, Networking Equipment, Software	\$4.9	1.65%
TOTAL		\$297.2	100%

State of Infrastructure

The following graph depicts, by colour, the value of assets that fall within each of the condition grades (very good or new, good, fair, poor, very poor or end-of-life), organized by program area. The total replacement value of assets within each service area is shown to the right of the condition grade bar.

Figure ES-1 Asset Condition Grade Profile, By Service Area



To adequately meet service levels and manage risk while minimizing lifecycle costs, most assets should generally be preserved in fair or better condition. The above figures show that the majority of the Town’s assets – in fact **68%** – are in fair or better condition based on weighted value.

Subsequently, 32% or \$94 million are in poor or very poor condition. Assets in poor or very poor condition require increased attention and renewal investment (i.e., funding and staff resources) to avoid increased maintenance costs and/or unexpected failure. The assets that are currently in poor or very poor condition are typically those that are included in 10-year capital renewal programs and budget forecasts, especially if deemed critical by the Town.

Levels of Service

The Community and Technical LOS were defined for each service area in alignment with the Town’s strategic priorities. One of the main drivers for renewal decision-making, common across all service areas, is for assets to be fit for service or within their service life. Assets not fit for service have been identified as assets which are at or past their service life or are in Very Poor condition. Table ES-2 below summarizes the assets deemed fit for service for each Service Area.

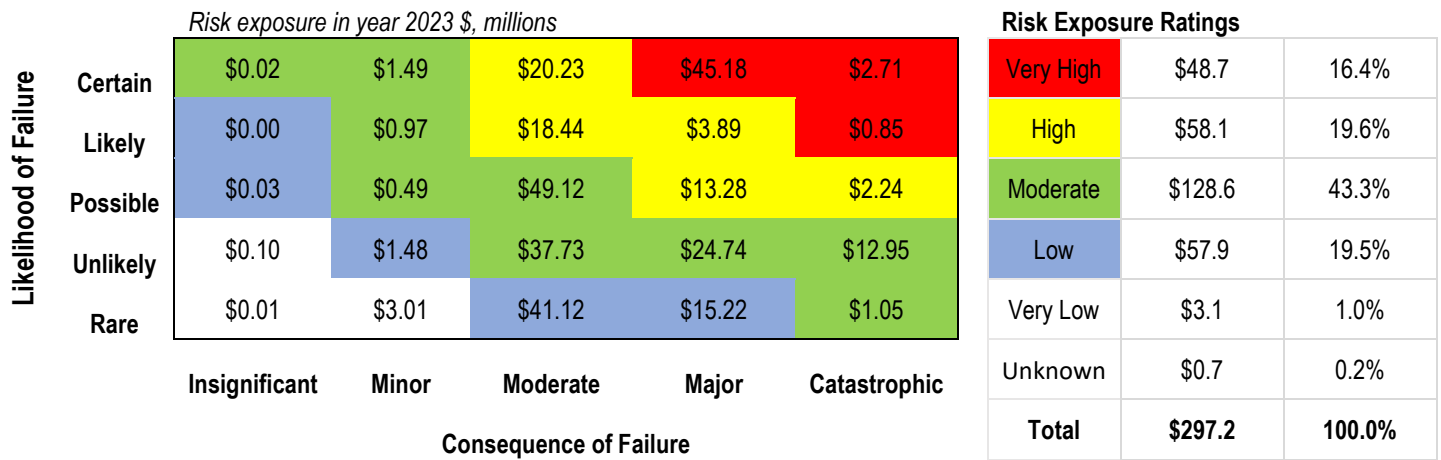
Table ES-2: Levels of Service – Fit for Service

Service Area	Technical Level of Service	Current Performance (2023 \$, millions)	Current Performance (% of total Replacement Cost)
Community Services	% assets in Very Poor Condition (at or past service life) by Replacement Value	\$60.9	24.21%
Fire & Emergency Services		\$6.22	16.80%
Library Services		\$1.1	29.18%
Information Technology		\$1.4	34.09%
TOTAL		\$69.6	23% of total

Risk Mangement Strategy

Based on those assets with known condition, Figure ES-2 shows that \$48.7million of the Town’s assets or 16.4% are in the Very High-risk exposure category related to provision of reliable services. This excludes approximately \$0.7 million of assets with unknown condition (probability of failure). The Town mitigates its exposure to these risks through the planned lifecycle strategies discussed in the Lifecycle Management Strategy section of this AM Plan.

Figure ES-2: Risk Exposure of the Town’s Assets



Through time, assets will deteriorate and move up the Likelihood of Failure scale (i.e. become more likely to fail), then down the Likelihood of Failure scale when they are renewed.

Lifecycle Management Strategy

Renewal and Rehabilitation

The renewal forecasts consider the asset's current condition or age, the Town's planned rehabilitation and replacement activities, as well as the recommended strategies from specific studies such as BCAs (Building Condition Assessments). Asset renewal needs are triggered by condition, age, or other performance measure. If installation date is missing, renewal needs are included as an average annual reinvestment rate (same investment each year) based on asset value and useful life.

This AM Plan for current levels of service explored renewal and condition forecasts for two scenarios:

Scenario 1: Maintaining the Current LOS (Figure ES-3 and ES-4)

- This scenario shows renewal activities that would be required to prevent the current renewal backlog from growing.

Scenario 2: Unconstrained Budget Scenario (See Chapter 5: Lifecycle Management Strategy Section in AM Plan)

- This scenario shows the renewal activities that would be conducted if assets were renewed immediately upon reaching end of asset life. The unconstrained renewal funding scenario is aspirational, since most municipalities do not have sufficient resources to support this level of service. In fact, this funding level would significantly improve the Town's LOS performance for Asset Service Condition by eliminating the renewal backlog.

The average annual renewal need to maintain the current LOS (assets at or past service life) is \$6.8 million. The average annual planned renewal spending for the same period is \$4.3 million (in dollar values of spending year). This leaves an infrastructure renewal gap of \$2.5 million for maintain the current LOS.

Figure ES-3: Infrastructure Renewal Needs – Maintaining Current LOS Scenario

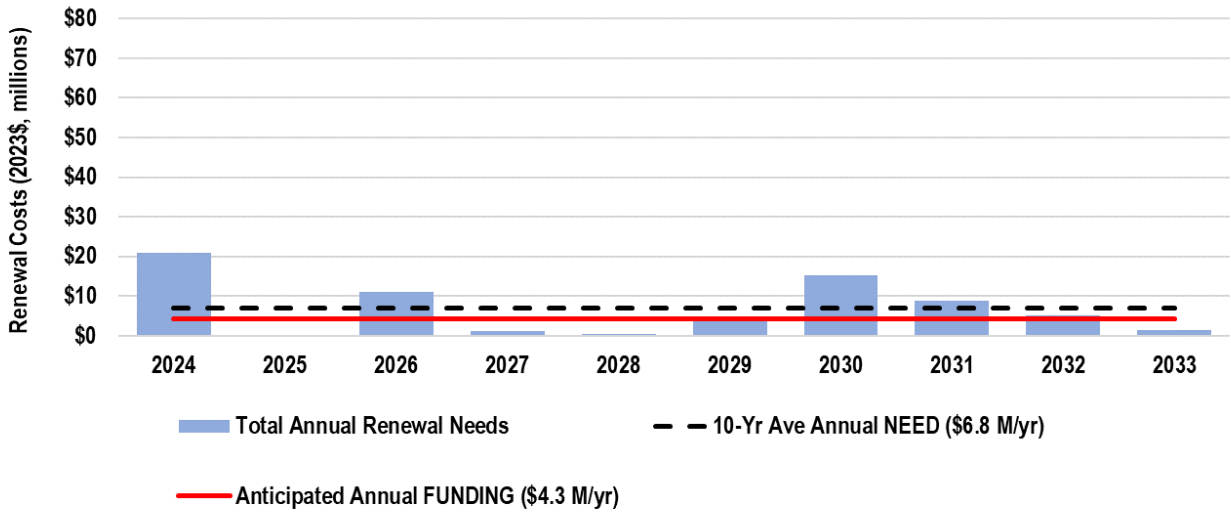
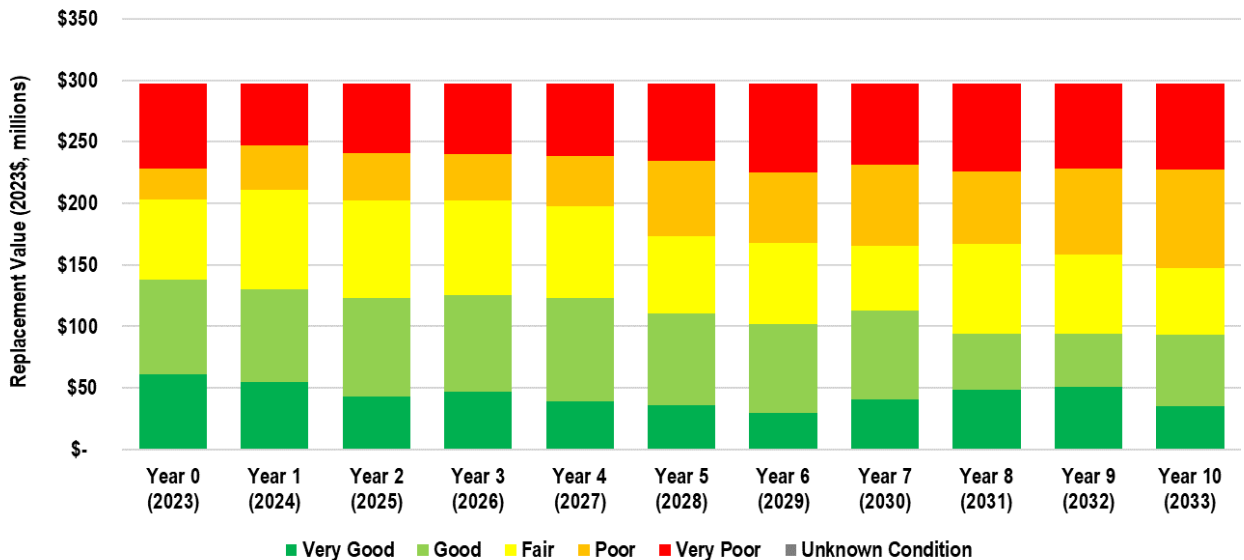


Figure ES-4 below shows the forecast condition distribution associated with spending level in Figure ES-3 (Maintaining Current LOS Scenario). The plot shows that since the Town is underfunded to maintain the current backlog which will result in increasing quantities of very poor assets over time. If assets are not renewed when they reach end-of-life, their probability of failure increases. Depending on the asset type and failure context, an asset failure may result in various negative impacts, such as service disruptions, injuries to employees or the public, reputational harm to the organization.

Figure ES-4: Condition Forecast, Maintain Current LOS (Renewal Backlog) Scenario



Operations and Maintenance

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of, the forecast operation and maintenance costs are expected to decrease. Figure ES-5 shows the forecast operations and maintenance costs for the next 10 years.

Figure ES-5: Operations and Maintenance Needs Forecast

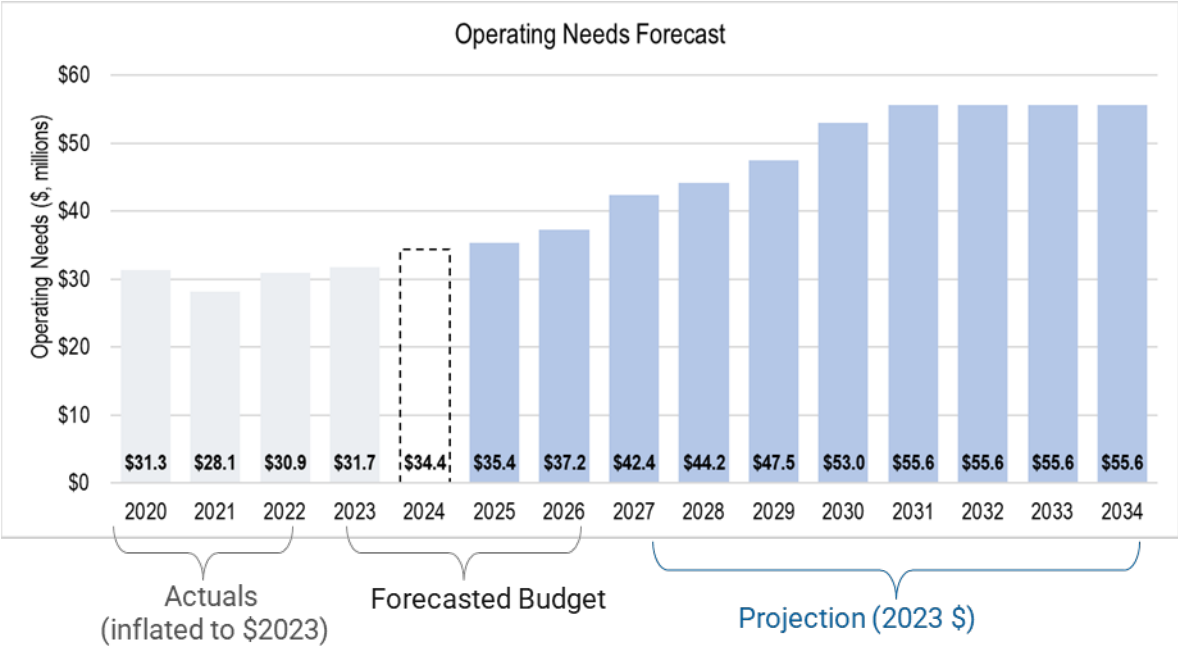


Figure ES-5 shows that the costs are expected to increase from \$32 million/year in 2023 to \$56 million/year in 2033. All figure values are shown in year 2023\$ (including historical operating amounts), and do not include inflation. Forecast increases in operations and maintenance needs are due to estimated growth in the asset portfolio as indicated in the Town’s Capital Projects List.

The Town has a forecasted budget which accounts for a look-out of operating expenditures to 2026. Operations and maintenance needs in future years past 2026 are assumed to increase proportionally with the increase in the replacement value of the asset portfolio by asset type (i.e. facilities, vehicles, equipment). The estimate of operations and maintenance cost increases can be refined by conducting more detailed analysis of operating costs and work order costs, for example by asset sub-types or by maintenance activity.

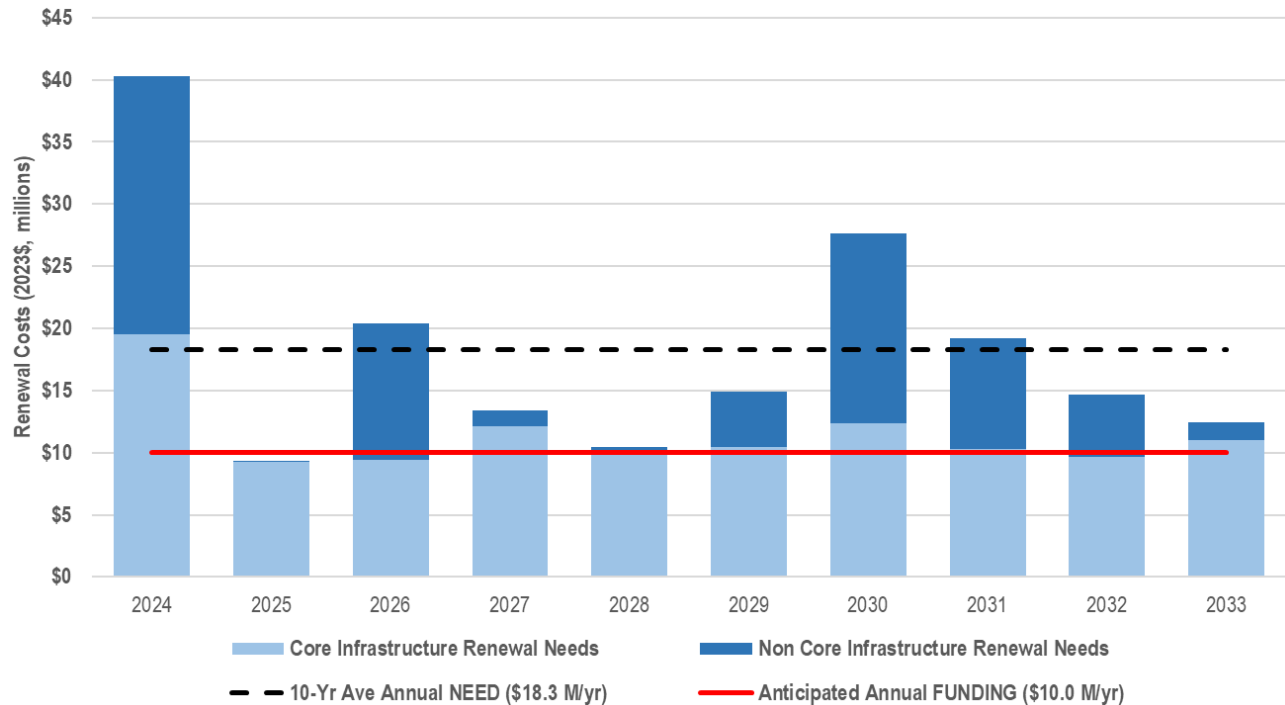
For the period 2024-2033, the annual operating and maintenance costs are expected to average \$47.0 million/year.

Overall Town Infrastructure Gap

The average anticipated renewal funding for both core and non-core infrastructure is \$10.0 million (2023 \$), while the average annual renewal need is \$18.3 million per year. This leaves an infrastructure renewal gap for all Town assets of \$8.3 million. The renewal needs (including the backlog) was taken from the Town’s core asset management plan, produced in 2022. The

core asset management plan provided a 20 year outlook from 2022-2041, hence why both forecasts were able to be simultaneously integrated (as seen in Figure ES-6). The renewal backlog for core assets (identified in 2022) is slightly lower compared to the non-core assets renewal backlog as it has slowly been tackled due to state of good repair investments from the Town.

Figure ES-6: Infrastructure Renewal Needs, Core and Non-Core Assets



Strategies to Close Funding Gaps

The funding gaps may be closed by one or more of the following strategies:

- Reduce near term renewal needs by deferring capital renewal projects on lower risk assets, thereby lengthening the period in which the backlog is addressed beyond the 10 years. This may result in increased maintenance costs and risks to service delivery.
- Maintain the 3% capital dedicated levy (as previously approved by Council).
- Increase available funds through property tax increases, leveraging third party grants.
- Reduce renewal needs by divesting of assets. This may reduce service levels related to capacity.

Debt funding and reserve funding may also be used; however, these are not sustainable long-term solutions, since the debt funding needs to eventually be paid back, and reserves need to be replenished.

Plan Improvement Opportunities

Development of AM Plans is an iterative process that includes improving processes, data, processes, and staff skills over time. This section provides an overview of the compliance of this AM Plan with Ontario Regulation 588/17 for current levels of service (year 2024 requirements)

and identifies opportunities for improvements to the Town’s asset management practices, including those required to meet Ontario Regulation 588/17 for proposed levels of service prior to July 1, 2025.

It is important that the Town recognises areas of their AM Plan and planning process that require future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table ES-3 below.

Table ES-32: Plan Improvement Recommendations

No.	Improvement Recommendation
1	Continue improving work order management system and processes to support improved - tracking of refurbishment and replacement intervals for assets - more accurate forecasting of maintenance and operating costs
2	Consider internal resource needs (operational and renewal impacts) to deliver recommended AM Plan capital growth projects
3	Town to continue to understand growth projections and leverage Master planning initiatives and studies
4	Operationalize AM Plan frameworks by incorporating it into capital planning process (and PSAB register updates)
5	Town to set levels of service targets and develop Proposed LOS AM Plan for all assets
6	Continue to collect data on remaining facilities, establishing a regular frequency program for BCAs
7	Develop a centralized repository of asset data, and continue collecting data on parks, fields, trails, vehicles and small equipment
8	Continue to develop and formalize the internal Asset Management governance structure.

TABLE OF CONTENTS

- 1 INTRODUCTION 4**
 - 1.1 Background 4
 - 1.2 Alignment with Regulatory Requirements 4
 - 1.3 Relationship with Other Municipal Documents 4
 - 1.4 Key Stakeholders 5
 - 1.5 Purpose of the Plan 6
 - 1.6 AM Plan Scope 6
 - 1.7 Organization of Document 7
- 2 STATE OF INFRASTRUCTURE 8**
 - 2.1 Asset Hierarchy and Inventory 8
 - 2.2 Asset Valuation 8
 - 2.3 Asset Condition 10
- 3 LEVELS OF SERVICE 13**
 - 3.1 Overview 13
 - 3.2 Legislative Requirements 13
 - 3.3 Strategic and Corporate Goals 14
 - 3.4 Customer and Technical Levels of Service 15
 - 3.5 Customer Research and Expectations 18
 - 3.6 Current Performance 18
 - 3.7 Factors Impacting Levels of Service Performance 19
- 4 RISK MANAGEMENT STRATEGY 20**
 - 4.1 Overview 20
 - 4.2 Consequence of Failure 20
 - 4.3 Probability of Failure 23
 - 4.4 Town Wide Asset Risk Profile 24
- 5 LIFECYCLE MANAGEMENT STRATEGY 26**
 - 5.1 Overview 26
 - 5.2 Town Growth Needs 27
 - 5.3 Town Inventory Growth Forecast 28
 - 5.4 Renewal Needs 28
 - 5.5 Operations and Maintenance Needs 32
- 6 FINANCING STRATEGY 33**
 - 6.1 Overview 33
 - 6.2 Available Funding Amounts and Sources 33
 - 6.3 Overall Town Infrastructure Gap – Core and Non-Core Assets 35
- 7 COMMUNITY SERVICES 37**
 - 7.1 Overview 37
 - 7.2 State of Infrastructure 37
 - 7.3 Levels of Service 38

7.4	Risk Management Strategy	40
7.5	Lifecycle Management Strategy	40
8	FIRE & EMERGENCY SERVICES	42
8.1	Overview	42
8.2	State of Infrastructure.....	42
8.3	Levels of Service	43
8.4	Risk Management Strategy.....	45
8.5	Lifecycle Management Strategy	45
9	LIBRARY SERVICES	47
9.1	Overview	47
9.2	State of Infrastructure.....	47
9.3	Levels of Service	48
9.4	Risk Management Strategy.....	50
9.5	Lifecycle Management Strategy	50
10	INFORMATION TECHNOLOGY.....	51
10.1	Overview	51
10.2	State of Infrastructure.....	51
10.3	Levels of Service	52
10.4	Risk Management Strategy.....	54
10.5	Lifecycle Management Strategy	54
11	IMPROVEMENT OPPORTUNITIES	55
11.1	Plan Improvement Opportunities	55
11.2	AM Plan Monitoring and Review	55
11.3	Performance Measures	56

APPENDIX A – CONSEQUENCE OF FAILURE SCORES

Figure Index

Figure 2-2	Asset Condition Grade Profile, By Service Area	12
Figure 3-1	Levels of Service Framework	17
Figure 4-1:	Risk Exposure of the Town’s Assets	24
Figure 4-2:	Risk Forecast – Do Nothing Scenario	25
Figure 5-1:	Conceptual Lifecycle Cost Model	27
Figure 5-2:	10-Year Inventory Forecast.....	28
Figure 5-3:	Infrastructure Renewal Needs – Maintaining Current LOS Scenario.....	30
Figure 5-4:	Condition Forecast, Maintain Current LOS (Renewal Backlog) Scenario.....	30
Figure 5-5:	Infrastructure Renewal Needs – Unconstrained Budget Scenario.....	31
Figure 5-6:	Condition Forecast, Unconstrained Planned Lifecycle Scenario	31
Figure 5-7:	Operations and Maintenance Needs Forecast.....	32

Figure 6-1: Town Funding Source Amounts – Core and Non-Core Assets.....	35
Figure 6-2: Infrastructure Renewal Needs, Core and Non-Core Assets	35
Figure 7-1: Condition Distribution by Replacement Value, Community Services.....	38
Figure 7-2 Risk Exposure of the Town’s Community Services Assets.....	40
Figure 7-3: Forecasted Renewal Needs, Community Services	41
Figure 5-1: Condition Distribution by Replacement Value, Fire and Emergency Services	43
Figure 8-2 Risk Exposure of the Town’s Fire & Emergency Services Assets	45
Figure 8-3: Forecasted Renewal Needs, Fire & Emergency Services	46
Figure 9-1: Condition Distribution by Replacement Value, Library Services	48
Figure 9-2 Risk Exposure of the Town’s Library Services Assets	50
Figure 9-3: Forecasted Renewal Needs, Library Services	50
Figure 10-1: Condition Distribution by Replacement ValueInformation Technology	52
Figure 10-2 Risk Exposure of the Town’s Information Technology Assets	54
Figure 10-3: Forecasted Renewal Needs, Information Technology	54

Table Index

Table 1-1 Key Stakeholders in the AM Plan	5
Table 2-1 Assets covered by this AM Plan	9
Table 2-2 Five-Point Condition Grading System.....	11
Table 2-3 Conversion of Industry Condition to Five-Point Condition Grade.....	11
Table 3-1 Legislative Requirements	13
Table 3-2 Corporate Strategic Themes (2022-2026 Strategic Plan)	15
Table 3-3: Levels of Service – Fit for Service	18
Table 4-1: Asset Criticality (Consequence of Failure) Ratings	22
Table 4-2: Probability of Failure Ratings.....	23
Table 5-1: Asset Lifecycle Management Categories	26
Table 5-2: Town Population Forecasts (Source: 2023 DC Background Study)	27
Table 6-1: Asset Management Funding Sources	34
Table 7-1: Inventory and Age Summary, Community Services	37
Table 7-2 Technical LOS, Community Services	39
Table 8-1: Inventory and Age Summary, Fire and Emergency Services.....	42
Table 8-2 Technical LOS, Fire and Emergency Services.....	44
Table 9-1: Inventory and Age Summary, Library Services	47
Table 9-2 Technical LOS, Library Services	49
Table 10-1: Inventory and Age Summary, Information Technology	51
Table 10-2 Technical LOS, Information Technology	53
Table 11-1: Plan Improvement Recommendations	55

1 INTRODUCTION

1.1 Background

The Town of Stouffville (the Town) provides a range of services to its residents, businesses and visitors, including parks and recreation, culture, libraries, and fire supported by facilities, fleet and information technology “internal” services. This Asset Management Plan (AM Plan) identifies the asset lifecycle actions needed to sustain the current Levels of Service (LOS) for the Town’s non-core services over the next 10 years, along with their forecast cost. Risks associated with the current funding levels are identified and mitigations recommended. This AM Plan fulfils the requirements of the Ontario Regulation (O.Reg.) 588/17 Asset Management Planning for Municipal Infrastructure for July 2024.

1.2 Alignment with Regulatory Requirements

This 2024 Current Levels of Service (LOS) AM Plan is an update to the Town’s 2022 AM Plan, intended to meet the requirements of Ontario Regulation (O.Reg.) 588/17 “Asset Management Planning for Municipal Infrastructure” under the Infrastructure for Jobs and Prosperity Act, 2015. Specifically, by July 2024, O.Reg. 588/17 requires municipalities to adopt an AM Plan reporting current LOS for all assets, as well as lifecycle needs to maintain those LOS.

In accordance with the requirements of O.Reg. 588/17, this AM Plan is posted on the Town’s website, along with related background documents, such as condition assessments.

1.3 Relationship with Other Municipal Documents

Asset management planning is a medium- to long-term planning activity that relies on input from strategic planning activities and informs shorter-term decision making. The AM Plan provides a framework to validate the Town’s budgeting processes and assist in prioritizing work activities, including capital projects, based on risk. It also discusses LOS that support goals in the Town’s Strategic Plan and lifecycle management strategies intended to reduce the overall cost of asset ownership.

The AM Plan is intended to be read with other Town policies and planning documents, including the following:

- Policies
 - Corporate Asset Management Policy
 - Corporate Debt Management Policy
 - Reserve Fund Policy
 - Operating and Capital Budget Policy
 - Multi-year Budget Policy
- Strategic Plan (2022-2026)
- Multi-Year Accessibility Report (2022)
- Energy Conservation and Demand Management Plan (2014)
- Tangible Capital Asset (Fixed Asset) Annual Financial Statements
- Multi-year Accessibility Plan (2023-2026)

- Operating and Capital Budgets
- Fire Master Plan (2022)
- Leisure and Community Services Master Plan (2022)

1.4 Key Stakeholders

Key stakeholders in the preparation and implementation of this AM Plan are shown in Table 1-1 below.

Table 1-1 Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Town of Stouffville Elected Council	Overall owners of the Town's assets. Approves asset management policies and asset funding allocation through the annual corporate budget process. An overarching expectation of a standard of care is required by Council to ensure commitment to effective asset management practices.
Senior Leadership Team (EMT)	Provides corporate oversight to the program to ensure that the goal and directions of the Corporate Asset Management program are maintained, and the program remains consistent with the overall Strategic Plan.
Asset Management	Provides leadership and strategic direction for supporting systems/processes specific to the delivery of asset/work management information for the Town of Stouffville. Further, in support of the Town-wide asset management strategies, key AM staff at the Town provide leadership and governance to the Asset Management Policy statement through the provision of information necessary for the long-range forecasts of asset investment needs, services levels, risks, costs and other performance measures.
Finance	Finance provides historic Tangible Capital Asset (TCA) amounts, and historic and current capital and operating budgets. Further, provides coordination on input data and development of the AM Plan from each of the service and program areas.
Service Area Departments	Provide input data, forecasts and text for the AM Plan relative their service and program area or area of functional expertise.
Library Board	Provides input data, forecasts and text for the AM Plan relative its service and program area.

1.5 Purpose of the Plan

This Asset Management Plan (AM Plan) identifies the asset lifecycle actions needed to sustain the current Levels of Service (LOS) for the Town's non-core services. The Plan begins by defining LOS metrics and performance, then provides an overview of the infrastructure assets used to support those LOS. Next, asset lifecycle activities needed to sustain the current LOS over the 10 years are presented, along with their forecast cost. Risks associated with the current funding level are identified and mitigations recommended.

This AM Plan fulfils the requirements of the Ontario Regulation (O.Reg.) 588/17 Asset Management Planning for Municipal Infrastructure for AM Plans. Specifically, this AM Plan outlines current (2024) Levels of Service (LOS) performance for non-core assets, recommended actions, and costs associated with sustaining that LOS.

In accordance with the requirements of O.Reg. 588/17, this AM Plan is posted on the Town's website and will be updated at least every 5 years. Starting the year after the Town's Proposed Levels of Service AM Plan is completed (required by 2025), Town Council must conduct an annual review of its asset management progress on or before July 1st each year which addresses progress in implementing the Town's AM Plan, any factors impeding the Town's ability to implement the AM Plan, and a strategy to address these factors.

This AM Plan is a medium to long range planning document that is used to support the Town's strategic priorities and other goals by providing a rational strategy for proactively and effectively managing the Town's non-core assets. It provides a guide to understanding key items such as:

- The size, replacement value, and condition of Town's non-core asset portfolio
- The current levels of service standards and the Town's performance against them
- The assets that will be needed in the future to support core service delivery objectives and mitigate vulnerabilities
- The planned activities to sustain current and future non-core assets throughout their lifecycles at minimal cost, while mitigating vulnerabilities
- The funding sources for planned lifecycle activities
- The steps to improve future iterations of the AM Plan.

This AM Plan is intended to improve the Town's ability to achieve its corporate goals and objectives in a way that best serves its customers. It provides a rational framework that enables systematic and repeatable processes to manage costs, risks and levels of service for the Town's non-core asset portfolio.

1.6 AM Plan Scope

This AM Plan focuses on four (4) Town services which all assist in providing municipal services to the Town's residential, commercial, industrial, and institutional customers.

1. Community Services: This Service Area includes parks, playgrounds, sports fields, trails, museums and theatres, as well as program equipment within recreational buildings such as community centers and arenas. These assets provide opportunities for leisure, sports, and community gatherings.

2. Fire & Emergency Services: This includes emergency response vehicles and equipment necessary for ensuring public safety and responding to emergencies.
3. Library Services: The assets which support the Town's Library portfolio such as collections, furnishing and equipment, information technology and other equipment within library space.
4. Information Technology: IT infrastructure supports the Town's digital operations, including networks, servers, software systems, and communication technologies.

Note: As Community Services commission manages all facilities for the Town, this AM Plan also includes facilities that serve general administration and transportation. All amounts are stated in 2023 dollars.

1.7 Organization of Document

The contents of this AM Plan follow the recommended elements of a detailed AM Plan:

- **Chapter 1: Introduction:** Outlines scope, background information, relationship to other Municipal documents and plans, and applicable legislation
- **Chapter 2: State of Infrastructure:** Summarizes the inventory, valuation, condition and remaining life of the assets in the inventory by service and asset type
- **Chapter 3: Levels of Service:** Defines levels of service through performance indicators and targets, and outlines current performance
- **Chapter 4: Risk Management Strategy:** Defines the framework for identifying critical assets and quantifies risk exposure to enable prioritization of lifecycle activities and optimization of lifecycle activities
- **Chapter 5: Lifecycle Management Strategy:** Summarizes the planned activities to manage the assets that will enable them to provide the required levels of service in a sustainable way, while managing risk, at the lowest lifecycle cost
- **Chapter 6: Financing Strategy:** Summarizes the available funding for the asset management strategies and any forecast funding gaps
- **Chapters 7 through 10:** Provide details for each of the service areas.
- **Chapter 11: AM Plan Improvement and Monitoring:** Summarizes the next steps including improving future iterations of the AM Plan and monitoring of AM Plan implementation progress.

2 STATE OF INFRASTRUCTURE

The State of Infrastructure section of the AM Plan describes the Town's asset inventory, and provides a snapshot in time of the valuation, age and condition of its assets. Recommendations for the sustainment of data collection and reporting are provided in the AM Plan Improvement and Monitoring section.

2.1 Asset Hierarchy and Inventory

Understanding the assets owned by the Town that are used to support each major service area is important to enable their effective and efficient management. In this AM Plan, the Town's asset inventory has been organized around the major service groups and program areas shown in Table 2-1 in the following sub-section.

Most infrastructure assets owned by the Town are included and organized into linear networks, facilities, fleet, equipment, information technology, and land improvements. Leasehold improvements in facilities not owned by the Town are not included. Land is generally not included in the current replacement costs of the asset inventory. As inputs into decision-making, data and information are important assets, but are not currently included in this Plan.

2.2 Asset Valuation

Financial accounting valuation uses historical costs and depreciation assumptions to determine the book value of capital assets in accordance with the Public Sector Accounting Board (PSAB). Policies and procedures relating to the development of net book values for accounting purposes have been developed by the Town to comply with PSAB 3150 Tangible Capital Assets (TCA) reporting. Costs for facilities were determined leveraging the Town's 2023 Development Charge (DC) Background Study, where an extensive exercise was completed to cost each unit square metre cost for each facility type. For the facility costing, the 2023 building value (\$/square foot) was utilized with an additional 5% added to account for site work costs.

While financial accounting valuations are based on historical costs, managerial accounting valuations are based on replacement costs. For some asset types, the replacement values were calculated using historical costs indexed to December 31, 2023 using the Non-Residential Building Construction Price Indices (NRBCPI) or Consumer Price Index (CPI), as appropriate for the asset type. For the most part, replacement values are benchmark values calculated from current and previous construction year contracts. The replacement cost valuation represents the estimated cost to replace assets today and is presented in 2023 dollars and does not account for future technology improvements but does account for increased regulatory requirements and technology improvements to date.

The estimated 2023 current replacement value of Town non-core assets is **\$297.2** million, as outlined in the following table. For a detailed summary of the assets covered in this AM Plan refer to Sections 4 to 7.

Table 2-1 Assets covered by this AM Plan

Service	Asset Categories	Replacement Value (\$2023, millions)	Replacement Value (%)
Community Services	Facilities - Leisure & Community, Facilities - Municipal Office, Facilities - Transportation, Parks Land Improvements, Playgrounds & Pergolas, Fleet - Leisure & Community, Equipment	\$251.6	84.65%
Fire & Emergency Services	Fleet, Equipment, Facilities - Fire Stations	\$37.0	12.46%
Library Services	Books/Media, Hardware, Software, Institutional Equipment	\$3.7	1.24%
Information Technology	End User Devices, Server Equipment, Networking Equipment	\$4.9	1.65%
TOTAL		\$297.2	100%

2.3 Asset Condition

In this AM Plan, the term “condition” refers to the degree of physical deterioration of an asset. “Performance” is a more general term that typically describes an asset’s ability to achieve levels of service through measures such as capacity, function and operational quality.

Condition assessment programs evaluate current physical condition, determine rate of deterioration over time, enable forecasts of future condition, and inform the most beneficial type and timing of treatment. Condition assessment methods and rating systems have become relatively standard for some assets but vary depending on the type of asset.

Some facilities at the Town have undergone condition assessments to identify deficiencies and recommend repair and replacement of building elements. In tandem to this initiative, the Town completed Building Condition Assessments (BCAs) for some of their critical facilities in 2018 in order to obtain a better understanding of their state of good repair needs. It is recommended that building condition assessments be performed for these types of facilities at least every five years.

Buildings with completed assessments that are captured within this AM Plan include:

- Fire Hall #52
- Fire Hall #51
- Town Hall
- Operations Centre
- 6240 Main Street Community Centre
- 19 on the Park
- Stouffville Clippers Sports Complex.

For those assets with no condition data, age-based condition is estimated as the percentage of age to useful life. Using age data as a surrogate for condition data is common in municipal organizations, but it can be misleading as age does not always directly reflect condition or remaining life.

To enable comparison of condition and condition trends over time between different asset types, a generic condition grading scale is often used to translate detailed engineering data about assets into information that can be compared across asset groups. For this purpose, the Town uses a five-point condition grading system, summarized in the table below, which is consistent with the general condition grading system included in the International Infrastructure Management Manual (IIMM).

Table 2-2 Five-Point Condition Grading System

Grade	Description	Condition Criteria	Criteria Description
VG	Very Good	Fit for the future	Well maintained, good condition, new or recently rehabilitated
G	Good	Adequate for now	Acceptable, generally approaching mid-stage of expected service life
F	Fair	Requires attentions	Signs of deterioration, some elements exhibit deficiencies
P	Poor	Increasing potential of affecting service	Approaching end of service life, below standard, significant deterioration
VP	Very Poor	Unfit for sustained service	Near or past service life, advanced deterioration, assets may be unusable

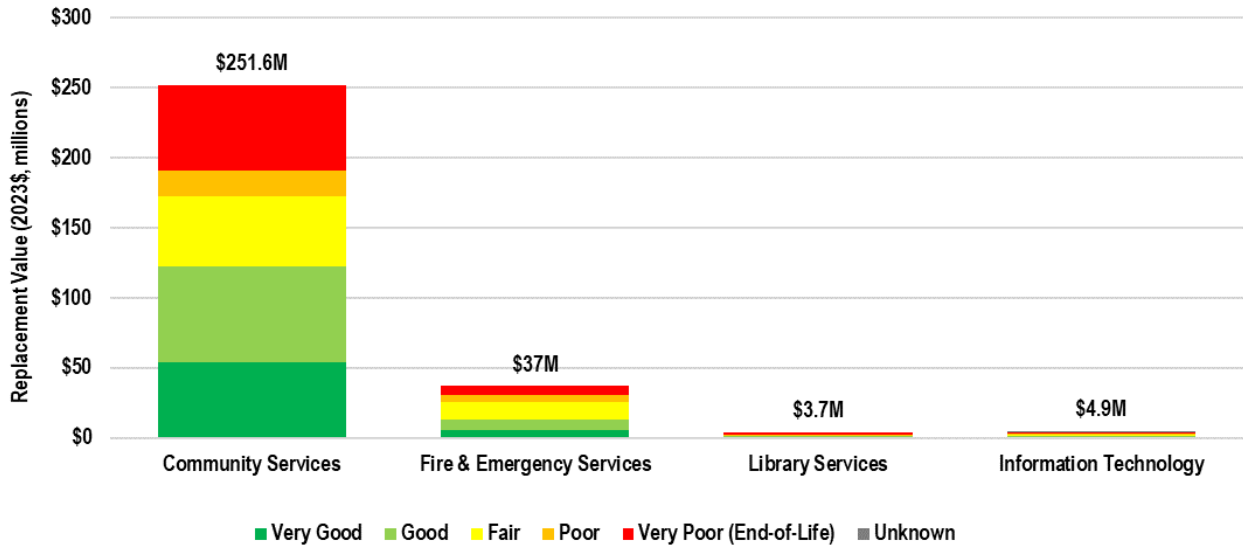
Details relating to the condition of each asset are currently maintained in various databases and spreadsheets. The Town converts industry standard condition rating systems and age-based assets to the above condition grading system as provided in the table below.

Table 2-3 Conversion of Industry Condition to Five-Point Condition Grade

Condition Grade	Description	Deterioration	Performance	Maintenance Costs	Facility Condition Index (FCI) – 3 Year	% Life Remaining for Age-Based “Condition”
Very Good (New)	Fit for the future	None	As intended	Well within normal level	0 – 2%	75 to 100%
Good	Adequate for now	Minimal deterioration	As intended	Acceptable, but increasing	2 – 5%	50 to 75%
Fair	Required attention	Signs of medium deterioration	Lower than intended	Exceeding normal levels & increasing	5 – 10%	25 to 50%
Poor	At risk of affecting service	Significant deterioration	Much lower than intended	Significantly above acceptable levels	10 – 30%	0 to 25%
Very Poor (End-Of-Life)	Unsatisfactory for sustained service	Unsound / Failing	Not performing as intended	Costs unacceptable & rehabilitation not cost effective	30%+	<= 0%

The following graph depicts, by colour, the value of assets that fall within each of the condition grades (very good or new, good, fair, poor, very poor or end-of-life), organized by program area. The total replacement value of assets within each service area is shown to the right of the condition grade bar.

Figure 2-1 Asset Condition Grade Profile, By Service Area



To adequately meet service levels and manage risk while minimizing lifecycle costs, most assets should generally be preserved in fair or better condition. The above figures show that the majority of the Town’s assets – in fact **68%** – are in fair or better condition based on weighted value.

Subsequently, 32% or \$94 million are in poor or very poor condition. Assets in poor or very poor condition require increased attention and renewal investment (i.e., funding and staff resources) to avoid increased maintenance costs and/or unexpected failure. The assets that are currently in poor or very poor condition are typically those that are included in 10-year capital renewal programs and budget forecasts, especially if deemed critical by the Town.

3 LEVELS OF SERVICE

3.1 Overview

One of the basic principles of sound asset management practice is to describe the levels of service the current and future community want and are prepared to pay for, and the associated lowest cost to deliver those levels of service. Performance management is the systematic and cyclical process of identifying objectives, collating information regarding the achievement of those objectives, reporting the information in a meaningful way, and using the information to improve delivery of services to the community.

Monitoring the Town’s performance against defined levels of service helps to improve the Town’s service delivery by focusing program activities and assets on priorities, and identifying under-performance so that it can be addressed. Performance measures or indicators are used for this purpose.

GOOD PERFORMANCE MANAGEMENT

Helps the Town to

- improve service delivery
- demonstrate affordability
- provide accountability to the community

3.2 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of Town services are outlined in **Table 3-1**.

Table 3-1 Legislative Requirements

Legislation	Requirement
Municipal Act, 2001	The main statute governing the creation, administration and government of municipalities in Ontario, other than the Town of Toronto.
Ontario Regulation 588/17 The Infrastructure for Jobs and Prosperity Act, 2015	Sets out the principles for the provincial government to regulate asset management planning for municipalities.
Accessibility for Ontarians with Disabilities Act (AODA)	Develops, implements, and enforces accessibility standards to achieve accessibility for Ontarians with disabilities with respect to goods, services, facilities, accommodation, employment, buildings, structures, and premises on or before January 1, 2025.
Public Section Accounting Board Standard 3150	Standards on how to account for and report on tangible capital assets in government financial statements.
Technical Standards and Safety Act, 2000	Sets out the technical standards and safety regulations to enhance public safety by providing for the efficient and flexible administration of various industries or equipment.
Fire Protection and Prevention Act, 1997	Sets out the legislative and regulatory framework for the establishment of fire protection in Ontario, which is a mandated municipal responsibility.
Ontario Building Code Act, 1992	The legislative framework governing the construction, renovation and change-of-use of a building in Ontario. The Ontario Building Code, a regulation under the Act, establishes detailed technical and administrative requirements and minimum standards for building construction in public health and safety, fire protection, structural sufficiency, construction materials, plumbing and mechanical systems.

Legislated Community Levels of Service

Legislated requirements define the standards according to which the Town is legally obligated to provide services to the community. The Town delivers services in adherence to applicable legislative requirements, including required compliance monitoring and reporting. Many legislated levels of services relate to service and asset safety and reliability. Information on regulatory inspections is contained within various databases and maintained by Town staff at the operational level to ensure legislative compliance. It is typical that details of compliance be held at the operational level, but that reporting that confirms that the Town complies is reported at a higher level.

3.3 Strategic and Corporate Goals

The 2022-2026 Strategic Plan outlines the vision, mission, corporate operating principles, and strategic themes. The main pillars of strategic priorities and the accompanying focus areas are listed within the Strategic Plan and are provided in Table 3-2.



a town that grows



a town that moves



a healthy & greener town



an engaging town



a safe town



good governance



organizational effectiveness

Table 3-2 Corporate Strategic Themes (2022-2026 Strategic Plan)

No	Theme	Areas of Focus
1	A Town that Grows	<ol style="list-style-type: none"> 1. Building permits 2. Development services 3. Business and marriage licensing 4. Business attraction and retention
2	A Town that Moves	<ol style="list-style-type: none"> 1. Traffic management 2. Road maintenance 3. Sidewalk maintenance 4. Street lighting
3	A Healthy & Greener Town	<ol style="list-style-type: none"> 1. Recreation programming 2. Parks, trails and open spaces 3. Tree canopy maintenance 4. Cemeteries 5. Garbage collection 6. Recycling and composting
4	An Engaging Town	<ol style="list-style-type: none"> 1. Events and community engagement 2. Theatre programming 3. Museum services 4. Latcham Art Centre 5. Library
5	A Safe Town	<ol style="list-style-type: none"> 1. Public education - Fire 2. Fire prevention 3. Emergency response 4. Emergency management 5. Municipal law enforcement 6. Parking enforcement 7. Animal services 8. Crossing guards 9. Utility infrastructure locating
6	Organizational Effectiveness	<ol style="list-style-type: none"> 1. Communications 2. Customer service 3. Facility management 4. Financial and infrastructure management 5. Fleet Management 6. Human Resources 7. Information Technology Services
7	Good Governance	<ol style="list-style-type: none"> 1. Council representation 2. Council support 3. Corporate leadership 4. Internal audit 5. Legal support 6. Risk management 7. Election management

3.4 Customer and Technical Levels of Service

Customer LOS measure how the customer receives the service and whether value to the customer is provided. Figure 3-1 shows that Corporate LOS commitments and the legislated

LOS referenced by them drive the definition of more specific Customer (also known as Community) LOS, which can be categorized as relating to one of the following service attributes:

- **Capacity:** Measures that reflect whether the service and supporting assets are of sufficient capacity to meet user demand.
 - Does the Town need more or less of these services and assets?
- **Function:** Measures that reflect the suitability of the services, operations and assets for the user or other stakeholder.
 - Do they meet the needs of the community?
 - Do they meet regulatory requirements including those for health and safety, environmental protection and barrier free access?
 - Do they support the Town's strategic priorities?
- **Reliability & Quality:** Measures that reflect whether services and supporting assets are reliable, available when needed, and responsive to customers.
 - Are assets maintained and renewed to ensure a state of good repair (i.e., condition)?
 - Are services continuous?
- **Affordable:** Measures that reflect whether services and supporting assets are adequately funded in both the short and long term.

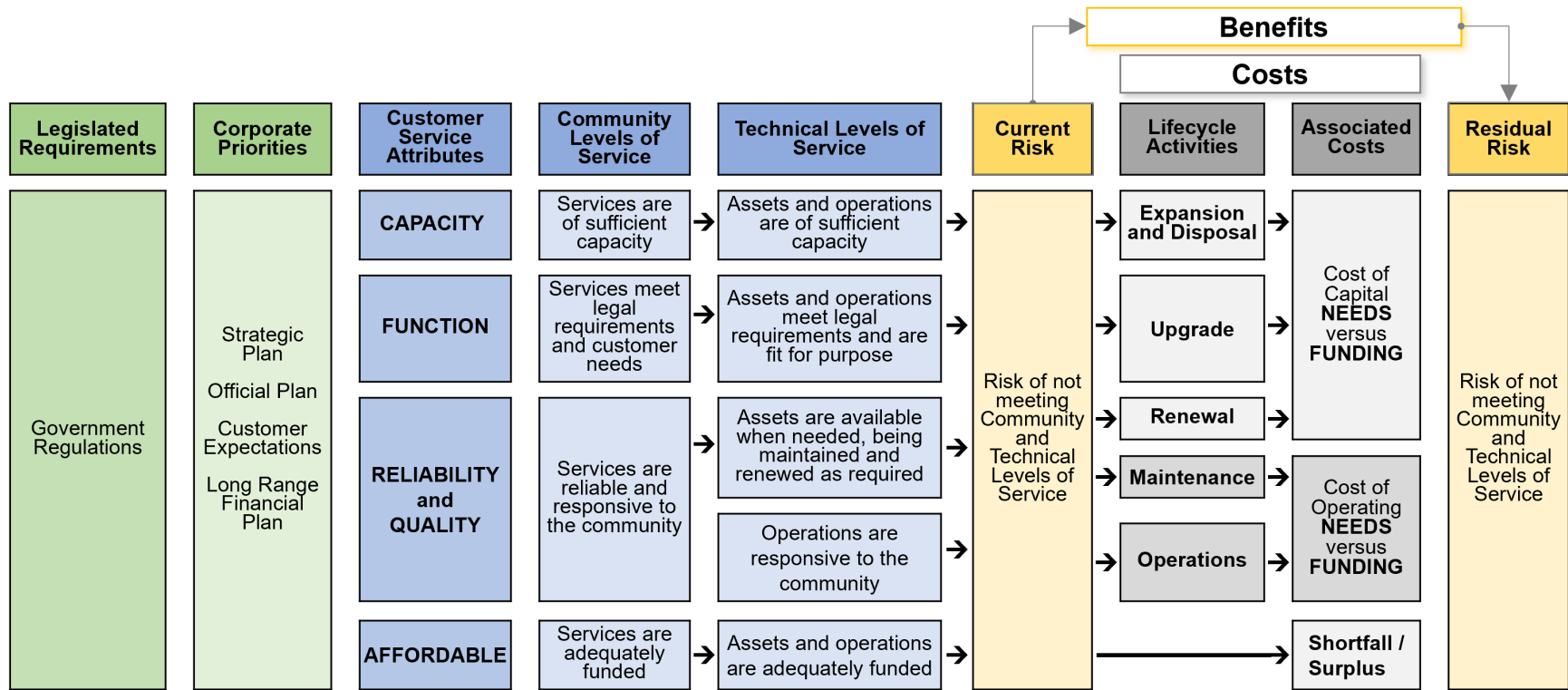
Technical LOS measures support the Customer LOS. They relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance.

Customer LOS are translated into Technical LOS, where:

- **Capacity LOS** drive assessment of expansion needs
- **Function LOS** drive assessment of upgrade needs
- **Reliability & Quality LOS** drive assessment of renewal, maintenance and operations (and programming) needs
- **Affordability LOS** drive assessment of financial sustainability needs.

The risks of failing to achieve the defined Customer and Technical LOS are assessed, and lifecycle activities are prioritized to address those risks. Lifecycle activities may include expansion, upgrade, renewal, maintenance or operational activities, depending on the category of LOS to be addressed. In some cases, lifecycle activities address several Customer and Technical LOS. For example, a large renovation project at a facility may simultaneously increase capacity, make upgrades to meet regulatory requirements, and renew existing equipment. The nature of the lifecycle activity determines whether it should be funded as capital or operating, as well as eligible funding sources. As shown in the figure below, even after the lifecycle intervention, some residual risk may remain.

Figure 3-1 Levels of Service Framework



3.5 Customer Research and Expectations

Resident, business and other stakeholder input is sought during the update of the Town's Strategic Plan, Official Plan, Master Plans and annual budgets. This includes public opinion and stakeholder group surveys that collected information about user service patterns, behaviours and preferences today and potentially in the future. This customer research provides insight into citizens' and other stakeholders' needs and perceptions related to areas of improvement.

3.6 Current Performance

The following table summarizes current performance and the confidence in the data used to assess the performance, by program area. Customer and Technical LOS and performance is provided by service and program area in Sections 4 through 7.

Table 3-3: Levels of Service – Fit for Service

Service Area	Technical Level of Service	Current Performance (2023 \$, millions)	Current Performance (% of total Replacement Cost)
Community Services	% assets in Very Poor Condition (at or past service life) by Replacement Value	\$60.9	24.21%
Fire & Emergency Services		\$6.22	16.80%
Library Services		\$1.1	29.18%
Information Technology		\$1.4	34.09%
TOTAL		\$69.6	23% of total

Other LOS measures related to Capacity & Use, Function and Reliability are explored within each individual Service Area subsection within the AM Plan. Where sufficient data is not available to determine the Town's current performance, the Town will be collecting data and monitoring performance. In the next iteration of the non-core AM Plan, Proposed LOS will be established, which will drive asset improvement decision making.

It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. Additionally, changing circumstances such as technology and customer priorities will also impact future service levels.

3.7 Factors Impacting Levels of Service Performance

External trends and issues affecting expected levels of services or the Town's ability to meet the defined levels of services include the following.

- Population and employment changes (e.g. growth, demographics), which will impact infrastructure use.
- Changes in expectations for programs or patterns of use from the public, which will impact infrastructure use and revenue for services.
- Potential changes in technology and increased security requirements, which may replace obsolete equipment, provide longer asset life, and/or achieve higher quality and greater efficiencies.
- Potential changes to the cost of input variables (e.g. cost of power, fuel), which will impact costs to deliver the services.
- Infrastructure failing prematurely due to environmental factors and/or construction practices requiring renewal much earlier than the expected life of the asset.
- Availability of external funding (e.g. federal and provincial infrastructure programs), which may affect the infrastructure improvement activities that can be undertaken.
- Unexpected downloading of services by more senior levels of government.
- Popularity of sustainability initiatives and “greening” trends (e.g. LEEDs).
- Climate change, including changing storm events and patterns (e.g., higher frequency storms occurring more regularly), which will impact the infrastructure.
- Potential changes in Federal or Provincial legislation.

4 RISK MANAGEMENT STRATEGY

4.1 Overview

The Town's key asset management principle is to meet service levels and manage risk, while minimizing lifecycle costs. The relative importance of the assets to support service delivery, referred to as asset criticality, is a key driver in selection of the most appropriate asset management strategy for each asset. Critical assets include assets that are key contributors to performance, expensive in terms of lifecycle costs, and most prone to deterioration or in need of ongoing maintenance investment.

Risk events related to an asset's failure to provide levels of service related to sufficient capacity, function, or reliability, are events that may compromise the delivery of the Town's service delivery objectives. Lifecycle activities are used to manage the risk of failure by reducing the chance of asset failure to acceptable levels. The impact of asset failure on the Town's ability to meet its service delivery objectives dictates the type and timing of lifecycle activities.

The Town uses a risk framework for quantifying the risk exposure of its assets to enable prioritization of projects across asset classes and services. Risk exposure is the multiplication of the criticality or consequence of failure (CoF), which is the direct and indirect impact on the Town if an asset failure were to occur, by the probability of failure (PoF), which is the likelihood or chance that an asset failure may occur:

$$\text{Risk Exposure} = \text{Consequence of Failure} \times \text{Probability of Failure}$$

4.2 Consequence of Failure

Asset criticality or consequence of failure reflects the importance of an asset to the Town's delivery of services. The following impacts of a potential asset failure are considered:

- Financial impact considerations such as asset replacement cost, damages to Town or private property and infrastructure, loss of revenue, and fines.
- Health and Safety considerations including the ability to meet health and safety related regulatory requirements, and degree and extent of injury, ranging from negligible injuries to loss of life
- Service Delivery considerations ranging from a disruption of non-essential service to widespread and long-term disruption of essential service
- Reputational considerations such as residents' reduced trust and confidence in Town government
- Environmental considerations such as length and extent of damages to the natural environment.

The Town's Climate Risk and Resiliency Plan requires consideration of the consequences of extreme weather, emergency events and safety risks to the community. The risk assessment included climate change considerations but should be reviewed over time as the impacts of climate change become more apparent.

Table 4-1 summarizes the above listed impacts against an asset criticality rating scale from 1 to 5, with a higher score indicating a higher consequence of failure.

Table 4-1: Asset Criticality (Consequence of Failure) Ratings

Consequence Categories (Triple Bottom Line)		C1	C2	C3	C4	C5
		Insignificant	Minor	Moderate	Major	Catastrophic
Economic	Financial	Damages, losses (including 3rd party) or fines from \$1k to \$10k	Damages, losses (including 3rd party) or fines \$10k to \$100k	Damages, losses (including 3rd party) or fines \$100k to \$500k	Damages, losses (including 3rd party) or fines \$500k to \$1M	Damages, losses (including 3rd party) or fines > \$1M
Social	Health & Safety	No obvious potential for injury or affects to health.	Potential for minor injury or affects to health of an individual. Full recovery is expected; or minor medical attention may be required	Potential for serious injury or affects to health. May affect many individuals and / or result in short term disability; or Hospitalization may be required for a short period of time.	Potential for serious injury or affects to health of one or more individuals with a possibility of loss of a life and the certainty of long-term disability; or Emergency hospitalization required for one or more individuals.	Potential for death or multiple deaths with probable permanent damage; or Emergency and long-term hospitalization required for several individuals.
	Reputational	No Media Exposure	Minor or no media exposure	Moderate local media exposure lasting for several days	Intense local media exposure lasting several days and/or Municipality wide exposure	Significant Provincial exposure lasting several days or weeks
Operational	Availability/ Reliability	Small number of customers experiencing disruption / impact (less than 100 people or up to a few hours)	Localized service disruption / impact (100 to 1,000 people or up to 1 day)	Significant localized disruption / impact (1,000 to 2,000 people or less than 1 week)	Major service disruption / impact (2,000 to 5,000 people or for more than a week)	Municipality wide service disruption / impact (greater than 5,000 people or permanent loss of services)
Environmental	Environment	Very negligible impact or can be restored within 1 week	Minor (within 1 month) very isolated damage / impact to the environment, local importance	Significant short-term impact (up to 2 months), local importance	Significant long-term impact (up to 1 year), Provincial importance.	Major long-term impact (greater than 1 year), Federal importance.

4.3 Probability of Failure

The Town aims to ensure that its assets are kept in a state of good repair to reduce the incidence of unplanned service disruptions due to poor asset condition. Depending on the asset, unplanned failures can have wide-ranging consequences including service disruption, damage to surrounding infrastructure and property, risks to public safety, and environmental impacts.

For this AM Plan, Probability of Failure is estimated based on the condition of the asset, as shown in Table 4-2.

Table 4-2: Probability of Failure Ratings

Probability of Failure	Rating	Description		
		Description	Condition	Condition Grade
Rare	1	Asset is physically sound and is performing its function as originally intended. Asset is new or at the beginning of its service life.	1	Very Good
Unlikely	2	Asset is physically sound and is performing its function as originally intended. Typically, asset has been used for some time but is within mid-stage of its expected life.	2	Good
Possible	3	Asset is showing signs of deterioration and is performing at a lower level than originally intended.	3	Fair
Likely	4	Asset is showing significant signs of deterioration and is performing to a much lower level than originally intended.	4	Poor
Certain	5	Asset is physically unsound and/or not performing as originally intended. Asset has reached end of life and failure is imminent.	5	Very Poor

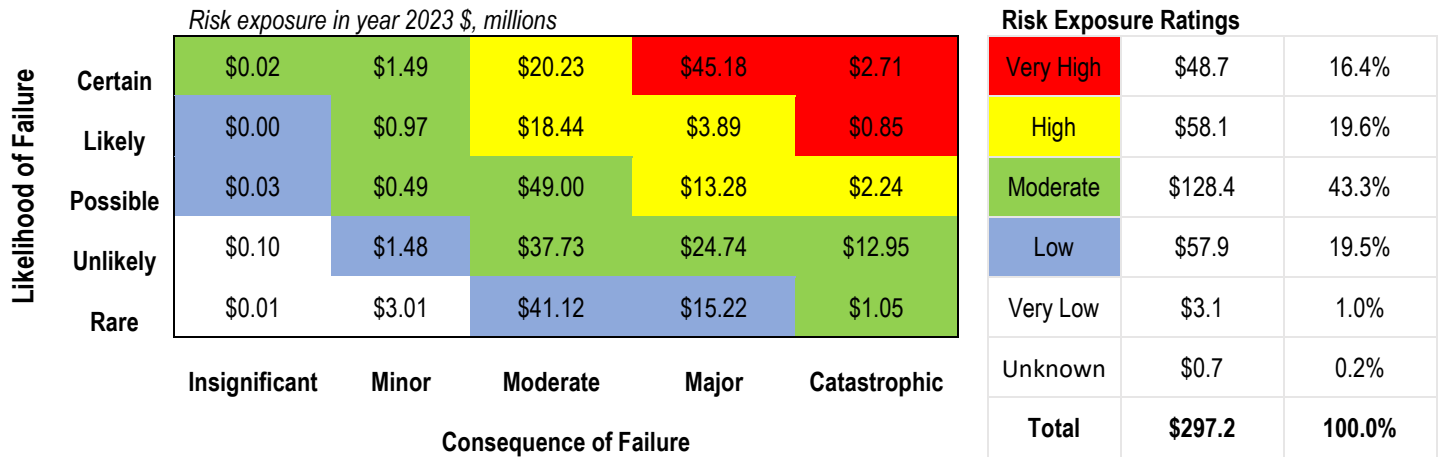
After assessing the criticality and probability of each asset's risk, the results were plotted on a risk map, a graphic representation of probability and consequence of failure. Colors on the map denote different levels of risk and help to inform and prioritize the Town's resources, time, and effort in the next section of the AM Plan – Lifecycle Management Strategy.

- Risks that appear in the red (Very High) zone are significant to the Town and therefore need to be actively managed and monitored in a more comprehensive manner than other risks (i.e., prioritized)
- Risks that appear in the yellow (High) or green (Moderate) zones will also be actively managed depending on their nature
- Risks that appear in the light blue (Low) or white (Very Low) zones are generally acceptable without significant mitigation strategies being implemented, although monitoring may still occur in some form.

4.4 Town Wide Asset Risk Profile

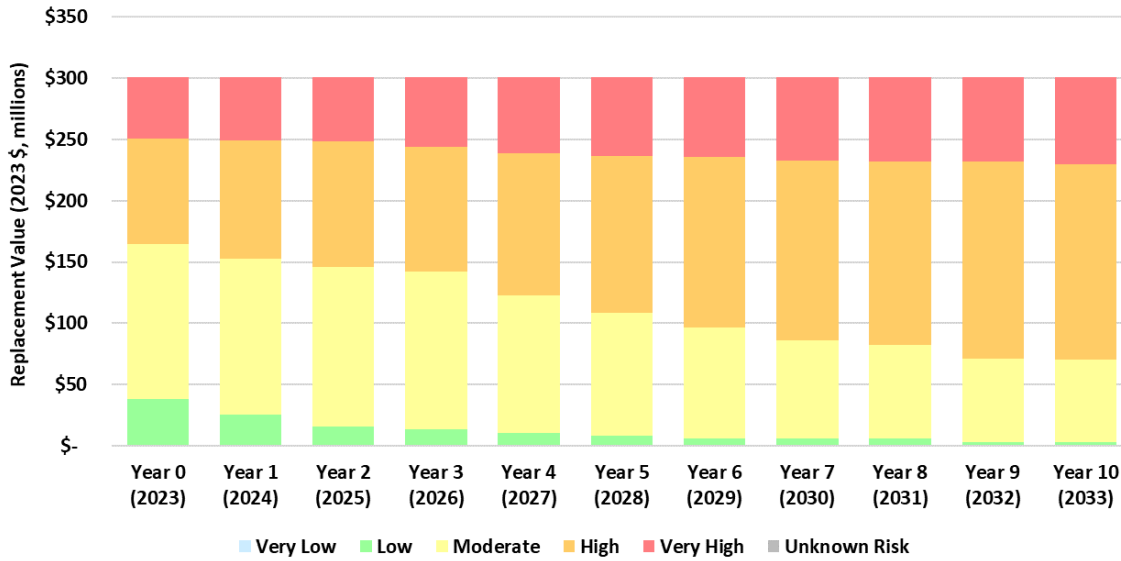
Based on those assets with known condition, Figure 4-1 shows that \$48.7 million of the Town’s assets or 16.4% are in the Very High-risk exposure category related to provision of reliable services. This excludes approximately \$0.7 million of assets with unknown condition (probability of failure). The Town mitigates its exposure to these risks through the planned lifecycle strategies discussed in the Lifecycle Management Strategy section of this AM Plan.

Figure 4-1: Risk Exposure of the Town’s Assets



Through time, assets will deteriorate and move up the Likelihood of Failure scale (i.e. become more likely to fail), then down the Likelihood of Failure scale when they are renewed. Figure 4-2 shows the forecast risk exposure from 2023-2033 if Town did not perform any renewal activities (Do Nothing Renewal Scenario).

Figure 4-2: Risk Forecast – Do Nothing Scenario



5 LIFECYCLE MANAGEMENT STRATEGY

5.1 Overview

The Town’s ability to deliver the levels of service outlined in the Asset Management Plan is impacted in large part by:

- aging infrastructure and the associated need for operations, maintenance, and renewal investments to sustain it
- forecast future population growth and the associated need for additional infrastructure to serve it
- changing functional, legislative and sustainability requirements and the associated need for existing assets to be upgraded to continue to be fit for purpose
- available funds and the associated need for assets to be provided at lowest cost for both current and future customers.

To achieve its objectives, the Town builds new infrastructure assets to meet capacity needs, upgrades assets to meet new functional needs and manages existing assets to meet reliability needs – all with limited funds. Asset lifecycle management strategies are planned activities that enable assets to provide the defined levels of service in a sustainable way, while managing risk, at the lowest lifecycle cost. Asset lifecycle management strategies are typically organized into the categories listed in Table 5-1, and are driven by the levels of services defined for each Service Area.

Table 5-1: Asset Lifecycle Management Categories

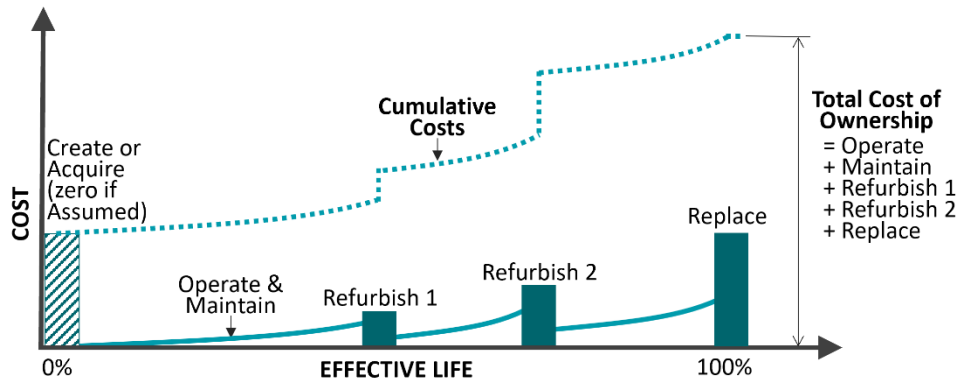
Lifecycle Management Category	Description	Examples of Associated Activities
Operate	Regular activities to provide services	inspect, clean, energy usage
Maintain	Activities to retain asset condition to enable it to provide service for its planned life	repair, replace component
Renew	Activities that return the original service capability of an asset	rehabilitate (minor), rehabilitate (major), replace
Upgrade	Activities to provide a higher level of service capability from an existing asset to achieve better fit for purpose or meet regulatory requirements	update system to be more energy efficient, improve environmental sustainability
Grow	Activities to provide a new asset that did not exist previously or an expansion to an existing asset	acquire new asset, expand existing asset

In addition to the above asset strategies, non-asset solutions are also considered which are actions or policies that can lower costs, lower demands, or also extend asset life. Examples of non-asset solutions include improved integrated infrastructure planning and land use planning, demand management, insurance, process optimization, and education of the public.

The Town assesses the costs of potential lifecycle activities to determine the lowest lifecycle cost strategy to manage each asset type while still meeting levels of service. The total cost of ownership is the sum of lifecycle activity costs to sustain each asset type over the asset lifecycle. A conceptual lifecycle cost model is shown in Figure 5-1. Sufficient investment of the right type and at the right time minimizes the total cost of ownership for each asset and also

mitigates other potential risks such as interruption to service delivery or damage to other nearby infrastructure. Operations, maintenance, and renewal activities are timed to reduce the risk of service failure from deterioration in asset condition and are part of the total cost of ownership.

Figure 5-1: Conceptual Lifecycle Cost Model



The Town uses its understanding of risks of not meeting service levels to inform the timing and level of investments needed in infrastructure assets. The Town aims to provide sufficient service Capacity to meet demand and manages the upgrade, operations, maintenance, and renewal of assets to meet defined service levels, including legislated and other corporate requirements. This section of the AM Plan outlines the Town’s expansion and upgrade strategies to support Capacity and functional service levels, and the Town’s operations, maintenance, and renewal activities to support reliability service levels.

5.2 Town Growth Needs

One main factor that municipalities must consider in asset management planning is the impact of future growth on meeting goals and objectives. The Town monitors trends in its population to ensure that its impacts on service levels are well understood and that strategies are developed to address additional demands due to growth and demographic changes. The Town’s forecast population and household growth to 2051 is summarized in Table 5-2. Forecast growth is as reported in the Town’s recently developed 2023 Development Charges Background Study.

Table 5-2: Town Population Forecasts (Source: 2023 DC Background Study)

Year	Population	Population Growth Rate	Total Households
2023	53,380	-	17,949
2033	68,022	2.5%	23,327
2041	71,685	0.7%	24,730
2051	100,398	3.4%	34,730

The Town anticipates that additional infrastructure will be required over the next 10 years to maintain Capacity service levels. Some of this infrastructure will be acquired through Town-led construction (Town-Constructed), while other infrastructure will be constructed by developers then transferred to the Town through ownership assumption (Assumed Assets). The funding is addressed later within this report in the Financial Strategy Chapter.

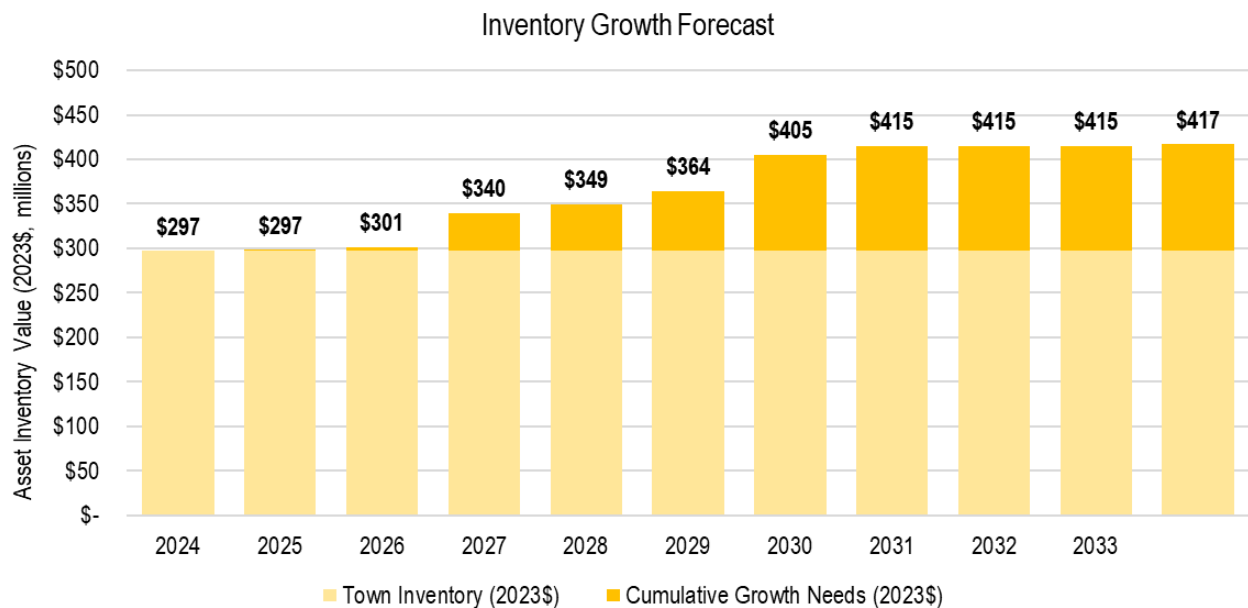
5.3 Town Inventory Growth Forecast

Annual growth and acquisition amounts for projects in the 2024-2033 Capital Plan are shown in Figure 5-2. The growth impact on the asset portfolio was increased by over \$120 million dollars.

Significant planned growth assets included in Figure 5-2 include:

- New Main Branch Hwy 48 Corridor in 2029 (\$40M)
- Additional Ballantrae library project in 2026 (\$10M)
- Aquatic Centre Expansion Project in 2026 (\$16M+)
- New Fire Stations 53, 54, 55 (\$13M+)
- New neighbourhood parks.

Figure 5-2: 10-Year Inventory Forecast



It is important to note that although identified as a potential project, several growth initiatives exist within the Town’s Capital Plan which are currently unfunded.

5.4 Renewal Needs

Renewal efforts focus on rehabilitation and replacement activities to enable the Town to meet its reliability objectives. The renewal activities included in this AM Plan are forecast to be needed to address the existing backlog of assets in Very Poor condition and sustaining other assets as they deteriorate over the next 10 years.

Rehabilitation activities extend the life of an asset and reduce risk of failure. These activities and associated benefits are deemed more cost effective than allowing the asset to reach its end of life. The Town has identified estimated service lives for each of its assets. These replacement intervals are developed to minimize lifecycle costs while considering service levels and associated risk.

The renewal forecasts consider the asset's current condition or age, the Town's planned rehabilitation and replacement activities, as well as the recommended strategies from specific studies such as the BCAs. Asset renewal needs are triggered by condition, age, or other performance measure. If installation date is missing, renewal needs are included as an average annual reinvestment rate (same investment each year) based on asset value and useful life.

Figures 5-3 to 5-6 below present renewal and condition forecasts for two scenarios:

Scenario 1: Maintaining the Current LOS (Figure 5-3 and 5-4)

- This scenario shows renewal activities that would be required to prevent the current renewal backlog from growing.

Scenario 2: Unconstrained Budget Scenario (Figure 5-5 and 5-6)

- This scenario shows the renewal activities that would be conducted if assets were renewed immediately upon reaching end of asset life. The unconstrained renewal funding scenario is aspirational, since most municipalities do not have sufficient resources to support this level of service. In fact, this funding level would significantly improve the Town's LOS performance for Asset Service Condition by eliminating the renewal backlog.

The average annual renewal need to maintain the current LOS (assets at or past service life) is \$6.8 million. The average annual planned renewal spending for the same period is \$4.3 million (in dollar values of spending year). This leaves an infrastructure renewal gap of \$2.5 million for maintain the current LOS.

Figure 5-3: Infrastructure Renewal Needs – Maintaining Current LOS Scenario

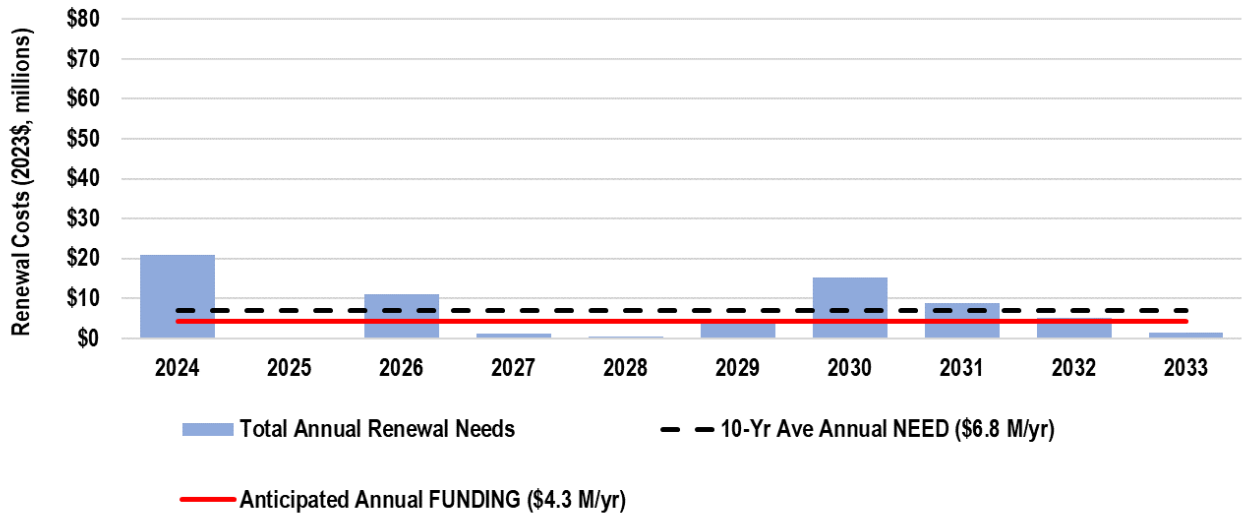
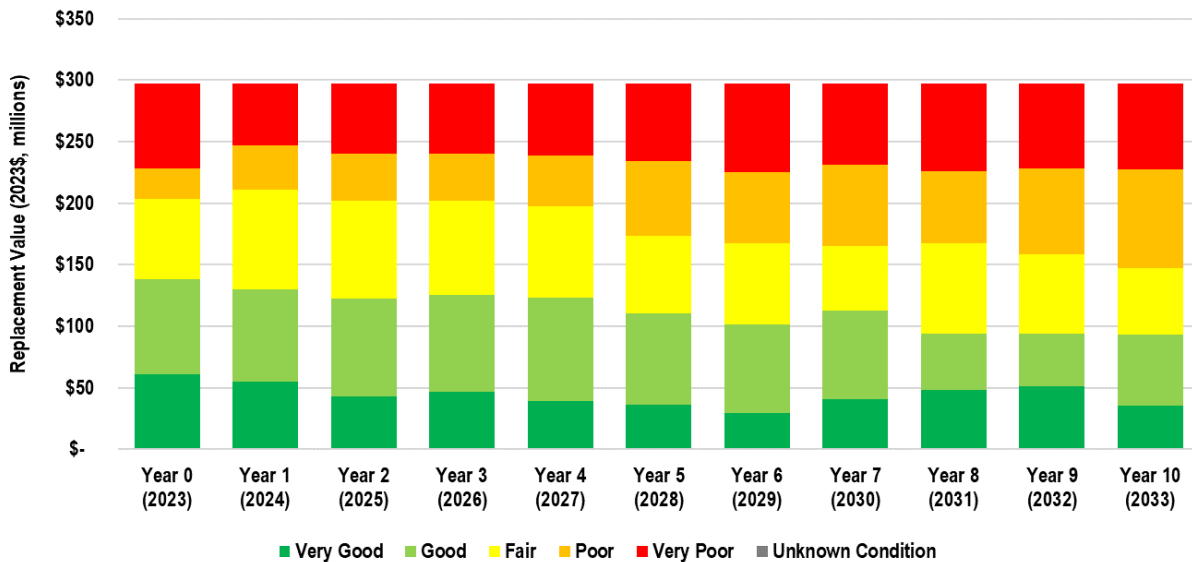


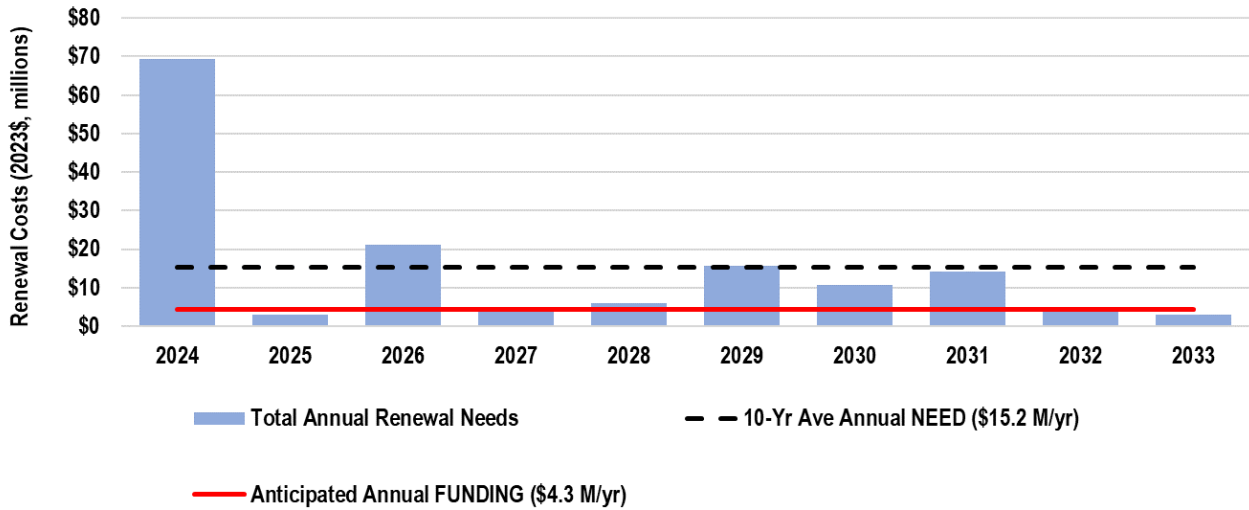
Figure 5-4 below shows the resultant condition distribution (maintaining the backlog of assets after 10 years). Overall, the Town is underfunded to maintain the current backlog which will result in increased quantities of very poor assets over time. If assets are not renewed when they reach end-of-life, their probability of failure increases. Depending on the asset type and failure context, an asset failure may result in various negative impacts, such as service disruptions, injuries to employees or the public, reputational harm to the organization.

Figure 5-4: Condition Forecast, Maintain Current LOS (Renewal Backlog) Scenario



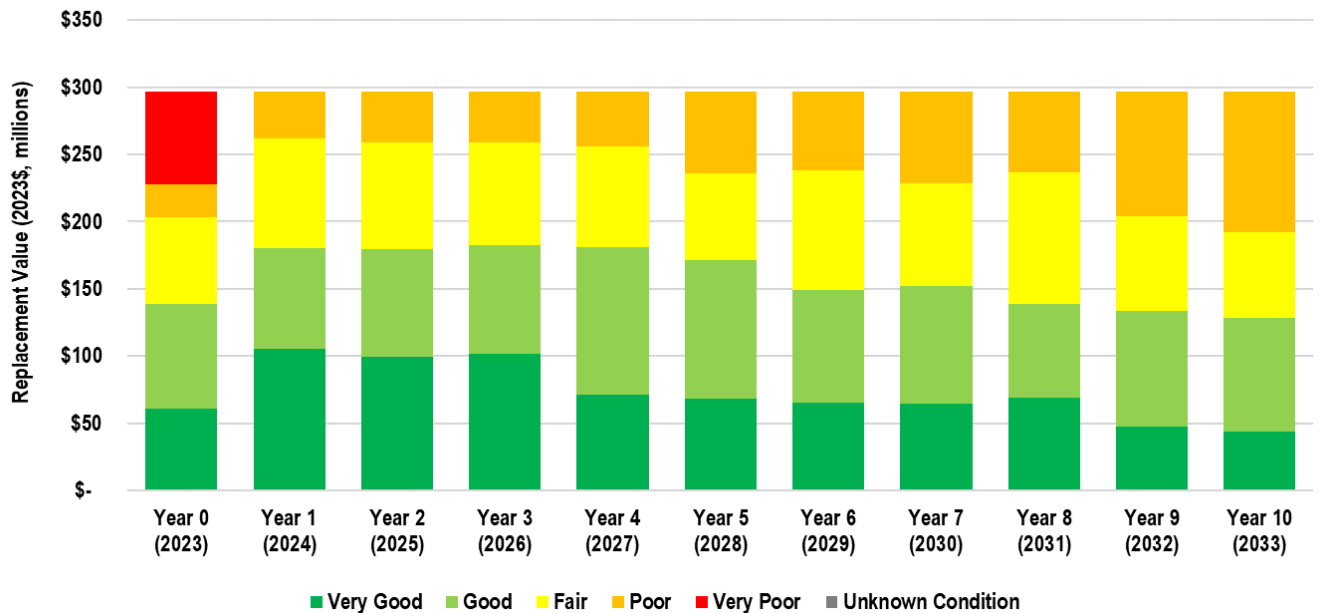
Subsequently, as seen in Figure 5-5, there is a infrastructure renewal gap of \$10.9 million for the unconstrained scenario.

Figure 5-5: Infrastructure Renewal Needs – Unconstrained Budget Scenario



The resulting condition distribution over the next 10 years for this scenario is shown in Figure 5-6. As seen in the unconstrained scenario, different from the maintain LOS scenario, the Town’s backlog of assets is cleared almost immediately after the first year, with no assets reaching past their service life thereafter.

Figure 5-6: Condition Forecast, Unconstrained Planned Lifecycle Scenario

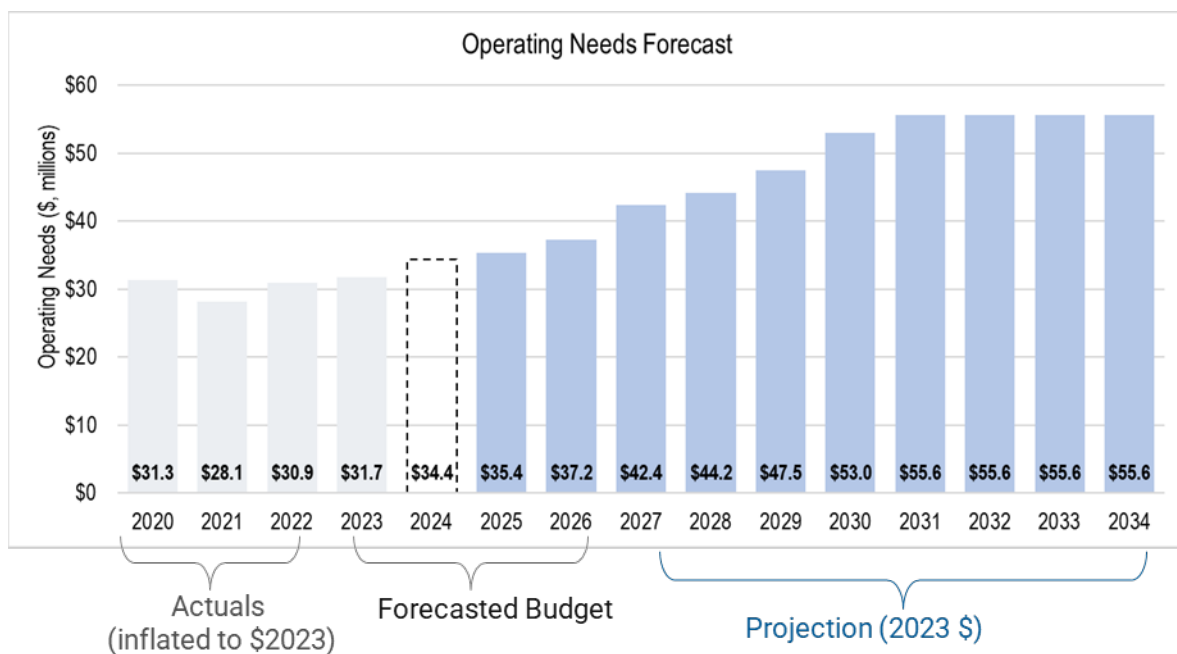


As part of the asset renewal program, condition assessment frequencies and protocols should be formalized for critical and high-value assets, and the recurring cost conducting condition assessments should be added to the capital needs schedule. For example, building condition assessments should be conducted at least every 5 years.

5.5 Operations and Maintenance Needs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of, the forecast operation and maintenance costs are expected to decrease. Figure 5-7 shows the forecast operations and maintenance costs for the next 10 years.

Figure 5-7: Operations and Maintenance Needs Forecast



The figure shows that the costs are expected to increase from \$32 million/year in 2023 to \$56 million/year in 2033. All figure values are shown in year 2023\$ (including historical operating amounts), and do not include inflation. Forecast increases in operations and maintenance needs are due to estimated growth in the asset portfolio as indicated in the Town’s Capital Projects List.

The Town has a forecasted budget which accounts for a look-out of operating expenditures until 2026. Operations and maintenance needs in future years past 2026 are assumed to increase proportionally with the increase in the replacement value of the asset portfolio by asset type (i.e. facilities, vehicles, equipment). The estimate of operations and maintenance cost increases can be refined by conducting more detailed analysis of operating costs and work order costs, for example by asset sub-types or by maintenance activity.

For the period 2024-2033, the annual operating and maintenance costs are expected to average \$47.0 million/year.

6 FINANCING STRATEGY

6.1 Overview

The financial strategy is informed by the preceding sections of the AM Plan: the state or condition of the assets, the proposed levels of service, the risks to service delivery, and the lifecycle activities needed to reduce the risks to service delivery to acceptable levels. The financial strategy considers how the Town will fund the planned asset management actions to meet the current service levels.

Financial sustainability within the municipal government context can be defined as “... a government’s ability to manage its finances so it can meet its spending commitments, both now and in the future. It ensures future generations of taxpayers do not face an unmanageable bill for government services provided to the current generation”.

A municipality is in a financially sustainable position if it:

- Provides a level of service commensurate with willingness and ability to pay
- Can adjust service levels in response to changes in economic conditions or transfer payments from other levels of government
- Can adjust its implementation plans in response to changes in the rate of growth
- Has sufficient reserves and/or debt capacity to replace infrastructure when it needs to be replaced to keep its infrastructure in a state of good repair.

The key challenges to financial sustainability are:

- A discrepancy between level of service decisions and fiscal capacity
- The future cost of infrastructure investments
- Unforeseen impacts to revenue.

Per O.Reg. 588/17, this section of the AM Plan identifies the annual funding projected to be available to undertake the planned lifecycle activities and discusses strategies to address potential funding shortfalls.

6.2 Available Funding Amounts and Sources

Through the Town’s annual budget process, capital project and operating activity expenditure information is gathered from services areas / asset managers, including investment needs, trends and priorities to enable preparation of the capital and annual operating plans. The Town currently approves one-year capital and operating plans and budgets. Note that O.Reg. 588/17 requires that AM Plans for proposed LOS (due by July 1, 2025) provide lifecycle management and financial strategies and annual funding projected to be available for each of the next 10 years.

The Town’s main sources of revenue for state of good repair work include property tax, debt, federal gas tax, third party grants, development charges, and user fees and charges. These funding sources are further outlined in the following table. There are restrictions on the use of funds from various sources (e.g. development charges, user fees).

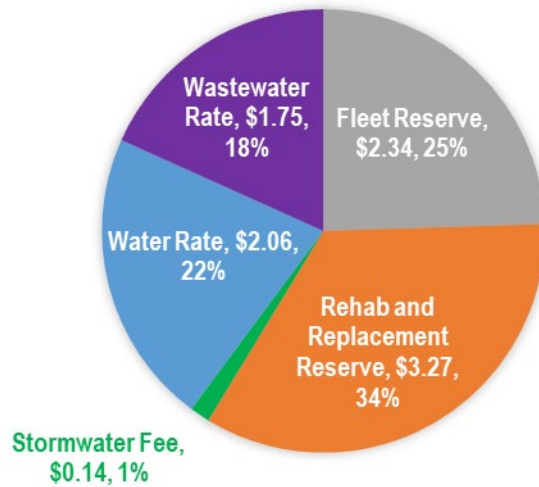
Table 6-1 below identified the different funding sources available at the Town to support “asset management” activities for core and non-core infrastructure.

Table 6-1: Asset Management Funding Sources

Name of Funding	Purpose or Restricted Use	Time Limit or Duration
Capital Levy (2.0% + 1.0%) 2% for AM needs and 1% for Main Street Reconstruction	Used for state of good repair, split across three reserves: 1. Fleet & Equipment 2. New Infrastructure (Growth – not DC eligible) 3. Rehab & Replacements	No Limit (amount will grow as levy grows, staff plans to push for increases to have more sustainable funding)
Canada Community Building Fund	Used for Core Assets (primarily roads and W-WW, but sometimes also used for facilities)	10-year agreement, funding provided in 5 year increments
Ontario Community Infrastructure Fund (OCIF)	Grant provided by the government used to fund Core Assets (primarily roads, bridges and condition assessments)	Will be updated in next census (2026) – available to municipalities with a population of 100,000 or less
Development Charges (DC)	Growth projects to the degree eligible in the DC Background study - Benefit to Existing (BTE) excluded	Current By-Law expires in July 2024, next by-law will last a maximum of 10 years.
Rates (Storm)	Stormwater fees fund the maintenance and replacement of the Town's stormwater network	Approved annually
Capital Infrastructure Fee	Fixed quarterly charge based on resident property meter size used to cover the costs of maintaining water supply and delivery as well as wastewater collection and treatment	Approved annually

A summary of the renewal funding sources for each of the accounts below to support asset renewal needs for both core and non-core assets is provided in Figure 6-1 below. OCIF Funding is exclusive for municipalities under 100,000 in population.

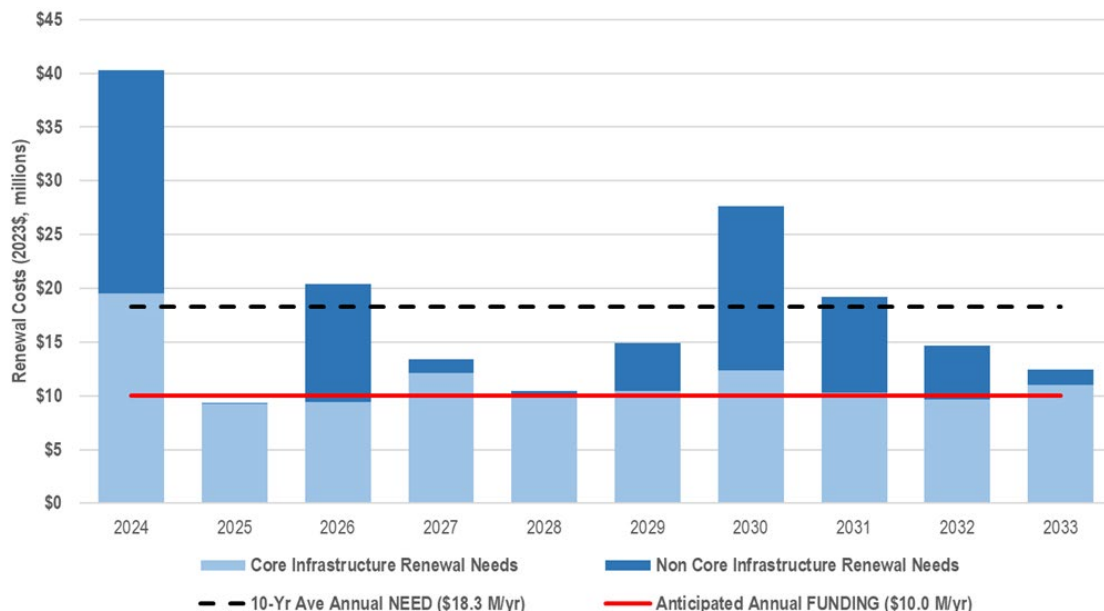
Figure 6-1: Town Renewal Funding Source Amounts – Core and Non-Core Assets (2024)



6.3 Overall Town Infrastructure Gap – Core and Non-Core Assets

The average anticipated renewal funding over the next 10-years for both core and non-core infrastructure is \$10.0 million (2023 \$), while the average annual renewal need is \$18.3 million per year. This leaves an infrastructure renewal gap for all Town assets of \$8.3 million. The renewal needs (including the backlog) was taken from the Town’s core asset management plan, produced in 2022. The core asset management plan provided a 20 year outlook from 2022-2041, hence why both forecasts were able to be simultaneously integrated. The renewal backlog for core assets (identified in 2022) is slightly lower compared to the non-core assets renewal backlog as it has slowly been tackled due to state of good repair investments from the Town.

Figure 6-2: Infrastructure Renewal Needs, Core and Non-Core Assets



6.3.1 Strategies to Close Funding Gaps

The funding gaps may be closed by one or more of the following strategies:

- Reduce near term renewal needs by deferring capital renewal projects on lower risk assets, thereby lengthening the period in which the backlog is addressed beyond the 10 years. This may result in increased maintenance costs and risks to service delivery.
- Maintain the 3% capital dedicated levy (as previously approved by Council).
- Increase available funds through property tax increases, leveraging third party grants.
- Reduce renewal needs by divesting of assets. This may reduce service levels related to capacity.

Debt funding and reserve funding may also be used; however, these are not sustainable solutions, since the debt funding needs to eventually be paid back, and reserves need to be replenished.

7 COMMUNITY SERVICES

7.1 Overview

Community Services offer residents opportunities for leisure, physical activity, and cultural enrichment. Through parks, green spaces, and recreational facilities, people can engage in outdoor activities, sports, and relaxation. Additionally, cultural services provide access to arts, heritage, and entertainment, fostering community identity and creativity through events, programs, and cultural initiatives. These services contribute to the overall well-being and livability of the Town, enhancing the quality of life for its residents.

7.2 State of Infrastructure

Assets that support Community Services include recreation facilities, park land improvements, playgrounds and pergolas, fleet and equipment. As the Community Services commission manages all facilities for the Town, this AM Plan also includes facilities that serve general administration and transportation. Table 7-1 shows the estimated replacement value of \$252M and includes a breakdown of the inventory by asset category. Outdoor recreation assets make up most of the portfolio.

The average age and estimated life of these assets, weighted by replacement value, are also summarized in Table 7-1. Assets that are past their planned service lives can be found within the respective condition profiles as under “very poor condition”.

Table 7-1: Inventory and Age Summary, Community Services

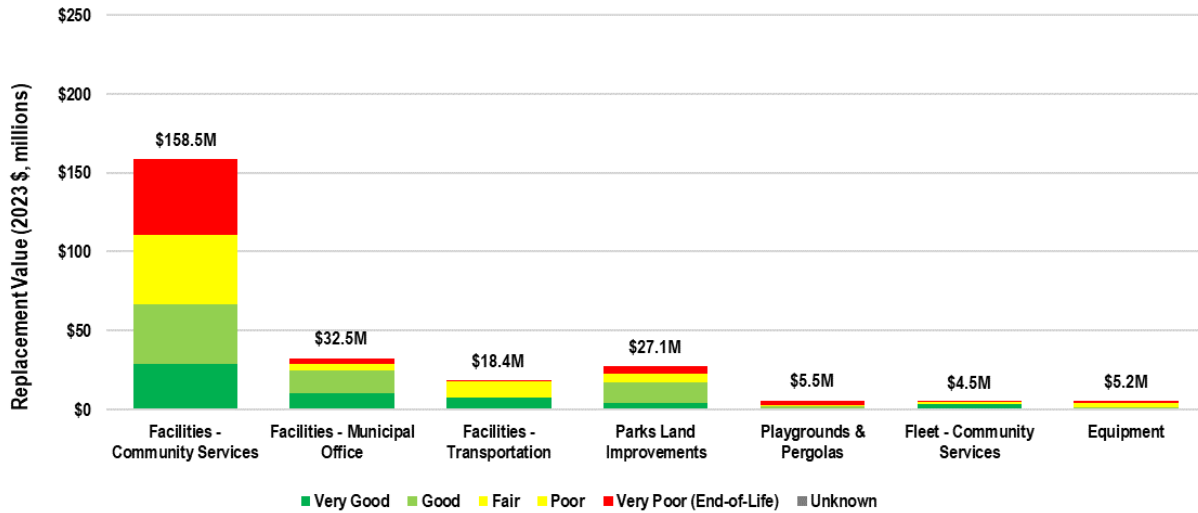
Asset Category	Replacement Value (2023\$M)	Avg Age	Avg Service Life
Sub-Total	\$251.6M		
Facilities - Leisure & Community	\$158.5M	20	60
Facilities - Municipal Office	\$32.5M	12	60
Facilities - Transportation	\$18.4M	13	60
Parks Land Improvements	\$27.1M	17	26
Playgrounds & Pergolas	\$5.5M	14	15
Fleet - Leisure & Community	\$4.5M	7	10
Equipment	\$5.2M	9	12

The condition distribution for the Town’s Parks, Recreation and Culture assets shown in Figure 7-1. The figure graphically shows the relative replacement value, by asset category, and the proportion of assets by condition grade.

The Town completes frequent inspections internally on some of these assets to capture condition information, such as playgrounds, courts and fields.

On average, 69% of Community Services assets are in fair or better condition. 24% are in very poor condition.

Figure 7-1: Condition Distribution by Replacement Value, Community Services



7.3 Levels of Service

Table 7-2 provides the technical LOS for the Town’s Community Services. The Town is proactively looking to fill data gaps related to their current performance for their next iteration of the AM Plan.

Table 7-2 Technical LOS, Community Services

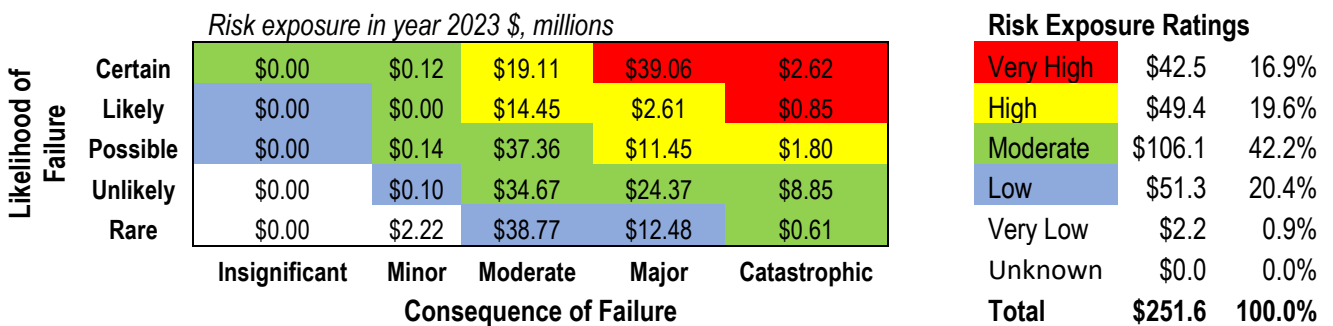
LOS Attribute	Lifecycle Activity	Technical Performance Measure	Performance 2023
Capacity & Use	Growth	Facility Occupancy Rate	Future
Function	Upgrade	Annual electricity consumption per sq ft	Future
		Annual water consumption per sq ft	Future
		Annual natural gas consumption per sq ft	Future
		Percentage of facilities with accessibility audits completed	Future
Reliability	Renewal	% assets in fair of better condition	68.7%
	Operations/ Maintenance	% work orders unresolved/total work order requests	Future

7.4 Risk Management Strategy

Appendix A provides a detailed listing of the CoF assessment scores for the Town’s Community Services assets.

The risk map shown as Figure 7-2 combines the Criticality (CoF) ratings with the Condition (PoF) ratings for infrastructure represented within the Service Area. Some assets such as facility components for critical buildings (i.e. Town Hall) are shown as a High and Very High risk exposure (yellow and red), meaning there is risk exposure to the Town for these assets based on current condition and criticality. The Town is advised to apply appropriate mitigation strategies (i.e. lifecycle interventions, management strategies etc.) to these assets to limit this risk exposure.

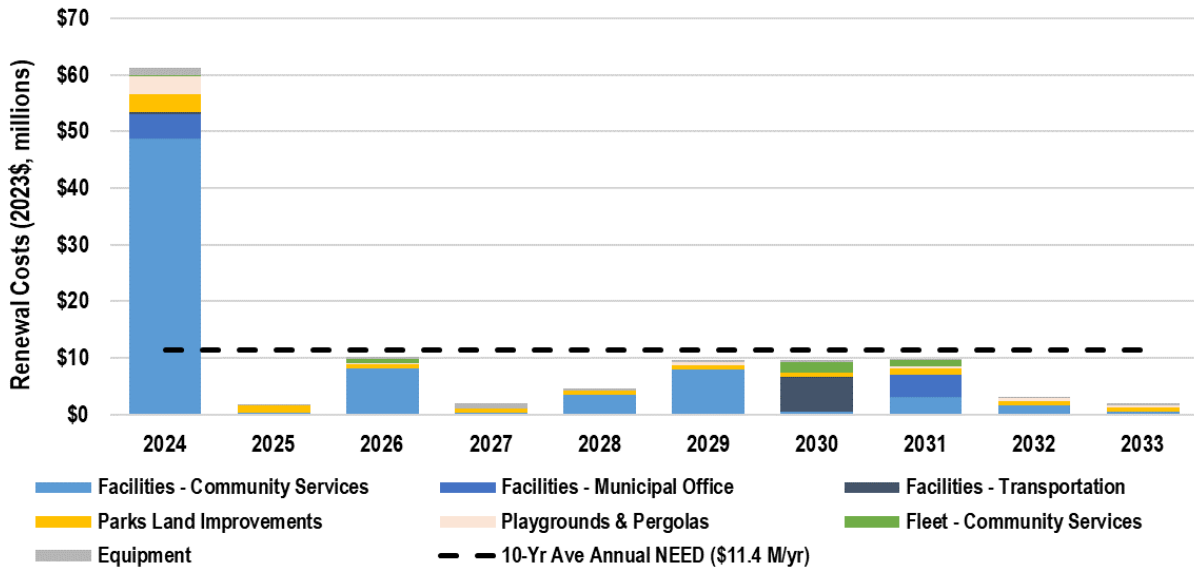
Figure 7-2 Risk Exposure of the Town’s Community Services Assets



7.5 Lifecycle Management Strategy

Figure 7-3 shows the renewal needs over the next 10 years by service. Renewal needs were predominantly based on installation years and age; however condition needs assessment data was utilized for the Town Hall, Operations Centre, 6240 Main Street Community Centre, 19 on the Park and the Stouffville Clippers Sports Complex Arena. The average renewal need (dotted black line) is estimated at \$11.4 million per year for the period 2024-2033.

Figure 7-3: Forecasted Renewal Needs, Community Services



8 FIRE & EMERGENCY SERVICES

8.1 Overview

Fire and Emergency Services are responsible for fire prevention, suppression, and emergency response to protect lives, property, and the environment. Highly trained firefighters operate firefighting equipment, respond to emergencies such as fires, medical incidents, and hazardous material spills, and conduct public education and safety programs. Additionally, fire services collaborate with other emergency response agencies to ensure effective coordination during crises and disasters, serving as a critical component of public safety infrastructure within the community.

8.2 State of Infrastructure

Assets that support transportation infrastructure include fire station facilities, fleet and equipment such as personal protective, respiratory, and rescue equipment. Table 8-1 shows the estimated replacement value of \$37M and includes a breakdown of the inventory by asset category.

The average age and estimated life of these assets, weighted by replacement value, are also summarized in Table 8-1. Assets that are passed their planned service lives (i.e., fleet) can be found within the respective condition profiles as under “very poor condition”.

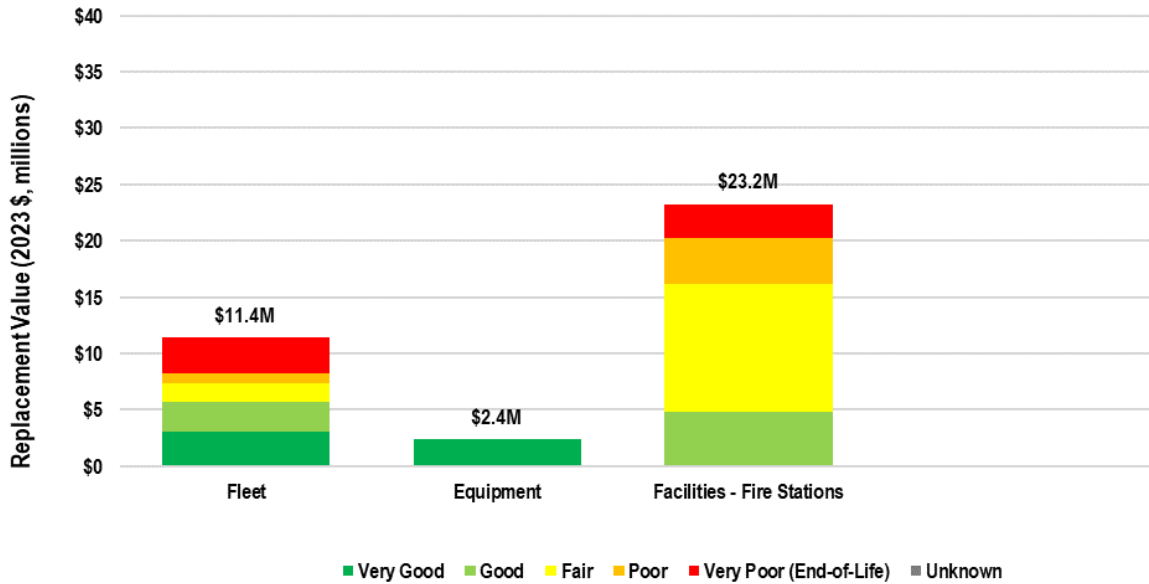
Table 8-1: Inventory and Age Summary, Fire and Emergency Services

Asset Category	Replacement Value (2023\$M)	Avg Age	Avg Service Life
Sub-Total	\$37M		
Fleet	\$11.4M	19	9
Equipment	\$2.4M	5	10
Facilities - Fire Stations	\$23.2M	17	60

The condition distribution for the Town’s Fire and Emergency Services assets shown in Figure 8-1. The figures graphically show the relative replacement value, by asset category, and the proportion of assets by condition grade.

On average, 70% of Fire and Emergency Services assets are in fair or better condition. 17% are in very poor condition.

Figure 5-1: Condition Distribution by Replacement Value, Fire and Emergency Services



Note: Fire Station facility condition has been reported based on component information. Fire Station #52 as a whole is in Very Poor condition and is planned for replacement in 2026.

8.3 Levels of Service

Table 8-2 provides the technical LOS for the Town’s Fire and Emergency Services. The Town is proactively looking to fill data gaps related to their current performance for their next iteration of the AM Plan.

Table 8-2 Technical LOS, Fire and Emergency Services

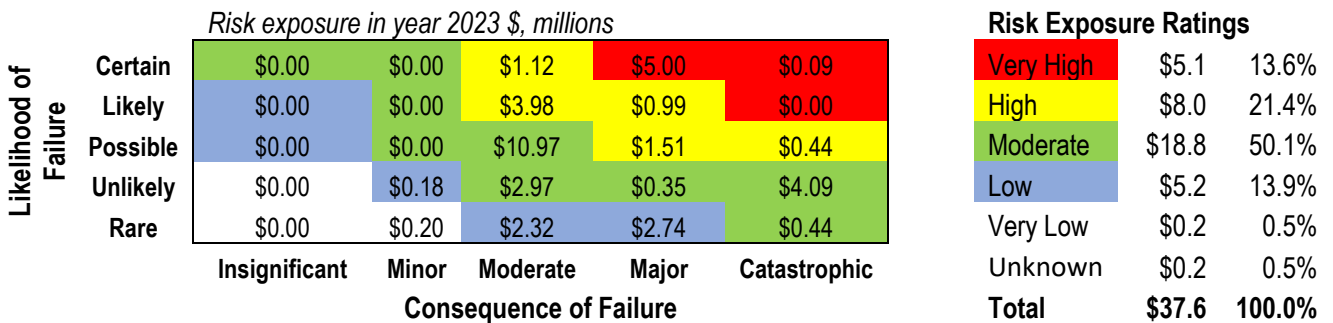
LOS Attribute	Lifecycle Activity	Technical Performance Measure	2023 Performance
Capacity & Use	Growth	Total Calls per Station	1431 (2020)
		Response Times – 90 th Percentile (NFPA 1710)	Station 5-1: 10:03 Station 5-2: 11:46
		Overlapping calls	Future Measure
Reliability	Renewal	% vehicles which meet NFPA 1911 replacement recommendations	Future Measure
		% vehicles which meet FUS replacement recommendations	Future Measure
		% fire assets in fair or better condition	69.8%
	Operations/ Maintenance	Total # of Public Education events	Future Measure
		Total # of Plan Reviews	325 (2020)
		Total # of Fire Inspections	575 (2020)

8.4 Risk Management Strategy

Appendix A provides a detailed listing of the CoF assessment scores for the Town’s Fire & Emergency Services assets.

The risk map shown in Figure 8-2 combines the Criticality (CoF) ratings with the Condition (PoF) ratings for infrastructure represented within the Service Area. Some assets such as facility components and older fleet and equipment are shown as a High and Very High risk exposure (yellow and red), meaning there is risk exposure to the Town for these assets based on current condition and criticality. The Town is advised to apply appropriate mitigation strategies (i.e. lifecycle interventions, management strategies etc.) to these assets to limit this risk exposure.

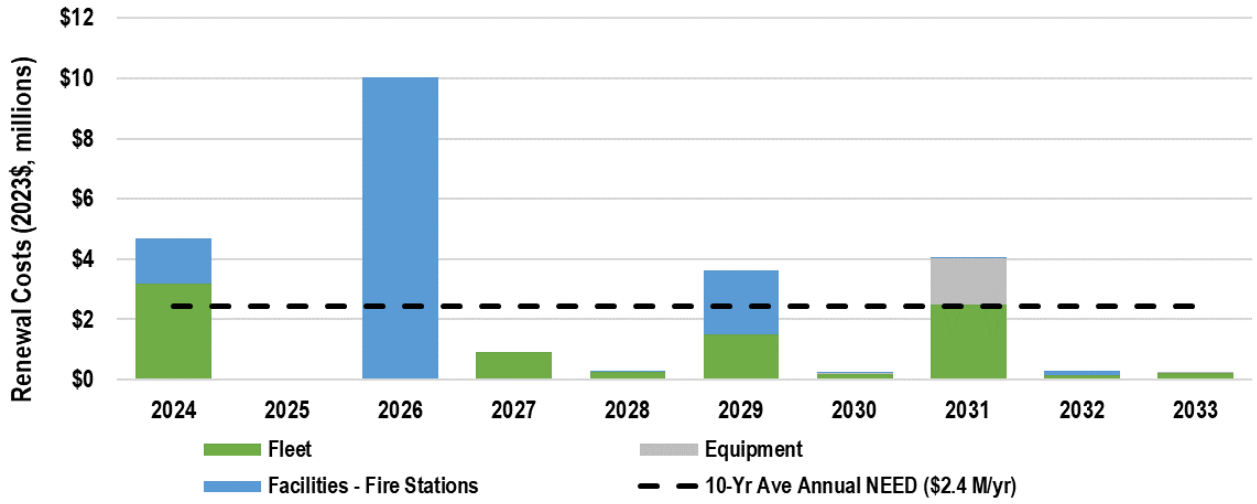
Figure 8-2 Risk Exposure of the Town’s Fire & Emergency Services Assets



8.5 Lifecycle Management Strategy

Figure 8-3 shows the renewal needs over the next 10 years by service. Renewal needs were predominantly based on installation years and age; however condition needs assessment data was utilized for the Fire Hall #51. No capital renewal needs were assigned to Fire Hall #52 as it is due for replacement in 2026. The planned station replacement is anticipated to cost \$15 million dollars, with the Town paying \$10 million dollars and the Region paying \$5 million dollars. The average renewal need (dotted black line) is estimated at \$2.4 million per year for the period 2024-2033.

Figure 8-3: Forecasted Renewal Needs, Fire & Emergency Services



9 LIBRARY SERVICES

9.1 Overview

The Library provides access to a wide range of resources and programs to support literacy, learning, and community engagement. These services typically include lending books, e-books, audiobooks, and other materials; offering public access computers and Wi-Fi; hosting educational and cultural programs workshops; and providing reference assistance and research support. Libraries serve as inclusive spaces for people of all ages and backgrounds to explore, discover, and connect with information, ideas, and each other, promoting lifelong learning and enriching the social fabric of the community.

9.2 State of Infrastructure

Assets that support Library Services include collections, furniture, institutional equipment and technology. Table 9-1 shows the estimated replacement value of \$3.5M and includes a breakdown of the inventory by asset category. Library collection assets make up most of the portfolio.

The average age and estimated life of these assets, weighted by replacement value, are also summarized in Table 9-1. Assets that are past their planned service lives can be found within the respective condition profiles under “very poor condition”.

Table 9-1: Inventory and Age Summary, Library Services

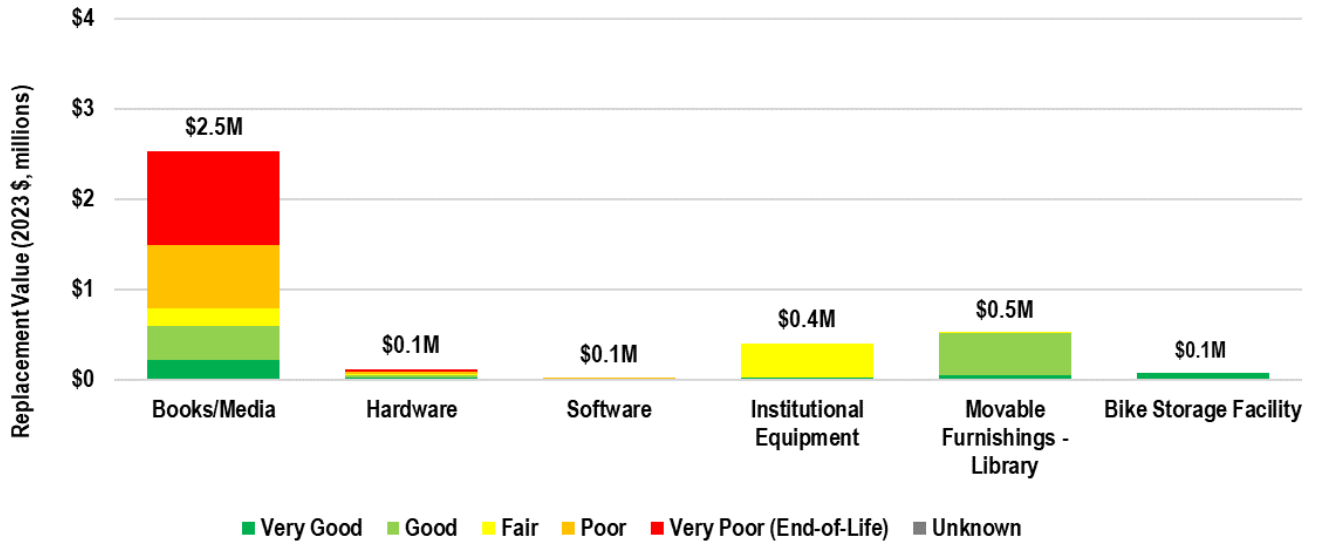
Asset Category	Replacement Value (2023\$M)	Avg Age	Avg Service Life
Sub-Total	\$3.7M		
Books/Media	\$2.5M	7	7
Hardware	\$0.1M	5	5
Software	\$0.1M	4	5
Institutional Equipment	\$0.4M	6	8
Movable Furnishings - Library	\$0.5M	6	20
Bike Storage Facility	\$0.1M	0	20

*The Library facility at the Town is a shared space located within the Whitchurch-Stouffville Leisure Centre (which is captured under Leisure and Community Services)**

The condition distribution for the Town’s Library Services assets are shown below in Figure 9-1. The figures graphically show the relative replacement value, by asset category, and the proportion of assets by condition grade.

On average, 50.6% of Library Services assets are in fair or better condition. 29.2% are in very poor condition.

Figure 9-1: Condition Distribution by Replacement Value, Library Services



9.3 Levels of Service

Table 9-2 provides the technical LOS for the Town’s Library Services. The Town is proactively looking to fill data gaps related to their current performance for their next iteration of the AM Plan.

Table 9-2 Technical LOS, Library Services

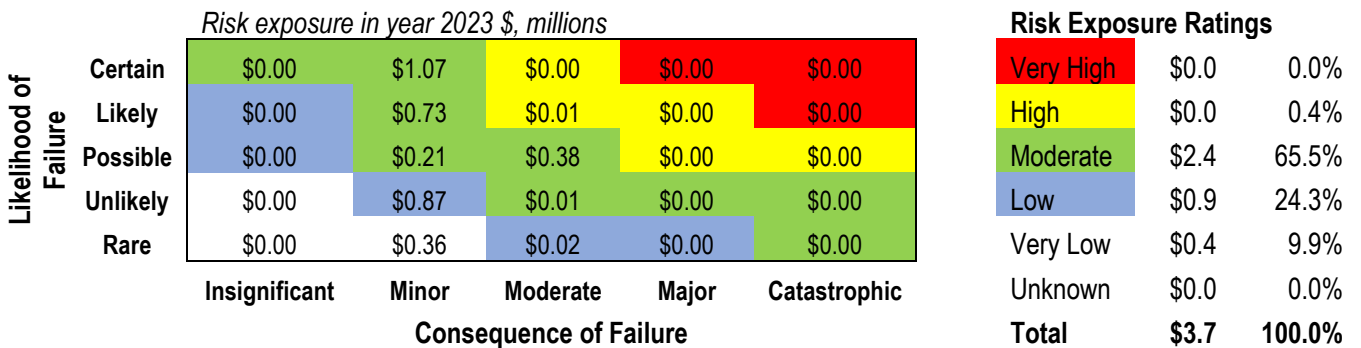
LOS Attribute	Lifecycle Activity	Technical Performance Measure	2023 Performance
Capacity & Use	Growth	Total library space	31,000 square feet
		Staffing per capita	21.5 FTEs
		Square footage per capita	Deficit of 18,864 square feet based on PL Guidelines
		Total # of residents with active library cards	18,257 residents
		Circulation of library materials per capita	15.41 per Capita
Reliability	Renewal	% assets in fair or better condition	50.6%
	Operations/ Maintenance	Program offerings per 1000 residents	33.47
		Annual program attendance per capita	0.7
		Total in person visits	204,727

9.4 Risk Management Strategy

Appendix A provides a detailed listing of the CoF assessment scores for the Town’s Library Services assets.

The risk map shown in Figure 9-2 combines the Criticality (CoF) ratings with the Condition (PoF) ratings for infrastructure represented within the Service Area. No assets are shown as a High and Very High risk exposure (yellow and red), meaning there is little to no risk exposure to the Town for these assets based on current condition and criticality.

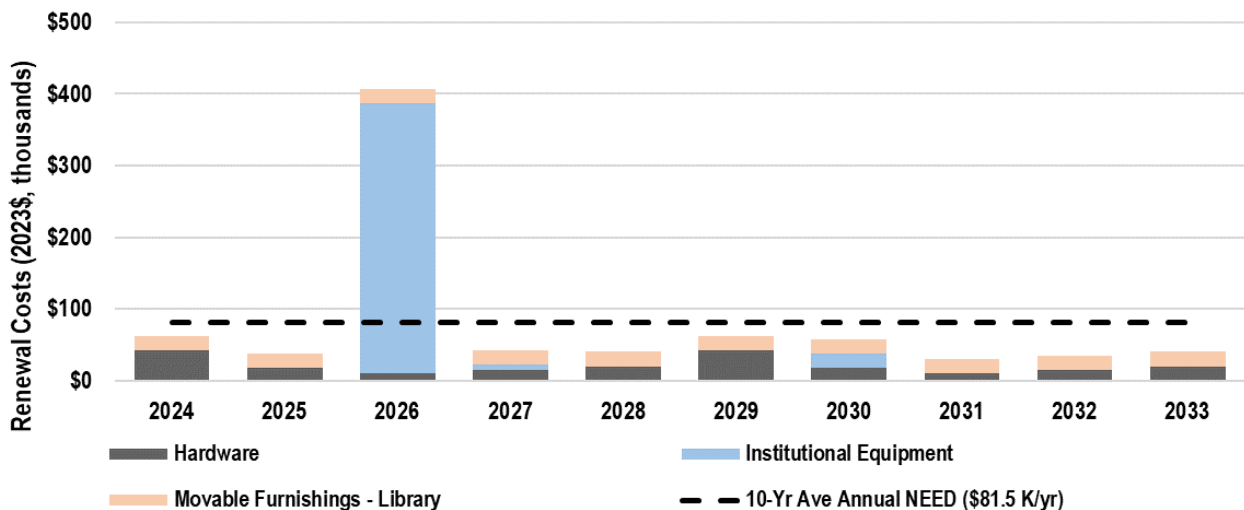
Figure 9-2 Risk Exposure of the Town’s Library Services Assets



9.5 Lifecycle Management Strategy

Figure 9-3 shows the renewal needs over the next 10 years by service. Renewal needs were predominantly based on installation years and age. The average renewal need (dotted black line) is estimated at \$81.5 thousand per year for the period 2024-2033. It is important to note that some Library assets such as software, collections and smaller hardware are replaced through their Operating Budget, and are therefore not included in renewal needs forecast.

Figure 9-3: Forecasted Renewal Needs, Library Services



10 INFORMATION TECHNOLOGY

10.1 Overview

IT services encompass the management and support of information technology infrastructure and systems to facilitate efficient and effective municipal operations. This includes maintaining networks, servers, and software applications; providing technical support to municipal staff; managing cybersecurity measures to protect data and systems; and implementing innovative technologies to enhance service delivery and citizen engagement. IT services play a critical role in enabling digital transformation, streamlining processes, and ensuring the security and reliability of municipal IT resources, ultimately contributing to the overall effectiveness and responsiveness of the municipality.

10.2 State of Infrastructure

Assets that support IT infrastructure include end user devices, server equipment and networking equipment. Table 10-1 shows the estimated replacement value of \$4.4M and includes a breakdown of the inventory by asset category.

The average age and estimated life of these assets, weighted by replacement value, are also summarized in Table 10-1. Assets that are past their planned service lives can be found within the respective condition profiles under “very poor condition”.

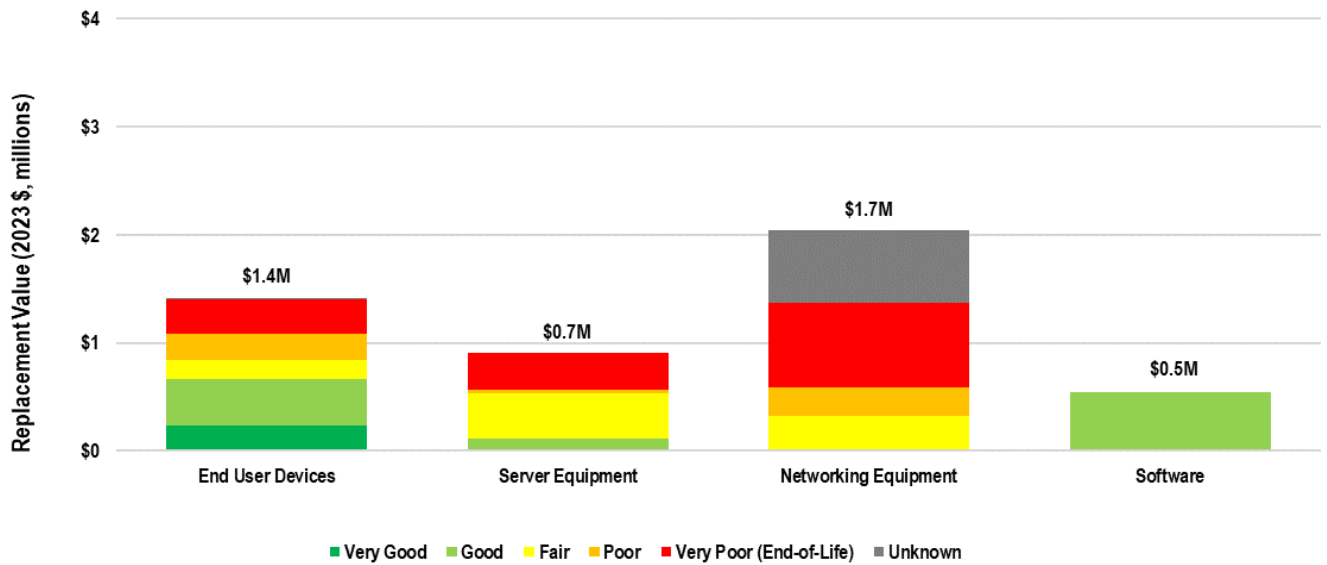
Table 10-1: Inventory and Age Summary, Information Technology

Asset Category	Replacement Value (2023\$M)	Avg Age	Avg Service Life
Sub-Total	\$4.4M		
End User Devices	\$1.4M	4	5
Server Equipment	\$0.7M	6	8
Networking Equipment	\$1.7M	7	5
Software	\$0.5M	-	-

The condition distribution for the Town’s IT assets are shown in Figure 10-1 below. The figures graphically show the relative replacement value, by asset category, and the proportion of assets by condition grade. Software assets have been deemed as “good” condition, as they are difficult to quantify physical condition in comparison to other physical tangible assets.

On average, 53.1% of IT assets are in fair or better condition. 34.1% are in very poor condition. This is mainly due to the short life spans IT assets have – and as such condition is always rapidly changing when based on age.

Figure 10-1: Condition Distribution by Replacement Value Information Technology



10.3 Levels of Service

Table 10-2 provides the technical LOS for the Town’s IT assets. The Town is proactively looking to fill data gaps related to their current performance for their next iteration of the AM Plan.

Table 10-2 Technical LOS, Information Technology

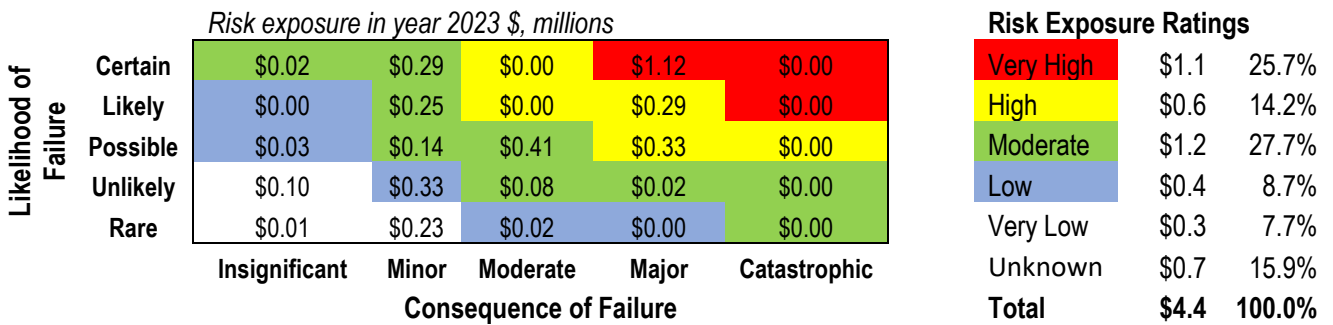
LOS Attribute	Lifecycle Activity	Technical Performance Measure	2023 Performance
Capacity & Use	Growth	Network uptime	99.9%
		End user device supply/demand	Future
		Network storage utilized	Future
Reliability	Renewal	% assets in very poor condition– based on warranty period	39%
	Operations/ Maintenance	% incidents reported to the Service Desk + Help Centre responded to in a timely manner (1-day)	91%

10.4 Risk Management Strategy

Appendix A provides a detailed listing of the CoF assessment scores for the Town’s Information Technology assets.

The risk map shown in Figure 10-2 combines the Criticality (CoF) ratings with the Condition (PoF) ratings for infrastructure represented within the Service Area. Some assets such as networking and server equipment are shown as a High and Very High risk exposure (yellow and red), meaning there is risk exposure to the Town for these assets based on current condition and criticality. The Town is advised to apply appropriate mitigation strategies (i.e. lifecycle interventions, management strategies etc.) to these assets to limit this risk exposure.

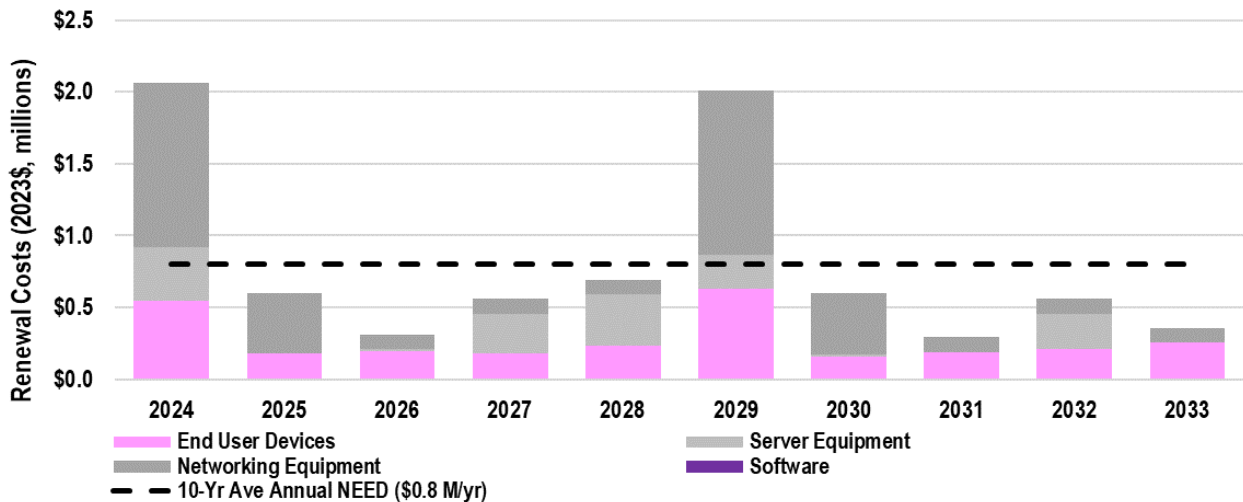
Figure 10-2 Risk Exposure of the Town’s Information Technology Assets



10.5 Lifecycle Management Strategy

Figure 10-3 shows the renewal needs over the next 10 years by service. Renewal needs were predominantly based on installation years and age. No capital renewal needs were assigned to software assets as they are predominantly replaced through the Town’s operating budget. The average renewal need (dotted black line) is estimated at \$0.8 million per year for the period 2024-2033.

Figure 10-3: Forecasted Renewal Needs, Information Technology



11 IMPROVEMENT OPPORTUNITIES

11.1 Plan Improvement Opportunities

Development of AM Plans is an iterative process that includes improving processes, data, processes, and staff skills over time. This section provides an overview of the compliance of this AM Plan with Ontario Regulation 588/17 for current levels of service (year 2024 requirements) and identifies opportunities for improvements to the Town’s asset management practices, including those required to meet Ontario Regulation 588/17 for proposed levels of service prior to July 1, 2025.

It is important that the Town recognises areas of their AM Plan and planning process that require future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 11-1 below.

Table 11-1: Plan Improvement Recommendations

No.	Improvement Recommendation
1	Continue improving work order management system and processes to support improved - tracking of refurbishment and replacement intervals for assets - more accurate forecasting of maintenance and operating costs
2	Consider internal resource needs (operational and renewal impacts) to deliver recommended AM Plan capital growth projects.
3	Town to continue to understand growth projections and leverage Master planning initiatives and studies.
4	Operationalize AM Plan frameworks by incorporating it into capital planning process (and PSAB register updates)
5	Town to set levels of service targets and develop Proposed LOS AM Plan for all assets.
6	Continue to collect data on remaining facilities, establishing a regular frequency program for BCAs
7	Develop a centralized repository of asset data, and continue collecting data on parks, fields, trails, vehicles and small equipment.
8	Continue to develop and formalize Asset Management governance structure.

11.2 AM Plan Monitoring and Review

The AM Plan will be updated every five years to ensure it reports an updated snapshot of the Town’s asset portfolio and its associated value, age, and condition. It will ensure that the Town has an updated 10-year outlook including service levels, costs of the associated lifecycle strategies and as assessment of any funding shortfalls.

Per O.Reg. 588/17, the Town will conduct an annual review of its asset management progress in implementing this AM Plan and will discuss strategies to address any factors impeding its implementation.

11.3 Performance Measures

The effectiveness of this AM Plan can be measured in the following ways:

- The degree to which the required forecast costs identified in this AM Plan are incorporated into the long-term financial plan,
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the AM Plan,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organizational target (this target is often 90 – 100%).

Appendix A – Consequence of Failure (CoF) Scores

Table 1: Facilities CoF Scores

Asset Category	Facility	CoF
Fire Services	Fire District 51	5
Fire Services	Fire District 52	5
Community Services	Town Hall	5
Community Services	Ballantrae Field House	2
Community Services	Balantrae Tennis Storage	2
Community Services	Bethesda Sports Field House	2
Community Services	Coultice Park Field House	2
Community Services	Gar Lehman Park Field House	2
Community Services	6240 Main Street Community Centre	4
Community Services	SCSC Arena	4
Community Services	Ballantrae Comm. Centre	4
Community Services	Lemonville Comm. Centre	3
Community Services	Vandorf Comm. Centre	4
Community Services	Lawnbowling Club House	2
Community Services	Latcham Hall	3
Community Services	Stouffville Clippers Sports Complex	4
Community Services	Parks Depot	3
Community Services	Offsite Storage	2
Community Services	Library	5
Community Services	Museum	4
Community Services	19 on the Park	3
Community Services	Operations Centre	4
Community Services	Storage Trailer Containers (4)	2
Community Services	Salt Storage Facility	3

Asset Category	Facility	CoF
Community Services	Rental Trailer	2
Community Services	Operations Sand & Salt Storage	3
Community Services	Operations Centre Storage Building	2
Community Services	Fire Suppression Storage Building	3
Community Services	Public Works Admin. Facility 1,800	3

Table 2: Community Services CoF Scores

Asset Category	Asset	CoF
Equipment	Other Personal Safety Equipment	2
Equipment	Plowing Equipment	2
Equipment	Power Tools	2
Equipment	Trailers	2
Equipment	Recreation Vehicle	2
Equipment	Tractor/Loader	3
Equipment	Communication & Security Systems	4
Equipment	Domestic Water Distribution	2
Equipment	Exterior Lighting	2
Equipment	Fixed Furnishings	1
Equipment	Lighting & Branch Wiring	3
Equipment	Movable Furnishings	1
Land Improvements	Ball Field	4
Land Improvements	Fence	3
Land Improvements	Gazebo	2
Land Improvements	Landscaping (Community Gardens)	2
Land Improvements	Parking Lot	3
Land Improvements	Picnic Shelter	2
Land Improvements	Playground – Fibre Surface	3

Asset Category	Asset	CoF
Land Improvements	Recreation Courts	3
Land Improvements	Soccer Field	4
Land Improvements	Trail	3
Land Improvements	Water Supply & Distribution Systems	3
Playgrounds	Playground	3
Playgrounds	Shade Structure	2

Table 3: Fire Services CoF Scores

Asset Category	Asset	CoF
Vehicles	Support Vehicle	3
Vehicles	Pumper	4
Vehicles	Heavy Rescue	4
Vehicles	Platform	5
Vehicles	Tanker	4
Equipment	Communication	5
Equipment	Gear	3
Equipment	Hose	3
Equipment	Ladder	3
Equipment	SCBA	3
Equipment	Equipment	3
Equipment	Trailer	4

Table 4: Town Fleet CoF Scores

Asset Category	Asset	CoF
Vehicles	Dump Truck	3
Vehicles	Ice Resurfacer	2
Vehicles	Light Duty Vehicle	2

Asset Category	Asset	CoF
Vehicles	Tractor/Loader	3
Vehicles	Trailer	2
Equipment	Turf Topper	2
Equipment	Utility Vehicle	2

Table 5: Library CoF Scores

Asset Category	Asset	CoF
Equipment	Books/Media	3
Equipment	Institutional Equipment	3
Equipment	Movable Furnishings	2
IT	Hardware	2
IT	Software (Internal)	3
IT	Software (External)	4

Table 6: Information Technology CoF Scores

Asset Category	Asset	CoF
End User Devices	Desktop PCs	2
End User Devices	Desktop Phones	1
End User Devices	Mobiles Phones	2
End User Devices	Monitors	2
End User Devices	Notebook Docking Stations	1
End User Devices	Notebook PCs	2
End User Devices	Printers	2
End User Devices	Peripherals	2
End User Devices	Tablets	2
End User Devices	AV Equipment	3
Networking Equip.	Firewall	4

Asset Category	Asset	CoF
Networking Equip.	5Switch (Managed)	3
Networking Equip.	Wireless Access Point	4
Networking Equip.	Router	4
Networking Equip.	Network Access Control	4
Networking Equip.	Modem	3
Servers/Storage	Physical Servers	4
Servers/Storage	Dell EMC Storage	4
Servers/Storage	SAN Storage	4
Software	Enterprise Software	4
Software	Other Software	3
Software	Virtual Servers	4
Software	Cloud Servers (Azure)	4
Software	Cloud Service (Emails Storage)	5