Town of Milton | Corporate Asset Management Plan

2025

psdcitywide

Contents

Executive Summary

This 2025 asset management plan (AMP) for the Town of Milton was developed as an update to the 2024 AMP, in continued compliance with Ontario Regulation 588/17 ("O. Reg"). It incorporates key elements of an industry-standard AMP, and provides a comprehensive overview of the Town's core and non-core infrastructure.

Together, the seven service areas analyzed in this plan represent a total current replacement cost of approximately $3.6 billion, based on the Town's asset portfolio as of 2024. This reflects a 7.1% increase from the previous year, driven by updated replacement cost assumptions, inflationary adjustments, and refinements to asset inventory.

This estimate was calculated using a combination of user-defined costing and inflation-adjusted historical costs. Transportation Services continue to represent the largest share of the Town's portfolio at 63%, followed by Stormwater Management at 17%.

State of the Infrastructure

Based on both assessed condition and age-based analysis, 94% of the Town's infrastructure portfolio is in fair or better condition. Approximately 6% of assets, with a current replacement cost of $212.2 million, were estimated to be in poor or very poor condition. Overall, condition assessment data was available for 85% of the Town's assets. For all remaining asset categories, age was used to estimate condition.

Typically, assets in poor or worse condition may require replacement or major rehabilitation in the immediate or short-term. Targeted condition assessments may help further refine the list of assets that may be candidates of immediate intervention. Keeping assets in fair or better condition is typically more cost-effective than addressing assets needs when they enter the latter stages of their lifecycle or a drop to a lower condition rating, e.g., poor or worse.

Fiscal Sustainability

Due to the scale and cost of infrastructure renewal, many municipalities—including Milton—face annual funding gaps between what is currently allocated to reserves and what should be set aside to support future asset replacement needs. These shortfalls can lead to the deferral of necessary capital projects, which in turn may compromise service levels or increase the risk of service disruptions. They can also place additional pressure on future tax rates.

Achieving full funding for infrastructure programs remains a significant challenge for municipalities across Canada. Addressing these gaps takes time, careful planning, and sustained effort to align long-term financial capacity with service level expectations.

On average, the Town requires $93.7 million per year to keep pace with capital rehabilitation and replacement needs across its asset portfolio. Meeting this target helps ensure the continued delivery of affordable and reliable service levels to the community. Put differently, this equates to an annual reinvestment of approximately 2.6% of the current replacement cost of the Town's infrastructure.

While there is no definitive standard for reinvestment rates, benchmarks typically range from 1% to 3.5% of replacement value. The Town's reinvestment target reflects a level that supports sustaining existing services and minimizing the risk of service interruptions due to asset failure. Although actual capital spending will vary from year to year, the average annual requirement provides a useful reference point for long-term capital planning and reserve contributions. This estimate assumes like-for-like replacement of assets; however, investment needs may increase if future service level goals change, and require system upgrades or expanded capacity.

The Town of Milton employs a highly prudent and strategically diversified approach to funding its infrastructure programs. This includes targeted allocations to service area-specific reserves, the redeployment of principal and interest (P&I) payments as debt obligations are retired, and the proactive pursuit of grant opportunities. In addition, the Town leverages supplementary funding sources such as investment income and Ontario Lottery and Gaming Corporation proceeds to help mitigate fiscal pressures and support long-term capital sustainability.

Under this current fiscal framework, average annual funding available totals $51.8 million for all assets in this AMP. As a result, the Town is funding 55.3% of its annual capital requirements. This creates a total annual funding deficit of $41.9 million. Addressing annual infrastructure funding shortfalls is a difficult and long-term endeavour for municipalities.

Given the Town's current funding position, reaching full funding will take time. Rapid phase-ins to close the gap could place a large, incremental burden on taxpayers, while more extended timelines—such as those exceeding 20 years—risk infrastructure deterioration. This could lead to escalating annual shortfalls, growing asset backlogs, and potential impacts on the Town's ability to sustain service levels.

In 2024, Council approved an incremental increase of $750,000 in property tax revenue to reduce the infrastructure deficit in 2025. Beginning in 2026, the Town can also integrate $723,253 in annual funding through the Canada Public Transit Fund. If both streams are made recurring, total annual funding would rise to $53.3 million in 2026, with subsequent annual increases of $750,000, at the discretion of Council.

Under this scenario, the Town's annual infrastructure funding shortfall of $41.9 million would be eliminated by 2080—approximately 54 years from now—so long as inflation and lifecycle contributions for new assets are separately funded by the Town. While the phase-in period is extended, this approach may help manage near-term financial pressures and provides a stable, predictable path toward meeting long-term asset renewal needs.

Three additional scenarios explore accelerated funding options, assuming annual incremental increases to non-growth capital reserves of $1 million, $1.5 million, and $2 million. These more proactive approaches reduce the time to full funding, with the most aggressive scenario closing the gap by 2046—a 21-year phase-in. Collectively, these scenarios offer a range of options to help the Town align future capital investment with evolving service level goals and infrastructure risk.

Determining the appropriate balance between funding levels and the length of the phase-in period is a continual and complex process. Shorter timelines demand higher annual investments, which can create strain on taxpayers and competing priorities. Longer timelines ease immediate financial pressure but risk compounding infrastructure needs, increasing the likelihood of service disruptions over time. Maintaining this balance requires ongoing evaluation as conditions evolve, ensuring that funding strategies remain responsive to both fiscal realities and service level expectations.

In addition to annual funding shortfalls, the Town also faces an age- and condition-based infrastructure backlogs as some assets potentially remain in service beyond their serviceable lifespan. These assets have a combined replacement cost of $28.1 million. While not all are likely in disrepair or in need of immediate replacement, further inspections may be warranted to determine optimal lifecycle interventions. This highlights the importance of targeted, consistent condition assessments to improve both current and long-term replacement forecasts.

Moving Forward Sustainably

The Town, like many municipalities in Ontario and across Canada, continues to navigate long-standing challenges in addressing infrastructure needs and meeting service level expectations—issues that have developed over decades and require ongoing, sustained effort. These pressures are further intensified by the pace of growth and development.

To address these interconnected challenges and support more resilient, data-driven decision-making, the following recommendations are proposed:

- Ongoing enhancement of the Town's infrastructure datasets, which underpin all financial analysis and capital planning;
- Regular refinement of risk models as new data becomes available, supporting more strategic project prioritization and alignment with corporate objectives;
- Periodic review of service level goals to ensure they remain achievable within the Town's financial capacity and evolving infrastructure conditions;
- Continued exploration of diverse and sustainable funding sources—including grants, partnerships, and revenue reinvestment strategies—to strengthen long-term capital planning.

The Town of Milton is committed not only to meeting all future regulatory milestones under O. Reg. 588/17, but also to continuously enhancing its asset management program more broadly. By strengthening its data, business processes, and financial practices, the Town aims to support the ongoing delivery of sustainable and affordable service levels to its growing community.

About this document

This 2025 Asset Management Plan (AMP) for the Town of Milton was developed in accordance with Ontario Regulation 588/17 (“O. Reg 588/17”), marking the completion of the first full regulatory cycle introduced under the *Infrastructure for Jobs and Prosperity Act, 2015*. It provides a comprehensive analysis of the Town’s infrastructure portfolio across seven service areas and incorporates all required components, including both current and proposed levels of service.

This AMP builds upon a broad base of asset studies, inventory records, and financial data to identify strategic renewal requirements across the Town’s infrastructure systems. Rather than replacing individual asset-specific lifecycle plans, it enhances them by offering a Town-wide, integrated perspective on service delivery, cost, and risk.

As a living document, the AMP is expected to evolve through annual updates and five-year review cycles, as mandated under O. Reg 588/17. Continued refinement of asset and financial data will strengthen the Town’s ability to manage infrastructure proactively, sustainably, and in alignment with long-term community goals.

Ontario Regulation 588/17

As part of the Infrastructure for Jobs and Prosperity Act, 2015, the Ontario government introduced Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure. The regulation, which came into force in 2019, has served as a key driver of structured, municipal asset management across the province. It emphasizes transparency, long-term financial sustainability, and service level accountability—focusing municipalities on the cost of delivering infrastructure services, both now and in the future.

Table 1: Ontario Regulation 588/17 Requirements and Reporting Deadlines

Requirement	2019	2022	2024	2025
Asset Management Policy	●		●	
Asset Management Plans		●	●	●
State of infrastructure for core assets		●		
State of infrastructure for all assets			●	●
Current levels of service for core assets		●		
Current levels of service for all assets			●	
Proposed levels of service for all assets				●
Lifecycle costs associated with current levels of service		●	●	
Lifecycle costs associated with proposed levels of service				●
Growth impacts		●	●	●
Financial strategy				●

This year marks the end of the first full regulatory cycle under O. Reg 588/17, by which time municipalities must have developed comprehensive asset management plans covering all municipal infrastructure and addressing current and proposed levels of service. Going forward, municipalities are required to complete annual progress updates and full AMP updates every five years. This 2025 AMP for the Town of Milton reflects the culmination of this initial cycle and positions the Town for continued alignment with provincial asset management requirements and best practices.

Scope

The analysis in this asset management plan relies on information current as of 2024, and spans seven service areas. These are:

1. Transportation Services
2. Stormwater Management Services
3. Community Services
4. Transit Services
5. Protective Services
6. Corporate and Operational Services
7. Milton Public Library Board Services

Strategic Planning and Asset Management

Adopted from the Institute of Asset Management (IAM), Figure 1 illustrates the relationship between industry-standard documents found in an effective asset management program, beginning with the Town of Milton's 2023-2027 Strategic Plan. It illustrates the concept of 'line of sight', or alignment between the Town's corporate vision and strategic themes, and asset management activities. The strategic plan has a direct, and cascading impact on asset management planning and reporting.

Figure 1: Key Guiding Documents in Asset Management

Role of Strategic Plan

The Town of Milton's *2023-2027 Strategic Plan* is a foundational document, that will impact future investments in infrastructure. Five strategic themes are outlined to achieve Milton's 2051 strategic vision of a town that "will be a safe, diverse and welcoming community that respects its natural beauty and heritage, supports a range of neighborhoods, sustains a strong and balanced economy, and offers outstanding opportunities to live, learn, work and play." These initiative are:

1. Invest in People
2. Innovate in Technology and Process
3. Quality Facilities and Amenities
4. Connected Transit and Mobility
5. Planned Community Growth

Several of these themes directly intersect infrastructure and asset management programming, including offering high but affordable service levels at the Town's facilities and amenities; making adequate and consistent investments in infrastructure; expansion of active transportation networks; improving transit connectivity and mobility; and supporting community growth through investments in infrastructure that reflects evolving needs, particularly a pivot to higher density and mixed-use neighborhoods.

Role of Strategic Asset Management Policy

The Town completed and approved its Strategic Asset Management Policy No. 114 in 2019, as required by O. Reg 588/17, with minor, housekeeping updates in 2025. The strategic asset management policy provides a framework to make the best possible decisions regarding Milton's assets based on targeted levels of service, risk-management and cost effectiveness throughout the entire asset lifecycle. The policy provides a connecting link between the strategic plan and asset management related activities and initiatives. It also complements and supports master plans, policy documents, and financial planning exercises.

The policy establishes consistent standards and guidelines for management of the Town's assets applying sound technical, social and economic principles that consider present and future needs of users, and the service expected from the assets. This means leveraging the lowest total lifecycle cost of ownership with regard to the service levels that best meet the needs of the community while giving consideration to the risk of failure that is acceptable.

Limitations and Constraints

This AMP required substantial effort by staff. It was developed based on best-available data, current as of 2024, and was subject to the following broad limitations, constraints, and assumptions:

1. The analysis in this AMP is highly sensitive to several critical data fields, including an asset's estimated useful life, replacement cost, quantity, and in-service date. Inaccuracies or imprecisions in any of these fields can have substantial and cascading impacts on all reporting and analytics.

2. User-defined and unit cost estimates, based typically on staff judgment, recent projects, or established through completion of technical studies, offer the most precise approximations of current replacement costs. When this isn't possible, historical costs incurred at the time of asset acquisition or construction can be inflated to present day. This approach, while sometimes necessary, and deployed in this AMP for some asset groups, can produce highly inaccurate estimates.

3. In the absence of condition assessment data, age was used to estimate asset condition ratings. This approach can result in an over- or understatement of asset needs. As a result, financial requirements generated through this approach can differ from those produced by staff.

4. Pooled assets limit the extent of analysis, including condition ratings and replacement forecasts. Although the vast majority of the Town's infrastructure portfolio is well inventoried, some asset types, including sidewalks are represented as singular, pooled assets.

5. The risk models are designed to support objective project prioritization and selection. However, in addition to the inherent limitations that all models face, they also require availability of important asset attribute data to ensure that asset risk ratings are valid, and assets are properly stratified within the risk matrix. Missing attribute data can misclassify assets.

These limitations have a direct impact on most of the analysis presented in this AMP, including condition summaries, age profiles, long-term replacement and rehabilitation forecasts, and shorter term, 10-year forecasts.

These challenges are quite common among municipalities and require long-term commitment of resources and sustained effort by staff. As Milton's asset management program evolves and advances, the quality of future AMPs and other core documents that support asset management will continue to increase.

Key Updates From 2024

1. **Streetlights Inventory Enhancements**: A comprehensive update to the Town's streetlight inventory was completed, including updates to the asset base, replacement costs, and detailed component-level condition ratings to better support replacement planning.

2. **Library Inventory Enhancements**: The Town's library asset data was updated to include collections such as books and media. While these assets are not subject to traditional condition deterioration, their inclusion improves inventory completeness and supports broader planning considerations.

3. **Fleet Inventory Enhancements**: The Town's fleet inventory was reviewed and refined to improve accuracy. Updates included current condition ratings and revised replacement cost estimates to ensure more reliable lifecycle forecasting.

4. **Bridge Inspections (OSIM 2023)**: Bridge condition indices (BCI) were updated for all bridges and structural culverts in accordance with the Ontario Structure Inspection Manual (OSIM) in 2023.

5. **Floodplain Mapping Updates**: The Town updated its floodplain mapping to reflect current hydrologic and hydraulic data. These updates support stormwater planning, risk mitigation, and land-use decision-making.

State of the Infrastructure

The state of the infrastructure (SOTI) summarizes the inventory, condition, age profiles, and other key performance indicators for the Town's infrastructure portfolio across its seven service areas, current as of 2024. These details are presented for all service areas at the Service Area and Asset Type levels.

Asset Hierarchy

Asset hierarchy explains the relationship between individual assets and their components, and a wider, more expansive network and service area. How assets are grouped in a hierarchy structure can impact how data is interpreted. Table 2 shows the data hierarchy structured used in this AMP to organize the Town's asset data. This structure reflects the Town's asset inventory as of 2024.

Table 2: Asset Hierarchy and Data Classification

Level 1: Service Area	Level 2: Asset Type	Level 3: Asset
Transportation Services	Roads	Road Network
		Sidewalks
		Walkways/Trails
		Guide Rails
	Structures	Bridges
		Culverts
		Pedestrian Bridges
		Retaining Walls
	Traffic	Streetlights
		Traffic Signals
		Traffic Signs
		Pedestals
Stormwater Management Services	Stormwater	Stormsewer Network
		Stormponds
		Manholes & Catchbasins
		Low Impact Development
		Manufactured Treatment Devices
Community Services	Recreation Facilities	Community Centres & Arenas
		Cultural Facilities
		Library Facilities
	Parks	Park Amenities
		Park Facilities
	Forestry and Other Services	Urban Forestry
		Municipal Parking Lots
Transit Services	Conventional and Specialized Transit	Transit Vehicles
		Transit Equipment
		Stops & Shelters
Protective Services	Fire	Stations and Facilities
		Emergency Vehicles
		Firefighting & Communication Equipment
	Bylaw Enforcement & Animal Services	Enforcement & Animal Services Vehicles

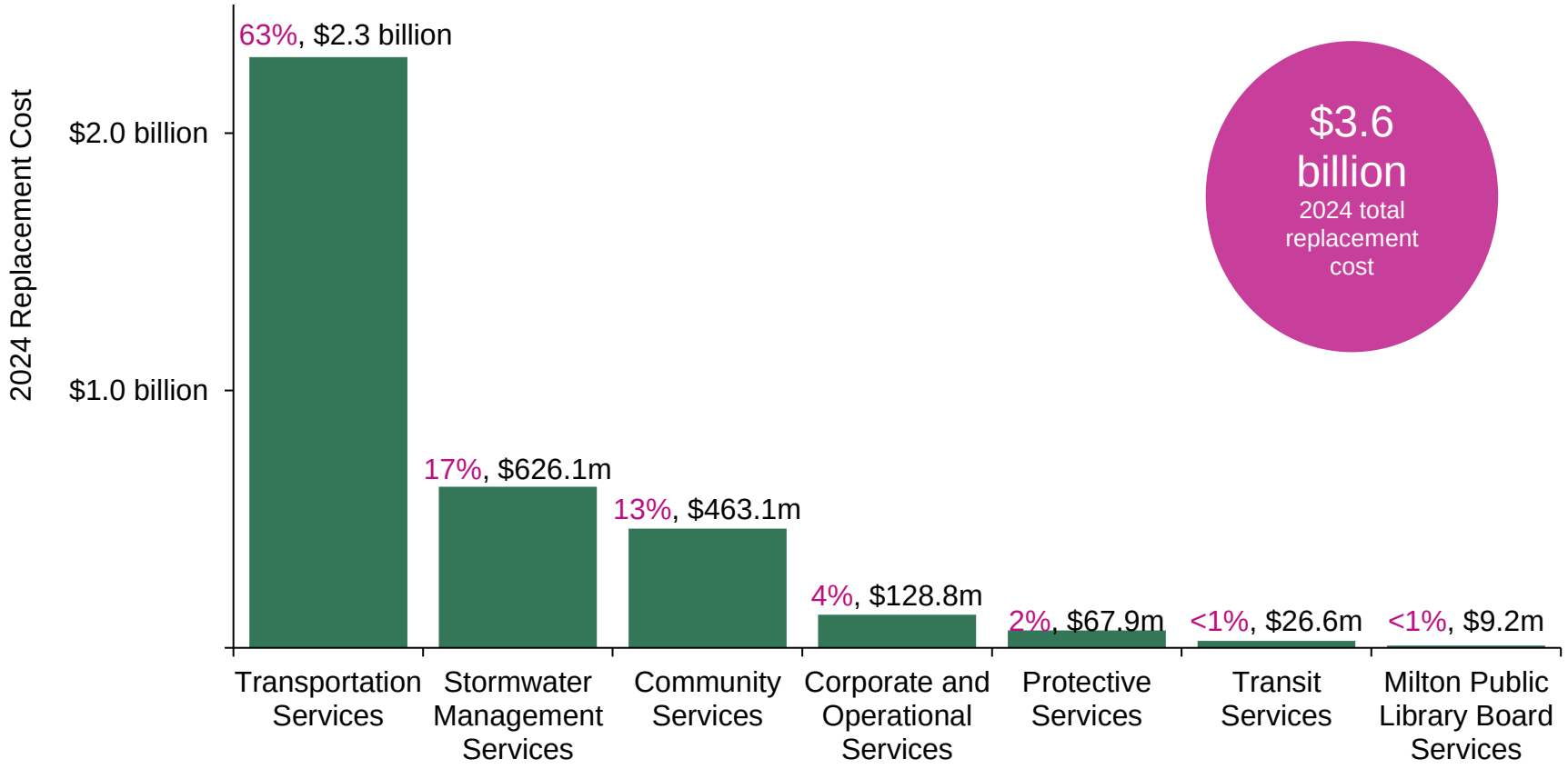
Level 1: Service Area	Level 2: Asset Type	Level 3: Asset
Corporate and Operational Services	Corporate	Civic Facilities
		Office Furniture
		Information Technology
	Operational	Vehicles & Equipment
		Operations Yard Facilities
Milton Public Library Board Services	Library	Collections
		Library Fixtures and Furniture
		Library Information Technology (IT)

Replacement Cost

The seven service areas analyzed in this asset management plan have a total, current replacement cost of $3.6 billion—an increase of 7.1% from the 2024 AMP. This estimate was derived using a blend of user-defined costing and inflation-adjusted historical costs, reflecting 2024-equivalent values. As shown in

Figure 2, Transportation Services account for the largest portion of the Town's asset portfolio at 63%, followed by Stormwater Management at 17% illustrates the replacement cost of each asset category.

Figure 2: 2024 Replacement Cost by Service Area



Condition

This section summarizes the source of asset condition ratings, the condition rating scales used for various asset types, and the overall current condition profile for the seven service areas.

Source of Condition Data

How asset condition is estimated can dramatically alter an asset's profile. Periodic in-field condition assessments conducted by qualified personnel provide the most credible data on the true physical state of an asset and its ability to continue to deliver its intended function in a safe and effective manner. In the absence of condition data, an asset's age can be used to approximate its physical condition. However, age can often understate an asset's condition, resulting in inferior assigned condition ratings that may be misleading.

Table 3 illustrates the percentage of assets in each service area for which condition data was available. Percentages were calculated based on asset replacement costs. Overall, asset-level condition assessment data was available for 85% of the Town's assets. For stormwater management, partial condition data was available at the summary level; for all remaining assets, age was used to estimate condition.

Table 3: Source of Condition Data

Level 1: Service Area	Level 2: Asset Type	Level 3: Asset	% Assessed
Transportation Services	Roads	Road Network	100%
		Sidewalks	100%
		Walkways/Trails	100%
		Guide Rails	100%
	Structures	Bridges	100%
		Culverts	100%
		Pedestrian Bridges	100%
		Retaining Walls	100%
	Traffic	Streetlights	100%
		Traffic Signals	0%
		Traffic Signs	100%
		Pedestals	100%
Stormwater Management Services	Stormwater	Stormsewer Network	18%
		Stormponds	81%
		Manholes & Catchbasins	18%
		Low Impact Development	100%
		Manufactured Treatment Devices	72%
Community Services	Recreation Facilities	Community Centres & Arenas	98%
		Cultural Facilities	100%
		Library Facilities	100%
	Parks	Park Amenities	98%
		Park Facilities	99%
	Forestry and Other Services	Urban Forestry	0%
		Municipal Parking Lots	0%
Transit Services	Conventional and Specialized Transit	Transit Vehicles	0%
		Transit Equipment	0%
		Stops & Shelters	0%
Protective Services	Fire	Stations and Facilities	100%
		Emergency Vehicles	12%
		Firefighting & Communication Equipment	0%
	Bylaw Enforcement & Animal Services	Enforcement & Animal Services Vehicles	100%
Corporate and Operational Services	Corporate	Civic Facilities	89%
		Office Furniture	0%
		Information Technology	0%
	Operational	Vehicles & Equipment	100%
		Operations Yard Facilities	100%
Milton Public Library Board Services	Library	Collections	0%
		Library Fixtures and Furniture	0%
		Library Information Technology	0%

Condition Rating Scales

Many assets in this AMP were evaluated using specialized rating scales tailored to their unique characteristics. Condition ratings were then converted to standardized qualitative descriptors, ranging from Very Good to Very Poor. This facilitates a clear comparison across different asset types and streamlines prioritization of maintenance needs and resource allocation.

In addition, assets can also be assessed using a more universal condition rating scale, ranging from 0-100. This scale is also helpful when no condition data is available, requiring asset age (or service life remaining) to be mapped to their respective scores and descriptors.

This section provides the unique rating scales used for different asset groups, as available, as well as the universal rating scale.

Table 4: Universal and Age-based Condition Rating Scale

Label	Condition Rating (0-100)	Alternative Condition Rating (1-5)	Service Life Remaining (%)	General Criteria
Very Good	80-100	1-2	80-100	**Fit for the future** Asset is new or recently rehabilitated
Good	60-80	2-3	60-80	**Adequate for now** Asset is performing well; minor defects; only regular maintenance required
Fair	40-60	3-4	40-60	**Requires attention** Asset is operational, but signs of deterioration evident; some elements exhibit significant deficiencies; renewal upgrade, or replacement required in the medium term
Poor	20-40	4-5	20-40	**Increasing potential of service disruption** Asset approaching end of service life; condition below standard; significant deterioration; renewal, upgrade, or replacement in the short term
Very Poor	0-20	5+	0-20	**Unfit for sustained service** Service life may be fully consumed, and asset remains in service beyond service life; widespread and advanced deterioration; may be unusable and requires immediate replacement

Table 5: Condition Rating Scale – Roads

Descriptor	Pavement Condition Index (PCI 0-100)
Very Good	>85
Good	70 – 85
Fair	55 – 70
Poor	40 – 55
Very Poor	<40

Table 6: Condition Rating Scale – Structures

Descriptor	Bridge Condition Index (BCI 0-100)
Very Good	90 – 100
Good	65 – 90
Fair	50 – 65
Poor	40 – 50
Very Poor	<40

Table 7: Condition Rating Scale – Guide Rails

Descriptor	Condition Grade Range
Very Good	1
Good	1 – 1.9
Fair	2 – 2.9
Poor	3 – 3.9
Very Poor	4 – 5

Table 8: Condition Rating Scale – Fleet

Descriptor	Condition Grade Range
Very Good	0 – 1
Good	1 – 2
Fair	2 – 3
Poor	3 – 4
Very Poor	4 – 5

Table 9: Condition Rating Scale – Storm Manholes & Catch Basins

Descriptor	Condition Grade Range
Very Good	0.8 – 1
Good	0.6 – 0.8
Fair	0.4 – 0.6
Poor	0.2 – 0.4
Very Poor	0 – 0.2

Table 10: Condition Rating Scale – Conventional Transit Fleet & Equipment

Descriptor	Asset Age in Years or Status
Very Good	1 – 4 years
Good	5 – 8 years
Fair	9 – 12 years
Poor	13+ years
Very Poor	Stationary/Inoperable

Table 11: Condition Rating Scale – Specialized/Support Transit Fleet & Equipment

Descriptor	Asset Age in Years or Status
Very Good	1 – 2 years
Good	3 – 4 years
Fair	5 – 6 years
Poor	7+ years
Very Poor	Stationary/Inoperable

Current Asset Condition

Based on a combination of assessed condition and age-based analysis, approximately 94% of the Town's infrastructure portfolio is in fair or better condition. Roughly 6% of assets, representing a current replacement cost of $212.2 million, are estimated to be in poor or very poor condition.

These assets may be approaching end-of-life and could require major rehabilitation or replacement in the short term. Targeted condition assessments can help refine intervention priorities and reduce the risk of service disruptions. Maintaining assets in fair or better condition remains a cost-effective strategy, helping avoid the higher lifecycle costs associated with delayed reinvestment and reactive maintenance.

Figure 3: Asset Condition – Portfolio Overview

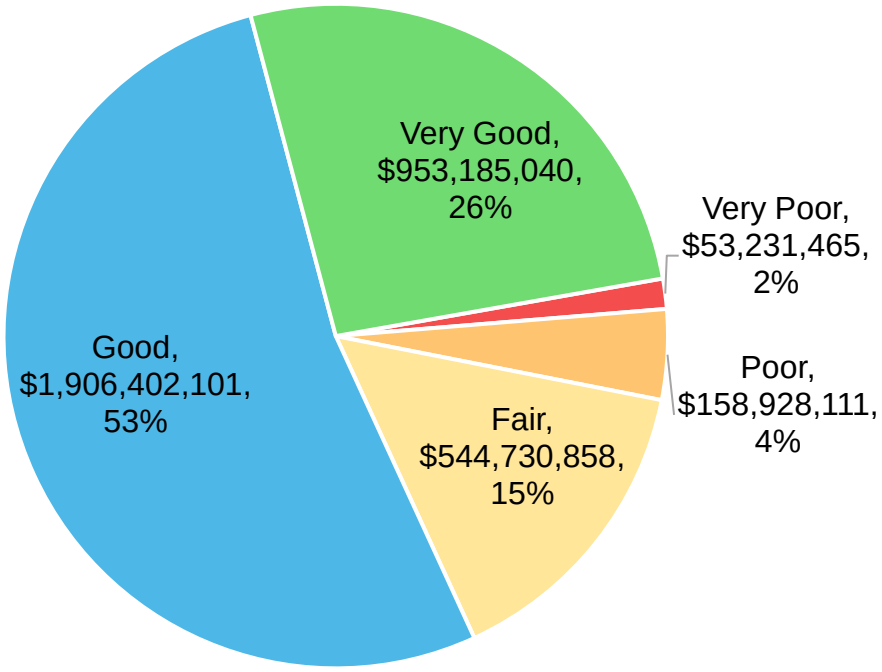


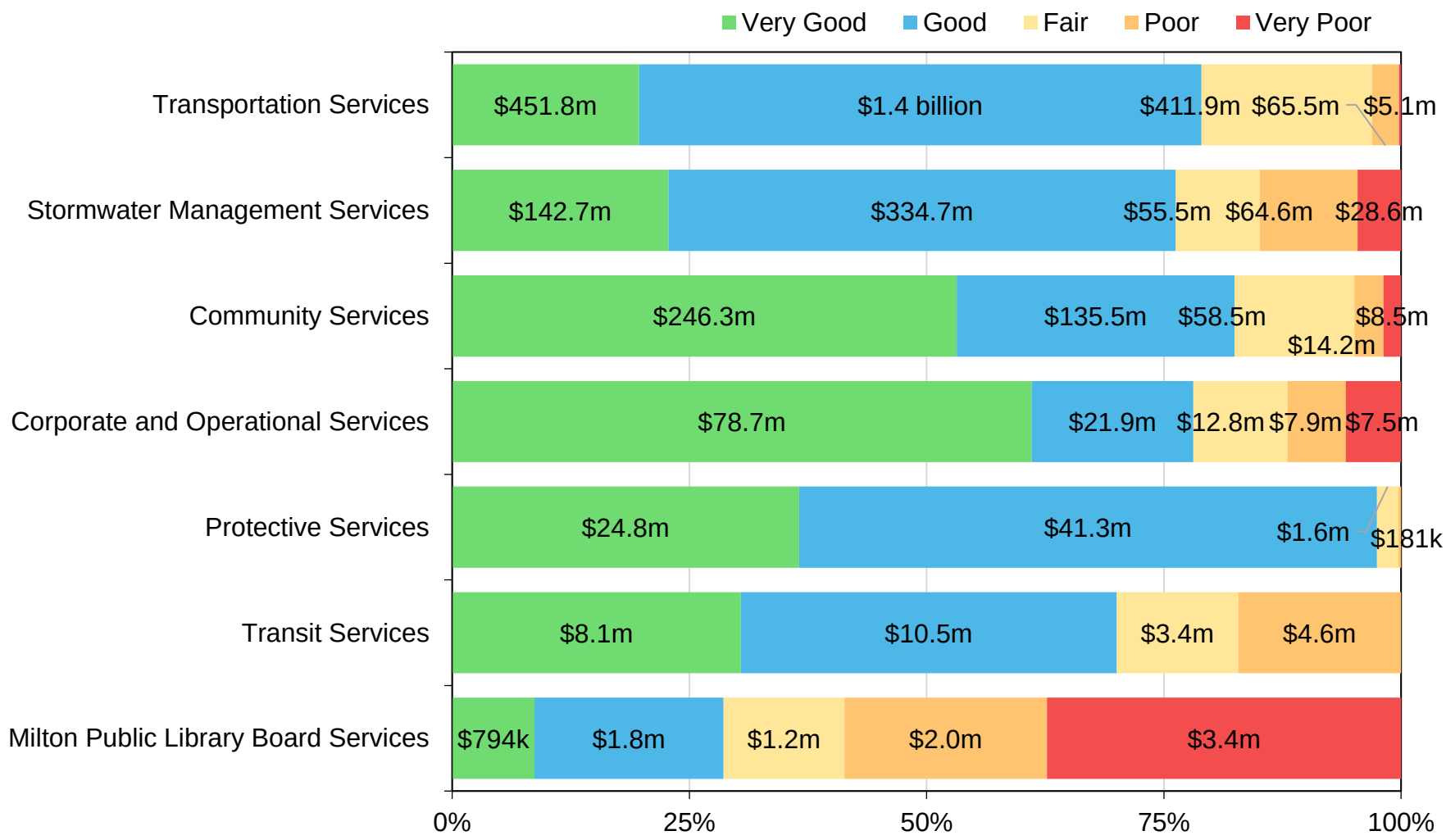
Figure 4 on the next page provides further details on the condition of each service area. Based primarily on assessed condition data, nearly 97% of the Town's Transportation Services assets are in fair or better condition—more than 75% of which are in good to very good condition.

This reflects an updated Ontario Structures Inspection Manual (OSIM) report for the Town's structures, conducted in 2023. Transportation Services include roads, bridges, sidewalks, as well as roadside appurtenances and traffic infrastructure.

By percentage, the highest concentration of assets in poor or worse condition was found in Library Services, with the majority of assets assigned this condition rating. However, most assets are considered minor, and include collections, equipment, and furniture.

Within Stormwater Management services, assets with a current replacement cost of $93.2 million were classified as poor or worse.

Figure 4: Asset Condition – By Service Area

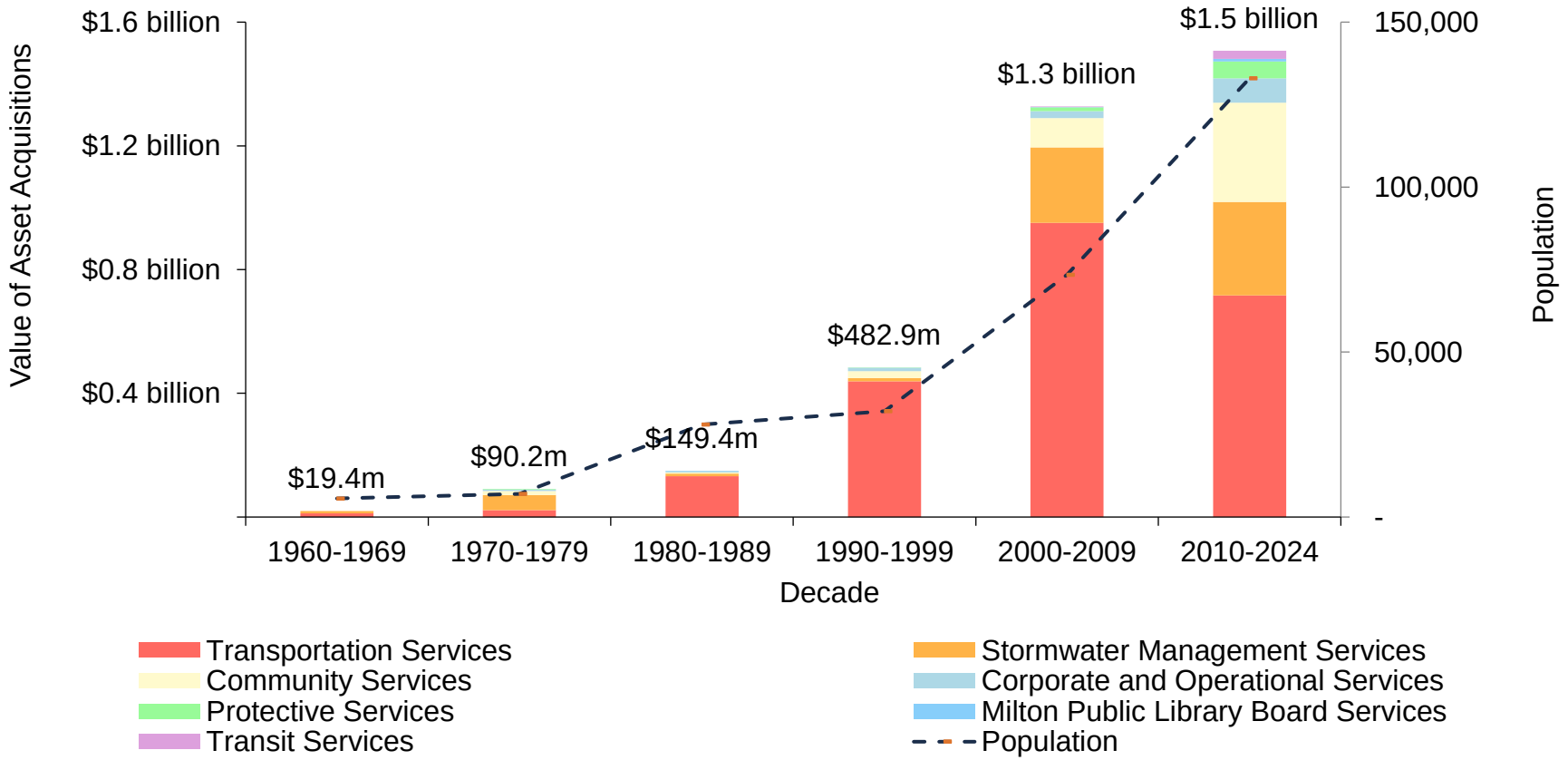


Asset Acquisition by Decade

Figure 5 illustrates how the Town of Milton's current asset base has been accumulated over the last 60 years, in parallel with the rapid population growth within the Town. Although community infrastructure needs and expectations can evolve significantly over decades, understanding historical patterns can be informative in planning for future needs.

The values shown reflect the estimated current replacement cost of those assets as of 2024, rather than the original or historical cost. Only those assets that still remain active and in service as part of the Town's asset register were included; assets that may have been disposed or decommissioned over time were not captured in this analysis.

Figure 5: Asset Acquisition by Decade and Population Growth – All Service Areas



Milton’s population grew rapidly between 2000 and 2019. The Town was considered one of the fastest growing municipalities in Canada during this period, with population rising from 31,471 in 2001 to 84,362 in 2011. Population grew by an additional 20.7% between 2016 and 2021, totalling 132,979 in the 2021 Census.

These periods coincide with the largest growth in the Town’s asset base, reaching $1.3 billion between 2000 and 2009, and peaking at $1.5 billion between 2010 and the current decade.

The investments the Town is making today to maintain and develop its infrastructure will be vital to support the continued growth Milton is expected to see in the coming decade.

Transportation Services

The Town of Milton's Transportation Services comprise a complex and growing network of roads, bridges, sidewalks, and auxiliary traffic infrastructure to support the safe and efficient movement of people and goods. With a total current replacement cost of $2.3 billion, Transportation Services makes up 63% of the Town's infrastructure.

Inventory and Valuation

Table 12 summarizes the quantity and current replacement cost of the Town's various Transportation Services assets as managed in its primary asset management register, Citywide. For the 2025 AMP, the Town's streetlights inventory was updated and detailed condition assessments were conducted on all components.

Table 12: Detailed Asset Inventory – Transportation Services

Asset Type	Quantity	Unit of Measure	Replacement Cost	Percentage
Roads			**$1,996,785,081**	**87%**
Road Network	599.3	Center-line Kilometres	$1,928,978,986	84%
High Class Bituminous (HCB)	412.1	Center-line Kilometres	$1,570,502,167	68%
Low Class Bituminous (LCB)	187.3	Center-line Kilometres	$358,476,819	16%
Sidewalks	387.7	Kilometres	$45,464,140	2%
Walkways/Trails	125.4	Kilometres	$16,831,250	1%
Guide Rails	18.6	Kilometres	$5,510,705	<1%
Structures			**$143,641,294**	**6%**
Bridges	48	Assets	$91,410,000	4%
Culverts	51	Assets	$43,320,000	2%
Pedestrian Bridges	14	Assets	$7,470,000	<1%
Retaining Walls	44	Assets	$1,441,294	<1%
Traffic			**$154,455,468**	**7%**
Streetlights	9,196	Assets	$130,806,600	6%
Traffic Signals	59	Assets	$16,093,460	1%
Traffic Signs	19,249	Assets	$6,863,808	<1%
Pedestals	28	Assets	$691,600	<1%
Total			**$2,294,915,043**	**100%**

Asset Condition

Figure 6 summarizes the replacement cost-weighted condition of Transportation Services. Based on a combination of field inspection data and age, nearly 97% of assets are in fair or better condition. Approximately 3% of assets, with a current replacement cost of $70.6 million are in poor to very poor condition.

These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 6: Asset Condition – Transportation Service: Overall

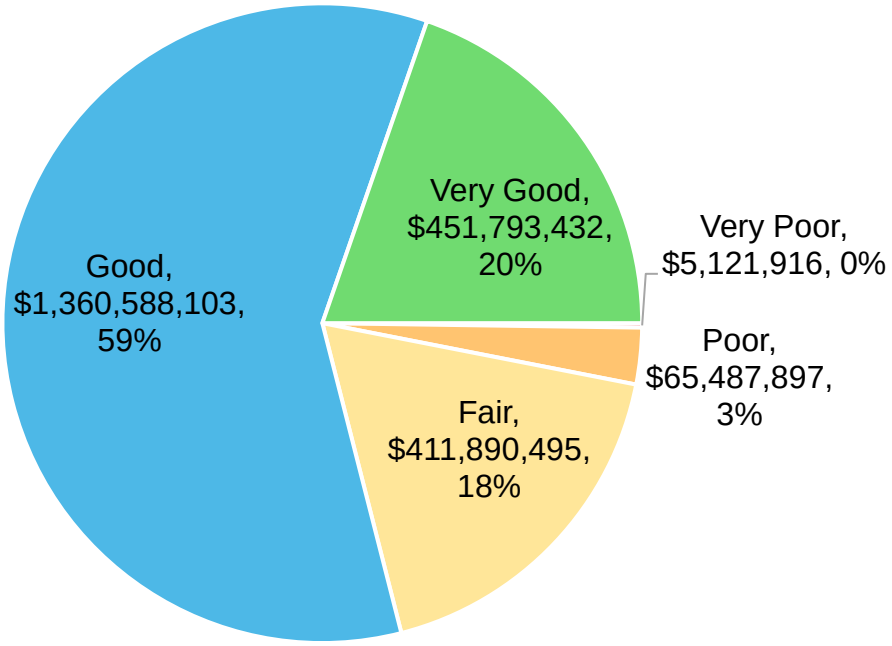
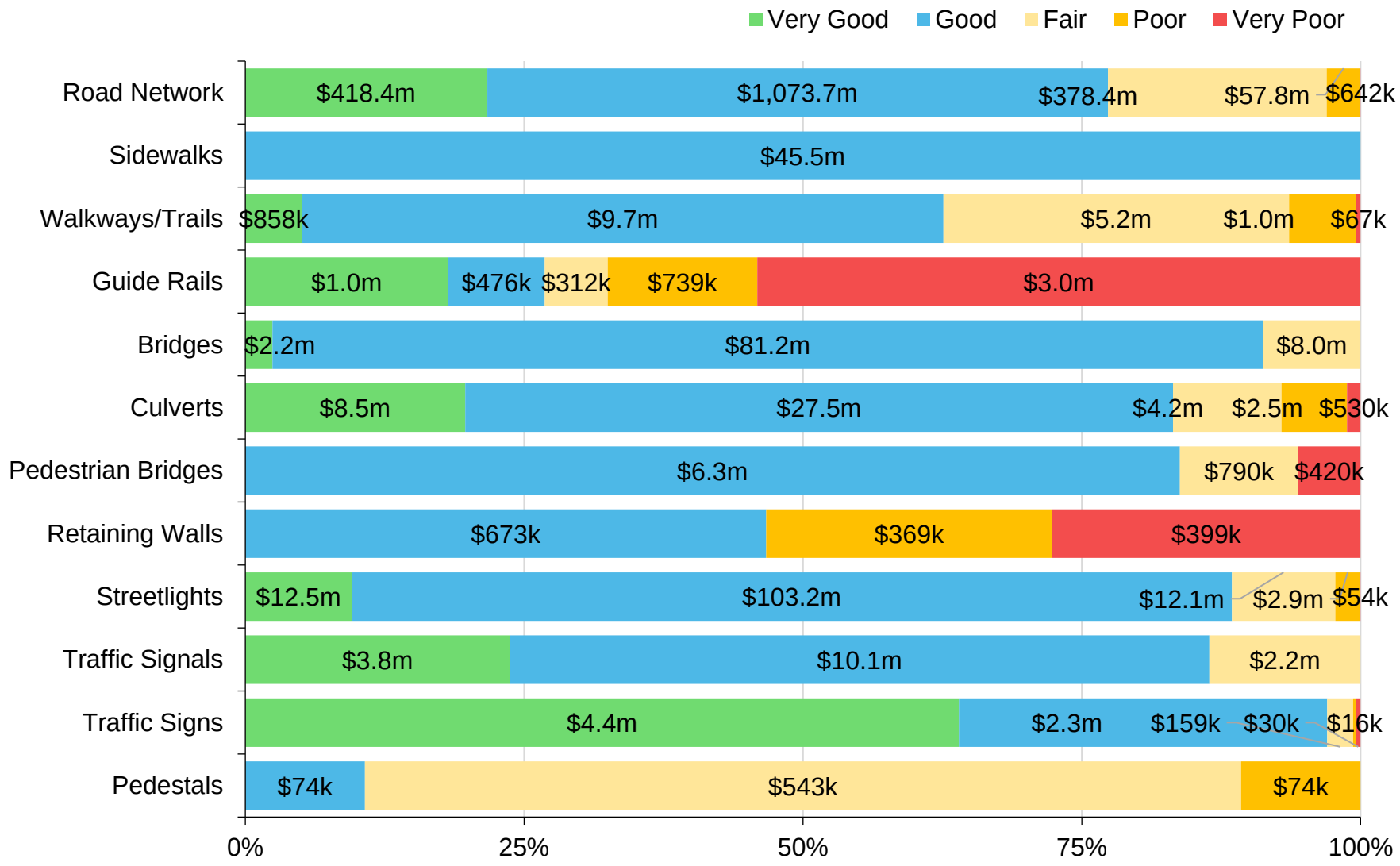


Figure 7 further details the condition of Transportation Services portfolio at the asset type level. Most critical assets such as roadways, bridges, and culverts are in fair or better condition, based on recent in-field condition data.

The majority of assets in poor or worse condition is concentrated in roadside appurtenances, including guiderails. Although some guiderails assigned a poor or very poor condition rating may in fact require rehabilitation or replacement, others may be deemed as such primarily because they do not align with contemporary design standards, rather than due to structural deficiencies.

Figure 7: Asset Condition – Transportation Services: By Asset Type



Age Profiles

The following series of figures contrasts the weighted average estimated useful life (EUL) of each asset against its current weighted average projected age, as of 2025. Replacement cost was used to weight each asset. Although imperfect on its own, asset age can help triage asset needs when used in conjunction with other data points, including condition, asset criticality, planned upgrades, project bundling, and prior failure history.

On average, most Transportation Services assets are within the first half of their estimated design-life. Exceptions are found primarily within Traffic assets and roadside appurtenances.

Figure 8: Estimated Useful Life vs. Asset Age – Road Network

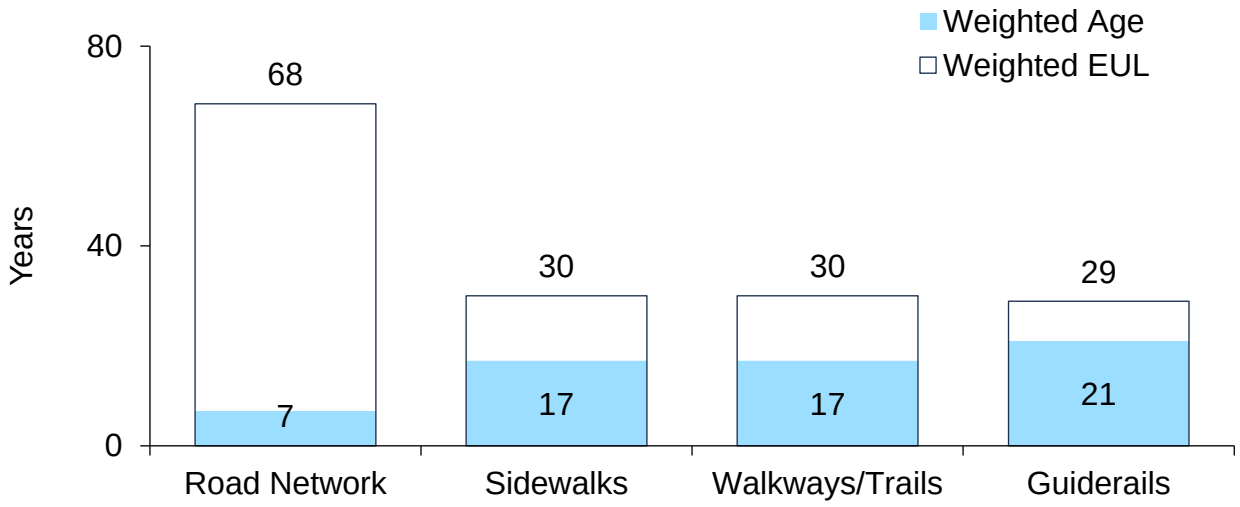


Figure 9: Estimated Useful Life vs. Asset Age – Structures

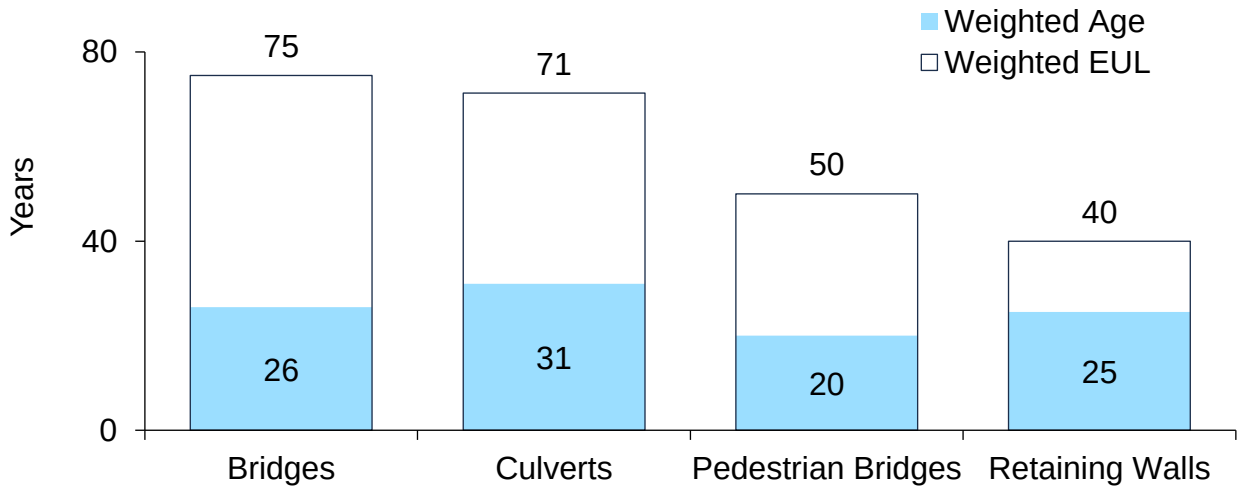
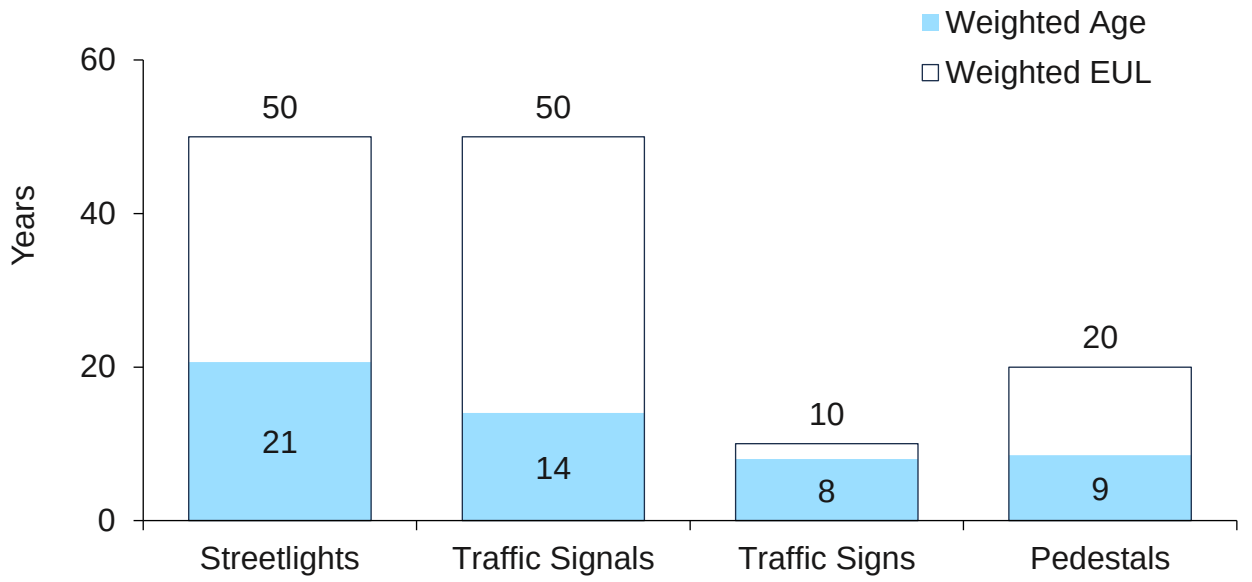


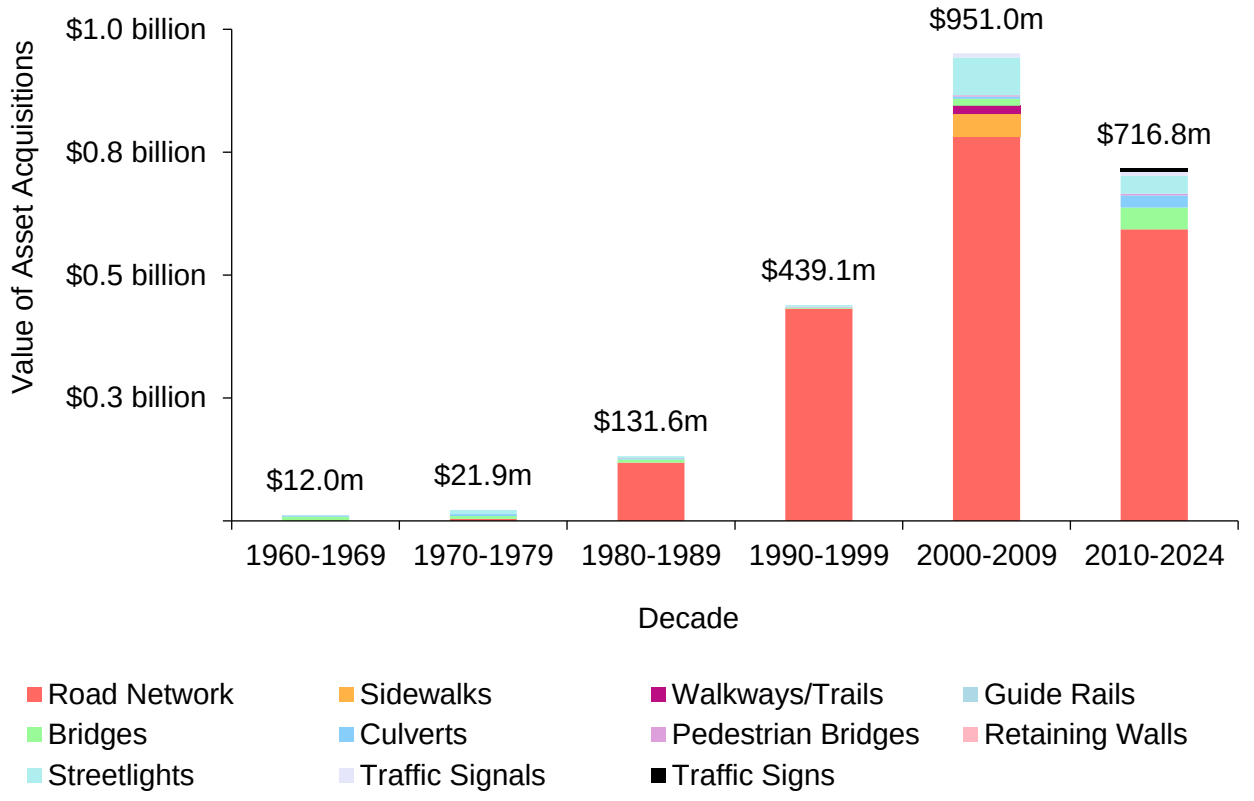
Figure 10: Estimated Useful Life vs. Asset Age – Traffic



Asset Acquisitions by Decade

Figure 11 illustrates the accumulation of capital assets in Transportation Services over the last 60 years based on the in-service date of each asset. The data is presented using 2024 replacement costs, rather than the original or historical cost at the time of acquisition. Further, the illustration reflects the Town's current or active inventory only; assets that have been disposed of or decommissioned over time are not included.

Figure 11: Asset Acquisitions by Decade – Transportation Services



The largest acquisitions in Transportation Services were made between 2000-2009, totaling nearly $951 million, dominated by roads, and coinciding with a period of extensive growth as Milton became the fastest growing municipality in Canada. Between 2000 and 2006, Milton's population increased by 71.4%, with a further increase of more than 50% in the subsequent census period between 2006 and 2011.

Substantial acquisitions continued between 2010 and 2019, totaling $534.8million. Since 2020, the Town has acquired an additional $181.9 million in Transportation Services, with roads making up the majority of the growth in the asset base.

Stormwater Management Services

Milton's Stormwater Management infrastructure consists of a comprehensive network designed to manage precipitation and prevent flooding. It includes more than 390 kilometres of stormwater pipes that collect and convey runoff to designated basins, detention ponds, and other storage facilities. The system also includes various appurtenances such as catch basins and manholes, manufactured treatment devices (MTDs), and low impact development assets such as bioswales, which aid in the efficient treatment of stormwater.

The current replacement cost of Milton's stormwater infrastructure is estimated to be $626.1 million, reflecting the significant investment required to maintain and upgrade these assets.

Inventory and Valuation

Table 13 summarizes the quantity and current replacement cost of the Town's various Stormwater assets as managed in its primary asset management register, Citywide.

Table 13: Detailed Asset Inventory – Stormwater Management Services

Asset Type	Quantity	Unit of Measure	Replacement Cost	Percentage
Stormsewer Network	390.6	Kilometres	$319,966,673	51%
Storm Ponds	49	Assets	$164,861,182	26%
Manholes & Catchbasins	13,482	Assets	$134,668,017	22%
Low Impact Development	9	Assets	$3,810,772	<1%
Manufactured Treatment Devices	31	Assets	$2,805,740	<1%
Total			**$626,112,384**	**100%**

The stormsewer pipe network makes up 51% of the Stormwater Management portfolio, designed to accommodate different flow rates and conditions. Most pipes are PVC, while larger diameter pipes are constructed from concrete. Pipe sizes can range from 300mm for main stormsewer lines and 150mm for foundation drain collectors.

Asset Condition

Figure 12 provides an overview of the replacement cost-weighted condition of the Town's Stormwater Services. In 2020, Zoom Camera™ assessments were conducted for a portion of the Town's storm pipes and appurtenances, located in the historic urban centre. In total, 1,065 manholes, 1,994 catchbasins, and 70.3km of storm pipes were assessed. Although not as comprehensive as CCTV inspections, Zoom camera assessments provide good representative data. In addition, partial in-field data was available for stormwater ponds, low impact development, and MTDs.

Based on a combination of assessed condition and age analysis, 85% of assets were rated as fair or better, while the remaining 15% of assets, valued at approximately $93.2 million are classified as being in poor to very poor condition. These assets may need to be considered for replacement in the short term, while assets rated as fair may require rehabilitation or replacement in the medium term and should be closely monitored for potential degradation.

Figure 12: Asset Condition – Stormwater Management Service: Overall

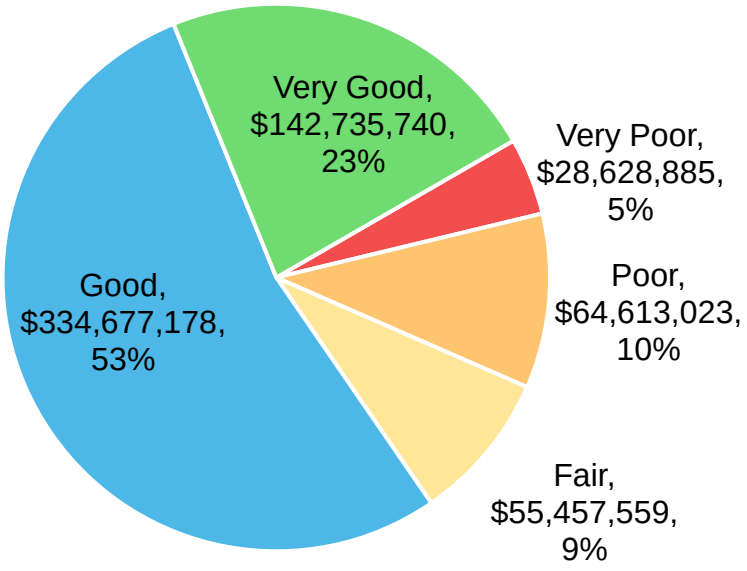
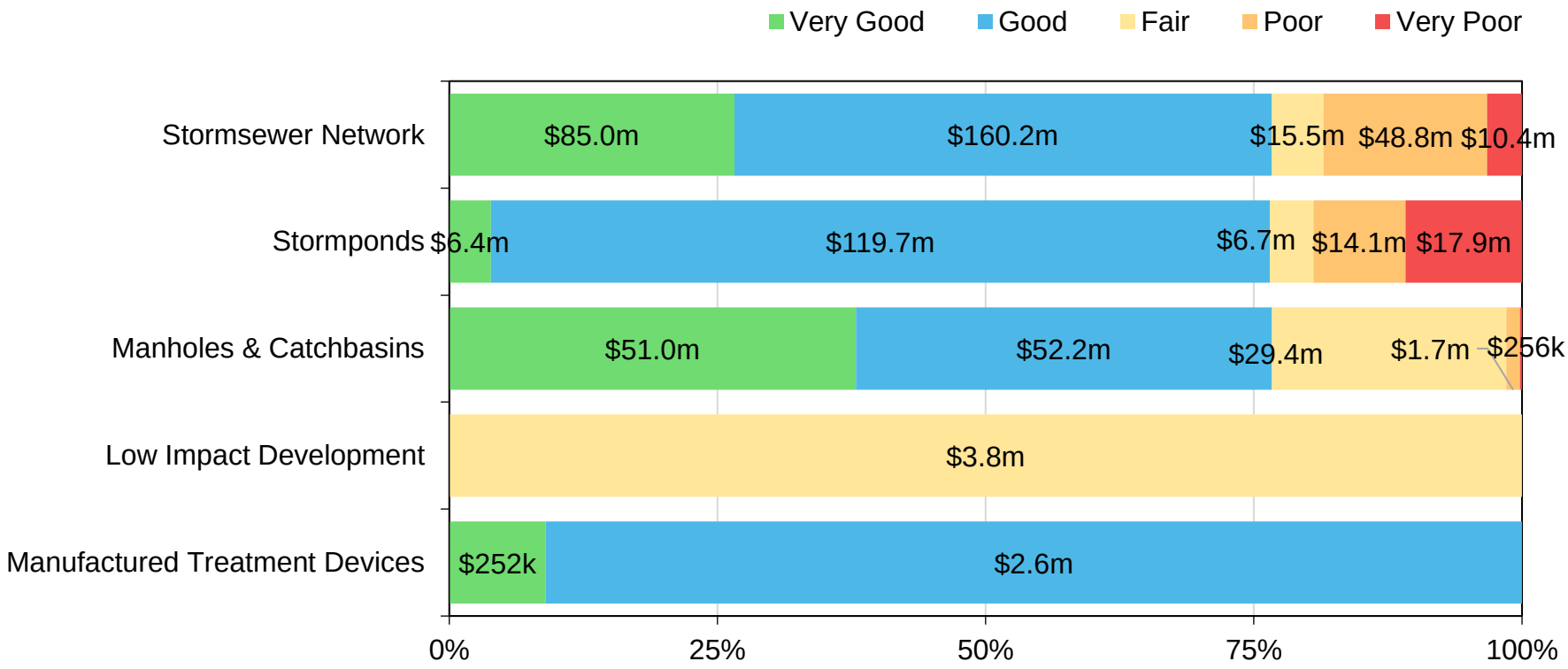


Figure 13 on the next page provides additional detail on Stormwater infrastructure condition by asset type. Approximately 81% of storm pipes are in fair or better condition. Stormwater ponds valued at approximately $32 million are in poor or worse condition, indicating a potential need for significant rehabilitation or replacement to maintain effective stormwater management and mitigate flooding risks.

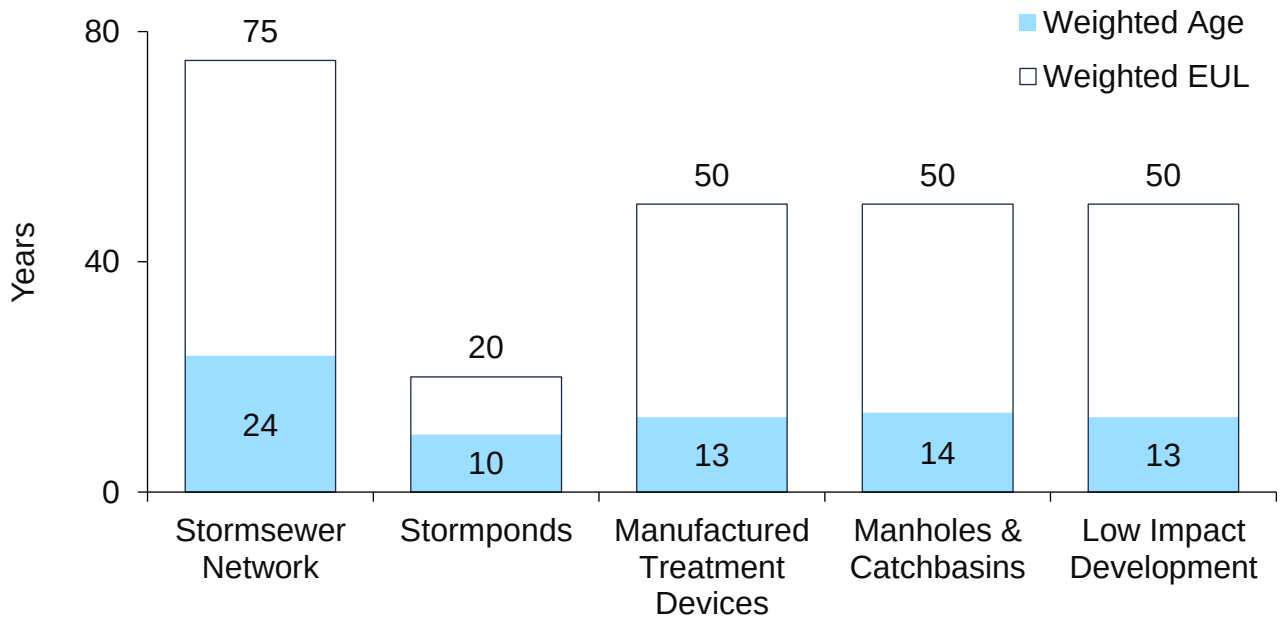
Figure 13: Asset Condition – Stormwater Management Services: By Asset Type



Age Profiles

The following figure compares each asset's weighted average estimated useful life (EUL) to its current weighted, projected average age as of 2024. Replacement cost was used to weight each asset in the analysis. While age alone may not be a perfect indicator, it serves as a useful initial assessment tool when combined with other data points such as asset condition, criticality, planned upgrades, project bundling, and previous failure history.

Figure 14: Estimated Useful Life vs. Asset Age – Stormwater Management Services



On average, Stormwater Management assets are relatively new and should have lower maintenance demands in the near future. However, ongoing monitoring is essential to ensure these assets continue to perform effectively, particularly given the potential impacts of climate change such as increased precipitation and extreme weather events.

These factors could accelerate the aging process and affect the longevity of assets, underscoring the importance of proactive asset management and strategic planning for future upgrades and replacements.

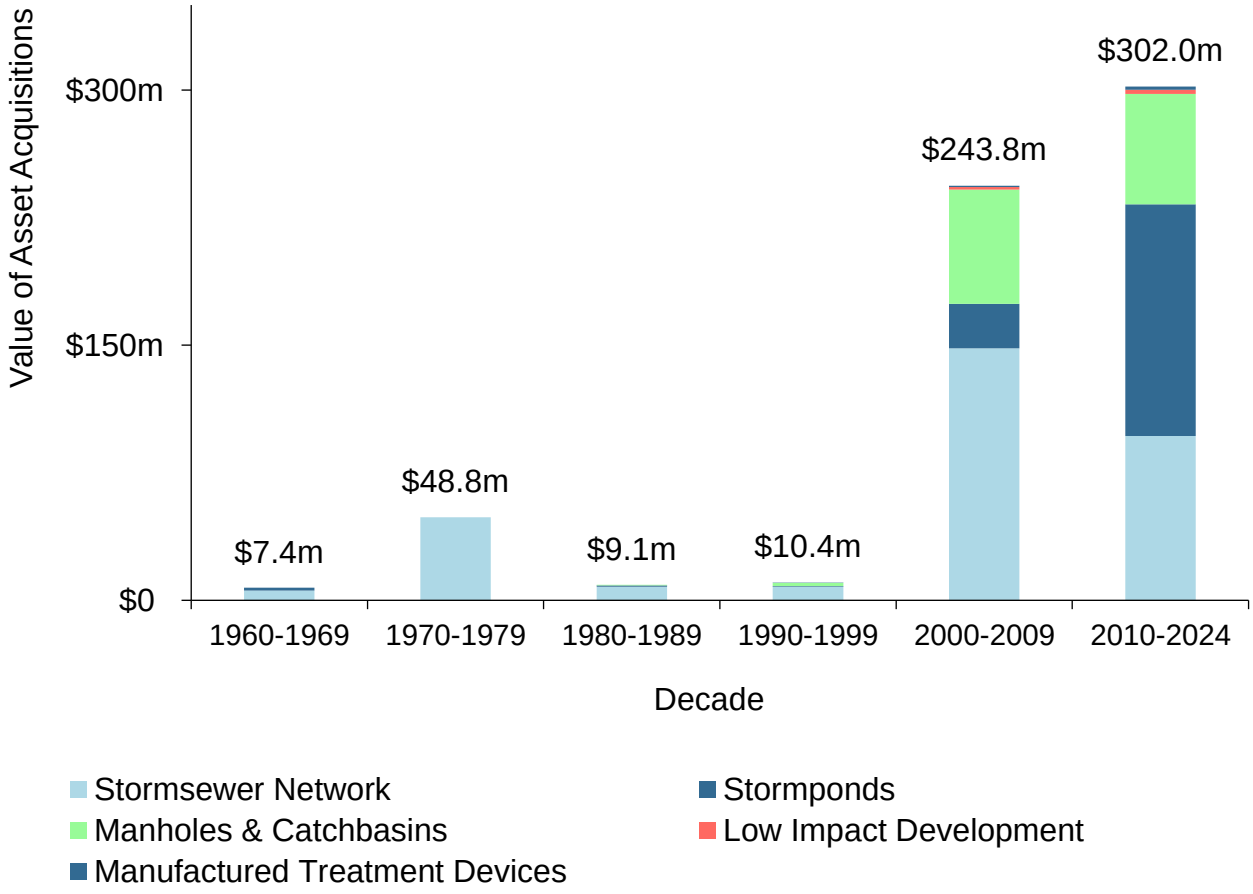
For storm ponds, the estimated EUL of 20 years indicates the duration until the capacity diminishes to a point where it may no longer effectively capture stormwater. This does not entail replacing the pond itself; rather, the pond is dredged to restore it to its intended capacity.

Asset Acquisitions by Decade

Figure 15 illustrates the accumulation of Stormwater infrastructure assets since 1960 based on the in-service date of each asset. The data is presented using 2024 replacement costs, rather than the original or historical cost at the time of acquisition. The data reflects the Town's current or active inventory only; assets that have been disposed of or decommissioned over time are not included.

Although valid in-service dates were available for the vast majority of assets, a provisional in-service date of 1960 was used for 264 assets, primarily within stormsewers, to make data analysis possible. Combined, these assets are valued at $7.4 million, making up less than 2% of the overall Stormwater infrastructure portfolio.

Figure 15: Asset Acquisitions by Decade – Stormwater Management Services



In parallel with Transportation Service, the majority of Stormwater Management infrastructure assets were acquired between 2000-2009, and the consolidated period between 2010-2024, peaking at $302 million. Since 2020, the Town's Stormwater asset base has grown by an additional $91.6 million.

Community Services

The Town of Milton offers a wide range of Community Services designed to enhance the quality of life for its residents, including a portfolio of parks, and recreation, civic, and cultural facilities. The Town also has a pooled inventory of its trees. The current replacement cost of Milton's Community Services infrastructure is estimated at $463.1 million.

Inventory and Valuation

Table 14 summarizes the quantity and current replacement cost of Milton's Community Services assets as managed in Citywide. Community Services are supported by a network of assets that ensure a safe and enjoyable use of the Town's public recreational spaces. These include parking lots, lighting, and utilities, and other assets and their associated components. Land costs are not included in these estimates.

Table 14: Detailed Asset Inventory – Community Services

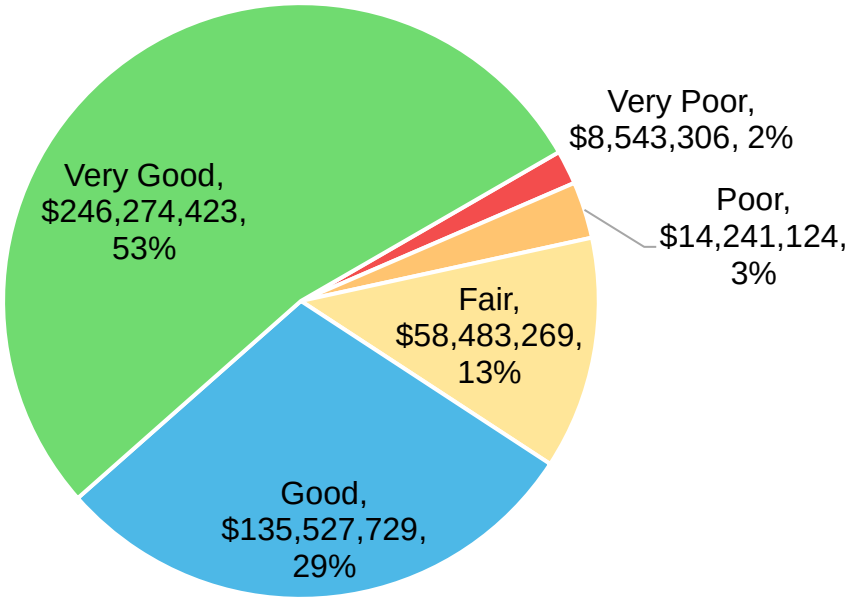
Asset Type	Quantity	Unit of Measure	Replacement Cost	Percentage
Recreation Facilities			**$335,360,698**	**72%**
Community Centres & Arenas	9	Facilities	$282,704,676	61%
Cultural Facilities	2	Facilities	$32,838,976	7%
Library Facilities	3	Facilities	$19,817,046	4%
Parks			**$95,218,524**	**21%**
Park Amenities	2,613	Assets/ Components	$79,834,141	17%
Park Facilities	39	Facilities	$15,384,383	3%
Forestry and Other Services			**$32,490,630**	**7%**
Urban Forestry	44,320	Trees	$30,709,328	7%
Municipal Parking Lots	9	Lots	$1,781,302	<1%
Total			**$463,069,851**	**100%**

Asset Condition

Figure 16 provides an overview of the replacement cost-weighted condition of the Community Services asset portfolio. In-field condition data was available for most park amenities and facilities, community and recreation centres, and library facilities.

Based on a combination of assessed condition and age analysis, 95% of assets were rated as fair or better, while the remaining 5%, valued at approximately $22.8 million are classified as being in poor to very poor condition, pointing to potential issues with delivering adequate performance levels.

Figure 16: Asset Condition – Community Services: Overall



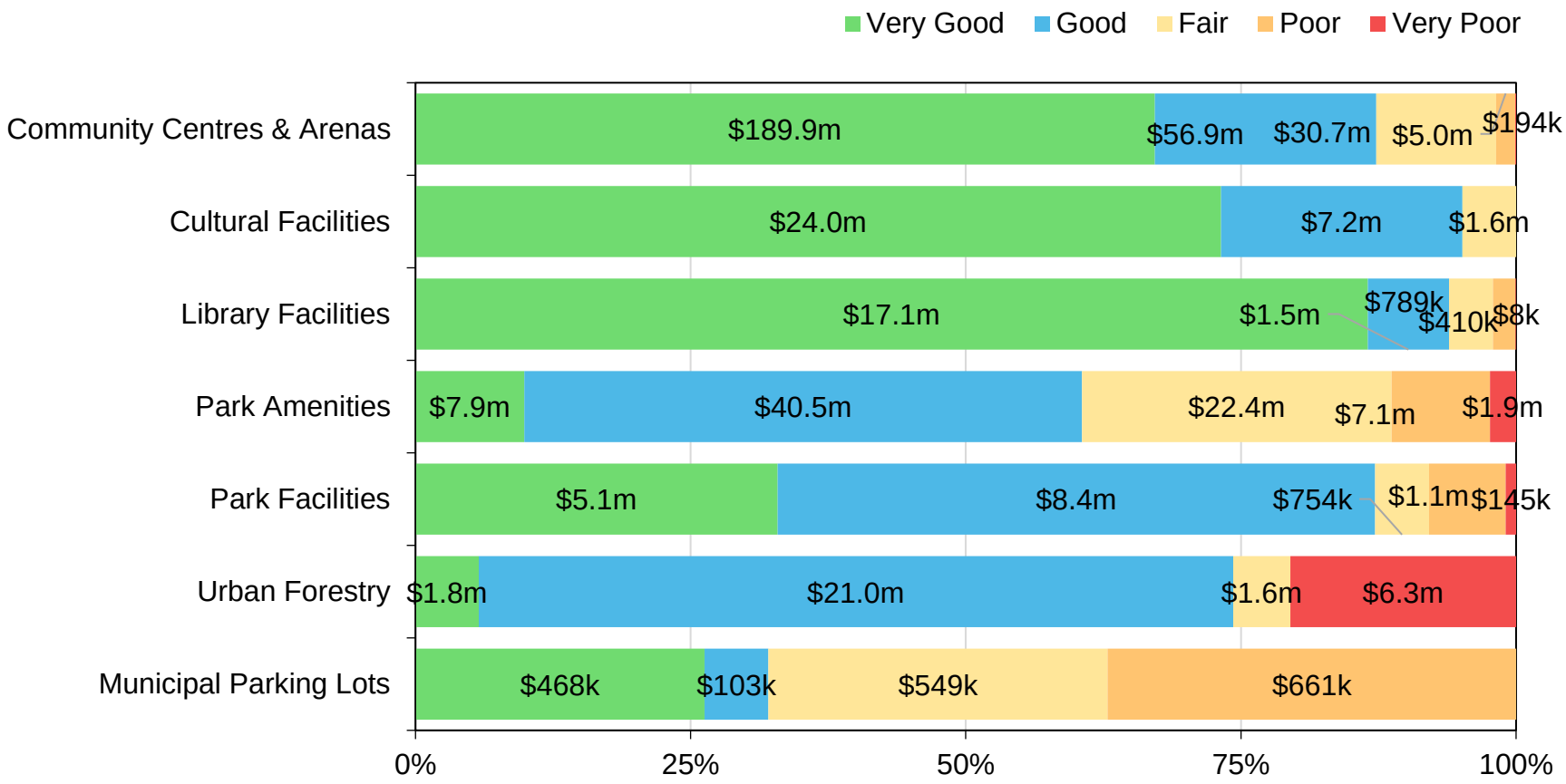
Due to incomplete tree age data, the condition estimates for Urban Forestry assets are based on age alone and may not accurately represent their true condition.

Figure 17 provides a more detailed look at the condition of Community Services assets. The largest asset group—Community Centres & Arenas—is in strong overall condition, with 98% of assets rated as fair or better. Cultural and Library Facilities also show predominantly high condition ratings, with only minimal values falling below fair.

By contrast, Park Amenities stand out with the highest dollar value of assets in poor or very poor condition—approximately $9.0 million, or 11% of the replacement cost.

Due to incomplete tree age data, the condition estimates for Urban Forestry assets are based on age alone and may not accurately represent their true condition.

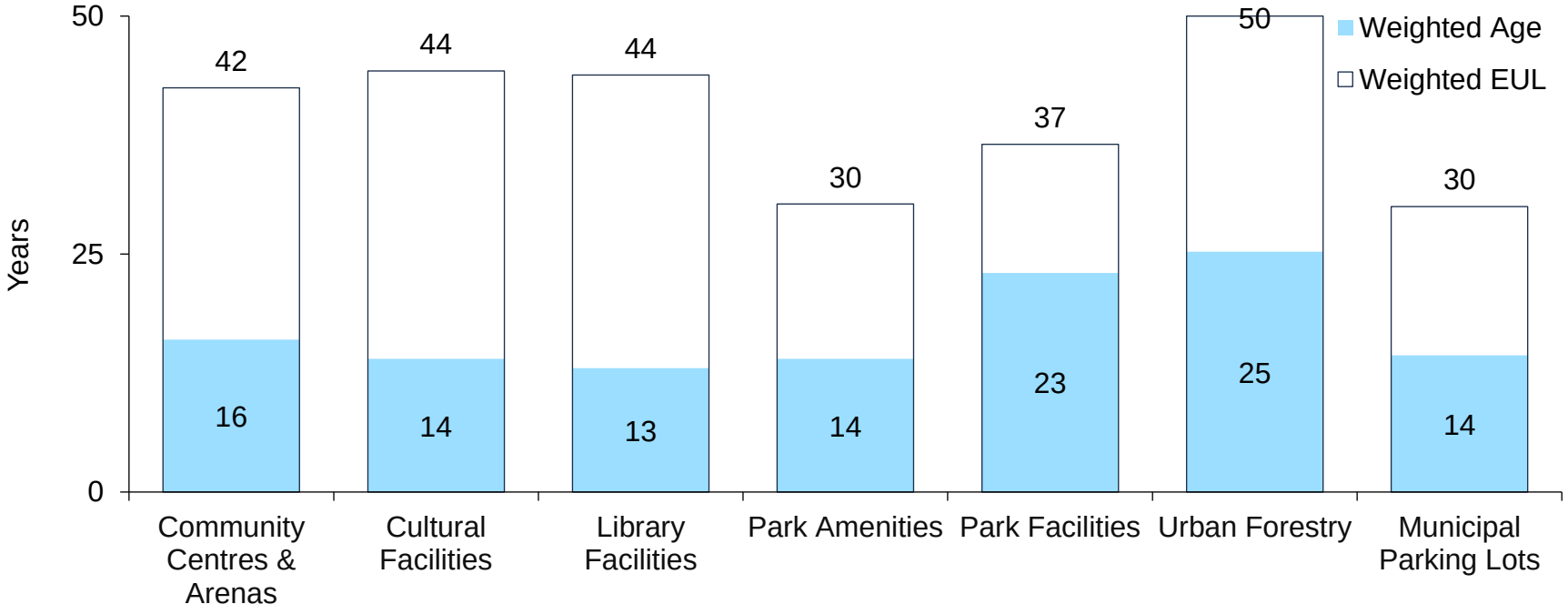
Figure 17: Asset Condition – Community Services: By Asset Type



Age Profiles

The following figure compares each asset's weighted average estimated useful life (EUL) to its current weighted, projected average age as of 2024. Replacement cost was used to weight each asset in the analysis. Though age on its own may not provide a complete picture, it is a helpful starting point to prioritize projects when evaluated alongside other factors such as asset condition, criticality, planned improvements, project grouping, and past failure records.

Figure 18: Estimated Useful Life vs. Asset Age – Community Services

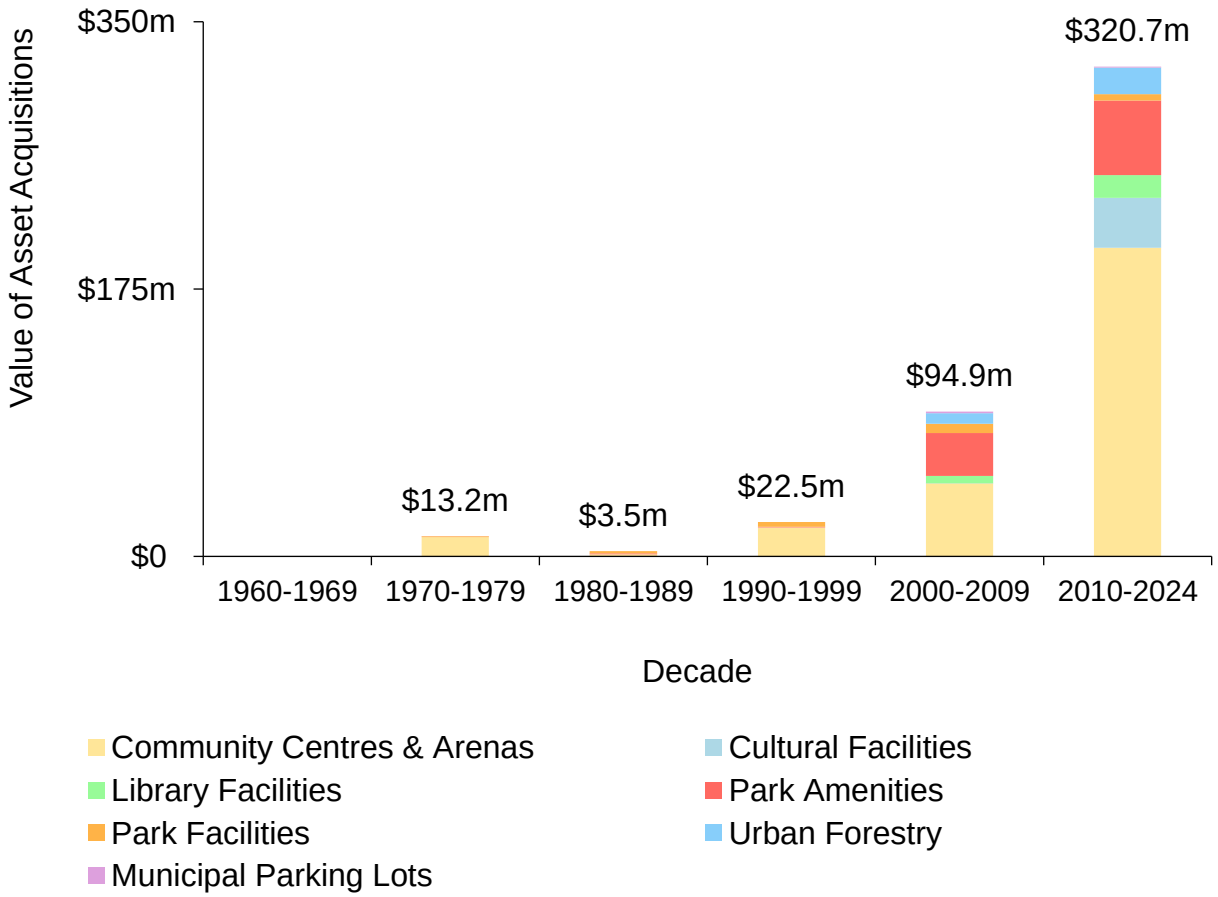


On average, Community Services assets have consumed less than 50% of their estimated design life. Exceptions are found primarily within Park Facilities assets, which include major buildings, and their individual elements and components.

Asset Acquisitions by Decade

Figure 19 illustrates the accumulation of capital assets in the Town's Community Services portfolio since 1960. The data is illustrated using 2024 replacement costs rather than the original or historical cost, and asset in-service dates. The data reflects the Town's current or active inventory only; assets that have been disposed of or decommissioned over time are not included.

Figure 19: Asset Acquisitions by Decade – Community Services



Alongside Transportation Services and Stormwater Management infrastructure, most capital asset acquisitions occurred in the last two decades, rising sharply and peaking in the consolidate period between 2010-2024, totaling nearly $320.7 million. The last two decades were marked by substantial population growth for Milton, which continues to expand quickly.

Since 2020, the Community Services asset base has grown by an additional $9.4 million, with most acquisitions concentrated in Park Amenities, followed by Community Centers & Arenas as well as Cultural Facilities.

Corporate and Operational Services

Milton's Corporate and Operational Services assets support the effective delivery of the Town's municipal operations. These assets, including facilities, furniture, information technology equipment, and vehicles, ensure essential services are delivered with minimal disruption to Milton residents. The current replacement cost of Corporate and Operational Services assets and infrastructure is estimated at $128.8 million.

Inventory and Valuation

Table 15 summarizes the quantity and current replacement cost of Corporate and Operational Services assets as managed in Citywide. Given the low relative value and criticality of most furniture assets, they are pooled to reduce data management.

Table 15: Detailed Asset Inventory – Corporate and Operational Services

Asset Type	Quantity	Unit of Measure	Replacement Cost	Percentage
Corporate			**$75,607,896**	**59%**
Civic Facilities	6	Facilities	$57,774,723	45%
Office Furniture	15	Pooled Assets	$10,866,144	8%
Information Technology	74	Pooled Assets	$6,967,029	5%
Operational			**$53,162,224**	**41%**
Vehicles & Equipment	270	Assets	$27,227,288	21%
Operations Yard Facilities	4	Facilities	$25,934,936	20%
Total			**$128,770,120**	**100%**

Asset Condition

Figure 20 provides an overview of the replacement cost-weighted condition of the Corporate and Operational Services asset portfolio. In-field condition data was available for all Corporate and Operations Yard Facilities, as well as Vehicles & Equipment. Given their nature, corporate IT assets often rely on an age-based replacement strategy to ensure currency with evolving technology.

Based primarily on in-field condition data, 88% of assets were rated as fair or better, while the remaining 12% of assets, valued at approximately $15.4 million are classified as being in poor to very poor condition.

Figure 20: Asset Condition – Corporate and Operational Services: Overall

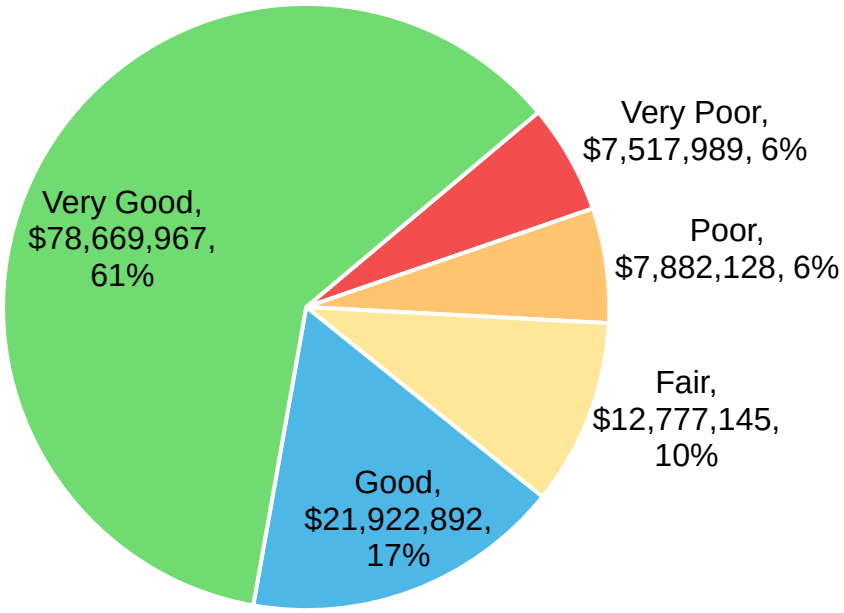
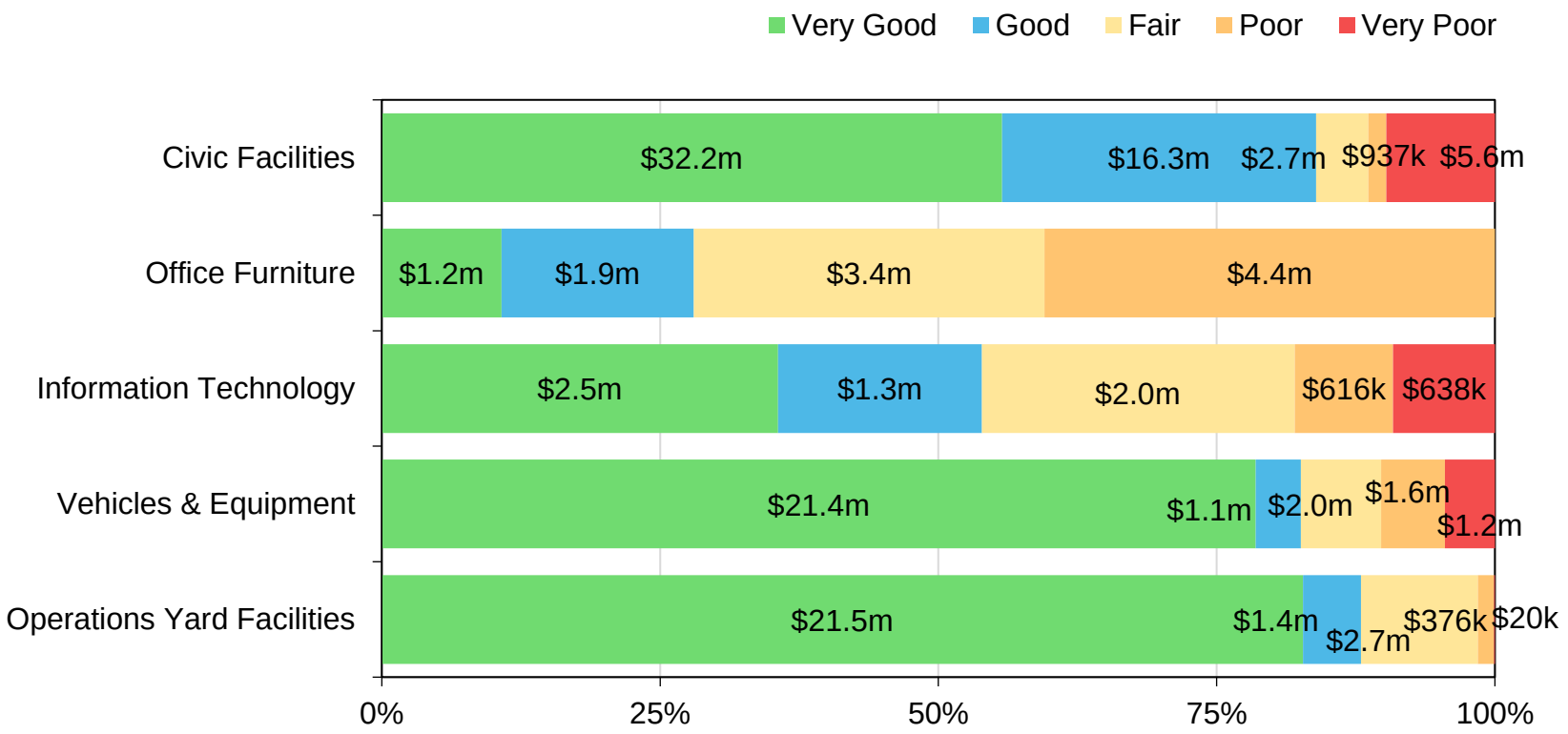


Figure 21 illustrates that, with a current replacement cost of $6.6 million, Civic Facilities has the highest value of assets in poor or worse condition. Office furniture assets have the largest portion of assets in this condition state. However, these assets are not critical and do not impact service delivery.

Within Operations, approximately 10% of vehicles & equipment, with a current replacement cost of $2.8 million were considered poor or worse. IT assets, including laptops and mobile phones, may warrant typical upgrades due to obsolescence, inadequate functionality, lack of ongoing manufacturer support, and security issues.

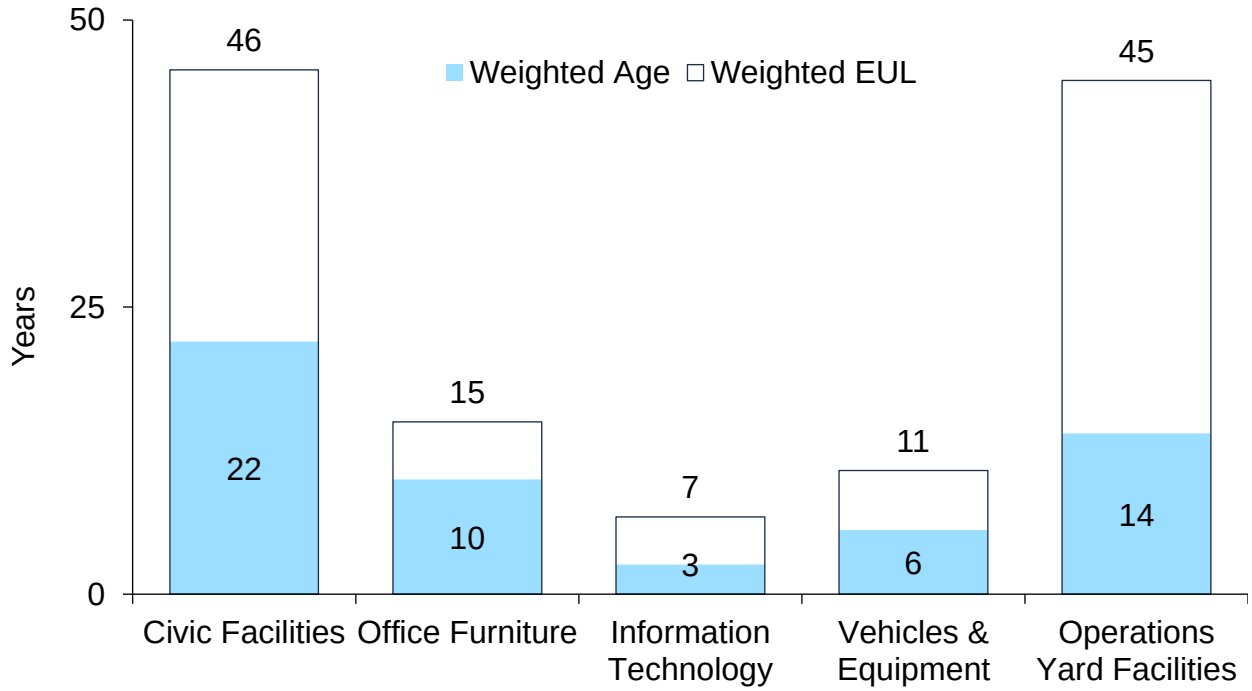
Figure 21: Asset Condition – Corporate and Operational Services: By Asset Type



Age Profiles

The figure below contrasts each asset's weighted average estimated useful life (EUL) with its current weighted average age as of 2024. Replacement cost is used to weight each asset. Although age alone may not capture the full picture, it serves as a useful initial assessment for prioritizing projects when considered with other factors such as asset condition, importance, and planned enhancements, particularly IT upgrade strategies.

Figure 22: Estimated Useful Life vs. Asset Age – Corporate and Operational Services

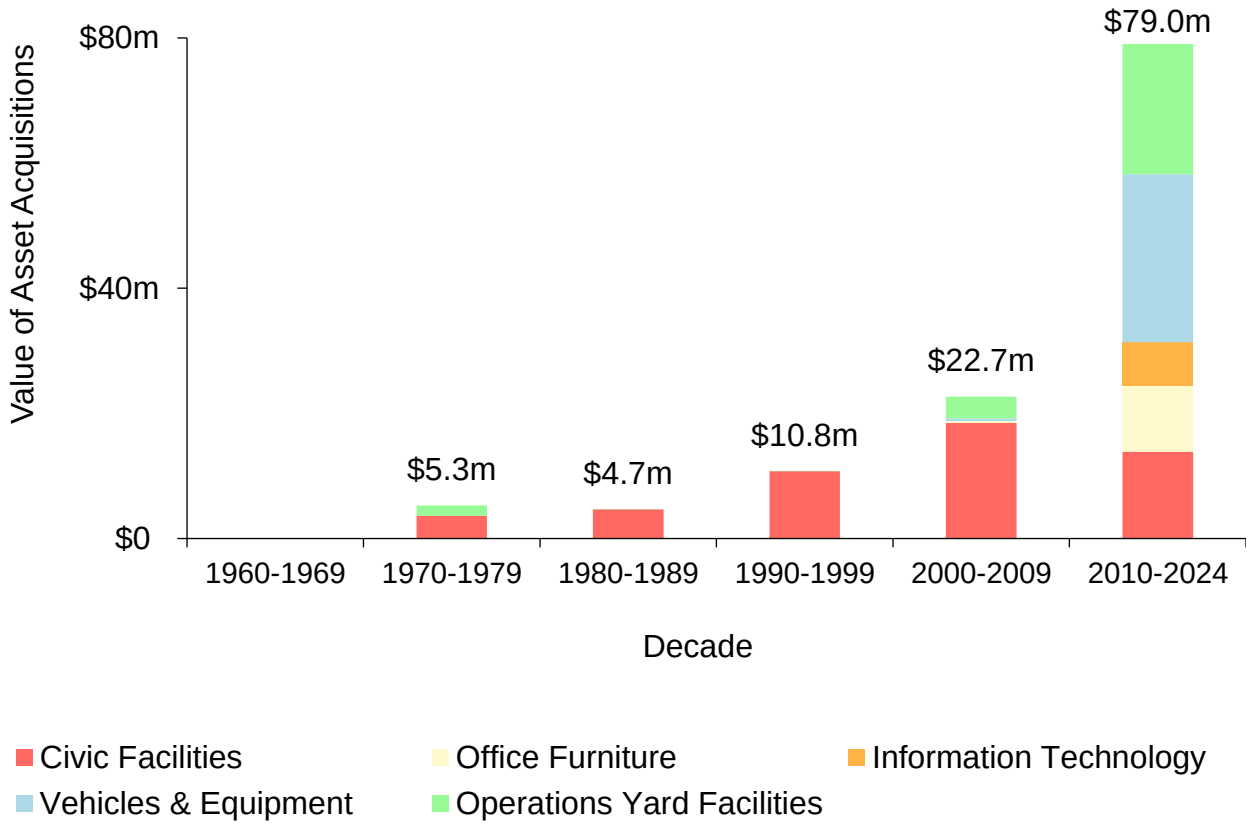


On average, major Corporate and Operational Services assets, including Civic Facilities and Operations Yard Facilities are in the earlier stages of their estimated design-life.

Asset Acquisitions by Decade

Figure 23 illustrates the growth and accumulation of Milton's Corporate and Operational Services asset base since 1960. The data is illustrated using 2024 replacement costs rather than the original or historical cost, and asset in-service dates. The data reflects the Town's current or active inventory only; assets that have been disposed of or decommissioned over time are not included.

Figure 23: Asset Acquisitions by Decade – Corporate and Operational Services



Consistent with the trend, most acquisition in Corporate and Operational Services assets occurred in the last two decades, particularly in the consolidated period between 2010-2024, when the asset base grew by $79.0 million. Facilities, both Corporate and Operations, and various Vehicles assets accounted for the vast majority of these acquisitions.

Since 2020, assets totaling $18.1 million have been added to the Town's asset register, with IT and Vehicles & Equipment accounting for the largest portion of acquisitions. Unlike roads, storms, facilities, and other major engineered assets, these particular assets typically have short lifespans, requiring more frequent cycles of replacements and acquisitions.

Protective Services

The Town's Protective Services assets play a vital role in responding quickly to emergencies, enforcing local regulations, and ensuring public safety across all areas of the municipality. Milton's public safety infrastructure and asset portfolio includes fire vehicles, stations, and equipment, as well as bylaw enforcement vehicles. The current replacement cost of these assets and infrastructure is estimated at $67.9 million.

Inventory and Valuation

Table 16 summarizes the quantity and current replacement cost of Milton's Protective Services assets as managed in Citywide. Overall, fire assets comprise 99% of all Protective Services assets.

Table 16: Detailed Asset Inventory – Protective Services

Asset Type	Quantity	Unit of Measure	Replacement Cost	Percentage
Fire			**$67,504,021**	**99%**
Stations and Facilities	5	Stations	$32,694,987	48%
Emergency Vehicles	40	Vehicles	$26,496,297	39%
Firefighting & Communication Equipment	3,296	Assets	$8,312,737	12%
Bylaw Enforcement & Animal Services			**$384,171**	<1%
Enforcement & Animal Services Vehicles	8	Vehicles	$384,171	<1%
Total			**$67,888,192**	**100%**

Asset Condition

Figure 24 provides an overview of the replacement cost-weighted condition of the Protective Services asset portfolio. In-field condition data was available for most assets. The Town also maintains strict standards for its fire vehicles and equipment assets, and has established a 'Fair' condition rating as a minimally acceptable performance level. As assets begin to degrade beyond this threshold, they are disposed, sold, and scheduled for replacement.

Based primarily on in-field condition data, nearly 100% of assets were rated as fair or better, while less than 1% of assets, valued at $181.4k are classified as being in poor condition.

Figure 24: Asset Condition – Protective Services: Overall

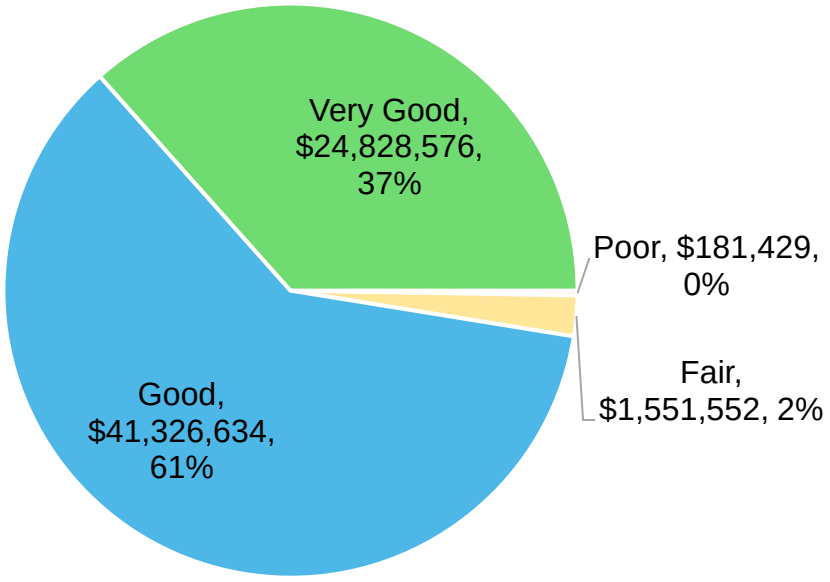
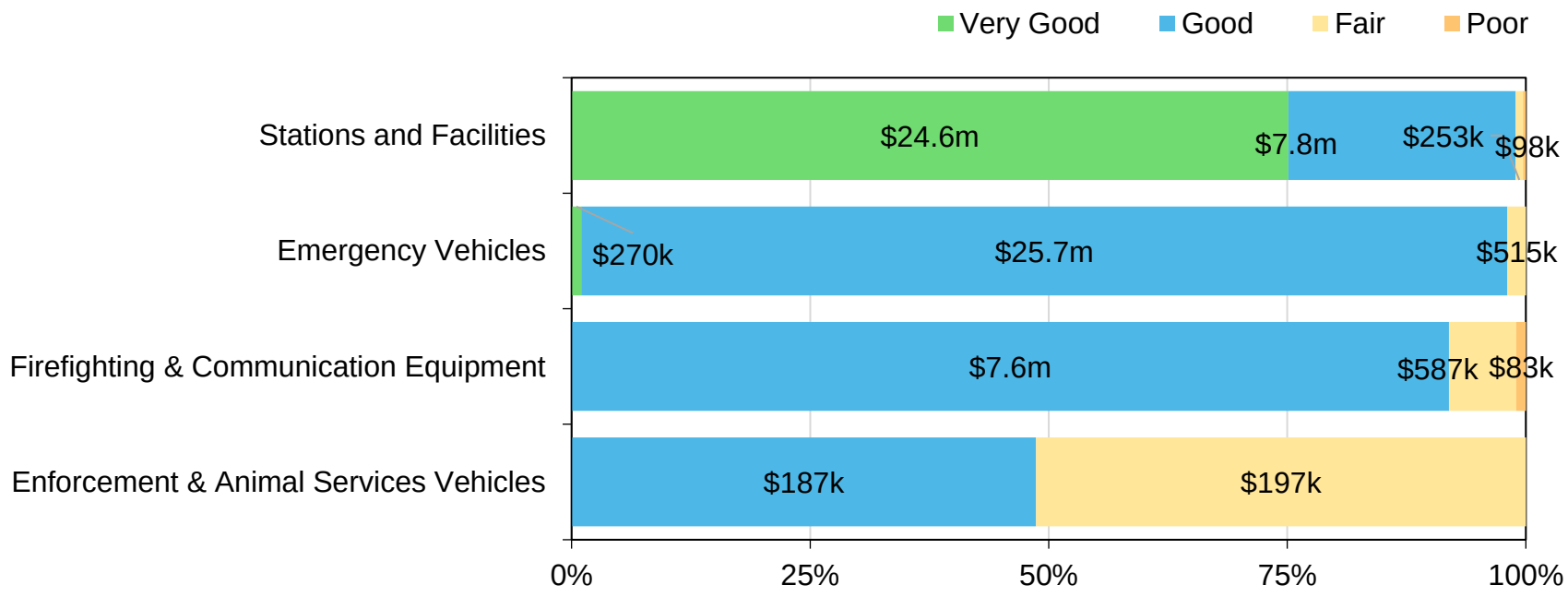


Figure 25 shows that all Emergency Vehicles assets were assigned a fair or higher condition rating. In addition, virtually all critical firefighting and communication equipment were assigned a good condition rating.

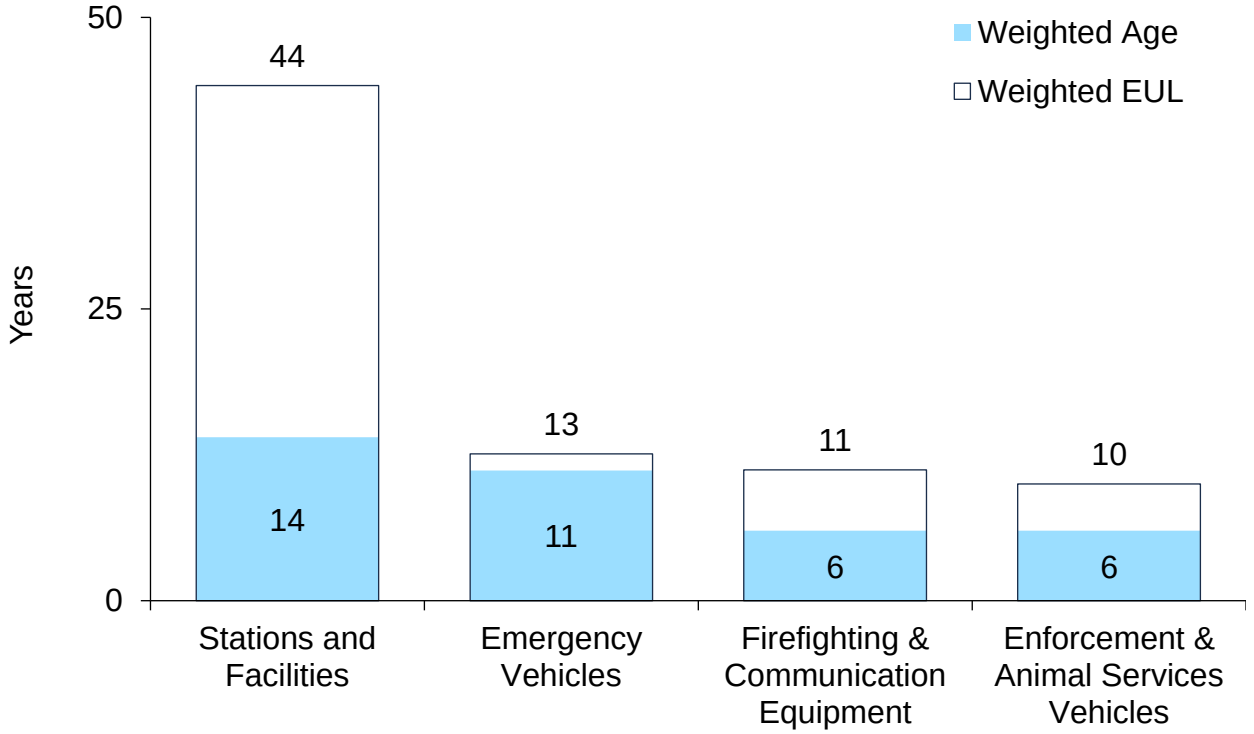
Figure 25: Asset Condition – Protective Services: By Asset Type



Age Profiles

The figure below compares each asset's weighted average estimated useful life (EUL) with its current weighted average age as of 2024, using replacement cost as a weighting factor. While age on its own may not provide a complete view, it offers a helpful starting point for prioritizing projects when combined with other considerations such as asset condition, importance, and planned improvements, especially considering the Town's minimum condition threshold for its Fire vehicles and equipment portfolio.

Figure 26: Estimated Useful Life vs. Asset Age – Protective Services

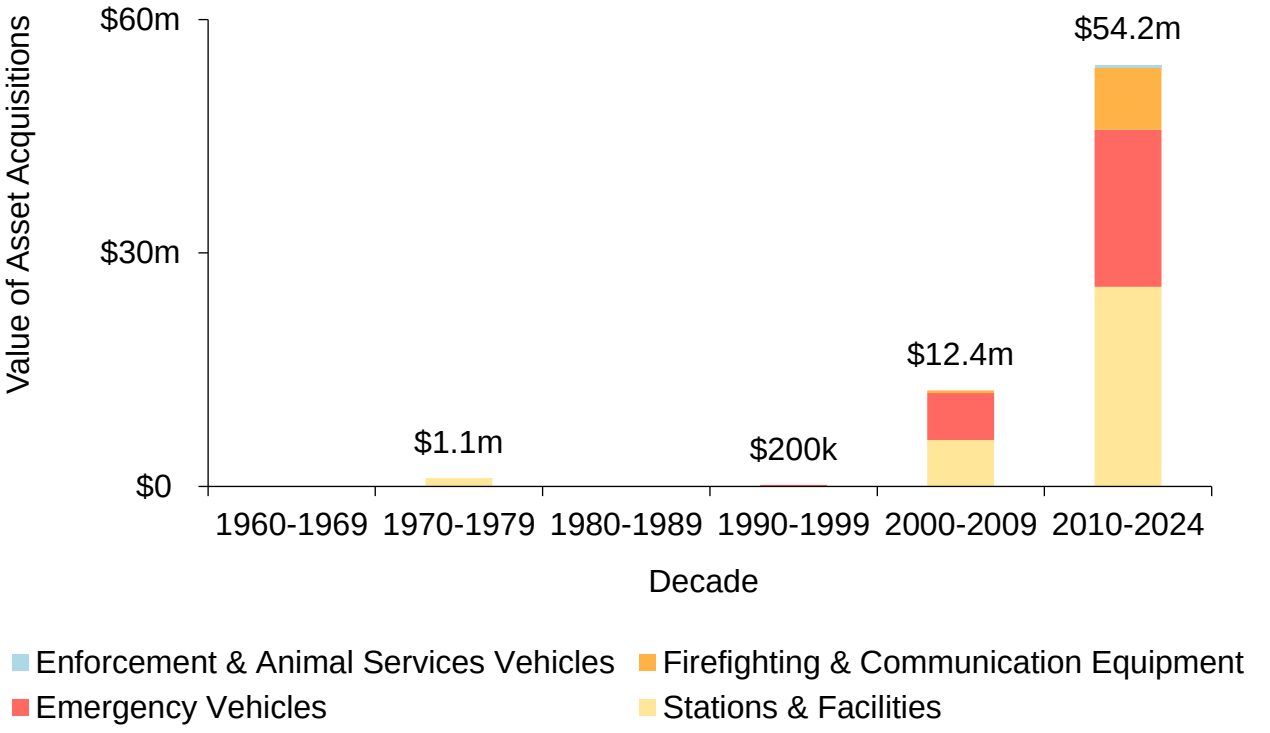


On average, most stations and facilities assets are in the first half of their life, while other assets, such as vehicles and equipment have now entered the latter stages of their established lifespans. Although some fire station assets date back to the 1970s, recent condition assessments suggest that their condition remains generally high due to strong maintenance efforts, leading to low overall effective ages.

Asset Acquisitions by Decade

Figure 27 illustrates the accumulation of assets in the Town's Protective Services portfolio since 1960, illustrated using 2024 replacement costs rather than original or historical costs, and asset in-service dates. The data reflects the Town's current or active inventory only; assets that have been disposed of or decommissioned over time are not included.

Figure 27: Asset Acquisitions by Decade – Protective Services



In line with the prevailing trend, most asset acquisitions occurred between 2000 and the current decade, a time of significant population growth for Milton. The bulk of the growth in the Protective Services asset base was concentrated in Stations & Facilities, followed by Emergency Vehicles.

Acquisitions reached their highest point in the consolidated period between 2010-2024, totaling $54.2 million. Since 2020, the Town has added $11.4 million in assets to its Protective Service portfolio, with the majority comprising Emergency Vehicles.

Transit Services

Milton Transit plays a vital role in enhancing mobility and connectivity for the residents and visitors of the Town of Milton. The Town provides conventional and access+ or specialized service on weekdays and Saturdays, and connects with GO Transit services at the Milton GO Station. The current replacement cost of the associated vehicles, equipment, and facilities totals $26.6 million.

Inventory and Valuation

Table 17 summarizes the quantity and current replacement cost of Milton's Transit Services assets as managed in Citywide. Vehicles make up 90% of the Transit asset portfolio.

Table 17: Detailed Asset Inventory – Transit Services

Asset Type	Quantity	Unit of Measure	Replacement Cost	Percentage
Conventional and Specialized Transit				**100%**
Transit Vehicles	39	Vehicles	$23,812,244	90%
Transit Equipment	200	Assets/Components	$1,799,325	7%
Stops & Shelters	538	Assets/Components	$976,851	4%
Total			**$26,588,420**	**100%**

Condition

Figure 28 provides an overview of the replacement cost-weighted condition of the Transit Services asset portfolio. In-field condition data was not available for this asset group. As such, only age was used to approximate asset condition. This analysis suggests that while 83% of assets are in fair or better condition, the remaining 17%, with a current replacement cost of $4.6 million, were rated as poor or worse.

In the absence of in-field condition data, and given their relatively short life-spans, transit assets can appear to deteriorate rapidly year-over-year.

Figure 28: Asset Condition – Transit Services: Overall

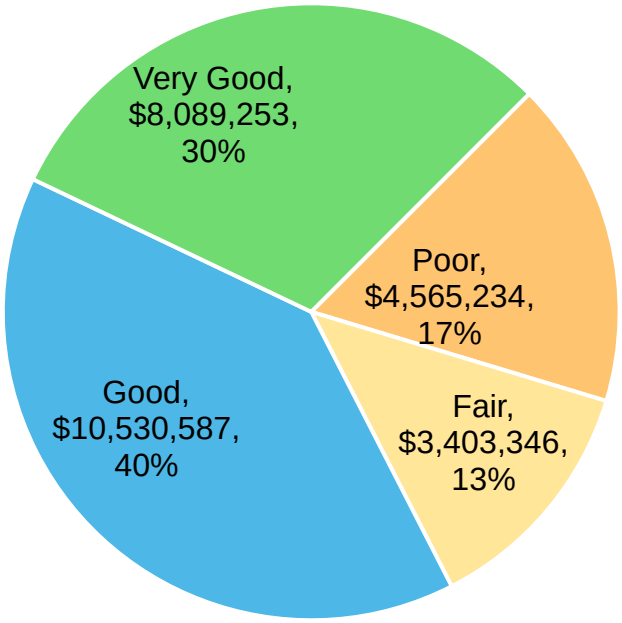
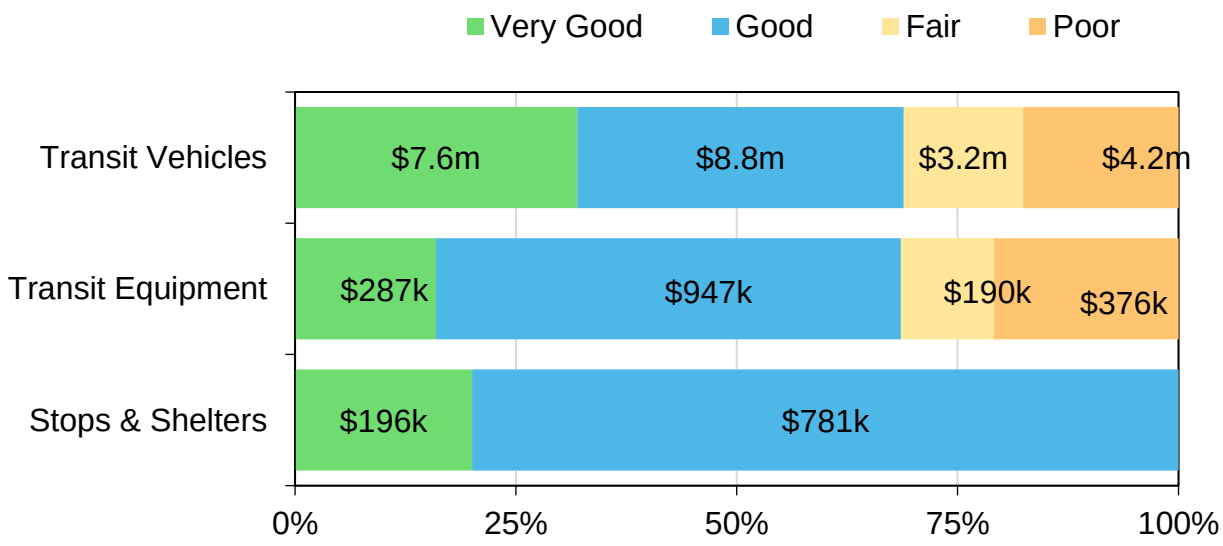


Figure 29 illustrates that the majority of assets classified as poor were concentrated within Equipment and Vehicles asset groups. However, these are age-based estimates; actual condition of these assets may be sufficient to provide services safely and effectively.

Some units remain in service beyond their useful life due to supply chain challenges that have delayed their planned replacements. Vehicles identified as very poor based on age are considered inoperable and made stationary; currently, no vehicles were assigned this rating.

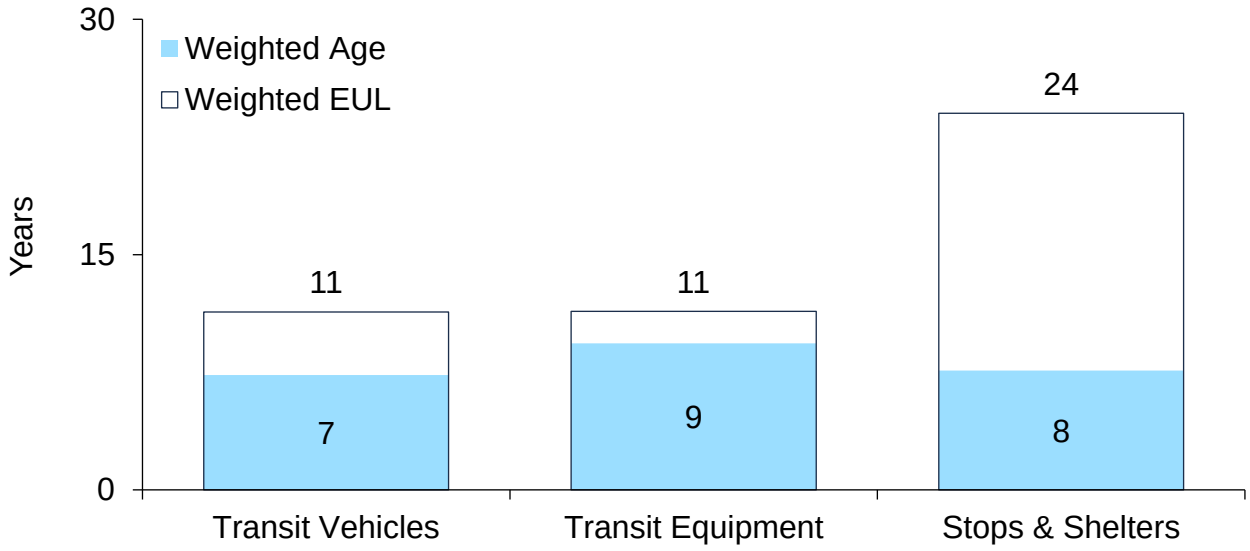
Figure 29: Asset Condition – Transit Services: By Asset Type



Age Profiles

The figure below compares each asset's weighted average estimated useful life (EUL) with its current weighted average age as of 2024, using replacement cost as a weighting factor. As no in-field condition data was available, this graph provides a complementary perspective by presenting the same age data in an alternative format.

Figure 30: Estimated Useful Life vs. Asset Age – Transit Services



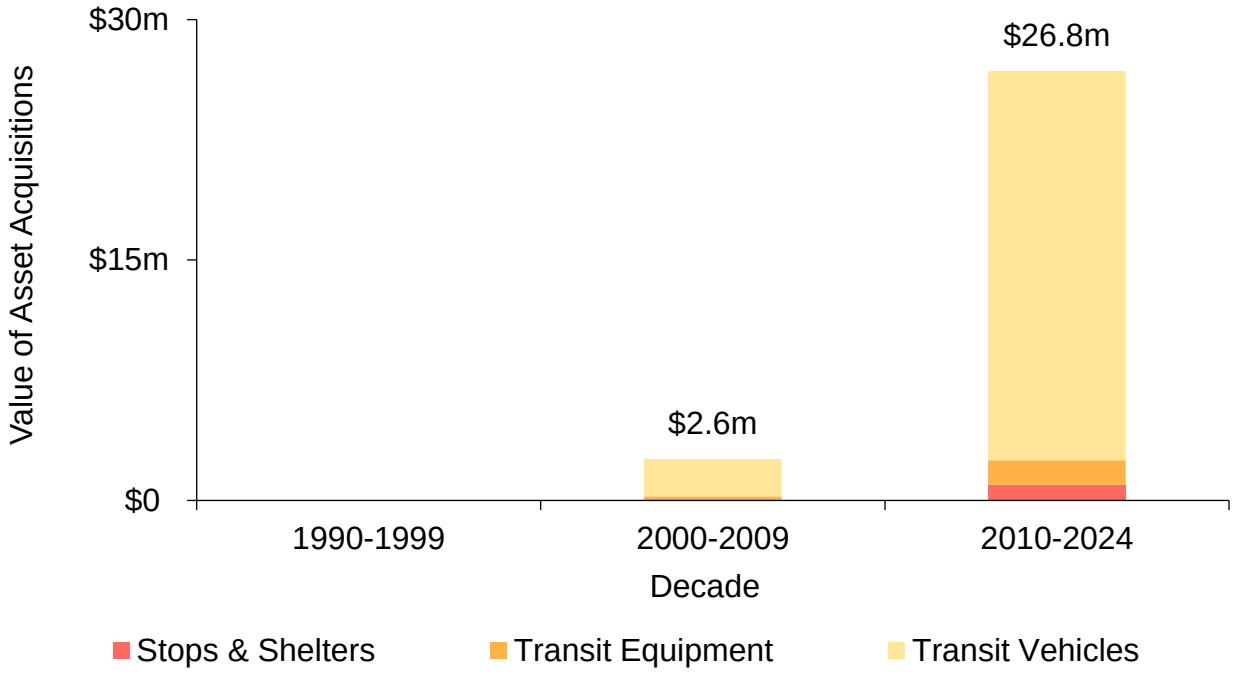
On average, Transit Equipment and Vehicles assets are in the latter stages of their lifecycle, while Stops and Shelters remain relatively new. Field condition assessments are used to help reveal actual asset needs and condition states.

Asset Acquisitions by Decade

Figure 31 illustrates the accumulation of assets in the Town's Transit Services portfolio since 1990, illustrated using 2024 replacement costs rather than historical or original costs, and asset in-service dates. Unlike other asset classes, the overwhelming majority of Transit assets have shorter lifespans, requiring more frequent cycles of disposals and replacements. Hence, the analysis is presented on a condensed time horizon.

The data reflects the Town's current or active inventory only; assets that have been disposed of or decommissioned over time are not included.

Figure 31: Asset Acquisitions by Decade – Transit Services



The Town's Transit Services asset base increased substantially between 2000-2009 and 2010-2024, coinciding with a rapid growth in Town population and the assets required to support service demand and delivery. In the current consolidate period, Milton has acquired nearly $27 million in Transit Services assets, dominated by vehicles.

Milton Public Library Board Services

The Milton Public Library Board Services (MPL) offer a comprehensive range of resources and programs designed to enrich the community. In addition to its collection, the library's three branches provide access to computers, internet, and study spaces, making it a hub for information and connection. The current replacement cost of library assets totaled $9.2 million. The 2025 AMP update now includes MPL's Collections assets.

Inventory and Valuation

Table 18 summarizes the quantity and current replacement cost of MPL's assets as managed in Citywide. Collections comprise 48% of the asset base.

Table 18: Detailed Asset Inventory – Milton Public Library Board Services

Asset Type	Quantity	Unit of Measure	Replacement Cost	Percentage
Library			**$12,378,368**	**100%**
Collections	1	Pooled Asset	$4,426,630	48%
Fixtures & Furniture	1,412	Assets	$3,587,338	39%
Information Technology	433	Assets	$1,152,798	13%
Total			**$9,166,766**	**100%**

Asset Condition

Figure 32 provides an overview of the replacement cost-weighted condition of the Milton Public Library Board Services asset portfolio. As no assessed condition data was available, only age was used to approximate asset condition. This analysis suggests that nearly 60% of asset are in poor or worse condition.

However, 48% of the total replacement value is tied to books and other collections materials. While these assets do have a useful life for planning purposes, they do not deteriorate in the same way as physical infrastructure. As such, condition estimates based on age may not accurately reflect their functional state, and should be interpreted with this context in mind.

Figure 32: Asset Condition – Milton Public Library Board Services: Overall

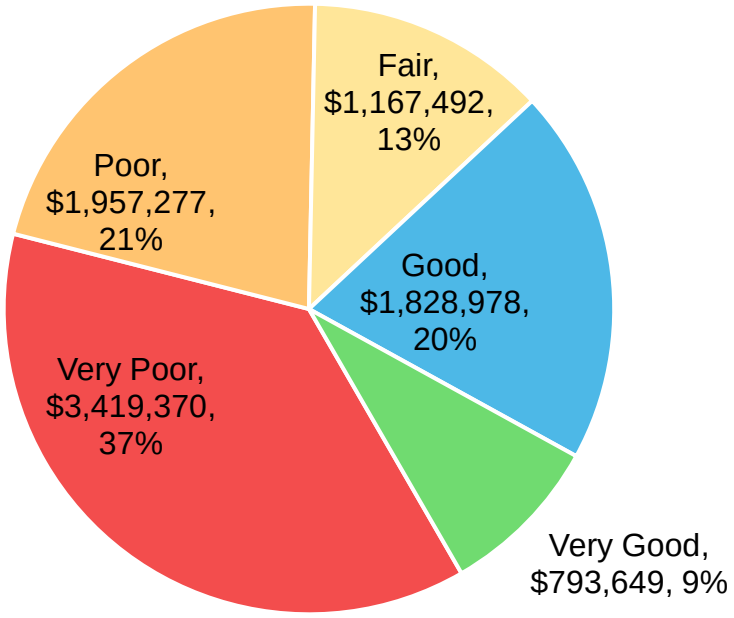
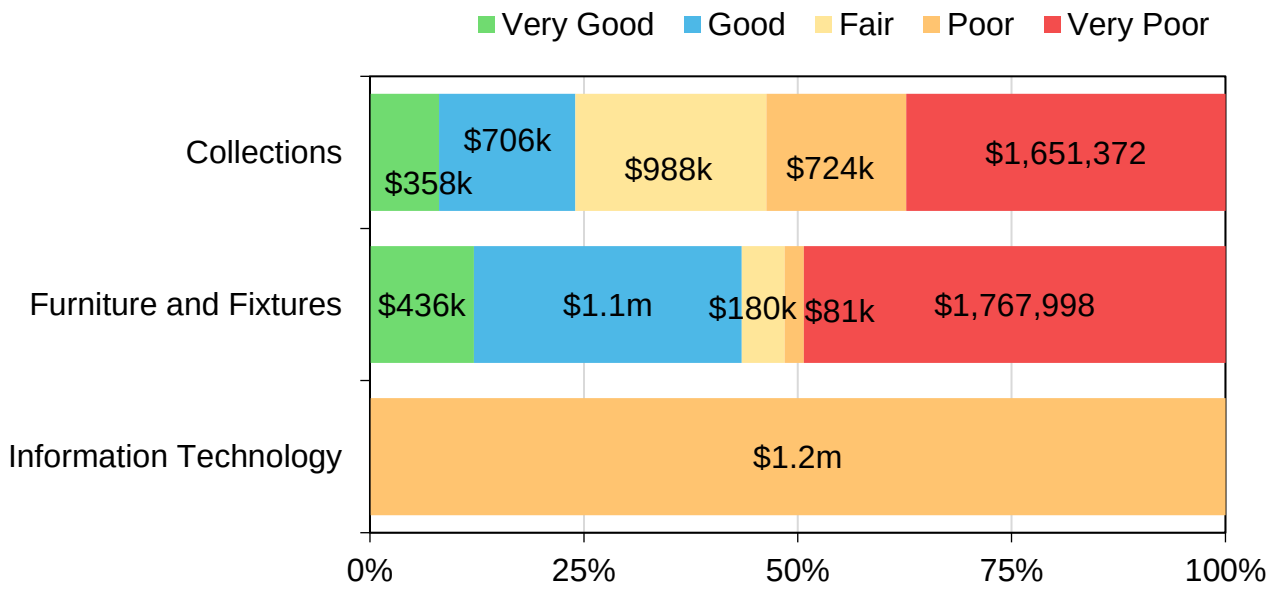


Figure 33 illustrates that significant portions of all Library assets in poor or worse condition. However, these estimates are based only on age analysis. Further, most assets are not critical. As stated previously, many of the assets in this category are books and library materials which, although assigned a useful life for planning purposes, do not deteriorate in a traditional sense—meaning older items may remain fully functional and useful despite being classified as poor based on age alone.

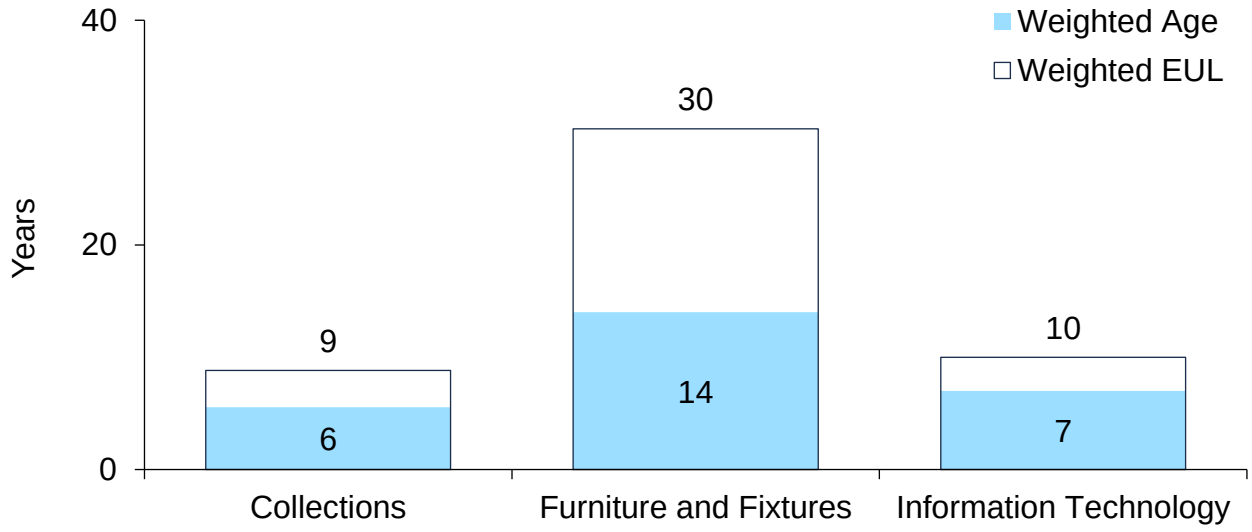
Figure 33: Asset Condition – Milton Public Library Board Services: By Asset Type



Age Profiles

The figure below compares each asset's weighted average estimated useful life (EUL) with its current weighted average age as of 2024, using replacement cost as a weighting factor. As no in-field condition data was available, this graph relies again on age to offer an alternative perspective on the state of Library assets.

Figure 34: Estimated Useful Life vs. Asset Age – Milton Public Library Board Services



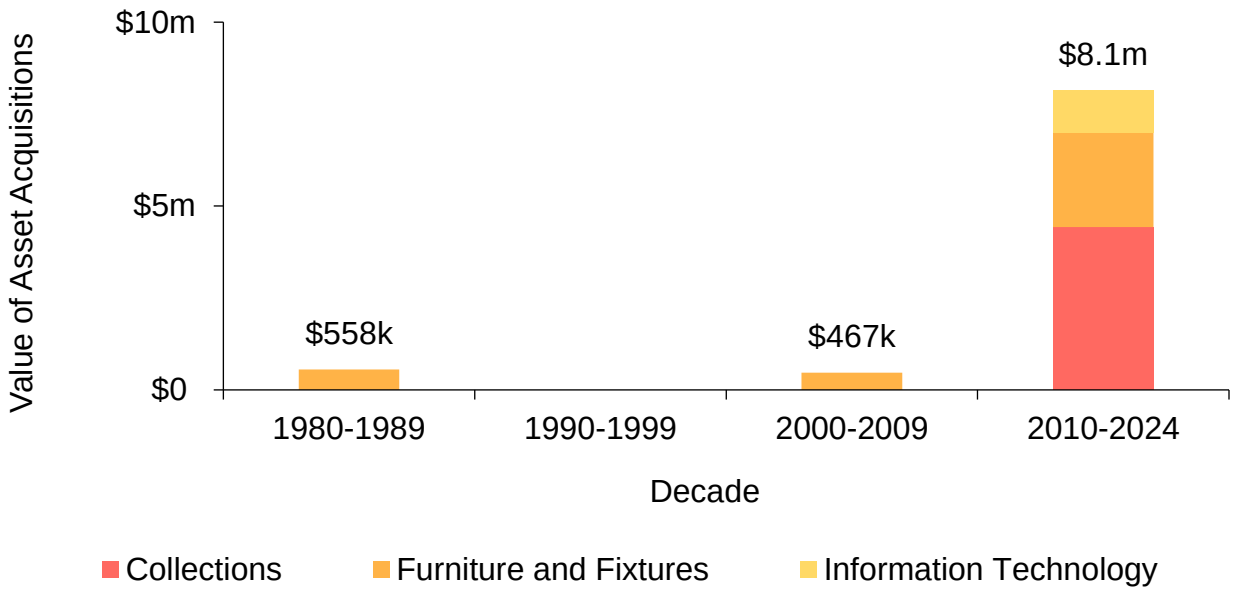
As the diagram illustrates, most Fixtures and Furniture assets are, on average, approaching the latter stages of their lifecycle. In addition, IT assets have consumed, on average, more than 50% of their estimated design life. IT upgrades and replacements are typically part of a broader, organization-wide replacement strategy. Others are replaced on an as-needed basis.

Asset Acquisitions by Decade

Figure 35 illustrates the growth and accumulation of the Town of Milton's Public Library Board Services assets since 1980, illustrated using 2024 replacement costs rather than the original or historical cost, and asset in-service dates. Most Library Services assets have short lifespans and may undergo many replacement cycles during a 50-year period. As a result, the analysis is presented on a more condensed time horizon.

The data reflects the Town's current or active inventory only; assets that have been disposed of or decommissioned over time are not included.

Figure 35: Asset Acquisitions by Decade - Milton Public Library Board Services



Acquisitions of Library assets coincide with Milton's overall growth period, which saw a sharp increase in the 2000s. Library assets grew rapidly between 2010 and 2024, with acquisitions totaling $8.1 million in the consolidated period. Since 2020, the Town's Library asset base has expanded by a further $1.9 million.

Lifecycle Management

The Town of Milton’s approach to asset lifecycle management is comprehensive. Maintenance, repair, and replacement activities are guided by technical external condition assessment surveys, asset age, and staff judgment through routine inspections and monitoring. Risk assessments and other contextual information is used to select the right lifecycle activity at the right time.

Lifecycle Framework

Consistent with industry standards, Milton's lifecycle framework includes direct intervention activities as well as non-infrastructure activities or strategies. Direct lifecycle activities are those that improve an asset's condition or extend its useful life. Non-infrastructure activities are necessary to identify asset needs, and inform decision-making, and can include condition and risk assessments. Table 19 provides an overview of the various lifecycle activities and their roles in managing infrastructure.

Table 19: Typical Lifecycle Framework

Activity Type	Description
Non-Infrastructure Activities	Activities such as studies, condition inspections, planning, and monitoring that support decision-making but do not directly impact the asset's physical state.
Maintenance	Routine and preventive actions that preserve the asset's current condition and functionality, such as cleaning, minor repairs, and regular upkeep.
Renewal, Rehabilitation, and Replacement	Major interventions aimed at restoring, improving, or replacing infrastructure to extend its useful life, including significant repairs, overhauls, and complete asset replacement.
Growth	Activities related to the expansion of infrastructure capacity to meet increased demand, such as constructing new facilities or extending existing ones.
Disposal	The process of decommissioning, removing, or repurposing infrastructure that is no longer needed or has reached the end of its useful life.

The table that follows outlines Milton's current lifecycle framework for its major infrastructure and other tangible capital assets.

Table 20: Current Lifecycle Framework

Asset	Lifecycle Activities
Roads	• Pavement condition assessment, with most recent conducted in 2023 • Crack sealing, micro-surfacing, pothole repairs, street sweeping, winter maintenance, line repainting • More invasive, surface- and roadside environment-specific activities, including single and double lifts; expanded asphalt; full reconstruction
Sidewalks, Walkways and Trails	• Leveling uneven pathways; vegetation management; litter cleanup • Patching or regrading of pathways, based on surface type • Sidewalk leveling; salting and winter maintenance; patching of cracked sidewalks; as-needed sidewalks repairs and rehabilitation; • Replacement of sidewalk panels and curbs • Vegetation management and collision related repairs for guardrails
Roadside Appurtenances	• Roadways shoulder grading • Replacement or sealing of gravel surface • Light bulb replacement, and lamp/fixture cleaning of streetlights • Streetlight pole rehabilitation • LED retrofit programs, and broader electrical component replacement and upgrades • Cleaning of traffic signs • Sign repairs • Routine cleaning of traffic signals • Repair and rehabilitation of signal poles • Replacing, upgrading, and modernization of electrical components

Asset	Lifecycle Activities
Structures	• Biennial condition assessments of bridges and structural culverts (3m+) in accordance with OSIM requirements, with most recent was completed in 2023. • Street sweeping; salting, winter maintenance; • Routine cleaning and vegetation management for retaining walls • Deck flushing and drain cleanouts • Repairs and interventions as recommended by OSIM study, and in conjunction with age and service life
Stormwater Management Infrastructure	• Zoom Camera™ inspection of storm sewers (Phase 1, Historic Urban Area) • Flushing and cleaning of storm pipes • Spot repairs as required; reactive and proactive sewer replacements • Annual storm pond condition inspections and monitoring • Maintaining vegetation, removing trash, inlet/outlet cleaning; basic channel cleaning; sediment buildup monitoring and control; • Replanting, landscaping, hydroseeding, tree removal; pond dredging; regrading and paving • Minor manhole and catchbasin repairs, e.g., grouting/root treatment; • Alignment of modular manhole/catchbasin components with road surface • Routine cleaning and erosion control • Replacement of catchbasin and manholes coordinated with road work

Asset	Lifecycle Activities
Buildings and Facilities	• Standard building condition assessment (BCA) • Facilities components repair, rehabilitation, and replacement program based on BCAs • Playground structures and equipment adhere to regulatory requirements for inspection and repairs, e.g. Canadian Standard Association (CSA) standards Facilities comprise thousands of individual components, each with their unique lifecycle requirements. The Town's facilities inspections span Civic Facilities, Fire Stations, Operations Yard Facilities, Park Facilities, and Recreation Facilities. Renewal and replacement capital expenditures from 2024 to 2033 are estimated through these inspection efforts, and organized for all facilities according to Uniformat II code standard.
Fleet and Equipment	• Equipment and vehicles follow manufacturer recommended inspection and repair protocols. • Protective vehicles, particularly Fire services assets, follow strict Town guidelines for replacements, with a minimum condition rating of fair. • Vehicles below this threshold are repurposed and/or replaced. Relatively minor assets, including IT and various Library assets, typically follow a buy-replace cycle, and do not require complex lifecycle strategies.

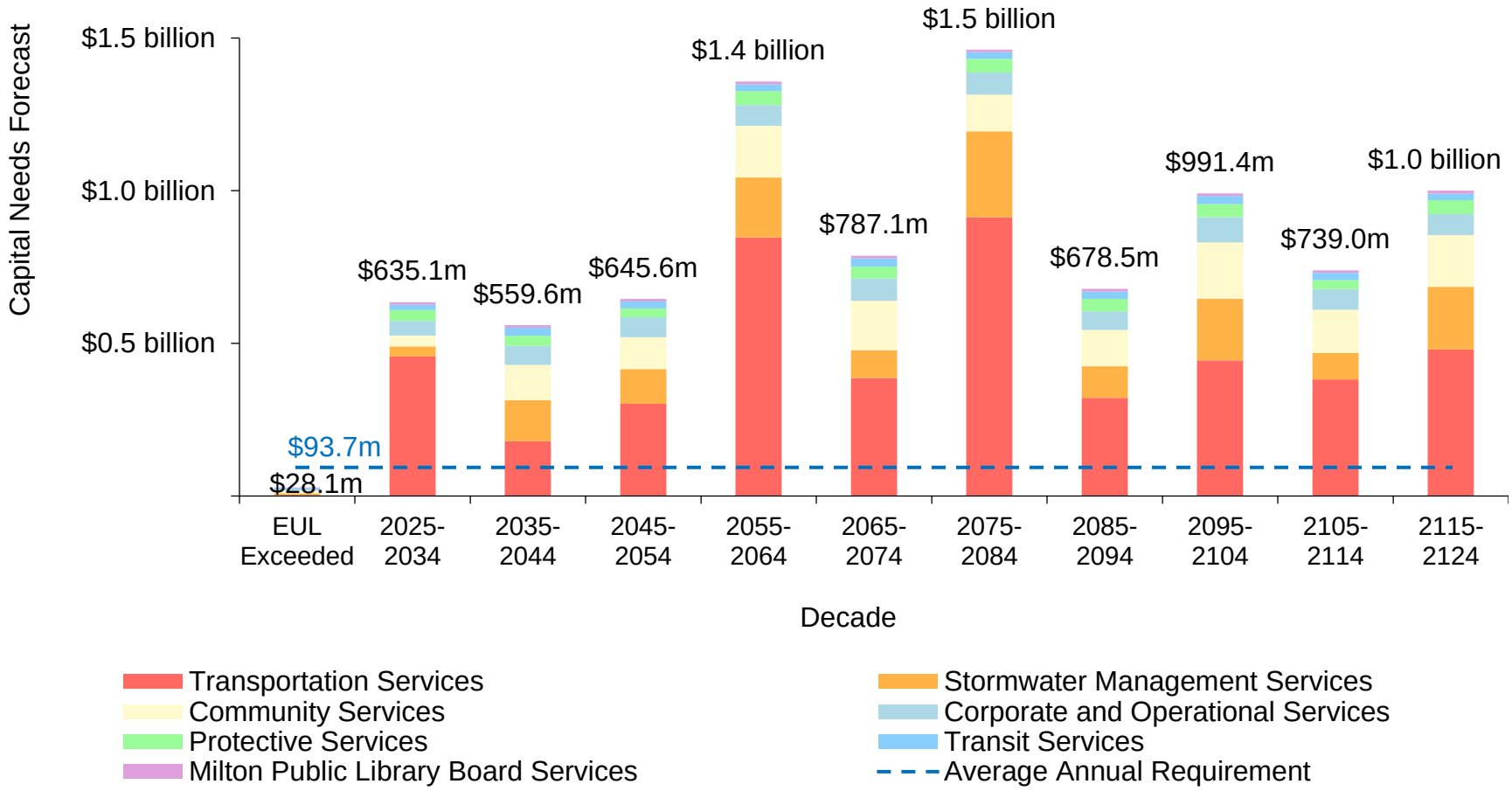
Long-term Forecast

In contrast to historical investments in infrastructure, Figure 36 illustrates the cyclical short-, medium- and long-term replacement requirements for the seven service areas, forecasted for the next 100 years. In addition to replacements, the chart also illustrates the repair and rehabilitation lifecycle needs for the Town's road network. All values presented in the forecast are expressed in 2024 dollars and do not account for inflation.

On average, these seven service areas require $93.7 million annually to meet capital needs related to the assets held by the Town as of the end of 2024. Although actual spending and replacement needs may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement and rehabilitation needs are met as they arise.

The chart illustrates substantial capital needs through the forecast period. The largest spike, totaling $1.5 billion, is forecasted in approximately six decades, for 2075-2084. The Town will also face a $1.4 billion investment spike between 2055 and 2064. In the current decade, capital replacement forecasts total $635.1 million.

Figure 36: Long-term Forecasted Replacement Needs (2024 dollars, excludes inflation and growth in assets)



The chart also shows that a portion of assets, with a replacement cost of $28.1 million have reached the end of their useful life—based either on condition ratings, or age-only data. While not all such assets may require immediate replacements, further evaluation may be warranted to identify actual asset needs. The magnitude of capital requirements typically far exceeds what most agencies can afford to fund. A risk-based approach can be used to direct funds where they are needed most.

Risk Management

The level of risk an asset carries determines how closely it is monitored and maintained, including the frequency of various lifecycle activities, and the investments it requires on an ongoing basis.

Some assets are also more important to the community than others, based on their financial and economic significance, their role in delivering essential services, the impact of their failure on public health and safety, and the extent to which they support a high quality of life for community stakeholders.

A risk-based approach to infrastructure spending can help prioritize capital projects to channel funds where they are needed most. Rather than taking the worst-first approach, a risk-based approach ranks assets based on their condition/performance as well as their criticality—providing a more complete rationale for project selection.

Asset-level Risk

Asset-level risk ratings attempt to rank assets based on their criticality and likelihood of failure. This risk rating is a product of two variables: the probability that an asset will fail, and the variety of consequences of that failure event. It can be a qualitative or a quantitative measurement that can be used to rank assets and projects, identify appropriate lifecycle strategies, optimize short- and long-term budgets, minimize service disruptions, and maintain public health and safety.

Approach to Risk

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

These calculations incorporate available asset attribute data to produce a risk matrix. For assets lacking detailed attribute information, a more general risk model has been created and applied to all such assets, drawing on common practices employed by municipalities to estimate the probability and consequences of failure.

Table 21: Risk Ratings

Risk Rating	Description
Very Low (1-4)	Assets in excellent condition with minimal risk of failure; failure event may have negligible financial, economic, or social impact.
Low (5-7)	Assets in good condition with low risk of failure; failure event may result in minor financial, economic, or social impact.
Moderate (8-9)	Assets showing moderate wear with moderate risk of failure; asset failure may result in noticeable, adverse financial, economic, or social consequences.
High (10-14)	Assets needing significant repairs soon with high risk of failure; failure may result in substantial, critical financial, economic, or social consequences.
Very High (15-25)	Assets in poor condition with the highest risk of failure; failure consequences are severe or catastrophic, causing significant financial, economic, or social disruptions, requiring urgent action.

Probability of Failure

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

Each of these factors and individual attributes must also be weighted, out of 100%, based on how well it can predict and explain the likelihood of asset failure. For example, recent condition assessments may be more dependable than age in helping predict asset failure, and would be ranked and weighted higher.

Once weightings are assigned, a scale is developed for each attribute so that a probability of failure rating from 1 to 5 can be assigned at each interval, reflecting how likely the asset is to fail at a particular level.

Consequence of Failure

The consequence of failure describes the overall, aggregate effect that an asset's failure will have on an organization's asset management goals. Consequences of failure can range from non-eventful to severe. An uneven sidewalk with some surface distress may pose a minor inconvenience to residents. However, a bridge failure poses critical health and safety risks, and may disconnect areas of the Town.

As with probability of failure, available asset attribute data is used to aid in the calculation of an asset's criticality, or consequence of failure, rating. Common types of adverse consequence of asset failure may include operational, direct financial, and socio-economic impacts.

Similar to measuring the probability of failure, these consequence types are ranked, and assigned a weighting out of 100%, reflecting their relative perceived severity. Available asset attributes are then used to help measure or quantify these consequences so that they can be incorporated into the risk models.

Once weightings are assigned to each consequence of failure type, a unique scale is developed so that a consequence of failure rating from 1 to 5 can be assigned at each interval, reflecting the relative severity of asset failure. Similar scales are developed for each attribute that is used to help approximate a particular consequence of failure.

Risk Models

The models used in this AMP have been developed in Citywide Assets, the Town's asset register application, and applied to the existing asset base. These models are provisional and intended as a foundational framework. They are expected to evolve over time as new information regarding asset attributes becomes available and is integrated into the analytical process.

For some assets, such as roads, contextual attributes such as AADT values were available. This data was used to further develop consequence of failure ratings and help distinguish one asset from another based on its criticality.

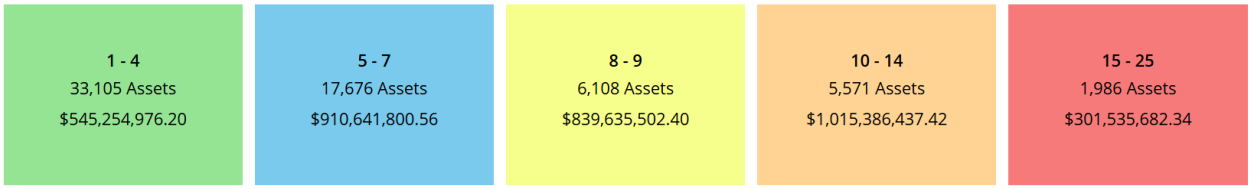
For assets without such additional, contextual information, a more general risk model was developed and applied. For these assets, replacement cost, service area, and asset type were used as the only data fields to approximate the consequence of their failure.

It is important to note that these models are not designed to guide annual capital expenditures at this time. Rather, they serve as an initial step in understanding and managing asset-level risk, providing a basis upon which further refinements and enhancements can be built.

Risk Matrix

The risk matrix below classifies the Town's assets based on their respective risk ratings, as determined by the risk models. The analysis shows that 1,986 assets, with a combined replacement cost of approximately $301.5 million, carried a very high risk rating, based on both their probability and consequence of failure. An additional 5,571assets, with a total current replacement cost of $1.0 billion, carried a high risk rating.

Figure 37: Risk Matrix



Assets in the left-most box, with the lowest risk rating ranging from 1-4, require minimal immediate attention, allowing for routine maintenance and monitoring. Conversely, assets in the right-most box, with the highest risk rating ranging from 15-25, should be prioritized for intervention, including preventive measures, repairs, or replacements to mitigate potential impacts.

By systematically addressing assets according to their risk ratings, infrastructure and asset management activities can be effectively prioritized, ensuring resources are allocated to maintain safety, reliability, and performance.

General and Corporate Risks

In addition to asset-level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These are summarized in Table 22 below.

Table 22: General Corporate Risks

Asset Category	Risks of not completing lifecycle activities
Roads, Bridges, and Culverts	**Infrastructure Failure**: Increased risk of road surface degradation, bridge collapses, safety hazards, and traffic disruptions, leading to potential injuries and fatalities. **Cost Implications**: Higher repair costs due to delayed maintenance, reduced asset lifespan, and emergency repairs. **Legal and Regulatory**: Potential legal liabilities and fines for non-compliance with MMS, safety standards, and regulations.
Stormwater (Linear and Appurtenances)	**Flooding and Property Damage**: Increased risk of flooding, property damage, erosion, and loss of infrastructure functionality during storm events. **Environmental Impact**: Water quality degradation, habitat disruption, and public health risks from untreated stormwater runoff. **Costs**: Higher maintenance costs, emergency response expenses, and potential fines for non-compliance with environmental regulations.
Facilities	**Safety and Operational Risks**: Deterioration of building structures leading to safety hazards for occupants and visitors. **Operational Efficiency**: Decreased efficiency due to equipment failures, energy inefficiencies, and operational disruptions. **Compliance Issues**: Potential violations of building codes, accessibility standards, and workplace safety regulations, resulting in fines and legal liabilities.
Fleet (Including Protective Services Vehicles/Equipment)	**Vehicle Breakdowns**: Increased risk of breakdowns, downtime, and service disruptions affecting public safety and emergency response capabilities.

Asset Category	Risks of not completing lifecycle activities
	Costs: Higher repair expenses, reduced vehicle lifespan, and increased operational costs due to inefficient fleet management. **Safety Concerns**: Potential safety risks for emergency responders and the public from poorly maintained vehicles and equipment. **Operational Disruptions**: Reduced readiness and response effectiveness during emergencies due to equipment failures. **Regulatory Compliance**: Potential violations of safety standards and regulations, impacting the ability to provide timely and effective emergency services.
Equipment	**Operational Disruptions**: Equipment breakdowns causing service interruptions, and reduced operational capacity. **Costs**: Increased repair and replacement costs, inefficient use of resources, and decreased asset lifespan. **Safety and Compliance**: Safety hazards, regulatory non-compliance, and potential fines for failing to meet operational and safety standards.
IT Assets	**Cybersecurity Risks**: Vulnerabilities leading to data breaches, unauthorized access, and compromised sensitive information. **Operational Disruptions**: Downtime and system failures affecting municipal services and operations. **Compliance Issues**: Non-compliance with data protection regulations, leading to fines and legal liabilities.

Key Considerations

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

- Similarly, assets in very good condition can receive a moderate to high risk rating despite a low probability of failure. These assets may be deemed as highly critical to the Town based on their costs, economic importance, social significance, and other factors.

- Continued calibration of an asset's criticality and regular data updates are needed to ensure these models more accurately reflect an asset's actual risk profile. As these models are further calibrated with additional contextual data, their alignment with capital planning will improve, allowing for a risk-based approach to prioritizing maintenance and capital expenditures.

- Asset-level risk assessments and documented awareness of corporate and strategic risk provide essential information to help staff prioritize annual maintenance workplans and capital projects. Both approaches supplement the more detailed studies and processes undertaken by all program areas to ensure assets can continue to provide safe and effective service levels to Milton residents.

Levels of Service

Levels of service (LOS) measure the quality and quantity of service provided, and offer direction for infrastructure investments. They are necessary for performance tracking and reporting. Many agencies attempt to deliver levels of service that cannot be sustainably funded by the existing tax base. This can lead to an eventual drop in quality of service, or increases to tax and utility rates to fund higher service levels.

LOS should be affordable and aligned with the community's long-term vision for itself, and the service attributes it most values for different infrastructure programs.

This section provides a summary of current and anticipated levels of service for each major service area within the Town of Milton, developed through departmental workshops and documentation review as part of the Town's 2025 asset management plan. In addition to the metrics required under O. Reg. 588/17, the Town has developed its own performance measures to better reflect local service expectations and operational realities.

The summaries outline how service levels are currently being delivered, identify potential adjustments in response to growth, climate, or community expectations, and highlight key infrastructure or resource pressures that may affect future performance. Together, they establish a clear baseline for service delivery and inform ongoing asset management planning.

Transportation Services

Current Performance and Service Level Commitment

Transportation Services in Milton are currently delivered at a generally high level, with the Town maintaining a road condition rating of “Good” across the network. At present, no major, programmatic, or wide-scale changes to service levels are planned, including those tied to O. Reg 588/17. Core programs like the asphalt overlay (AOL) and expanded asphalt program (EAP) are essential to sustaining these outcomes. Maintenance and capital investment strategies are in place to preserve surface quality, respond to winter conditions, and support traffic safety objectives.

Emerging Trends and Future Considerations

Over the next 10 to 15 years, changes in road classifications are anticipated as a result of continued population growth, shifting commuter patterns, and development. Rural areas in the south are experiencing a surge in traffic volumes—partly due to overflow from congested regional corridors like the 401, 407, and QEW.

Milton is experiencing significant population growth, supported by ongoing residential and commercial developments across the Town. While most future Town-built roads will be arterial, a substantial number of local and collector roads will transition to Town ownership as development areas are completed and handed over. This growing inventory will increase ongoing maintenance needs and long-term capital renewal requirements, adding sustained pressure to annual infrastructure funding.

The Town is also shifting from surface-treated roads to micro-paving as part of its modernization strategy. While this supports longer-term durability, it may also require adjustments to lifecycle assumptions and funding models.

For bridges and culverts, increasing stormwater runoff—driven by growth and intensifying weather events—has led to new hydraulic capacity requirements. These regulatory and environmental pressures will raise the baseline expectations for asset performance and service delivery.

Table 23: Community Levels of Service – Roads

Service Attribute	Qualitative Description	Current Level of Service
Scope	Description, which may include maps, of the road network in the Town and its level of connectivity.	The Town's road network comprises urban, rural, and semi-urban roads. These roads support a variety of traffic volumes, ranging from several hundred vehicles to over 20,000. See Figure 38
Quality	Description or images that illustrate the different levels of road class pavement condition.	The majority of roadways are rated as good or very good. These condition ratings suggest high performance levels, with road surfaces offering a smooth, safe, and comfortable driving experience. Some road sections may exhibit minor surface imperfections, with no impact on safety or rideability. Road surfaces in fair condition may offer a less smooth ride, exhibit more signs of disrepair including pot holes and cracking, but remain generally safe. A minority of the Town's road segments are in poor or very poor condition. These sections may show noticeable deterioration and damage, including potholes, cracks, rough patches, with reduced comfort and may pose safety risks. See Table 25

Figure 38: Road Network

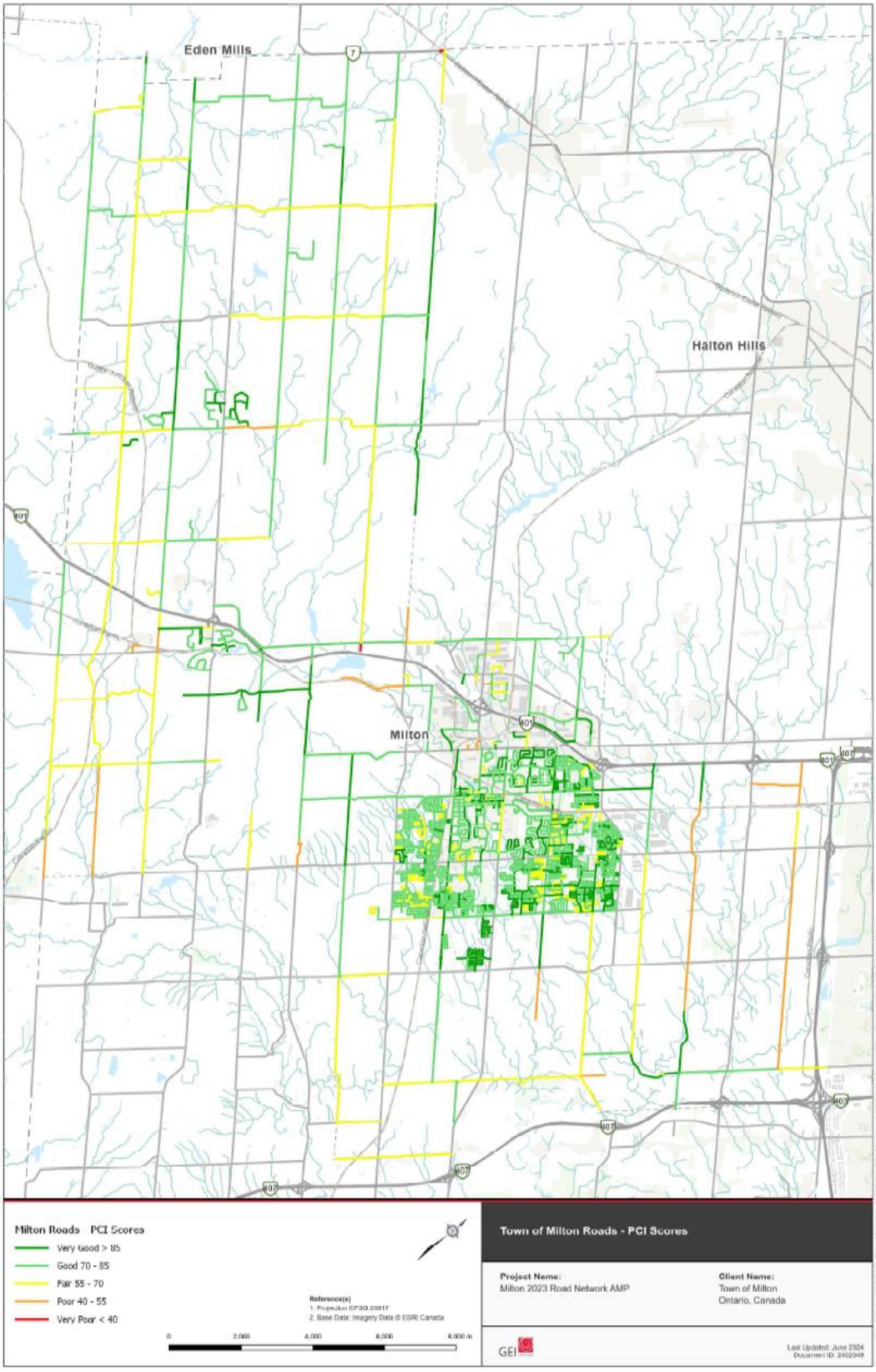


Table 24: Technical Levels of Service – Roads

Service Attribute	Qualitative Description	Current Level of Service	Proposed Levels of Service
Scope	Lane-km of arterial roads (MMS classes 1 and 2) per land area (km/km^2)	0.12	Increase[1]
	Lane-km of collector roads (MMS classes 3 and 4) per land area (km/km^2)	1.89	Increase[1]
	Lane-km of local roads (MMS classes 5 and 6) per land area (km/km2)	1.43	Increase[1]
Quality	Average pavement condition for paved roads in the Town weighted by replacement cost	77.2 (Good)	Maintain
Fiscal Sustainability	Annual road maintenance costs per lane kilometer	$6,551	Maintain
Quality	Percentage of roads in good to very good condition (PCI>70)	77% by replacement cost (71.3% by length)	Maintain
Quality	Percentage of sidewalks in fair or very better condition	100%	Maintain
Energy Efficiency	Percentage of streetlights that are energy efficient	35%	Increase[2]
Quality	Percentage of walkways and trails in fair or better condition	94%	Maintain
Quality	Percentage of traffic signs in fair or very better condition	99%	Maintain

[1]Although most new roads built by the Town will be arterials, growth in the local and collector network will occur as developers transfer completed assets. The proposed increase reflects the natural growth of the entire road network through roads built for new development and greenfield areas, rather than an increase in the levels of service within existing developed areas.
[2]The Town, when technically feasible, strives to replace streetlights as required with LEDs. However, conversions of most non-LED streetlights will require more than a bulb change. Through future budget processes, staff will explore a capital program to achieve full LED conversion within the next 10 years.

Table 25: Visual Examples of Pavement Condition Index Scores

PCI Score	Visual Examples
Very Good PCI >85	
Good PCI 70 – 85	
Fair PCI 55 – 70	
Poor PCI 40 – 55	
Very Poor PCI <40	

Table 26: Community Levels of Service – Bridges and Culverts

Service Attribute	Qualitative Description	Current Level of Service
Scope	Description of the traffic that is supported by municipal bridges (e.g., heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists).	Together, the Town's bridges support all traffic types, including heavy transport.
Quality	1. Description or images of the condition of bridges and how this would affect use of the bridges.	Weighted by replacement cost, more than 98% of the Town's structural culverts and bridges are in fair or better condition, with a BCI of at least 65. These structures are safe and fully operational. See Table 28
	2. Description or images of the condition of culverts and how this would affect use of the culverts.	

Table 27: Technical Levels of Service – Bridges and Culverts

Service Attribute	Qualitative Description	Current Level of Service	Proposed Levels of Service
Scope	Percentage of bridges in the Town with loading or dimensional restrictions.	0%[1]	Maintain
Quality	1. For bridges in the Town, the average bridge condition index value.	69	Maintain
	2. For structural culverts in the Town, the average bridge condition index value.	67	Maintain

[1]With the exception of one pedestrian bridge, no dimensional or load restrictions are imposed on any other Town-owned structure.

Table 28: Visual Examples of Bridges and Culverts Condition

Bridge Condition Index Score (BCI)	Bridges	Culverts
Very Good BCI Range: 90 – 100		
Good BCI Range: 65 – 89		
Fair BCI Range: 50 – 64		
Poor BCI Range: 40 – 49		
Very Poor BCI Range: <40		

Operational Challenges and Underlying Pressures

Several systemic factors will put pressure on the Town's ability to maintain existing service levels:

- **Traffic and Pedestrian Safety**: Both remain high priorities, especially in school zones. Council is focused on expanding pedestrian infrastructure, including the number and quality of crosswalks. As the Town grows, safety expectations will continue to shape investment priorities and public service perceptions.

- **Climate and Winter Maintenance**: More frequent freezing rain and snow events are anticipated to place additional strain on transportation and public works operations, requiring more frequent and intensive snow clearing, salting, and sanding activities. This may impact levels of service by increasing response times, reducing road surface conditions between maintenance cycles, elevating operating costs, and potentially necessitating adjustments to service standards or resource allocations to maintain existing service levels.

- **Sidewalk Accessibility**: Sidewalks without tactile walking surface indicators (TWSIs) may require retrofits to meet evolving AODA compliance standards, while new sidewalk installations must incorporate accessible design features by default. This could impact levels of service by increasing the scope and cost of sidewalk renewal programs, as municipalities work to ensure consistent accessibility across both existing and new infrastructure.

Summary and Outlook

The Town of Milton's transportation services are performing well, but future pressures—growth, climate, infrastructure aging—are likely to challenge this stability. Strategic coordination between transportation, stormwater, and development engineering, as well as enhanced monitoring, will be essential to adapt LOS effectively over time.

Stormwater Management Services

Current Performance and Service Level Commitment

Stormwater management infrastructure in the Town of Milton is generally performing well, with no major or wide-scale changes to levels of service currently planned. For new developments, the Town's current KPI framework is seen as appropriate. New development benefit from modern design standards, including stormwater management ponds (SWMPs) and capacity-based infrastructure, and are generally not experiencing service issues.

Emerging Trends and Future Considerations

Looking forward, the ongoing development of a Stormwater Master Plan—the Town's first full-scale, Town-wide plan—will play a central role in informing future LOS targets and long-term infrastructure upgrades. For now, like-for-like replacements are expected, but this may evolve following more comprehensive system-wide analysis.

Urban versus rural distinctions in stormwater service levels are becoming increasingly relevant. Rural areas are typically serviced by ditches rather than sewers, and do not have stormwater management ponds. Flooding has occurred in rural zones, and further refinement of LOS targets may require geographic segmentation in KPI reporting.

There is also growing recognition of variation between newer and older urban areas. Older parts of Milton, such as the downtown core, were not built with modern SWMPs and are more vulnerable to localized flooding, though no catastrophic events have been recorded. Newer subdivisions with enhanced design features may be skewing Town-wide KPI values upwards, potentially obscuring localized service needs.

Current stormwater management design best practice is a dual drainage approach which comprises both a minor and a major stormwater system. The minor system is designed to accommodate more frequent rainfall events and consists of sewers and ditches. The major system accommodates the flow that exceeds the minor system capacity and includes features such as stormwater management ponds.

The dual drainage concept was not always applied to subdivision design. In general, subdivisions designed prior to the 1980s will not include a major system, and the minor system may have been designed to accommodate a smaller storm event.

As a result, excess runoff in the pre-1980 neighborhoods may spill at undesirable locations such as between homes or pond to a depth where they may cause inconvenience or damage before continuing along the right-of-way.

Table 29: Community Levels of Service – Stormwater Network

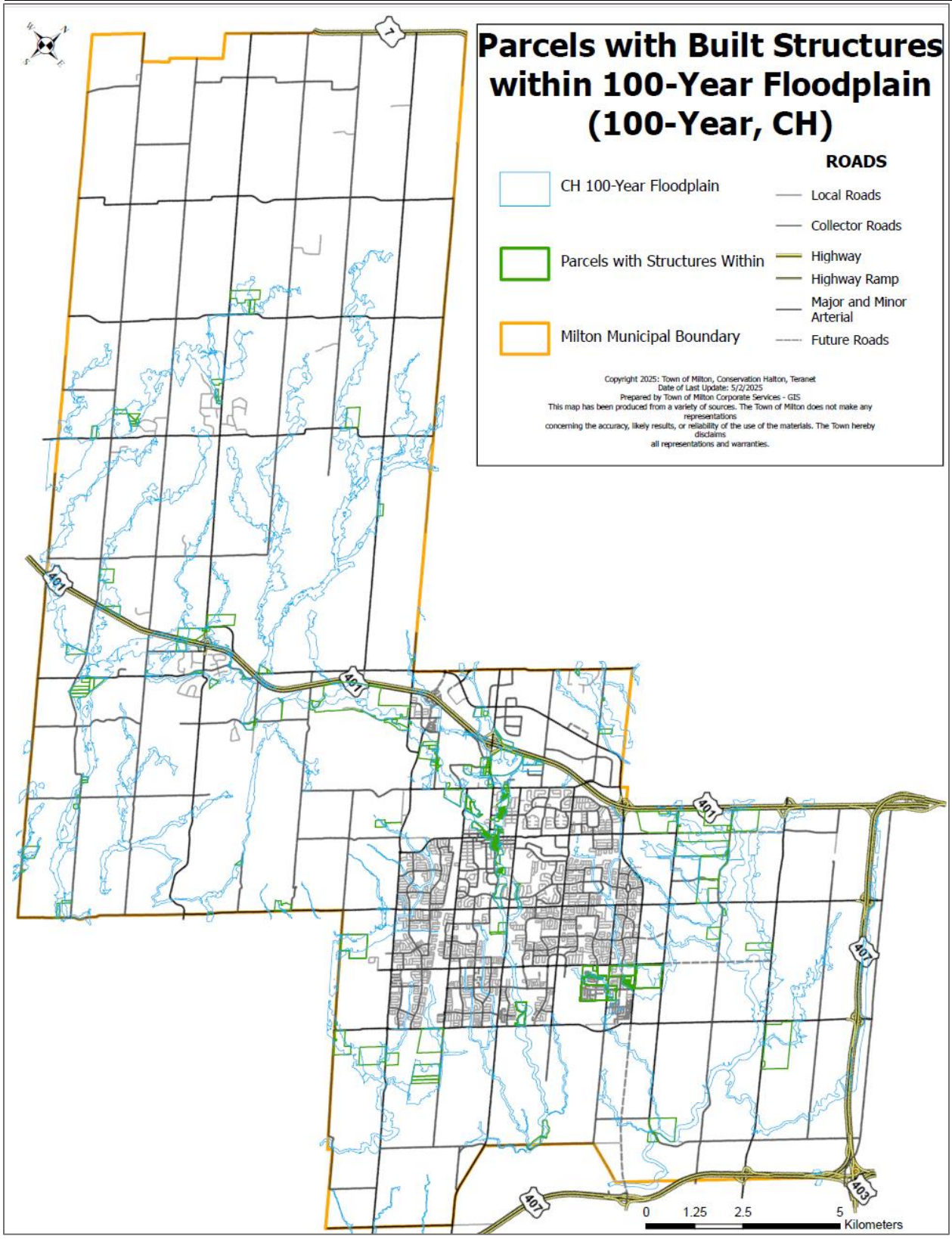
Service Attribute	Qualitative Description	Current Level of Service
Scope	Description, which may include maps, of the user groups or areas of the Town that are protected from flooding, including the extent of the protection provided by the municipal stormwater management system.	See Figure 39

Table 30: Technical Levels of Service – Stormwater Network

Service Attribute	Metric	Current Level of Service	Proposed Levels of Service
Scope	1. Percentage of properties in municipality resilient to a 100-year storm.	98.07%[1]	Maintain
	2. Percentage of the municipal stormwater management system resilient to a 5-year storm. (See LOS Discovery Session notes for refinements and qualifiers)	98.13%[2]	Maintain
Quality	Percentage of stormsewers by replacement value in fair or better condition	81%	Maintain
Quality	Percentage of storm ponds in fair or better condition	81%	Maintain
Quality	Percentage of storm ponds inspected annually	100%	Maintain
Quality	Percentage of LIDs inspected annually	100%	Maintain
Quality	Percentage of MTDs cleaned out biennially	50%	Increase to 100%

[1] Represents the percentage of properties that will experience riverine flooding in a 100-year storm event based on Conservation Halton floodplain mapping.
[2] Only storm sewers within Downtown Milton (i.e., pre-1980s) have been modelled. All other storm sewers are assumed to sufficiently contain the 5-year event until further modelling is conducted.

Figure 39: Conservation Halton Urban Milton Flood Hazard Draft Mapping



Operational Challenges and Underlying Pressures

- **Geographic and Historical Variation:** The stormwater system reflects a diverse mix of design standards—older areas lack SWMPs and rely on historical infrastructure, while newer areas incorporate current design expectations including containment and overland flow routes.
- **KPI Differentiation:** There is a growing need to distinguish between areas based on characteristics such as development age (pre- and post-Ontario design standards), type of infrastructure (e.g., SWMPs vs. storm sewers, or open drainage systems such as ditches), and land designation (Urban, Old Urban, Rural). The Town is exploring how to structure KPI reporting around these distinctions to ensure assets needs are met appropriately.
- **Upgrading Older Infrastructure:** Through recent storm sewer assessments, sections of the older network have already been flagged for renewal and potential upgrades. These targeted interventions will improve long-term system performance and reduce localized vulnerabilities.
- **Climate Resilience Standards:** The Town is adopting CSA standards for flood-resilient communities, including overland flow route design. These may be incorporated into new LOS metrics where performance can be assessed against established design benchmarks.
- **Maintaining Inspection Cycles:** As the Town continues to grow and assume new infrastructure, maintaining inspections and maintenance cycles may become increasingly challenging without corresponding increases in staff resources.
- **Cross-Cutting Issues and Council Priorities:** Stormwater management intersects with broader planning and public safety goals, particularly around growth areas such as the Highway 401 Business Area. This large drainage zone feeds into the urban core, necessitating careful consideration of cumulative stormwater impacts. As climate change increases the intensity and frequency of storm events, community expectations and Council priorities are likely to evolve accordingly, placing pressure on historically underserved areas.

Summary and Outlook

While stormwater services in Milton are currently stable, future challenges related to growth, historical design limitations, and climate resilience are emerging. The Town's forthcoming Stormwater Master Plan and evolving design standards will be key tools in shaping LOS targets and infrastructure priorities. Differentiated KPIs based on geography, age of infrastructure, and system type will be critical to ensure transparency and equity in future service delivery.

Community Services and Corporate and Operational Services

This section summarizes levels of service findings for Corporate and Operational Services and Community Services, with a focus on shared infrastructure that supports multiple service areas across the Town of Milton. These include civic and recreation facilities, operations yards, fleet, equipment, and parks. Unlike assets confined to a single service (e.g., fire trucks or storm sewers), these assets are used by multiple departments and require cross-departmental coordination. Service levels for these asset classes are closely tied to population growth, changing community expectations, maintenance practices, and capital renewal cycles.

Current Performance and Service Level Commitment

Overall, no wide-scale changes to levels of service are currently planned for corporate facilities, fleet, or parks and recreation infrastructure. Civic and recreation facilities are in good condition, supported by a 2021 condition audit that continues to inform capital planning. Energy and GHG data are tracked in accordance with legislative requirements, though COVID disrupted trend analysis. Recreation programs and space rentals have begun soliciting user feedback via surveys, supplementing existing email and in-person channels.

Fleet and equipment maintenance practices are largely in line with regulatory requirements (e.g., MTO and manufacturer standards), and the fleet budget is presently adequate.

Parks infrastructure is under pressure, particularly in high-density areas. Overuse of outdoor fields and amenities is leading to accelerated wear and tear, requiring more frequent maintenance. Vandalism is also on the rise requiring more frequent maintenance. A Parks Master Plan is currently in development and will guide long-term investment and service levels in response to changing demographics and community needs.

Emerging Trends and Future Considerations

As facilities begin to age, the Town anticipates reaching a tipping point in the next few years that will require significant lifecycle investment. Although capital forecasts include new recreation centres, fire stations, and libraries (driven by population growth), the operating budget for facilities has only been indexed year-over-year and may not be sufficient to sustain current LOS once major renewals are needed.

Demographic shifts are also influencing the types of amenities in demand. There is growing interest in sports such as cricket, pickleball, and tennis, with increased requests

for lighting on outdoor courts. As more residents seek outdoor recreation, lifecycle and maintenance programs for fields, parks, and courts will need to expand accordingly. The 10-year capital forecast includes a planned expansion of the Operations Centre to support future needs.

Table 31: Levels of Service – Community Services, and Corporate and Operational Services

Service Attribute	Metric	Current Level of Service	Proposed Levels of Service
Scope	Number of ice arenas per capita	1: 16,800	Maintain
	Number of pools per capita	1: 33,600	Maintain
	Number of gymnasiums per capita	1: 26,900	Maintain
	Number of community centres per capita	1: 33,600	Maintain
Quality	Recreation Facilities: Average Facility Condition Index	5.68% (Good)	Maintain
Quality	Civic Facilities: Average Facility Condition Index	3.99% (Very Good)	Maintain
Quality	Operations Yard Facilities: Average Facility Condition Index	5.93% (Good)	Maintain
Quality	Percentage of IT assets in fair or better condition	82%	Maintain
Quality	Percentage of vehicles & equipment in fair or better condition	90%	Maintain
Availability	Annual fleet usage hours	161,229	Maintain

Operational Challenges and Underlying Pressures

- **Facilities Lifecycle Risk:** While current facilities are in good shape, a wave of aging infrastructure is expected. Delays in expanding the operating budget could undermine the Town's ability to sustain service levels.
- **Extreme Weather Impact:** HVAC equipment is undergoing more frequent maintenance cycles, in part due to extreme temperature events. These contracts represent one of the largest expenditures in facility maintenance.
- **High Use and Feedback Channels:** Facility use is increasing, but formal user feedback is still emerging. Recent program surveys are a positive development and could help inform service improvements.
- **Overuse of Outdoor Assets:** Outdoor fields and parks are being heavily used, especially in denser areas. This is increasing maintenance demand and advancing lifecycle timelines. The pending Parks Master Plan will be important for addressing this issue.
- **Fleet and Equipment Operations:** Grass equipment maintenance is trending upward due to both physical damage and varied operator practices. A dedicated equipment trainer could help extend asset life and reduce avoidable costs.
- **Workforce and Facility Limitations:** As the fleet inventory increases with growth in the Town, additional pressure will be placed on both space requirements and maintenance resources. Despite being able to track vehicle costs, the Town currently lacks downtime data—a key input for managing performance and availability.

The expansion of facilities and fleet, alongside the rising demand for outdoor amenities, will require coordinated capital and operational planning. Council's support for lifecycle renewal, resource expansion, and shop modernization will be critical to sustaining asset performance town-wide.

Summary and Outlook

Milton’s shared infrastructure portfolio is holding steady, but signals of future strain are emerging—aging facilities, increased parks usage, and a fast-growing fleet are converging with resource demands.

With population and service expectations rising, proactive investment and coordinated asset strategies will be essential. The Town’s evolving Parks Master Plan and anticipated upgrades to the Operations Centre will serve as foundational steps in maintaining service quality across departments.

Protective Services

Current Performance and Service Level Commitment

Milton Fire Services currently delivers a broad range of protective services. As with other service areas, the Town is actively responding to rapid population growth and increasing service demand with a focus on maintaining core response capabilities. Apparatus replacement follows a 15-year maximum service life (with 12 years as frontline service and final three as reserve), and trained Emergency Vehicle Technicians (EVTs) provide rehabilitation assessments.

Fire prevention and public education—mandated under the Fire Protection and Prevention Act (FPPA)—remain key components of the Town's strategy to reduce call volumes and improve community safety outcomes. Additional divisions, such as communications and apparatus maintenance, are under growing pressure as overall service demands increase.

Emerging Trends and Future Considerations

Over the next 10 years, Milton Fire will face triple pressures: catching up from deferred investment, accommodating rapid growth, and responding to complex urban developments. Residential intensification, particularly in high-rise developments and Additional Residential Units (ARUs), is changing the nature of emergency response. Vertical responses take longer, require more personnel, and demand more specialized apparatus. ARUs also pose new challenges, as a single-family dwelling may house multiple families with different rescue needs.

Population forecasts indicate that the Town will need to add a 6th fire station, with a 7th likely to follow shortly after. With each of these stations, additional apparatus will be required along with staffing levels as recommended in the Town's Fire Master Plan.

The apparatus procurement landscape is also evolving. Build times have increased significantly since the pandemic—e.g., aerial platforms now require five years, compared to two previously. These longer timelines introduce procurement risk, requiring earlier budgeting and planning to avoid service gaps.

Table 32: Levels of Service – Protective Services

Service Attribute	Metric	Current Level of Service	Proposed Levels of Service
Quality	Fire Stations: Average Facility Condition Index	1.29% (Very Good)	Maintain
Quality	Percentage of emergency vehicles in good to very good condition	98%	Maintain
Quality	Percentage of firefighting and communication equipment in good to very good condition	92%	Maintain

Operational Challenges and Underlying Pressures

- **Additional Resources to Maintain High Condition:** Although the Town's stations have a very high condition rating, maintaining this rating as new stations are built will require additional resources.
- **Supporting Divisions Under Strain:** Communications staff are managing rising call volumes, particularly medical dispatches, with limited operator capacity. Fire Prevention and Public Education divisions are under similar pressure, needing more resources to maintain mandated services.
- **Service Variety and Specialized Equipment:** Fire Services supports high-risk activities including rope rescue, hazardous materials response, and confined space entry. These activities necessitate specialized equipment and personnel, impacting both capital and operating budgets.
- **Cost Escalation, and Procurement Delays:** Equipment costs have escalated dramatically, while build times for vehicles are significantly extended. This introduces both budget uncertainty and service risk, especially as replacement planning becomes more complex. The unpredictable threat of tariffs further compounds financial pressures and replacement planning.
- **Asset Lifecycle Management:** While major apparatus follow a strict age-based replacement schedule, smaller fleet vehicles are assessed based on condition. Software to track performance data such as mileage and engine hours is newly implemented, and asset data continues to be reviewed as part of initiatives like the Fire Underwriter Survey.
- **Cross-Cutting Issues and Council Priorities:** The alignment between growth, safety, and sustainability is becoming more critical. Fire Services will require

Council support to plan and fund new stations, address increasing call complexity, and manage risk associated with aging infrastructure and extended procurement timelines. Community expectations for reliable and timely emergency response—particularly in newly urbanized or densifying areas—are also rising.

Summary and Outlook

Fire Services in Milton are entering a high-demand growth phase, with evolving building types, community risks, and service expectations. Strategic planning for infrastructure, apparatus, staffing, and supporting divisions will be essential to maintain and enhance service levels. Capital planning must now account for longer lead times, while operational planning must anticipate continued demographic shifts and urban form complexity. A proactive, risk-informed approach will position the Town to meet its public safety obligations in a sustainable and responsive manner.

Transit Services

Current Performance and Service Level Commitment

Transit services in the Town of Milton are currently stable, operating with a well-composed fleet and age-based asset management approach that is efficient and resource-conscious. Condition assessments are not regularly performed beyond age thresholds, which aligns with practices in other municipalities and simplifies lifecycle tracking. The current fleet consists of 35 vehicles, with a strategic mix of 12-metre, 8-metre, and 6-metre buses, including specialized and on-demand services tailored to varying mobility needs.

The system supports both conventional and on-demand models and accommodates an increasing share of non-discretionary trips (e.g., education, medical, and essential errands). While overall service levels have been maintained, growing demand—especially from post-secondary institutions—continues to put pressure on available resources and will require an expansion of service levels over time.

Emerging Trends and Future Considerations

A 5-year transit service plan (2025–2029) has been completed and outlines significant growth in the asset base and service delivery to support both development and evolving community needs. Forecasted changes include more buses, additional bus stops, increased service hours, and accessibility improvements. Service frequency is also expanding from six to seven days per week, with extended geographic reach.

The Town is preparing for a transition to electric propulsion for its transit fleet through a measured and adaptive approach. An electrification study has already been completed. A new transit facility will be designed to complement the electrification strategy. The move to electric vehicles (EVs) has financial implications, and proactive reserve contributions will be required to manage increased lifecycle costs. Notably, the EV transition will eliminate mid-life refurbishment needs, assuming full battery warranties hold over a 12-year lifecycle.

Table 33: Levels of Service – Transit Services

Service Attribute	Metric	Current Level of Service	Proposed Levels of Service
Scope	Number of transit vehicles per capita	.020 per capita (.026 per capita within service area)	Increase to .04 by 2030
	% of urban areas served by transit	90+%	Maintain
	Number of boardings (2024) Conventional & On Demand Services	1,211,510	Increase to 2,566,230 by 2030
	Revenue Passenger Trips (2024) Specialized Services	27,253	Demand-based
	Service hours per capita	0.48	Increase to 1.0 by 2041
Quality	Percentage of transit vehicles in fair or better condition	82%	Maintain

Operational Challenges and Underlying Pressures

- **KPI Gaps and Data Limitations:** While some KPIs are tracked (e.g., per capita service hours, kilometers of service), key maintenance metrics such as Mean Distance Between Failure (MDBF), Mean Time Between Repair (MTBR), and vehicle availability are not currently reported by the contractor. Maintenance data is managed externally and tracked monthly through work orders but may require further integration into Town systems to support future KPI development.
- **Accessibility and Equity:** While the fleet and route planning consider diverse user needs, the service plan has identified gaps in accessible infrastructure, particularly at bus stops. Retrofit projects are planned to address these gaps over the 5-year planning horizon.
- **Budget Alignment:** While the current budget appears sufficient to sustain existing service levels, there is a recognized challenge in aligning available funding with the elevated LOS targets in the service plan. The rising influence of educational institutions and demographic shifts are also contributing to increased operational demands.
- **Growth-Driven vs. Equity-Driven Expansion:** Some service expansions are tied to new communities, while others reflect efforts to improve service coverage in existing but previously underserved areas. Differentiating between these drivers is important for both planning and equity considerations.
- **Lifecycle Planning:** The Town budgets for mid-life refurbishment on 12-metre buses to extend their useful life to 12 years, at a cost estimate of $113,000. For smaller buses with 7-year life cycles, no major refurbishment is planned. The upcoming transition to EVs will reshape lifecycle planning and budgeting frameworks.
- **Cross-Cutting Issues and Council Priorities:** Transit service enhancements are aligned with Council’s broader goals around sustainability, growth management, and equity in service delivery. Electrification and accessibility improvements in particular reflect an emphasis on future-proofing and inclusion. As non-discretionary transit use continues to rise, Council’s support will be critical to securing the infrastructure and operational funding required to implement the 5-year plan.

Summary and Outlook

Transit services in Milton are positioned for significant transformation over the next five years. The Town is balancing immediate needs with forward-looking investments in electrification, accessibility, and expanded service coverage. While data gaps and budget pressures remain, the adoption of a structured service plan, coupled with a flexible and responsive asset management approach, provides a strong foundation for meeting evolving mobility demands.

Milton Public Library Board Services

Current Performance and Service Level Commitment

Milton Public Library (MPL) is experiencing significant and sustained growth in demand, with year-over-year increases in in-person visits and online usage. Library services remain deeply integrated with social, educational, and technological functions in the community. Foot traffic has increased from 505,000 in 2023 to 537,000 in 2024, reflecting Milton's younger demographic, high post-secondary education levels, and increased reliance on libraries as safe, accessible spaces.

The library provides a wide array of services—from physical collections and eResources to Wi-Fi access and community programming. Demand for digital materials (e.g., e-books, audiobooks, streaming content) has grown by 20%. However, eResources are considerably more expensive than physical items, and current budget caps lead to approximately 4,000 clients per month (2024) being turned away on digital content platforms like Hoopla.

Library KPIs are tracked in alignment with provincial reporting and Community Services, focusing on usage statistics, circulation, collection value, space, and Wi-Fi access. Facilities are maintained by the Town and operate under Community Services.

Emerging Trends and Future Considerations

A new Library Strategic Master Plan was approved by the Library Board earlier this year. The Plan outlines expected expansion in both physical infrastructure and service delivery. Demand continues to rise not only for books and digital media, but also for spaces to support working from home, job interviews, quiet study, and group collaboration—functions that are increasingly difficult to accommodate under current spatial and budgetary constraints.

The Town is considering the addition of new branches in Boyne and Britannia, with lifecycle improvements already planned for existing branches like Beaty. The Main Library, located near the GO station in a dense urban area, is under review in the Master Plan.

The growth in non-traditional asset use and lending (e.g., 3D printers, gardening tools, laptops, museum passes) reflects the library's evolving role. MPL is also becoming a digital access hub, with increasing pressure on Wi-Fi infrastructure and hotspot lending.

Space, accessibility, and equity continue to influence service delivery. Older branches lack dedicated A/V rooms and flexible meeting spaces. Beaty Branch which is now located in a high-growth area is only open 5 of 7 days due to staffing limitations. As the Town grows, maintaining equitable access across all neighborhoods will be critical.

Table 34: Levels of Service – Milton Public Library Board Services

Service Attribute	Metric	Current Level of Service	Proposed Levels of Service
Scope	Facility space per capita (sqft)	0.40	Increase to 0.45
Scope	Circulation per capita	5.4	Maintain
Scope	Public Access Workstations per 1,000	2.27	Maintain
Quality	Resident satisfaction of Library Services	87%	Maintain
Quality	Library Facility Condition Index	2.5% (Very Good)	Maintain

Operational Challenges and Underlying Pressures

- **Digital Service Limitations:** eResources are approximately four times more expensive than physical collections. Usage caps restrict access, resulting in monthly caps in use despite high demand, due to budget limitations.
- **Technology Access and Literacy:** Demand for digital access—including Wi-Fi, printing, laptops, and 3D printing—has risen sharply. Patrons increasingly require support in navigating technology, which places additional strain on staffing and infrastructure.
- **Staffing and Service Complexity:** New technologies, self-checkouts, and increased social service interactions (e.g., parole meetings, job coaching) require a broader skill set among library staff. One branch remains closed two days a week due to staffing limitations despite being located in a high-growth area.
- **Space Constraints:** MPL facilities often cannot meet the demand for workspaces or quiet areas. Evolving use patterns—especially among students and remote workers—highlight the need for upgraded or repurposed space.
- **Accessibility and Inclusion:** There is increasing demand for accessible content (e.g., read-aloud books) and inclusive programming. Libraries are being used as social infrastructure to support low-income residents, recent immigrants, and others in need of community support and connection.
- **Facility Design Guidelines:** Current space per capita is 0.40sqft/1,000 residents. The Strategic Master Plan aims for 0.45, still short of the guideline from the Association of Rural and Urban Public Libraries (0.6). This space shortfall is significant given rapid population growth.
- **Expanding Collection to Keep up With Growth:** While the Town will aim to maintain circulation per capita of 5.4, this will require an increase in the Library's collections portfolio to keep up with population growth.
- **Cross-Cutting Issues and Council Priorities:** Libraries are now positioned at the intersection of education, digital equity, economic resilience, and social infrastructure. As the community grows, the Town faces rising expectations to deliver accessible and modern library services. Council's support will be essential in addressing staffing challenges, space constraints, and digital inclusion through capital and operational funding. Cybersecurity, capital renewal, and expanded service access are also emerging as priorities.

Summary and Outlook

Library services in Milton are evolving rapidly in response to demographic trends, technological change, and rising demand. While MPL continues to serve as a vital community hub, gaps in funding, staffing, and space must be addressed to keep pace with resident needs. The upcoming Library Master Plan, alongside enhanced KPIs and strategic investments, will guide future levels of service and ensure MPL remains responsive, inclusive, and resilient in the years ahead.

Sustaining Service Delivery Through Growth

Across all service areas, the Town of Milton has demonstrated a thoughtful and measured approach to managing levels of service—balancing growth-driven pressures, infrastructure renewal needs, and evolving community expectations. While current service levels are largely being maintained, most departments recognize that continued population growth, changing urban form, and climate variability will require both operational adjustments and sustained capital investment. Service delivery is increasingly shaped by the need to integrate technical standards, regulatory obligations, and resident experience into a coherent planning framework.

The Town's approach is grounded in practical, data-informed decision-making, supported by departmental expertise and interdepartmental coordination. In addition to tracking metrics required under O. Reg. 588/17, the Town has developed tailored performance measures that more accurately reflect Milton's unique service context.

This alignment of provincial requirements with local realities enables the Town to monitor service performance more effectively, identify early indicators of pressure, and plan proactively for future service demands. Through this framework, Milton is well-positioned to sustain high-quality, responsive service delivery as the community continues to grow and evolve.

Integrating Climate Change

Milton integrates a sustainability perspective across all departments. This embedded sustainability lens, and holistic approach ensures that every aspect of the Town's operations and planning incorporates climate action and sustainability principles.

The Town of Milton's *Climate Change Work Plans* emphasize a comprehensive approach to integrating sustainability into municipal operations and community development. In 2022, key initiatives included starting the transition to an electrified fleet, investigating renewable energy systems for town facilities, updating energy management plans, implementing the Urban Forestry Management Strategy, expanding community gardens, eliminating single-use plastics from Town programs, and developing sustainability policies within the *Official Plan*. These efforts laid the groundwork for substantial environmental improvements and community involvement in climate action.

Building on these foundations, the plan now focuses on developing policies to promote sustainable community development, continuing the electrification of the Town's fleet, refining strategies for the Community and Corporate Energy Plans, and enhancing urban forestry management. Additionally, the Town aims to increase community engagement through partnerships and educational initiatives, fostering a culture of sustainability.

Table 35: Climate Change Initiatives and Accomplishments

Timeline	Initiative	Accomplishments
2022	Fleet Electrification	Initiated planning for electrifying town fleet vehicles
2022	Renewable Energy	Installed solar panels at Sherwood Community Centre
2022	Energy Management	Updated Community and Corporate Energy Plans; energy retrofits
2022	Urban Forestry	Implemented Urban Forestry Management Strategy; expanded community gardens
2023+	Official Plan Policy Update	Developing policies for sustainable community development
2023+	Fleet Strategy	Continued planning for 15-year fleet electrification
2023+	Battery Electric Bus Project	Converted a diesel bus to electric (first in Canada)

Timeline	Initiative	Accomplishments
2023+	Energy Plans Refresh	Further development of strategies for energy plan emission reductions
2023+	Urban Forestry Management	Continued implementation of Urban Forestry Management Strategy
2023+	Zero-Emission Bus Feasibility Strategy Fleet Transition Plan	Assesses the viability of implementing battery-electric technology for transit fleet (Report to Council April 2024)

Milton’s approach is characterized by innovative projects, integrated planning across departments, and a strong emphasis on public participation, setting a unique precedent in municipal climate action.

Some of these initiatives may change the type of assets the Town owns, necessitating adjustments in asset management strategies and funding allocations. For example, as the Town begins to convert its fleet to electric vehicles, there will be impacts on replacement and lifecycle costs that need to be considered in the annual funding of the Town's reserves, which may require incremental increases.

Financial Strategy

Milton is one of Ontario's fastest-growing and most attractive communities, drawing new residents, businesses, and development each year. To support this momentum, the Town continues to invest in its infrastructure to ensure assets remain safe, reliable, and capable of meeting growing service demands.

Due to the scale of infrastructure needs, it is not uncommon for municipalities—including Milton—to face annual funding shortfalls relative to what should ideally be set aside for future asset replacement. These gaps can lead to the deferral of capital projects or increased pressure on future tax rates.

Annual deficits can accumulate over time and create asset needs that can become unmanageable. Achieving full-funding for infrastructure programs is a substantial challenge for municipalities across Canada. Closing annual funding deficits can take many years.

This financial strategy provides an updated, consolidated analysis of the Town's seven core service areas. It reflects revised replacement costs and lifecycle needs since the 2024 iteration of the Town's AMP, and is designed to guide the implementation of this asset management plan while progressively reducing the Town's annual funding gap over time.

Approach and Methodology

The assets included in the Town of Milton's seven areas have a combined 2024 replacement cost of $3.6 billion, as illustrated in Table 36 below. The table also summarizes the average annual requirement (AAR) for each service area, and the equivalent target reinvestment rate (TRIR). The AAR reflects asset replacement costs, estimated useful lives, and capital lifecycle needs.

The Town's updated AAR totals $93.7 million, generating an equivalent reinvestment rate of 2.6%. To put this differently, the Town should invest, on average, 2.6% of the overall current replacement costs of its infrastructure portfolio back into these assets to remain current with replacement needs. Although there is no industry or scientific consensus on optimal reinvestment levels, they typically range from 1%-3.5% of asset replacement costs. Short-lived assets, such as vehicles, fleet, and other equipment often have higher reinvestment rate targets, given high replacement costs.

Table 36: Service Area Replacement Costs and Target Reinvestment Rates

Service Area	Replacement Cost	Average Annual Requirements (AAR)	Target Reinvestment Rate (TRIR)
Transportation Services	$2,294,881,843	$50,011,872	2.2%
Stormwater Management Services	$626,112,384	$15,334,972	2.4%
Community Services	$463,069,851	$14,162,559	3.1%
Corporate and Operational Services	$128,770,120	$6,926,893	5.4%
Protective Services	$67,888,192	$4,021,519	5.9%
Transit Services	$26,588,420	$2,386,573	9.0%
Milton Public Library Board Services	$9,166,766	$880,659	9.6%
Total	**$3,616,477,576**	**$93,725,047**	**2.6%**

The purpose of the financial strategy is to position the Town of Milton to fully fund the above annual requirements, and continue to deliver affordable service levels to the community. This is done by examining the Town's current funding framework, quantifying annual funding deficits, and identifying a roadmap to close any identified funding gaps. To ensure fiscal prudence, only those funding sources considered sustainable are integrated with the strategy.

Current Funding Framework

Table 37 shows that the Town currently allocates $34.8 million annually as of 2024 from property taxation revenues towards non-growth capital for assets included in the seven service areas. This figure is net of budgeted capital-works-in-progress (CWIP) interest allocation of $2.7 million, and $1.2 million in investment earnings. Both amounts are illustrated in Table 38.

Table 37: Annual Tax-funded Allocations to Non-growth Capital

Service Area/Asset Category	Annual Transfers to Non-Growth Infrastructure Reserves
Infrastructure Renewal – Roads & Structures, Traffic	$15,693,708
Infrastructure Renewal – Stormwater	$2,799,343
Studies and Other Non-Growth Capital	$1,377,050
Infrastructure Renewal – Recreation, Facilities, Misc.	$5,439,327
Information Technology	$3,619,370
Fleet	$5,163,556
Library Capital Works	$710,139
Total	**$34,802,493**

Table 38 shows other revenue streams that staff consider sustainable, and that can be used to meet annual infrastructure requirements.

The table also captures future retirement of existing debt, and the principal and interest payments associated with these debentures, totaling $4.1 million. Rather than reducing taxes as the debt is fully amortized, these payments will be reallocated to non-growth infrastructure investments. This is a proactive strategy that can help minimize fluctuations in tax rates, and add more stability and predictability in planning.

Table 38: Other Sustainable Revenue Streams

Revenue Stream	Amount
Existing Tax Funded Debt Principal and Interest Payments	$4,059,719
Excess Investment Earnings Reinvested in Infrastructure Replacement Reserves	$1,150,000
Interest on CWIP Reinvested in Infrastructure Replacement Reserves	$2,700,000
Canada Community-Building Fund (CCBF)	$3,600,000
Ontario Lottery Corporation Proceeds	$5,500,000
Total	**$17,009,719**

Combined, these streams provide an additional $17.0 million annually towards non-growth capital, increasing the Town's combined annual contributions to $51.8 million. However, when contrasted with $93.7 million in annual requirements, this creates an annual funding deficit of $41.9 million. To put this differently, the Town is currently funding 56% of its annual needs.

Table 39: Annual Funding Deficit

Measure	Amount
Average Annual Requirements	$93,725,047
Total Current Annual Contributions	$51,812,212
Annual Funding Deficit	$41,912,835

Closing Annual Deficits

Eliminating annual infrastructure funding shortfalls is a difficult and long-term endeavour for municipalities. It can require many years to reach full funding for existing assets. This section outlines how the Town of Milton can close annual funding deficits using sustainable revenue streams.

General Approach

To close its infrastructure funding deficits over time, the Town of Milton will rely on a combination of existing revenue streams, planned increases to annual contributions for non-growth-related capital needs, and new government funding programs. All other funding levels for infrastructure are assumed to remain constant for the purposes of this analysis. Inflation has also been excluded from the analysis below, as has growth in the Town's asset base. The Town currently implements a policy wherein inflation and the lifecycle costs that are associated with asset growth are also funded through the annual budget process. As such, they would not be expected to have an impact on the general findings of the funding gap analysis below.

To evaluate the pace at which the funding gap can be closed, four scenarios have been developed. Each scenario assumes a different level of annual increase to the Town's capital contributions beginning in 2026, with the added assumption that these increases are sustained as recurring contributions rather than treated as one-time transfers.

1. Scenario 1: $750,000 annual incremental contribution
2. Scenario 2: $1.0 million annual incremental contribution
3. Scenario 3: $1.5 million annual incremental contribution
4. Scenario 4: $2.0 million annual incremental contribution

Integrating New Government Funding

Beginning in 2026, the Town of Milton will supplement its existing revenue streams with funding from the Canada Public Transit Fund, contributing an additional $723,253 annually. This new source will support the Town's efforts to gradually close infrastructure funding deficits, particularly in transit-related services, while maintaining a balanced and sustainable financial approach.

The Canada Public Transit Fund is a federal funding program designed to support the development and renewal of public transit infrastructure across the country. It provides municipalities with dedicated, long-term funding to help improve transit systems, enhance service delivery, and promote sustainable transportation options.

Scenario 1: Increasing Annual Contributions by $750,000

The Town is already implementing a prudent and forward-looking strategy to close infrastructure deficits. For 2025, a net new incremental transfer of $750,000 was included in the budget for non-growth capital reserves. These funds would be available for capital investment either immediately or in future periods. For modeling and comparative analysis, this will serve as the baseline scenario (Scenario 1).

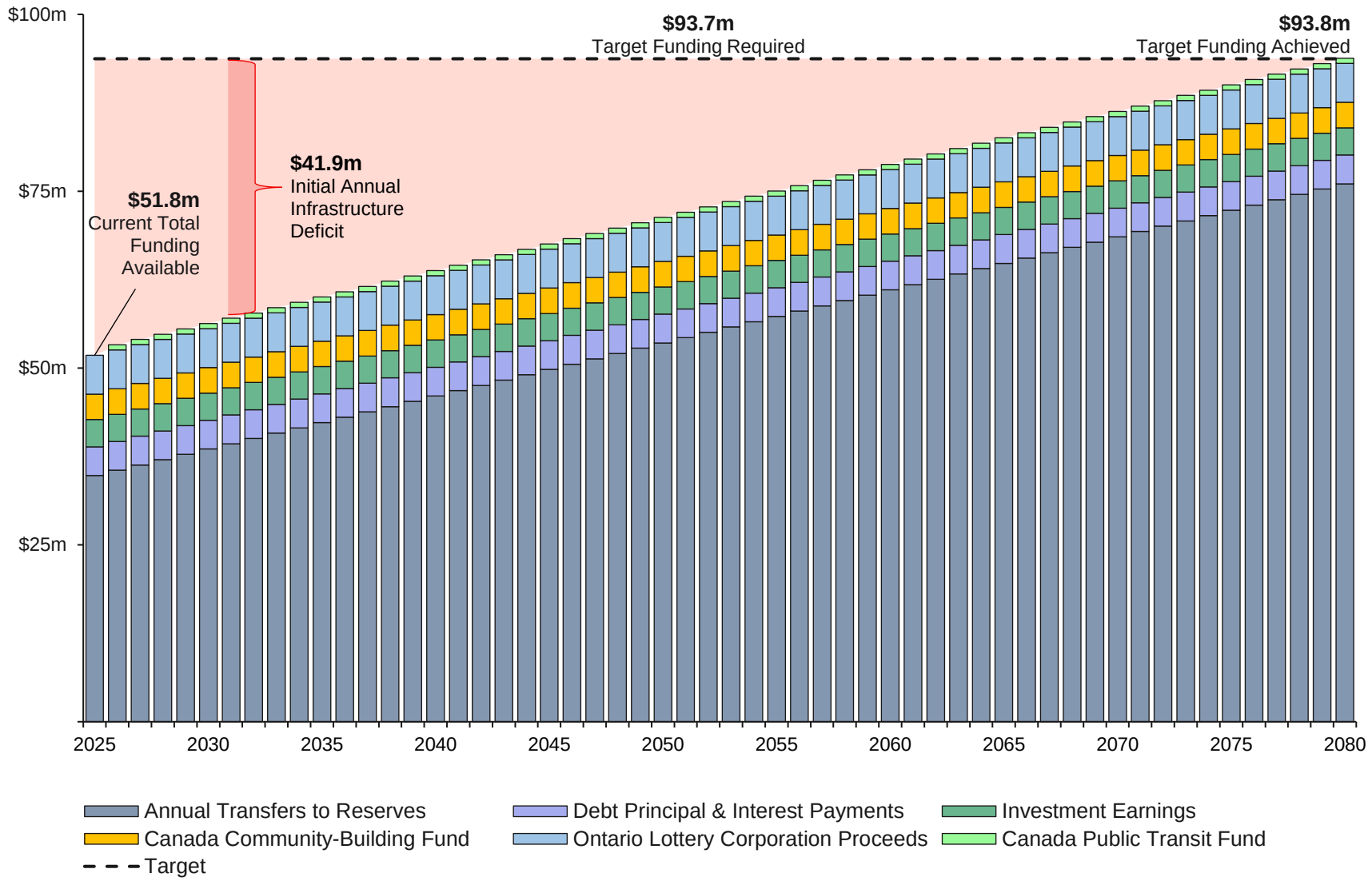
The modeling assumes that this transfer is sustained as a recurring, ongoing annual contribution through the forecast period. Using this strategy, the Town can close its infrastructure deficit and fully-fund annual requirements of $93.7 million by 2080, reaching total annual funding levels for the existing asset base in approximately 54 years.

While this is a long-term horizon, it may align with the Town's fiscal capacity and avoids placing further pressure on current taxpayers. Gradually increasing contributions over time allows Milton to make steady progress toward full funding while continuing to invest in growth and service delivery. The ability to sustain this pace of investment over such an extended period of time would be subject to the Town's capital investment needs in the decades ahead, relative to the funding levels and reserve balances that a $750,000 incremental contribution provides for.

As the Town's asset base remains relatively new during the initial periods, a direct impact to service delivery may not materialize. This may not be the case as the Town proceeds into the latter decades within the forecast period, and the Town would have to re-assess the impacts over the course of time.

These results are presented in the following graph, noting again that the amounts presented exclude both inflation and future acquisitions of additional assets.

Figure 40: Scenario 1 - Impact of Net New Annual Transfers of $750,000 on Closing Annual Deficits



With the implementation of these net new, dedicated annual infrastructure transfers, the Town would position itself to develop more sustainable infrastructure programs in a systematic manner.

Striking a balance between funding timelines and tax burdens is a complex challenge. Extended timelines for full infrastructure funding might reduce immediate tax hikes for residents but risk unmet annual needs and ongoing project deferrals. Conversely, shorter funding periods can reduce deferred infrastructure needs but impose a higher yearly financial burden.

There is no singular solution, or optimal strategy. Rather, levels of service goals, transparent communication with residents on opportunities and constraints, and ongoing dialogue among key stakeholders and decision-makers are necessary in developing flexible short- and long-term strategies. The size of the anticipated $750,000 incremental funding increase may need to be revisited and potentially adjusted during this time period.

It is also important to acknowledge that during this 54-year period, the Town's asset base will continue to grow through assets constructed by the Town or assumed from the development community. Should the Town continue its existing practice of adding sustainable funding sources for the future lifecycle costs of those new assets at the time of acquisition, this will also further contribute to the growth of the annual funding sources that are available during the period.

These future assets, along with their related funding sources and lifecycle requirements, have been excluded from Figure 40 as the Town's current financial policies ensure that they have no impact on the current annual funding deficit. The additional funding added in the Town's budget for these new assets, however, may provide a source of cash flow for rehabilitation during this period. These details will continue to be assessed each year as part of the Town's budget process and periodic fiscal impact studies.

Additional Funding Scenarios

Table 40 shows additional funding scenarios and their impact on taxpayers and full-funding timelines. These are presented only for illustrative purposes and additional consideration by senior leadership.

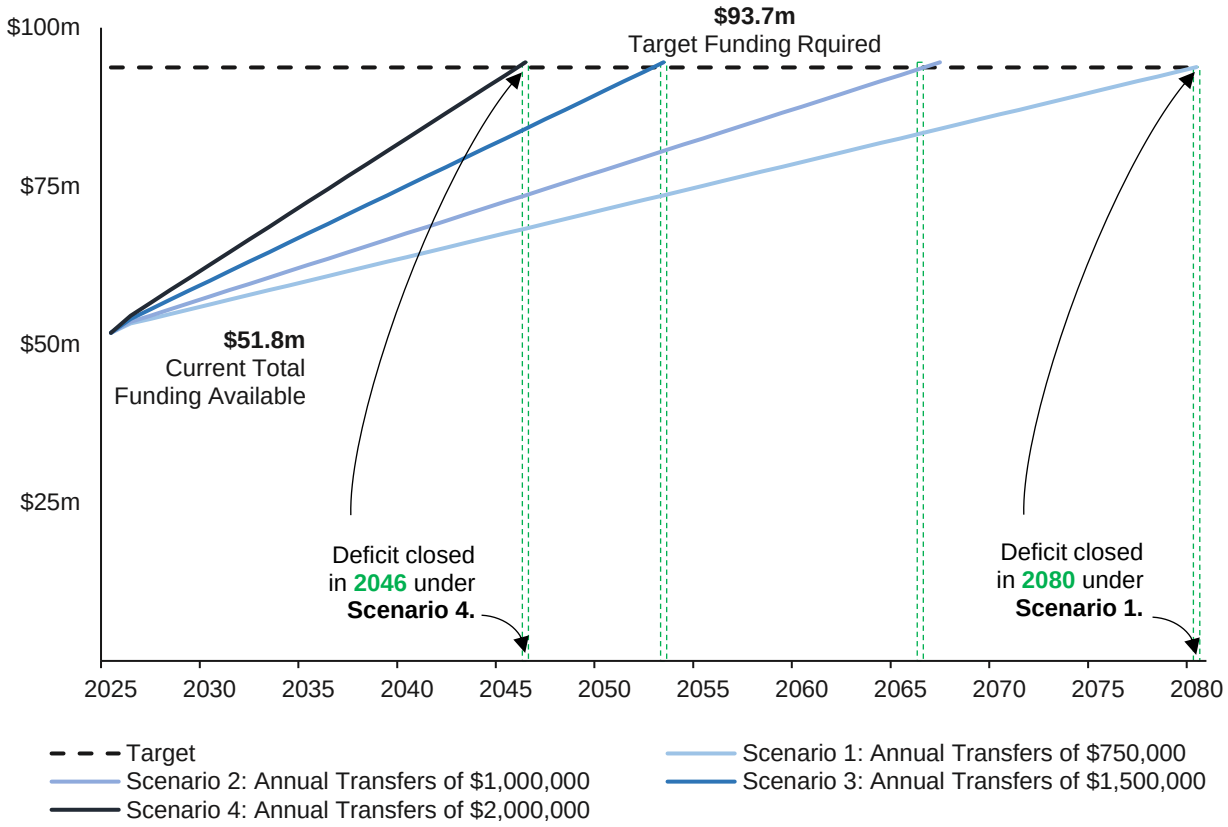
Scenario 1 reflects the strategy to implement net new, recurring annual transfers of $750,000 beginning in 2026. Under this approach, the Town would achieve full funding by 2080, or approximately 54 years from now.

Further scenario analysis shows that increasing annual transfers by $0.5 million (to $1 million) would shorten the timeline by 13 years, achieving full funding by 2067. An increase to $1.5 million annually would close the gap by 2053—28 years from now—while a $2 million increase would accelerate full funding to 2046, within just 21 years. These scenarios highlight the trade-off between affordability and the pace at which long-term infrastructure deficits can be addressed.

Table 40: Funding Scenarios

Scenario	Infrastructure Deficit Closed by:	Time Needed to Close Deficit
Scenario 1 (Current) Maintain planned net new annual transfers of $750,000 beginning 2026	2080	~54 years
Scenario 2 Increase net new annual transfers to $1.0 million	2066	~41 years
Scenario 3 Increase net new annual transfers to $1.5 million	2053	~28 years
Scenario 4 Increase net new annual transfers to $2.0 million	2046	~21 years

Figure 41: Comparing Various Funding Scenarios and Their Impact on Annual Deficits



Each model has risks and benefits, as outlined below. The right model balances the burden placed between generations of residents while realizing the highest value from infrastructure assets.

Table 41: Risks and Benefits of Funding Phase-in Periods

Aspect	Longer Phase-in Periods	Shorter Phase-in Periods
Annual Financial Burden	– Lower annual burden on taxpayers	– Higher annual burden on taxpayers
Infrastructure Condition	– Risk of unmet annual needs and potential difficulties in maintaining acceptable condition	– More like to ensure infrastructure remains in good repair
Project Deferrals	– Increased likelihood of project deferrals	– Reduces project deferrals
Long-term Costs	– Potential for higher long-term costs due to delays	– Timely maintenance may reduce long-term expenses
Economic Impact	– Possible negative impact on economy due to poor infrastructure	– Supports economic development and local commerce through reliable infrastructure
Flexibility	– More flexible, allowing adjustments over time between, and among, programs (trade-offs)	– Less flexible, may impede ability to fund other programs and services

By carefully weighing these factors, Council can make informed decisions that best balance the needs of infrastructure maintenance and taxpayer burden, ensuring sustainable and efficient long-term development.

As illustrated in Figure 36, the Town is expected to undergo major investment spikes related to its existing asset base over a 100-year forecast period, two of which will be in excess of $1 billion. Although further evaluations of actual asset needs will be needed, increasing annual reserve transfers today will better position the Town to meet

anticipated investment needs as they arise, and avoid project deferrals that can lead to infrastructure backlogs, which can increase financial needs dramatically and reduce service quality.

These higher reserve balances will also occur in relation to the growth in the Town's asset base should the Town's existing financing strategy/policy be continued as new infrastructure is constructed/assumed.

Impact of Growth

The Town of Milton undertakes comprehensive fiscal impact studies to support its strategic approach to growth management and long-term financial planning. The studies analyze how anticipated residential and employment growth will affect infrastructure needs, service delivery, and the Town's financial position over the coming decades.

The studies provide a detailed roadmap for balancing growth-related costs with available funding tools, such as development charges and property taxes. The findings reinforce Milton's commitment to responsible planning by ensuring that new development is financially sustainable and that infrastructure investments are timed to support both current and future residents without placing undue pressure on existing taxpayers.

Between 2021 and 2051, Milton's population is projected to grow by approximately 263,100 people, to approximately 400,400. That will translate to an increase in residential dwelling units of approximately 87,900, to 127,900. During this same period, employment is expected to increase by about 108,500 jobs, to a total of 156,300 by 2051.

This growth will result in additional assessment value, upon which the Town's property tax revenue is based. It will also result in the investment in a significant amount of infrastructure in order to extend the Town's services to the new residents and businesses.

The most recent *Fiscal Impact Study*, completed in 2021, projected an investment by the Town of approximately $2.7 billion for the 20-year period 2021 to 2041. Given the significant degree to which non-residential capital costs have escalated with inflation since the study, as well as the need to extend the forecasted investment timeframe to 2051, that figure can be expected to be notably larger today. These investments will be funded by the Town through a combination of property taxes, user fees, development charges, grants, and other revenue opportunities that are identified during this timeframe.

In addition to the capital investments that the Town will make directly, there will also be a significant amount of infrastructure that is constructed by the development community and transferred to the Town during this period of growth. This would include local roads and stormwater assets, amongst other investments.

Until such time as the Town's overall revenue sources, particularly the property tax rate, provide the sustainable level of funding that is required to support the Town's service level standard, the continued growth of the community and extension of existing service levels will continue to put pressure on the Town's annual budget process. The gradual

reduction of the Town's annual infrastructure deficit will reduce the degree of annual pressure over time. Further, and as noted above, so long as the Town continues to implement its policy of introducing lifecycle funding contributions as new infrastructure is constructed or assumed, additional cash flow for capital investment will become available for asset renewal during this period of growth.

Significant Operating Expenditures

Retrieved from the 2025 budget, the table below presents the Town of Milton's significant annual operating costs across its service areas. These costs reflect utilities, hydro, fuel, materials and supplies, contractual services associated with asset maintenance, and staffing expenses where directly tied to the maintenance and operation of the Town's assets. These figures illustrate the ongoing financial commitments necessary to support service level goals and inform future planning efforts as the Town continues to grow and its infrastructure portfolio evolves.

Table 42: Significant Operating Expenditures

Service Area	Annual Operating Expenditures
Transportation and Stormwater Management Services	$10,132,735
Community Services	$10,213,681
Corporate and Operational Services	$2,700,307
Protective Services	$1,093,618
Transit Services	$2,344,580
Milton Public Library Board Services	$243,785
Grand Total	**$26,728,706**

In addition to the average annual requirement of $93.7 million—representing a reinvestment rate of 2.6%—the Town also incurs approximately $26.7 million in significant annual operating expenditures directly tied to the maintenance and operation of infrastructure assets.

When considered alongside the average annual requirements, these operating costs represent an additional reinvestment rate of approximately 0.74% relative to the Town's $3.6 billion asset portfolio. Together, the capital and operating investments reflect the full financial commitment required to sustain levels of service and ensure the long-term performance of the Town's infrastructure.

Financing Long-Term Service Delivery

The Town of Milton's financial strategy provides a strong foundation for sustaining and enhancing infrastructure services over the long term. It outlines a structured, scenario-based approach to building fiscal capacity through sustainable, recurring contributions. This approach supports not only the maintenance of current service levels but also the flexibility to respond to changing demands as the Town grows.

By aligning infrastructure investment with asset lifecycle needs and projected service demands, the strategy enables informed, long-range planning. As operating and capital pressures evolve—whether through expansion of the transit network, increased maintenance of outdoor spaces, or renewal of aging facilities—the financial framework in place ensures that the Town is well-positioned to support reliable, high-quality service delivery. This integrated approach reflects Milton's commitment to proactive planning, responsible growth, and continued service excellence.

Continuous Improvement and Monitoring

Continuous improvement and monitoring are essential components of effective asset management. This asset management plan ensures the Town is in full compliance with the 2025 requirements of O. Reg 588/17. Key next steps and strategic considerations include:

- Ongoing enhancement of the Town's infrastructure datasets, which underpin all financial analysis and capital planning;
- Regular refinement of risk models as new data becomes available, supporting more strategic project prioritization and alignment with corporate objectives;
- Periodic review of service level goals to ensure they remain achievable within the Town's financial capacity and evolving infrastructure conditions;
- Continued exploration of diverse and sustainable funding sources—including grants, partnerships, and revenue reinvestment strategies—to strengthen long-term capital planning.