

Town of Bracebridge | Asset Management Plan

2025



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Executive Summary

This 2025 asset management plan (AMP) for the Town of Bracebridge reflects updated information on the Town's infrastructure, and builds on previous efforts, including the 2022 and 2024 iterations of the AMP. Developed to support continued advancement of the Town's asset management program and maintain compliance with Ontario Regulation 588/17, the plan outlines the state of core and non-core assets and supports long-term decision-making by identifying current and proposed service levels, and future investment priorities.

Valuation and Condition

Together, the seven asset categories analyzed in this plan have a total replacement cost of \$420.4 million. This estimate was calculated using a combination of user-defined costing based on prevailing market conditions, and inflation-adjusted historical costs. At 42% of the total replacement cost, the Town's road network forms the largest share of the asset portfolio, followed by buildings at 30%. The replacement cost of buildings increased substantially from the 2024 AMP given the integration of the Muskoka Lumber Community Center with the Town's asset register.

Based on both assessed condition and age-based analysis, more than 90% of the Town's infrastructure portfolio is in fair or better condition, with the less than 10% in poor or worse condition. Typically, assets in poor or worse condition may require replacement or major rehabilitation in the immediate or short-term. Overall, condition assessment data was available for 55% 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.

Service Level Commitments

In developing the 2025 asset management plan, the Town of Bracebridge reviewed its proposed levels of service in alignment with O. Reg 588/17. Existing service levels were found to remain broadly appropriate and are recommended to be maintained, with modest refinements to reflect updated asset data, completion of individual projects, and evolving design practices.

This approach provides continuity and supports long-term planning, while allowing flexibility for individual projects, such as infrastructure upgrades or replacements, that may result in localized service level improvements without altering the Town's overall programmatic commitments.

The Town uses both O. Reg. 588/17 KPIs and internally developed performance measures to effectively monitor infrastructure performance and plan for sustainable service delivery. While levels of service for both core- and non-core assets are largely expected to remain consistent, future updates to master plans may identify adjustments to align with community growth and evolving needs.

Financial Management

Due to the scale and cost of infrastructure renewal, many municipalities, including Bracebridge, 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 \$12.8 million per year to keep pace with capital rehabilitation and replacement needs across its asset portfolio. Meeting these target helps ensure the continued delivery of affordable and reliable service levels to the community. Put differently, this equates to an overall, annual reinvestment of 3.0% of the total current replacement cost of the Town's infrastructure.

Under the Town's current fiscal framework, approximately \$5.8 million in average annual funding is available to support the renewal and replacement of tax-funded infrastructure. This estimate is based on a five-year average of actual capital funding and reflects the Town's typical capacity to invest in infrastructure using a combination of property tax revenues and external funding sources.

These external sources include senior government grants and programs, which have historically played an important role in supplementing the Town's capital budget. While funding levels may fluctuate from year to year based on program availability and project timing, this average provides a useful benchmark for assessing long-term financial capacity relative to infrastructure needs.

At current funding levels, the Town of Bracebridge is addressing 45% of its annual capital requirements, corresponding to an actual reinvestment rate of 1.4% and an estimated annual funding shortfall of \$7.0 million. To support long-term sustainability and close this gap over time, a series of funding scenarios have been developed to illustrate how additional investment could be gradually introduced over various phase-in timelines.

Striking the right balance between increasing funding levels and determining an appropriate phase-in period is a complex and strategic undertaking. Shorter timelines require higher annual rate increases, straining taxpayers and other priorities, while longer timelines ease immediate pressures but risk compounding infrastructure needs and service disruptions. Ongoing evaluation is needed to keep funding strategies aligned with changing conditions and service level expectations.

Based on the Town's current property tax revenue of approximately \$21.5 million, closing the annual infrastructure funding gap over a 20-year period would require a dedicated annual tax increase of 1.4%. This phase-in period could be shortened to 15 or 10 years if annual increases of 1.9% or 2.9% are implemented, respectively. These scenarios illustrate the trade-offs between the pace of financial sustainability and the level of impact on taxpayers.

While long-term financial pressures remain a consideration, maintaining current levels of service represents a practical and responsible approach given the Town's existing capacity. At the same time, Bracebridge continues to strengthen its asset management program by integrating condition assessments, inspections, and risk-based models to support more targeted and informed decision-making.

These practices ensure that capital investments are prioritized effectively and aligned with actual needs. The Town's approach reflects not only compliance with Ontario Regulation 588/17, but a broader commitment to building a thoughtful, well-grounded asset management framework.

About this document

This asset management plan (AMP) for the Town of Bracebridge was developed in accordance with Ontario Regulation 588/17 (“O. Reg 588/17”). It contains a comprehensive analysis of Bracebridge’s infrastructure portfolio. The AMP is a living document that should be updated regularly as additional asset and financial data becomes available.

Ontario Regulation 588/17

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

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				☑

Scope

This asset management plan has been developed to meet the 2025 requirements of Ontario Regulation 588/17, and includes both core and non-core assets as defined under the regulation. It includes seven asset categories, namely:

1. Road Network
2. Bridges & Culverts
3. Stormwater Network
4. Buildings
5. Land Improvements
6. Machinery & Equipment
7. Vehicles

Limitations and Constraints

- As of the development of this AMP, buildings and facilities had not yet been fully componentized into individual elements. Partial componentization has been completed for select assets—such as the Muskoka Lumber Community Centre —and this remains an ongoing and important initiative to improve the precision of condition assessment, lifecycle planning, and capital forecasting.
- While more than 91km of sidewalks were assessed for defects in 2024, standardized condition ratings were not yet available in a format that could be consistently appended to the asset inventory. In addition, the sidewalk inventory does not yet fully align with the Town's GIS dataset. Ongoing efforts to improve data integration and establish a consistent condition rating system will further enhance the Town's ability to manage and plan for these assets over time.
- In the absence of standardized 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 identified by staff.
- 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.

Progress Update

Muskoka Lumber Community Centre Asset Componentization: The Muskoka Lumber Community Centre has been partially componentized into major structural elements, including substructure, shell, interior finishes, building systems, and sitework. This advancement enhances the Town's ability to forecast long-term capital needs with greater precision and aligns with best practices in lifecycle asset management.

Bridge and Structural Culvert Condition Assessment: In 2024, the Town completed a detailed condition assessment of its bridges and structural culverts, in full compliance with the Ontario Structure Inspection Manual (OSIM). The findings support evidence-based planning and help prioritize future rehabilitation and replacement efforts.

Sidewalk Condition Assessment: A comprehensive review of the Town's sidewalk network was undertaken in 2024, systematically identifying both minor surface deficiencies and critical safety hazards. This work strengthens the Town's ability to manage pedestrian infrastructure proactively and responsively.

Overview of Asset Management

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

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

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

Key Technical Concepts in Asset Management

Effective asset management integrates several key components, including lifecycle management, risk management, and levels of service. These concepts are applied throughout this asset management plan and are described below in greater detail. We note that although these elements and concepts are integral to asset management, they also require additional resources for implementation and monitoring.

Lifecycle Management Strategies

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

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

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

Depending on initial lifecycle management strategies, asset performance can be sustained through a combination of maintenance and rehabilitation, but at some point, replacement is required. Understanding what effect these activities will have on the lifecycle of an asset, and their cost, will enable staff to make better recommendations. Table 2 provides a description of each type of activity, the general difference in cost, and typical risks associated with each.

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

Table 2 Lifecycle Management: Typical Lifecycle Interventions

Lifecycle Activity	Description	Cost	Typical Associated Risks
Maintenance	Activities that prevent defects or deteriorations from occurring	\$	- Balancing limited resources between planned maintenance and reactive, emergency repairs and interventions; - Diminishing returns associated with excessive maintenance activities, despite added costs; - Intervention selected may not be optimal and may not extend the useful life as expected, leading to lower payoff and potential premature asset failure;
Rehabilitation/ Renewal	Activities that rectify defects or deficiencies that are already present and may be affecting asset performance	\$\$\$\$	- Useful life may not be extended as expected; - May be costlier in the long run when assessed against full reconstruction or replacement; - Loss or disruption of service, particularly for underground assets;
Replacement/ Reconstruction	Asset end-of-life activities that often involve the complete replacement of assets	\$\$\$\$\$\$	- Incorrect or unsafe disposal of existing assets; - Costs associated with asset retirement obligations; - Substantial exposure to high inflation and cost overruns; - Replacements may not meet capacity needs for a larger population; - Loss or disruption of service, particularly for underground assets;

Asset Condition

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

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

Table 3 Standard Condition Rating Scale

Condition	Pavement Condition Index (PCI)	Pipe Rating	Bridge Condition Index (BCI)	Age-based (Service Life Remaining%)	Broad Description
Very Good	91-100	0-1	>70	80-100	Fit for the future Well maintained, good condition, new or recently rehabilitated; no defects or minor defects
Good	76-90	2		60-80	Adequate for now Acceptable, signs of minor to defects and deterioration
Fair	66-75	3	50-70	40-60	Requires attention Signs of moderate deterioration and defects, some elements exhibit significant deficiencies
Poor	40-65	4	<50	20-40	Increasing potential of affecting service Approaching end of service life, condition below standard, large portion of system exhibits significant deterioration; significant defects overall
Very Poor	0-39	5		0-20	Unfit for sustained service Near or beyond expected service life, widespread signs of advanced deterioration, some assets may be unusable

State of the Infrastructure

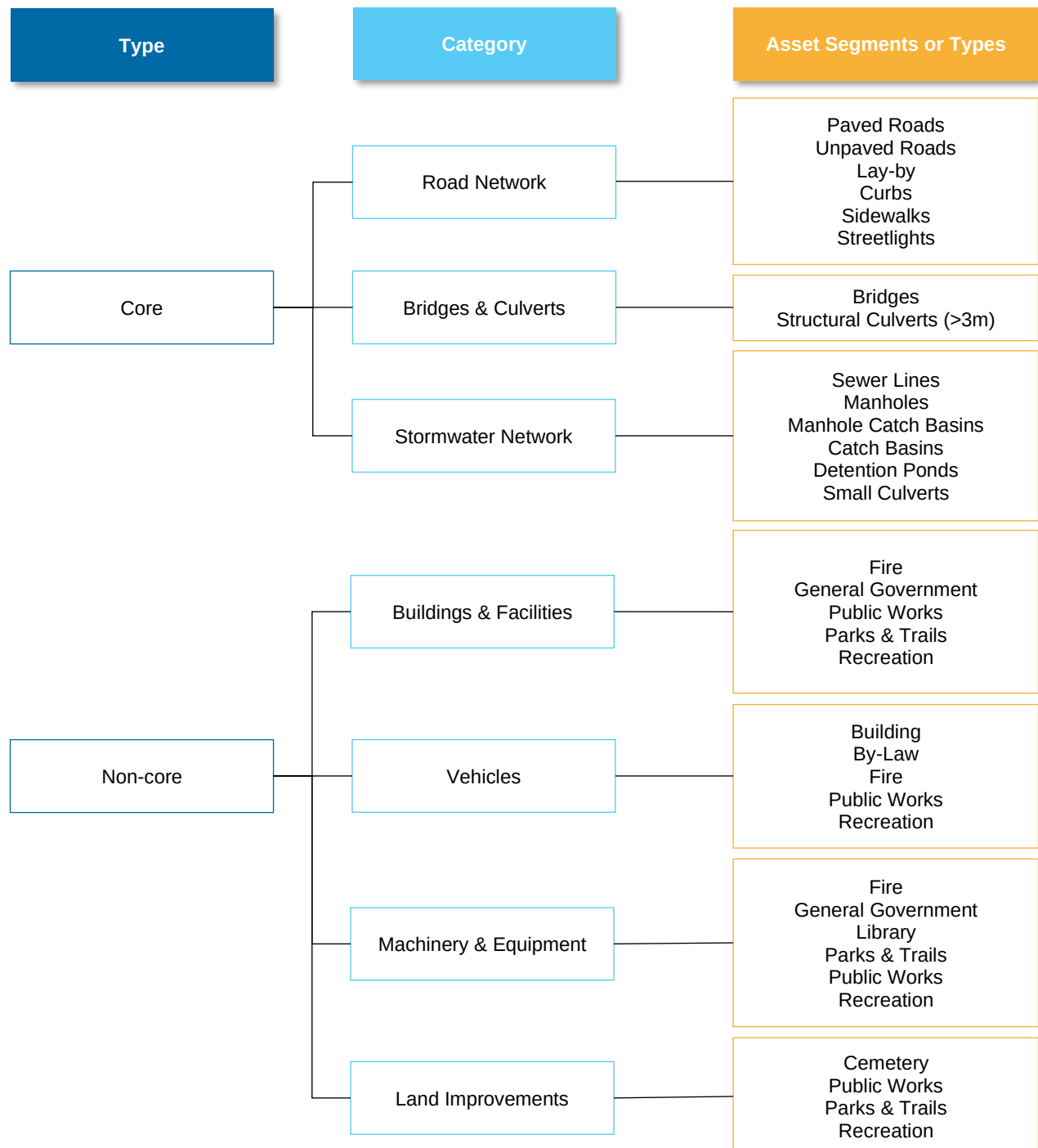
The state of the infrastructure (SOTI) summarizes the inventory, condition, age profiles, and other key performance indicators for the Town's infrastructure portfolio across its seven asset categories, current as of 2024.

Figure 1 illustrates how assets were classified within the infrastructure data hierarchy. Most reporting and analysis is presented at the segment level.

Asset Hierarchy and Data Classification

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

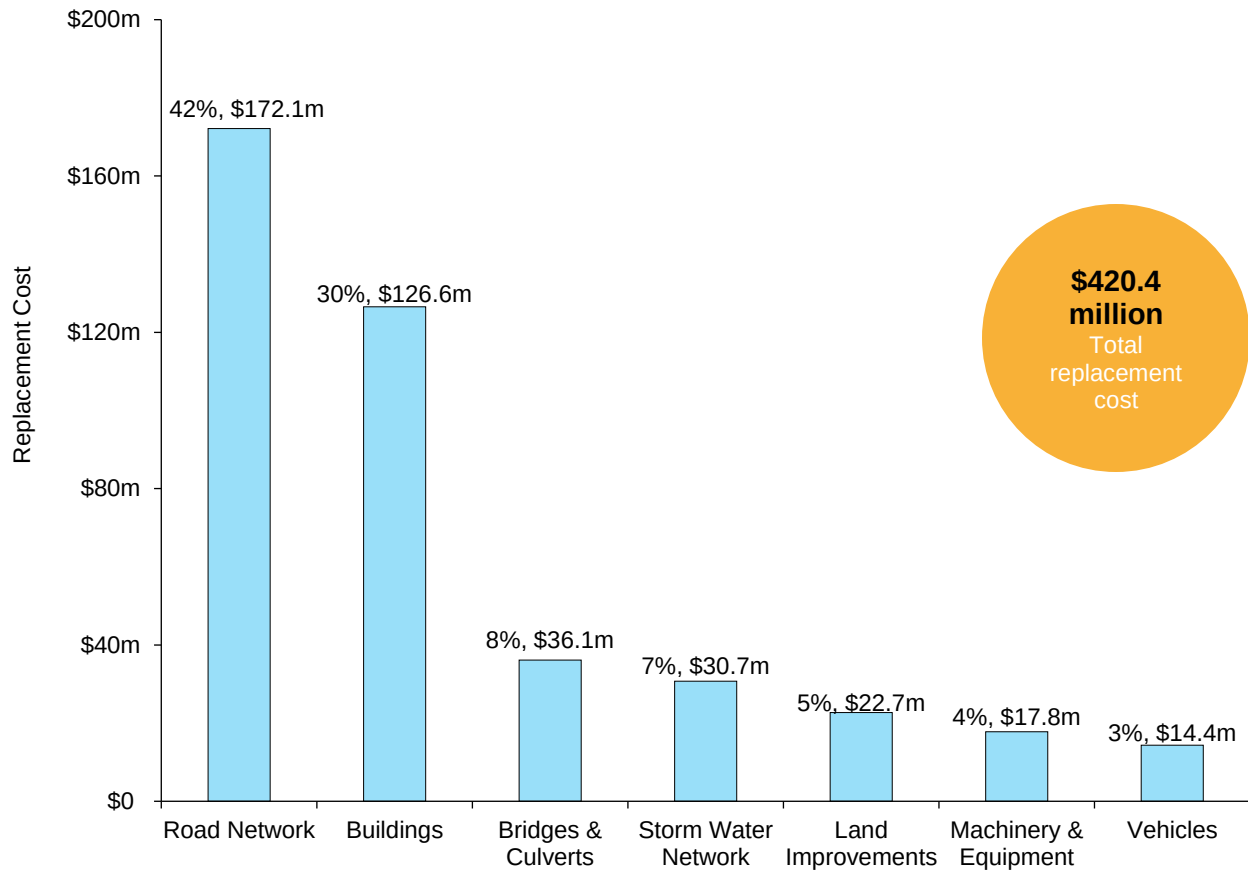
Figure 1 Asset Hierarchy and Data Classification



Portfolio Overview

The seven asset categories analyzed in this asset management plan have a total current replacement cost of \$420.4 million. This estimate was calculated using user-defined costing, as well as inflation of historical or original costs to current date. Figure 2 illustrates the replacement cost of each asset category; at 42% of the total replacement cost, the Town's road network forms the largest share of the asset portfolio, followed by buildings and facilities at 30%.

Figure 2 Current Replacement Cost by Asset Category



Condition Data

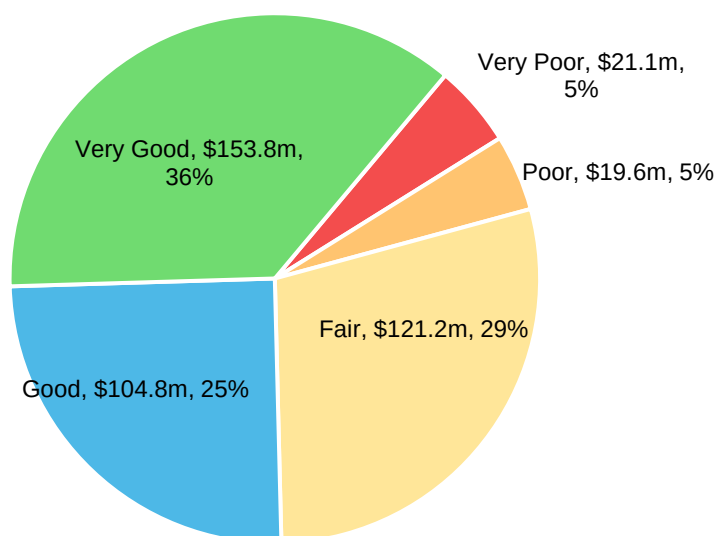
Figure 3 and Figure 4 summarize asset condition at the portfolio and category levels, respectively. Based on both assessed condition and age-based analysis, more than 90% of the Town's infrastructure portfolio is in fair or better condition, with less than 10% in poor or worse condition. Typically, assets in poor or worse condition may require replacement or major rehabilitation in the immediate or short-term. Targeted condition assessments may help further refine the list of assets that may be candidates for immediate intervention, including potential replacement or reconstruction.

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

Condition data was available for majority of the road network, all bridges and culverts, stormwater assets, and most vehicles. For all remaining assets, including major infrastructure such as storm mains and buildings, age was used as an approximation of condition for these assets. Age-based condition estimations can skew data and lead to potential under- or overstatement of asset needs.

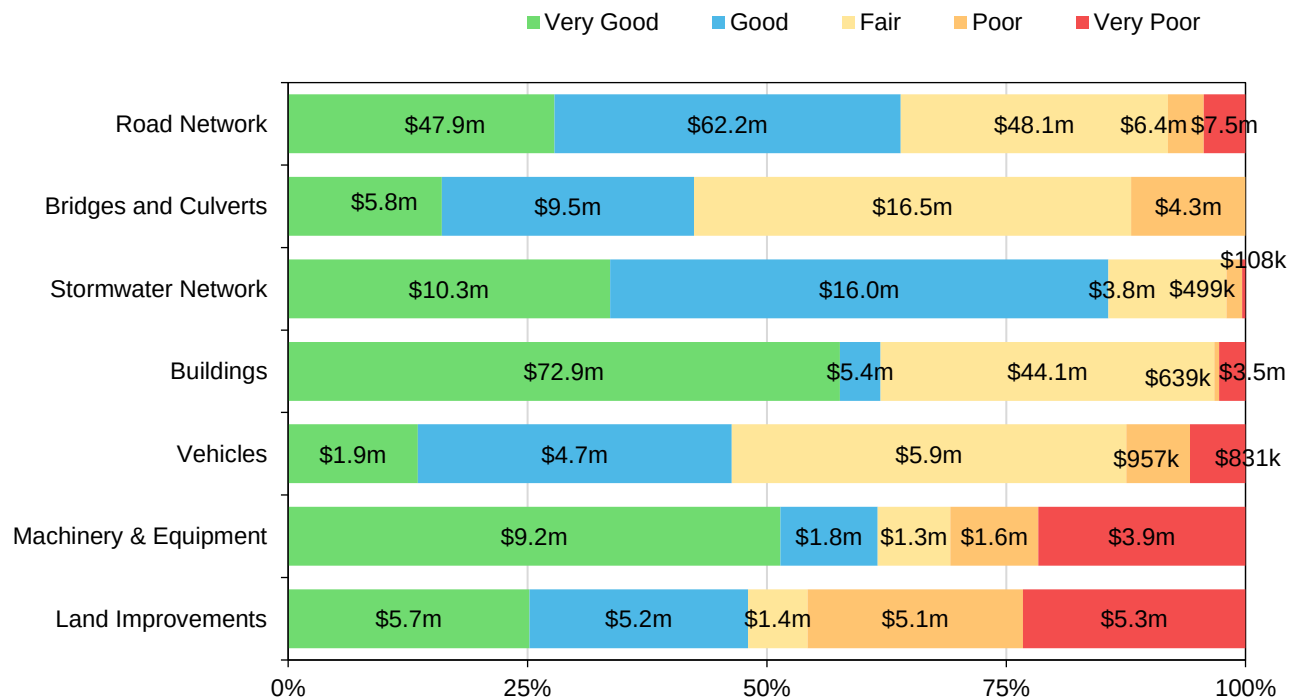
The Town has made progress in advancing componentization, with the Muskoka Lumber Community Centre facility partially componentized to date. At this stage, facility condition data is not yet sufficiently developed to support integration into this AMP. Ongoing work to refine and expand this data will enable full componentization and strengthen long-term asset forecasting.

Figure 3 Asset Condition – Portfolio Overview



As further illustrated in Figure 4 at the category level, the majority of major, core infrastructure including roads, bridges, structural culverts, and stormwater assets are in fair or better condition, based on in-field condition assessment data. Most vehicles are also in fair or better condition, based on recent condition assessments, although these assessments were conducted in 2021. See [Table 4 Source of Condition Data](#) for details on how condition data was derived for each asset category.

Figure 4 Asset Condition – By Asset Category



Source of Condition Data

This asset management plan relies on assessed condition for 55% of assets, based on and weighted by replacement cost. For the remaining assets, aged is used as an approximation of condition. For sidewalks, defect data was available; however, it could not yet be integrated into the Town's asset inventory due to current data alignment limitations. The table below identifies the source of condition data used throughout this AMP.

Table 4 Source of Condition Data

Asset Category	Asset Segment	% of Assets With Assessed Condition Available
Road Network	Paved Roads	100%
	Unpaved Roads	100%
	Sidewalks	100%
	Streetlights	0%
	Curbs & Lay-by	0%
Bridges & Culverts	Bridges	98%
	Culverts	91%
Stormwater Network	Sewer Mains	100%
	Catchbasins	100%
	Manholes	99%
	Detention Ponds	35%
	Small Culverts	98%
Buildings	Recreation	0%
	General Government	0%
	Fire	0%
	Parks & Trails	0%
	Public Works	0%
Land Improvements	Recreation	0%
	Public Works	0%
	Parks & Trails	0%
	Cemetery	0%
Vehicles	Public Works	70%
	Fire	86%
	Building	0%
	By-Law	0%
	Recreation	27%
Machinery & Equipment	Recreation	0%
	Library	0%
	Parks & Trails	0%
	Fire	0%
	General Government	0%
		55%

Age Profile

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

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

Road Network

The road network in the Town of Bracebridge constitutes the largest share of its infrastructure, with a replacement cost of over \$172.1 million. This includes both paved and unpaved roads. Additionally, the Town owns and manages various other supporting infrastructure and capital assets, such as sidewalks, curbs, lay-bys, and streetlights.

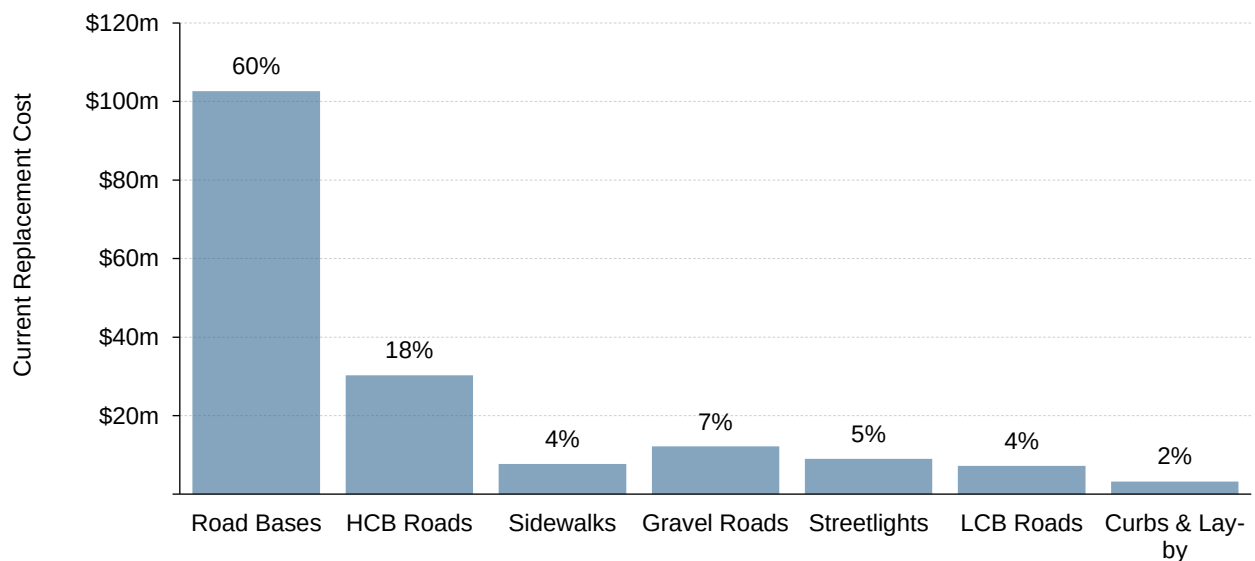
Inventory and Valuation

Table 5 summarizes the quantity and current replacement cost of the Town's various road network assets as managed in its primary asset management register, Citywide. For road segments, replacement costs from the Town's 2023 pavement condition assessment report were inflated to current year.

Table 5 Detailed Asset Inventory – Road Network

Segment	Quantity	Unit of Measure	Replacement Cost
Road Bases	321	Kilometers	\$102,643,710
HCB Roads	91	Kilometers	\$30,253,673
LCB Roads	99	Kilometers	\$7,224,925
Gravel Roads	136	Kilometers	\$12,130,458
Sidewalks	91.5	Kilometers	\$7,662,447
Streetlights (Pooled)	41	Assets	\$8,974,918
Curbs & Lay-by (Pooled)	22	Assets	\$3,239,974
Total			\$172,130,105

Figure 5 Portfolio Valuation – Road Network



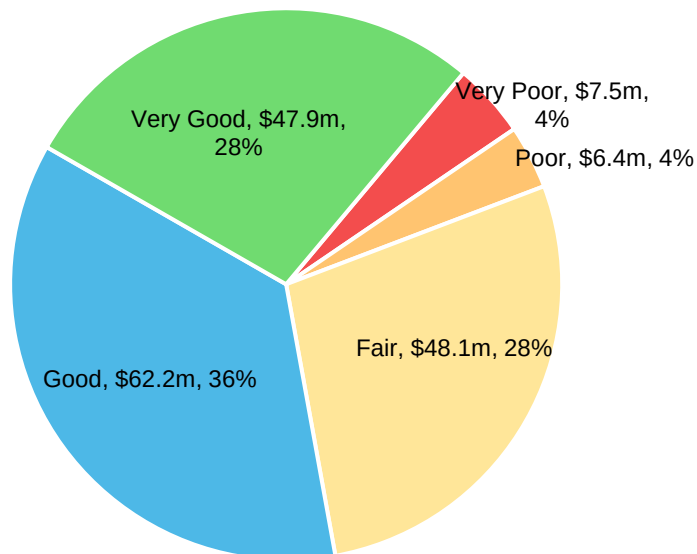
Asset Condition

Figure 6 provides a replacement cost-weighted snapshot of the Town's road network condition. Drawing on both field inspection data and asset age, 92% of road assets are currently rated in fair or better condition.

The remaining 8%—representing \$13.9 million in replacement value—are classified as being in poor or very poor condition. Condition assessments were available for 100% of paved and unpaved roads (by replacement cost), and sidewalks, while other road asset types did not have available condition data.

Assets in poor or worse condition may be prioritized for near-term replacement, while those in fair condition may warrant rehabilitation or eventual replacement depending on future deterioration. As illustrated in Figure 6, the majority of the Town's road network assets are in fair or better condition.

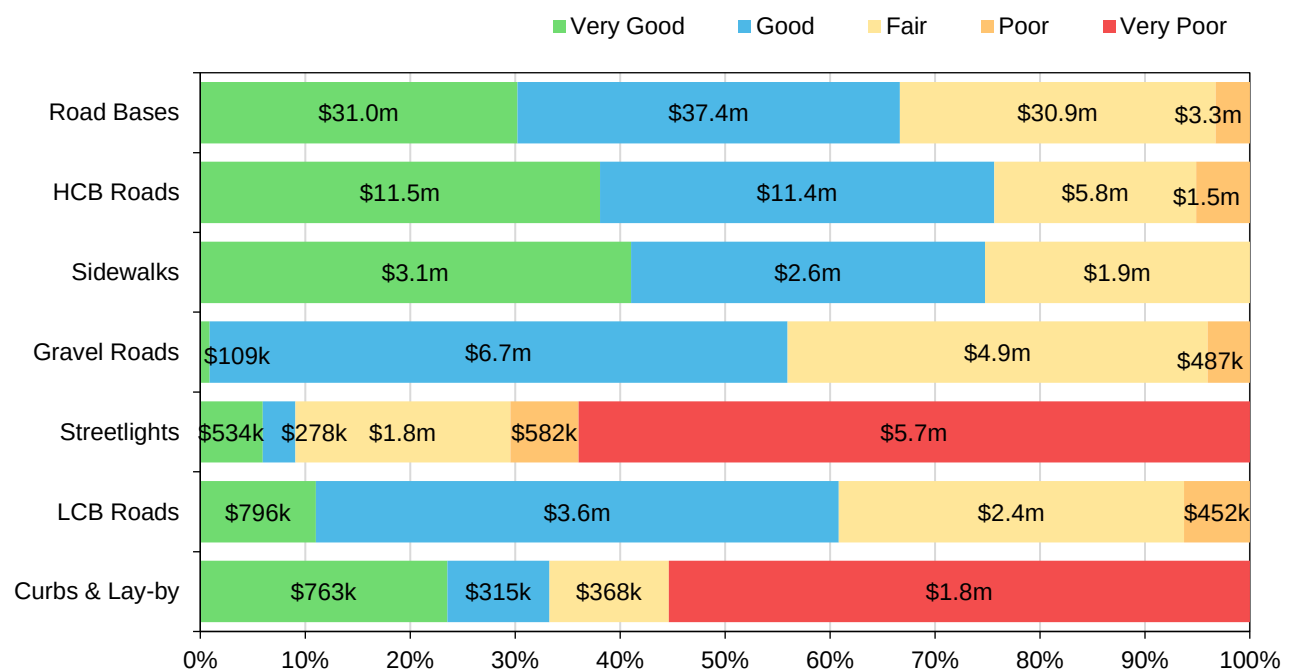
Figure 6 Asset Condition – Road Network: Overall



Condition assessments show that the majority of the Town’s road surfaces—both paved and unpaved—are in fair or better condition, indicating overall network stability. However, it’s important to note that condition ratings for road base assets are inferred only from surface inspections, as no subsurface or structural testing was conducted.

Sidewalk conditions were illustrated using asset age due to limitations in available data. While the Town conducts annual inspections for spot defects, these do not provide standardized segment-level condition ratings. As a result, age-based modeling suggests that nearly half of sidewalk assets may be in poor or very poor condition, signaling the need for targeted investment and improved inspection methods.

Figure 7 Asset Condition – Road Network: By Segment



Sidewalk Condition Assessments

The Town's 2024 sidewalk condition assessments identified 1,516 defects, including 326 instances of trip hazards. Vertical separations greater than 2 cm are classified as VS2 trip hazards throughout the project. This classification aligns with the Minimum Maintenance Standards, which define such separations as trip hazards. These are regarded as the most critical defects identified.

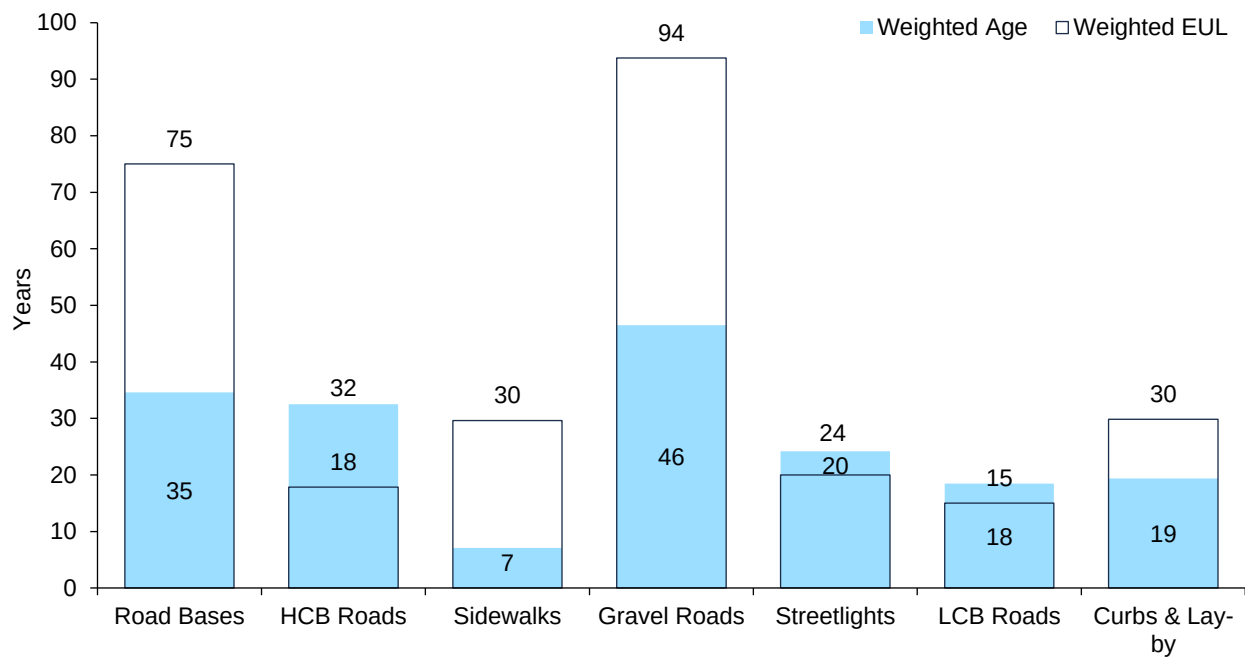
Table 6 Sidewalk Defects by Priority Rating

Description of Defect	Number of Defects Found
Trip Hazard (VS2)	326
Panel Replacement	63
Ponding Water	31
Hole	57
Asphalt Repairs	26
Missing Brick	1
Replace Brick	47
Broken Panel	921
Low Vegetation	39
Tree Limbs	5
Total	1,516

Age Profile

Figure 8 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

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



Several road-related assets—most notably HCB and LCB surfaces, streetlights—have exceeded their estimated useful life, based on replacement cost-weighted age. While age provides a useful planning signal, condition assessments offer a more accurate view of performance; for example, 2023 pavement inspection data shows most roads remain in fair or better condition despite their age.

Assets such as streetlights and road bases, which lack detailed inspection data, may warrant closer monitoring to validate performance and proactively manage future reinvestment needs.

Current Approach to Lifecycle Management

This section outlines Bracebridge's current approach to managing its road network. These can be used by staff for ongoing reference and planning within the Town's asset management program. These models should be continuously refined and updated with new data as it becomes available.

Some road projects are coordinated with the District to align with water and sewer work, and the need to synchronize schedules can influence the timing of certain Town-led road projects.

Roads

A roads needs study (RNS) is completed by an external consultant every five years for all paved and unpaved road sections. Curbs and lay-bys are also assessed as part of this study. The pavement condition index (PCI) scores generated from these road scans, staff judgment, traffic loads, and opportunity to bundle projects with utility work typically determine the optimal lifecycle intervention, ranging from pothole repairs to potential replacements.

The RNS provides a recommended 10-year capital program for road rehabilitation or replacements. Road sections are grouped in the "Now", "1-5 Year" and "6-10 Year" category. A separate breakdown for low volume roads is also presented to inform rehabilitation decisions. This information forms the basis for the Town's 10-Year roads capital plan.

Table 7 summarizes the Town's 1-10 year capital improvement needs for low and high volume roads. In total, \$38.3 million is required over the next decade. This reflects the recommended work plan.

Table 7 1-10 Year Capital Improvement Needs: Road Network

Road Type	Now	1-5 Years	6-10 Years
Low Volume Roads (LVR)	\$3,724,000	\$983,000	\$179,000
High Volume Roads (HVR)	\$5,876,000	\$12,928,000	\$14,643,000
Total	\$9,600,000	\$13,911,000	\$14,822,000

In discussion with staff, a proposed or recommended lifecycle strategy was developed for urban, semi-urban, and gravel roads. This strategy is outlined below. Rural, semi-urban, and gravel roads are maintained on a perpetual cycle, and may not require a full excavation and reconstruction.

Table 8 Recommended Lifecycle Strategy

Road Type	Lifecycle Activity	Trigger (Condition 0-100 or repeating event)	Resulting Condition
Urban	Microsurfacing	75	95
Urban	Resurfacing - Single Lift Mill and Pave RMP1	50	95
Urban	Resurfacing - Double Lift Mill and Pave RMP2	50	95
Urban	Microsurfacing	75	95
Urban	Full Excavation and Reconstruction - 2 Lift		100
Rural-Semi Urban	Slurry Seal	90	Unchanged
Rural-Semi Urban	Surface Treatment - Double with Pulverization and Granular Base ST2PA	25	95
Rural-Semi Urban	Slurry Seal	1-year post surface treatment	Unchanged
Rural-Semi Urban	Surface Treatment - Double with Pulverization and Granular Base ST2PA	25	95
Rural-Semi Urban	Slurry Seal	1-year post surface treatment	Unchanged
Gravel	Grading	Monthly	100
Gravel	Dust Control	Annually	Unchanged
Gravel	Vegetation Control	5-year cycle	Unchanged
Gravel	Drainage Improvements	10-year cycle	Unchanged

Sidewalks

All sidewalk inventory is assessed annually by a specialist external contractor in accordance with the minimum maintenance standards. Trip hazards are addressed annually by cutting the concrete on an angle. Badly broken sections are replaced annually, typically (but not always) in conjunction with the roads program. The annual assessment should be expanded to capture standard condition ratings information on sidewalk segments.

Streetlights

The Town does not currently have a regular condition assessment program for streetlights. An external streetlight maintenance contractor provides maintenance and completes replacements on an as-needed basis. A planned condition assessment program should be implemented on existing assets to provide a baseline condition index. The program should be set to an interval of not greater than five years post base line analysis. Annual minimum maintenance standard inspections do occur to monitor for asset functionality.

10-Year Capital Needs

The table below summarizes the projected asset replacement and/or rehabilitation needs that may be undertaken over the next 10 years to support levels of service objectives. As road base assets have long life-spans and are rarely replaced, they are not included in these projections.

Table 9 System-generated 10-Year Capital Replacement Forecast – Road Network

Segment	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Road Base	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
High Class Bituminous (HCB)	\$1.8m	\$949k	\$2.7m	\$4.0m	\$3.9m	\$3.4m	\$1.9m	\$1.6m	\$4.4m	\$640k
Low Class Bituminous (HCB)	\$318k	\$29k	\$4.8m	\$3.3m	\$2.5m	\$2.7m	\$3.9m	\$5.5m	\$559k	\$0
Gravel	\$3.4m	\$2.8m	\$2.9m	\$2.8m	\$2.8m	\$2.8m	\$3.6m	\$4.1m	\$2.9m	\$2.8m
Curbs & Lay-by	\$1.8m	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sidewalks	\$7.5m	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Streetlights	\$0	\$0	\$0	\$0	\$252k	\$155k	\$0	\$175k	\$823k	\$20k
Total	\$14.8m	\$3.8m	\$10.4m	\$10.2m	\$9.4m	\$9.0m	\$9.4m	\$11.3m	\$8.7m	\$3.5m

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

The Town's 2025 Long Term Capital Plan forecasts road network expenditures totaling \$32,384,000 over the 2025-2034 period, including major capital works, and essential pavement preservation management activities and preventative maintenance work. An additional \$4,290,000 in lifecycle works and proactive financial planning is forecasted for sidewalks, including increasing the Town's fiscal capacity by \$200,000 to prepare for future works. Streetlight replacements are estimated at \$45,000 over the same 10-year period.

Bridges & Culverts

The Town of Bracebridge's transportation network also includes bridges and structural culverts, with a current replacement cost of \$36.1 million.

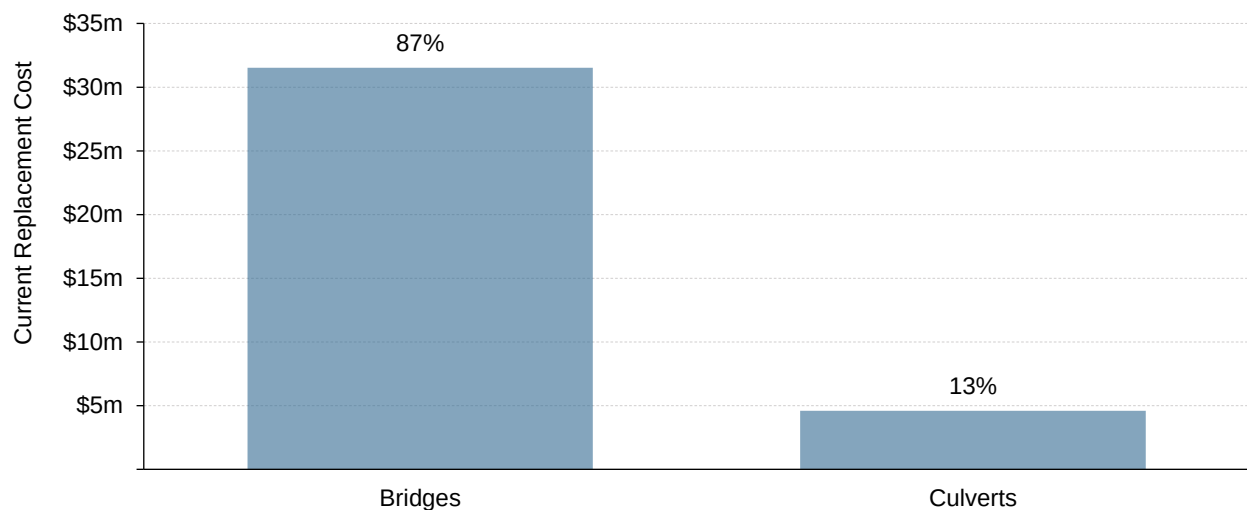
Inventory and Valuation

Table 10 summarizes the quantity and current replacement cost of bridges and culverts. The Town owns and manages 17 bridges and 11 structural culverts with a width of 3m or above. The Town's 17 bridges make up 87% of the structures portfolio.

Table 10 Detailed Asset Inventory – Bridges & Culverts

Segment	Quantity	Unit of Measure	Replacement Cost
Bridges	17	Assets	\$31,511,000
Culverts	11	Assets	\$4,594,619
Total	28		\$36,105,619

Figure 9 Portfolio Valuation – Bridges & Culverts

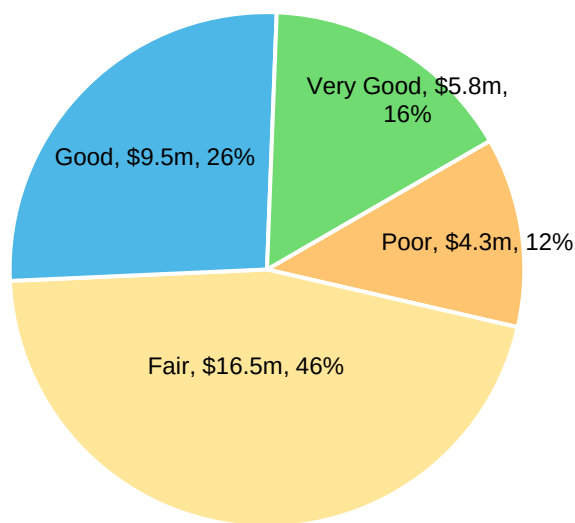


Asset Condition

Figure 10 presents the replacement cost-weighted condition of the Town’s bridges and culverts, based on the latest Ontario Structure Inspection Manual (OSIM) assessments. Overall, 88% of these assets are in fair or better condition. While some components may require rehabilitation in the medium term, their overall structural integrity remains sound. The remaining 12% are rated in poor or very poor condition and may warrant short-term intervention.

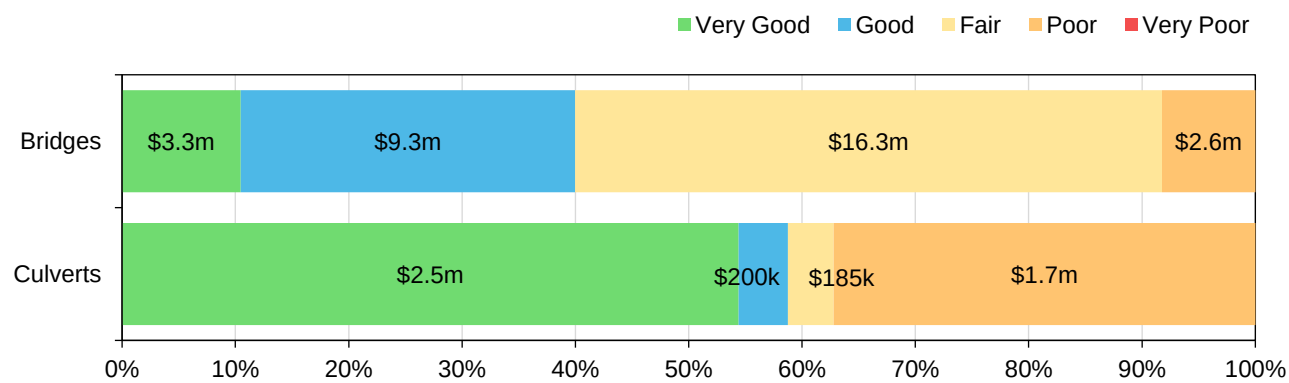
It’s important to note that a lower bridge condition index (below 60) does not necessarily indicate a safety risk; OSIM ratings focus on the condition of individual elements rather than the bridge’s overall fitness for use.

Figure 10 Asset Condition – Bridges & Culverts: Overall



As further detailed in Figure 11, based on in-field condition assessments, \$2.6 million of bridge assets were assessed as being in poor condition. Similarly, 37% of structural culverts were identified as poor or worse.

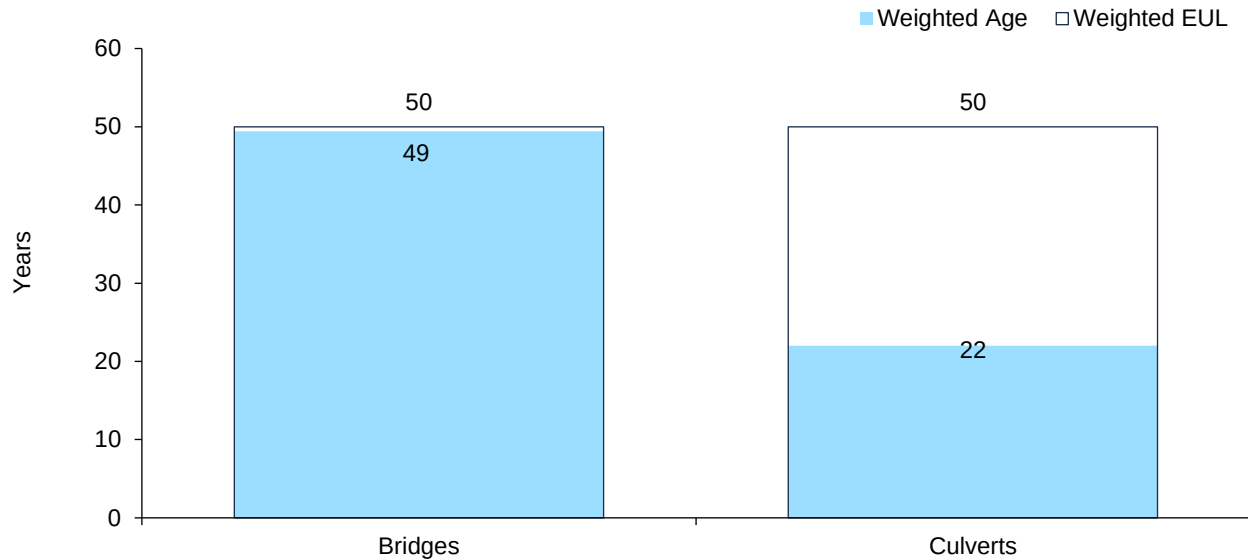
Figure 11 Asset Condition – Bridges & Culverts: By Segment



Age Profile

Figure 12 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 12 Estimated Useful Life vs. Asset Age – Bridges & Culverts



Age analysis reveals that on average, bridges have consumed virtually all their estimated useful life, with an average age of 50 years against an average EUL of 50 years. On average, however, culverts are still in the first phase of their lifecycle, with an average age of 22 years, against an average EUL of 50 years. OSIM assessments should continue to be used in conjunction with age and asset criticality to prioritize capital and maintenance expenditures.

Current Approach to Lifecycle Management

The condition of bridges and structural culverts is assessed biennially in compliance with Ontario Structure Inspection Manual (OSIM). The most recent inspection report was completed in 2024. The bridge condition index (BCI) is used to guide and prioritize capital investment, unless health and safety concerns warrant a different, more immediate intervention.

10-Year Capital Needs

The table below summarizes the projected cost of lifecycle activities that will need to be undertaken over the next 10 years to support levels of service objectives. These estimates are based on the Town's 2024 OSIM reports. Neither the system-generated forecasts nor the 2024 OSIM included any replacement or rehabilitation needs beyond 2030. The Town's 2026 OSIM is expected to provide further workplans.

Table 11 System-generated 10-Year Capital Replacement Forecast – Bridges & Culverts

Segment	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Bridges	\$1.2m	\$1.1m	\$660k	\$1.5m	\$0	\$0	\$0	\$0	\$0	\$0
Culverts	\$220k	\$550k	\$330k	\$0	\$660k	\$0	\$0	\$0	\$0	\$0
Total	\$1.4m	\$1.7m	\$990k	\$1.5m	\$660k	\$0	\$0	\$0	\$0	\$0

The Town's 2025 Long Term Capital Plan forecasts capital expenditures on bridges and culverts totaling \$4,563,000 over the 2025-2034 period designed to address the lifecycle needs associated with nine bridges and structural culverts.

Stormwater Network

Bracebridge's Stormwater Network comprises sewer mains and other critical supporting capital assets with a total current replacement cost of \$30.7 million. The Town is responsible for 28.6 kilometers of storm mains.

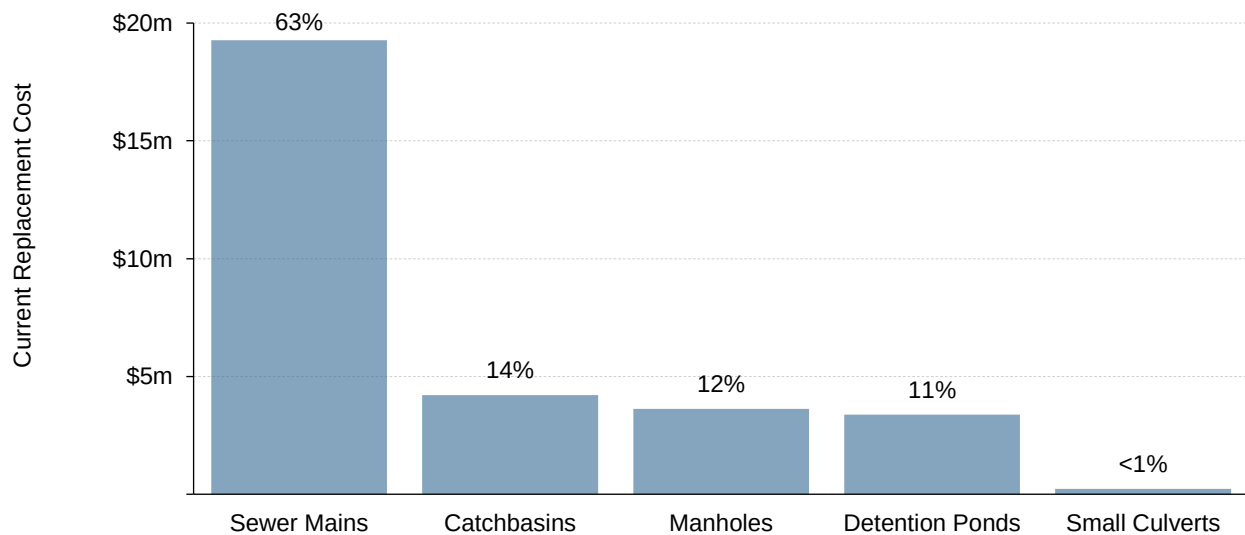
Inventory and Valuation

Table 12 summarizes the quantity and current replacement cost of all stormwater management assets available in the Town's asset register.

Table 12 Detailed Asset Inventory – Stormwater Network

Segment	Quantity	Unit of Measure	Replacement Cost
Storm Mains	28.6	Kilometers	\$19,272,259
Catch Basins	701	Assets	\$4,206,000
Manholes	363	Assets	\$3,630,000
Detention Ponds	13	Assets	\$3,372,753
Small Culverts	350	Meters	\$225,814
Total			\$30,706,826

Figure 13 Portfolio Valuation – Stormwater Network



Asset Condition

Figure 14 summarizes the replacement cost-weighted condition of the Town's stormwater management assets. Based on assessed condition data, nearly 98% of assets are in fair or better condition. The remaining 2% of assets, with a current replacement cost of \$607k were considered in poor or 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 14 Asset Condition – Stormwater Network: Overall

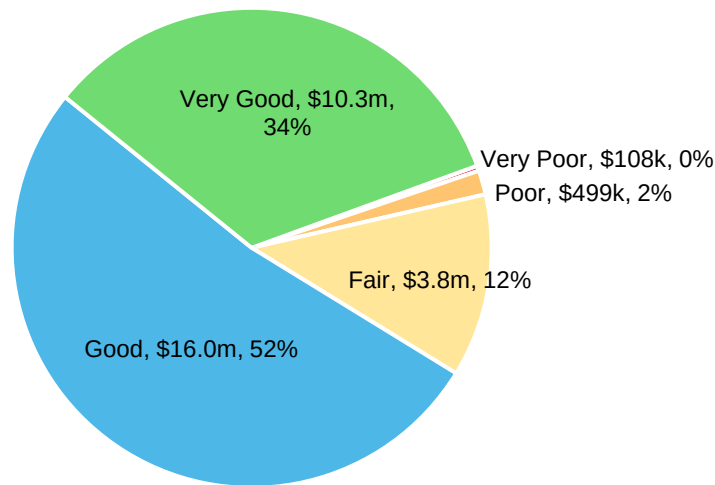
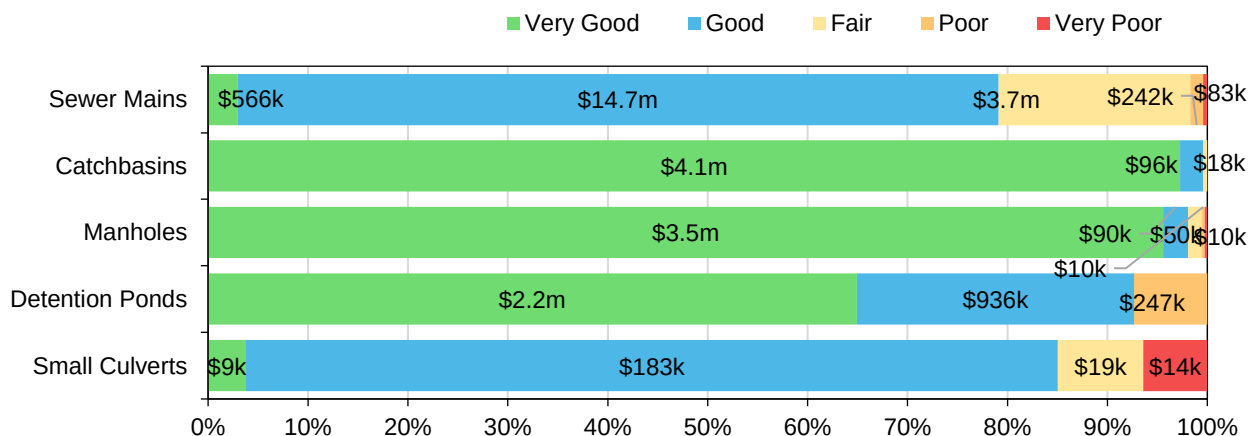


Figure 15 summarizes the condition of stormwater assets. Based on in-field condition data, nearly 100% of all stormwater linear and structures—including catch basins and manholes—are in fair or better condition. No updated condition data was available for detention ponds. Their condition ratings were projected from 2021 to end of 2024 to derive current condition scores.

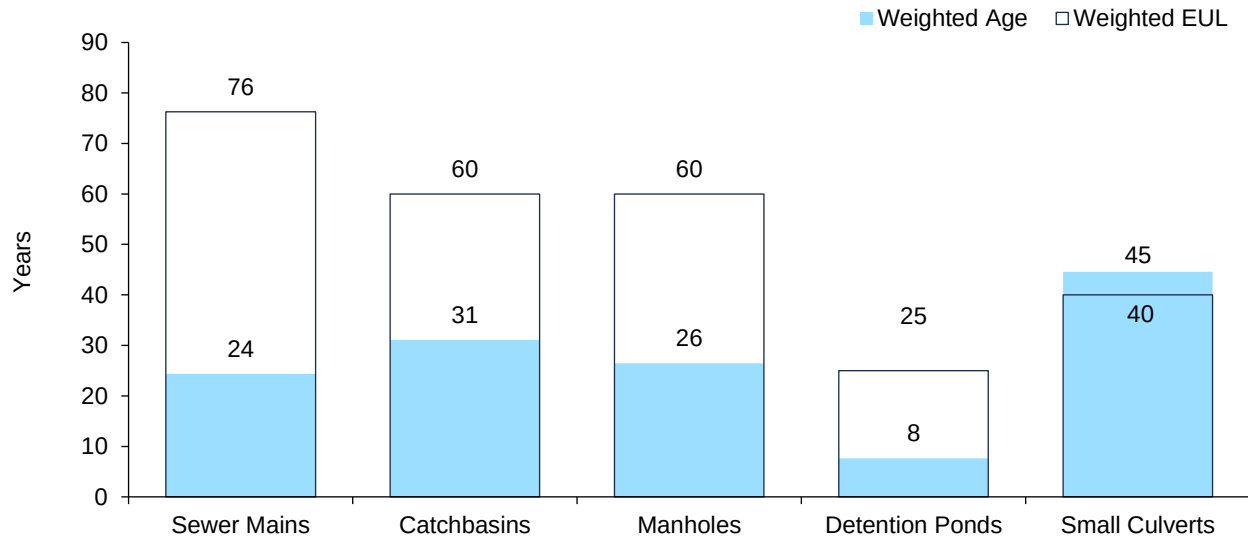
Figure 15 Asset Condition – Stormwater Network: By Segment



Age Profile

Figure 16 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 16 Estimated Useful Life vs. Asset Age – Stormwater Network



Age analysis reveals that on average, most stormwater assets are in the earlier stages of their estimated design life.

Current Approach to Lifecycle Management

A condition inspection was conducted of the Town's stormwater infrastructure in 2023, including a zoom camera inspection of linear assets. Structural ratings were assigned.

Detention ponds are inspected annually, typically in the fall, and produce deficiency lists with cost estimates and a deadline for completion. They are typically rated as 'Acceptable' or 'Unacceptable'. As these assets age, the carrying costs of their ongoing maintenance and ownership will continue to escalate.

The Town also completes an annual cleaning of all catchbasin sumps in the authorized system with a sucker-truck.

10-Year Capital Forecast

The table below summarizes the projected cost of lifecycle activities (capital replacement only) that will need to be undertaken over the next 10 years to support levels of service objectives.

Table 13 System-generated 10-Year Replacement Forecast – Stormwater Network

Segment	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Storm Mains	\$0	\$0	\$0	\$0	\$40k	\$0	\$0	\$0	\$0	\$0
Catch Basins	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Manholes	\$0	\$0	\$0	\$0	\$0	\$10k	\$0	\$0	\$0	\$0
Detention Ponds	\$0	\$0	\$0	\$0	\$0	\$0	\$247k	\$0	\$0	\$0
Small Culverts	\$0	\$0	\$0	\$0	\$9k	\$6k	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$49k	\$16k	\$247k	\$0	\$0	\$0

These projections are generated in Citywide and rely on the data available in the asset register. They can be different from actual capital forecasts. Consistent data updates, especially condition, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

The Town's 2025 Long-Term Capital Plan projects \$4,960,000 in storm sewer investments over the 2025–2034 period. Planned works include major lifecycle activities such as storm system rehabilitation, culvert replacement and rehabilitation, and storm sewer upgrades.

Buildings

Bracebridge's building portfolio comprises fire stations, administrative and public works facilities, a public library, and recreational assets. The estimated total replacement cost for these buildings totals \$126.6 million, including the Muskoka Lumber Community Centre .

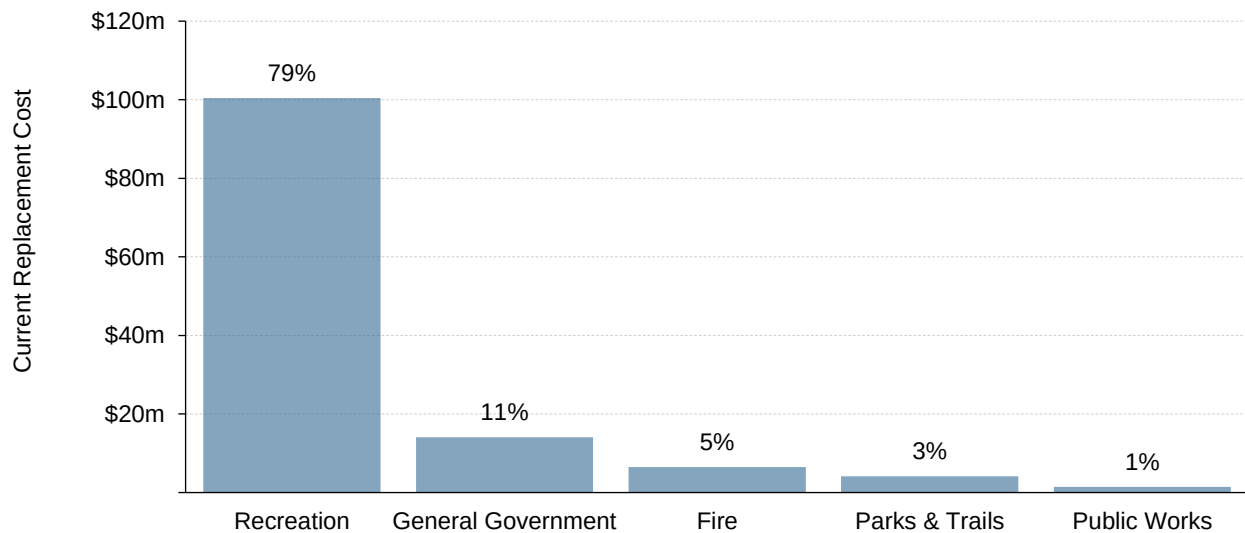
Inventory and Valuation

Table 14 summarizes the quantity and current replacement cost of all buildings assets available in the Town's asset register.

Table 14 Detailed Asset Inventory – Buildings

Segment	Quantity	Unit of Measure	Replacement Cost
Recreation	7	Buildings/Facilities	\$100,414,098
General Government	4	Buildings/Facilities	\$14,082,009
Fire	2	Buildings/Facilities	\$6,491,017
Parks & Trails	7	Buildings/Facilities	\$4,140,828
Public Works	1	Buildings/Facilities	\$1,435,587
Total			\$126,563,539

Figure 17 Portfolio Valuation – Buildings



Asset Condition

Figure 18 illustrates the condition of the Town's building portfolio based on replacement cost. Using age data alone, 97% of the building assets are classified as fair or better, while 3%, with a replacement cost of \$4.1 million, are in poor or worse condition and may need short-term replacement. Assets in fair condition might require medium-term rehabilitation or replacement and should be closely monitored for further deterioration.

Since the 2024 AMP, the Muskoka Lumber Community Centre has been partially broken down into major building components, allowing for more detailed tracking and planning. Other facilities, including the Bracebridge Sportsplex and the Town's two fire stations, are still represented as single assets. Over time, continued progress in asset componentization and data collection will support more refined condition analysis and improved decision-making.

Figure 18 Asset Condition – Buildings: Overall

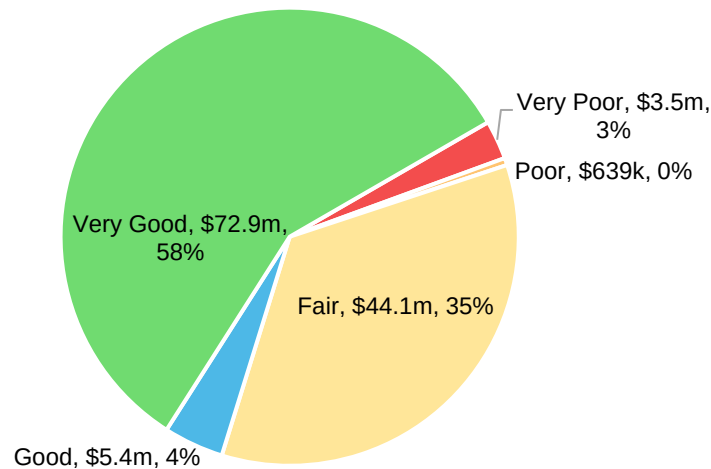
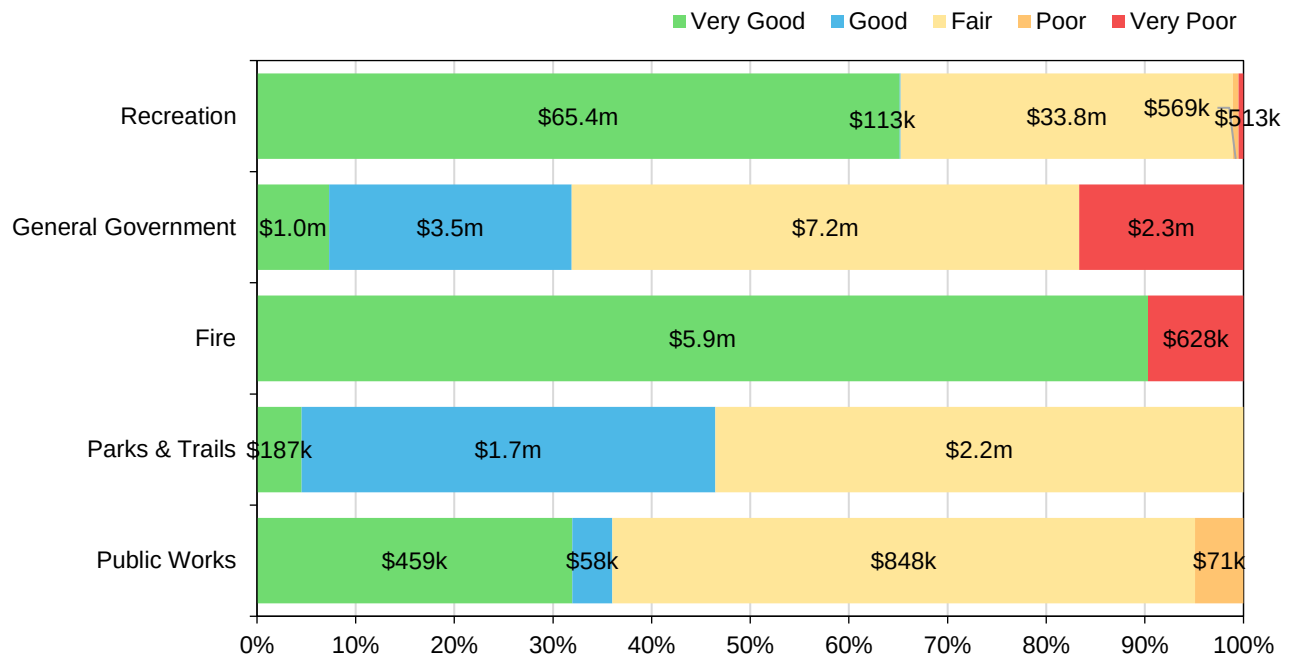


Figure 19 presents the age-based condition of buildings by department. Recreation, which holds the highest-value assets by replacement cost within the Town's buildings portfolio, has nearly all assets in fair or better condition—due in part to the newly constructed Muskoka Lumber Community Centre. Fire stations also remain in very good condition overall. Fire stations also remain in very good condition overall.

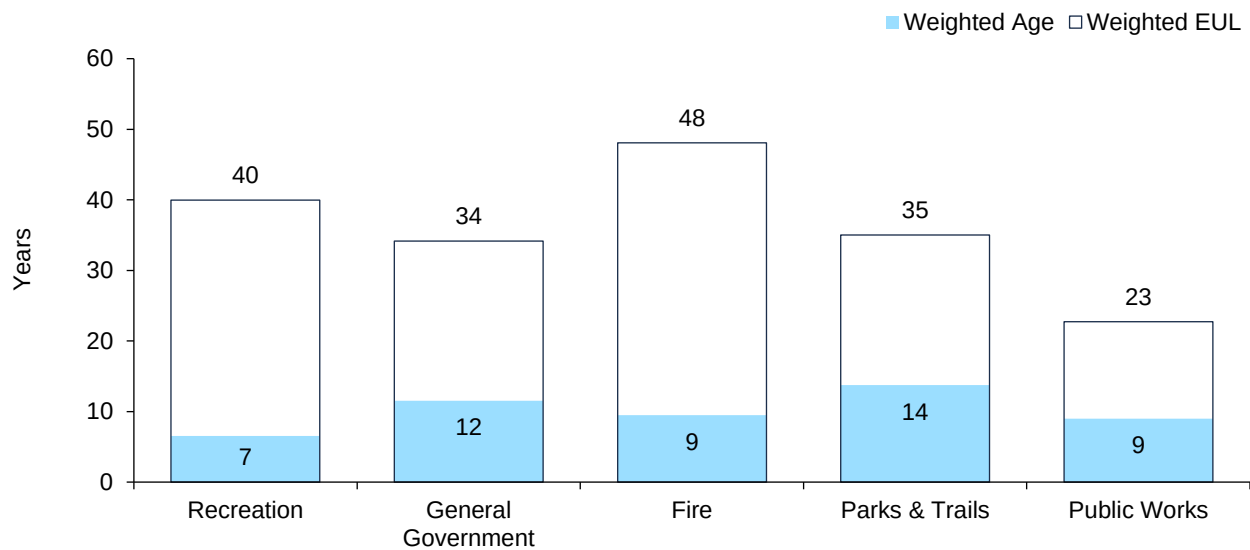
Figure 19 Asset Condition – Buildings: By Department



Age Profile

Figure 20 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 20 Estimated Useful Life vs. Asset Age – Buildings



Across all building categories, most assets remain in the early to mid-stages of their lifecycle. Recreation facilities, which represent the highest replacement value within the buildings category, have a notably low weighted average age due to recent investments such as the Muskoka Lumber Community Centre.

Placed into service in 2018, Fire Station #1 is significantly larger than Station #2 and accounts for most of the replacement value, resulting in a relatively young average age across the Town’s fire facilities.

This analysis indicates that recent capital reinvestments have effectively refreshed key facility portfolios. However, deriving meaningful insights from age data depends heavily on effective componentization—ensuring individual building systems are accurately represented within the asset inventory.

Current Approach to Lifecycle Management

Buildings and facilities are assessed using standard building condition assessment (BCA) criteria. However, this data is not currently integrated with the Town's asset register, given inconsistencies between data formats used. As buildings and facilities are further componentized within the Town's asset register, BCA data can be more effectively integrated with the asset register.

10-Year Replacement Forecast

The table below summarizes the projected cost of lifecycle activities (capital replacement only) that will need to be undertaken over the next 10 years to support levels of service objectives.

Table 15 System-generated 10-Year Replacement Forecast – Buildings

Segment	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Recreation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
General Government	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fire	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Parks & Trails	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Library	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Public Works	\$0	\$0	\$0	\$0	\$70,660	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$70,660	\$0	\$0	\$0	\$0	\$0

These projections are generated in Citywide and rely on the data available in the asset register. As assessed condition data was not available for any buildings assets, only age was used to determine forthcoming replacement needs. Buildings and facilities often contain thousands of assets, each with its own estimated useful life. Currently, however, as the Town's buildings are not yet fully componentized, the extent to which accurate forecasts can be created is limited.

In addition to the system-generated forecasts, the Town's 2025 Long Term Capital Plan outlines substantial lifecycle investments across the buildings portfolio between 2025 and 2034. These include \$3,794,000 for building and mechanical infrastructure in the Bracebridge Sportsplex; \$40,000 towards the Muskoka Lumber Community Centre playground and courtyard; and \$956,000 on repairs and rehabilitation needs across other buildings and facilities. In addition, \$8,160,240 in capital investments is planned for parks and trails assets between 2024 and 2034, with expenditures distributed across multiple asset categories, including buildings, land improvements, and machinery and equipment. Capital investments are also planned for the Town's municipal office and its internal operational equipment, including \$200,00 for Council chambers.

Land Improvements

Bracebridge's Land Improvements portfolio includes parking lots, various sports fields and courts, and docks. The total current replacement of land improvements is estimated at approximately \$22.7 million.

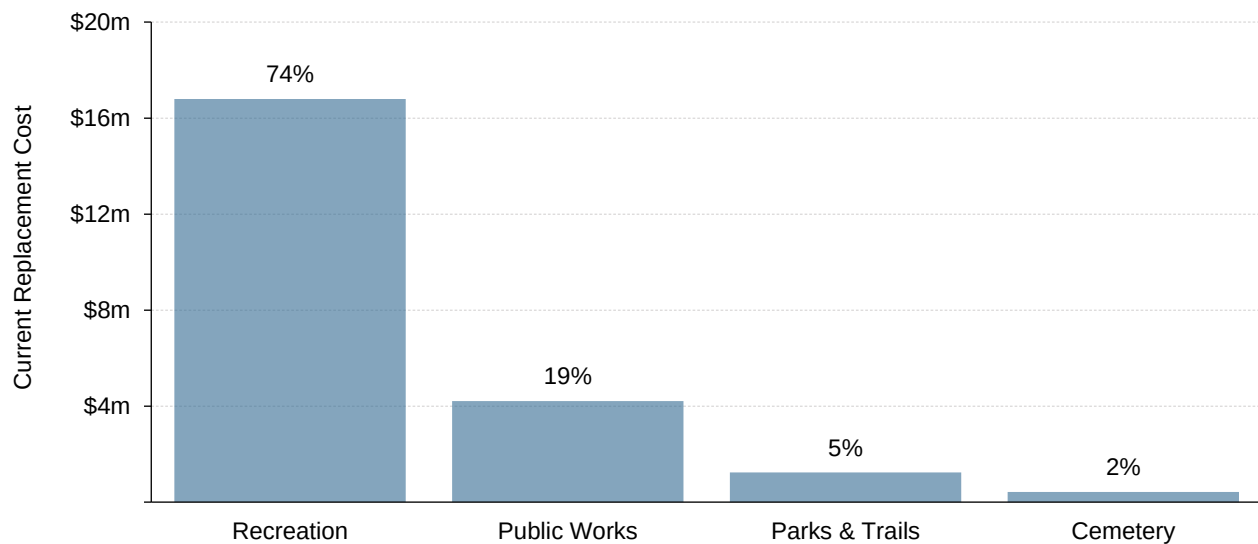
Inventory and Valuation

Table 16 summarizes the quantity and current replacement cost of all land improvements assets available in the Town's asset register. Recreation accounts for the largest share of this asset group.

Table 16 Detailed Asset Inventory – Land Improvements

Segment	Quantity	Unit of Measure	Replacement Cost
Recreation	66	Assets	\$16,801,396
Public Works (Parking Lots)	23	Assets	\$4,209,492
Parks & Trails	10	Assets	\$1,233,208
Cemetery	9	Assets	\$424,458
Total			\$22,668,554

Figure 21 Portfolio Valuation – Land Improvements



Asset Condition

Figure 22 summarizes the replacement cost-weighted condition of the Town's vehicles portfolio. Based on age data only, 54% of assets are in fair or better condition, the remaining 46% are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 22 Asset Condition – Land Improvements: Overall

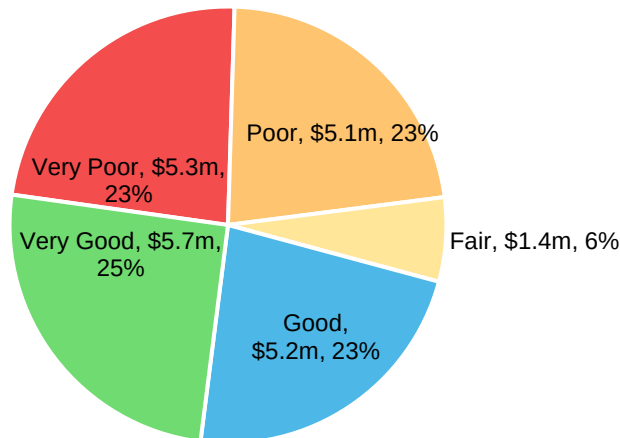
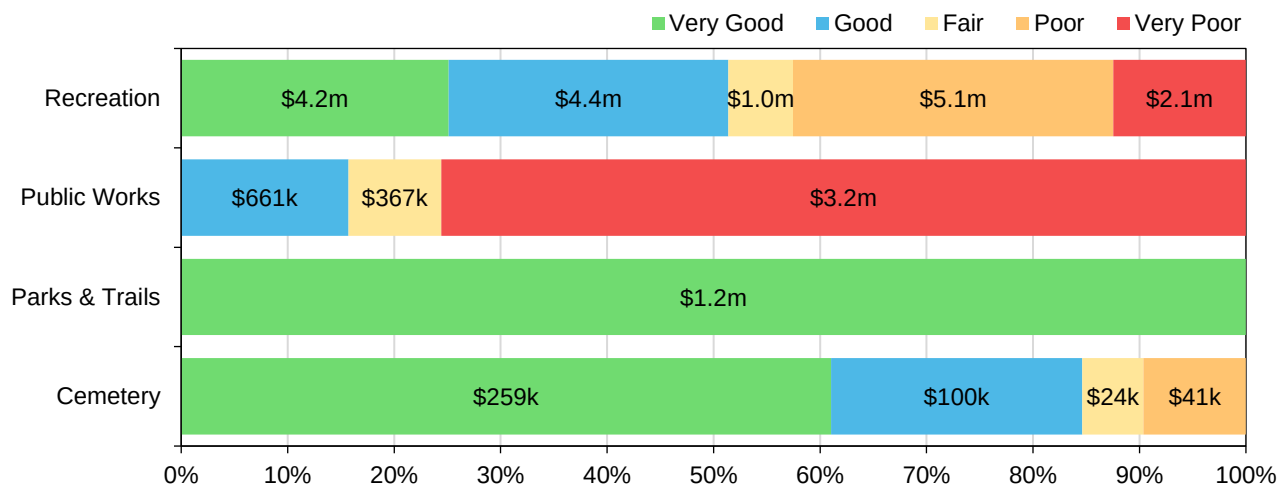


Figure 23 summarizes the age-based condition of land improvements by each department. Assets in poor or worse condition are concentrated primarily in public works, consisting mostly of parking lots and associated infrastructure. Based on staff review and judgment, assets are considered to be in better condition than age-based analysis would suggest, underscoring the limitations of age as a sole indicator of asset condition.

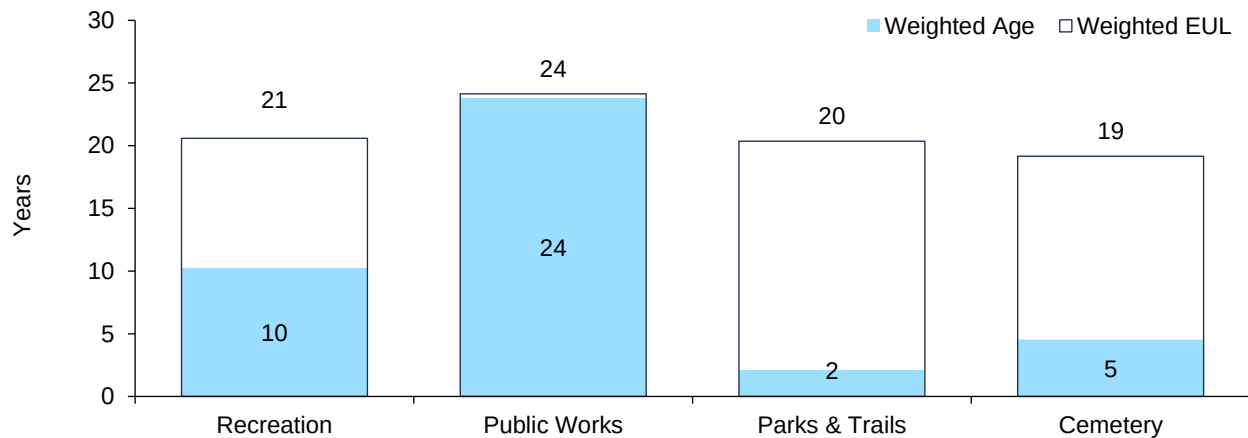
Figure 23 Asset Condition – Land Improvements: By Department



Age Profile

Figure 24 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 24 Estimated Useful Life vs. Asset Age – Land Improvements



Age analysis reveals that, on average, most public works assets are at the end of their lifespan. Recreation assets are also in the latter stages of their expected design life; however, these assets are typically minor in nature and do not require comprehensive lifecycle management.

Current Approach to Lifecycle Management

Some targeted condition assessment programs are in place. However, an expanded and more formal approach to the completion of assessments and the cataloguing of outcomes related to condition assessment should be integrated with the Town's asset management system for greater program effectiveness. Most land improvement assets are not critical infrastructure; their condition assessments can be conducted as part of other more involved inspections, e.g., building condition assessments.

10-Year Capital Forecast

The table below summarizes the projected cost of lifecycle activities (capital replacement only) that will need to be undertaken over the next 10 years to support levels of service objectives.

Table 17 System-generated 10-Year Replacement Forecast – Land Improvements

Segment	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Recreation	\$407k	\$0	\$0	\$0	\$801k	\$4.1m	\$50k	\$380k	\$45k	\$0
Public Works	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$110k	\$0
Parks & Trails	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cemetery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41k	\$46k	\$13k
Total	\$407k	\$0	\$0	\$0	\$801k	\$4.1m	\$50k	\$420k	\$201k	\$13k

These projections are generated in Citywide and rely on the data available in the asset register. For land improvements, no condition information was available. As a result, this system-generated 10-year forecast relies only on asset age and replacement cost. These projections can be different from actual capital forecasts. Consistent data updates, especially condition, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

Bracebridge's 2025 Long Term capital Plan includes \$8,160,240 in expenditures on parks and trails assets between 2024 and 2034, with expenditures distributed across multiple asset categories, including buildings, land improvements, and machinery and equipment. An additional \$2,497,000 is dedicated specifically for trails over the same 10-year period. Investments in cemetery assets are projected to total \$248,190.

Vehicles

Bracebridge's Vehicles portfolio consists of 69 vehicles that provide a range of general and essential services, such as public works, administration, by-law enforcement, and fire services. The estimated total current replacement value of these vehicles is \$14.4 million.

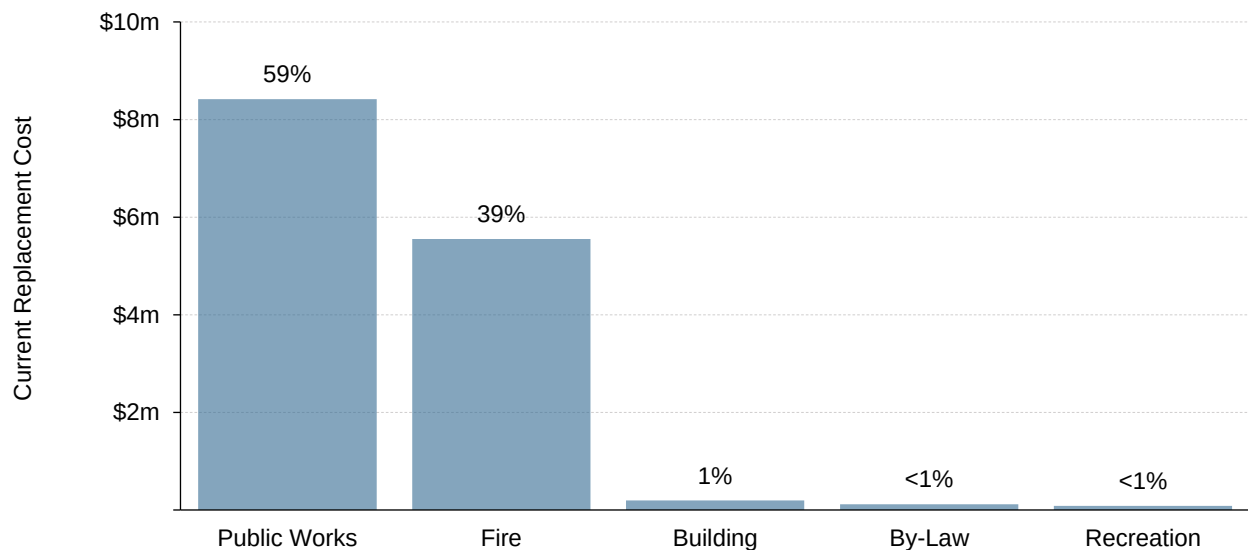
Inventory and Valuation

Table 18 summarizes the quantity and current replacement cost of all vehicle assets available in the Town's asset register. Public works and fire services account for the largest share of the vehicles portfolio.

Table 18 Detailed Asset Inventory – Vehicles

Segment	Quantity	Unit of Measure	Replacement Cost
Public Works	43	Assets	\$8,419,673
Fire	15	Assets	\$5,553,793
Building	5	Assets	\$195,149
By-Law	3	Assets	\$117,877
Recreation	3	Assets	\$82,897
Total	69		\$14,369,389

Figure 25 Portfolio Valuation – Vehicles



Asset Condition

Figure 26 summarizes the replacement cost-weighted condition of the Town's vehicles portfolio. Based primarily on assessed condition data (Fire and Public Works), nearly 88% of vehicles are in fair or better condition, with the remaining 12% are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Condition data was available for 75% of vehicles, based on replacement costs; age was used to estimate condition for the remaining 25% of assets.

Figure 26 Asset Condition – Vehicles: Overall

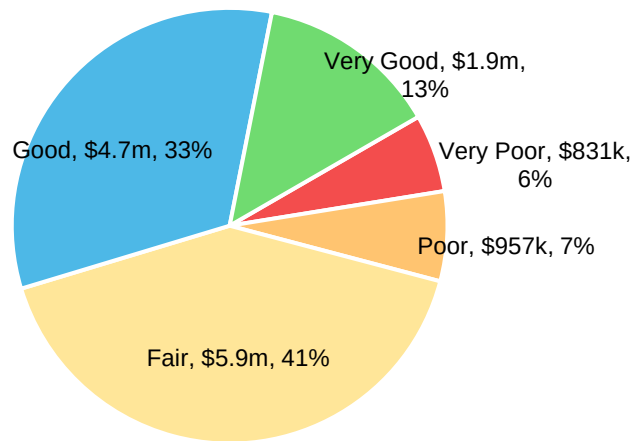
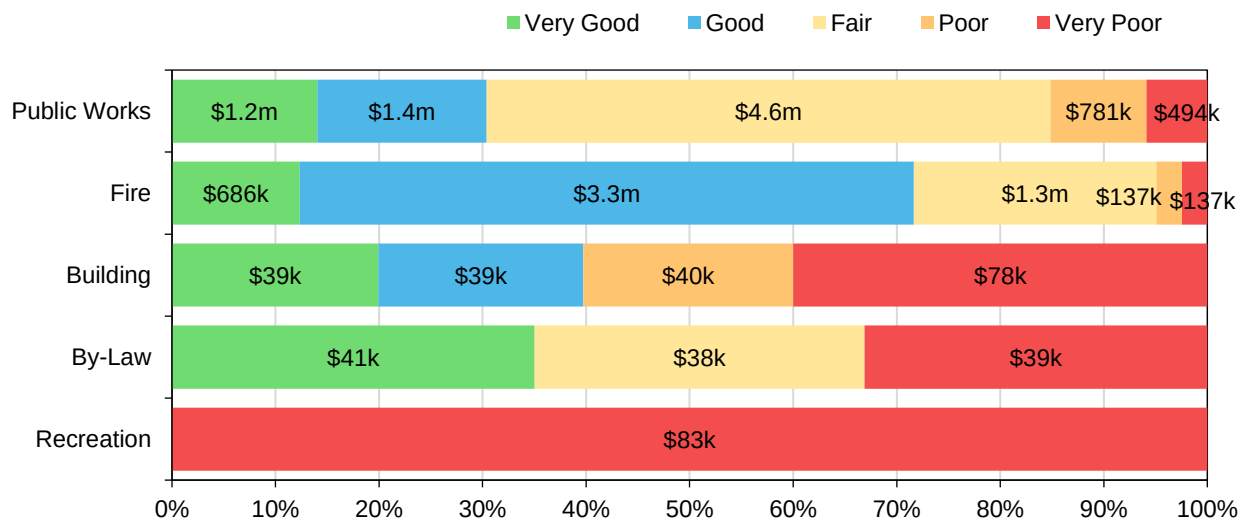


Figure 27 summarizes the condition of vehicles by each department. The vast majority of vehicles that support critical services such as fire are in fair or better condition. Vehicles in poor or worse condition are concentrated primarily in recreation and by-law services.

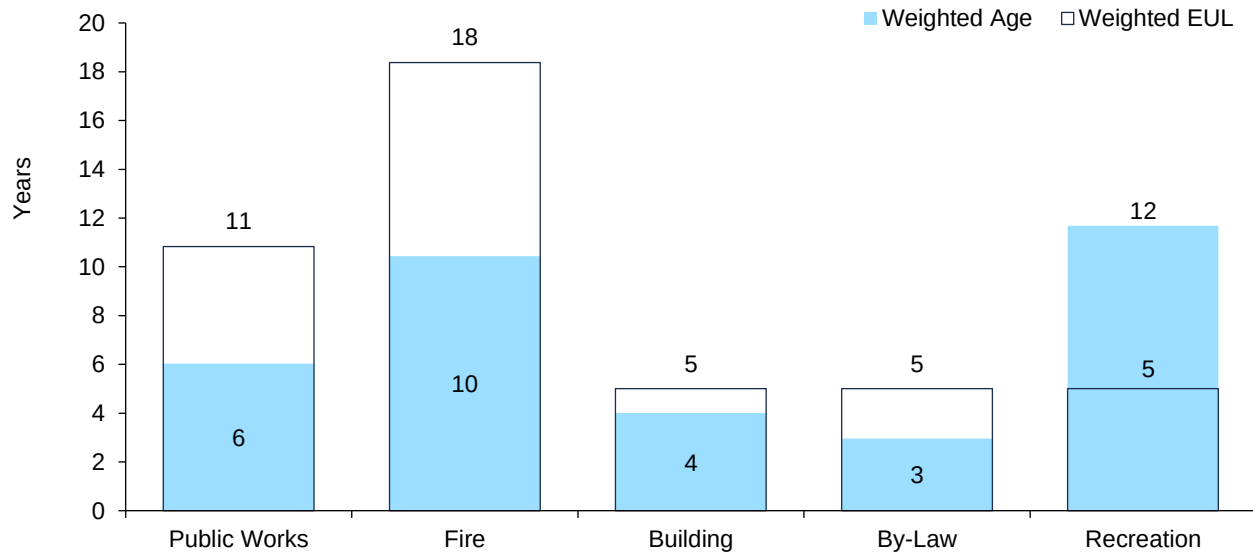
Figure 27 Asset Condition – Vehicles: By Department



Age Profile

Figure 28 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 28 Estimated Useful Life vs. Asset Age – Vehicles



Age analysis reveals that, on average, most vehicles are in the latter stages of their expected life. On average, most vehicles in recreation remain in service well beyond their established useful life; however, these three vehicles have a short lifespan of five years.

Current Approach to Lifecycle Management

Condition assessments reflect annual inspections completed by vendor serviced repair centres. The outcome of the repairs quantifies, with vehicle age and use, the vehicle's approximate overall condition rating. The Town also endeavours to meet all regulatory requirements for vehicles supporting critical services, e.g., fire. Age remains the driving factor for asset replacement.

10-Year Replacement Forecast

The table below summarizes the projected cost of lifecycle activities (capital replacement only) that will need to be undertaken over the next 10 years to support levels of service objectives.

Table 19 System-generated 10-Year Replacement Forecast – Vehicles

Segment	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Public Works	\$260k	\$0	\$0	\$810k	\$2.0m	\$2.3m	\$385k	\$1.1m	\$1.6m	\$201k
Fire	\$137k	\$137k	\$0	\$73k	\$70k	\$3.3m	\$657k	\$0	\$73k	\$70k
Building	\$39k	\$40k	\$0	\$39k	\$39k	\$78k	\$40k	\$0	\$39k	\$39k
By-Law		\$0	\$38k	\$0	\$41k	\$39k	\$0	\$38k	\$0	\$41k
Recreation	\$22k	\$0	\$0	\$0	\$0	\$83k	\$0	\$0	\$0	\$0
Total	\$458k	\$176k	\$38k	\$922k	\$2.2m	\$5.8m	\$1.1m	\$1.1m	\$1.7m	\$351k

These projections are generated in Citywide and rely on the data available in the asset register. For some vehicles, no condition information was available. As a result, this system-generated 10-year forecast relies only on asset age and replacement cost for these assets. These projections can be different from actual capital forecasts. Consistent data updates, especially condition, and asset acquisitions and disposals will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

The Town's 2025 Long Term Capital Plan includes vital investments in fleet, vehicles, and equipment, including \$2,916,000 for fire fleet, \$107,000 for by-law, and \$7,575,600 for essential operational equipment, such as sidewalk plows, asphalt trailer, loaders and back-hoes, and other key fleet and equipment assets.

Machinery & Equipment

Bracebridge's Machinery & Equipment portfolio includes 190 pooled assets that support a variety of general and essential services, including recreation and fire. The total current replacement of machinery & equipment is estimated at approximately \$17.8 million.

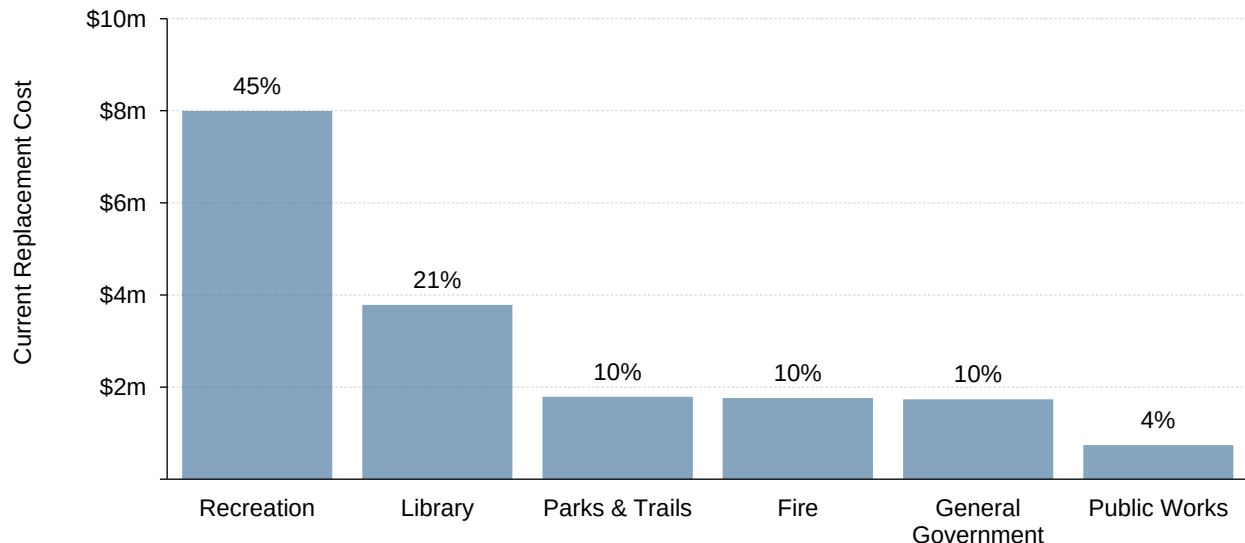
Inventory and Valuation

Table 20 summarizes the quantity and current replacement cost of all machinery and equipment assets available in the Town's asset register.

Table 20 Detailed Asset Inventory – Machinery & Equipment

Segment	Quantity	Unit of Measure	Replacement Cost
Recreation	60	Assets	\$7,994,745
Library	27	Assets	\$3,786,711
Parks & Trails	18	Assets	\$1,790,026
Fire	61	Assets	\$1,761,551
General Government	14	Assets	\$1,733,874
Public Works	10	Assets	\$741,918
Total	190		\$17,808,825

Figure 29 Portfolio Valuation – Machinery & Equipment



Asset Condition

Figure 30 summarizes the replacement cost-weighted condition of the Town's machinery & equipment portfolio. Based only on age data, 69% of assets are in fair or better condition; the remaining 31% are in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 30 Asset Condition – Machinery & Equipment: Overall

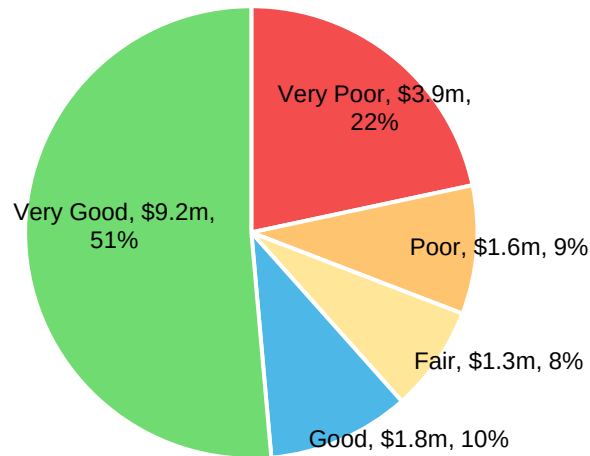
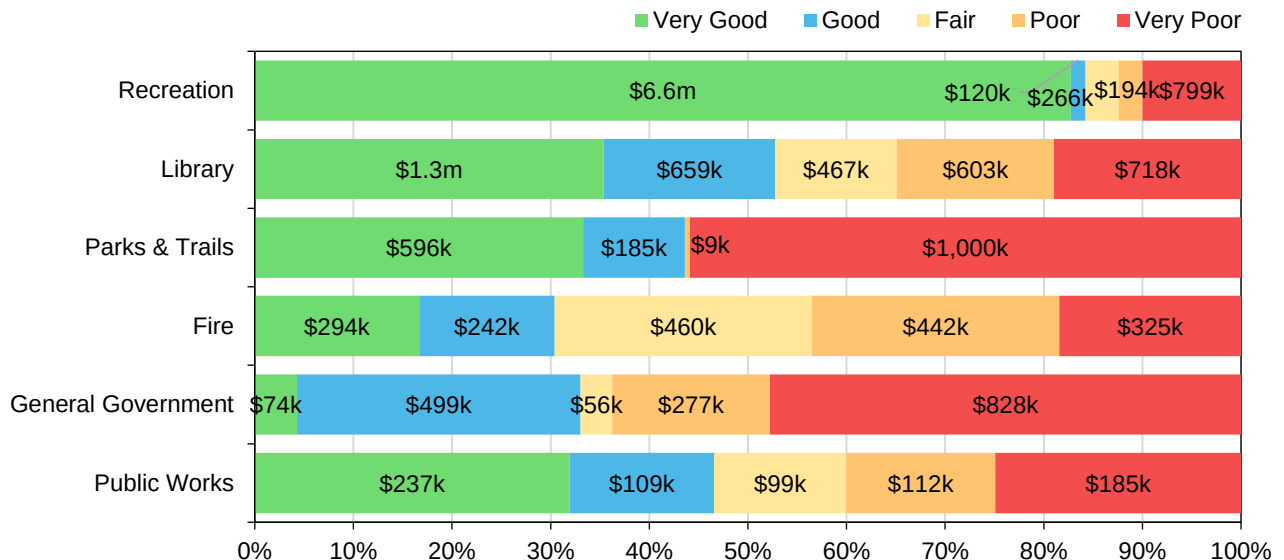


Figure 31 summarizes the age-based condition of machinery and equipment by each department. The majority of assets that support fire services are in fair or better condition. Substantial portions of all departmental machinery and equipment assets are in poor or worse condition.

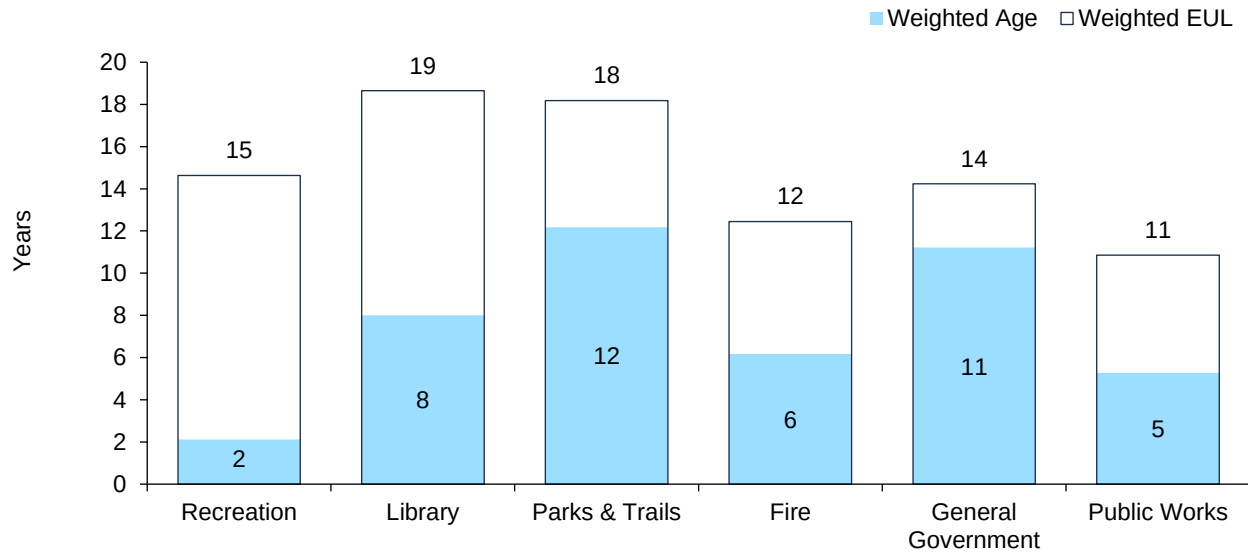
Figure 31 Asset Condition – Machinery & Equipment: By Department



Age Profile

Figure 32 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 32 Estimated Useful Life vs. Asset Age – Machinery & Equipment



The age profile of machinery and equipment assets shows that most departments have assets that are mid-life or approaching the latter half of their useful life, with some areas requiring more immediate planning attention.

Current Approach to Lifecycle Management

Condition assessments are estimated as part of inspections completed at vendor serviced inspection centres. As with vehicles, the Town endeavours to meet all safety and regulatory requirements associated with critical services, such as fire. Inspections are used to determine appropriate repair or replacement priorities for fire equipment. However, age remains the driving factor behind asset replacements.

10-Year Replacement Forecast

The table below summarizes the projected cost of lifecycle activities (capital replacement only) that will need to be undertaken over the next 10 years to support levels of service objectives.

Table 21 System-generated 10-Year Replacement Forecast – Machinery & Equipment

Segment	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Recreation	\$31k	\$338k	\$148k	\$117k	\$29k	\$266k	\$51k	\$40k	\$332k	\$2.8m
Library	\$138k	\$130k	\$143k	\$157k	\$355k	\$164k	\$153k	\$131k	\$169k	\$574k
Parks & Trails	\$0	\$132k	\$9k	\$22k	\$0	\$0	\$24k	\$0	\$40k	\$13k
Fire	\$218k	\$31k	\$89k	\$244k	\$361k	\$107k	\$26k	\$73k	\$115k	\$102k
General Government	\$0	\$0	\$0	\$8k	\$21k	\$0	\$277k	\$450k	\$8k	\$109k
Public Works	\$0	\$0	\$0	\$130k	\$12k	\$88k	\$0	\$0	\$255k	\$71k
Total	\$390k	\$633k	\$392k	\$681k	\$779k	\$627k	\$534k	\$696k	\$922k	\$3.7m

These projections are generated in Citywide and rely on the data available in the asset register. For machinery and equipment, no condition information was available. As a result, this system-generated 10-year forecast relies only on asset age and replacement cost. These projections can be different from actual capital forecasts. Consistent data updates, especially condition, and asset acquisitions and disposals will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

The Town's 2025 Long Term Capital Plan includes significant investments in machinery and equipment, as well as vehicles across the asset base over the next 10 years. This includes \$2,258,400 for fire, and \$7,575,600 for essential operational equipment, such as sidewalk plows, asphalt trailer, loaders and back-hoes, and other key fleet and equipment assets. In addition, the Bracebridge Sportsplex will see investments of \$898,700 in program, administration, and facility and maintenance equipment. Similarly, expenditures will total \$860,000 for equipment needs at the Muskoka Lumber Community Centre.

Levels of Services

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.

Community Levels of Service

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

Technical Levels of Service

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

For core asset categories, the province, through O. Reg. 588/17, has also provided technical metrics that are required to be included in this AMP.

Current and Proposed Levels of Service

This AMP includes both the current and proposed levels of service metrics for all assets. Through a series of detailed staff discussions, known as discovery sessions, the Town examined current performance, operational pressures, service gaps, and future planning considerations.

These discussions revealed that, overall, the existing service levels meet community and operational expectations, and therefore, the LOS targets are largely set to maintain current levels. This balanced approach reflects a commitment to affordability, operational capacity, and community needs.

This section summarizes the outcomes of these discovery sessions, and provides a summary of current and anticipated levels of service. In addition to the metrics required under O. Reg. 588/17, the Town has developed its own performance measures to provide a more comprehensive performance tracking framework.

For each asset category, both the current and proposed Capital Reinvestment Rates are identified. The financial strategy—prepared for Council’s consideration—is intended to gradually align Bracebridge’s financial capacity with this critical performance benchmark.

Levels of Service Discovery Session Summaries

Roads, and Bridges & Culverts

Current Performance and Service Level Commitments

The Town of Bracebridge is not planning any formal, programmatic changes to its current level of service for roads or bridges and structural culverts. Existing performance is primarily measured using the Pavement Condition Index (PCI) and the Bridge Condition Index (BCI), and there is no current intention to make broad adjustments to performance rating targets. Some consideration has been given to reducing PCI, however, it has not been formally adopted. Regulatory key performance indicators (KPIs) under O. Reg 588/17 will continue to be reported.

The Town's roadway inventory has been updated to reflect newly assumed roads. While this doesn't represent a formal change in service levels, it results in a modest overall increase in the level of service being delivered.

The Town recently completed a comprehensive Ontario Structure Inspection Manual (OSIM) assessment in 2024, which did not identify any new issues or trigger changes to current service levels. The number of structures with load restrictions remained the same. As with roads, regulatory KPIs will be maintained in alignment with O. Reg 588/17.

Pressures

While there is no formal commitment to adjusting service levels, internal discussions are still required to confirm whether the existing PCI targets remain appropriate over the long term. Public expectations may also evolve, potentially creating pressure to improve road conditions beyond current standards, especially in high-traffic or residential areas.

Overall Summary

The Town is taking a steady-state approach to road service delivery, maintaining existing commitments without expanding or reducing service. As infrastructure and public expectations evolve, continued internal review will be important to ensure alignment between performance, funding, and community needs.

Table 22 Ontario Regulation 588/17 Community Levels of Service – Road Network

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	See maps for rural and urban roads. The Town's road network includes local and collector roads. These are connected to provincial highways and roads owned and managed by the District of Muskoka.
Quality	Description or images that illustrate the different levels of road class pavement condition.	The majority of the Town's paved and unpaved roads are in fair or better condition. Based on PCI values, deterioration and surface distress is evident for those in a fair rating or below. Assets in poor or worse condition offer lower ride quality.

Table 23 Ontario Regulation 588/17 Technical Levels of Service – Road Network

Service Attribute	Metric	Current Level of Service	Proposed Level of Service
Scope	Lane-km of arterial roads (MMS classes 1 and 2) per land area (km/km ²)	0	Maintain
	Lane-km of collector roads (MMS classes 3 and 4) per land area (km/km ²)	0.4794 (294.93 lane-km and land area of 615.2 km ²)	Maintain
	Lane-km of local roads (MMS classes 5 and 6) per land area (km/km ²)	0.4925 (303 lane-km and land area of 615.2 km ²)	Maintain
Quality	Average pavement condition for paved roads in the Town	78.8 ("Good")	Maintain
Quality	Average surface condition for unpaved roads in the Town (e.g. excellent, good, fair, poor)	64.5	Maintain
Quality	Percentage of assets in fair or better condition	88%	Maintain
Fiscal Capacity	Capital Reinvestment Rate	1.4%	2.7%



Figure 34 Road Network Map – Urban Roads

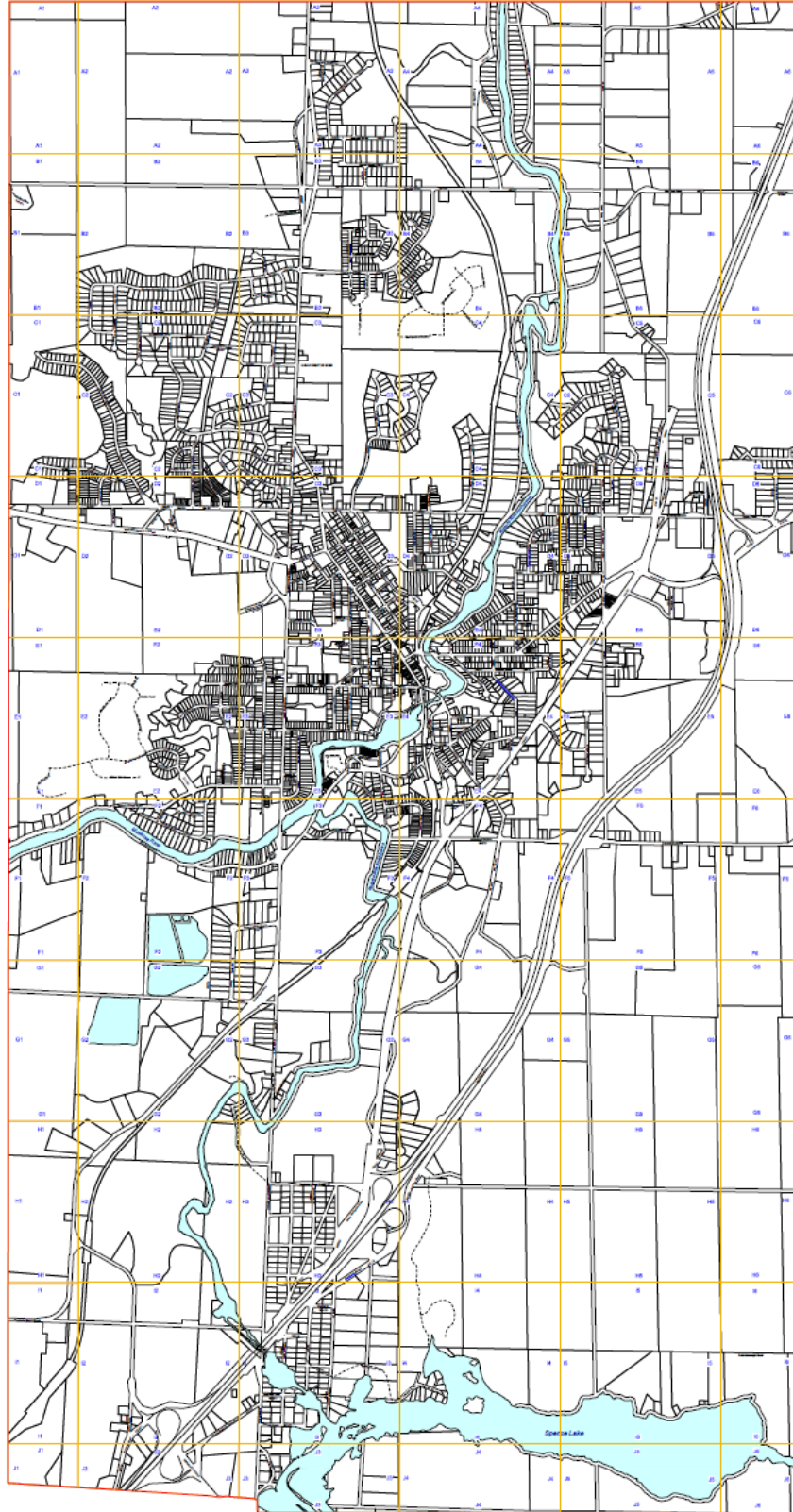


Table 24 Ontario Regulation 588/17 Community Levels of Service – Bridges & Culverts

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).	The Town's bridges support all traffic types.
Quality	Description or images of the condition of bridges and how this would affect use of the bridges.	The majority of bridges in the Town were assessed as fair or better through recent OSIM inspections, making them safe for use. Bridges with load restrictions are identified. Most culverts were assessed as poor, suggesting need for maintenance work in the next year.
	Description or images of the condition of culverts and how this would affect use of the culverts.	

Table 25 Ontario Regulation 588/17 Technical Levels of Service – Bridges & Culverts

Service Attribute	Metric	Current Level of Service	Proposed Level of Service
Scope	Percentage of bridges in the Town with loading or dimensional restrictions.	6 of 17 (35%)	Maintain
Quality	For bridges in the Town, the average bridge condition index value.	67	Maintain
	For structural culverts in the Town, the average bridge condition index value.	61	Maintain
	Percentage of assets in fair or better condition	88%	Maintain
Fiscal Capacity	Capital Reinvestment Rate	0.2%	2.1%

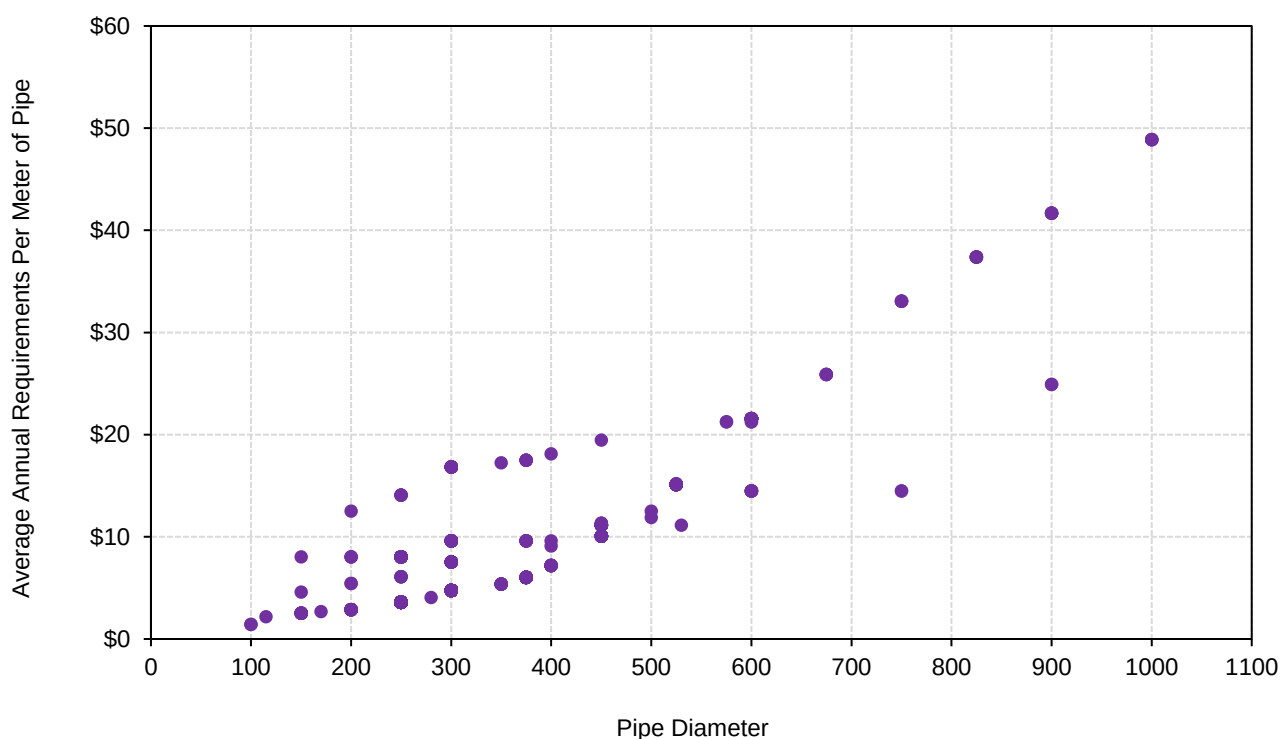
Stormwater Management

Current Performance and Service Level Commitments

Although overall service levels for stormwater remain unchanged, the Town has updated its design standards for new infrastructure (sewers and culverts), increasing the design storm threshold from a 5-year to a 10-year event. This change represents a gradual increase in service levels over time, as newer assets are built to manage larger storm events than in the past.

The transition to higher standards will likely result in higher capital costs—e.g., higher annual requirements—reinforcing the need for careful planning and financial strategy to support long-term affordability.

Figure 35 Stormwater Management: Pipe Diameter vs. Average Annual Requirements Per Meter



The analysis above of the Town's own stormwater asset inventory reveals a clear relationship between pipe diameter and average annual requirements per meter, based on current replacement costs. As shown in Figure 35, larger-diameter storm pipes generally incur significantly higher annualized replacement costs, even when normalized over asset lifespan. While small-diameter pipes (e.g., <400mm) typically require less than \$10 per meter per year, pipes exceeding 600mm in diameter can require \$20 to \$50.

This trend highlights the increasing cost of delivering higher levels of service through larger-capacity infrastructure. As the Town transitions to a 10-year design standard for new storm assets, this data underscores the importance of aligning stormwater investment decisions with long-term affordability and service expectations.

Pressures

This increase in design standards reflects a broader recognition of climate-related risks and the need for greater system resilience. While not yet tied to formal service commitments, future pressures related to climate change, storm intensity, and environmental regulations may continue to push the Town toward more robust infrastructure standards.

Overall Summary

The Town is holding its stormwater service levels constant for now, but the gradual move to higher design standards for new infrastructure signals a growing focus on long-term resilience. Although these changes are not yet reflected in KPIs, they suggest an emerging shift in expectations that could influence service levels in future planning cycles.

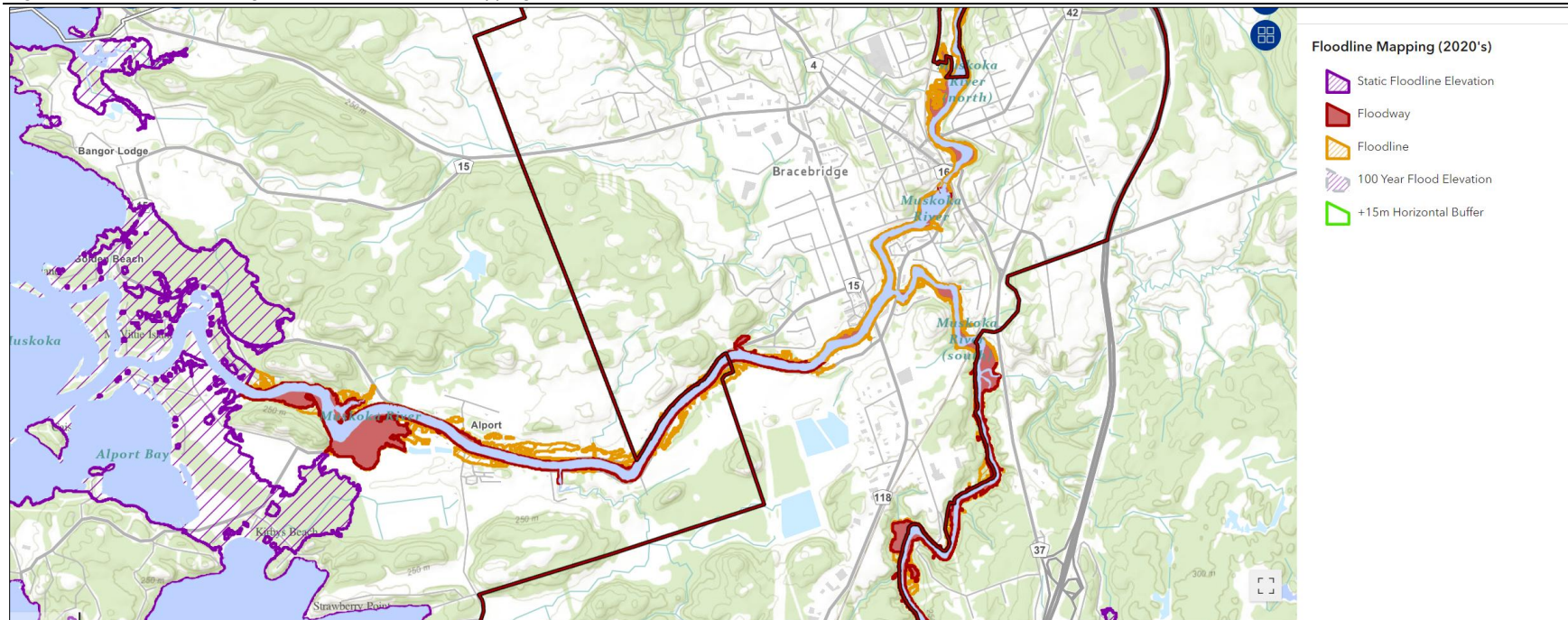
Table 26 Ontario Regulation 588/17 Community Levels of Service – Stormwater Network

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 36, which shows areas of the Town adjacent to the Muskoka River and Black River that may experience flooding during a 100-year flood event.

Table 27 Ontario Regulation 588/17 Technical Levels of Service – Stormwater Network

Service Attribute	Metric	Current Level of Service	Proposed Level of Service
Scope	Percentage of properties in municipality resilient to a 100-year storm.	75% (staff estimate based on professional judgement)	Maintain
	Percentage of the municipal stormwater management system resilient to a 5-year storm.	90% (staff estimate best on professional judgement)	Maintain
Quality	Percentage of assets in fair or better condition	98%	Maintain
Fiscal Capacity	Capital Reinvestment Rate	0.4%	1.7%

Figure 36 Town of Bracebridge Floodline and LiDAR Mapping 2020s



Facilities (Recreation)

Current Performance and Service Level Commitments

There are no broad changes planned to the levels of service for recreational facilities, but several operational improvements are being implemented. At the Sportsplex, new preventative maintenance activities have been introduced, such as scheduled servicing of air handling units, boilers, and pool circulation systems. A similar service agreement is expected for rooftop chillers. These updates may evolve into technical KPIs to support asset performance tracking.

At the Muskoka Lumber Community Centre, staffing for maintenance has been expanded, with part-time positions added to support increasing operational demand. Full-time staffing needs are currently being met.

Pressures

Socio-demographic shifts may affect service demand, with increasing interest in seniors' programs, active indoor recreation options like pickleball, and specialized uses such as batting cages for local schools. These changes are driving a need for more responsive and adaptable programming, which in turn affects how facilities are maintained and operated.

The Town is adapting to these trends through facilities like the Muskoka Lumber Community Centre—a modern, multi-generational hub designed to meet evolving community needs and service level expectations.

Overall Summary

While formal service levels remain unchanged, the Town is actively responding to changing community needs and aging infrastructure through targeted operational and capital investments, including the Muskoka Lumber Community Centre that support flexible programming and long-term resilience. The opening of the Centre marked a substantial increase in service levels, reflecting the expanded capacity and range of recreational opportunities now available to the community.

Land Improvements (Cemetery)

Current Performance and Service Level Commitments

The Town does not plan to expand its cemetery infrastructure and remains focused on maintaining existing assets. A consolidated maintenance budget covers key activities such as topsoil replacement, monument repairs, roadway grading, pruning, fertilizing, and annual grass and tree cutting. These services are largely delivered through a contracted agreement valued at approximately \$38,000 annually. Winter maintenance is not provided within cemetery grounds.

Pressures

Tree-related maintenance costs have risen substantially, presenting a growing financial challenge. Additionally, public expectations for cemetery upkeep and aesthetic standards may exceed the Town's current capacity, particularly during storm seasons or periods of high maintenance demand. Seasonal variability also affects the timing and quality of maintenance activities.

Overall Summary

Bracebridge is continuing to deliver cemetery services within a consistent scope, but rising costs and increasing expectations may strain future service delivery. Maintaining alignment between available resources and community standards will require close monitoring and potentially clearer communication of service boundaries.

Corporate and Operational Support Assets

This group includes a variety of infrastructure and capital assets that support internal service delivery across the Town's operations—such as vehicles, minor land improvement assets such as fencing and landscaping, specialized equipment, non-recreational facilities, and IT systems. These assets play an important role in enabling the Town to deliver consistent and reliable levels of service across departments, including recreation, public works, emergency response, and administrative functions.

With the exception of protective service, including fire, formal and highly technical levels of service for these assets are often not defined in the same way as core infrastructure. However, as with other asset groups, key level of service metrics for land improvements, vehicles, and machinery and equipment are presented below.

The table below summarize Bracebridge's current levels of service with respect to its non-core assets, and the proposed service level for each metric. As O. Reg 588/17 does not include any prescribed metrics that must be reported on for non-core assets, the Town has established its own set of metrics for each asset category.

Table 28 Levels of Service KPIs for Non-core Assets

Asset Category	Service Attribute	Metric	Current Level of Service	Proposed Level of Service
Buildings	Quality	Percentage of asset in fair or better condition	97%	Maintain
Buildings	Fiscal Capacity	Capital Reinvestment Rate	0.4%	2.6%
Land Improvements	Quality	Percentage of asset in fair or better condition	54%	Maintain
Land Improvements	Fiscal Capacity	Capital Reinvestment Rate	1.3%	4.8%
Machinery & Equipment	Quality	Percentage of asset in fair or better condition	69%	Maintain
Machinery & Equipment	Fiscal Capacity	Capital Reinvestment Rate	1.4%	7.3%
Vehicles	Quality	Percentage of vehicles in fair or better condition	88%	Maintain
Vehicles	Fiscal Capacity	Capital Reinvestment Rate	2.5%	8.9%

Risk Analysis

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 29 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.

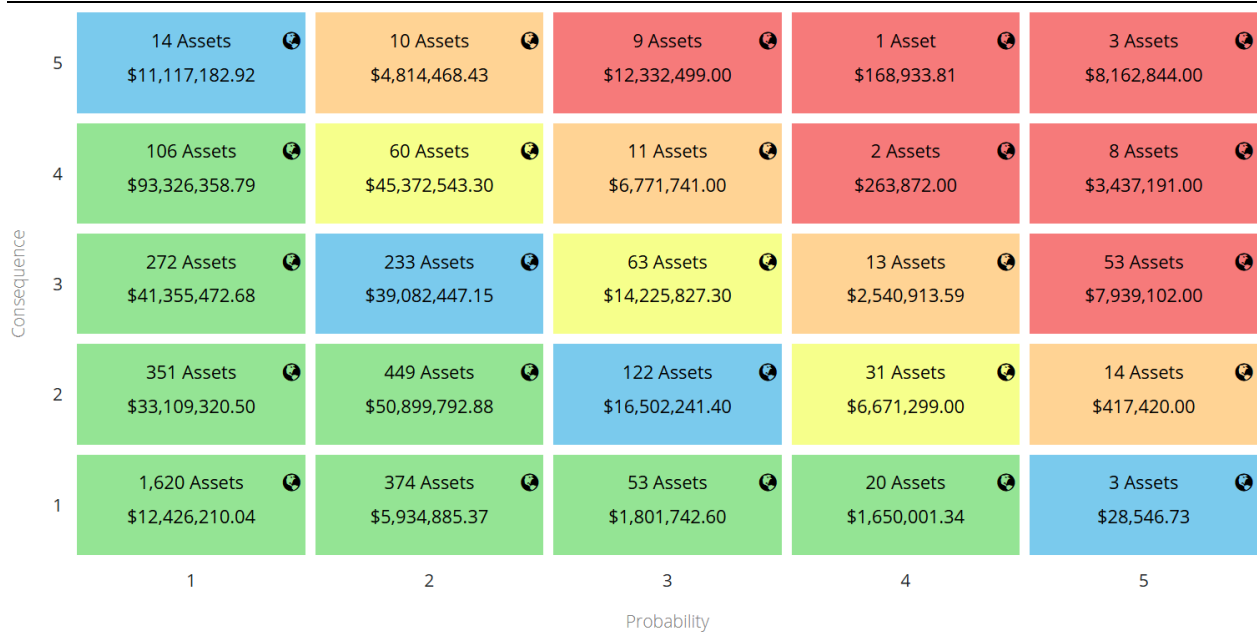
For assets without such additional, contextual information, a more general risk model was developed and applied. For these assets, replacement cost, service area, and asset type were used as the only data fields to approximate the consequence of their failure.

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 76 assets, with a combined replacement cost of approximately \$32.3 million, carried a very high risk rating, based on both their probability and consequence of failure.

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 30 below.

Table 30 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.
Vehicles	Vehicle Breakdowns: Increased risk of breakdowns, downtime, and service disruptions affecting public safety and emergency response capabilities. 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.

Asset Category	Risks of not completing lifecycle activities
	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.

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 Bracebridge residents and visitors.

Asset Management and Climate Change

Climate change presents growing challenges for municipal asset management, including more frequent extreme weather events, shifting freeze-thaw cycles, and increased flooding risk. These impacts can accelerate asset deterioration, disrupt service delivery, and increase maintenance and replacement costs. Integrating climate considerations into asset management planning helps municipalities identify vulnerabilities, prioritize adaptive investments, and ensure infrastructure remains resilient and reliable over the long term.

ReCAP

In 2023, the District of Muskoka completed its first Regional Climate Change Adaptation Plan (ReCAP) through ICLEI Canada's Advancing Adaptation initiative. Developed using ICLEI's BARC (Building Adaptive and Resilient Communities) five-milestone framework, the plan provides a structured approach to assessing vulnerabilities, engaging stakeholders, and identifying actionable strategies for climate resilience across the District and its Area Municipalities.

The ReCAP outlines 32 implementation-ready actions, organized into five thematic categories: Development & Infrastructure, Communication & Outreach, Adaptation Programs, Emergency Response, and Policy Change. A key objective of the plan is to foster inter-municipal collaboration, ensuring that adaptation actions are not only coordinated across jurisdictions but also tailored to the unique needs of each municipality.

Following a Climate Emergency declaration in July 2021, the Town of Bracebridge approved its ReCAP-linked Action Plan and Implementation Schedule in March 2023. This localized plan identifies 30 specific adaptation actions aligned with the broader ReCAP framework, with a particular focus on mitigating flood risk—an issue of increasing concern in the area.

The Town's action plan emphasizes infrastructure upgrades, emergency preparedness, policy enhancements, and improved public engagement, all of which are designed to guide future budgeting and decision-making processes through a climate resilience lens.

The 2025 *Muskoka's Regional Climate Change Adaptation Implementation Plan* extends the ReCAP by offering a practical roadmap for putting these actions into effect. It is intended to be used collaboratively across the District, ensuring that adaptation measures are carried out consistently, efficiently, and within targeted timelines.

Growth

Community growth places increasing demands on infrastructure, affecting both the capacity and performance of assets. As populations expand and development intensifies, municipalities must plan for new infrastructure while also ensuring that existing assets can support higher levels of service. Integrating growth considerations into asset management enables more informed decision-making around timing, investment priorities, and lifecycle strategies to support sustainable, cost-effective service delivery.

Based on Census 2021, the current population of the Town of Bracebridge is 17,305 permanent residents, a growth of 8% from the 2016 Census period. Based on the *2024 Muskoka District Growth Strategy*, Bracebridge's permanent population is projected to grow to approximately 20,000 by 2031, and 24,200 residents by 2051, representing about one-quarter of the District's overall population increase based on a medium growth scenario.

Similarly, by 2051, employment in Bracebridge is expected to rise to around 11,400, accounting for roughly 23% of the District's total employment growth under the same medium growth scenario.

Key economic sectors include construction, tourism and hospitality, and manufacturing. The Town has also identified educational services, healthcare, geo-tech and green technology, and the arts as emerging sectors.

Key Considerations

- The Town completed its first Transportation Master Plan in 2023 to outline infrastructure investments needs through 2044. If implemented, the Town's road, cycling, and walking infrastructure base would grow by more than 10%, based on current replacement costs, with investments totaling \$18.7 million by 2044. This estimate does not include investments by the District of Muskoka, totaling an additional \$28.5 million over the same period.
- During summer months, Bracebridge's population increases substantially, by more than 7,700 residents, causing seasonal but substantial added strain on infrastructure. Seasonal population typically comprises approximately 30% of the total population.
- Seasonal growth can also require communities to own and maintain infrastructure that typically exceeds the capacity and functionality required for its permanent population. This also imposes additional burden on permanent residents.
- Both the magnitude and the demographic profile of growth will determine the level of investment that the Town will make in different infrastructure assets. The majority of the Town's population is working age, between 15-60 years old.

Financial Strategy

Each year, the Town of Bracebridge makes important investments in its infrastructure's maintenance, renewal, rehabilitation, and replacement to ensure assets remain in a state of good repair and service level objectives are achieved. However, needs typically exceed capacity.

In fact, most municipalities continue to struggle with annual funding shortfalls. Achieving full-funding for infrastructure programs will take many years, and should be phased-in gradually to reduce burden on taxpayers.

Approach

This financial strategy is designed for the Town's existing asset portfolio, and is premised on two key inputs: the average annual capital requirements and the average annual funding typically available for capital purposes. The annual requirements are based on the replacement cost of assets and their serviceable life. This figure is calculated for each individual asset, and aggregated to develop category-level values.

The annual funding typically available is determined by averaging historical capital expenditures on infrastructure, inclusive of any allocations to reserves for capital purposes. For Bracebridge, 5-year actuals from 2020-2024 were used to determine average annual funding levels.

Only reliable and predictable sources of funding are used to benchmark funds that may be available on any given year. For the purpose of this AMP, these funding sources include:

- Revenue from taxation spent on capital works;
- Revenue from taxation allocated to reserves for capital purposes;
- The Canada Community Benefits Fund (CCBF), formerly the federal Gas Tax Fund;
- Ontario Community Benefits Fund (OCIF); and,
- Ontario Municipal Partnership Fund (OMPF);

Although provincial and federal infrastructure programs can change with evolving policy, CCBF, OCIF, and OMPF are considered as permanent and predictable.

Annual Capital Requirements

Table 31 outlines the total average annual capital requirements for existing assets in each asset category. Based on a replacement cost of \$420.4 million for the Town's existing asset base, annual capital requirements total \$12.8 million for the seven asset categories analyzed in this document. The table also illustrates the equivalent target reinvestment rate (TRR), calculated by dividing the annual capital requirements by the total replacement cost of each service area.

Table 31 Average Annual Capital Requirements

Asset Category	Replacement Cost	Annual Capital Requirements	Target Reinvestment Rate
Road Network	\$172,130,105	\$4,575,595	2.7%
Bridges & Culverts	\$36,105,619	\$744,779	2.1%
Stormwater Network	\$30,706,826	\$528,634	1.7%
Buildings	\$126,563,539	\$3,280,372	2.6%
Land Improvements	\$22,668,554	\$1,097,488	4.8%
Machinery & Equipment	\$14,369,389	\$1,307,301	7.3%
Vehicles	\$17,808,825	\$1,276,971	8.9%
Total	\$420,352,857	\$12,811,140	3.0%

Benchmark Reinvestment Rates

Although there is no industry standard guide on optimal annual investment in infrastructure, the ERRs above provide a useful benchmark for organizations. In 2016, the Canadian Infrastructure Report Card (CIRC) produced an assessment of the health of municipal infrastructure as reported by cities and communities across Canada. The report card also contained recommended reinvestment rates that can also serve as benchmarks for municipalities.

Table 32 provides the CIRC lower and upper reinvestment rate targets for relevant asset groups; no data was available for machinery and fleet assets. The table shows that, on average, municipalities are well below the recommended target reinvestment rates.

Table 32 Canadian Infrastructure Report Card (CIRC) Reinvestment Rate Targets

Asset Category	Lower Target	Upper Target	Municipal Average in 2016
Road Network	2%	3%	1.1%
Bridges & Culverts	1%	1.5%	0.8%
Stormwater Network – Linear	1.0%	1.3%	0.3%
Stormwater Network – Non-linear	1.7%	2.0%	1.3%
Buildings and Facilities	1.7%	2.5%	1.3%

Current Infrastructure Funding Framework

Figure 38 shows funding that has historically been available for infrastructure purposes for each year between 2020 and 2024, as well as the composition of those funds. The figure shows that on average, \$5.8 million is available for infrastructure spending on an annual basis for the Town's current asset portfolio comprising the seven categories in this AMP.

On average, approximately 50% of this available funding comes CCBF, OCIF, and OMPF. This figure excludes development charges that may be used for growth-related infrastructure.

Figure 38 Historical Funding Available for Infrastructure Purposes

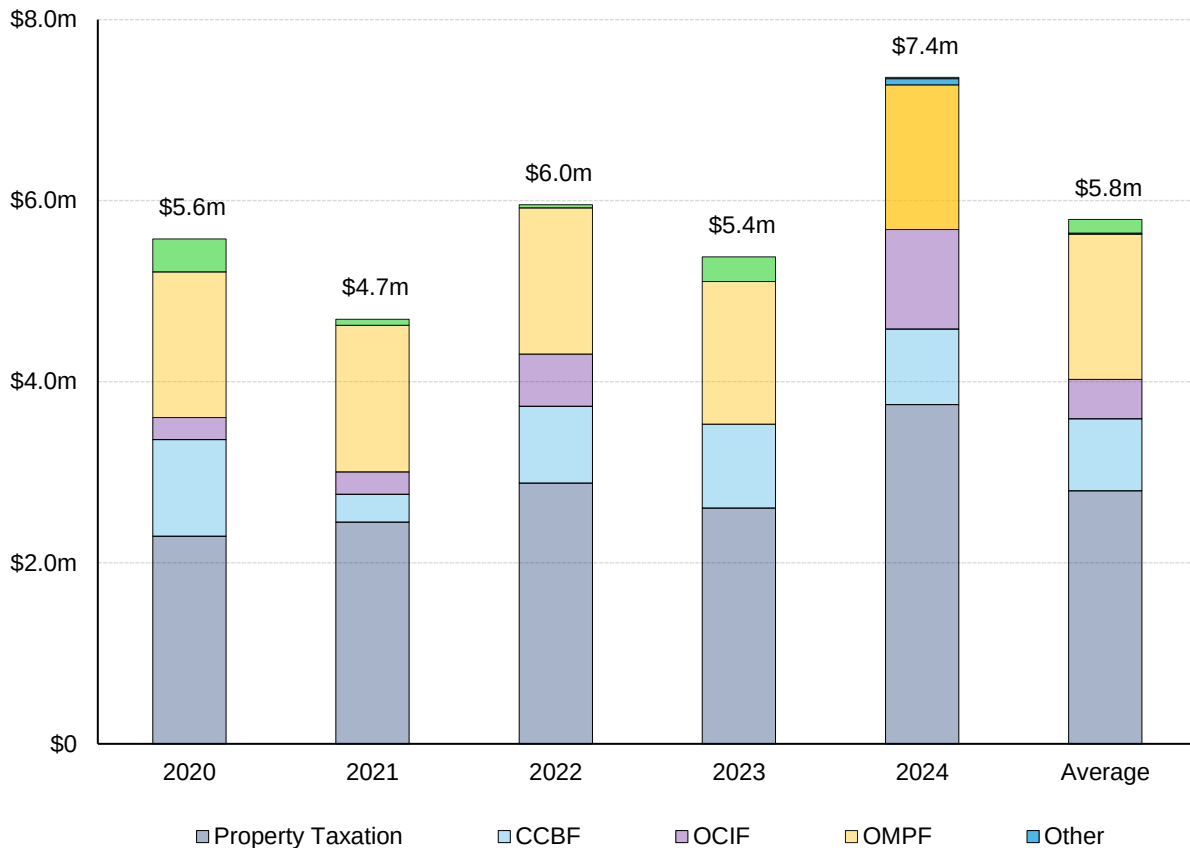


Table 33 summarizes how the above annual 5-year average funding of \$5.8 million is allocated across the different asset categories. The OMPF funding is available for general capital purposes and is not allocated to any particular asset category. This average annual funding available figure is used to calculate annual funding shortfalls and develop a strategy for full funding.

Table 33 Allocation of Average Annual Infrastructure Funding by Asset Category

Asset Category	Taxation	CCBF	OCIF	OMPF	Other	Average Annual Funding Available
Road Network	\$1,292,583	\$742,713	\$433,971	\$0	\$0	\$2,469,267
Bridges & Culverts	\$85,273	\$0	\$0	\$0	\$0	\$85,273
Stormwater Network	\$70,640	\$53,430	\$0	\$0	\$0	\$124,070
Buildings	\$459,232	\$0	\$0	\$0	\$0	\$459,232
Land Improvements	\$287,289	\$0	\$0	\$0	\$5,000	\$292,289
Machinery & Equipment	\$251,448	\$0	\$0	\$0	\$4,580	\$256,028
Vehicles	\$348,949	\$0	\$0	\$0	\$4,000	\$352,949
Non-Program Capital Revenue	\$0	\$0	\$0	\$1,602,860	\$0	\$1,602,860
Allocations to Reserves	\$151,100	\$0	\$0	\$0	\$0	\$151,100
Total	\$2,946,514	\$796,143	\$433,971	\$1,602,860	\$13,580	\$5,793,068

Current Funding Levels and Annual Funding Shortfall

The table below shows that based on current funding levels, including all own-source revenues and senior government programs, the Town is funding 45% of its annual capital needs, or an actual reinvestment rate of 1.4% against a required rate of 3.0%. This creates an annual funding shortfall of \$7.0 million.

Table 34 Current Funding Shortfall

Asset Category	Total
Average Annual Funding Required	\$12,811,140
Average Annual Funding Available	\$5,793,068
Annual Funding Shortfall	\$7,018,071
Current Funding Levels	45%
Current Reinvestment Rate	1.4%

Closing Funding Shortfall

Eliminating annual infrastructure funding shortfalls is a difficult and long-term endeavour for municipalities. Considering the Town's current funding position, it will require many years to reach full funding for current assets. This section outlines how the Town of Bracebridge can close its annual funding gap using own-source revenue, i.e., property taxation, and without the use of debt for existing assets.

The Town anticipates collecting approximately \$21,528,100 in property tax revenues for 2025. To close the annual funding shortfall, an additional \$7.0 million in annual revenue will need to be raised purely for the asset categories analyzed in this AMP, representing an increase of 32.6%. This will allow the Town to meet its average annual requirements of \$12.8 million.

Table 35 Increase Needed in Property Taxation Revenue to Meet Annual Infrastructure Needs

2025 Property Taxation Revenue	Additional Revenue Needed for Infrastructure	% Increase Needed
\$21,528,100	\$7,018,071	32.6%

To achieve this increase, several scenarios have been developed using phase-in periods ranging from five to 20 years. Shorter phase-in periods may place too high a burden on taxpayers, whereas a phase-in period beyond 20 years may see a continued deterioration of infrastructure, leading to larger backlogs.

Table 36 Increase Needed in Property Taxation Revenue to Meet 100% of Average Annual Capital Requirements

Total % Increase Needed in Annual Property Taxation Revenues	Equivalent Increase Over 5 Years	Equivalent Increase Over 10 Years	Equivalent Increase Over 15 Years	Equivalent Increase Over 20 Years
32.6%	5.8%	2.9%	1.9%	1.4%

Funding 100% of annual capital requirements ensures that all major capital events, including replacements, are completed as required. Under this scenario, no projects are deferred for future years. This delivers the highest asset performance and customer levels of service.

Operating Expenditures

The table below presents select annual operating expenditures across different departments, reflecting the costs required to support infrastructure assets and maintain expected levels of service. With total operating costs exceeding \$9.3 million, these expenditures span wages, the physical upkeep of assets, insurance, office and administrative expenses, professional services, program delivery, and direct operating costs such as fuel and utilities.

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 37 Select Operating Expenditures

Expenditure Type	2024 Actual
Carnegie Building - Old Library	\$5,699
Muskoka Lumber Community Centre - New Library	\$5,741
Boat Repair/Maintenance	\$21,267
Building Repair/ Maintenance	\$196,268
C&M	\$44,535
Capital Works/Misc Costs	\$343,268
Contracted Repairs - Labour	\$329,028
Contracted Repairs - Parts	\$313,757
Contracted Costs	\$1,246,381
Contracted Services	\$189,445
Equipment Repair/ Maintenance	\$42,549
Fuel Station Maintenance	\$1,496
Garage Equip Repair	\$10,856
Garage Tools	\$1,699
Hired Equipment	\$913,434
Hired Labour	\$13,051
Hydro - Hydro One	\$2,423
Hydro - Lakeland	\$106,209
Hydro 1	\$23,624
Ice Plant Contractor	\$43,784
Ice Plant Surface	\$2,101
Maintenance - Lakeland	\$25,067
Materials	\$974,917
Minor Capital	\$33,617
Pool Chemicals	\$48,147
Property Insurance	\$149,540
Safety Equipment	\$767
Snowplowing	\$50,216
Sportsplex Pool Hardware	\$4,161
Town Equipment	\$955,782
Utilities - Hydro	\$550,018
Utilities - Natural Gas	\$186,435

Expenditure Type	2024 Actual
Utilities - Water/Sewer	\$132,628
Vehicle Fuel	\$34,080
Vehicle Insurance	\$66,144
Vehicle Repair/Maintenance	\$77,604
Wages	\$1,454,426
Wages FT	\$667,158
Wages PT	\$68,811
Waste Management Services	\$5,943
Water/Sewer 1	\$2,406
Water/Sewer 2	\$493
Winter Maintenance	\$1,730
Total	\$9,346,702

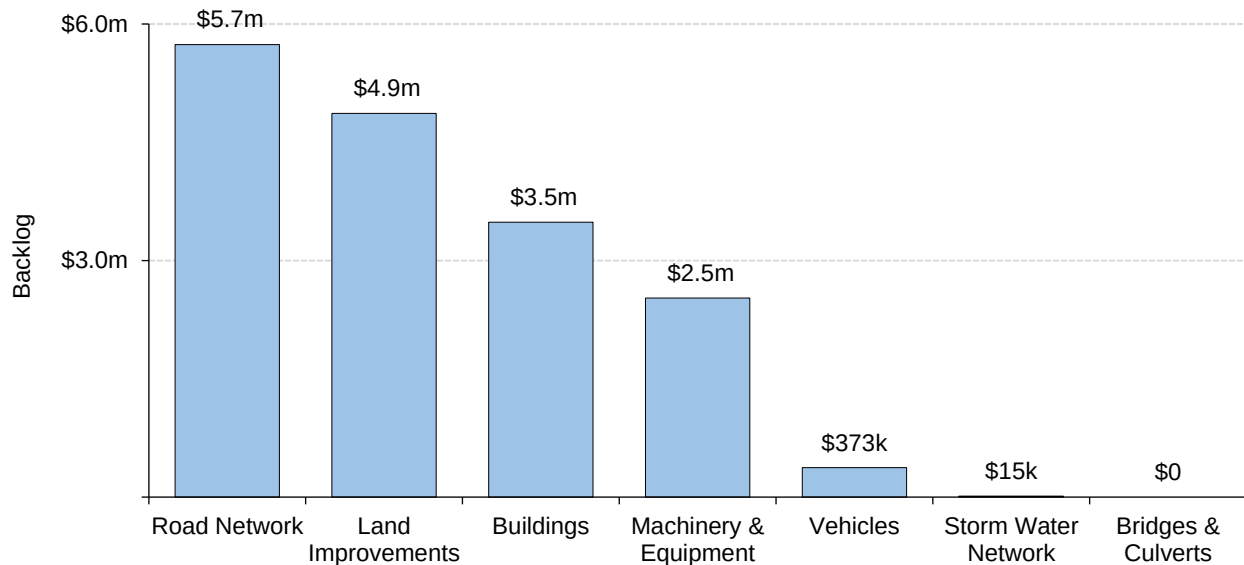
When considered alongside the capital average annual requirements totaling \$12.8 million, or a capital reinvestment rate of 3.0%, these operating costs represent an additional reinvestment need of approximately 2.2% relative to the Town's \$420.4 million asset portfolio.

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. As new assets are constructed or assumed, these benchmarks can serve as a valuable reference point for understanding the full lifecycle cost of ownership. They provide a foundation for long-term financial planning that supports sustainable service delivery across the Town's growing asset base.

Infrastructure Backlogs

The annual tax increases proposed are designed to eliminate annual funding shortfalls. However, they do not address existing backlogs. Figure 39 shows that the current infrastructure backlog totals \$17 million across all asset categories analyzed in this AMP. However, as many assets did not have condition assessment data available, age was used to estimate backlog figures. As a result, the figure below may be an under- or overstatement of actual asset needs. Condition assessment data will be essential in developing more accurate and credible estimates.

Figure 39 Current Infrastructure Backlog by Asset Category



Eliminating backlogs will require prioritizing projects, ideally through continuous improvements and application of the Town's risk models. This risk-based approach will ensure that project selection is objective, supports delivery of the Town's service level targets, and is in line with long-term strategic objectives.

Reserve Levels and Use of Debt

Table 38 summarizes the size of current reserve funds and reserves for non-growth capital. Across all asset categories, these total \$9.3 million, or 2.2% of the total current replacement value of assets. These reserve funds and reserves are available for use for various infrastructure-related expenditures as needed.

Table 38 Reserves

Reserve	Closing Balance at December 31, 2024
Parking	\$27,868
Canada Community Building Fund	\$0
Parkland	\$180,948
General Government	\$471,058
Fire Department	\$79,251
By-Law Enforcement	\$21,487
Public Works	\$2,401,854
Streetlighting	\$166,121
Cemetery	\$26,361
Parks & Trails	\$510,858
Recreation	\$154,035
Library	\$87,220
Planning and Development	\$140,977
Major Infrastructure	\$201,085
From Land Disposition	\$1,946,083
Tax Rate Stabilization	\$302,292
Building Fees	\$2,594,739
Woodchester Villa	\$393
Oakley Village Square	\$3,000
Annie Williams Memorial Park	\$0
Muskoka Lumber Community Centre - Library	\$0
Muskoka Lumber Community Centre - General	\$0
Muskoka Lumber Community Centre - Arena	\$0
Muskoka Lumber Community Centre - Fieldhouse	\$0
Total	\$9,315,630

Although there is no consensus in the municipal sector on the levels of reserve funds and reserves for infrastructure sustainability, this funding allows the Town to better prepare for unforeseen project expenditures and reduce fluctuations in tax rates. These funds can also be used to address existing infrastructure backlogs.

Development Charges

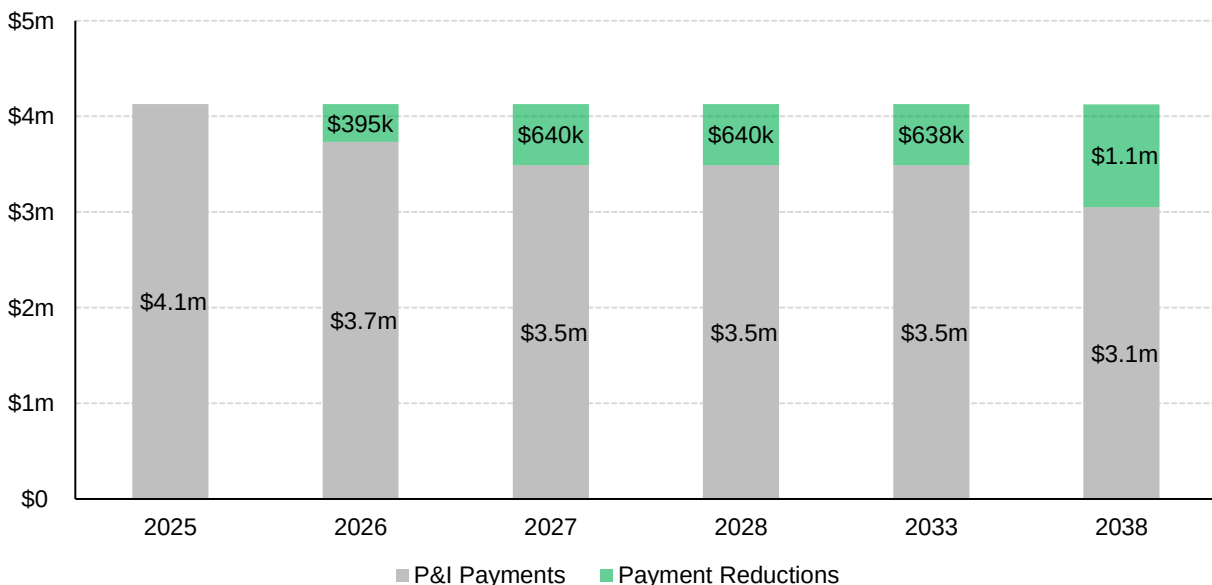
Although not listed above, the Town also has \$865,315 available in its Development Charges (DC) reserve. The use of these funds is more restricted, and dedicated to growth-related projects. However, it is possible that a portion of the projects identified in the Town's DC program contain the reconstruction or upgrade of assets that are currently in a backlog state. Further analysis is required to determine how strategically DC funds can be used to meet both growth-related needs and at least partially address the Town's existing infrastructure backlog.

Debt

Although this strategy avoids the use of further debt to meet annual average capital needs, the Town can leverage debt as a strategic tool to support infrastructure investments, particularly for large-scale projects, such as public facilities, without the immediately raising taxes or cutting other programs and services.

The Town currently has \$53.98 million in outstanding debt. Figure 40 illustrates the current principal and interest (P&I) payment schedule for existing debt. The graph illustrates how these repayments will decline over the next 20 years, from \$4.1 million in 2025 to \$3.1 million in 2038, producing annual repayment reductions of approximately \$1.1 million.

Figure 40 Debt Repayment Schedule



Although reduction in debt repayments can theoretically be used to reduce tax rates, it is typically more prudent to maintain existing rates, capture these savings, and reallocate them to fund infrastructure programs and reduce annual shortfalls at a faster pace.

Recommendations

The Town of Bracebridge's 2025 asset management plan reaffirms the Town's dedication to responsible management of its infrastructure in alignment with Ontario Regulation 588/17.

By incorporating updated replacement costs, condition data, and a detailed analysis of levels of service commitments and capabilities, the AMP ensures that Bracebridge's asset management program meets regulatory requirements while supporting sustainable service delivery.

As the Town moves forward, ongoing adherence to O. Reg. 588/17, coupled with proactive data collection, financial planning, and stakeholder engagements will be essential to achieving its long-term asset management objectives.

Financial Strategies

- Review feasibility of adopting a full-funding scenario that achieve 100% of average annual requirements for the asset categories analyzed in this AMP. This involves:
 - implementation of a 1.4% annual tax increase over a 20-year phase in period and allocating the full increase in revenue toward these asset categories;
 - continued allocation of OCIF and CCBF funding as previously outlined in Table 33;
 - continued use of OMPF to augment funding available for infrastructure needs;
- In addition, the Town's annual debt repayments will decrease by \$1.1 million annually within the proposed 20-year phase-in period. Although these reductions can be used to reduce tax rates, a more prudent strategy would see these reductions captured, and reallocated to address annual funding shortfalls more rapidly.
- Although difficult to capture, inflation costs, supply chain issues, and fluctuations in commodity prices will also influence funding needs and true cost of capital expenditures. The above recommendations do not include inflation, which may further escalate recommended tax increases to achieve full funding.

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:

- Componentizing buildings is an essential next step to ensure replacements and long-term forecasts are accurate and reliable. While partial componentization of the Muskoka Lumber Community Centre has been completed and has improved projections, further details are recommended to refine annual needs as assets age, and long-term forecasts.
- 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.