Asset Management Plan

Township of Frontenac Islands

Final Report

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Report

Chapter 1
Introduction

1. Introduction

1.1 Overview

The main objective of an asset management plan is to use a municipality's best available information to develop a comprehensive long-term plan for capital assets. In addition, the plan should provide a sufficiently documented framework that will enable continual improvement and updates of the plan, to ensure its relevancy over the long term.

The Township of Frontenac Islands (Township) retained Watson & Associates Economists Ltd. (Watson) to assist with the development of its asset management plan, which will serve as a tool for the Township to optimize asset management outcomes for its infrastructure assets in a cost-effective manner. The Township's asset management plan has been developed in accordance with the requirements of *Ontario Regulation 588/17: Asset Management Planning For Municipal Infrastructure* (O. Reg. 588/17) utilizing a three-phased approach as summarized in Figure 1-1. The first phase comprised the development of an asset management plan for core infrastructure assets[1]. This phase culminated in the development of the Township's 2022 Asset Management Plan and brought the Township in compliance with the July 1, 2022 requirements of O. Reg. 588/17. The second phase comprised the development of an asset management plan for non-core infrastructure assets, which is presented herein and brings the Township in compliance with the July 1, 2024 requirements of O. Reg. 588/17. The third and final phase comprises the development of a comprehensive asset management plan which builds upon the asset management work that has been completed to date and bring the Township in compliance with the July 1, 2025 requirements of O. Reg. 588/17. 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 financial sustainability and affordability factors specific to the Township, and assessing asset criticality through a risk management lens.

[1] Core assets are defined by O. Reg. 588/17 as roads, bridges, and any asset that is related to the provision of water, wastewater and stormwater services. Non-core assets are all other assets (e.g., facilities, fleet, equipment, etc.).

Figure 1-1: Phased Approach to AMP Development

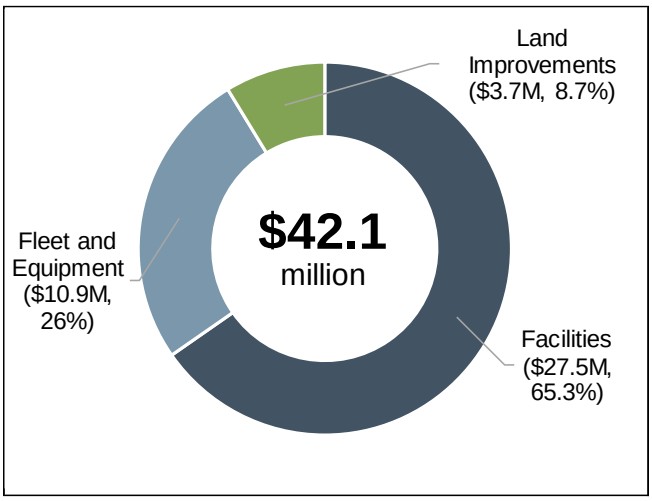
Phase 1	Phase 2	Phase 3
AMP for core infrastructure assets that includes the following: • Summary information on core infrastructure assets; • Current levels of service being provided by core infrastructure assets; • Summary of lifecycle management strategies; • 10-year forecast of lifecycle activities related to core infrastructure assets to maintain current levels of service; and • Annual funding targets **Completed October 2022**	AMP for non-core infrastructure assets that includes the following: • Summary information on non-core infrastructure assets; • Current levels of service being provided by non-core infrastructure assets; • Summary of lifecycle management strategies; • 10-year forecast of lifecycle activities related to non-core infrastructure assets to maintain current levels of service; and • Annual funding targets **Due July 1, 2024**	AMP for all infrastructure assets that includes the following: • Establishment of proposed levels of service; • 10-year forecast of lifecycle activities related to all infrastructure assets to achieve the proposed levels of service; and • Financial strategy that outlines how the Township plans to support the forecast of lifecycle activities and long-term lifecycle funding requirements. **Due July 1, 2025**

The estimated current replacement cost for the Township's non-core infrastructure assets is estimated to be approximately $42.1 million. A breakdown of the replacement cost by asset class is provided in Table 1-1 and is further illustrated in Figure 1-2. Facilities comprise the largest share of this replacement cost at approximately $27.5 million (65.3%), followed by fleet and equipment at approximately $10.9 million (26.0%), and lastly, land improvement assets at approximately $3.7 million (8.7%).

Table 1-1: Asset Classes and Replacement Costs

Asset Class	Replacement Cost (2024$)
Facilities	$27,486,000
Fleet and Equipment	$10,932,000
Land Improvements	$3,662,000
Total	**$42,080,000**

Figure 1-2: Distribution of Replacement Cost by Asset Class



1.2 Legislative Context for the Asset Management Plan

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.

As noted earlier, this asset management plan was developed to bring the Township into compliance with the July 1, 2024 requirements of O. Reg. 588/17. Over the coming months the Township will be developing the final phase of its asset management plan, which will identify level of service targets and a financial strategy. The final phase of the asset management plan will bring the Township into full compliance with the 2025 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 the Township's asset managers, information gleaned through reviews of existing long-term planning documents and studies, 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 benchmarked costs and applicable inflationary indices.

2. Define and assess the current condition of assets using a combination of staff input and age-based condition analysis.

3. Define and document current levels of service based on analyses of available data.

4. Develop lifecycle management strategies that identify the activities required to maintain the current levels of service. The outputs of these strategies were utilized to develop forecasts of annual capital and significant operating expenditures for each asset class.

5. Document the asset management plan in a formal report to inform future decision-making and to communicate planning to municipal stakeholders.

Chapter 2
State of Local Infrastructure and Levels of Service

2. State of Local Infrastructure and Levels of Service

2.1 Facilities

2.1.1 State of Local Infrastructure

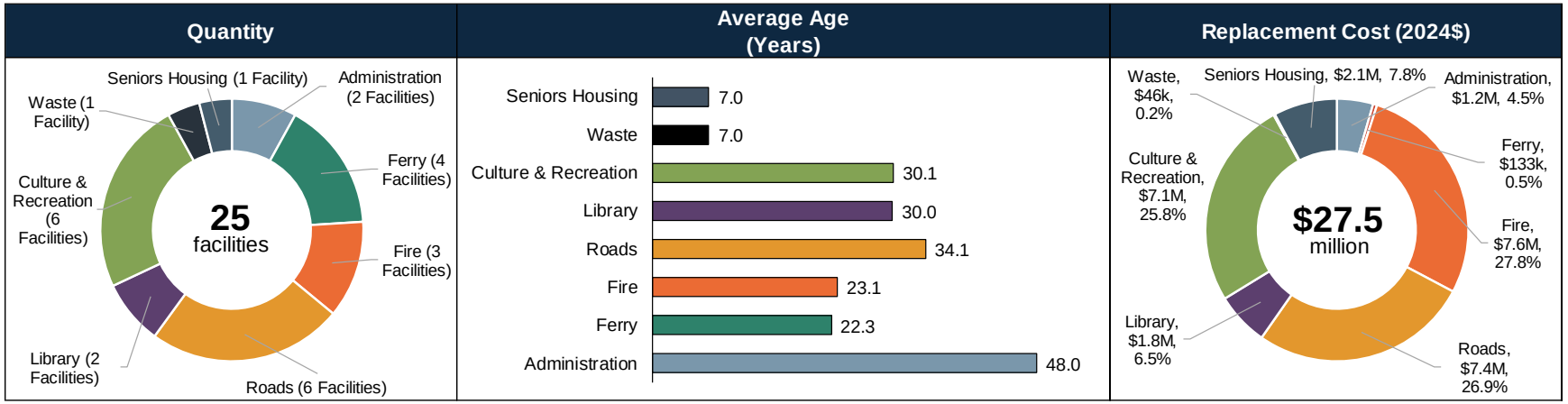
The Township owns and manages 25 facilities that support the delivery of various municipal services. These facilities include administrative facilities, roads facilities, culture & recreation facilities, fire facilities, a seniors housing facility, ferry houses, libraries, and a waste site on Wolfe Island.

The estimated current replacement cost of Township's facilities is approximately $27.5 million. Fire facilities represent the largest share of replacement cost at approximately $7.7 million (27.8%), followed by roads facilities at approximately $7.4 million (26.9%), culture and recreation facilities at approximately $7.1 million (25.8%), the seniors housing facility at approximately $2.1 million (7.8%), libraries at approximately $1.8 million (6.5%), administrative facilities at approximately $1.2 million (4.5%), ferry houses at approximately $133,000 (0.5%) and lastly, the Wolfe Island waste site at approximately $46,000 (0.2%). The average age across all of the Township's facilities is approximately 28 years. Table 2-1 summarizes the quantity, gross floor area, average age, and estimated current replacement cost of the Township's facilities by service area. This information is further illustrated in Figure 2-1.

Table 2-1: Facilities – Quantity, Gross Floor Area, Average Age, and Replacement Cost

Service Area	Quantity	Gross Floor Area (ft^2)	Average Age (Years)	Replacement Cost (2024$)
Administration	2 facilities	2,937	48.0	$1,226,000
Ferry	4 facilities	739	22.3	$133,000
Fire	3 facilities	12,315	23.1	$7,647,000
Roads	6 facilities	23,302	34.1	$7,402,000
Library	2 facilities	2,790	30.0	$1,800,000
Culture & Recreation	6 facilities	28,259	30.1	$7,084,000
Waste	1 facility	243	7.0	$46,000
Seniors Housing	1 facility	5,885	7.0	$2,148,000
Total	**25 facilities**	**76,469**	**28.2**	**$27,486,000**

Figure 2-1: Facilities – Quantity, Average Age and Replacement Cost



2.1.2 Condition

Due to current data limitations, the condition of the Township's facilities is not reported in this asset management plan. The Township has not formally assessed the condition of its facilities and age-based condition ratings were not assigned to these assets because they would provide limited value. Unless tracked at a detailed component level, age is a poor indicator of overall facility condition. Facilities can be maintained in a state of good repair for long periods of time through ongoing maintenance, rehabilitation, and replacement of individual components (e.g., roof, furnace, etc.). Inspections performed by qualified professionals are the most accurate way of understanding the condition of facilities.

It is recommended that the Township completes condition assessments of its facilities in the near future, ideally through a formal Building Condition Assessment (BCAs) . This would ensure that the condition of facility components is properly assessed and documented, and that any required lifecycle activities (repairs, component replacements, etc.) are identified and can be planned and budgeted for.

2.1.3 Current Levels of Service

The levels of service currently provided by Township facilities are, in part, a result of the state of local infrastructure identified above. The levels of service framework defines the current levels of service that will be tracked over time. In future iterations of the asset management plan, targets will be set for the technical levels of service. The levels of service measures were developed through identification of service aspects that are of interest to facility users.

The tables are structured as follows:

- The Service Attribute headings and columns indicate the high-level attribute being addressed;
- The Community Levels of Service column in Table 2-2 explains the Township's intent in plain language and provides additional information about the service being provided;
- The Performance Measure column in Table 2-3 describes the performance measure(s) connected to the identified service attribute; and
- The Current Performance column in Table 2-3 reports current performance for the performance measure based on the best available data.

Table 2-2: Facilities – Community Levels of Service

Service Attribute	Community Levels of Service
Capacity	The Township strives to align the capacity of its facilities with the service demands of its community.

Table 2-3: Facilities – Technical Levels of Service

Service Attribute	Performance Measure	Current Performance
Capacity	Gross floor area (square footage) of culture and recreation facilities per 100 residents.	1,464 ft^2
	Gross floor area (square footage) of fire stations per 100 residents.	638 ft^2
	Gross floor area (square footage) of roads facilities per 100 residents.	1,207 ft^2
	Gross floor area (square footage) of administrative facilities per 100 residents.	152 ft^2
	Gross floor area (square footage) of senior housing facilities per 100 residents.	305 ft^2
	Gross floor area (square footage) of libraries per 100 residents.	145 ft^2

2.2 Fleet and Equipment

2.2.1 State of Local Infrastructure

The Township's inventory of fleet assets comprises plated vehicles ranging from passenger vehicles and pickup trucks to plow trucks and fire apparatus such as tankers, pumpers, and rescue vehicles. The Township currently owns and manages a total of 23 fleet assets.

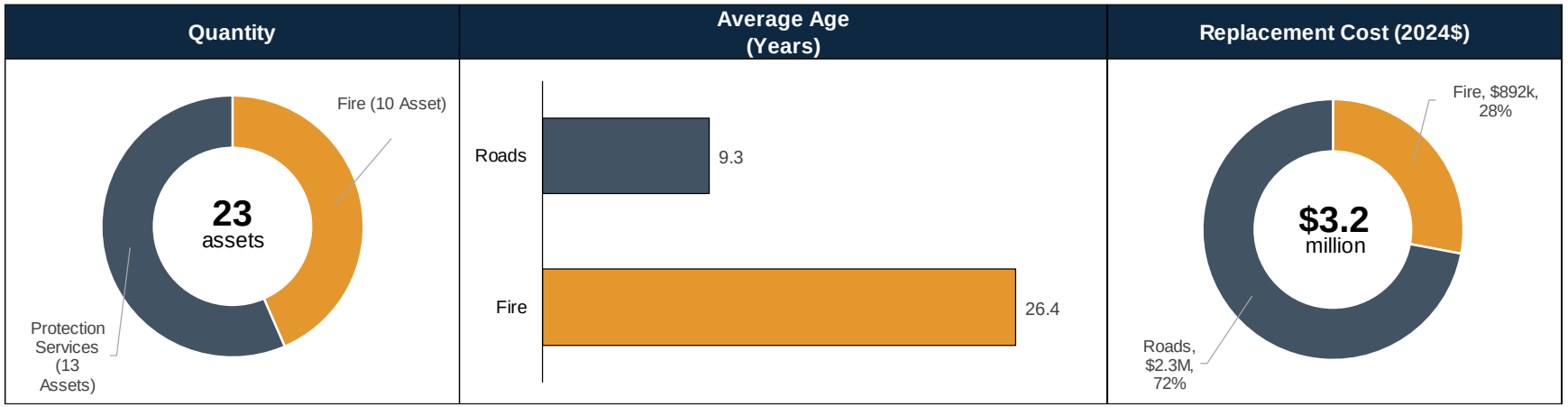
The estimated current replacement cost of the Township's fleet assets is approximately $3.2 million. Fleet assets utilized by Roads represent the largest share of total replacement cost at approximately $2.3 million (72%) while fleet assets utilized by Fire represent approximately $892,000 (28%). The average age of all of the Township's fleet assets is approximately 14 years.

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

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

Service Area	Quantity	Average Age (Years)	Replacement Cost (2024$)
Fire	10	26.4	$892,000
Roads	13	9.3	$2,298,000
Total	**23**	**14.1**	**$3,190,000**

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



The Township's inventory of equipment assets comprises various assets utilized by Administration, Culture & Recreation, Fire, Waste, and Roads departments. The inventory also includes the Howe Island Ferry and the Simcoe Ferry. The Township currently owns and manages a total of 82 equipment assets.

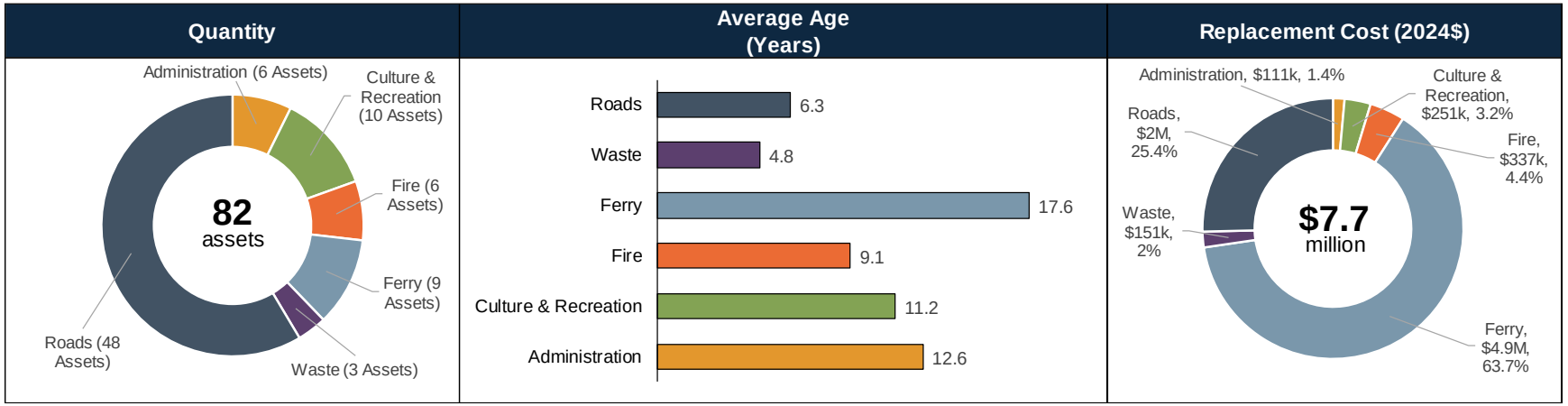
The estimated current replacement cost of the Township's equipment assets is approximately $7.7 million. The Township's two ferries and their associated equipment assets represent the largest share of total replacement cost at approximately $4.9 million (63.7%), followed by assets utilized by the Roads department at approximately $2.0 million (25.4%). The Township's other equipment assets represent an estimated current replacement cost of approximately $850,000 (10.9%). The average age of all of the Township's equipment assets is approximately 14 years.

Table 2-5 summarizes the quantity, average age, and estimated current replacement cost of the Township's equipment assets by service area. This information is further illustrated in Figure 2-3.

Table 2-5: Equipment – Quantity, Average Age, and Replacement Cost

Service Area	Quantity	Average Age (Years)	Replacement Cost (2024$)
Administration	6	12.6	$111,000
Culture & Recreation	10	11.2	$251,000
Fire	6	9.1	$337,000
Ferry	9	17.6	$4,928,000
Waste	3	4.8	$151,000
Roads	48	6.3	$1,964,000
Total	**82**	**13.8**	**$7,742,000**

Figure 2-3: Equipment – Quantity, Average Age, and Replacement Cost



2.2.2 Condition

The condition of the Township's fleet and equipment assets has not been directly assessed through physical condition assessments. For the purposes of this asset management plan, the condition of these 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 asset would have a ULC% of 0%, indicating that none 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 assets, ULC% ratings have been segmented into qualitative condition states as summarized in Table 2-6. 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 2-6: Condition States Defined with Respect to ULC%

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

Table 2-7 and Table 2-8 summarize the average ULC% and associated condition states of the Township's fleet and equipment assets, respectively.

Table 2-7: Fleet – Average ULC% and Condition State

Service Area	Average ULC%	Average Condition State
Fire	86.1%	**Good**
Roads	56.5%	**Good**
Average	**64.8%**	**Good**

Table 2-8: Equipment – Average ULC% and Condition State

Service Area	Average ULC%	Average Condition State
Administration	252.8%	**Very Poor**
Culture & Recreation	86.3%	**Good**
Fire	50.6%	**Good**
Ferry	45.0%	**Very Good**
Waste	16.8%	**Very Good**
Roads	37.4%	**Very Good**
Average	**47.1%**	**Good**

The distribution of replacement cost of the Township's fleet assets by condition states is illustrated in Figure 2-4 and by ULC% is illustrated in Figure 2-5.

Figure 2-4: Distribution of Fleet Assets by Condition State and Service Area

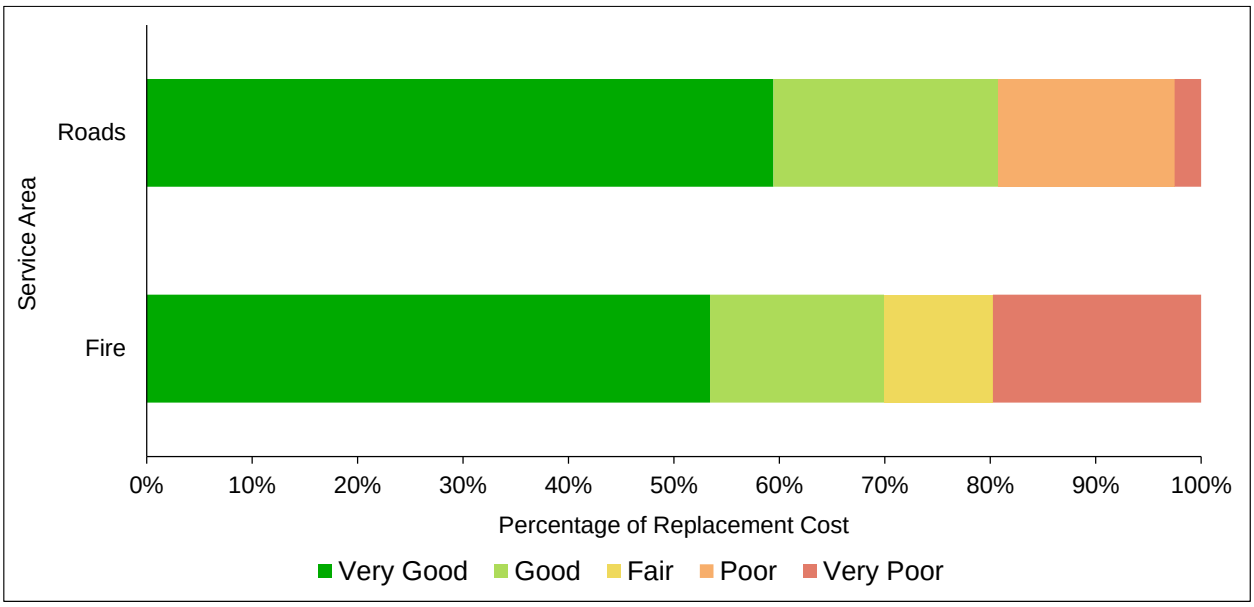
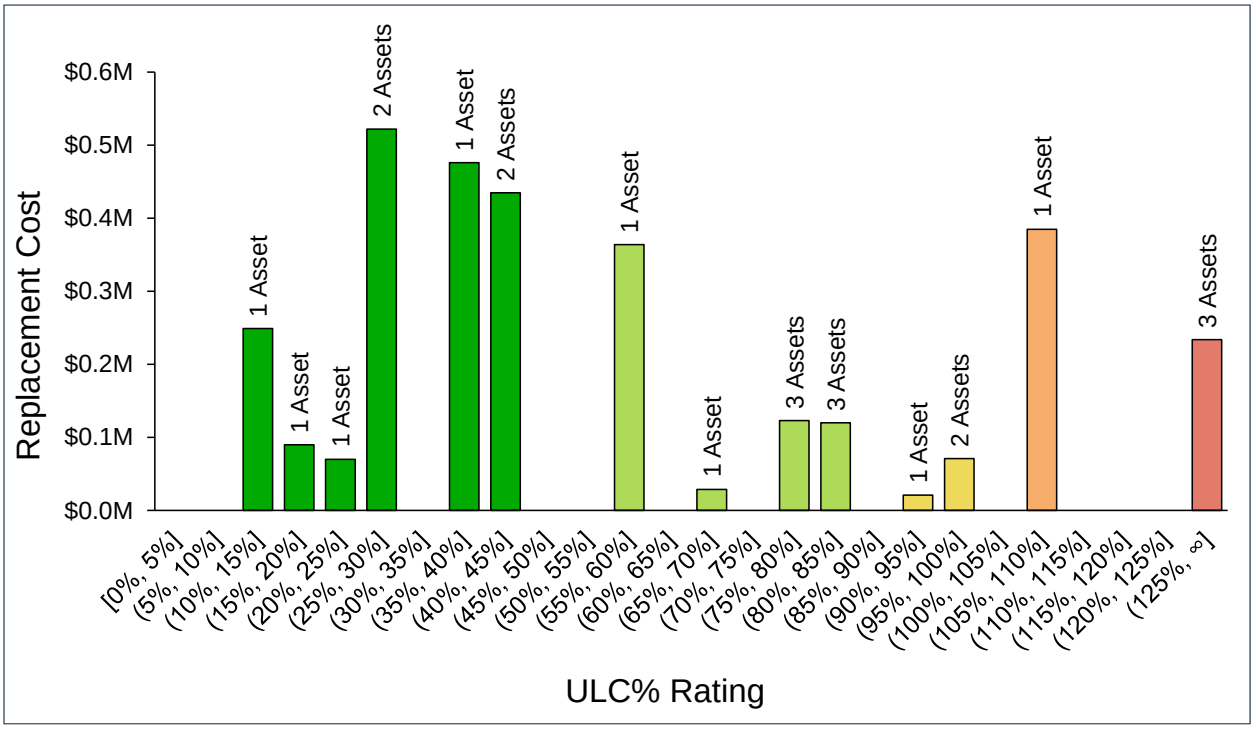


Figure 2-5: Distribution of Fleet Assets by ULC% Range



The distribution of replacement cost of the Township's equipment assets by condition states is illustrated in Figure 2-6 and by ULC% is illustrated in Figure 2-7.

Figure 2-6: Distribution of Equipment Assets by Condition State and Service Area

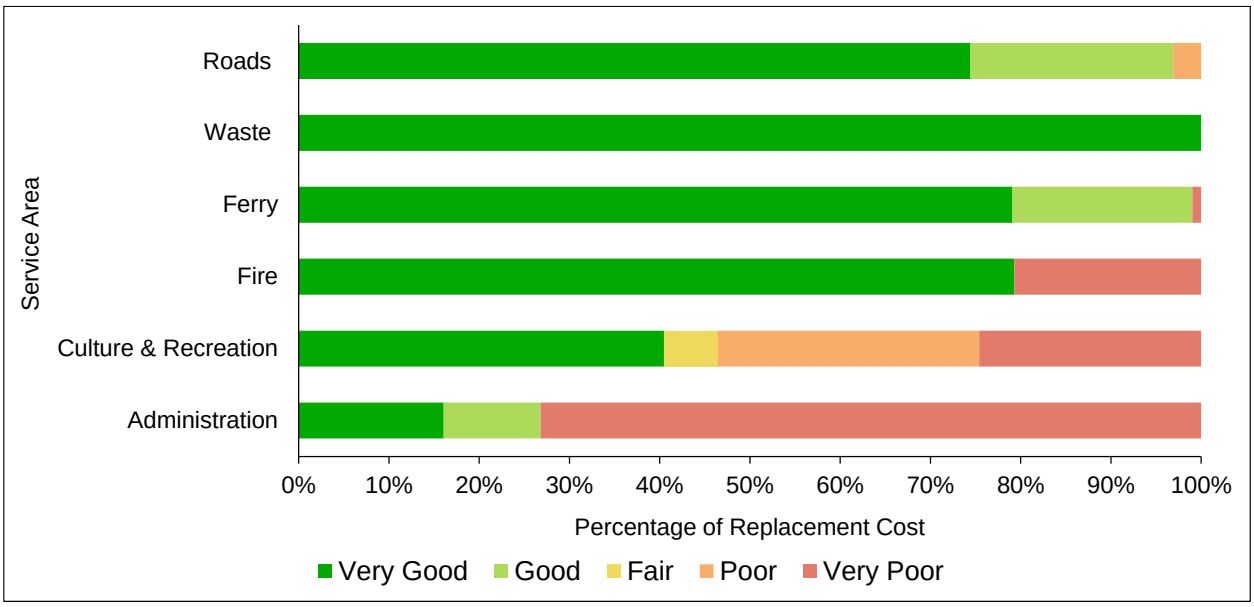
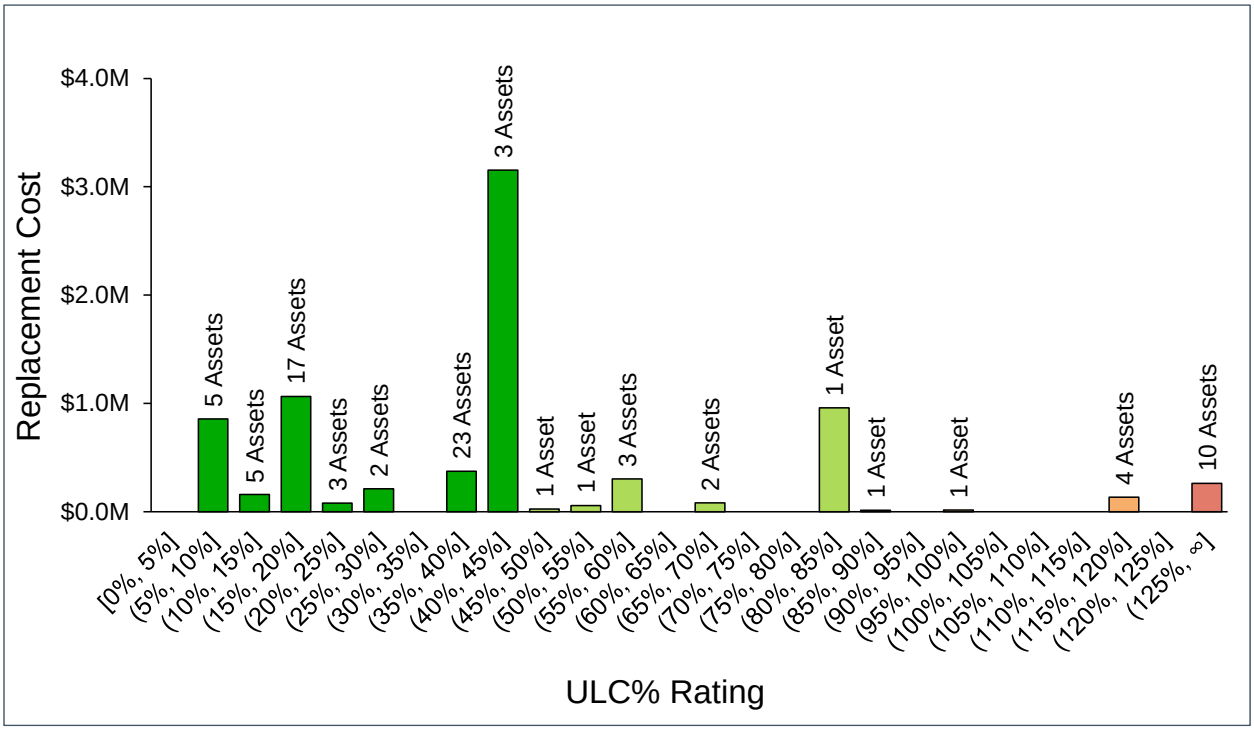


Figure 2-7: Distribution of Equipment Assets by ULC% Range



2.2.3 Current Levels of Service

This subsection presents the Township's levels of service framework for its fleet and equipment assets. Table 2-9 presents the Township's Service Attributes and Community Levels of Service for its fleet and equipment assets while Table 2-10 presents the Township's Technical Levels of Service (i.e., performance measures) for its fleet and equipment assets and their current performance. Please see Section 2.1.3 for further details on the structure of the Township's levels of service framework.

Table 2-9: Fleet and Equipment – Community Levels of Service

Service Attribute	Community Levels of Service
Reliability	The Township strives to minimize the number and impact of unplanned repair/maintenance activities performed on its fleet and equipment assets.

Table 2-10: Fleet and Equipment – Technical Levels of Service

Service Attribute	Performance Measure	Current Performance
Reliability	Percentage of Roads fleet assets (by replacement cost) in "Fair" or better condition	81%
	Percentage of Fire fleet assets (by replacement cost) in "Fair" or better condition	80%
	Percentage of Roads equipment assets (by replacement cost) in "Fair" or better condition	97%
	Percentage of Culture and Recreation equipment assets (by replacement cost) in "Fair" or better condition	46%
	Percentage of Fire equipment assets (by replacement cost) in "Fair" or better condition	79%
	Percentage of equipment assets related to Township ferries (by replacement cost) in "Fair" or better condition	99%
	Percentage of equipment assets utilized by Administration (by replacement cost) in "Fair" or better condition	27%

2.3 Land Improvements

2.3.1 State of Local Infrastructure

The Township's inventory of land improvements comprises sidewalks, streetlights, parking lots, docks and ramps, lighting and fencing, and other miscellaneous assets such as play equipment and a helipad. The Township currently owns and manages a total of 68 land improvement assets.

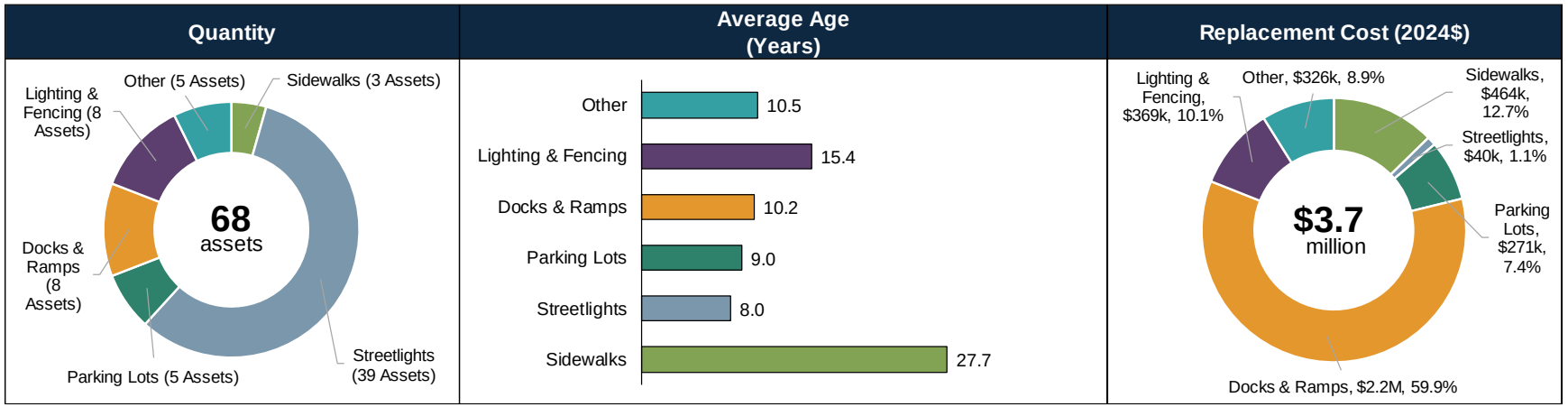
The estimated current replacement cost of the Township's land improvement assets is approximately $3.7 million. Docks and ramps represent the largest share of total replacement cost at approximately $2.2 million (59.9%), followed sidewalks at approximately $464,000 (12.7%), lighting and fencing at approximately $369,000 (10.1%), other land improvement assets (e.g. play equipment, helipad, etc.) at approximately $326,000 (8.9%), parking lots at approximately $271,000 (7.4%), and lastly, streetlights at approximately $40,000 (1%). The average age of all of the Township's land improvement assets is approximately 13 years.

Table 2-11 summarizes the average age and estimated current replacement cost of the Township's land improvement assets by asset category. This information is further illustrated in Figure 2-8.

Table 2-11: Land Improvements – Quantity, Average Age and Replacement Cost

Asset Category	Quantity	Average Age (Years)	Replacement Cost (2024$)
Sidewalks	3	27.7	$464,000
Streetlights	39	8.0	$40,000
Parking Lots	5	9.0	$271,000
Docks and Ramps	8	10.2	$2,192,000
Lighting and Fencing	8	15.4	$369,000
Other	5	10.5	$326,000
Total	**68**	**12.8**	**$3,662,000**

Figure 2-8: Land Improvements – Quantity, Average Age and Replacement Cost



2.3.2 Condition

The condition of the Township's land improvement assets is assessed based on age relative to useful service life (i.e. based on the percentage of useful service life consumed (ULC%)). To better communicate the condition of these assets, ULC% ratings have been segmented into qualitative condition states as summarized previously in Table 2-7. Please refer to Section 0 for further information on this condition assessment methodology.

Table 2-12 summarizes the average ULC% and associated condition states of the Township's assets comprising land improvements by asset category.

Table 2-12: Land Improvements – Average ULC% and Condition State

Asset Category	Average ULC%	Average Condition State
Sidewalks	138.3%	**Very Poor**
Streetlights	32.0%	**Very Good**
Parking Lots	31.6%	**Very Good**
Docks and Ramps	21.3%	**Very Good**
Lighting and Fencing	64.8%	**Good**
Other	34.0%	**Very Good**
Average	**42.5%**	**Very Good**

It is worth noting that the Township's sidewalks are deemed to be in a "Very Poor" condition state based on their age relative to their expected useful service life. It is recommended that the Township develop a condition rating system for its sidewalks based on observed physical condition through regular sidewalk assessments. This will enable the Township to more accurately represent the condition of sidewalks in future iterations of this asset management plan based on their forecasted lifecycle needs.

The distribution of replacement cost of the Township's assets comprising land improvements by condition states is illustrated in Figure 2-9 and by ULC% is illustrated in Figure 2-10.

Figure 2-9: Distribution of Land Improvement Assets by Condition State and Service Area

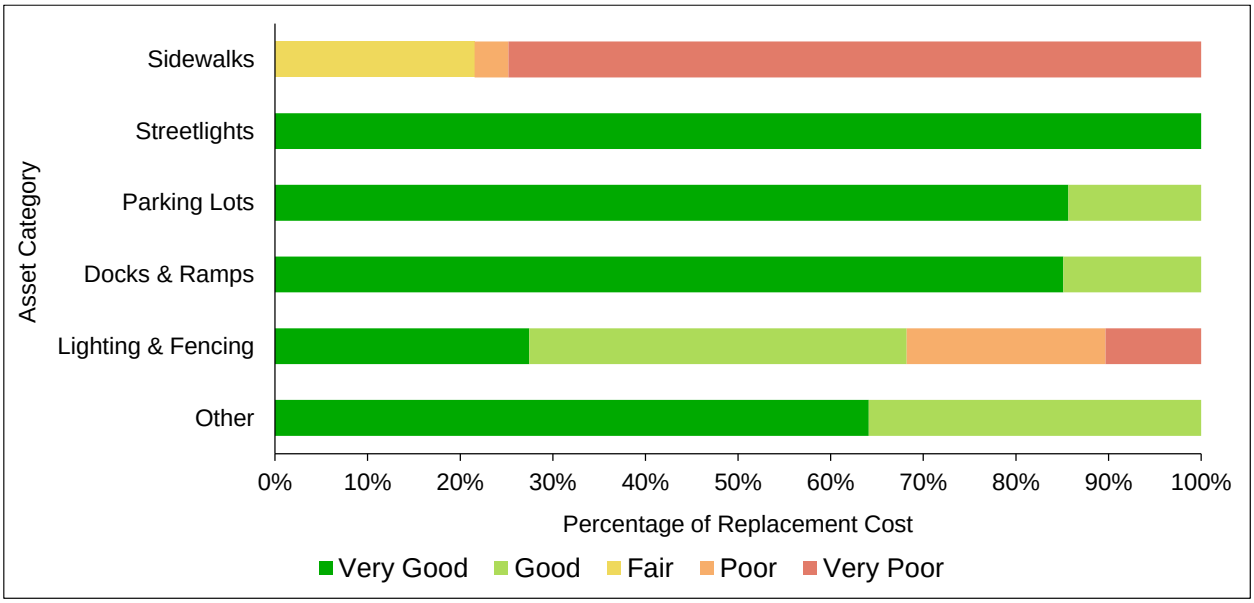
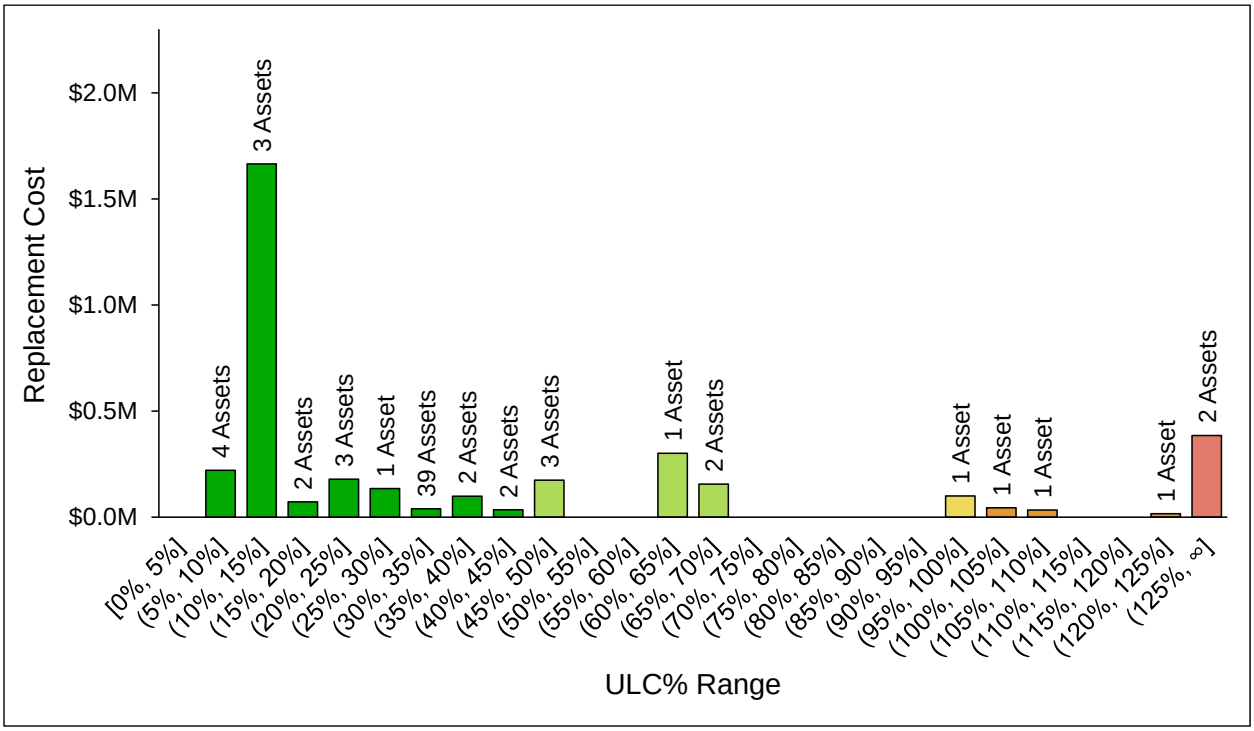


Figure 2-10: Distribution of Land Improvement Assets by ULC% Range



2.3.3 Current Levels of Service

This subsection presents the Township's levels of service framework for its assets comprising land improvements. Table 2-13 presents the Township's Service Attributes and Community Levels of Service for its land improvement assets while Table 2-14 presents the Township's Technical Levels of Service (i.e. performance measures) for its land improvement assets and their current performance. Please see Section 2.1.3 for further details on the Township's levels of service framework.

Table 2-13: Land Improvements – Community Levels of Service

Service Attribute	Community Levels of Service
Quality	The Township strives to maintain its assets comprising land improvements in adequate condition to continue providing a satisfactory user experience.

Table 2-14: Land Improvements – Technical Levels of Service

Service Attribute	Performance Measure	Current Performance
Quality	Percentage of sidewalks (by replacement cost) in "Fair" or better condition	22%
	Percentage of streetlights (by replacement cost) in "Fair" or better condition	100%
	Percentage of docks and ramps (by replacement cost) in "Fair" or better condition	100%
	Percentage of parking lots (by replacement cost) in "Fair" or better condition	100%
	Percentage of lighting and fencing assets (by replacement cost) in "Fair" or better condition	68%

2.4 Population and Employment Growth

O. Reg. 588/17 requires municipalities with a population less than 25,000, as reported in the most recent census, to provide assumptions of future changes in population or economic activity and their impact on the lifecycle activities that need to be undertaken to maintain current levels of service. Based on Frontenac County's 2016 Official Plan,

the County's population is expected to from 27,900 in 2011 to 32,900 in 2034, representing a growth of 5,000 residents or approximately 17.9%. Seven percent of this growth is allocated to Frontenac Islands within the Official Plan, resulting in an expected population in Frontenac Islands of 2,214 residents by 2034. This represents an approximately 14.7% increase compared to Frontenac Island's 2021 census population of 1,930 residents. Continued population growth may result in incremental service demands that would impact levels of service. These growth-related needs are summarized in the Township's 2021 Development Charges Background Study and are funded through development charges imposed on new development. 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
Lifecycle Management Strategies

3. Lifecycle Management Strategies

3.1 Introduction

The lifecycle management strategies in this asset management plan identify the lifecycle activities that would need to be undertaken to maintain the current levels of service presented in Chapter 2[1]. Within the context of this asset management plan, lifecycle activities are the specified actions that can be performed on an asset in order to ensure it is performing at an appropriate level, and/or to extend its service life[2]. These actions can be carried out on a planned schedule in a prescriptive manner, or through a dynamic approach where the lifecycle activities are only carried out when specified conditions are met.

O. Reg. 588/17 requires that all potential lifecycle activity options be assessed, with the aim of identifying the set of lifecycle activities that can be undertaken at the lowest cost to maintain current levels of service. Asset management plans must include a ten-year capital forecast, identifying the lifecycle activities resulting from the lifecycle management strategy.

The following sections show summaries of the lifecycle models developed for the Township's assets and detail the ten-year forecasts of lifecycle activities and associated costs that would be required for the Township to maintain current levels of service. The 10-year lifecycle expenditure forecasts are preliminary estimates generated based on the lifecycle management models and current condition/age profile of the assets. Further adjustments may be made in the next phase of the asset management plan when level of service targets are going to be established.

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

[1] Upcoming iterations of the Township's asset management plan will include proposed levels of service and the lifecycle management strategies will identify the lifecycle activities that would need to be undertaken to provide the proposed levels of service.

[2] The full lifecycle of an asset includes activities such as initial planning and maintenance which are typically addressed through master planning studies and maintenance management, respectively.

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.

3.2 Facilities

This section presents a preliminary estimate of the costs associated with maintaining current level of service for the Township's facilities.

The annual lifecycle costs for facilities were estimated by applying generalized lifecycle models. The generalized lifecycle models apply an annual reinvestment rate of 2.1% to the estimated current replacement value of individual facilities. The annual reinvestment rate of 2.1%, informed through the *Canadian Infrastructure Report Card*, is intended to capture replacement and repair of facility components as they come due, as well as larger-scale renovations/rehabilitations. The annual lifecycle cost for the Township's facilities is estimated to be approximately $578,000. Table 3-1 provides a breakdown of the annual lifecycle costs of facilities by service area.

Table 3-1: Facilities - Average Annual Lifecycle Costs (2024$)

Service Area	Replacement Cost (2024$)	Average Annual Lifecycle Cost
Administration	$1,226,000	$26,000
Ferry	$133,000	$3,000
Fire	$7,647,000	$161,000
Roads	$7,402,000	$155,000
Library	$1,800,000	$38,000
Culture & Recreation	$7,084,000	$149,000
Waste	$46,000	$1,000
Seniors Housing	$2,148,000	$45,000
TOTAL	**$27,486,000**	**$578,000**

Since the Township has not yet assessed upcoming lifecycle expenditure requirements for its Facilities through a formal condition assessment, the lifecycle expenditure forecast for Township facilities includes an annual allowance based on the average annual lifecycle cost. Although this approach does not identify specific facility components that need rehabilitation and/or replacement, it ensures that sufficient funds

are allocated annually to fund capital requirements as they are identified and allow for the building up of lifecycle reserves to fund future lifecycle expenditure requirements over the long-term. As noted earlier in section 2.1.2, it is recommended that the Township completes condition assessments of its facilities so that future iterations of this asset management plan can utilize the component level forecasts developed through those assessments to inform the forecast of lifecycle expenditures. The ten-year lifecycle expenditure forecast is summarized in Figure 3-1 and Table 3-2.

Figure 3-1: Facilities: Lifecycle Expenditure Forecast (2024$)

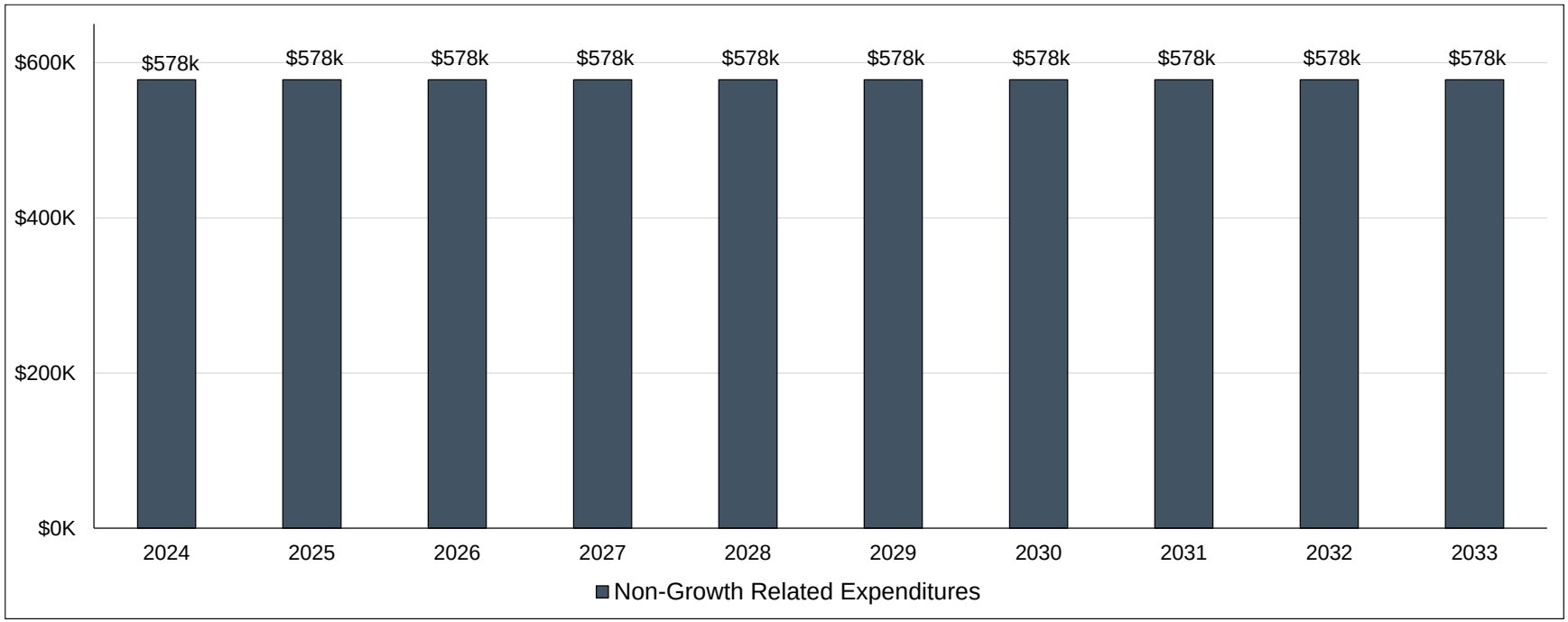


Table 3-2: Facilities - Lifecycle Expenditure Forecast (2024$)

Category	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Capital Expenditures										
Administration	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000
Ferry	$3.000	$3.000	$3.000	$3.000	$3.000	$3.000	$3.000	$3.000	$3.000	$3.000
Fire	$161,000	$161,000	$161,000	$161,000	$161,000	$161,000	$161,000	$161,000	$161,000	$161,000
Roads	$155,000	$155,000	$155,000	$155,000	$155,000	$155,000	$155,000	$155,000	$155,000	$155,000
Library	$38,000	$38,000	$38,000	$38,000	$38,000	$38,000	$38,000	$38,000	$38,000	$38,000
Culture & Recreation	$149,000	$149,000	$149,000	$149,000	$149,000	$149,000	$149,000	$149,000	$149,000	$149,000
Waste	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Seniors Housing	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000
Total Capital Expenditures	**$578,000**	**$578,000**	**$578,000**	**$578,000**	**$578,000**	**$578,000**	**$578,000**	**$578,000**	**$578,000**	**$578,000**

3.3 Fleet and Equipment

This section presents a preliminary estimate of the costs associated with maintaining current level of service for the Township's fleet and equipment assets.

The annual lifecycle costs for fleet and equipment assets were estimated by applying generalized lifecycle models. The generalized lifecycle models include replacement at end of expected useful service life for fleet and equipment assets. The annual lifecycle cost for the Township's fleet and equipment assets is estimated to be approximately $490,000. Table 3-3 provides a breakdown of the annual lifecycle costs of fleet and equipment assets.

Table 3-3: Fleet and Equipment - Average Annual Lifecycle Costs (2024$)

Service Area	Replacement Cost (2024$)	Average Annual Lifecycle Cost
Administration	$111,000	$21,000
Culture & Recreation	$251,000	$19,000
Fire	$1,229,000	$49,000
Ferry	$4,928,000	$128,000
Waste	$151,000	$5,000
Roads	$4,262,000	$268,000
TOTAL	**$10,932,000**	**$490,000**

The lifecycle expenditure forecast for fleet and equipment assets was developed based on ages and expected useful service lives of individual assets. For the Township's ferries, the lifecycle expenditure forecast incorporates a mid-lifecycle rehabilitation to ensure that sufficient funds are allocated to the replacement of key components (e.g., motor, generator, electrical panels, etc.) as they reach the end of their expected useful service lives. The ten-year lifecycle expenditure forecast is summarized in Figure 3-2 and Table 3-4. Average annual expenditures over the forecast period have been estimated at approximately $386,000. Based on the best information available on the Township's assets, the current fleet and equipment backlog is approximately $1.0 million. This represents the current replacement value of all fleet and equipment assets that are in use beyond their expected useful service lives.

Figure 3-2: Fleet and Equipment: Lifecycle Expenditure Forecast (2024$)

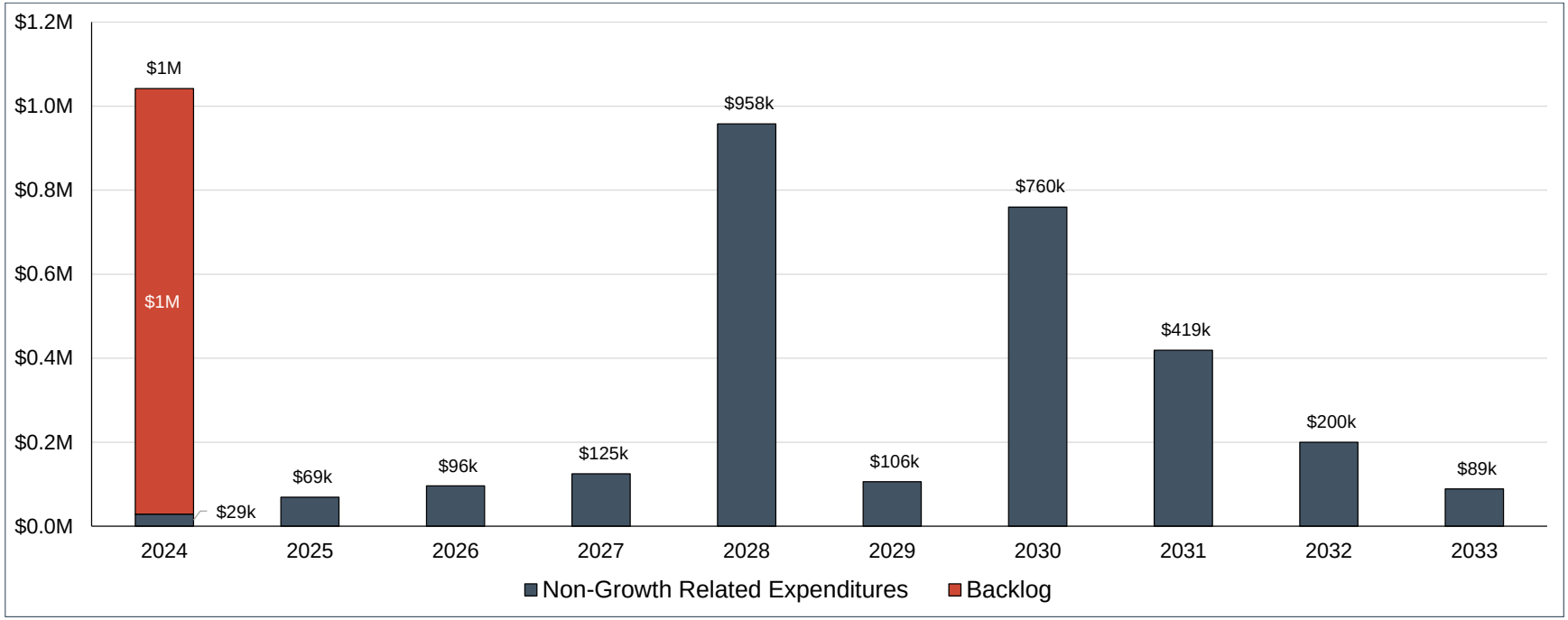


Table 3-4: Fleet and Equipment - Lifecycle Expenditure Forecast (2024$)

Category	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Capital Expenditures										
Administration	-	$12,000	-	$36,000	-	$20,000	$19,000	$43,000	$18,000	$19,000
Culture & Recreation	$15,000	-	-	$8,000	-	-	$15,000	-	$8,000	-
Fire	$14,000	$57,000	-	$21,000	-	-	$96,000	$22,000	-	-
Ferry	-	-	-	-	$958,000	$25,000	-	-	-	-
Waste	-	-	-	-	-	-	-	-	-	-
Roads	-	-	$96,000	$60,000	-	$61,000	$630,000	$354,000	$174,000	$70,000
Backlog	$1,013,000	-	-	-	-	-	-	-	-	-
Total Capital Expenditures	**$1,042,000**	**$69,000**	**$96,000**	**$125,000**	**$958,000**	**$106,000**	**$760,000**	**$419,000**	**$200,000**	**$89,000**

3.4 Land Improvements

This section presents a preliminary estimate of the costs associated with maintaining current level of service for the Township's assets comprising land improvements.

The annual lifecycle costs for assets comprising land improvements were estimated by applying generalized lifecycle models. The generalized lifecycle models include replacement at end of expected useful service life for assets. The annual lifecycle cost for land improvement assets is estimated to be approximately $108,000. Table 3-5 provides a breakdown of the annual lifecycle costs of land improvement assets.

Table 3-5: Land Improvements - Average Annual Lifecycle Costs (2024$)

Service Area	Replacement Cost (2024$)	Average Annual Lifecycle Cost
Sidewalks	$464,000	$23,000
Streetlights	$40,000	$2,000
Parking Lots	$271,000	$10,000
Docks and Ramps	$2,192,000	$47,000
Lighting and Fencing	$369,000	$16,000
Other	$326,000	$10,000
TOTAL	**$3,662,000**	**$108,000**

The lifecycle expenditure forecast for land improvement assets was developed based on ages and expected useful service lives of individual assets. The ten-year lifecycle expenditure forecast is summarized in Figure 3-3 and Table 3-6. Average annual expenditures over the forecast period have been estimated at approximately $74,000. Based on the best information available on the Township's assets, the current backlog is approximately $481,000. This represents the current replacement value of all land improvement assets that are in use beyond their expected useful service lives. It is worth noting that approximately $364,000 of this backlog is due to sidewalk segments being identified as a backlog asset due to their age relative to their expected useful service life. As mentioned in Section 2.3.2, it is recommended that the Township integrate the observed physical condition of its sidewalks into future iterations of this asset management plan to determine their lifecycle requirements. This would enable the Township to assess whether sidewalk segments are currently performing adequately and if so, remove them from the identified backlog.

Figure 3-3: Land Improvements: Lifecycle Expenditure Forecast (2024$)

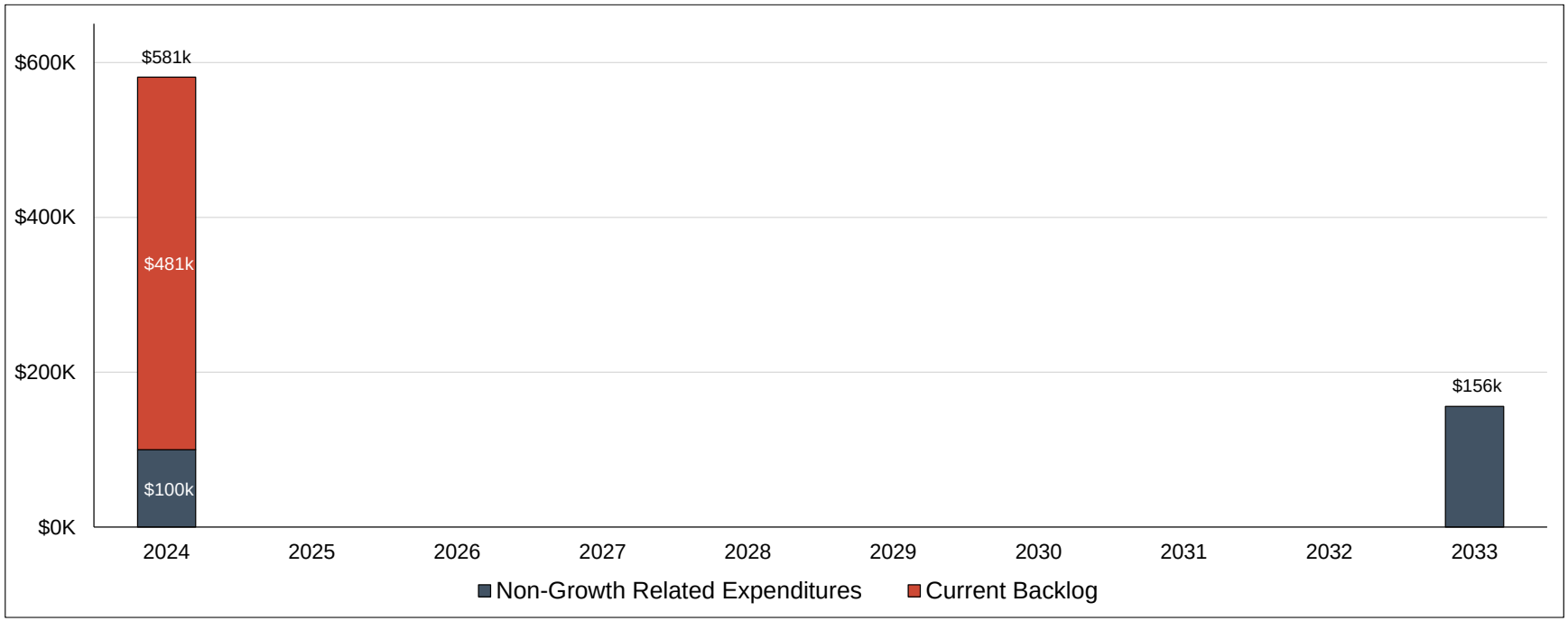


Table 3-6: Land Improvements - Lifecycle Expenditure Forecast (2024$)

Category	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Capital Expenditures										
Sidewalks	$100,000	-	-	-	-	-	-	-	-	-
Streetlights	-	-	-	-	-	-	-	-	-	-
Parking Lots	-	-	-	-	-	-	-	-	-	$39,000
Docks & Ramps	-	-	-	-	-	-	-	-	-	-
Lighting & Fencing	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	$117,000
Backlog	$481,000	-	-	-	-	-	-	-	-	-
Total Capital Expenditures	**$581,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**$156,000**

Chapter 4
Summary

4. Summary

This asset management plan has been developed to address the July 1, 2024 requirements of O. Reg. 588/17. The plan provides summary information for the Township's infrastructure assets (including replacement cost valuation and condition), identifies current levels of service, and includes a 10-year forecast of lifecycle activities and associated costs that would be required for the Township to maintain current levels of service. The plan is based on the best information available to the Township at this time. The Township is actively working to have targets set for levels of service performance measures, and to include a detailed financial strategy. The ongoing development of the AMP will ensure the Township's compliance with the July 1, 2025 requirements of O. Reg. 588/17.

Beyond regulatory compliance, the Township should continue working on integrating asset management planning with other municipal financial and planning documents. Furthermore, the Township will need to establish processes for reviewing and updating assumptions underlying the asset management plan on a regular basis to keep the plan relevant and reliable.