Asset Management Plan – Non-Core Assets

Township of King

Final Report

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Chapter 1
Introduction

1. Introduction

1.1 Overview

The objective of this asset management plan is to utilize the Township of King's (Township) best available information to develop a long-term plan for systematically and efficiently managing the Township's non-core assets over their entire lifecycle. This plan also provides a documented framework to enable continuous improvement and updating of the plan and the Township's asset management processes, ensuring this plan's relevancy well into the future. The development of this plan was, in part, guided by various existing long-term planning documents and studies to establish appropriate lines-of-sight with the Township's current goals and priorities. Utilizing this approach aims to strengthen the ability of this plan to meaningfully influence infrastructure investment decision-making and aid in achieving the Township's strategic objectives.

The Township retained Watson & Associates Economists Ltd. (Watson) to assist in developing this asset management plan, which serves as a tool for the Township to optimize asset management outcomes for its non-core assets in a cost-effective manner and brings the Township in compliance with the July 1, 2024 requirements of *Ontario Regulation 588/17: Asset Management Planning For Municipal Infrastructure* (O. Reg. 588/17). Watson previously assisted the Township with the development of its 2022 Asset Management Plan for its core assets to bring the Township in compliance with the July 1, 2022 requirements of O. Reg. 588/17. Following the completion of this asset management plan for non-core assets, the Township will shift its focus to developing a comprehensive asset management plan for all of the Township's assets to meet the July 1, 2025 requirements of O. Reg. 588/17, building upon the asset management work that has been completed to date. Core elements of the comprehensive asset management plan will include filling remaining data gaps, identifying proposed levels of service, establishing lifecycle management strategies to achieve those service levels, developing a financial strategy that incorporates Township-specific financial sustainability and affordability factors, and assessing asset criticality through a risk management lens.

The assets included within the scope of this asset management plan are identified in Table 1-1 below.

Table 1-1: List of In-Scope Non-core Assets

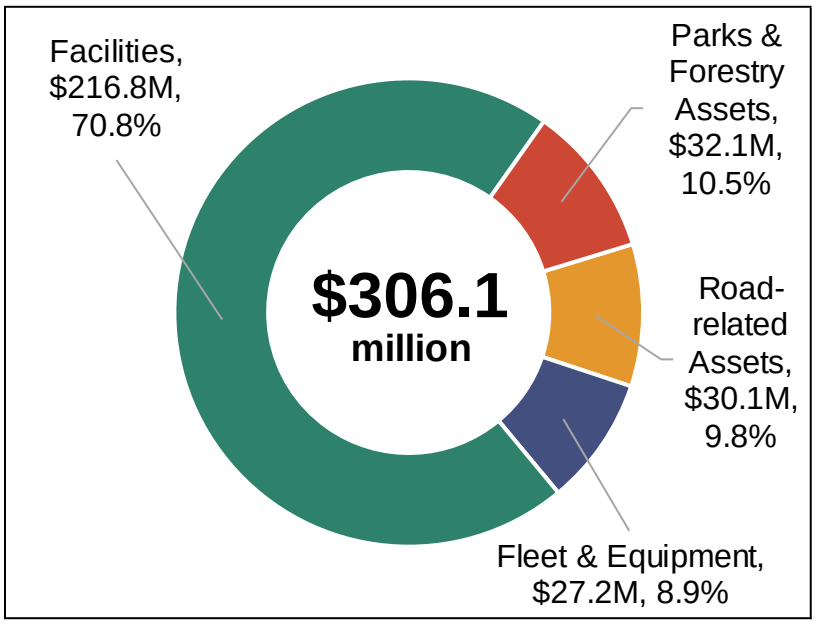
Asset Class	Asset Sub-class
Road-related Assets	Sidewalks and Paved Pathways
	Regulatory and Warning Road Signs
	Non-Structural Culverts
Fleet and Equipment	Plated Vehicles
	Non-Plated Equipment
Facilities	Municipal Facilities
	Recreation Facilities
	Libraries
Parks and Forestry	Park Furnishings and Built Infrastructure
	Sports Fields

The total replacement cost for the Township's non-core assets is estimated to be approximately $305.8 million. A breakdown of the total replacement cost by asset class is provided in Table 1-2 and is illustrated in Figure 1-1. Facilities comprise the largest share of this replacement cost ($216.8 million, 70.9%), followed by parks and forestry assets ($32.1 million, 10.5%), road-related assets ($29.8 million, 9.7%), and lastly, fleet and equipment assets ($27.2 million, 8.9%).

Table 1-2: Replacement Cost of Non-core Asset Classes

Asset Class	Replacement Cost (2024$)	Percentage of Total
Road-related Assets	$29,750,000	9.7%
Fleet & Equipment	$27,167,000	8.9%
Facilities	$216,768,000	70.9%
Parks & Forestry Assets	$32,097,000	10.5%
Total	**$305,782,000**	**100.0%**

Figure 1-1: Distribution of Replacement Cost by Non-core Asset Class



Through its Strategic Asset Management Policy, which was adopted by Council on June 24, 2019 via By-Law #2019-068, the Township has identified and defined its asset management goals. The policy emphasizes the Township's objective of managing its infrastructure assets in a manner that supports sustainable service delivery to its residents. O. Reg. 588/17 requires that municipalities review their Strategic Asset Management Policies every five years to ensure that the policy is reflective of the municipality's evolving asset management environment. The Township is currently undertaking a review of its Strategic Asset Management Policy.

1.2 Legislative Context for Municipal Asset Management

Asset management planning in Ontario has evolved significantly over the past decade.

Prior to 2009, it was common municipal practice to expense capital assets in the year of their acquisition or construction. Consequently, this meant that many municipalities did not have appropriate tracking of their capital assets, especially with respect to any changes that capital assets may have undergone (i.e. betterments, disposals, etc.). Furthermore, this also meant that many municipalities had not yet established inventories of their capital assets, both in their accounting structures and financial statements. As a result of revisions to *Section 3150 – Tangible Capital Assets* of the

Public Sector Accounting Board (PSAB) handbook, which came into effect for the 2009 fiscal year, municipalities were forced to change this long-standing practice and capitalize their tangible capital assets over the term of the asset's expected useful service life. In order to comply with this revision, municipalities needed to establish asset inventories, if none previously existed.

In 2012, the Province launched the Municipal Infrastructure Strategy, which required municipalities and local service boards seeking provincial funding to demonstrate how any proposed project fits within a broader asset management plan. In addition, asset management plans encompassing all municipal assets needed to be prepared by the end of 2016 to meet Federal Gas Tax (now the Canada Community-Building Fund) agreement requirements. To help define the components of municipal asset management plans, the Province produced a document entitled *Building Together: Guide for Municipal Asset Management Plans*. This document outlined the information and analyses that were required to be included in municipal asset management plans under this initiative.

The Province's *Infrastructure for Jobs and Prosperity Act, 2015* (IJPA) was proclaimed on May 1, 2016. This legislation detailed principles for evidence-based and sustainable long-term infrastructure planning. The IJPA also gave the Province the authority to guide municipal asset management planning by way of regulation. In late 2017, the Province introduced O. Reg. 588/17 under the IJPA. The intent of O. Reg. 588/17 is to establish standard content for municipal asset management plans. Specifically, the regulation requires that asset management plans be developed that define levels of service, identify the lifecycle activities that will be undertaken to achieve those levels of service, and provide a financial strategy to support the levels of service and lifecycle activities.

Utilizing the best information available on the Township's assets, this asset management plan has been developed to address the July 1, 2024 requirements of O. Reg. 588/17.

1.3 Asset Management Plan Development

The development of this asset management plan was guided by asset management principles contained with the Township's Strategic Asset Management Policy, asset management strategies and objectives identified through discussions with Township

asset managers, information gleaned through reviews of existing long-term planning documents and studies which was further refined through staff consultations, and the Township's capital asset data. The key steps in the development process of this asset management plan are summarized below:

1. Compile asset information into complete inventories that contain relevant asset attributes such as size, quantity, age, useful service life expectations, and replacement cost. As part of this step, replacement costs were updated, where required, using a combination of the Township's recent procurement data and/or applicable inflationary indices.
2. Define and assess the current condition of non-core assets using a combination of staff input, existing background reports and studies (e.g. 2024 Building Condition Assessments, 2023 Sidewalk Inspection Report), and age-based condition analysis.
3. Define and document current levels of service based on analyses of available data and review of various background reports.
4. Develop lifecycle management strategies that identify the activities required to maintain current levels of service.
5. Develop a financial summary of forecasted capital and significant operating expenditures arising from the activities identified in the lifecycle management strategies.
6. Document the asset management plan in a formal report to inform future decision-making and to communicate planning to municipal stakeholders.

To comply with the July 1, 2025 requirements of O. Reg. 588/17, the next iteration of this plan will need to set targets for levels of service performance measures and develop a detailed financial strategy that outlines how capital and significant operating expenditures will be funded over the forecast period and how existing funding gaps will be managed. Further integration of this plan into other municipal financial and planning documents would assist in ensuring the ongoing accuracy of the asset management plan, as well as that of those integrated documents.

As further described in Section 7.1, it is recommended that the Township establish processes for reviewing and updating the asset data used to develop this plan on a regular basis to keep it relevant. The Township will also need to establish a process and format for regular updates to Council on its on-going asset management progress.

Chapter 2
Structure of this Asset Management Plan

2. Structure of this Asset Management Plan

The subsequent chapters of this asset management plan are organized by asset class. Each of those chapters is further broken down into sections including state of local infrastructure, levels of service, lifecycle management strategies, and financial summary and forecasts. The contents of each section are further described in the remainder of this chapter.

2.1 State of Local Infrastructure

The State of Local Infrastructure and Condition sections contain summary information on each asset class. As required by O. Reg. 588/17, the asset management plan must include the following information:

- Summary of the assets;
- Replacement cost of the assets;
- Average age of the assets (it is noted regulation O. Reg. 588/17 specifically requires average age to be determined by assessing the age of asset components);
- Information available on the condition of the assets; and
- Approach to condition assessments (based on recognized and generally accepted good engineering practices where appropriate).

The average ages of assets presented in subsequent State of Local Infrastructure sections of this asset management plan are weighted by the estimated current replacement cost of each asset.

2.2 Levels of Service

Levels of service measure how effectively an asset meets functional or user requirements and reinforce the fact that assets inherently serve as means rather than ultimate ends. Assets play a pivotal role in delivering services to the residents and stakeholders of a municipality. Municipalities need to ensure that their infrastructure assets perform to meet their level of service goals in a manner that is affordable, achievable, and sustainable.

A fully developed levels of service framework allows a municipality to:

- Communicate its objectives to stakeholders and inform them of any planned changes.
- Track its performance against objectives to identify problem areas.
- Make budget decisions that are linked to outcomes, enabling rational trade-offs to be made.

To comply with the July 1, 2024 requirements of O. Reg. 588/17, asset management plans must identify the current levels of service being provided for each in-scope asset class. Whereas O. Reg. 588/17 prescribes several community and technical levels of service that must be included in asset management plans for core assets, it makes no such prescription for non-core assets. The Township has established its own levels of service frameworks for its non-core assets to describe both qualitatively and quantitatively the objectives it intends its assets to deliver. Included within the levels of service framework are performance measures that the Township will continue to track over time.

The Township's levels of service frameworks are presented for each asset class as follows:

- The Service Attribute identifies the service aspects that are important to the users and/or managers of the asset class;
- The Community Levels of Service tables describe the Township's intent in plain language and provide additional information on the aspects of the service that the Township believes are important to users; and
- The Technical Levels of Service tables describe the performance measures that quantify the Township's current performance with respect to the Service Attribute and Community Levels of Service. Unless noted otherwise, data used to evaluate current performance is as of December 31, 2023.

This asset management plan includes several measures that the Township has identified as being important to include within the levels of service frameworks even though there is insufficient data currently to quantify performance. These measures are presented in Appendix A as "Data-Deferred" measures. These measures will be incorporated directly into the asset management plan once the Township collects the required data.

2.3 Lifecycle Management Strategies

A lifecycle management strategy is a set of planned actions performed on assets to achieve levels of service in a sustainable manner and at the lowest overall lifecycle cost. Developing a lifecycle management strategy framework entails determining which lifecycle activities need to be planned for and performed on assets in order to optimize multiple factors including sustenance of adequate levels of service, extension of asset service life, reduction of overall lifecycle costs, mitigation of risk, and achievement of other objectives such as environmental and community goals. Municipalities need to ensure that their levels of service and lifecycle management strategies work hand-in-hand to balance the municipality's asset rehabilitation, replacement, and growth-related needs with its spending capacity.

Lifecycle management strategies form a vital part of asset management because they represent a plan for how to manage activities related to an asset over its full lifecycle. Lifecycle management strategies allow a municipality to:

- Ensure that the right intervention is made at the right time to deliver the desired levels of service at the lowest average annual cost.
- Set a foundation for medium- and long-term capital budget forecasting.
- Inform front-line decisions about managing assets.

The Township's lifecycle management strategies are presented for each in-scope asset class as follows:

- Inspections and Condition Assessments: Outlines the Township's approach to assessing the performance of its assets and determining asset maintenance, rehabilitation, and replacement needs;
- Major Lifecycle Activities – Operating: Summarizes the significant lifecycle activities that the Township funds through its operating budgets. These lifecycle activities generally pertain to the maintenance required to preserve asset service lives and ensure assets continue performing as intended;
- Major Lifecycle Activities – Capital: Summarizes the significant lifecycle activities that the Township funds through its capital budgets. These lifecycle activities generally pertain to rehabilitation and replacement projects undertaken to extend or renew asset service lives;

- Prioritization of Short-term Lifecycle Needs: Outlines how the Township prioritizes short-term lifecycle requirements of its assets and addresses emerging issues; and
- Growth-related Lifecycle Needs: Describes the Township's methodology for assessing the impact of population and demographic shifts on the long-term sustainability of levels of service and the lifecycle requirements of assets.

2.4 Financial Summary and Forecasts

In accordance with the requirements of O. Reg. 588/17, municipal asset management plans must include a 10-year forecast of capital and significant operating expenditures to support the activities identified in the lifecycle management strategies. This asset management plan also presents an annual lifecycle funding target for each asset class. The annual lifecycle funding target is the amount of funding that would be required annually to fully finance a lifecycle management strategy over the long-term. By planning to achieve this annual funding level, the Township would be able to fully fund capital works as they arise. In practice, however, capital needs are often characterized by peaks and valleys due to the value of works being undertaken changing year-to-year. By planning to achieve this level of funding over the long-term, the periods of relatively low capital needs would allow for the building up of lifecycle reserve funds that could be drawn upon in times of relatively high capital needs.

2.5 Population and Employment Growth

The requirements of O. Reg. 588/17 specify that for lower-tier municipalities in the Greater Golden Horseshoe growth plan area for which population and employment forecasts are not provided in Schedule 7 of the 2017 Greater Golden Horseshoe Growth Plan, as is the case for the Township, the portion of forecasts allocated to the lower-tier municipality in the official plan of the upper-tier municipality of which it is part shall be provided.

Table 2-1 summarizes the population and employment growth forecast for the Township. The Township's population is expected to grow to 50,300 residents by 2051, representing an increase of approximately 84% relative to the population of 27,333 identified in the 2021 census. Similarly, the number of employees in the Township is

expected to grow to 16,400 by 2051, representing an increase of approximately 58% relative to the number provided in the 2021 census of 10,350 employees.

Table 2-1: Township of King Population and Employment Growth Forecast

Township of King	2031	2041	2051
Population	35,400	42,600	50,300
Employment	11,800	14,100	16,400

The Township has identified growth-related expenditures for its capital assets to accommodate incremental service demands through its approved 2024-2033 capital plan. Growth-related expenditures for each asset class are presented in the financial summary and forecasts sections of subsequent chapters of this asset management plan.

The Township currently collects development charges to fund its growth-related expenditures. Utilizing development charges ensures that the effects of population and employment growth do not increase the cost of maintaining levels of service for existing tax and rate payers.

Chapter 3
Road-related Assets

3. Road-related Assets

3.1 State of Local Infrastructure

The Township's non-core road-related assets comprise sidewalks and paved pathways, regulatory and warning road signs, and non-structural culverts.

The Township's sidewalk network comprises mainly concrete and some asphalt sidewalks as well as paved pathways in Township-owned parks. The current replacement cost of the Township's sidewalks and paved pathways is estimated to be approximately $29.4 million. This replacement cost was derived through a review of construction quotes obtained by the Township in 2024 for sidewalk panel replacements. The Township's paved pathways have an estimated current replacement cost of approximately $496,000 while the Township's sidewalks have an estimated current replacement cost of approximately $28.9 million. It is important to note that these replacement costs represent the sum of the current construction price for the removal and replacement of each individual sidewalk bay, which may be higher than the construction price for the removal and replacement of the entire sidewalk network if completed as a single capital project.

The length of the Township's network of sidewalks and paved pathways is approximately 118.1 km. The average age of the Township's sidewalks is approximately 18.3 years. It is worth noting, however, that the year of construction for approximately 37.3% of the Township's sidewalks (by length) and all of its paved pathways is currently unknown. These assets have been excluded from the calculation of average age.

The Township owns and manages approximately 3,400 regulatory and warning road signs. This quantity was estimated using information from the Township's 2023 retro-reflectivity testing report. The current replacement cost of the Township's regulatory and warning road signs is estimated at approximately $323,000. Since the Township does not currently track the ages of individual road signs, the average age of the Township's regulatory and warning road signs is not reported in this asset management plan. It is worth noting that the estimated quantity of 3,400 regulatory and warning road signs has increased based on the Township's 2024 retro-reflectivity testing report. However, that data is not currently available for inclusion in this asset management

plan. The increased quantity of regulatory and warning road signs will be reflected in the upcoming iteration of this asset management plan.

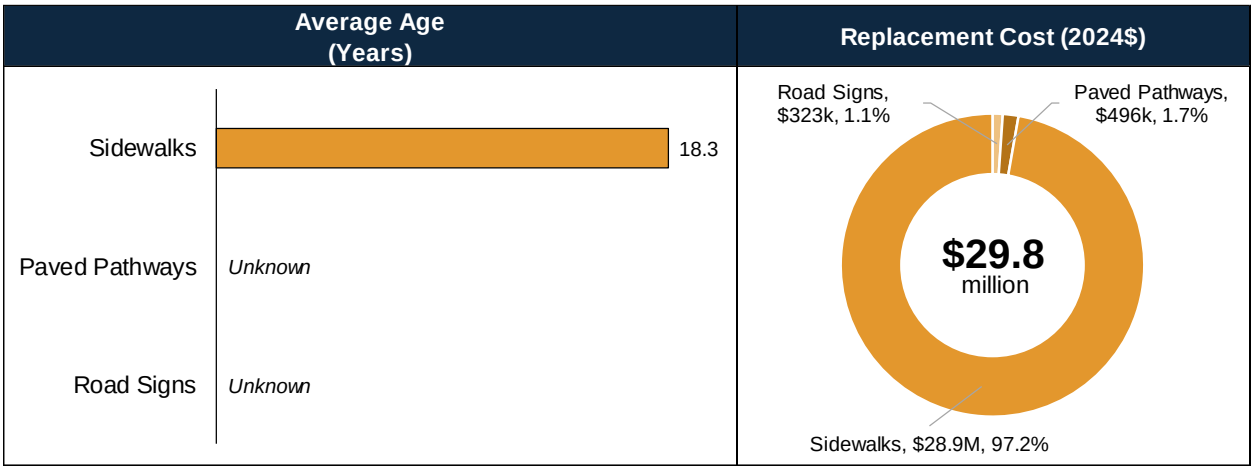
The Township is currently inventorying and collecting condition data on its non-structural culverts, with the aim of formalizing this process into a regular inspection protocol. As such, there is insufficient information at this time to report the quantity, average age, and replacement cost of the Township's non-structural culverts. Non-structural culverts are often included in the costing of roadways. Similarly, their lifecycle replacement is typically included in the lifecycle planning for the roadways on which they exist. The Township expects the isolated replacement cost of its non-structural culverts to be substantial, considering the current high-level estimates of their quantity. Non-structural culverts will be further integrated into future iterations of this asset management plan upon the completion of the aforementioned inventory and data collection process.

Table 3-1 summarizes the quantity, average age, and estimated current replacement cost of the Township's road-related assets. This information is further illustrated in Figure 3-1.

Table 3-1: Road-related Assets – Quantity, Average Age, and Replacement Cost

Asset Sub-class	Quantity	Average Age (Years)	Replacement Cost (2024$)
Sidewalks	116.1 kms	18.3	$28,931,000
Paved Pathways	2.0 kms	Unknown	$496,000
Regulatory and Warning Road Signs	3,400 signs	Unknown	$323,000
Total			**$29,750,000**

Figure 3-1: Road-related Assets – Average Age, and Replacement Cost



3.2 Condition

The Township completes condition assessments of its sidewalks and paved pathways annually, through an external service provider, to ensure compliance with *O. Reg. 239/02: Minimum Maintenance Standards For Municipal Highways* (O. Reg. 239/02). These assessments identify deficiencies and assess each sidewalk segment as being in either "Fair" or "Poor" condition. A sidewalk segment is assessed to be in "Poor" condition if four or more surface discontinuities (i.e., trip hazards) exceeding two centimetres in vertical height are identified to be clustered along the segment. All other segments are assessed to be in "Fair" condition. The Township plans to amend the categorization of condition states for its sidewalks and paved pathways in its next sidewalk assessment from the aforementioned two-point scale to a five-point scale. Using this five-point scale, the Township will be able to assess sidewalks and paved pathways as being in "Very Good", "Good", "Fair', "Poor", or "Very Poor" condition.

Based on its 2023 sidewalk assessment report, approximately 84% of the Township's sidewalks (by replacement cost) were assessed to be in "Fair" condition while 15% were assessed to be in "Poor" condition. The condition of 1.0% of the Township's sidewalks was not assessed as part of the 2023 sidewalk assessment. All of the Township's paved pathways were assessed to be in "Fair" condition.

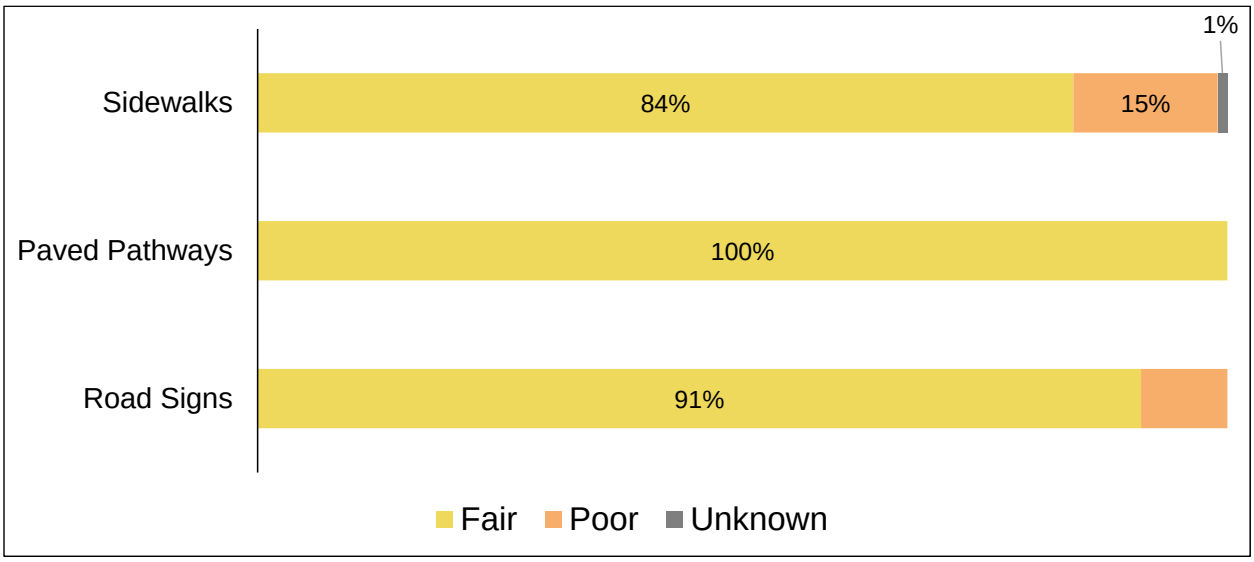
The Township assesses the condition of its regulatory and warning road signs annually by conducting retro-reflectivity testing to ensure compliance with O. Reg. 239/02. Any signs that fail retro-reflectivity testing are replaced as soon as possible and generally

prior to the completion of the next annual inspection. Signs that are currently in use but have failed the most recent retro-reflectivity testing are assigned a condition state of "Poor". All other signs are assigned a condition state of "Fair". Based on the Township's 2023 retro-reflectivity testing report, approximately 91% of the Township's regulatory and warning road signs are currently assessed to be in "Fair" condition while 9% are currently assessed to be in "Poor" condition.

The Township does not currently have formal condition ratings for its non-structural culverts. The Township will be assessing the condition of its non-structural culverts through the ongoing data collection process described in Section 3.1, with the aim of further integrating non-structural culverts into future iterations of this asset management plan.

The replacement cost of the Township's road-related assets by condition state is illustrated in Figure 3-2.

Figure 3-2: Road-related Assets – Distribution of Assets (Replacement Cost) by Condition State



3.3 Levels of Service

Table 3-2 provides an index of subsequent tables in this section that present the Community Levels of Service and Technical Levels of Service for the Township's road-related assets.

Table 3-2: Road-related Assets – Community Levels of Service and Technical Levels of Service Table References

Asset Sub-class	Community Levels of Service Table Reference	Technical Levels of Service Table Reference
Sidewalks and Paved Pathways	Table 3-3	Table 3-4
Regulatory and Warning Road Signs	Table 3-5	Table 3-6
Non-structural Culverts	Table 3-7	Table 3-8

Table 3-3: Sidewalks and Paved Pathways – Community Levels of Service

Service Attribute	Community Levels of Service
Safety	The Township prioritizes the safety of its sidewalks and paved pathways.
Accessibility	The Township strives to ensure that its sidewalks and paved pathways are accessible to all users.
Reliability	The Township strives to maintains its sidewalks and paved pathways in adequate condition to continue performing as intended.

Table 3-4: Sidewalks and Paved Pathways – Technical Levels of Service

Service Attribute	Technical Levels of Service	Current Performance
Safety	Number of outstanding sidewalk discontinuities, as defined by O. Reg. 239/02 (i.e. trip hazards), compared to the total length of sidewalks and paved pathways.	1.47 per km

Service Attribute	Technical Levels of Service	Current Performance
	Number of outstanding sidewalk bay replacements compared to the total length of sidewalks and paved pathways.	2.67 per km
	Percentage of sidewalk repairs that met the requirements of O. Reg. 239/02.	100%
Reliability	Percentage of sidewalks and paved pathways (by replacement cost) in “Fair” condition at time of annual inspection.	84.4%
	Number of user complaints that resulted in work orders compared to the total length of sidewalks and paved pathways.	17.8 per 100 km

Table 3-5: Regulatory and Warning Road Signs – Community Levels of Service

Service Attribute	Community Levels of Service
Safety	The Township prioritizes the safety of its road users by ensuring that its regulatory and warning road signs are maintained up to adequate standards.

Table 3-6: Regulatory and Warning Road Signs – Technical Levels of Service

Service Attribute	Technical Levels of Service	Current Performance
Safety	Percentage of regulatory and warning road signs that passed annual retro-reflectivity testing.	85.1%

Service Attribute	Technical Levels of Service	Current Performance
	Number of regulatory and warning road sign replacements completed compared to the total number of regulatory and warning road signs.	6.1 replacements per 100 signs

Table 3-7: Non-Structural Culverts – Community Levels of Service

Service Attribute	Community Levels of Service
Reliability	The Township strives to maintain its non-structural culverts in adequate condition to continue performing as intended.

Table 3-8: Non-Structural Culverts – Technical Levels of Service

Service Attribute	Technical Levels of Service	Current Performance
Reliability	Number of work orders related to flushing activities performed on non-structural culverts compared to the total lane kilometers of roadways.	1.67 work orders per 100 lane km
	Number of work orders related to repairs for structural damage performed on non-structural culverts compared to the total lane kilometers of roadways.	2.6 work orders per 100 lane km
	Number of one-off replacements of non-structural culverts compared to the total lane kilometers of roadways.	0.8 replacements per 100 lane km
	Number of user complaints that resulted in work orders compared to the total lane kilometers of roadways.	4.2 complaints per 100 lane km

3.4 Lifecycle Management Strategy

Table 3-9 summarizes the Township's lifecycle management strategy for its sidewalks and paved pathways.

Table 3-9: Sidewalks and Paved Pathways – Lifecycle Management Strategy

Sidewalks and Paved Pathways	
Inspections and Condition Assessments	In addition to the previously mentioned annual condition assessment program (see section 3.2), the Township identifies sidewalk deficiencies by evaluating comments received from the public and through staff observations.
Major Operating Lifecycle Activities	The Township engages in the following maintenance activities to ensure its sidewalks and paved pathways continue to perform as intended: • Marking of deficiencies: identified deficiencies are immediately marked with paint to alert users' attention to the deficiency. • Treatment of minor deficiencies: minor deficiencies include trip hazards, cracks and asphalt repairs, over-vegetation, and pathway obstructions. The Township prioritizes treatment based on assessments of risk. Trip hazards are treated by either grinding down the trip edges or by applying asphalt to bridge the gap.
Major Capital Lifecycle Activities	The Township replaces sidewalks to treat sidewalk bays beyond repair, defects causing ponding of water, and hole defects. The Township replaces individual sidewalk bays on an as-needed basis. Replacements of large sidewalk segments are coordinated with major road construction projects and/or major construction projects for underground infrastructure. In rare instances, the Township may replace large sidewalk segments as a stand-alone project if an upgrade is required to meet

Sidewalks and Paved Pathways	
	Township design standards (e.g. upgrading surface type to concrete).
Prioritization of Short-Term Lifecycle Needs	The Township prioritizes short-term lifecycle needs for its sidewalks and paved pathways based on the type of deficiency as follows: 1. Treatment of identified trip hazards (sidewalk discontinuities); 2. Treatment of identified defects causing ponding of water; 3. Treatment of identified cracks and completion of asphalt repairs; and 4. Treatment of other identified deficiencies.
Identification of Growth-Related Lifecycle Needs	Through its Transportation Master Plan, Trails Master Plan, and Active Transportation Strategy, the Township analyzes growth forecasts to determine the need to construct new sidewalks or extend existing sidewalk segments. Direct engagement with residents through public consultations is also conducted as part of the master planning process to understand community requirements.

Table 3-10 summarizes the Township's lifecycle management strategy for its regulatory and warning road signs.

Table 3-10: Regulatory and Warning Road Signs – Lifecycle Management Strategy

Regulatory and Warning Road Signs	
Inspection and Condition Assessments	In addition to the previously mentioned annual retro-reflectivity testing program, the Township identifies damaged or stolen regulatory and warning road signs by evaluating comments received from the public and through staff observations.
Major Operating Lifecycle Activities	Regulatory and warning road signs typically do not require any maintenance as they are replaced on an as-needed basis, as

Regulatory and Warning Road Signs	
	described in the “Major Lifecycle Activities – Capital” section below.
Major Capital Lifecycle Activities	The Township replaces regulatory and warning road signs that are damaged, stolen, or have failed retro-reflectivity testing on an as-needed basis.
Prioritization of Short-Term Lifecycle Needs	While all signs are replaced within the timeframes prescribed by O. Reg. 239/02, higher priority is given to replacements of stop and change of direction signs.
Identification of Growth-Related Lifecycle Needs	The Township analyzes growth and traffic volume forecasts through its Transportation Master Plan, approved subdivision plans, and future development expectations to identify the need to amend or emplace new regulatory and warning road sings. This approach ensures safe and efficient flow of traffic and ability to implement traffic calming measures.

Table 3-11 summarizes the Township’s lifecycle management strategy for its non-structural culverts.

Table 3-11: Non-Structural Culverts – Lifecycle Management Strategy

Non-Structural Culverts	
Inspections and Condition Assessments	In addition to the previously mentioned proposed inspection protocol, the Township regularly evaluates comments received from property owners and staff observations to identify deficiencies in its non-structural culverts.
Major Operating Lifecycle Activities	The Township engages in the following maintenance activities to preserve the service lives of its non-structural culverts: • Flushing to clear blockages. • Repairs to structural damage. • One-off replacements.

Non-Structural Culverts	
Major Capital Lifecycle Activities	The Township replaces multiple non-structural culverts within a road segment in coordination with major road construction projects. By using this approach, the Township aims to align the service lives of its non-structural culverts with that of the road segments on which they exist. This approach also ensures efficient project planning (i.e. well-performing road segments do not have to be reconstructed to accommodate non-structural culvert replacements) and reduces the need for repeated labor and equipment mobilization.
Prioritization of Short-Term Lifecycle Needs	The Township prioritizes short-term lifecycle needs for its non-structural culverts by assessing the severity of deficiencies and their impact on property owners. This approach minimizes the impact on service delivery and sustains adequate levels of service.
Identification of Growth-Related Lifecycle Needs	New non-structural culverts may be added as the Township's road network expands through the development process. The Township analyzes development forecasts to identify future lifecycle responsibilities for potential new non-structural culverts. Expansion needs are holistically planned through the Township's Transportation Master Plan.

3.5 Financial Summary and Forecast

Based on the lifecycle activities outlined in the previous section, an estimate of the annual funding requirement and forecast of lifecycle expenditures was developed for the Township's road-related assets.

The total average annual lifecycle cost for the Township's road-related assets is estimated to be approximately $643,000. This represents the long-term annual funding target for the Township to achieve full lifecycle funding levels for this asset class. Sidewalks represent the largest share of this average annual lifecycle cost at approximately $592,000, followed by the regulatory and warning road signs at

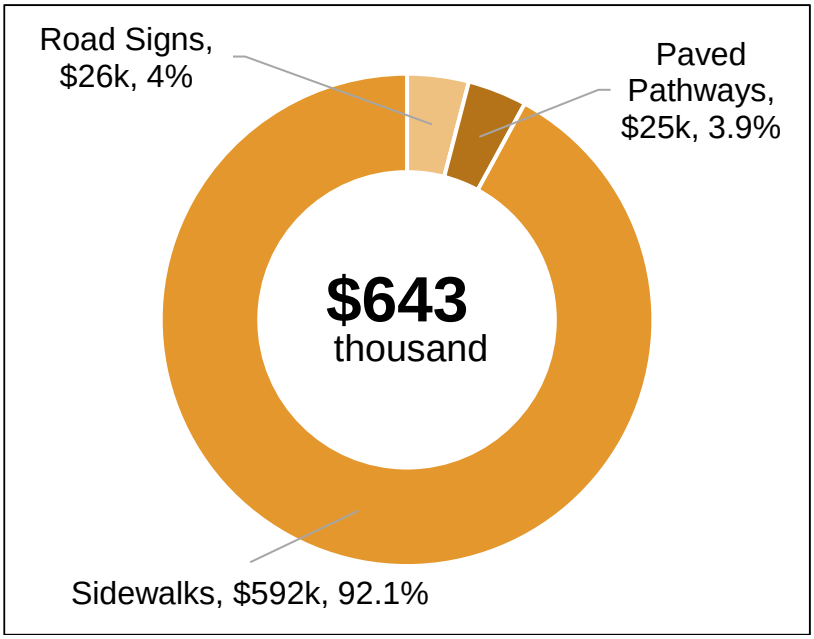
approximately $26,000, and lastly, the paved pathways at approximately $25,000. Although the average annual lifecycle cost for non-structural culverts is currently unknown, the Township expects it to be substantial based on its current high-level estimates.

Table 3-12 lists the average annual lifecycle cost for the Township's road-related assets. This information is further illustrated in Figure 3-3.

Table 3-12: Road-related Assets – Average Annual Lifecycle Cost

Asset Sub-Class	Replacement Cost (2024$)	Avg. Annual Lifecycle Cost (2024$)
Sidewalks	$28,931,000	$592,000
Paved Pathways	$496,000	$25,000
Regulatory and Warning Road Signs	$323,000	$26,000
Total	**$29,750,000**	**$643,000**

Figure 3-3: Road-related Assets – Average Annual Lifecycle Cost (2024$)



Based on a review of the Township's approved 2024 budget, the Township allocated $200,000 to fund asset renewal needs for its road-related assets in 2024. This figure includes own-source revenues budgeted in 2024 for direct capital costs, budgeted

contributions to capital lifecycle reserves for road-related assets, and amounts budgeted to fund debt servicing costs for existing debentures related to the Township's road-related assets. Based on this information, the annual funding gap for the Township's road-related assets is approximately $443,000. Figure 3-4 illustrates the annual funding gap for the Township's road-related assets.

Figure 3-4: Road-related Assets: Annual Funding Gap (2024$)

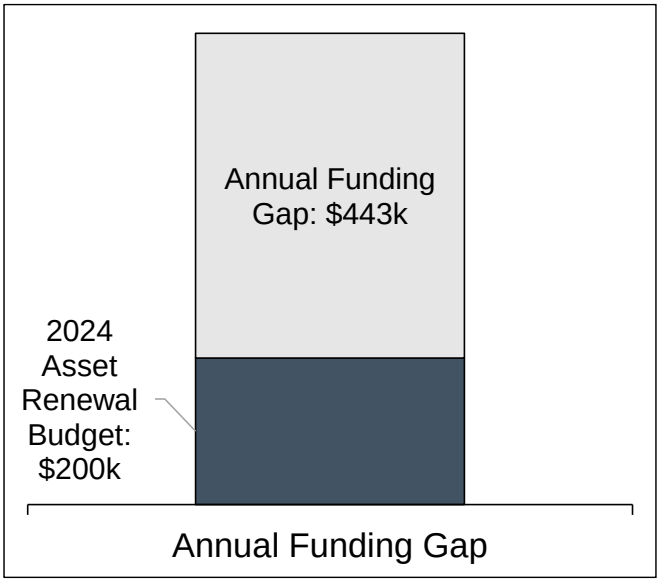


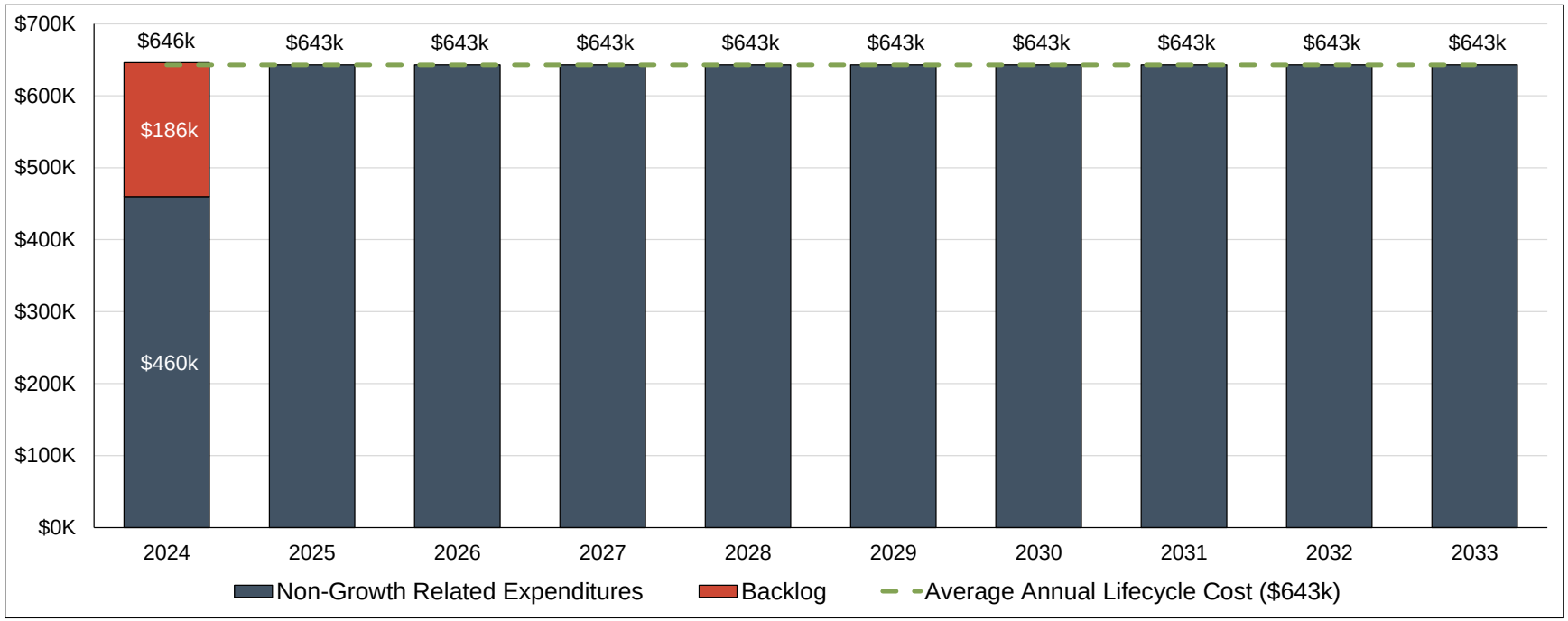
Table 3-13 provides a summary of the 10-year lifecycle expenditure forecast for the Township's road-related assets by asset sub-class and this information is further illustrated in Figure 3-5. This forecast was derived by utilizing an annual allowance based on the average annual lifecycle costs for road-related assets and ensures that the Township achieves full lifecycle funding levels for this asset class. The lifecycle expenditure requirement for the Township's road-related assets over the next 10 years is forecasted to total approximately $6.4 million. Based on the best information available on the Township's assets, the current backlog for the Township's sidewalks is estimated at approximately $157,000 while the current backlog for the Township's regulatory and warning road signs is estimated at approximately $29,000. This represents the current replacement value of sidewalk panels that have been identified as being due for replacement and regulatory and warning road signs that have failed retro-reflectivity testing but are currently in use. There is currently insufficient information available to develop a financial forecast for the Township's non-structural culverts. Lastly, based on a review of the Township's approved 2024-2033 capital plan,

there are no growth-related expenditures forecasted for the Township's road-related assets over the 10-year forecast horizon.

Table 3-13: Road-related Assets – Financial Forecast (2024$)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Sidewalks	$435,000	$592,000	$592,000	$592,000	$592,000	$592,000	$592,000	$592,000	$592,000	$592,000
Paved Pathways	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000
Regulatory and Warning Road Signs	-	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000
Backlog	$186,000									
Total Expenditures	**$646,000**	**$643,000**	**$643,000**	**$643,000**	**$643,000**	**$643,000**	**$643,000**	**$643,000**	**$643,000**	**$643,000**

Figure 3-5: Road-related Assets – Financial Summary (2024$)



Chapter 4
Fleet and Equipment

4. Fleet and Equipment

4.1 State of Local Infrastructure

The Township's inventory of fleet assets comprises plated vehicles ranging from small SUVs and pickup trucks to large dump trucks and fire apparatus such as tankers, pumpers, and rescue vehicles. The Township currently owns a total of 113 fleet assets.

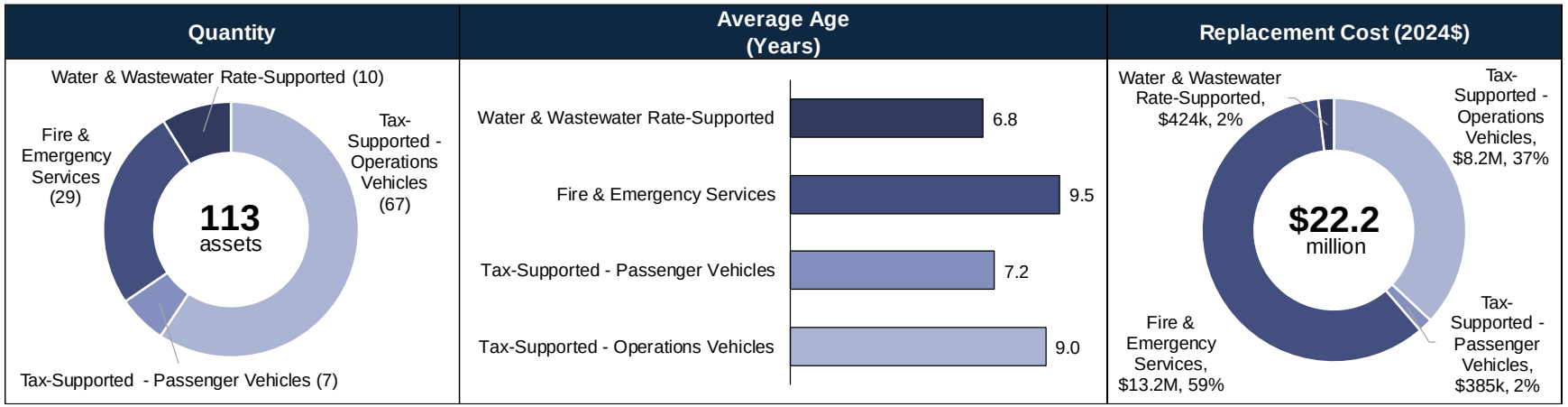
The current replacement cost of the Township's fleet assets is estimated at approximately $22.2 million. Fleet assets utilized by Fire and Emergency Services represent the largest share of total replacement cost at approximately $13.2 million, followed by tax-supported operations vehicles at approximately $8.2 million, water and wastewater rate-supported vehicles at approximately $424,000, and lastly, tax-supported passenger vehicles at approximately $385,000. The average age of all of the Township's fleet assets is approximately 9.2 years.

Table 4-1 summarizes the quantity, average age, and estimated current replacement cost of the Township's fleet assets by asset sub-class. This information is further illustrated in Figure 4-1.

Table 4-1: Fleet – Quantity, Average Age, and Replacement Cost

Asset Sub-Class	Quantity	Average Age (Years)	Replacement Cost (2024$)
Tax-Supported - Operations Vehicles	67	9.0	$8,221,000
Tax-Supported - Passenger Vehicles	7	7.2	$385,000
Fire & Emergency Services	29	9.5	$13,202,000
Water & Wastewater Rate-Supported	10	6.8	$424,000
Total	**113**	**9.2**	**$22,232,000**

Figure 4-1: Fleet – Quantity, Average Age, and Replacement Cost



The Township's inventory of equipment assets comprises mainly heavy equipment such as graders, tractors, commercial mowers, etc. The inventory also includes several trailers, including a mobile generator trailer, ice re-surfacers, and other non-plated pieces of equipment. The Township currently owns a total of 50 equipment assets.

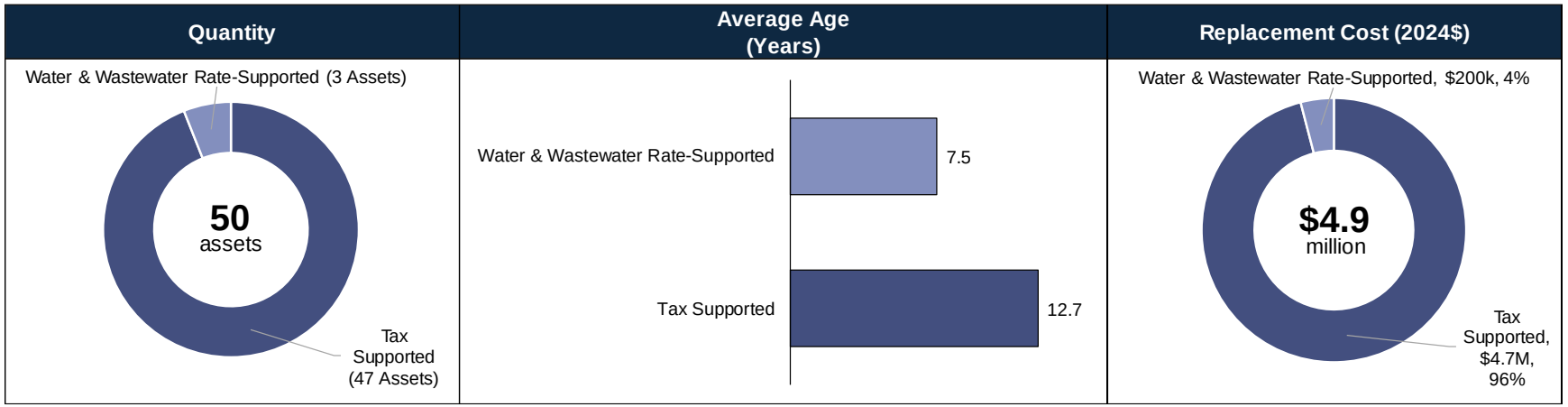
The current replacement cost of the Township equipment assets is estimated at approximately $4.9 million. Tax-supported assets account for approximately $4.7 million of this replacement cost while water and wastewater rate-supported assets account for approximately $200,000. The average age of all of the Township's equipment assets is approximately 12.5 years.

Table 4-2 summarizes the quantity, average age, and estimated current replacement cost of the Township's equipment assets by asset sub-class. This information is further illustrated in Figure 4-2.

Table 4-2: Equipment – Quantity, Average Age, and Replacement Cost

Asset Sub-Class	Quantity	Average Age (Years)	Replacement Cost (2024$)
Tax-Supported Assets	47	12.7	$4,735,000
Water and Wastewater Rate-Supported Assets	3	7.5	$200,000
Total	**50**	**12.5**	**$4,935,000**

Figure 4-2: Equipment – Quantity, Average Age, and Replacement Cost



4.2 Condition

The condition of the Township's fleet and equipment assets is assessed based on age relative to useful service life (i.e. based on the percentage of useful service life consumed (ULC%)). A brand-new vehicle or piece of equipment would have a ULC% of 0%, indicating that none of the asset's life expectancy has been utilized. On the other hand, a vehicle or piece of equipment that has reached the end of its life expectancy would have a ULC% of 100%. It is possible for vehicles and pieces of equipment to have a ULC% greater than 100%, which occurs if the asset has exceeded its typical life expectancy but continues to be in service. This is not necessarily a cause for concern; however, it must be recognized that assets near or beyond their typical useful service life expectancy are likely to require replacement or rehabilitation in the near term and may have increasing repair and maintenance costs.

To better communicate the condition of vehicles and equipment, ULC% ratings have been segmented into qualitative condition states as summarized in the Table 4-3. The scale is set to show that if assets are replaced at the end of their expected useful service life, they would be in a "Fair" condition state. For assets that remain in service beyond their useful service life (i.e., ULC% > 100), the probability of failure is assumed to have increased to a point where performance would be characterized as "Poor" or "Very Poor".

Table 4-3: Definition of Condition States with Respect to ULC%

Condition State	ULC%
Very Good	0% ≤ ULC% ≤ 45%
Good	45% < ULC% ≤ 90%
Fair	90% < ULC% ≤ 100%
Poor	100% < ULC% ≤ 125%
Very Poor	125% < ULC%

The replacement cost of the Township's fleet assets by condition state is illustrated in Figure 4-3 and Figure 4-4.

Figure 4-3: Fleet – Distribution of Assets (Replacement Cost) by Condition State and Asset Sub-class

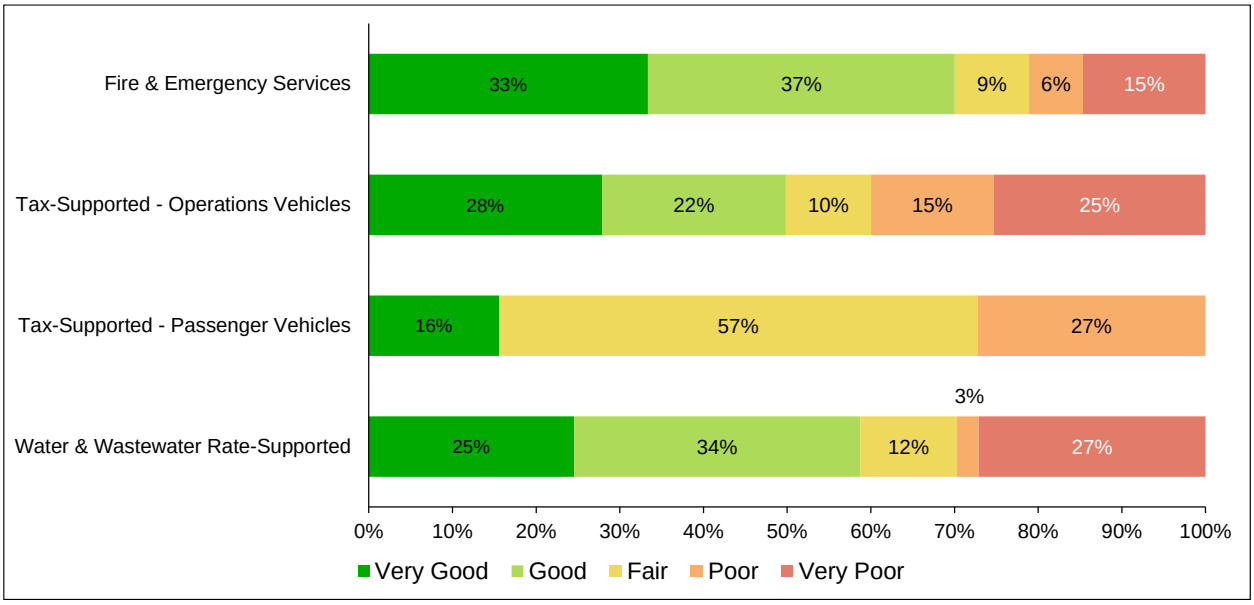


Figure 4-4: Fleet – Distribution of Assets (Replacement Cost) by Condition State

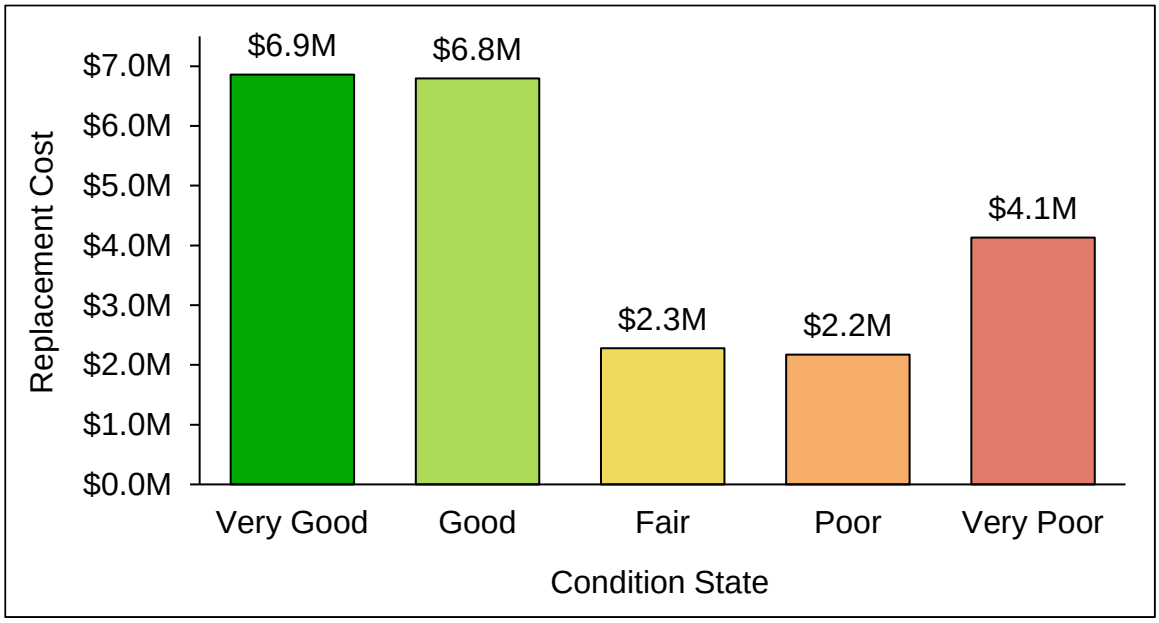
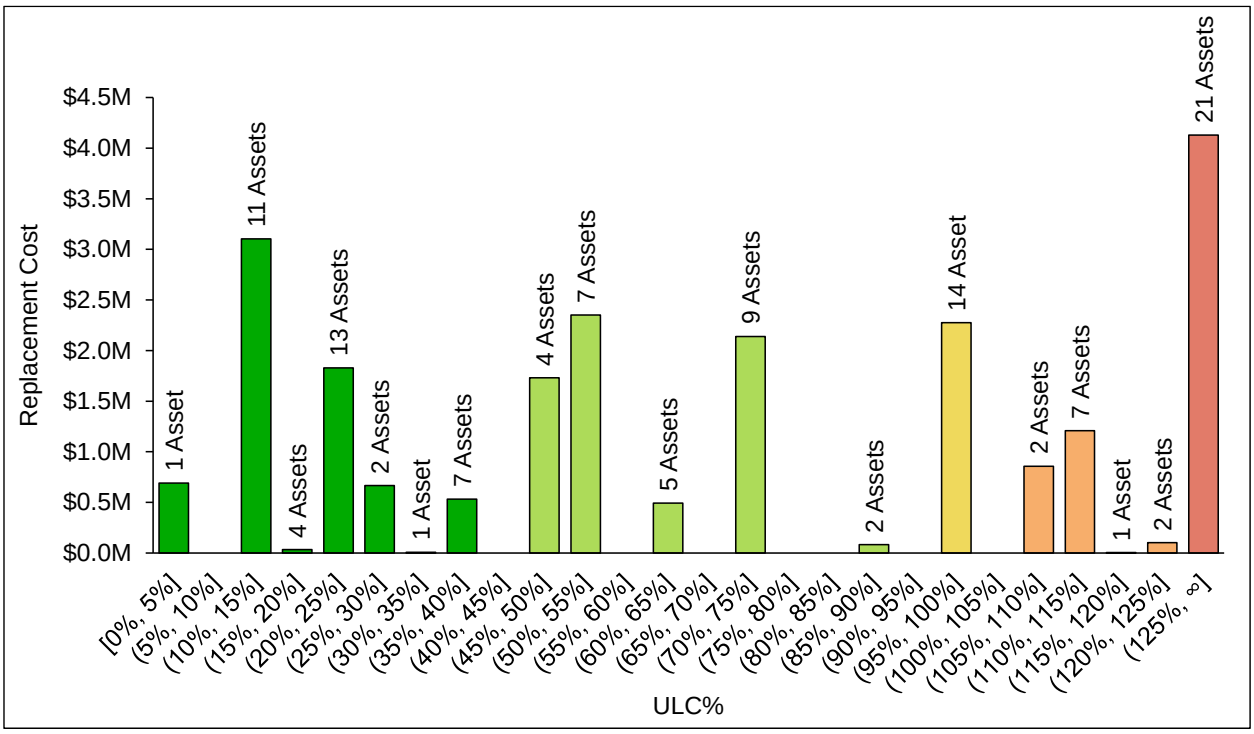


Figure 4-5 illustrates the distribution of fleet assets (by replacement cost) based on ULC%.

Figure 4-5: Fleet – Distribution of Fleet Assets (Replacement Cost) by ULC%



The replacement cost of the Township's equipment assets by condition state is illustrated in Figure 4-6 and Figure 4-7.

Figure 4-6: Equipment – Distribution of Assets (Replacement Cost) by Condition State and Asset Sub-class

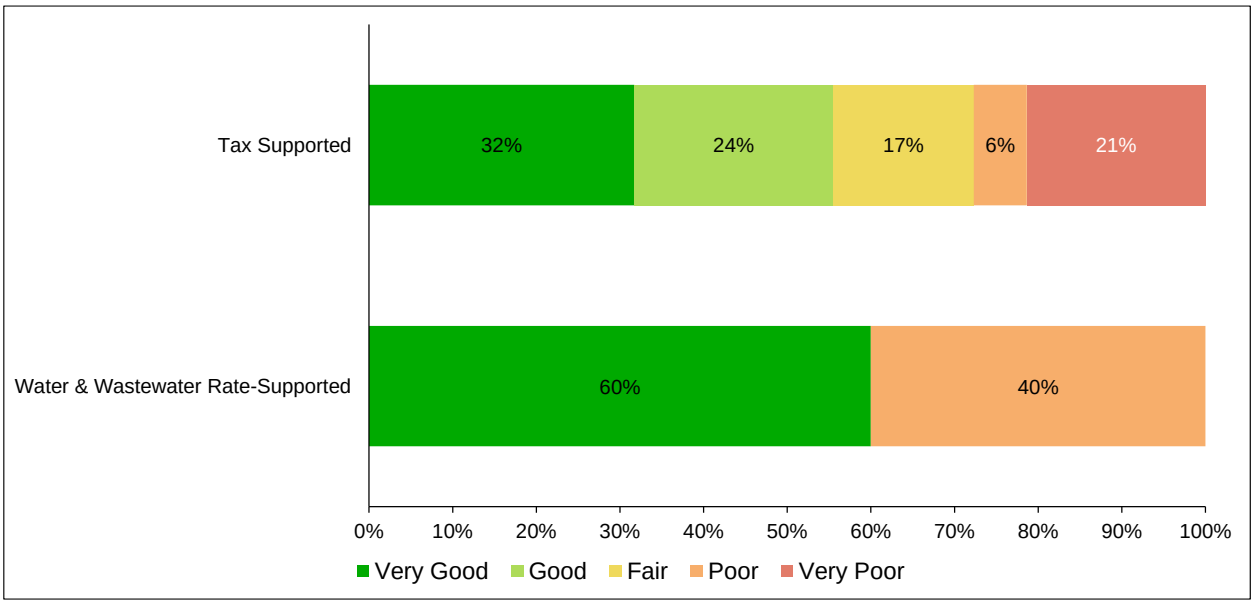


Figure 4-7: Equipment – Distribution of Assets (Replacement Cost) by Condition State

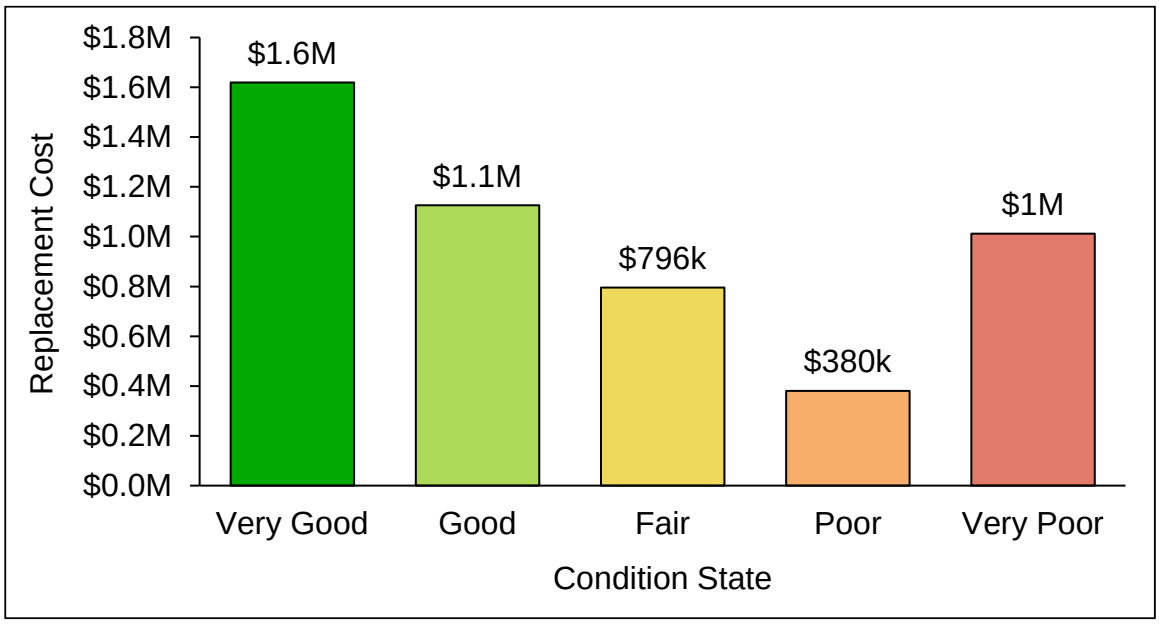
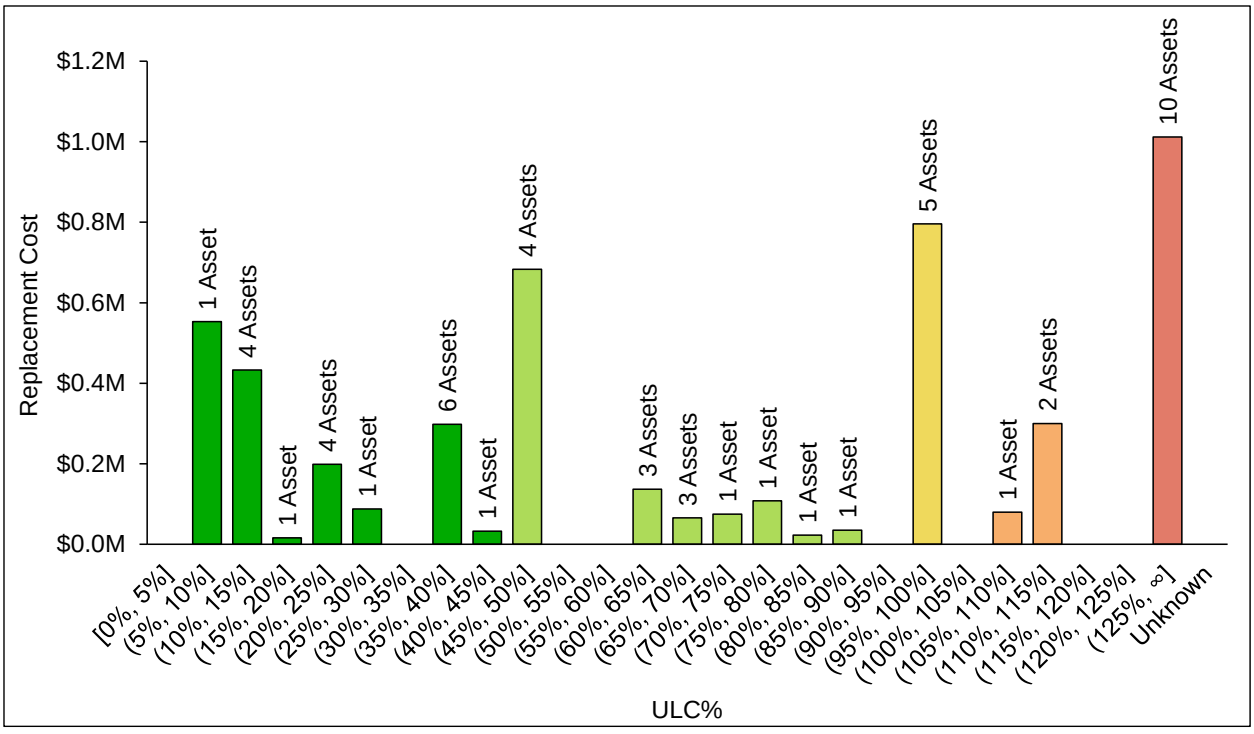


Figure 4-8 illustrates the distribution of equipment assets (by replacement cost) based on ULC%.

Figure 4-8: Equipment – Distribution of Assets (Replacement Cost) by ULC%



4.3 Levels of Service

This section provides an overview of the Township's level of service framework for fleet and equipment assets. Table 4-4 summarizes the community levels of service and Table 4-5 summarizes the technical levels of service.

Table 4-4: Fleet and Equipment – Community Levels of Service

Service Attribute	Community Levels of Service
Safety	The Township regularly inspects its fleet and equipment assets to ensure they are safe for use.
Reliability	The Township strives to minimize the number and impact of unplanned repair/maintenance activities performed on its fleet and equipment assets.
Capacity	The Township strives to ensure that it has adequate spares (back-ups) for fleet and equipment assets that support critical municipal services in order to mitigate the effects of unplanned events (e.g. extreme weather events, large-scale emergencies, mechanical breakdowns, etc.).
Cost Efficiency	The Township strives to minimize the average annual lifecycle cost of its fleet and equipment assets by ensuring their timely replacement.

Table 4-5: Fleet and Equipment – Technical Levels of Service

Service Attribute	Technical Levels of Service	Current Performance
Safety	Percentage of automotive fire apparatus that underwent at least one inspection in the calendar year.	100%

Service Attribute	Technical Levels of Service	Current Performance
	Percentage of commercial fleet assets that underwent at least one inspection in the calendar year.	100%
	Percentage of non-automotive fire apparatus that underwent at least one inspection in the calendar year.	100%
	Percentage of non-plated heavy equipment assets that underwent at least one inspection in the calendar year.	100%
Reliability	Replacement cost of fleet assets in use beyond their optimal service life standards compared to the replacement cost of all fleet assets.	28.3%
	Replacement cost of equipment assets in use beyond their optimal service life standards compared to the replacement cost of all equipment assets.	28.2%
Capacity	Ratio of spare dump trucks with plow attachments to the total number of dump trucks with plow attachments.	0:12
	Ratio of spare fire apparatus to the total number of fire apparatus.	1:14
Cost Efficiency	Annual funding allocated[1] for the replacement of fleet and equipment assets compared to the total replacement cost of fleet and equipment assets.	3.7%

[1] Annual funding allocation includes budgeted amounts for funding rehabilitation and replacement of fleet or equipment assets, and comprises own-source revenues, transfer payment revenues (e.g. CCBF, OMPF, OCIF), and debt servicing costs. Own-source revenues include direct capital funding and contribution to fleet or equipment capital reserves.

4.4 Lifecycle Management Strategy

Table 4-6 summarizes the Township's lifecycle management strategy for its fleet and equipment assets.

Table 4-6: Fleet and Equipment – Lifecycle Management Strategy

Fleet and Equipment	

Inspections and Condition Assessments	The Township has a number of inspection programs for its fleet and equipment assets as follows:
	• Fire Services
	  ○ Fire apparatus: inspected annually as part of certification requirements. Inspections are completed by an Emergency Vehicle Technician and include testing of components such as vehicle transmissions, engines, differentials, suspensions, frames, etc.
	  ○ Pumps: inspected annually in accordance with guidance provided by the National Fire Protection Association (N.F.P.A.).
	  ○ Aerial devices: non-destructive x-ray testing is conducted every 5 years.
	  ○ Non-commercial vehicles: inspected at least three times a year by a Class A mechanic as part of their regular servicing.
	• Public Works
	  ○ Heavy-duty vehicles: inspected annually.
	  ○ Light-duty vehicles: inspected regularly by Township mechanics.
	  ○ Non-plated heavy equipment: circle-checks conducted by Township operators prior to use, which include inspecting cutting edges, sweeper brushes, and checking tire health

Fleet and Equipment	
Major Operating Lifecycle Activities	The Township conducts regular servicing, on-going maintenance, and as-needed repairs on its fleet and equipment assets to preserve their service life. Preventative maintenance, such as periodic power-washing and undercoating, is performed on critical fleet assets to reduce the frequency of unplanned repairs and their impacts on service delivery. The following are examples of major maintenance activities the Township engages in to ensure its fleet and equipment assets continue to perform as intended: • Timely replacement of cutting edges on graders, snowplows, mowers, etc. Continued use of damaged cutting edges can cause significant damage to the equipment to which the cutting edge is attached. • Timely replacement of gradall buckets due to worn or damaged cutting edge(s). • Timely replacement of worn sweeper brushes. • Timely replacement of worn tires. The Township has recently developed a Fleet Service Request form to be integrated into the work order module of its enterprise asset management software to allow for more efficient management and tracking of maintenance activities
Major Capital Lifecycle Activities	The Township replaces fleet and equipment assets that have reached the end of their service lives, are unable to meet annual certification requirements, or have uneconomical repair costs. The Township may also refurbish older fleet assets to extend their service lives, although this is becoming increasingly uncommon due to enhanced maintenance programs and higher quality materials being used in manufacturing processes. As part of on-going efforts to minimize overall lifecycle costs, the Township ensures that warranty coverage is also purchased when replacing fire apparatus. Warranty typically covers annual certifications, Class A service, fire pump and ground ladder

Fleet and Equipment	
	testing, power washing, undercoating, and repairs not related to regular maintenance and regular wear-and-tear.
Prioritization of Short-Term Lifecycle Needs	Highest priority is given to repairing breakdowns of critical fleet assets, such as fire apparatus and snowplows, to minimize impact on public safety. Other lifecycle activities are prioritized by measuring impacts on service delivery of affected assets.
Identification of Growth-Related Lifecycle Needs	**Fire Services:** through its Fire Master Plan, the Township assesses the need to upgrade existing or purchase additional Fire Service fleet and equipment assets. The Township also relies on the Fire Underwriters Survey and evolving N.F.P.A. standards to provide recommendations on upgrades to fire apparatus based on size of community and changing nature of structure fires. In recent years, growth-related needs have been addressed by upgrading assets at the time of replacement rather than increasing asset quantities. **Public Works:** the Township analyzes key performance metrics, such as number of plows compared to the total lane kilometers of roadways, to determine the need for additional Public Works fleet or equipment assets

4.5 Financial Summary and Forecast

Based on the lifecycle activities outlined in the previous section, an estimate of the annual funding requirement and forecast of lifecycle expenditures was developed for the Township's fleet and equipment assets.

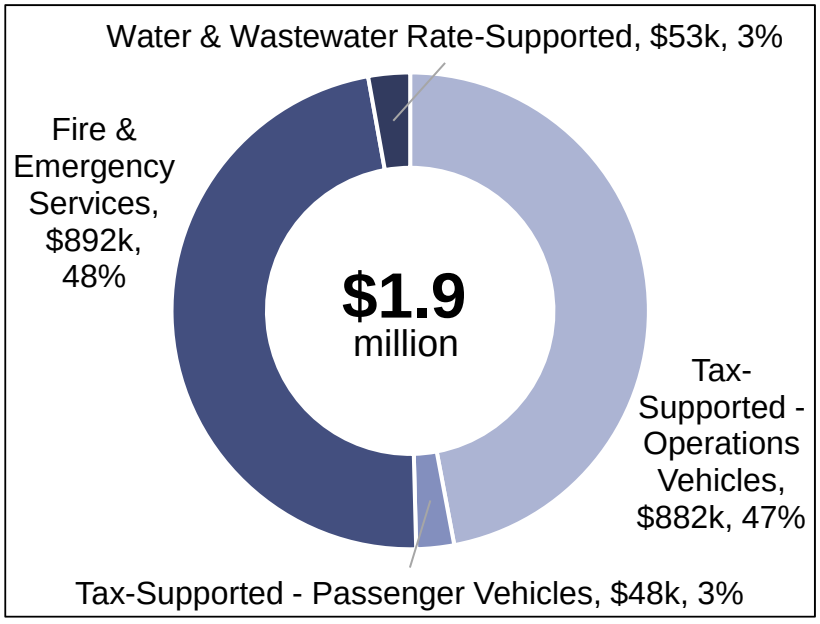
Average annual lifecycle cost for the Township's fleet assets is estimated to be approximately $1.9 million. This average annual lifecycle cost represents the long-term funding target for the Township to achieve full lifecycle funding levels for its fleet assets. Assets utilized by Fire and Emergency Services represent the largest share of this average annual lifecycle cost at approximately $892,000, followed by tax-supported operations vehicles at approximately $882,000, water and wastewater rate-supported

vehicles at approximately $53,000, and lastly, tax-supported passenger vehicles at approximately $48,000. Table 4-7 summarizes the average annual lifecycle cost for the Township's fleet by asset sub-class. This information is further illustrated in Figure 4-9.

Table 4-7: Fleet – Average Annual Lifecycle Cost (2024$)

Asset Sub-Class	Replacement Cost (2024$)	Average Annual Lifecycle Cost (2024$)
Tax-Supported - Operations Vehicles	$8,221,000	$882,000
Tax-Supported - Passenger Vehicles	$385,000	$48,000
Fire & Emergency Services	$13,202,000	$892,000
Water & Wastewater Rate-Supported	$424,000	$53,000
Total	**$22,232,000**	**$1,875,000**

Figure 4-9: Fleet – Average Annual Lifecycle Cost (2024$)



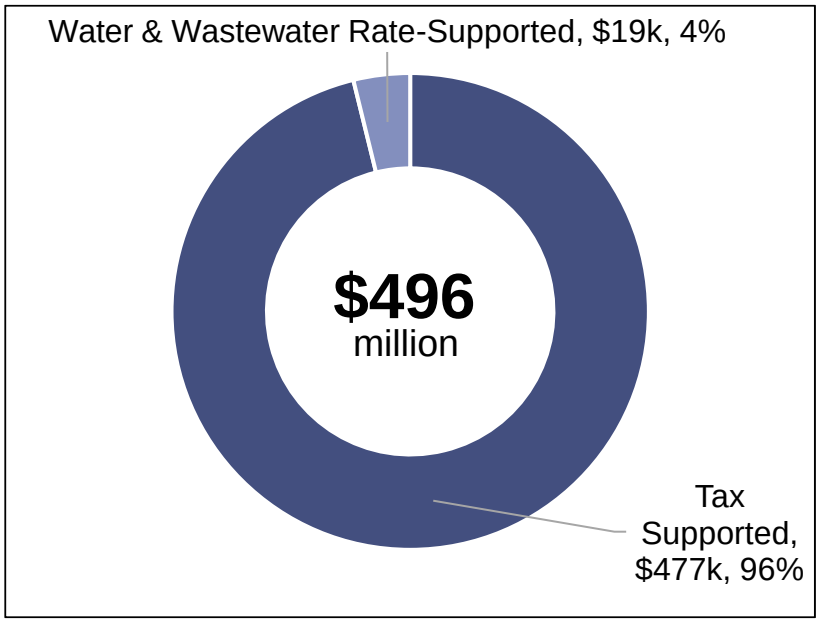
Average annual lifecycle cost for the Township's equipment assets is estimated to be approximately $496,000. This average annual lifecycle cost represents the long-term funding target for the Township to achieve full lifecycle funding levels for its equipment assets. Tax-supported assets represent the largest share of this average annual lifecycle cost at approximately $477,000 while water and wastewater rate-supported

assets represent approximately $19,000. Table 4-8 summarizes the average annual lifecycle cost for the Township's equipment assets by asset sub-class. This information is further illustrated in Figure 4-10.

Table 4-8: Equipment – Average Annual Lifecycle Cost (2024$)

Asset Sub-Class	Replacement Cost (2024$)	Average Annual Lifecycle Cost (2024$)
Tax Supported Assets	$4,735,000	$477,000
Water and Wastewater Rate Supported Assets	$200,000	$19,000
Total	**$4,935,000**	**$496,000**

Figure 4-10: Equipment – Average Annual Lifecycle Cost (2024$)



Based on a review of the Township's approved 2024 budget, the Township allocated approximately $1 million to fund asset renewal needs for its fleet and equipment assets in 2024. This figure includes own-source revenues budgeted in 2024 for direct capital costs, budgeted contributions to capital lifecycle reserves, and amounts budgeted to fund debt servicing costs for existing debentures related to the Township's fleet and equipment assets. Based on information, the annual funding gap for the Township's

fleet and equipment assets is approximately $1.4 million. Figure 4-11 illustrates the annual funding gap for the Township's fleet and equipment assets.

Figure 4-11: Fleet and Equipment – Annual Funding Gap (2024$)

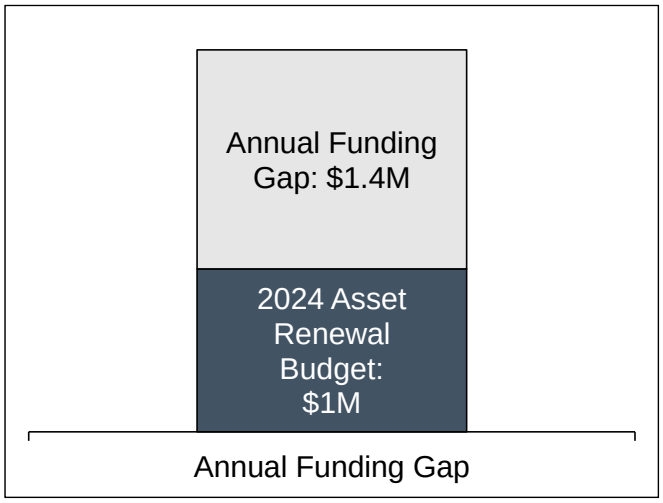
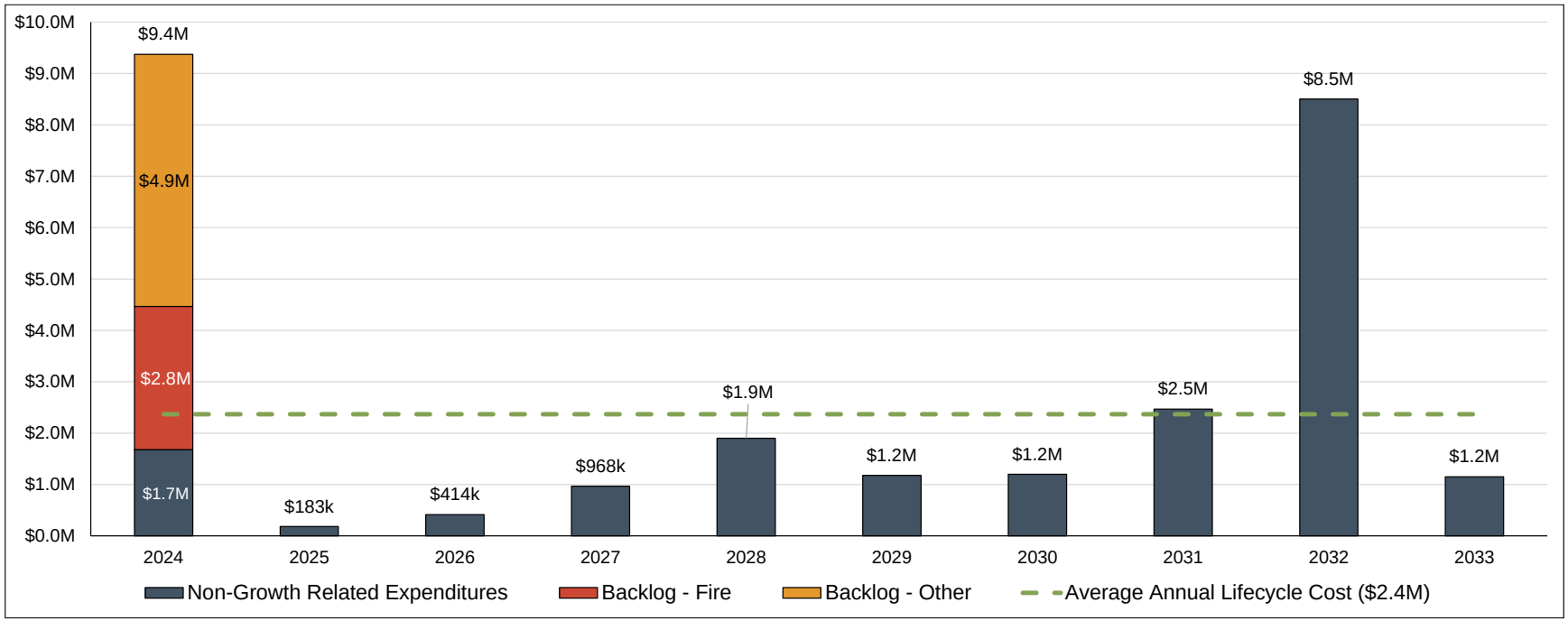


Table 4-9 provides a summary of the 10-year lifecycle expenditure forecast for the Township's fleet and equipment assets this information is further illustrated in Figure 4-12. This forecast was derived by conducting age-based lifecycle modelling for all fleet and equipment assets. Based on this forecast, the non-growth related lifecycle expenditure requirement for the Township's fleet and equipment assets over the next 10 years is expected to total approximately $27.3 million. Based on the best information available on the Township's assets, the current backlog for the Township's fleet and equipment assets is estimated at approximately $7.7 million. This represents the current replacement value of all fleet and equipment assets that are in use beyond their expected useful service lives. It is worth noting that approximately $1.8 million of this backlog has already been addressed by the Township through purchases made through 2022 to 2024. These assets are currently being included in the calculation of the backlog as the Township is awaiting delivery of the newly purchased assets and the soon-to-be-replaced assets are currently still in service. Lastly, based on a review of the Township's approved 2024-2033 capital plan, growth-related expenditures for the Township's fleet and equipment assets over the next 10 years is expected to total approximately $3.7 million.

Table 4-9: Fleet and Equipment – Financial Forecast (2024$)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Non-Growth Related Expenditures										
Fleet	$885,000	$82,000	$339,000	$492,000	$1,800,000	$1,040,000	$978,000	$2,074,000	$7,147,000	$241,000
Equipment	$796,000	$101,000	$75,000	$476,000	$100,000	$138,000	$221,000	$396,000	$1,355,000	$911,000
Backlog – Fire	$2,785,000									
Backlog – Other	$4,908,000									
Growth-Related Expenditures										
Growth-Related Expenditures	-	-	$440,000	$1,620,000	$260,000	$1,391,000	-	-	-	-
Total Expenditures	**$9,374,000**	**$183,000**	**$854,000**	**$2,588,000**	**$2,160,000**	**$2,568,000**	**$1,199,000**	**$2,470,000**	**$8,502,000**	**$1,152,000**

Figure 4-12: Fleet and Equipment – Financial Summary (2024$)



Chapter 5
Facilities

5. Facilities

5.1 State of Local Infrastructure

The Township owns 33 facilities (excluding water and wastewater facilities) that support the delivery of various municipal services. These facilities range from smaller buildings such as picnic shelters and washrooms to larger buildings such as community halls, recreation centres, arenas, and the King Township Municipal Centre.

The Township classifies its facilities as Recreation Facilities, Municipal Facilities, and Libraries. Recreation Facilities are defined as comprising community centres, arenas, community halls, the King City Senior Centre, and the Cold Creek Conservation Area buildings. Municipal facilities are defined as comprising all administrative, operational, and heritage buildings. Libraries comprise the Ansnorveldt Library, the King Library and Senior Centre, the Nobleton Library, and the Schomberg Library.

The Township plans to demolish the existing King City Lions Arena within the term of the 10-year forecast horizon. As such, the King City Lions Arena has not been included in any of the analyses and forecasts presented in this chapter. It has also been excluded from the calculation of the annual lifecycle funding target presented in Section 5.5.

The current replacement cost of Township's facilities is estimated at approximately $216.8 million. Municipal Facilities represent the largest share of replacement cost at approximately $99.1 million, followed Recreation Facilities at approximately $73 million, and lastly, Libraries at approximately $44.6 million. The average age of all of the Township's facilities is approximately 36.4 years.

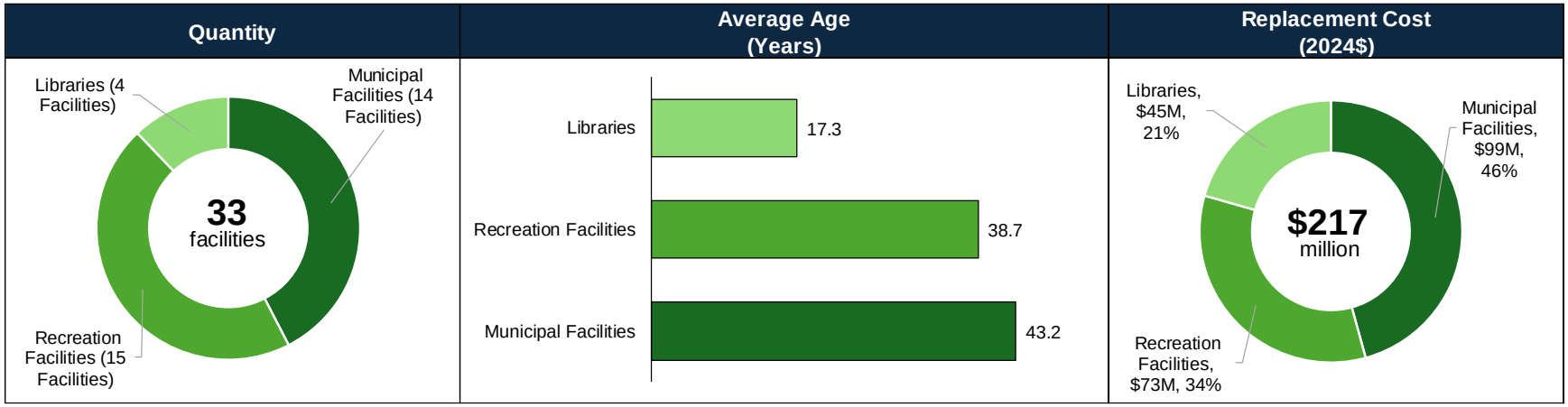
Table 5-1 provides the classification, type, age, and replacement cost of each facility. This information is further illustrated in Figure 5-1.

Table 5-1: Facilities – Classification, Type, Age, and Replacement Cost

Name	Classification	Type	Age	Replacement Cost (2024$)
Firehouse 34 – King City	Municipal Facilities	Fire Hall	24	$6,472,000
Firehouse 36 – Schomberg	Municipal Facilities	Fire Hall	38	$7,910,000
Firehouse 38 – Nobleton	Municipal Facilities	Fire Hall	28	$3,540,000
King City Lions Arena Lions Barn	Municipal Facilities	Other	52	$88,000
King Heritage & Cultural Centre - Laksay Hall	Municipal Facilities	Heritage & Culture	165	$1,549,000
King Heritage & Cultural Centre - Museum	Municipal Facilities	Heritage & Culture	64	$7,458,000
King Heritage Church	Municipal Facilities	Heritage & Culture	173	$696,000
King Heritage Train Station	Municipal Facilities	Heritage & Culture	172	$813,000
King Township Municipal Centre	Municipal Facilities	Operational Facility	6	$35,625,000
Public Works Barn	Municipal Facilities	Operational Facility	40	$1,050,000
Public Works Garage	Municipal Facilities	Operational Facility	62	$6,919,000
Public Works Salt Shed	Municipal Facilities	Operational Facility	32	$4,350,000
Schomberg Community Barn	Municipal Facilities	Other	39	$750,000
Schomberg Parks Depot	Municipal Facilities	Operational Facility	65	$21,920,000
Cold Creek Conservation Area - Visitor Centre	Recreation Facilities	Conservation Site	62	$909,000
Cold Creek Conservation Area Barn	Recreation Facilities	Conservation Site	176	$1,848,000
Cold Creek Conservation Area Well House	Recreation Facilities	Conservation Site	17	$35,000
Cold Creek Education Centre	Recreation Facilities	Conservation Site	62	$1,688,000
Memorial Park Tennis Club	Recreation Facilities	Club House	36	$543,000
Memorial Park Washrooms and Picnic Shelter	Recreation Facilities	Washroom/Picnic Shelter	6	$1,120,000
Nobleton Arena and EMS	Recreation Facilities	Recreation Centre	47	$25,125,000
Nobleton Community Hall	Recreation Facilities	Community Hall	89	$3,500,000
Nobleton Picnic Shelter and Washrooms	Recreation Facilities	Washroom/Picnic Shelter	7	$972,000
Nobleton Pool House	Recreation Facilities	Other	54	$2,538,000

Name	Classification	Type	Age	Replacement Cost (2024$)
Nobleton Tennis Building	Recreation Facilities	Club House	2	$1,046,000
Old King Senior Centre	Recreation Facilities	Other	36	$1,126,000
Pottageville Pavilion	Recreation Facilities	Community Hall	35	$1,624,000
Schomberg Community Hall	Recreation Facilities	Community Hall	117	$2,608,000
Trisan Centre & EMS	Recreation Facilities	Recreation Centre	13	$28,308,000
Ansnorveldt Library	Libraries	Library	34	$2,350,000
King Library & Senior Centre	Libraries	Library	3	$29,610,000
Nobleton Library	Libraries	Library	37	$7,050,000
Schomberg Library	Libraries	Library	46	$5,628,000
Total			**36.4**	**$216,768,000**

Figure 5-1: Facilities – Quantity, Average Age, and Replacement Cost



5.2 Condition

The Township assesses the condition of its facilities through BCAs completed by an external service provider. The BCAs identify repair, maintenance, rehabilitation, and replacement requirements for Township facilities at a component level over a 10-year forecast horizon. To reduce the potential for downtime and to ensure that facility components are reaching the end of their expected service lives, the Township also identifies preventative maintenance needs as part of the BCAs.

As part of the BCAs, individual facility components are inspected and the assessors assign a remaining useful life to each component based on the observed condition. Facility Condition Index (FCI) ratings are also calculated to provide an overall measure of each facility's condition. FCI ratings are calculated by forecasting the repair, maintenance, rehabilitation, and replacement requirements for each building over a 10-year forecast horizon and expressing the sum of forecasted requirements as a percentage of the replacement cost of the facility.

To better communicate the condition of facilities, the BCAs convert FCI% ratings into qualitative condition states as summarized in Table 5-2. The scale is set to show that if the sum of forecasted capital requirements over a 10-year forecast horizon for a given facility is lower than 5% of the building's current replacement value, the facility would be deemed to be in a "Good" condition state. On the other hand, if the sum of forecasted capital requirements over a 10-year forecast horizon for a given facility is higher than 30% of the building's current replacement value, the facility would be deemed to be in a "Critical" condition state. The Township should ensure that facility components are repaired, rehabilitated, and/or replaced in a timely manner to ensure that they continue performing as intended and to reduce the potential for component failures.

Table 5-2: Facilities – Definition of Condition States with Respect to FCI

Condition State	FCI
Good	0% ≤ FCI% < 5%
Fair	5% ≤ FCI% < 10%
Poor	10% ≤ FCI% ≤ 30%
Critical	30% ≤ FCI%

At the time of writing of this asset management plan, the Township is in the process of completing BCAs on its facilities. Some of the preliminary assessments conducted as part of the BCAs are used in this section to determine condition ratings for Township facilities. The Township plans to update BCAs for all of its facilities every 5 years to align with the updates to its long-term capital plans for facilities.

The 10-year cumulative FCI for all Township facilities is 5.9% and translates to an overall condition state of "Fair". The 10-year cumulative FCI% for the Township's Municipal Facilities is 5.0%, which translates to an overall condition state of "Fair". Similarly, the 10-year cumulative FCI% for the Township's Recreation Facilities is 9.1%, which also translates to an overall condition state of "Fair". Lastly, the 10-year cumulative FCI% for the Township's Libraries is 2.9%, which translates to an overall condition state of "Good".

Table 5-3 lists the 10-Year Cumulative FCI% and condition state for each of the Township's facilities. Figure 5-2 illustrates the distribution of facility replacement costs by condition state and Figure 5-3 illustrates the distribution of facility replacement costs by FCI%.

Table 5-3: Facilities – 10-Year Cumulative FCI and Condition States

Name	Classification	10-Year Cumulative FCI%	10-Year Cumulative Condition State
Firehouse 34 – King City	Municipal Facilities	10.8%	Poor
Firehouse 36 – Schomberg	Municipal Facilities	6.0%	Fair
Firehouse 38 – Nobleton	Municipal Facilities	14.8%	Poor
King City Lions Arena Lions Barn	Municipal Facilities	17.0%	Poor
King Heritage & Cultural Centre - Laksay Hall	Municipal Facilities	1.4%	Good
King Heritage & Cultural Centre - Museum	Municipal Facilities	2.7%	Good

Name	Classification	10-Year Cumulative FCI%	10-Year Cumulative Condition State
King Heritage Church	Municipal Facilities	N/A	N/A
King Heritage Train Station	Municipal Facilities	N/A	N/A
King Township Municipal Centre	Municipal Facilities	1.2%	Good
Public Works Barn	Municipal Facilities	1.0%	Good
Public Works Garage	Municipal Facilities	9.9%	Fair
Public Works Salt Shed	Municipal Facilities	2.0%	Good
Schomberg Community Barn	Municipal Facilities	8.8%	Fair
Schomberg Parks Depot	Municipal Facilities	8.0%	Fair
Cold Creek Conservation Area - Visitor Centre	Recreation Facilities	8.3%	Fair
Cold Creek Conservation Area Barn	Recreation Facilities	0.8%	Good
Cold Creek Conservation Area Well House	Recreation Facilities	42.9%	Critical
Cold Creek Education Centre	Recreation Facilities	8.7%	Fair
Memorial Park Tennis Club	Recreation Facilities	10.9%	Poor
Memorial Park Washrooms and Picnic Shelter	Recreation Facilities	0.4%	Good
Nobleton Arena and EMS	Recreation Facilities	10.2%	Poor
Nobleton Community Hall	Recreation Facilities	12.1%	Poor
Nobleton Picnic Shelter and Washrooms	Recreation Facilities	0.4%	Good
Nobleton Pool House	Recreation Facilities	4.2%	Good
Nobleton Tennis Building	Recreation Facilities	0.4%	Good
Old King Senior Centre	Recreation Facilities	22.3%	Poor
Pottageville Pavilion	Recreation Facilities	0.5%	Good
Schomberg Community Hall	Recreation Facilities	5.9%	Fair
Trisan Centre & EMS	Recreation Facilities	9.9%	Fair
Ansnorveldt Library	Libraries	12.6%	Poor
King Library & Senior Centre	Libraries	1.3%	Good
Nobleton Library	Libraries	7.8%	Fair
Schomberg Library	Libraries	1.0%	Good
Total		**5.9%**	**Fair**

Figure 5-2: Facilities – Distribution of Facilities (Replacement Cost) by Condition State

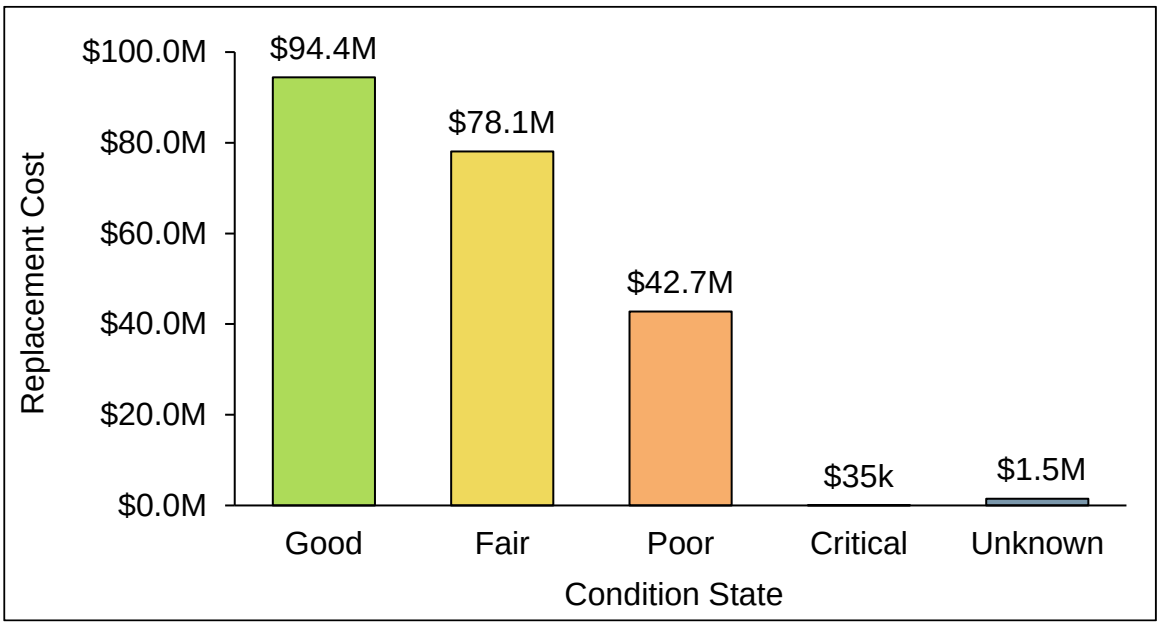
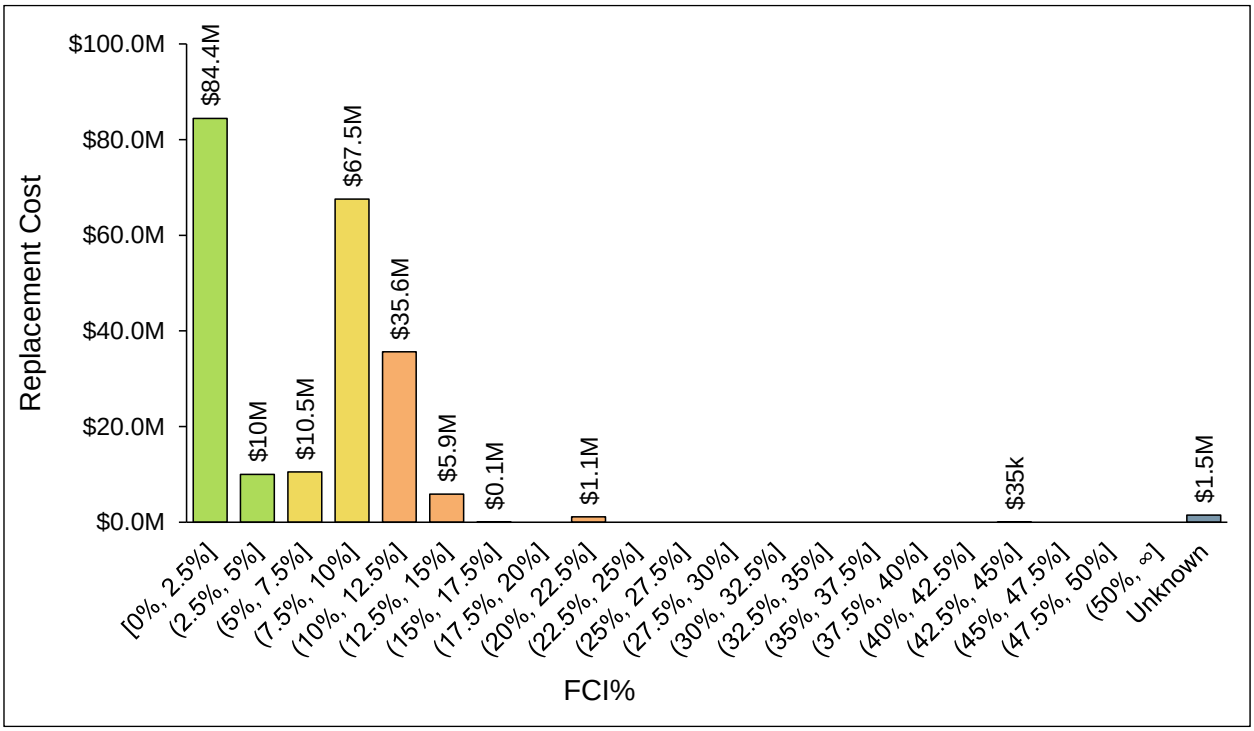


Figure 5-3: Facilities – Distribution of Facilities (Replacement Cost) by FCI%



5.3 Levels of Service

This section provides an overview of the Township's level of service framework for facilities. Table 5-4 summarizes the community levels of service and Table 5-5 summarizes the technical levels of service.

Table 5-4: Facilities – Community Levels of Service

Service Attribute	Community Levels of Service
Accessibility	The Township strives to ensure that its facilities are accessible to all users.
Availability	The Township strives to ensure that its facilities are dependably available for use.
Capacity	The Township strives to align the capacity of its facilities with the service demands of the community.
Safety	The Township prioritizes the safety of all users of its facilities.
Quality	The Township strives to maintain its facilities in adequate condition to continue performing as intended.
Environmental Sustainability	The Township strives to minimize the environmental impact of its facilities.
Cost Efficiency	The Township strives to minimize the average annual lifecycle cost of its facilities by ensuring timely completion of repair, maintenance, rehabilitation, and replacement activities.
Operational Efficiency	The Township strives to maintain adequate staffing levels to sustain the efficient operation of its facilities.

Table 5-5: Facilities – Technical Levels of Service

Service Attribute	Technical Levels of Service	Current Performance
Accessibility	Percentage of public access facilities that meet the requirements of the *Accessibility for Ontarians with Disabilities Act, 2005.*	68%
Availability	Number of shutdowns of recreation facilities, or portions within, due to unplanned repair, maintenance, rehabilitation, or replacement activities compared to the gross floor area of recreational facilities.	1.3 shutdowns per 100,000 sq. ft. of recreation facility space
	Number of shutdowns of municipal facilities, or portions within, due to unplanned repair, maintenance, rehabilitation, or replacement activities compared to the gross floor area of municipal facilities.	0.678 shutdowns per 100,000 sq. ft. of municipal facility space
Safety	Percentage of staffed facilities that undergo monthly health and safety inspections.	100%
Quality	Total cost of repair, maintenance, rehabilitation, and replacement requirements for all facilities forecasted over the next 10-years as a percentage of the total current replacement cost of all facilities.	5.9%
	Facilities with Facility Condition Index ratings above 30% as a ratio of the total number facilities.	1:33
Environmental Sustainability	Kilowatt-hours (kWh) of electricity consumed per square feet for facilities with access to electricity.	15 kWh per sq. ft.

Service Attribute	Technical Levels of Service	Current Performance
	Cubic meters (m^3) of natural gas consumed per square feet for facilities with access to natural gas.	0.92 m^3 per sq. ft.
	Cubic metres (m^3) of water consumed per square feet for facilities with access to municipal water.	0.12 m^3 per sq. ft.
	Ratio of electric vehicle charging ports available for public use to the total number of facilities.	10:33
Cost Efficiency	Annual funding allocated for the repair and maintenance of facilities compared to the total replacement cost of all facilities.	0.54%
Operational Efficiency	Number of full-time equivalents of operational staff[1] for recreation facilities compared to the total number of recreation facilities.	0.6 FTEs per recreation facility
	Number of full-time equivalents of operational staff for municipal facilities compared to the total number of municipal facilities.	0.21 FTEs per municipal facility

5.4 Lifecycle Management Strategy

Table 5-6 summarizes the Township's lifecycle management strategy for its facilities.

[1] Operational staff is defined as the staffing complement directly involved in the day-to-day operations and on-going maintenance of Township facilities. This does not include staff responsible for administrative duties, oversight, and management.

Table 5-6: Facilities – Lifecycle Management Strategy

Facilities	
Inspections and Condition Assessments	As required by the Occupational Health and Safety Act, staffed Township facilities undergo monthly health and safety inspections performed by Township staff. Pools open for public access undergo additional health and safety inspections performed by a York Region Public Health Inspector. Lastly, Township staff perform on-going inspections as part of their daily activities to identify health and safety concerns and immediate maintenance requirements. The Township has a number of on-going preventative maintenance programs in place with external vendors for critical equipment assets within its facilities (e.g. refrigeration plants, electrical systems, elevators, safety systems, filtration systems, etc.). Routine inspections on critical equipment assets are performed as part of these preventative maintenance programs. In addition to its inspection and condition assessment programs, the Township evaluates comments received from its facilities' users to identify maintenance, rehabilitation, and replacement requirements.
Major Operating Lifecycle Activities	The Township conducts on-going maintenance and as-needed repairs to its facilities, and the equipment assets within, to sustain adequate levels of service and reduce the potential for facility closures. Minor equipment assets (e.g. floor scrubbers/cleaning machines) are replaced as required to prevent service interruptions. The Township completes preventative maintenance on minor equipment assets in-house while preventative maintenance on major/specialized equipment assets is performed by external vendors. Township staff have indicated that maintenance of facility components other than equipment is performed on a reactive

Facilities	
	basis and have identified the need to develop long-term maintenance programs to reduce overall lifecycle costs.
Major Capital Lifecycle Activities	Township staff annually review and revise forecasts of lifecycle activities provided through the BCAs to identify rehabilitation and replacement needs for its facilities and the equipment assets within. Rehabilitation and replacement projects are undertaken to address facility components and equipment assets that have reached the end of their service lives, are not performing as originally intended, and/or have uneconomical maintenance and repair costs.
Prioritization of Short-Term Lifecycle Needs	The Township is currently developing a matrix to prioritize lifecycle activities for its facilities and ensure that needs are prioritized based on an assessment of criticality in budget constrained scenarios.
Identification of Growth-Related Lifecycle Needs	Through its Facilities Master Plan, the Township analyzes growth forecasts and shifts in demographics to determine whether current capacity can support the projected service demands of the community. Direct engagement with residents through public surveys is also conducted to ensure that internal priorities align with residents' expectations.

5.5 Financial Summary and Forecast

To develop an estimate of the annual funding requirement and forecast of capital and significant operating expenditures for Township facilities, an annual reinvestment rate of 2.1% was applied to the replacement cost of each facility. This annual reinvestment rate represents the mid-point of the annual reinvestment rate target range (1.7% - 2.5%) presented in the *2016 Canadian Infrastructure Report Card* and aims to ensure that sufficient funds are allocated annually to fund annual capital requirements and allow for the building up of lifecycle reserves. Future iterations of this asset management plan will utilize the component level forecasts completed through the BCAs, which are in

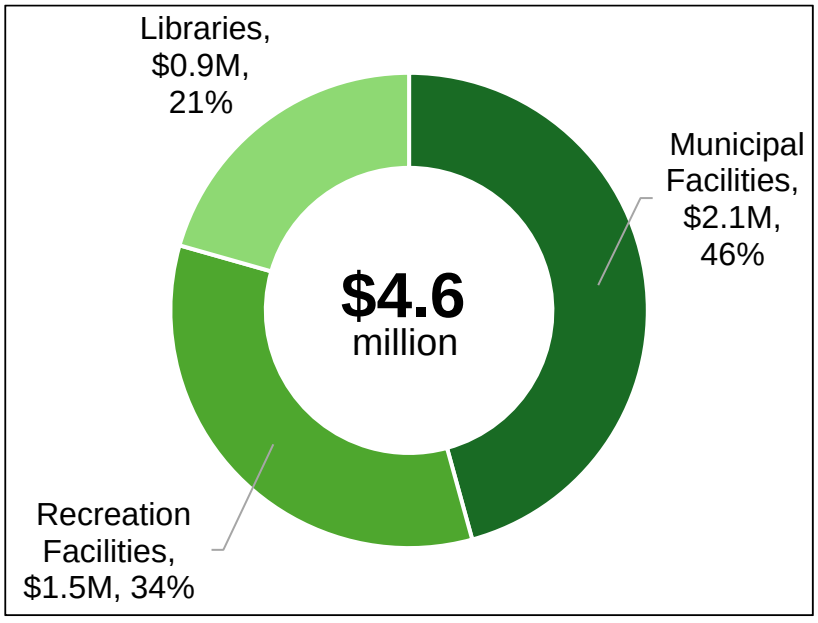
development at the time of writing of this AMP, to inform the annual funding requirement and forecast of capital and significant operating expenditures for Township facilities.

Average annual lifecycle cost for the Township's facilities is estimated to be approximately $4.6 million. This average annual lifecycle cost represents the long-term funding target for the Township to achieve full lifecycle funding levels for its facilities. The Township's Municipal Facilities represent the largest share of this average annual lifecycle cost at approximately $2.1 million, followed by Recreation Facilities at approximately $1.5 million, and lastly, Libraries at approximately $937,000. Table 5-7 summarizes the average annual lifecycle cost for the Township's facilities by classification. This information is further illustrated in Figure 5-4.

Table 5-7: Facilities – Average Annual Lifecycle Cost

Classification	Replacement Cost (2024$)	Average Annual Lifecycle Cost (2024$)
Municipal Facilities	$99,140,000	$2,082,000
Recreation Facilities	$72,990,000	$1,533,000
Libraries	$44,638,000	$937,000
Total	**$216,768,000**	**$4,552,000**

Figure 5-4: Facilities – Average Annual Lifecycle Cost



Based on a review of the Township's approved 2024 budget, the Township allocated approximately $1.2 million to fund asset renewal needs for its facilities in 2024. This figure includes own-source revenues budgeted in 2024 for direct capital costs, budgeted contributions to capital lifecycle reserves, and amounts budgeted to fund debt servicing costs for existing debentures related to the Township facilities. Based on this information, the annual funding gap for the Township's facilities is approximately $3.4 million. Figure 5-5 illustrates the annual funding gap for Township facilities.

Figure 5-5: Facilities – Annual Funding Gap (2024$)

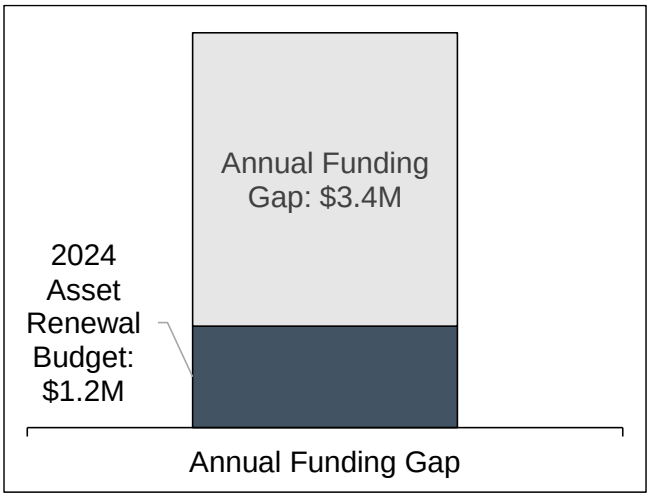
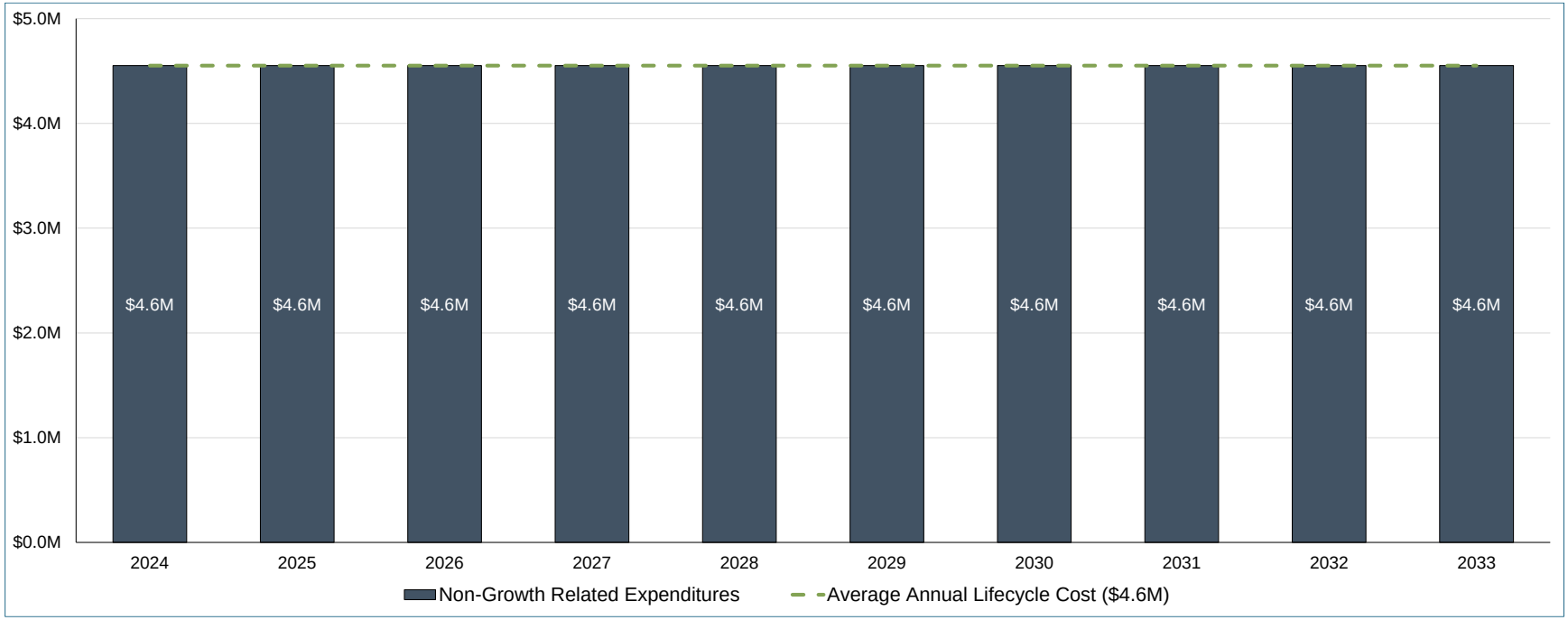


Table 5-8 provides a summary of the 10-year lifecycle expenditure forecast for the Township's facilities by classification and this information is further illustrated in Figure 5-6. This forecast was derived by utilizing an annual allowance based on the average annual lifecycle costs for facilities and ensures that the Township achieves full lifecycle funding levels for this asset class. Based on this forecast, the non-growth related lifecycle expenditure requirement for the Township's facilities over the next 10 years is expected to total approximately $45.5 million. Future iterations of this asset management plan will utilize the component level forecasts developed through the BCAs to inform the 10-year forecasts of capital and significant operating needs. Based on a review of the Township's approved 2024-2033 capital plan, the growth-related lifecycle expenditure requirement for Township facilities over the next 10 years is expected to total approximately $62.1 million.

Table 5-8: Facilities – Financial Forecast (2024$)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Non-Growth Related Expenditures										
Municipal Facilities	$2,082,000	$2,082,000	$2,082,000	$2,082,000	$2,082,000	$2,082,000	$2,082,000	$2,082,000	$2,082,000	$2,082,000
Recreation Facilities	$1,533,000	$1,533,000	$1,533,000	$1,533,000	$1,533,000	$1,533,000	$1,533,000	$1,533,000	$1,533,000	$1,533,000
Libraries	$937,000	$937,000	$937,000	$937,000	$937,000	$937,000	$937,000	$937,000	$937,000	$937,000
Growth-Related Expenditures										
Growth-Related Expenditures	-	-	$7,690,000	$11,106,000	$16,559,000	$13,505,000	$13,267,000	-	-	-
Total Expenditures	**$4,552,000**	**$4,552,000**	**$12,242,000**	**$15,658,000**	**$21,111,000**	**$18,057,000**	**$17,819,000**	**$4,552,000**	**$4,552,000**	**$4,552,000**

Figure 5-6: Facilities – Financial Summary (2024$)



Chapter 6
Parks and Forestry

6. Parks and Forestry

6.1 State of Local Infrastructure

The Township's inventory of parks and forestry assets comprises park furnishings, play equipment, park shelters and structures, sports fields and courts, and light fixtures.

The current replacement cost of the Township's parks and forestry assets is estimated at approximately $32.1 million. Sports fields and courts represent the largest share of replacement cost at approximately $15.4 million, followed by play equipment at approximately $10 million, park shelters and structures at approximately $4.7 million, park furnishings at approximately $1.6 million, and lastly, light fixtures at approximately $266,000. The average age of all of the Township's parks and forestry assets is approximately 8.2 years.

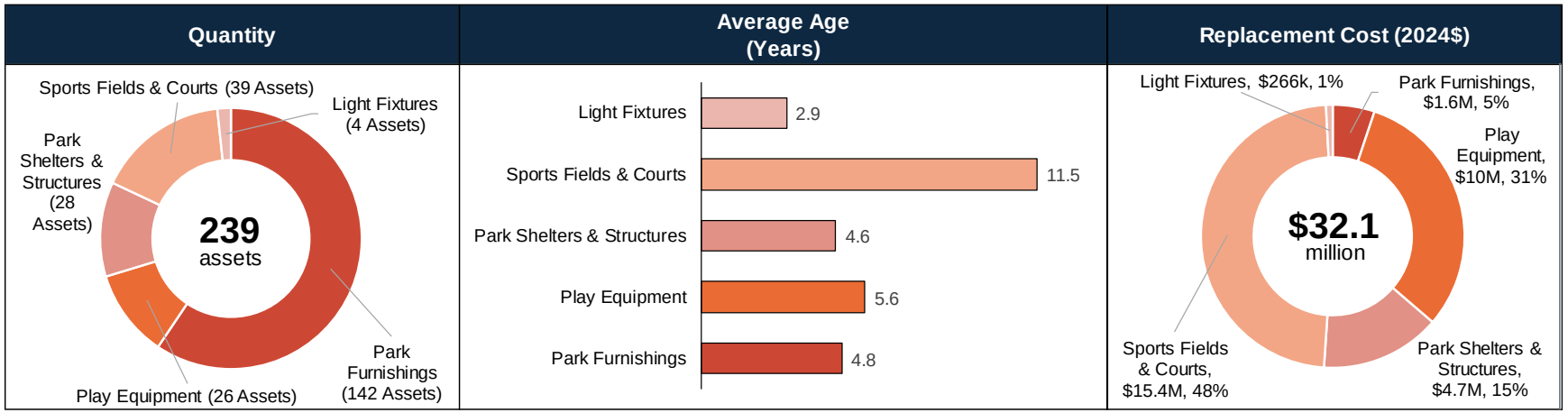
The Township also owns an unknown quantity of trees which comprise its canopy cover. Based on the Township's Tree Conservation Plan, the replacement cost of the Township's canopy cover is estimated to be in the range of $100-$200 million. Similar to non-structural culverts, the Township's canopy cover will be further integrated into future iterations of this asset management plan.

Table 6-1 summarizes the quantity, average age, and current replacement cost of the Township's parks and forestry assets. This information is further illustrated in Figure 6-1.

Table 6-1: Parks and Forestry – Quantity, Average Age, Replacement Cost

Asset Sub-Class	Quantity	Average Age (Years)	Replacement Cost (2024$)
Park Furnishings	142	4.8	$1,649,000
Play Equipment	26	5.6	$10,010,000
Park Shelters & Structures	28	4.6	$4,732,000
Sports Fields & Courts	39	11.5	$15,440,000
Light Fixtures	4	2.9	$266,000
Total	**239**	**8.2**	**$32,097,000**

Figure 6-1: Parks and Forestry – Quantity, Average Age, and Replacement Cost



6.2 Condition

Similar to the Township's fleet and equipment assets, the condition of the Township's parks and forestry assets is based on age relative to useful service life (i.e. based on the percentage of useful service life consumed (ULC%)). A brand-new parks and forestry asset would have a ULC% of 0%, indicating that zero percent of the asset's life expectancy has been utilized. On the other hand, an asset that has reached the end of its life expectancy would have a ULC% of 100%. It is possible for assets to have a ULC% greater than 100%, which occurs if the asset has exceeded its typical life expectancy but continues to be in service. This is not necessarily a cause for concern, however, it must be recognized that assets near or beyond their typical useful service life expectancy are likely to require replacement or rehabilitation in the near term and may have increasing repair and maintenance costs.

To better communicate the condition of parks and forestry assets, ULC% ratings have been segmented into qualitative condition states as summarized in Table 6-2. The scale is set to show that if assets are replaced at the end of their expected useful service life, they would be in a "Fair" condition state. For assets that remain in service beyond their useful service life (i.e., ULC% > 100), the probability of failure is assumed to have increased to a point where performance would be characterized as "Poor" or "Very Poor".

Table 6-2: Definition of Condition States with Respect to ULC%

Condition State	ULC%
Very Good	0% ≤ ULC% ≤ 45%
Good	45% < ULC% ≤ 90%
Fair	90% < ULC% ≤ 100%
Poor	100% < ULC% ≤ 125%
Very Poor	125% < ULC%

The replacement cost of the Township's parks and forestry assets by condition state is illustrated in Figure 6-2 and Figure 6-3.

Figure 6-2: : Parks and Forestry – Distribution of Assets (Replacement Cost) by Condition State and Asset Sub-class

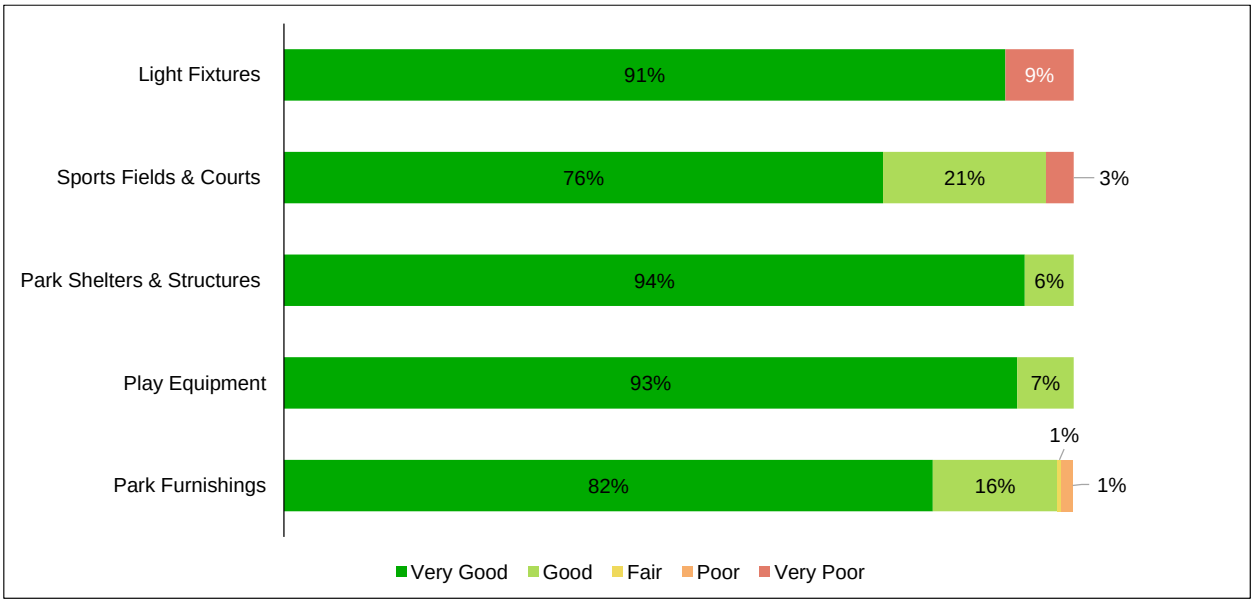


Figure 6-3: Parks and Forestry – Distribution of Assets (Replacement Cost) by Condition State

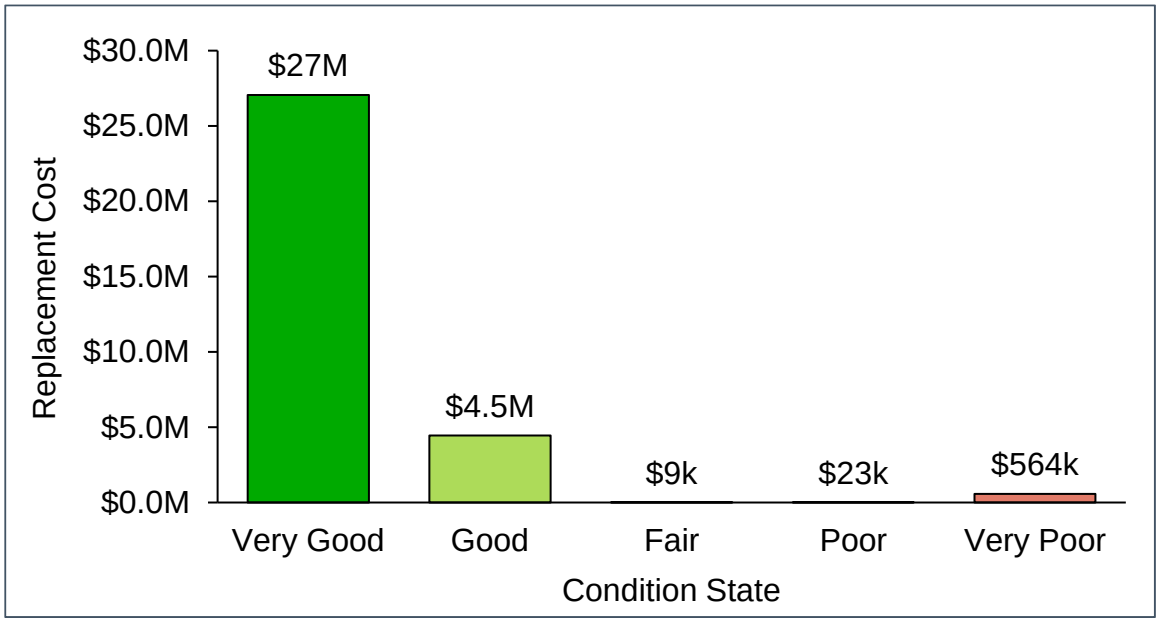
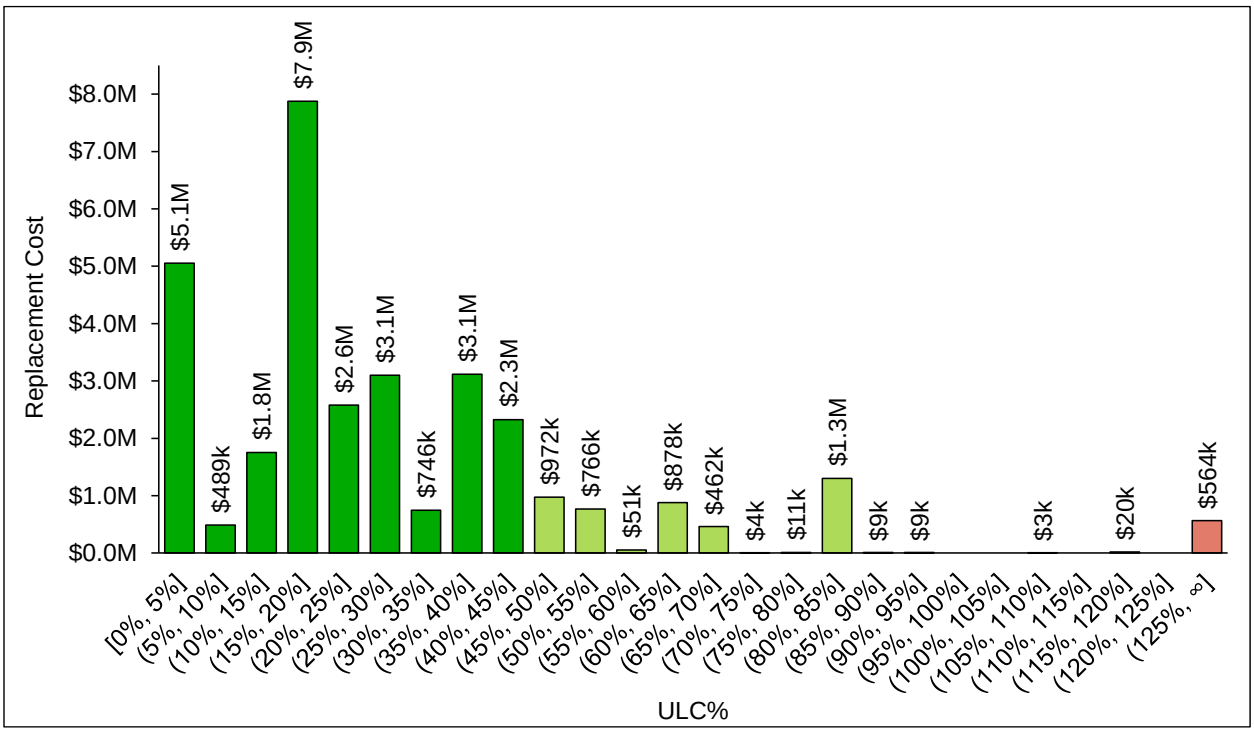


Figure 6-4 illustrates the distribution of parks and forestry assets (by replacement cost) based on ULC%.

Figure 6-4: Distribution of Parks and Forest Assets (Replacement Cost) by ULC%



6.3 Levels of Service

This section provides an overview of the Township's level of service framework for parks and forestry assets. Table 6-3 summarizes the community levels of service and Table 6-4 summarizes the technical levels of service.

Table 6-3: Parks and Forestry – Community Levels of Service

Service Attribute	Community Levels of Service
Proximity	The Township strives to ensure that all residents have access to neighbourhood parks[1] in close proximity to their homes.

[1] The Township's 2019 Parks, Recreation and Culture Master Plan defined neighborhood parks as "primarily walk/bike-to parks, catering to the recreational needs of residents living within their general vicinity."

Service Attribute	Community Levels of Service
Quality	The Township strives to maintain its parks and park amenities in adequate condition to continue providing a satisfactory user experience.
Availability	The Township strives to ensure that the quantity of its parks and size of its trail network is sufficient to meet the service expectations of its community.
Accessibility	The Township strives to ensure that its playgrounds are accessible to all users.
Operational Efficiency	The Township strives to maintain adequate staffing levels to sustain the efficient operation of its parks and park amenities.
Enhancement	The Township strives to enhance its existing canopy cover.

Table 6-4: Parks and Forestry – Technical Levels of Service

Service Attribute	Technical Levels of Service	Current Performance
Proximity	Average distance (in meters) from residential areas to the nearest neighborhood park[1] within population centres.	800 meters
Quality	Number of outstanding playground deficiencies[2] compared to the total number of playgrounds.	2.3 deficiencies per 10 playgrounds

[1] The Township's 2019 Parks, Recreation and Culture Master Plan defined neighborhood parks as "primarily walk/bike-to parks, catering to the recreational needs of residents living within their general vicinity."
[2] Playground deficiencies include deficiencies related to playground equipment pieces, playground surfaces, retaining borders, sub-bases, and drainage.

Service Attribute	Technical Levels of Service	Current Performance
	Number of outstanding splash pad deficiencies[1] compared to the total number of splash pads.	0 deficiencies
	Replacement cost of parks and forestry assets in use beyond their optimal service life standards compared to the replacement cost of all parks and forestry assets.	1.8%
Availability	Acres of parkland per residential household.	3.15 acres per 100 residential households
	Metres of Township operated trails per residential household.	726 metres per 100 residential households
Accessibility	Percentage of playgrounds that meet the requirements of the *Accessibility for Ontarians with Disabilities Act, 2005*.	100%
Operational Efficiency	Acres of parkland compared to the number of full-time equivalents of operational staff[2].	43 acres per FTE

6.4 Lifecycle Management Strategy

Table 6-5 summarizes the Township's lifecycle management strategy for its parks and forestry assets.

[1] Splash pad deficiencies include deficiencies related to splash pad surfaces.
[2] Operational staff is defined as the staffing complement directly involved in the day-to-day operations and on-going maintenance of parks, trails, and greenspaces. This does not include staff responsible for administrative duties, oversight, and management.

Table 6-5: Parks and Forestry – Lifecycle Management Strategy

Parks and Forestry	

Inspections and Condition Assessments	The Township has a number of inspection and condition assessment programs for its playground equipment and splash pads as follows:
	• Playground Equipment
	  ○ All pieces of playground equipment are verified to conform with Canadian Standards Association (C.S.A.) guidelines prior to their emplacement.
	  ○ Monthly inspections are completed by Township staff and compiled into an annual report in accordance with C.S.A. guidelines. These assessments include inspections for safe designated play spaces to ensure they are free from trip hazards, entanglements, entrapments, and are generally unencumbered for motion. Playground surfaces are also inspected to ensure they are clean, do not have cracks or broken glass, have evenly distributed loose fill, etc.
	  ○ Head impact testing is performed on playground surfaces in 5-year intervals through an external service provider to ensure compliance with C.S.A. guidelines and to evaluate maintenance, rehabilitation, and replacement needs.
	  ○ Condition assessments are completed in 5-year intervals through an external service provider to evaluate maintenance, rehabilitation, and replacement needs. Inspections are also performed on playground surfaces to ensure that they pass head impact testing, are clean, do not have cracks or broken glass, have evenly distributed loose fill, etc.
	• Splash Pads

Parks and Forestry	
	○ Daily inspections are conducted by Township staff during operating season to ensure safety and cleanliness. All high-touch surfaces are sanitized as part of these inspections. ○ Regular inspections are conducted by the York Region Public Health Unit to ensure compliance with R.R.O. 1990, Regulation 565: Public Pools. The Township is currently developing an inspection and patrol program for its parks and trails to identify issues related to signage, tree trunk and limb failures, trip hazards, fencing, public seating (benches, bleachers, etc.), picnic shelters, washroom facilities, pedestrian pathways and bridges, trail maintenance, garbage and recycling, etc. The proposed program would include the following (the frequency of inspections and patrols may vary based on seasonality): • Biweekly inspections of parks. • Regular patrols of Township owned trails. Currently, there is no formal inspection program for the Township's trail system. Trail checks are conducted by Township staff as time allows, with the aim of inspecting all trails once a month. • Regular inspections of pedestrian pathways and bridges. In addition to its inspection and condition assessment programs, the Township evaluates comments received from the public to identify deficiencies. Complaints related to garbage collection and sports field maintenance are most common.
Major Operating Lifecycle Activities	The Township has a number of on-going maintenance programs to ensure its parks and playground equipment are well-maintained and continue to meet the expectations of the community. Some of the Township's major maintenance programs are as follows: • Grass cutting for all maintained open spaces.

Parks and Forestry	
	• Grass maintenance (aeration, fertilization, applying top dressing, cleaning, etc.). • Grading, painting, crack-sealing, and cleaning of sports fields. • Trail maintenance (grading, brushing, cleaning, etc.). • Snow clearing from all public access spaces (trails, public pathways and bridges, parking lots, etc.). • Maintenance of irrigation systems (flushing, winterization, etc.). • Garbage and recycling collection. • Preventative maintenance to avoid service interruptions.
Major Capital Lifecycle Activities	The Township conducts rehabilitation and replacement projects for parks and playground assets that have reached the end of their service lives, are not performing as originally intended, and/or have uneconomical repair and maintenance costs. When replacing parks and playground assets, the Township evaluates current trends and relevant changes in the community to determine if upgrades are necessary. Upgrades are sometimes also undertaken at the direction of Council, based on community feedback, or to accommodate changes in design specifications to meet accessibility or other requirements. While the Township does complete some rehabilitation activities to its parks and playground assets in-house, major rehabilitation and replacement projects that exceed staff capacity are typically completed through external service providers. The Township plans its capital activities with an emphasis on meeting accessibility requirements and strives to ensure that all parks have accessible features and pathways. When purchasing replacement or additional playground equipment, the Township ensures that the requirements of the Accessibility for Ontarians with Disabilities Act, 2005 are met.

Parks and Forestry	
Prioritization of Short-Term Lifecycle Needs	Highest priority is given to treating issues related to health and safety, followed by issues that may cause closures or significant service interruptions. Other lifecycle activities are prioritized by measuring impacts on service delivery of affected assets.
Identification of Growth-Related Lifecycle Needs	Through its Parks, Recreation, and Culture Master Plan, the Township analyzes growth forecasts and trends in active transportation use to determine whether purchase of additional playground equipment or construction of new parks and trails is required. Direct engagement with residents through public consultations and surveys is also conducted to understand community priorities.

6.5 Financial Summary and Forecast

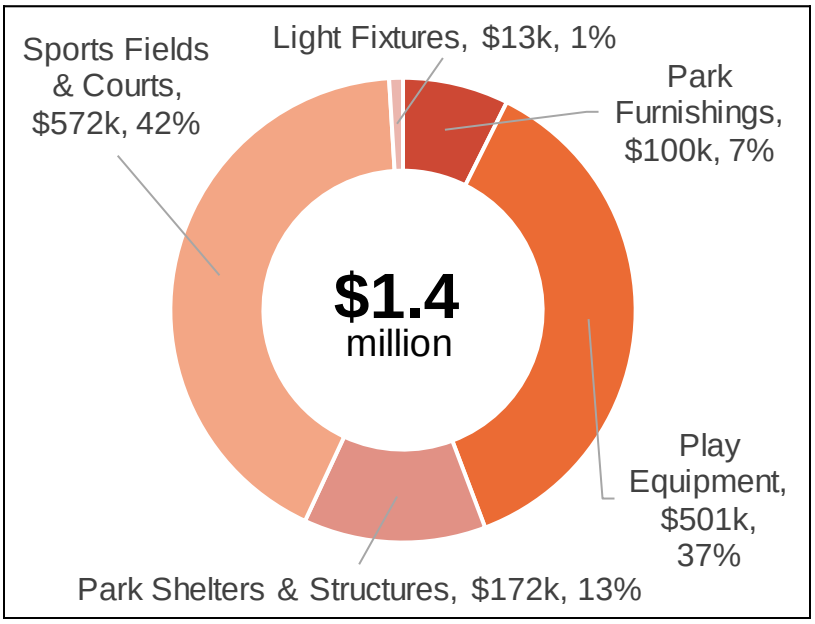
Based on the lifecycle activities outlined in the previous section, an estimate of the annual funding requirement and forecast of capital expenditures was developed for the Township's parks and forestry assets.

Average annual lifecycle cost for the Township's parks and forestry assets is estimated to be approximately $1.4 million. This average annual lifecycle cost represents the long-term funding target for the Township to achieve full lifecycle funding levels for its parks and forestry assets. The Township's sports fields and courts represent the largest share of this average annual lifecycle cost at approximately $572,000, followed by play equipment at approximately $501,000, park shelters and structures at approximately $172,000, park furnishings at approximately $100,000, and lastly, the light fixtures at approximately $13,000. Table 6-6 lists the average annual lifecycle cost for the Township's parks and forestry assets by asset sub-class. This information is further illustrated in Figure 6-5.

Table 6-6: Parks and Forestry – Average Annual Lifecycle Cost

Asset Sub-class	Replacement Cost (2024$)	Average Annual Lifecycle Cost (2024$)
Park Furnishings	$1,649,000	$100,000
Play Equipment	$10,010,000	$501,000
Park Shelters & Structures	$4,732,000	$172,000
Sports Fields & Courts	$15,440,000	$572,000
Light Fixtures	$266,000	$13,000
Total	**$32,097,000**	**$1,358,000**

Figure 6-5: Parks and Forestry – Average Annual Lifecycle Cost



Based on a review of the Township's approved 2024 budget, the Township allocated $258,000 to fund asset renewal needs for its parks and forestry assets in 2024. This figure includes own-source revenues budgeted in 2024 for direct capital costs, budgeted contributions to capital lifecycle reserves, and amounts budgeted to fund debt servicing costs for existing debentures related to the parks and forestry assets. Based on this information, the annual funding gap for the Township's parks and forestry assets is approximately $1.1 million. Figure 6-6 illustrates the annual funding gap for the Township's parks and forestry assets.

Figure 6-6: Parks and Forestry – Annual Funding Gap (2024$)

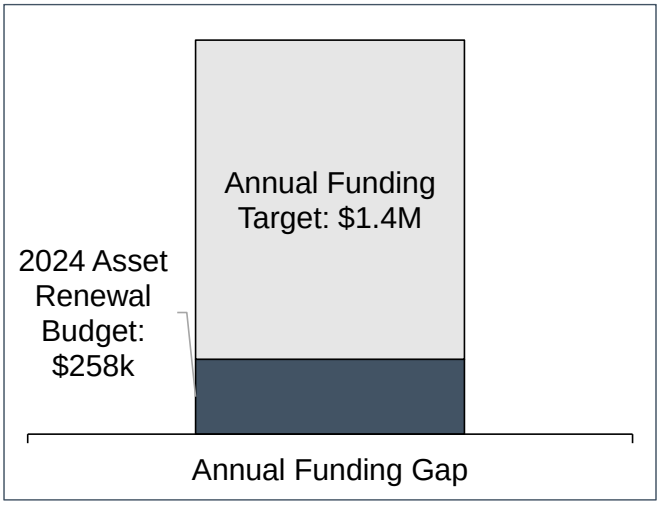
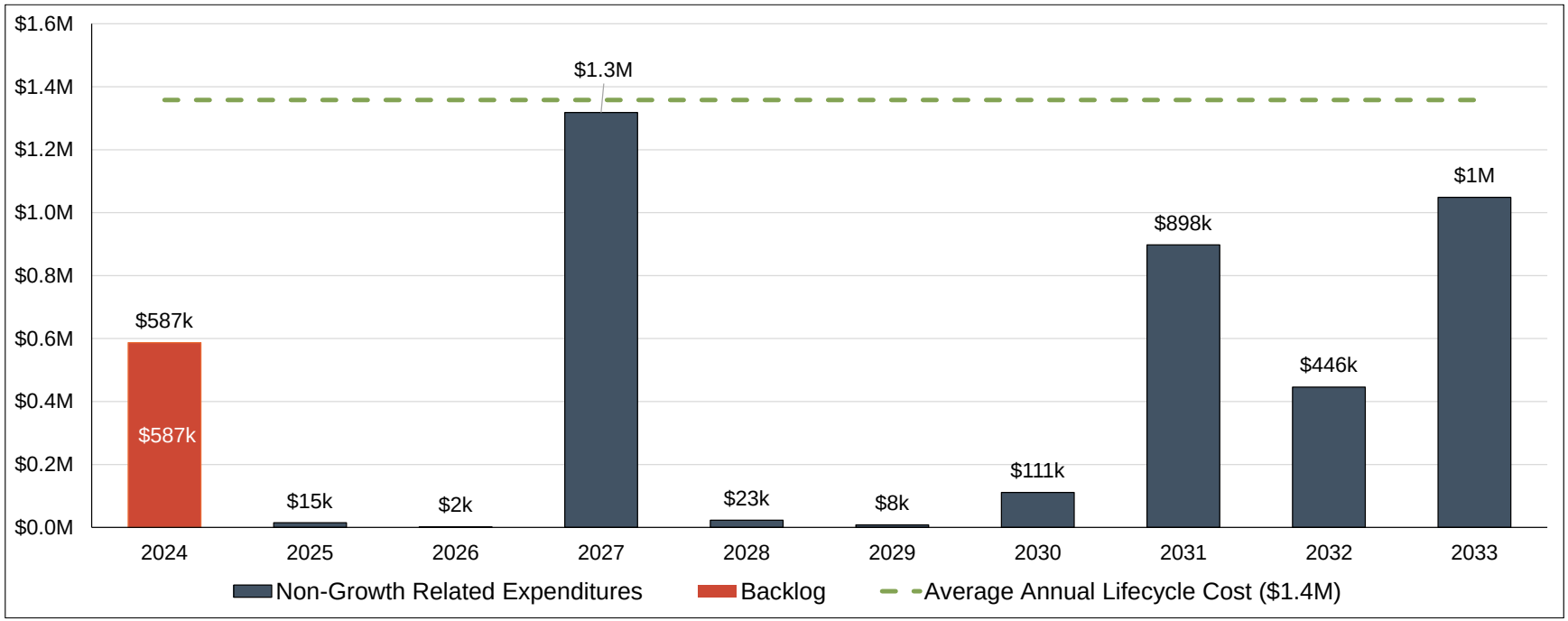


Table 6-7 provides a summary of the 10-year lifecycle expenditure forecast for the Township's parks and forestry assets by asset sub-class and this information is further illustrated in Figure 6-7. This forecast was derived by conducting age-based lifecycle modelling for all parks and forestry assets. Based on this forecast, the non-growth related lifecycle expenditure requirement for the Township's parks and forestry assets over the next 10 years is expected to total approximately $4.5 million. Based on the best information available on the Township's assets, the current backlog for the Township's parks and forestry assets is estimated at approximately $587,000. This represents the current replacement value of all parks and forestry assets that are in use beyond their expected useful service lives. Lastly, based on a review of the Township's approved 2024-2033 capital plan, growth-related expenditures for the Township's parks and forestry assets over the next 10 years is expected to total approximately $28.3 million.

Table 6-7: Parks and Forestry – Financial Forecast (2024$)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Non-Growth Related Expenditures										
Park Furnishings	-	$15,000	$2,000	$18,000	$23,000	$8,000	$111,000	$53,000	$56,000	$301,000
Play Equipment	-	-	-	-	-	-	-	-	-	$715,000
Park Shelters & Structures	-	-	-	$260,000	-	-	-	-	-	$33,000
Sports Fields & Courts	-	-	-	$1,040,000	-	-	-	$845,000	$390,000	-
Light Fixtures	-	-	-	-	-	-	-	-	-	-
Backlog	$587,000									
Growth-Related Expenditures										
Growth-Related Expenditures	$30,000	$5,882,000	$1,234,000	$3,092,000	$5,605,000	$4,918,000	$4,589,000	$2,693,000	$270,000	-
Total Expenditures	**$617,000**	**$5,897,000**	**$1,236,000**	**$4,410,000**	**$5,628,000**	**$4,926,000**	**$4,700,000**	**$3,591,000**	**$716,000**	**$1,049,000**

Figure 6-7: Parks and Forestry – Financial Summary (2024$)



Chapter 7
Recommendations and Next Steps

7. Recommendations and Next Steps

7.1 Recommendations

The following recommendations are provided for the Township's consideration:

- Review existing asset inventories and address the data gaps that have been identified through the development of this asset management plan.
- There are several fleet and equipment assets that are currently in use beyond their expected useful lives, representing a backlog of approximately $7.7 million. Although approximately $1.8 million of this backlog has been addressed through assets purchased, but not yet received, between 2022 – 2024 (see Section 4.5), the Township should assess whether the remaining assets are currently performing adequately. If so, the Township should consider revising the service life expectations of those assets.
- Continue to collect the data necessary to quantify performance of Data-Deferred Levels of Service Performance Measures in the near future.
- Develop a register of Levels of Service Performance Measures so that they can be appropriately tracked over time.
- Continue to integrate all Township assets into its enterprise asset management software so that it can act as a central repository.
- Improve complaint tracking procedures and implement a maintenance work order system. The Township should also consider integrating the maintenance work order system into its enterprise asset management software. This is particularly important in instances where public feedback results in activities that preserve, extend, or renew the service lives of Township assets.
- Improve tracking of work orders for asset management activities related to the Township's assets and segment work order tasks by those that were planned vs. unplanned.

- Develop frameworks that allow for the assessment of asset criticality through the determination of consequence of failure and probability of failure factors associated with each asset class.

- Develop a structure and format for regular updates to Council on asset management progress, including updates on the performance of the Township's Technical Levels of Service measures.

7.2 Next Steps

Following the completion of this asset management plan, the Township will need to develop a comprehensive asset management plan for all of its infrastructure assets to meet the July 1, 2025 requirements of O. Reg. 588/17. Watson will be assisting the Township complete its comprehensive asset management plan as the next phase of our engagement with the Township.

Following the approval of the comprehensive asset management plan by Council, the Township will need to shift its focus to operationalizing the plan. The Township will need to establish processes and implement systems to keep asset information (e.g. condition ratings, replacement costs, etc.) current and relevant so that it can be relied upon to identify capital and significant operating expenditure priorities. This will allow the plan to be able to inform the Township's annual budget process well into the future. The Township will also need to establish a format and process for annual updates to Council on asset management progress, as required by O. Reg. 588/17.

The following are key elements that have been identified for the continual improvement of this asset management plan for the Township's consideration:

- The Township should consider developing an implementation strategy for this asset management plan which includes a roadmap to address data gaps and establish processes for continual updates and monitoring.

- The Township should consider developing an asset management manual that documents the tasks that Township staff are required to undertake to manage the Township's assets. Included in this manual should be clear definition of roles and segregation of duties for all relevant stakeholders (i.e. asset managers, financial staff, senior management team members, Council, etc.). Such a

manual will provide the Township with documented processes to maintain its asset inventories, assess asset condition and performance over time, plan for lifecycle activities, and ensure the viability of financial strategies to achieve full lifecycle funding levels.

- The Township should consider designing a community communication and engagement strategy to support the successful implementation of this asset management plan. Such a strategy would aim to establish community understanding of why asset management planning is important, develop an asset program that reflects the priorities of the community, and solidify community support for asset management planning principles.

Appendices

Appendix A
Data-Deferred Technical Levels of Service

Appendix A: Data-Deferred Technical Levels of Service

Presented in this Appendix are the Township's Data-Deferred Technical Levels of Service. The Township has identified these Technical Levels of Service as being important to include within its Levels of Service framework and is currently developing data-collection protocols to be able to quantify performance in future iterations of this asset management plan.

Table A-1 provides an index of the Data-Deferred Technical Levels of Service tables contained in this appendix.

Table A-1: Non-core Assets – Data-Deferred Technical Levels of Service Table References

Asset Class	Data-Deferred Technical Levels of Service Table Reference
Sidewalks and Paved Pathways	Table A-2
Non-structural Culverts	Table A-3
Fleet and Equipment	Table A-4
Facilities	Table A-5

Table A-2: Sidewalks and Paved Pathways– Data-Deferred Technical Levels of Service

Service Attribute	Data-Deferred Technical Levels of Service
Safety	Percentage of sidewalks and paved pathways (by length) that meet the requirements of the Township's current design standard for surface type and width.
Accessibility	Percentage of sidewalks and paved pathways (by length) that meet the requirements of the *Accessibility for Ontarians with Disabilities Act, 2005*.

Table A-3: Non-Structural Culverts – Data-Deferred Technical Levels of Service

Service Attribute	Data-Deferred Technical Levels of Service
Reliability	Number of work orders related to flushing activities performed on non-structural culverts compared to the total number of non-structural culverts.
	Number of work orders related to repairs for structural damage performed on non-structural culverts compared to the total number of non-structural culverts.
	Number of one-off replacements of non-structural culverts compared to the total number of non-structural culverts
	Number of user complaints that resulted in work orders compared to the total number of non-structural culverts

Table A-4: Fleet and Equipment – Data-Deferred Technical Levels of Service

Service Attribute	Data-Deferred Technical Levels of Service
Reliability	Number of fleet assets that underwent more than 3 unplanned repairs[1] in the calendar year compared to the total number of fleet assets.
	Number of work orders related to unplanned repairs[1] performed on fleet assets compared to the total number of fleet assets.
	Number of hours fleet assets spent out of service due to unplanned repairs[1] compared to the total number of fleet assets.

Table A-5: Facilities – Data-Deferred Technical Levels of Service

Service Attribute	Data-Deferred Technical Levels of Service
Accessibility	Percentage of parking lots located at facilities that meet the requirements of the Accessibility for Ontarians with Disabilities Act, 2005.
Availability	Number of hours lost due to shutdown of recreation facilities, or portions within, due to unplanned repair, maintenance, rehabilitation, or replacement activities compared to the total number of recreation facilities.
	Number of hours lost due to shutdown of municipal facilities, or portions within, due to unplanned repair, maintenance, rehabilitation, or replacement activities compared to the total number of municipal facilities.

[1] Unplanned repairs do not include repairs to address issues caused by operator error.

Capacity	Percentage of facilities with booked hours exceeding 80% of available hours during high usage periods[1].
Safety	Number of identified health and safety issues addressed within required timeframes compared to the total number of facilities.
Quality	Number of user complaints that resulted in work orders compared to the total number of facilities.

[1] The Township defines high usage periods as the hours between 4PM – 11PM on Mondays – Thursdays and the hours between 7AM – 11PM on Saturdays and Sunday.