2024 ASSET MANAGEMENT PLAN

NON-CORE ASSETS

SERVICES

- ✔ Facilities
- ✔ Outdoor Recreation / Land Improvements
- ✔ Fire Services
- ✔ Fleet and Machinery

Mapleton

mapleton.ca

Non-Core Assets: Key Statistics

Replacement cost of asset portfolio

$77.6 million

Replacement cost per household

$20,250

Percentage of assets in fair or better condition

63%

Percentage of assets with condition assessed

83%

Annual infrastructure deficit (non-core)

$744k

Timeframe to eliminate infrastructure deficit

5 Years

Target reinvestment rate

3.3%

Actual reinvestment rate

2.3%

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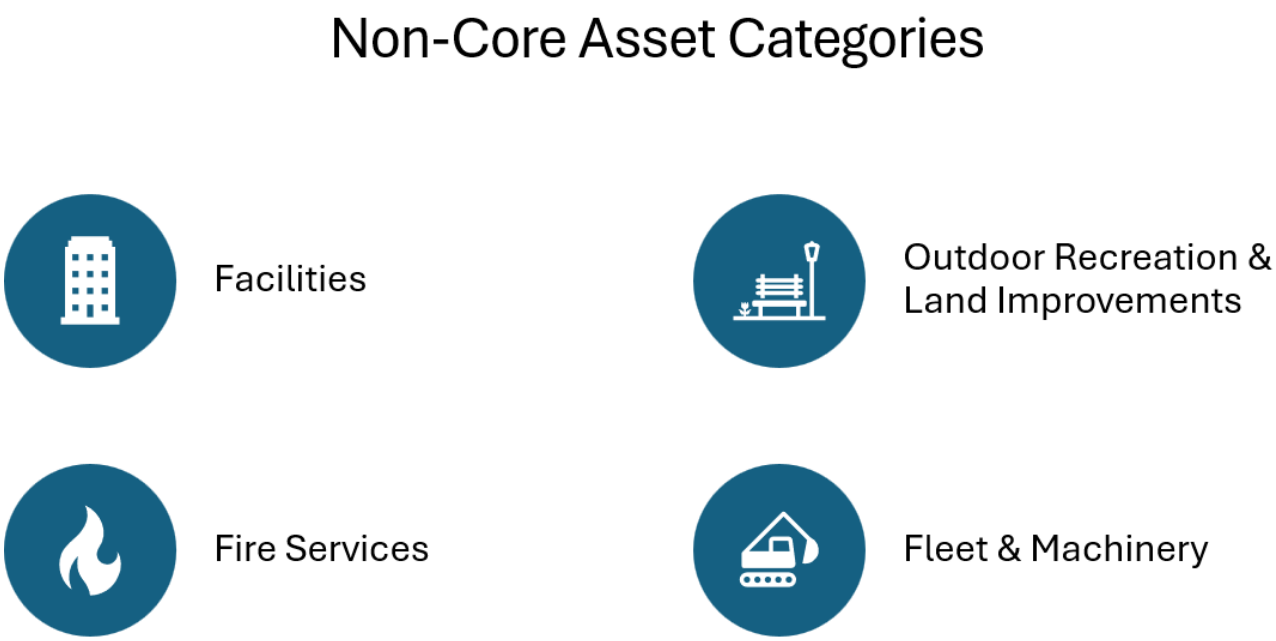
1.Executive Summary

Key Insights

Municipal infrastructure plays a crucial role in providing essential services that underpin the social, economic and environmental well-being and development of communities. For instance, it facilitates key community services such as parks, recreation and emergency response services (like fire protection). The objective of asset management is to guarantee that infrastructure assets can deliver adequate service levels in the most cost-effective way.

Scope

The Asset Management Plan (AMP) for the Township of Mapleton identifies current practices and strategies that are in place to manage public assets and infrastructure. As a compliment to the 2022 Asset Management Plan, which focused on core assets (roads, bridges, water, wastewater, and storm), this AMP focuses on non-core assets, which are categorized as follows:



With the development of this AMP the Township has achieved compliance with O. Reg. 588/17, specifically as it relates to non-core assets. There are additional requirements concerning proposed levels of service and growth that must be met by July 1, 2025.

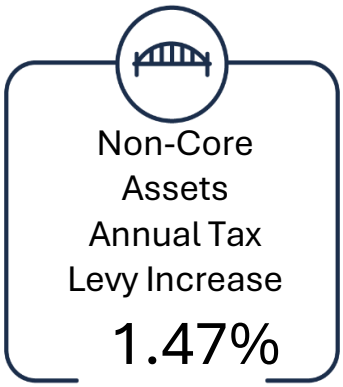
1.1 Key Report Details

This report is the result of an extensive review, analysis, refinement, and updating of non-core infrastructure asset information. It provides a summary of lifecycle strategies, compiled through engagement with staff managing non-core assets. Additionally, this report evaluates asset risks and performance. The findings from this project are detailed in the following sections of the report. When reviewing this report's content, it is important to note the following:

- This AMP utilizes a combination of proactive lifecycle strategies (for facilities) and replacement-only strategies (for all other assets) to determine the cost of maintaining the current level of service.
- This AMP reflects the asset inventory as of December 2023 and is based on the best available processes, data, and information.
- Asset Management is a continuous and evolving process that requires regular updates, ongoing improvement, and dedicated resources.
- The Township strives to build a holistic culture of asset management which will continue to enhance the Township's AM program and practices across all service areas.

1.2 Recommendations

A financial strategy was developed to address the annual capital funding gap. The following graphic shows the annual tax levy increase required to eliminate Mapleton's infrastructure deficit based on a 5-year plan:



Recommendations are provided within each asset category, to guide the ongoing improvement of Mapleton's asset management program. The following key recommendations are particularly valuable and commonly applicable across various asset categories:

- Regularly review and update asset data including asset condition information;
- Designate Cemetery Services assets as a separate asset class for lifecycle planning;
- Consider future facility condition assessment program for new facilities planned or under construction.
- Review and update lifecycle management strategies for all assets. For facilities assets review in detail the recommended asset interventions identified in the Building Condition Assessments (BCA), and consider developing a resourcing plan to address the identified interventions.
- Develop and regularly review both short- and long-term plans to meet capital requirements. Establish a Capital Prioritization Framework to help guide decision making and incorporate pertinent data from the Asset Management Plan.
- Regularly collect, measure, and report on current levels of service (LOS). Begin preparing for the 2025 O. Reg. 588/17 requirements for proposed LOS reporting. Review historic LOS to help inform achievable proposed LOS.
- Comprehensive review and update of the reserve fund framework and debt management strategy to ensure alignment with the Township's Asset Management program.
- Establish a fleet management strategy, to optimize lifecycle planning and investments
- Develop an IT Master Plan and incorporate IT Assets within the 2025 AMP

2. Introduction & Context

Key Insights

- The objective of asset management is to minimize the lifecycle costs of delivering infrastructure services and manage associated risks, while maximizing the value received by ratepayers from the asset portfolio. Asset management promotes an evidence-based decision making model, whereby the right investment is made in the right infrastructure at the right time.

- Mapleton's asset management policy provides clear guidance to staff and Council on the key principles to be promoted in the Township's asset management program.

- An Asset Management Plan (AMP) is a dynamic document that should be updated regularly to support the Township's Long-Term Financial Planning Strategy.

- Ontario Regulation 588/17 outlines several key milestones and requirements for asset management plans in Ontario between July 1, 2022, and 2025. This update will bring the Township into regulatory compliance.

2.1 An Overview of Asset Management in Mapleton

The Township of Mapleton is located in southwestern Ontario, within Wellington County. It is home to approximately 11,000 residents and known for its agricultural heritage and close-knit community. The Township encompasses several smaller settlement areas, including Alma, Drayton and Moorefield, and offers a peaceful rural lifestyle with a strong sense of community, characterized by its scenic landscapes, local events, and family-oriented atmosphere. The Township is committed to sustainable growth and preserving its rural charm while enhancing services and amenities for residents, businesses, and visitors. The Township delivers variety of services to the community, which involves balancing the costs, opportunities, and risks against the desired performance of assets to achieve the organization's strategic objectives.

The majority of the total cost of ownership (TCO) of capital assets comes from operations, maintenance, and rehabilitation, with acquisition representing a small portion. Therefore, having reliable information about these anticipated expenditures and their associated impacts is crucial for making informed asset management decisions. In accordance with O.Reg. 588/17 regulatory requirements, this AMP focuses on analyzing capital costs, which generally include rehabilitation and replacement activities.

Infrastructure needs can be prioritized over time by implementing asset management processes while ensuring timely investments to minimize repair and rehabilitation costs and maintain municipal assets. Figure 1 shows the typical asset lifecycle.

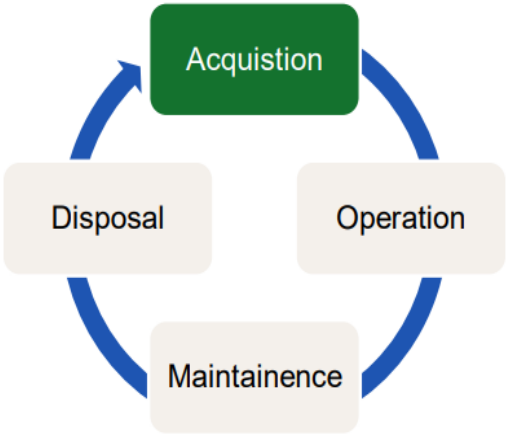


Figure 1 Typical Asset Lifecycle

The TCO can span decades and therefore requires planning and foresight to ensure financial responsibility is spread equitably across generations. An asset management plan is instrumental to the planning process and also serves the broader municipal asset management program. The best practice for asset management promotes alignment between the Township's Strategic Plan, Asset Management Policy, and Asset Management Plan.

Strategic Plan

The Township of Mapleton updated its Strategic Plan in 2023 to guide decision-making at the corporate level. Created through an extensive consultation effort with the community, the Strategic Plan represents the desired direction and priorities of the Township's residents. The Township's Strategic Plan list numerous strategic actions which align with the principles of effective asset management. This further solidifies the community's commitment to asset management capacity building and infrastructure investments.

Asset Management Policy

An Asset Management Policy is a formal document that outlines an organization's approach and commitment to managing its assets. It provides a structured framework and set of guidelines to ensure that assets are managed efficiently and sustainably throughout their lifecycle. The Township of Mapleton adopted the "Strategic Asset Management Policy" in accordance with Ontario Regulation 588/17. The policy sets out several asset management principles, including:

- Community Focused
- Long-term Sustainability
- Public Transparency
- Innovation and Continuous Improvement

The Strategic Asset Management Policy will be reviewed and updated prior to the 2025 AMP Update in accordance with O.Reg. 588/17.

Asset Management Plan

An asset management plan (AMP) is a strategic document that guides a municipality's management of infrastructure assets and other assets to deliver corporate objectives in the most cost-effective manner. It employs multi-disciplinary techniques, both technical and financial in nature to provide specific LOS over the assets' life cycle. The plan also details specific activities to be undertaken, resources required, responsibilities, timescales, and risks involved for the achievement of corporate objectives. The plan provides a clear line of sight for on the ground activities being undertaken back to the strategic plan of the organization. The AMP is a living document that should be updated regularly as additional asset and financial data becomes available. This will allow the municipality to re-evaluate the state of infrastructure and identify how the organization's asset management and financial strategies are progressing. Continued investment in AM capacity will strengthen the Township's overall Asset Management Program.

2.2 Key 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.

Lifecycle Management Strategies

The costs associated with asset ownership can be broken down into three categories: initial investment costs, operating costs, and disposal costs. Once in operation, assets are renewed and rehabilitated at regular intervals to extend their useful life as appropriate. Once an asset has reached the end of its useful life, it is disposed of appropriately. Assets are generally replaced once the costs of maintenance exceed the benefits received.

While initial investment costs may be significant, the ongoing maintenance costs over the life of the asset make up the bulk of the TCO. Lifecycle maintenance strategies (Figure 2) are built into asset management practices to reduce the costs associated with the ownership and maintenance of assets.

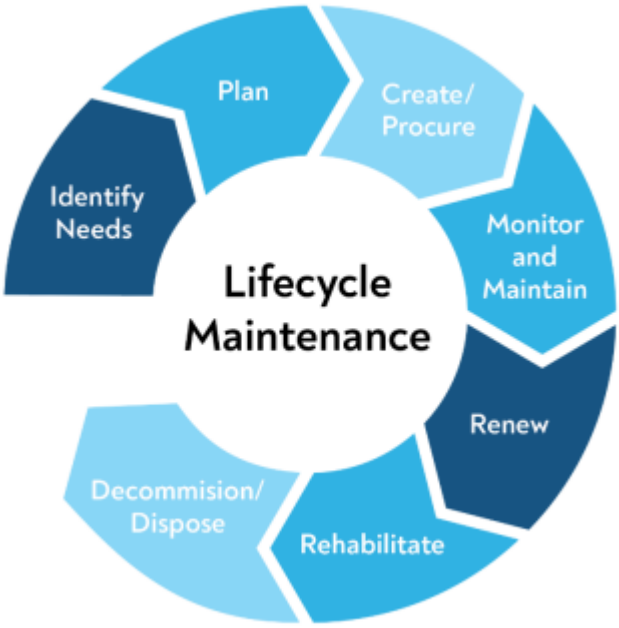
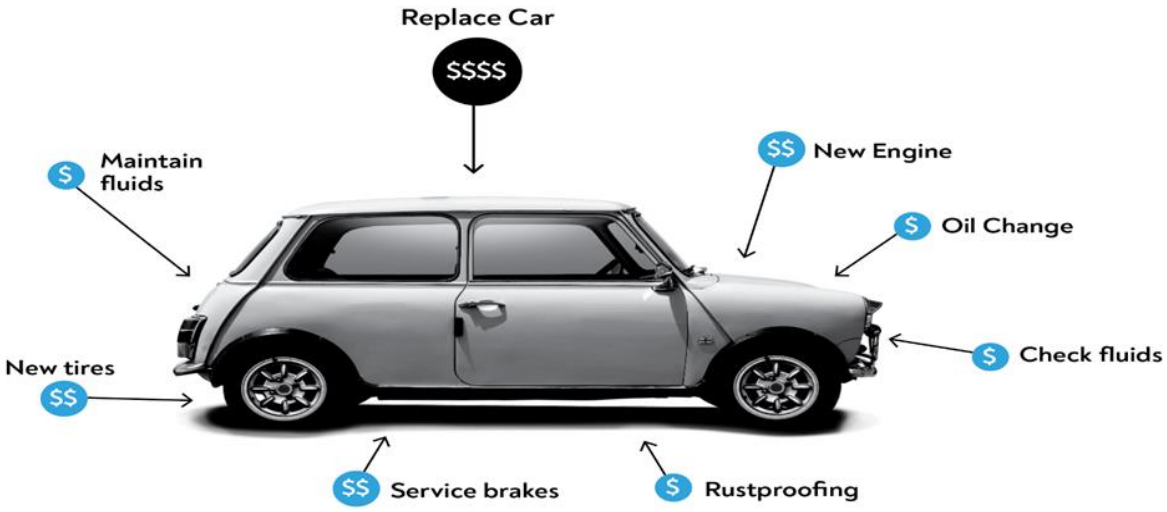


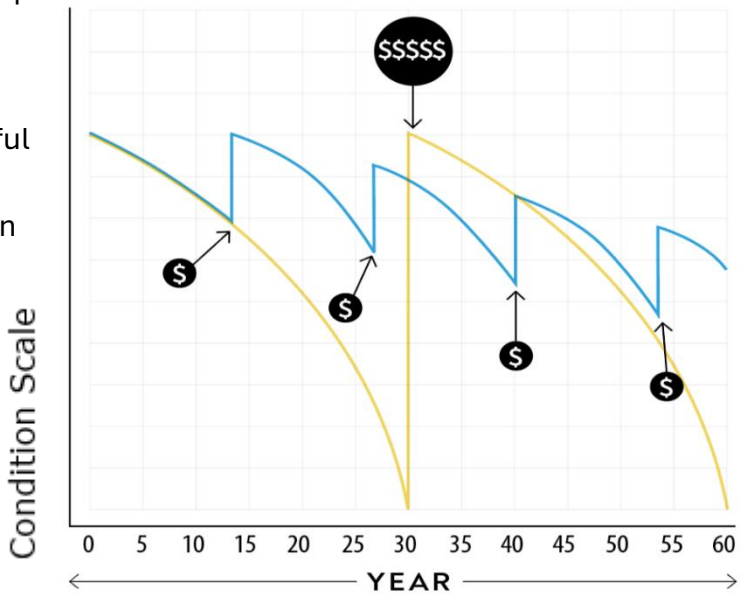
Figure 2 Lifecycle Maintenance of Assets

This is like vehicle ownership. When purchasing a vehicle, the initial up-front cost represents only a fraction of the cost of ownership. Vehicles require regular maintenance, as well as occasional retrofitting and replacement of components. Investing in regular maintenance, such as oil changes, extends the life of the vehicle and delays the costs of replacing components that break down.



Regular maintenance activities are incorporated with annual budgets and contributions to reserve funds provide for future replacements. Lifecycle maintenance strategies are built into asset management practices in order to reduce the costs associated with the ownership and maintenance of assets.

Making small but timely investments in renewing assets enables us to extend the useful life of an asset and ensure that we use our assets as efficiently as possible. When we plan ahead, and schedule more capital-intensive work like rehabilitation and renewal projects, we are able to set aside funds in earlier years to offset those larger costs. This enables us to keep property taxes relatively stable, while meeting the service level objectives of the Mapleton community.

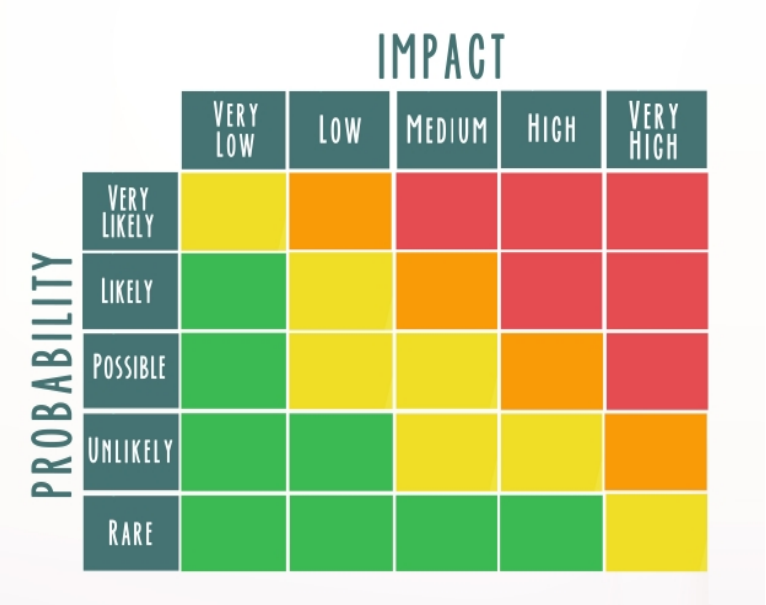


Risk Management Strategies

Municipalities generally take a 'worst-first' approach to infrastructure spending. Rather than prioritizing assets based on their importance to service delivery, assets in the worst condition are fixed first, regardless of their criticality. However, not all assets are created equal. Some are more important than others, and their failure or disrepair poses more risk to the community than that of others. For example, a road with a high volume of traffic that provides access to critical services poses a higher risk than a low volume rural road. These high value/ high-risk assets should be prioritized for investment.

Risk assessments are performed on the various Township assets, using the "probability of failure" (PoF) multiplied by "consequence of failure" (CoF) formula (in most instances). PoF represents the likelihood that an asset will not achieve the desired level of service or will not be able to fulfill a particular need. If the condition of an asset deteriorates, the risk of this happening will increase.

However, even assets with a high condition score can be at risk of failing to meet community needs if they no longer meet regulatory requirements or are inadequate to meet changing demand from a functionality or capacity point of view. By identifying the various impacts of asset failure and the likelihood that it will fail, risk management strategies can identify critical assets, and determine where maintenance efforts, and spending, should be focused.



Critical Assets

Critical assets are defined as those that would have significant impacts on our communities, and ones that we cannot afford to allow to fail. These assets are monitored closely to ensure that we are proactively managing any risks of failure. Critical assets include key infrastructure like roads and bridges, as well as assets that are central to service networks, like large stormwater pipes that manage significant water flow.

The prioritization exercise is critical, as the Township does not have sufficient funds to address the maintenance, rehabilitation, and renewal needs of all assets. As such, funding will generally be prioritized to core assets ahead of non-core assets. Having said that some non-core assets (e.g. Fire Services fleet/ equipment) will have higher priority.

Levels of Service

The backbone of our asset management program is an in-depth understanding of the levels of service we are expected to provide to our residents. We base our infrastructure investment decisions on the types of services our residents want to have, as well as the quality of service that they are willing to accept. We know that our residents appreciate having safe roads, accessible and affordable community centers, first-class community parks, safe communities, and so on. We strive to strike a balance between providing a breadth of services, at the highest quality possible, while keeping costs as low as possible.

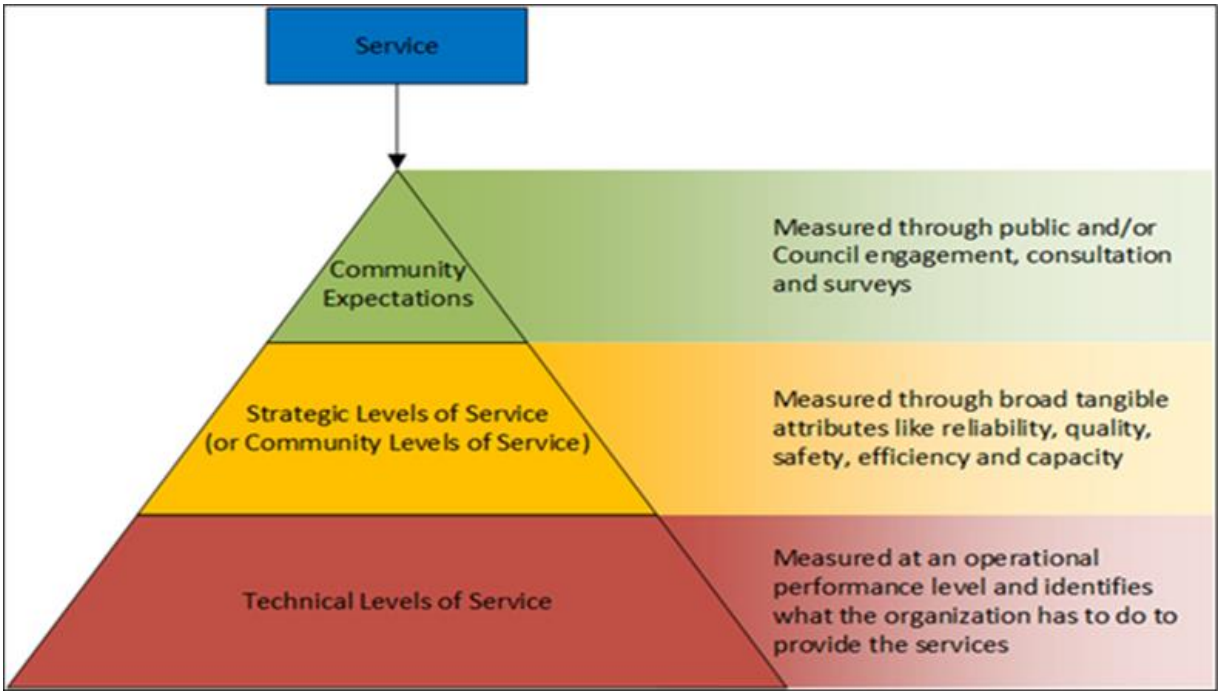
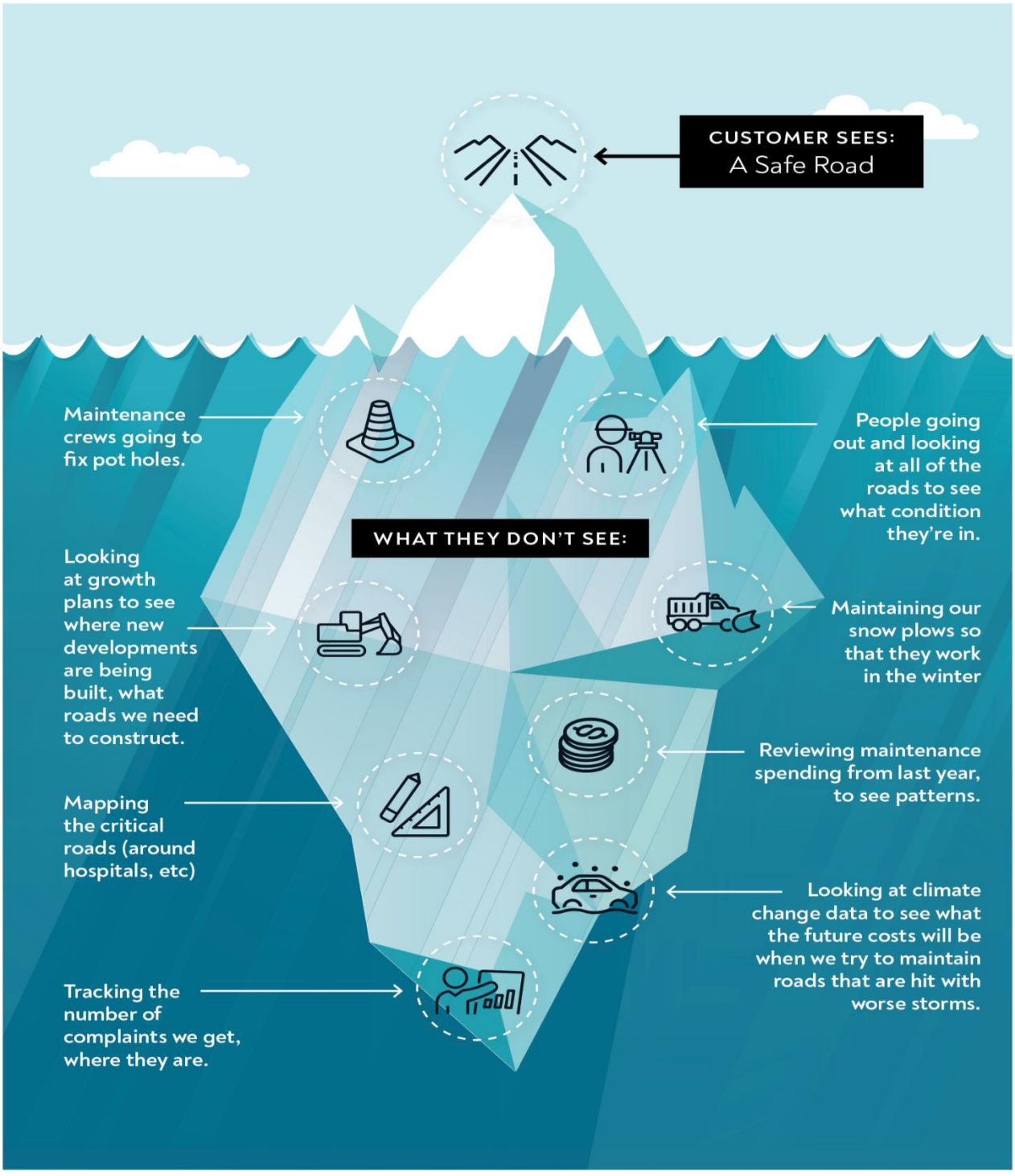


Figure 3 Levels of Service- Community and Technical

Levels of service provide the link between higher-level strategic goals at the Township level and the more technical, day-to-day activities done at the departmental level (Figure 3). We strive to measure our progress toward delivering services through performance measurement program across the organization. We measure our performance from both the customer perspective, as well as a technical perspective. Customer performance measures reflect our services from the resident perspective, and give us an idea of service quality, reliability, and sustainability. We know how quickly we can clear snow from parking lots, and what the impact to programs would be if we close a community centre for renovations. We also use technical performance measures to evaluate how effectively we are delivering services, using metrics such as Building Condition Assessments (BCA), number of incident reports and work orders, and fleet maintenance records.



This asset management plan reflects the current levels of service delivered. As per O. Reg. 588/17, future asset management plans will include goals for future levels of service, including assessments of how we will fund changes in service levels. These changes may include enhanced levels of existing services, or the provision of additional services that we are not currently providing.

2.3 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 (O. Reg 588/17). It was released in late 2017, and outlines the new requirements for asset management planning, which are phased-in over a 6-year period.

2019

Strategic Asset Management Policy

2022

AMP for Core Assets.

The plan must address current levels of service and the associated costs of maintaining that service for water, wastewater, roads, bridges, culverts, and storm water assets.

2024

Asset Management Plan for Non-Core Assets and review of Strategic Asset Management Policy

2025

Consolidates Core and Non-core into one plan including a discussion of proposed levels of service, what activities will be required to meet proposed levels of service, and a strategy to fund those activities.

To date, Township staff have maintained compliance with O. Reg. 588/17 predominantly with internal staffing resources and expertise. Given the relative size of the staffing team in a small, rural municipality this is quite uncommon. Additional investments have been made to collect unbiased condition assessments on Township-owned infrastructure (BCA's, OSIMs, etc.).

The final component of legislation required in 2025 will require, and greatly benefit from external third-party consulting. This will allow for a comprehensive external review and analysis of the Township's asset management program, and also assist the Township to establish proposed levels of service for all core and non-core infrastructure assets.

3. Scope and Methodology

Key Insights

- This AMP includes four (4) asset categories, all categories are tax funded.

    1) Facilities
    2) Outdoor Recreation & Land Improvements
    3) Fire Services
    4) Fleet & Machinery

- The source and recency of replacement costs impacts the accuracy and reliability of asset portfolio valuation.

- 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.

3.1 Assets Categories

This AMP for the Township of Mapleton's non-core assets is produced in compliance with Ontario Regulation 588/17. The Township has already completed an AMP for its core assets, which can be found on the Township's website.

All non-core assets are funded by tax levy, reserves and/or debt financing. Included Asset Categories are as follows:

Table 1 List of Township's Non-Core Asset Categories and Sources of Funding

Asset Category (Non-Core)	Source of Funding
Facilities	Tax Levy, Reserves and Debt Financing
Outdoor Recreation & Land Improvements	
Fire Services	
Fleet & Machinery	

This AMP summarizes the state of the infrastructure for Mapleton's non-core asset portfolio, establishes current levels of service and the associated technical and customer oriented key performance indicators (KPIs), outlines lifecycle strategies for optimal asset management and, and provides financial strategies to reach sustainability for the asset categories.

3.2 Replacement Costs

The replacement value is the cost that the Township would incur if it were to replace an asset. The replacement value can be calculated by several methods.

- **User-Defined Cost and Cost/Unit**: Based on costs provided by municipal staff and/or external contractors which could include average costs from recent contracts; data from engineering reports and assessments; staff estimates based on knowledge and experience.
- **Historical Cost Inflation:** Historical cost of the asset is inflated to the current dollar value, using standardized indexing tables.
- **Current Market Cost:** Applying recent acquisition costs to assets.

User-defined costs based on reliable sources are a reasonably accurate and reliable way to determine asset replacement costs. Cost inflation is typically used in the absence of reliable replacement cost data.

3.3 Estimated Useful Life and Service Life Remaining

The estimated useful life (EUL) of an asset is an estimate of how long the Township expects to realize the economic benefits of asset ownership. An asset is considered to have exceeded its useful life when it is no longer required (such as technology that becomes obsolete), when it no longer provides the required level of service (such as when a road is too narrow for the growing community), or when it is more cost effective to replace the asset than to continue to maintain it. The useful life is both a technical estimate, and an estimate of future demand. The EUL for each asset in this plan was assigned according to the knowledge and expertise of municipal staff, third-party consultants, and supplemented by existing industry standards when necessary.

By using an asset's in-service date and its EUL, the Township can determine the service life remaining (SLR) for each asset. Using an asset's assessed condition to determine SLR, provides more accurate replacement schedule forecasts. It is calculated as follows:

$$Service\ Life\ Remaining\ (SLR) = In\ Service\ Date + Estimated\ Useful\ Life (EUL) - Current\ Year$$

3.4 Reinvestment Rate

As assets age and deteriorate, they require additional investment to maintain a state of good repair. The reinvestment of capital funds, through asset renewal or replacement, is necessary to sustain an adequate level of service. The reinvestment rate is a measurement of available or required funding relative to the total replacement cost.

By comparing the actual vs. target reinvestment rate the Township can determine the extent of any existing funding gap. The reinvestment rate is calculated as follows:

$$Target\ Reinvestment\ Rate = \frac{Annual\ Capital\ Requirement}{Total\ Replacement\ Cost}$$

$$Actual\ Reinvestment\ Rate = \frac{Annual\ Capital\ Funding}{Total\ Replacement\ Cost}$$

3.5 Deriving Asset Condition

We assess the condition of our assets on a regular basis, to evaluate whether they are meeting regulatory and service level requirements, and to inform our short- and long-term funding decisions. The condition of various types of assets is collected differently, reflecting the different functions and construction of infrastructure across the Township. For Facilities, a Building condition assessment (BCA) was used, and assets were rated as either "Good", "Fair", or "Poor" (see Appendix B for details), depending on several factors, and the condition was calculated as the % assessed service life remaining over the estimated useful life of the asset.

A condition assessment rating system provides a standardized descriptive framework that allows comparative benchmarking across Mapleton's asset portfolio. The table below outlines the condition rating system used for most assets in this AMP. When assessed condition data is not available, service life remaining is used to approximate asset condition.

Table 2 Asset Condition Rating System

Condition	Description	Criteria	Service Life Remaining (%)
Very Good	Fit for the future	Well maintained, good condition, new or recently rehabilitated	80-100
Good	Adequate for now	Acceptable, generally approaching mid-stage of expected service life	60-79
Fair	Requires attention	Signs of deterioration, some elements exhibit significant deficiencies	40-59
Poor	Increasing potential of affecting service	Approaching end of service life, condition below standard, large portion of system exhibits significant Deterioration	20-39
Very Poor	Unfit for sustained service	Near or beyond expected service life, widespread signs of advanced deterioration, some assets may be Unusable	0-19

3.6 Lifecycle Management Strategies

According to O.Reg. 588/17, asset management plans must identify the set of planned actions required to maintain assets at their current level of service and provide a 10-year capital plan that forecasts the costs associated with the lifecycle strategies over the next ten-year period. Municipal assets undergo a number of lifecycle activities over through their useful life. We assess the condition of our assets on a regular basis, to evaluate whether they are meeting regulatory and service level requirements however, the lifecycle costing in the AMP only includes the activities that form a capital cost to the Municipality (i.e.: the replacement of the assets).

The regulation states that only capital costs and “significant” operating costs should be captured in the AMP. However, the regulation does not define a “significant operating cost”. Therefore, no operating costs have been deemed significant for the purpose of this AMP. This operating cost assumption will be reevaluated for the next iteration of the AMP when full lifecycle costing, beyond a ten-year forecast horizon, will be identified.

4. Portfolio Overview

Key Insights

4.1 State of the Infrastructure

- The total replacement cost of Mapleton's non-core asset portfolio is $77.6 million.
- Mapleton's target re-investment rate is 3.3%, and the actual re-investment rate is 2.3% contributing to an expanding infrastructure deficit.
- 63% of all assets are in fair or better condition.
- Average annual capital requirements total $744k per year across all non- core assets.

Standard Tables and Graphs Defined

The **Average Condition** (%) is a weighted value based on replacement cost. The Estimated Useful Life has been assigned according to a combination of established industry standards and staff knowledge. The Average Age of each asset is based on the number of years each asset has been in-service.

The **Annual Capital Requirement** represents the average amount per year that the Township should allocate towards funding rehabilitation and replacement needs to meet future capital needs.

Risk Heat Maps & Matrices provide a visual representation of the relationship between the probability of failure and the consequence of failure for the assets within each asset category based on 2023 inventory data.

Total Replacement costs are based on a replacement date of 2023 and include all assets in each respective category less any which are not planned for replacement.

4.2 Replacement Cost of Non-Core Assets

Figure 4 and Figure 5 below summarizes the total replacement cost by asset category. Replacement costs are based on a combination of user-defined costs and inflation of historical costs. This estimate was derived in 2023, using user-defined costing, cost per unit, and inflation of historical or original costs to current date.

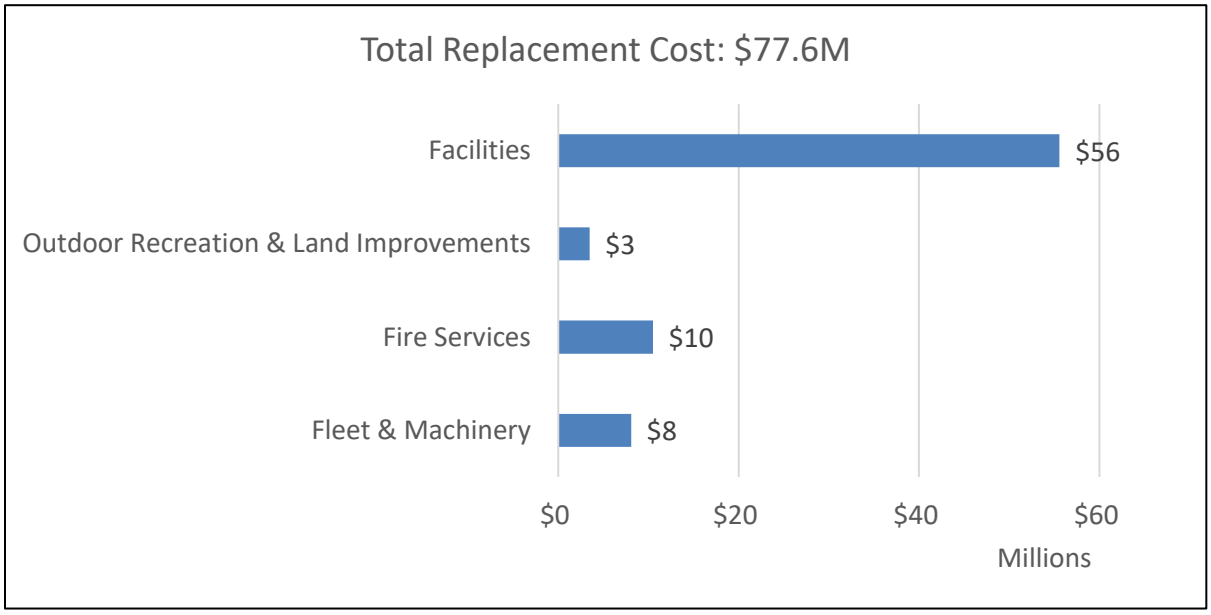


Figure 4 Non-Core Assets Total Replacement Cost

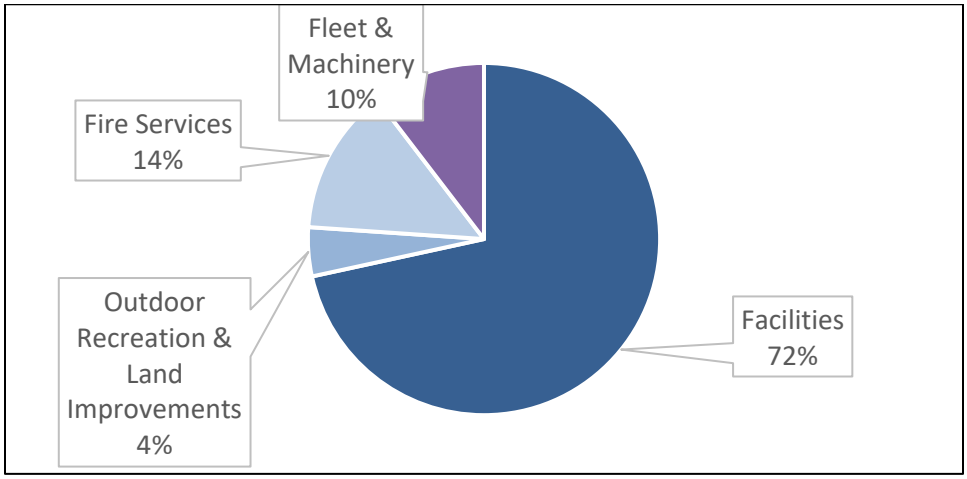


Figure 5 Non-core Assets Replacement Costs by Asset Category

As indicated above most of the non-core portfolio's total replacement cost is attributed to Facilities (72%) followed by Fire Services, Fleet and Outdoor Recreation & Land Improvement assets.

4.3 Target vs. Actual Reinvestment Rate

Figure 6 illustrates the funding gaps by comparing the target reinvestment to the actual reinvestment rate. To meet the long-term replacement needs, Mapleton should be allocating approximately $2,527,167 annually, for a portfolio target reinvestment rate of 3.3%. Currently, annual spending on infrastructure totals approximately $1,802,511 for an actual reinvestment rate of 2.3%.

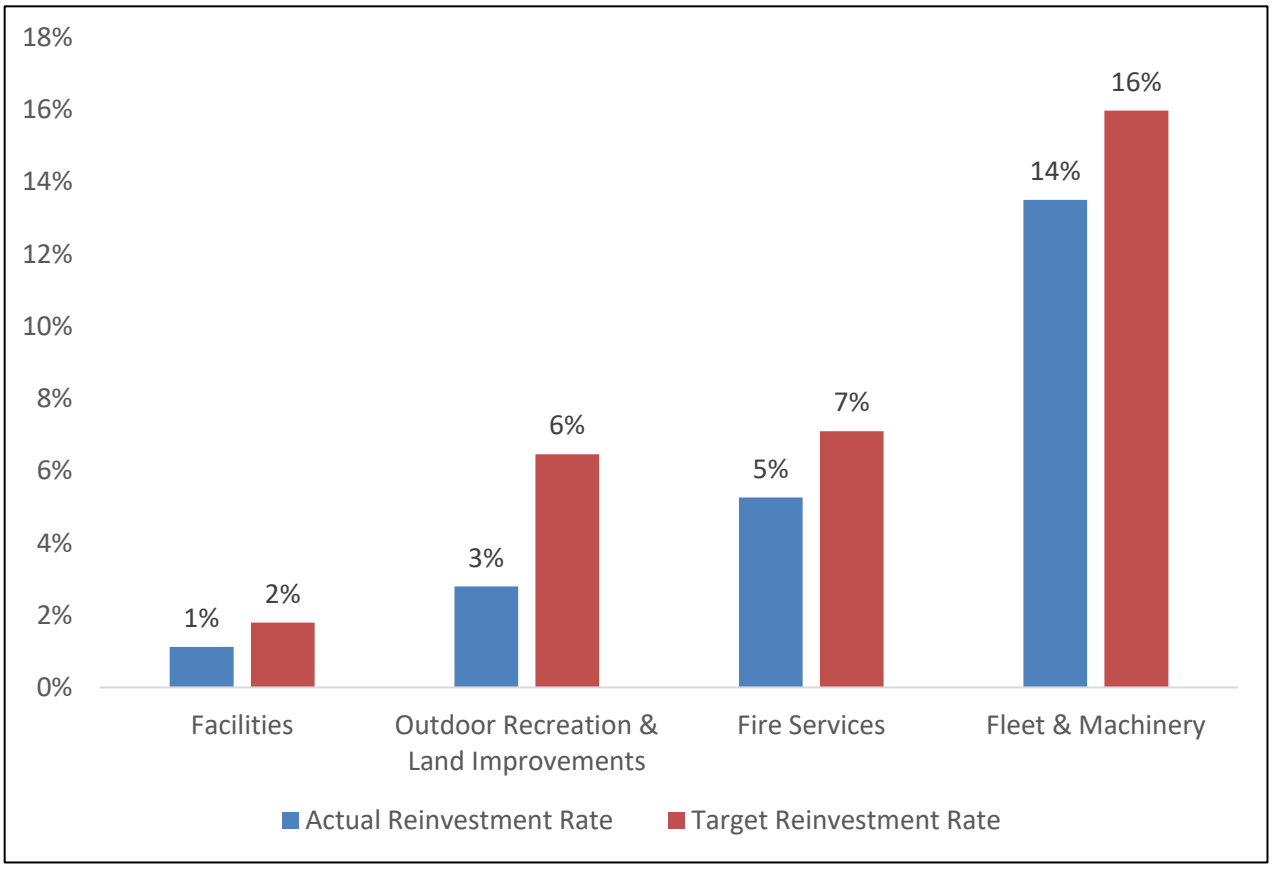


Figure 6 Actual vs Target Reinvestment Rate

4.4 Condition of Asset Portfolio

Asset condition information is central to asset management planning. Collectively, 63% of assets in scope are in fair or better condition. This estimate relies on both age-based and assessed condition and is reported as of December 2023. The condition distribution is detailed by asset category in Figure 7 below.

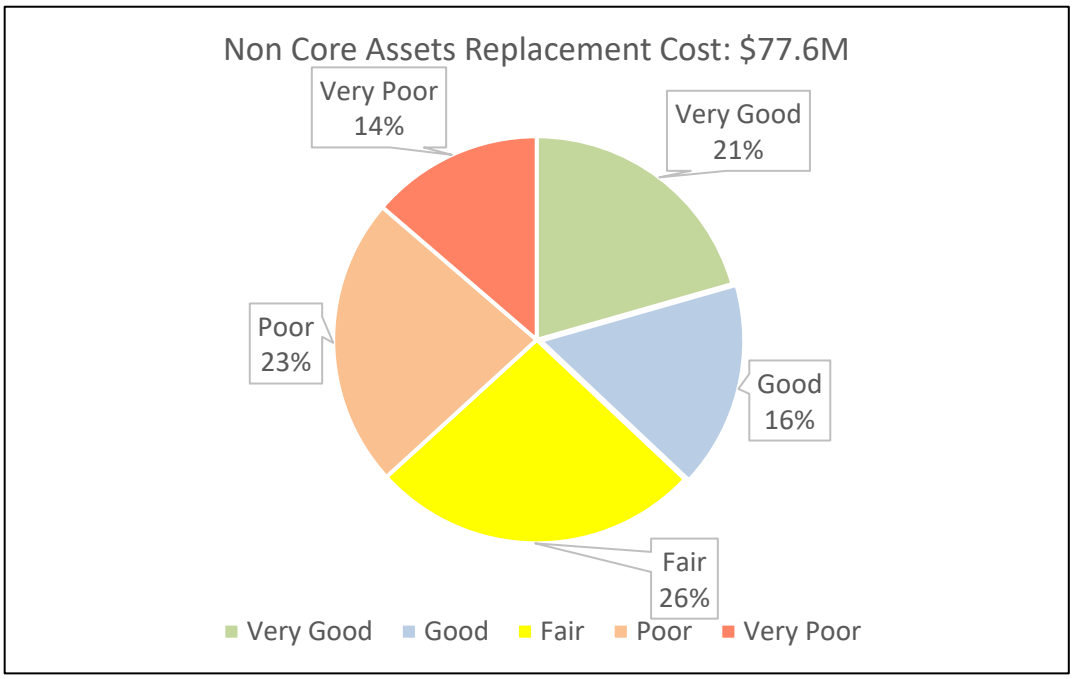


Figure 7 Asset Condition Summary

This AMP relies on assessed condition data for 83% of assets; for the remaining portfolio, age is used as an approximation of condition. Assessed condition data is preferred because it is often significantly more accurate. Table 3 summarizes the source of condition data used throughout this AMP.

Table 3 Assets Condition Information

Asset Category	% of Assets with Assessed Condition	Source of Condition Data
Facilities	100%	Third-Party Building Condition Assessments (BCA)
Outdoor Recreation & Land Improvement	50%	Third-Party BCAs
Fire Services	70%	Third-Party BCAs
Fleet & Machinery	0%	Age-based

4.5 Service Life Remaining

The following table reports the average age, EUL, and service life remaining for each asset category.

Table 4 Average Age, EUL, and SLR- Asset Portfolio

Asset Category		Average Age	Average EUL	Average Service Life Remaining
Facilities		24.5	37.75	13.25
Outdoor Recreation & Land Improvements		27.5	40.92	13.42
Fire Services	Facilities	31.5	35.5	4.0
	Fleet	13.68	17.42	3.74
Fleet & Machinery		9.17	4.17	4.5

4.6 Forecasted Capital Requirements

The development of a long-term capital forecast includes both asset rehabilitation and replacement requirements. Most rehabilitation requirements were identified through the Building Condition Assessment (BCA) process discussed in the next section. With the development of asset-specific lifecycle strategies that include the timing and cost of future capital events, the Township can produce more accurate long-term capital forecast. Figure 8 identifies forecasted capital requirements from 2024 to 2033, which fluctuate by year and asset category. On an average annual basis, the capital requirement is approximately $2.5 million.

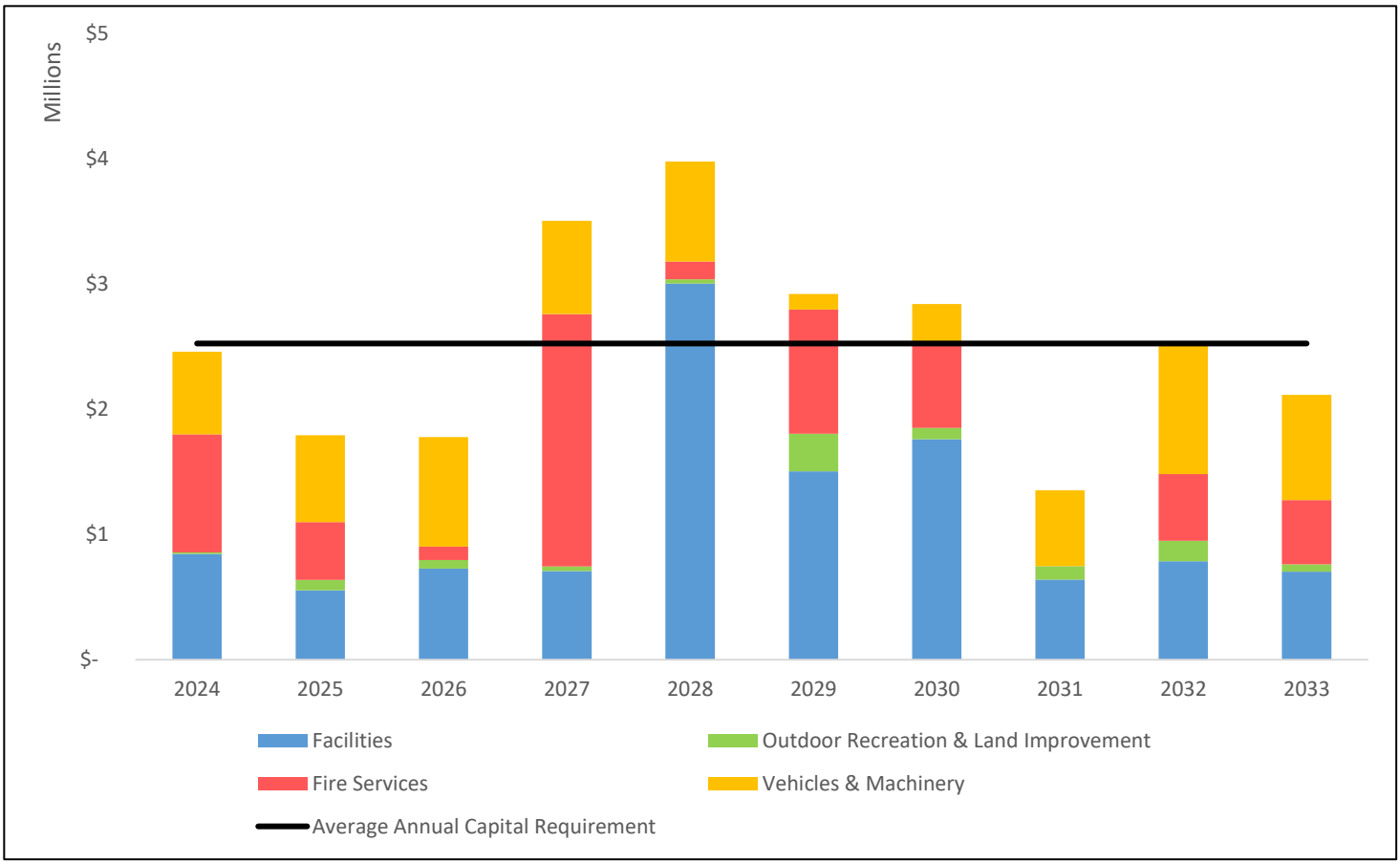


Figure 8 Average Annual Capital Requirements

5. Assets Analysis

Key Insights

- All non-core assets within this plan are Tax-funded and have a replacement value of $77.6 Million.
- Weighted by replacement cost 63% of assets are in fair or better condition.
- The average annual capital requirement to sustain the current level of service for tax-funded non-core assets is $2,527,167 or $2.5 million approximately.
- Critical assets should be evaluated to determine appropriate risk mitigation activities and treatment options
- A Capital Prioritization Framework must be established to ensure capital investments align with asset management program information.

Tax-Funded Non-Core Assets

Asset Portfolio: Replacement Cost

$77.6 Million

% of Assets in fair or better condition:

63%

Average Annual Capital Requirement:

$2.5 Million

5.1 Facilities

The facilities asset category includes a diverse range of building types which serve various functions. These assets provide critical services like municipal operations, recreation, and community engagement. Facility assets are often highly valued by the community and represent the highest valued non-core asset category in the portfolio. For reporting purposes facility assets are reported by segment (fire halls are included within the Fire Services Section 5.3). Common assets to each segment are as follows:

- Recreation & Social Services: PMD Arena, Community Centers, Festival Theatre
- Public Works: Maintenance Building, Sand/salt building and storage buildings.
- Administrative and other: Municipal Office, Medical Clinic, and offices
- Cemetery Services: Chapel and Columbarium

BCA Background

A Building Condition Assessment (BCA) is a process of systematically inspecting, reviewing, and documenting the state of facilities (arena, community centers, public works shop, municipal office etc.) or other outdoor amenities (like picnic shelters, splash pad etc.). BCAs are most often completed to help asset owners better inventory what they own, more clearly and defensibly understand the near- and long-term investment requirements, and, as a result, facilitate requisite budgeting and long-term planning.

As a best practice, BCAs are completed using ASTM UNIFORMAT II Standard classification of building elements. This classification system is based on major building groups and nested within that based on component groups and then specific components. As an example, common substructure building components and their respective Level 2, and 3 groups are shown below:

Table 5 Uniformat II Elemental Classification for Building Specifications

Uniformat II Level 1 (Major Group)	Uniformat II Level 2 (Component Group)	Uniformat II Level 3 (Component)
A SUBSTRUCTURE	A10 Foundations	A10101 Standard Foundations
		A1020 Special Foundations
		A1030 Slab on Grade
	A20 Basement Construction	A2010Basement Excavation
		A2020 Basement Walls

Using a standard format for classifying components has several advantages.

- Improved comparison between assets of different function and/or design. This is particularly relevant within a municipal setting where there is significant diversity in the types of facilities owned (i.e., Municipal office vs hockey arenas).
- Unit rate-based cost estimates can be appended to components, providing more accurate and refined costing, and potential for greater ease of costing updates.
- Significantly more granular analysis can be conducted based on the level 1,2, and/or 3 categorizations. For example, condition by component type (i.e., substructure vs. electrical) and from one facility to another is reportable.
- Component specific deficiencies (e.g., broken eaves troughs) are identified, alongside the costs and recommended date of remediation.

All of this enhances the accuracy of asset condition information, improves lifecycle management, and increases the reliability of longer-term capital projections.

Asset Inventory & Replacement Cost

Table 6 below includes the quantity, replacement cost method and total replacement cost of each asset segment in the Facilities inventory. In this table Quantity is based on the total square meters of the facilities in each segment.

Table 6 Facilities Inventory Summary

Asset Segment	Quantity (m^2)	Replacement Cost Method	Total Replacement Cost
Recreation & Culture	6,898	Cost/Unit	$33,177,261
Administration & Other	3,969	Cost/Unit	$7,651,983
Public Works [1]	1,947	Cost/Unit	$14,104,776
Cemetery Services	46	Cost/Unit	$628,786
Total	**12,860**		**$55,562,806**

[1] The Hydro Building Structure is not in-service and has been budgeted for Demolition in 2024 for $20,000. The building has not been included in any financial analysis beyond the replacement cost.

Figure 9 summarizes replacement cost distribution by facility asset segment.

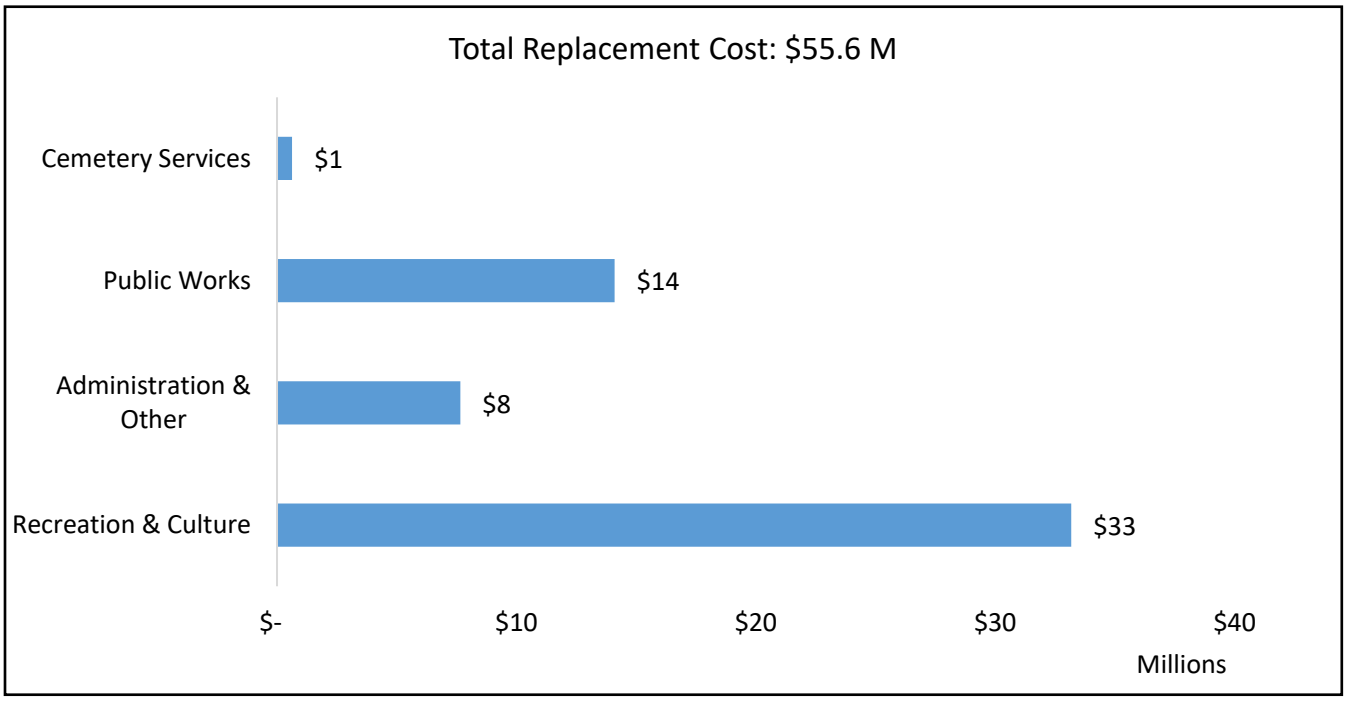


Figure 9 Replacement Cost by Facility Asset Segment

These costs can also be reviewed as a pie-chart to illustrate each segments overall proportion of the category total (Figure 10). We can see from the chart that recreation facility assets, which includes arenas, festival theatres and community centers, carry a significant proportion of replacement costs ($33 million). Public Works segment which includes the Mapleton maintenance building, sand/salt and other storage building imperative to public works operations is the second largest of replacement costs as a segment. Administration & Other assets (municipal office and medical clinic offices) have replacement cost of $8 million. While the Cemetery Services (Chapel and Columbarium) have the lowest proportionate share of about $1million.

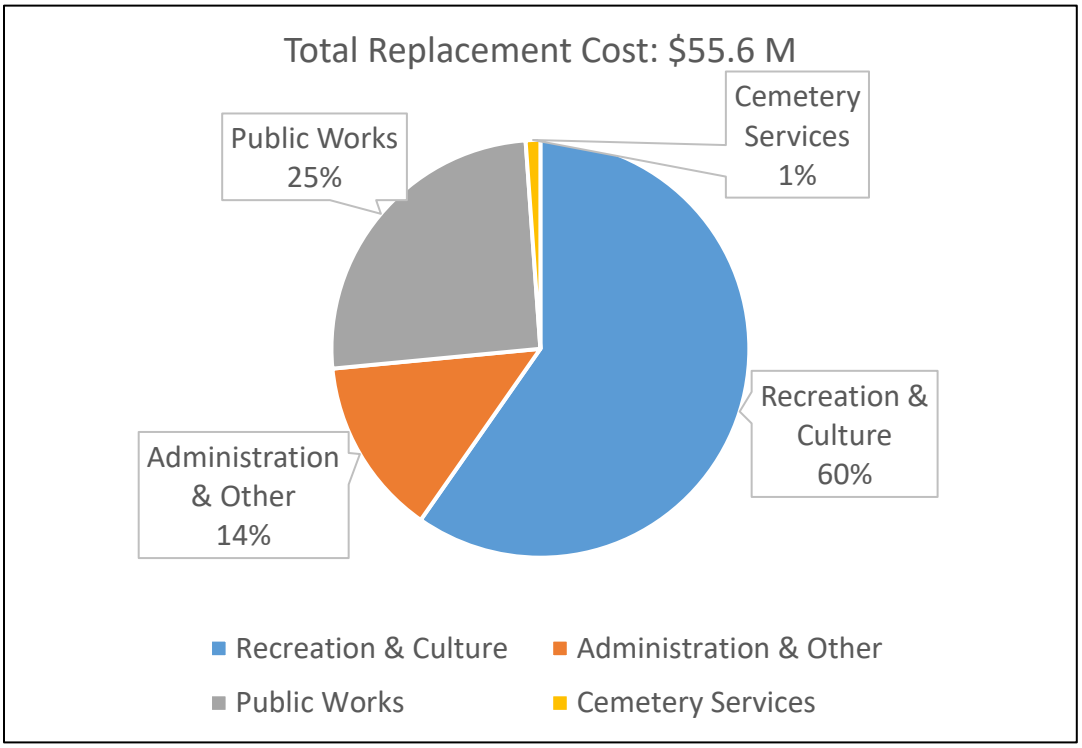


Figure 10 Facilities- Replacement Cost Contribution by Asset Category

Asset Condition

Table 7 and Figure 11 identifies the current average condition for each asset segment. For the purpose of reporting condition, the Chapel and Columbarium assets have been included in the Recreation & Culture Asset Segment. Designating the Cemetery services a separate asset class is part of the Recommendations and Improvement plan.

Table 7 Facilities Asset Condition Summary

Asset Segment	Average Condition (%)	Condition Source
Recreation & Culture	51	100% Assessed
Public Works	60	
Administration & Other	46	
Total	**53**	**100% Assessed**

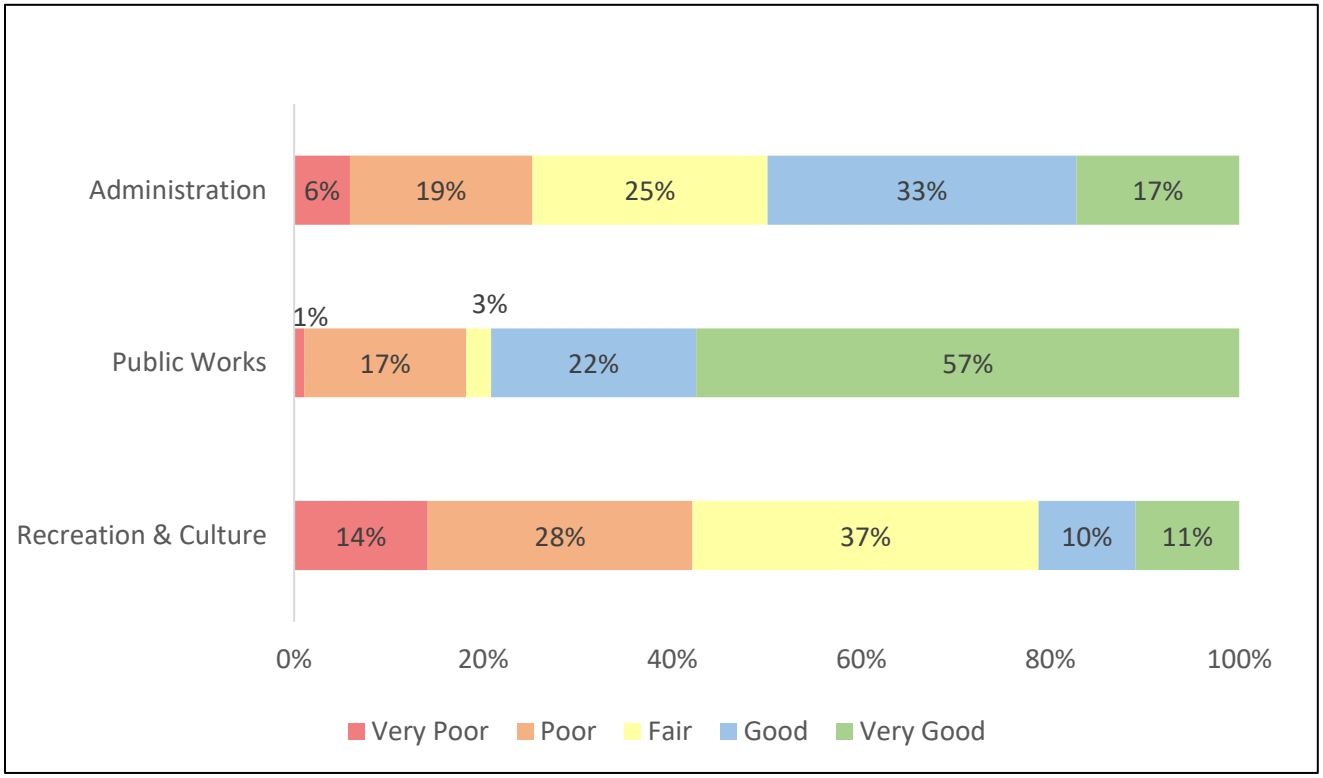


Figure 11 Asset Condition- Facilities: By Asset Type

Facility assets condition is based on a range of 0-100 using the following rating scale:

Table 8 Facilities Assets Assessed Condition Rating System

Condition	Rating	Definition
Very Good	80-100	Asset is physically sound and is performing its function as originally intended. Required maintenance costs are well within standards & norms. Typically, asset is new or recently rehabilitated.
Good	60-79	The element is functioning as intended; normal deterioration may be observed. However, no repairs are anticipated within the next 5 years. The lifecycle replacement, which is based on the EUL and age, is anticipated in the long term.
Fair	40-59	The element is generally functioning as intended and based on the EUL and age, the lifecycle replacement is anticipated in the long term (5 years +). The major repair is recommended in short term (1 to 4 years).
Poor	20-39	The element is not functioning as intended, failed or at risk of imminent failure. To minimize disruption to the building operations (frequent maintenance calls) and/or to maintain element continued performance, an element lifecycle replacement is required in the next 2 years (RUL 0 -2 years).
Very Poor	0-19	Asset is physically unsound and/or not performing as originally intended. Asset has higher probability of failure or failure is imminent. Maintenance costs are unacceptable, and rehabilitation is not cost effective. Replacement / major refurbishment is required.

Condition can also be reported at the Uniformat Level 1 category. This is the largest element grouping, which identifies Major Group Elements. Listed below are examples of building components within each of the Uniformat Level 1 categories and the average condition for the assets within.

As indicated in Table 9 most level 1 categories are in fair condition overall including the substructure, shell, interior, and services (52%). The Level 1 Services category includes assets which are crucial to the safe use and enjoyment of occupants, such as:

- Electrical distribution to power lights
- Fire protection assets to protect occupant health and safety.
- Heating ventilation and air conditioning (HVAC) assets to maintain suitable indoor air temperatures.
- Communications systems which are often used for emergency response communications.

Table 9 Facilities Asset Condition Summary -By Uniformat Level 1

Uniformat Level 1	Examples	Average Condition (%)
Substructure	Foundations & footings, slab on grade, foundations, columns & beams	55
Shell	Floor, roof, & balcony construction, exterior doors & windows, exterior walls & wall finishes	52
Interior	Interior wall, ceiling, & flooring finishes, interior doors, interior finishes (i.e., countertops, partitions), interior stairs	52
Services	Electrical distribution and services (i.e., panels, transformers), fire protection, plumbing, HVAC, elevators, lighting, communications & security systems	53
Equipment & Furnishings	Built in food service equipment, scoreboard systems, operating equipment	42
Special Construction & Demolition	Eye wash stations, arena rink slab, pool steel structure	40
Sitework	Exterior entrance stairs, ramps, guardrails & barriers, signage, flagpoles.	51

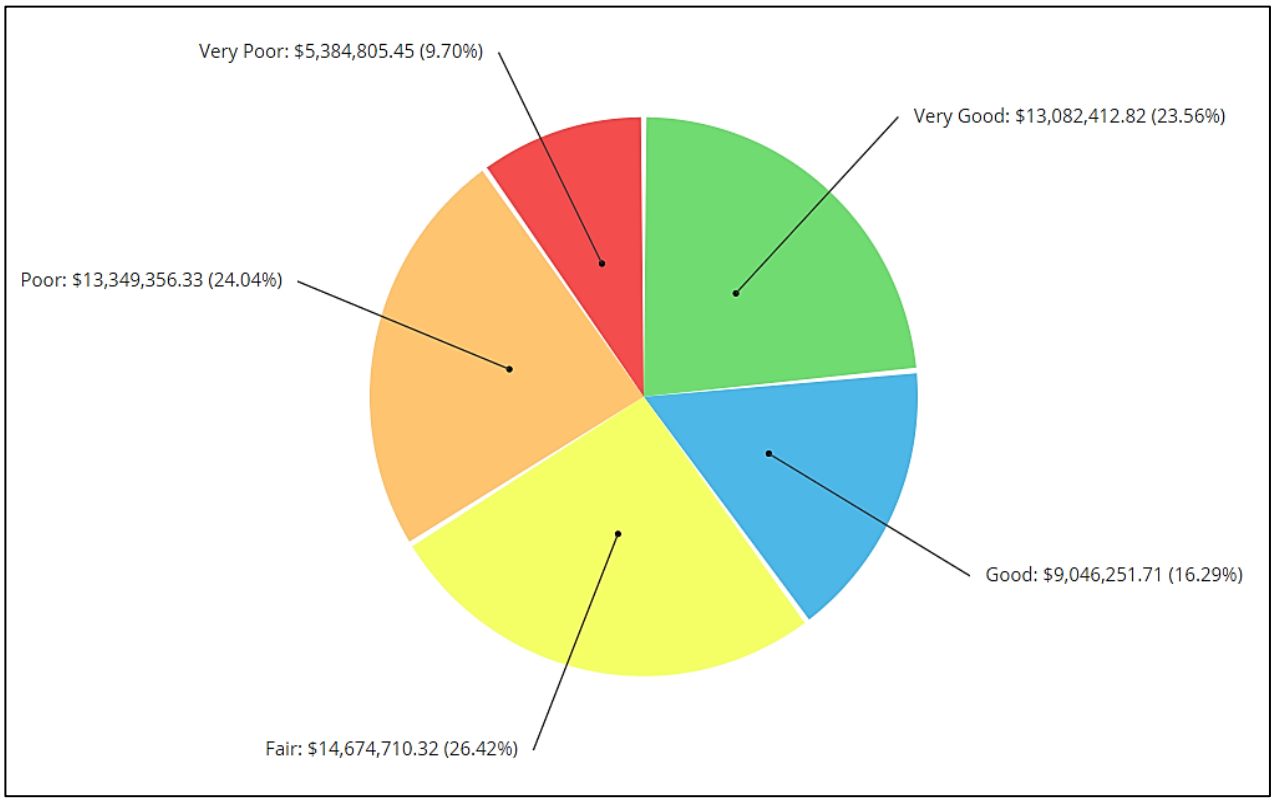


Figure 12 Asset Condition- Facilities Overall

Overall, about 66% of the Facilities assets, with replacement cost of $36.82 million are in Fair or better condition. And 34% of the assets are in poor or worse condition (Figure 12).

Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to determine the remaining service life of assets and identify the most cost-effective approach to managing assets more confidently. The following describes Mapeton's current approach for determining condition of their facility assets:

- Building Condition Assessments (BCA) completed beginning in 2023 by a third-party engineering consultant.
- As noted in Section 5.1 BCAs are a process of systematically inspecting, reviewing, and documenting the state of facilities.
- Using UNIFORMAT II classification system, the BCA provides an assessed condition score for each building component (identified as an asset) based on visual review, construction information, and operations information as made available. See Appendix B for details.
- Assets are identified using UNIFOMRAT II which is based on three levels of componentization: a major building group (Level 1), a component group (Level 2) and specific components (Level 3).

Estimated Useful Life & Average Age

Facilities contain a wide variety of building components (referenced herein as assets) which serve a range of functions and have varied Estimated Useful Life (EUL). For reporting purposes, the average age and EUL of assets is provided by Level 1-Major Building Group categories. The EUL for facility assets has been assigned according to a professional opinion obtained through the BCA. The Average Age of each asset is based on the number of years each asset has been in service. Finally, the Average Service Life Remaining (SLR) represents the difference between the EUL and the Average Age, for all assets within each Level 1 category. This is summarized in Table 10 below.

Table 10 Facility Assets EUL & Average Age

Level 1 – Major Groups	Estimated Useful Life (Years)	Average Age (Years)	Average Service Life Remaining (Years)
A Substructure	75 Years	40 Years 4 Months	34 Years 7 Months
B Shell	40 Years 4 Months	26 Years 3 Months	17 Years 11 Months
C Interiors	33 Years	24 Years	9 Years
D Services	31 Years 7 Months	21 Years	10 Years 7 Months
E Equipment & Furnishings	25 Years	26 Years	End of EUL
F Special Construction & Demolition	26 Years 11 Months	30 Years 11 Months	End of EUL
G Sitework	30 Years 11 Months	25 Years 6 Months	13 Years 4 Months
Total	**37.75**	**24.5**	**13.25**

Each asset's EUL should be reviewed periodically to determine whether adjustments need to be made to better align with the observed length of service life for each asset type.

Lifecycle Management Strategy

Lifecycle management strategies work to proactively manage asset deterioration. Table 11 below summarizes the Township's current practices.

Table 11 Typical Lifecycle Management Strategies for Facilities Assets

Activity Type	Description of Current Strategy	Risks Associated with Not Completing the Activities
Non-Infrastructure Solutions	Building Condition Assessment Program	Inadequate planning leading to inaccurate forecast estimates and short- & long-term plans
	Accessibility Plan	Regulatory requirement
	Climate change and mitigation	Inability to comprehend and plan for the effects of climate change on infrastructure
Maintenance & Inspection	Inspections and servicing are completed as per manufacturer specifications; Health & Safety inspections conducted monthly, and Facilities are inspected annually.	Deficiencies are not identified through inspections
	Snow and ice removal maintenance	Health and safety risk
	TSSA inspections for the PMD Arena Equipment every two years. Beginning in 2023 Building Condition Assessments (BCA) was completed on all facility assets. The data collected through the assessments identified recommended repairs and replacement schedules. This information is central to the selection of long-term capital projections. In some cases, the BCA recommend studies to better understand existing state, functionality, and risks (i.e., presence of asbestos) and develop infrastructure management solutions accordingly.	Increased lifecycle costs if maintenance not scheduled or done correctly. Premature asset failure
	Residents can submit complaints to the Township regarding the state of Facilities assets. Complaints are reviewed, recorded, and responded to accordingly.	Service levels drop, customer dissatisfaction

Activity Type	Description of Current Strategy	Risks Associated with Not Completing the Activities
Replacement & Rehabilitation	Historically many asset replacements have been reactive based on asset component failure. With the completion of the BCA the Township intends to become more proactive in their asset lifecycle activities.	Increased lifecycle costs if not done properly or as scheduled.
	Currently, capital projects are forecasted based on a 10-year planning horizon. Generally, clarity of projects is highest in the first 1-4 years of the plan with projects planned in years 5 and beyond more likely to change over time.	Planning forecasts may be delayed to coordinate with other asset classes.
Disposal	Obsolete assets are decommissioned as needed.	Environmental impact, liabilities & costs overrun.
Growth	Space requirements will change as the Township continues to grow and staffing requirements increase to maintain the levels of service also increase	Delayed or cancelled activities lead to inability to accommodate increased demands.
	New developments would require more community facilities to ensure all residents have access to the services provided by the Township	

Forecasted Capital Requirements

Figure 13 summarizes average annual requirements and total forecasted requirements in for the planning period of 10 years. The annual capital requirement is $1.124 million and represents the average amount per year that the Township should allocate to future capital needs to maintain the current levels of service. The average forecasted funding over the up-coming 10-year period was determined to be $703k annually resulting in a funding gap of $422k annually.

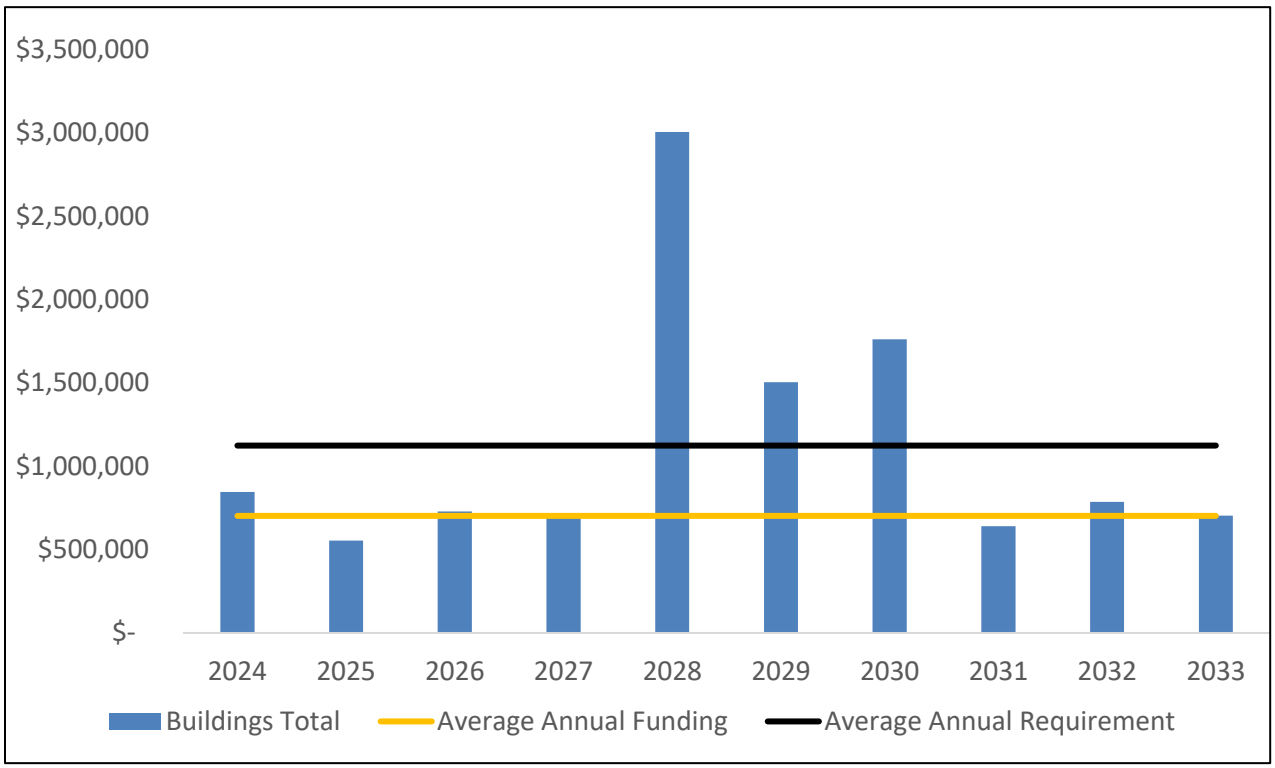


Figure 13 Average Annual Capital Requirement- Facilities Assets

From Figure 14, it can be summarized that capital requirements reported fluctuate by period. From 2024 to 2027, approximately $3M is required, primarily for Recreation & Culture, with minimal allocations for Public Works. In the period from 2028 to 2032, the capital requirements increase to around $8 million, with substantial contributions from Recreation & Culture, significant funding needed for Public Works, and some allocation for Administration & Other. The forecast peaks between 2033 and 2037, with a total of approximately $9 million, heavily weighted towards Recreation & Culture, followed by significant amounts for Public Works and Administration & Other. In the final period from 2038 to 2042, the requirements drop to about $7 million, with the majority still allocated to Recreation & Culture, followed by Public Works and Administration & Other. Overall, Recreation & Culture consistently demands the highest capital, with notable increases in the needs for Public Works and Administration & Other in the long term.

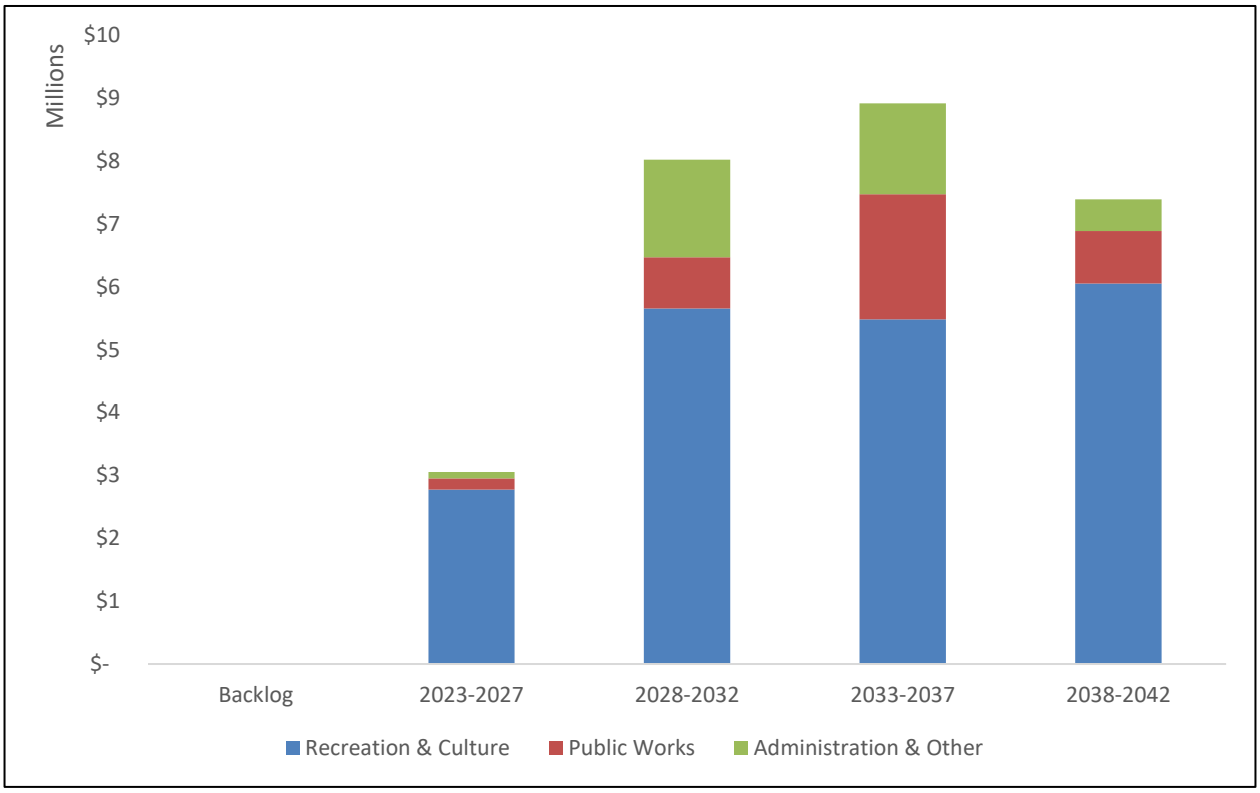


Figure 14 Forecasted Capital Replacement Requirements- Facilities: 2023-2042

Risk & Criticality

Risk Matrix

The risk matrices below are generated using available asset data and were developed in collaboration with staff. They stratify assets into defined risk groups based on their current replacement costs and other factors identified by the Township that impact the consequences of failure including social, health and safety and environmental.

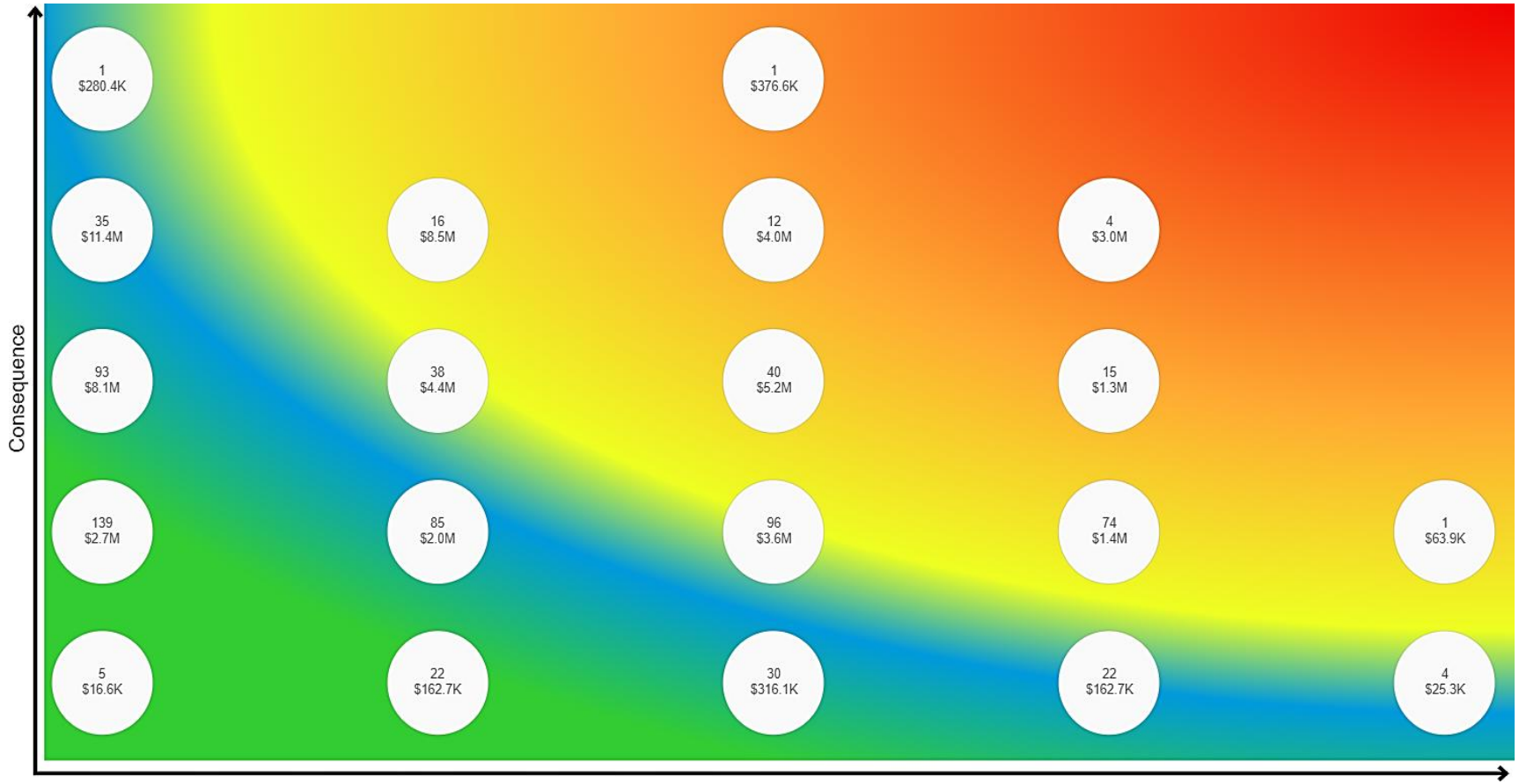
See Appendix E for how risk ratings were assigned to all asset groups.

Table 12 Facilities Risk Parameters

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Economic)
5-Year Facility Condition Index (FCI)	Level 3 Component Group (Health & Safety)
	Facility Segment (Social)

The Facility Condition Index (FCI) is a metric used to assess the condition of a building or infrastructure by comparing the total cost of needed repairs, renewals, or upgrades to the building's current replacement value. It is expressed as a percentage, with a higher percentage indicating a greater need for repairs relative to the building's value. The FCI helps prioritize maintenance and investment decisions by providing a standardized measure of a facility's overall condition. Based on the above parameters and their weightings the probability and the consequence of failure for the facility assets was calculated and the risk score was determined based on 2023 inventory data. The following risk matrix provides a visual representation of the risk scores for facility assets which are based on the criteria used in Table 12. The reported dollar values represented the sum of replacement costs for assets within each respective risk box.

As indicated below in Figure 15**,** most assets are low to moderate risk (green and yellow boxes), however there are eight (8) assets with a replacement cost of about $4.1 million that are high risk (red boxes). These are high risk assets because they have a high probability of failure (4 or 5 out of 5) and a high consequence of failure (3 and 4 out of 5). One hundred thirty (130) assets representing $20 million in replacement cost hold moderate-to-high risk (orange) because of their moderate to high probability and consequence of failure. The remaining assets representing about $31.5 million in replacement value, have moderate (yellow) or lower risk.



1 - 4	5 - 7	8 - 9	10 - 14	15 - 25
224 Assets	252 Assets	119 Assets	130 Assets	8 Assets
75,241.00 m, unit(s), m2, litres	61,990.00 unit(s), m2, m, litres	43,345.00 unit(s), m2, litres, m	86,216.00 unit(s), m, m2, litres	18,271.00 unit(s), m2
$14,532,819.66	$10,774,843.77	$7,439,538.09	$20,086,847.35	$4,117,633.44

Figure 15 Risk Heat Map and Risk Ratings: Facilities Assets

Levels of Service

Table 13 and Table 14 identify the Township's current community and technical level of service (LOS) for facility assets.

Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service for the Township's Facilities Assets.

Table 13 Facilities Assets Community LOS

Service Attribute	Qualitative Description	Current LOS (2023)
Condition	Description of building/ facility condition (includes maps and images)	Residents are satisfied with the overall condition of the community facilities and the services provided (based on online reviews and customer feedback to the staff). The PMD arena needs more capital work to maintain current levels of service.
Scope	Description of quality, quantity, and diversity of recreational and cultural facilities, programs, and services provided	The Township has one Arena-Community Center and two other community centers in three urban hamlets in the Township. The Municipal office is for administrative services and Public Works operation buildings are maintained in good state of repair.
Capacity/ Availability	Description of building/facility capacity and how assets are meeting needs of user groups (user feedback)	The arena accommodates both hockey and figure skating, owing to a new ice allocation policy ensuring fair ice time. Community centers host various events, while the municipal office serves residents for taxes, information, and permits. Public works buildings are crucial for community operations. Overall, the building capacity is adequate.
Affordability	Description of affordability from the residents' perspective	The fee for the services is provided is on the lower end of the surrounding communities.
Environmental Stewardship	Providing facilities that are energy efficient.	The community is increasingly prioritizing environmental protection and energy efficiency. The Environment Advisory Committee is coming up with various strategies to promote sustainability.

The Community LOS may be further enhanced through future public consultation.

Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the Township's Facilities.

Table 14 Facility Assets Technical LOS

Service Attribute	Technical Metric	Current LOS (2023)
Condition	% of assets that are in fair or better condition	66%
	% of assets that are in poor or very poor condition	34%
Scope	# of Buildings	1 Arena, 3 Community centers, 1 Festival Theatre, 1 Chapel, 1 Municipal Office, 1 Medical clinic & office, 1 Maintenance Building, 2 Storage Buildings, 2 Sand/salt buildings, 1 Splashpad mechanical building,
Capacity/ Availability	Average wait times	Same day bookings available for Arena and Community Centers
	Utilization %	Seasonal Utilization
Accessibility	Percentage (%) of occupied Facilities that are accessibility (AODA) compliant.	The Community centers, Maintenance building and Municipal office are 100% accessible**.** For more information refer to Appendix D
Environmental Stewardship	Annual electric energy consumption kilowatt-hour per square meters	Recreation= 642 ekWh/m2 Public Works= 388 ekWh/m2 Administration= 294 ekWh/m2

5.2 Outdoor Recreation & Land Improvements

Outdoor Recreation & Land Improvement assets represent a variety of asset types that serve to improve the quality of life and enjoyment of outdoor spaces. These assets are managed by the Public Works department with the shared goal of keeping assets in a state of good repair, through ongoing maintenance, repair, and replacement.

Building Condition Assessment (BCA) Background

Some outdoor recreation & land improvement assets were componentized and reviewed for condition and investment requirements as part of the BCA Project. This information, as collected for the assets is reflected herein. For general information about BCA's including their benefits and reporting structure please refer to BCA Background under the previous Facilities section.

Asset Inventory & Replacement Cost

Table 15 and Figure 16 summarize the replacement cost and quantities of the Township's outdoor recreation & land improvement asset inventory.

Table 15 Outdoor Recreation & Land Improvements Asset Inventory Summary

Asset Segment	Quantity (# Components)	Replacement Cost Method	Total Replacement Cost
Picnic Shelters & Concession Booths	8	User-Defined	$548,3250
Washrooms	3	User-Defined	$840,540
Fields & Courts	17	CPI-based	$1,371,940
Playgrounds & Play Structures	20	CPI-based	$638,900
Trails	9 Km	CPI-based	$86,960
Total			**$3,486,660**

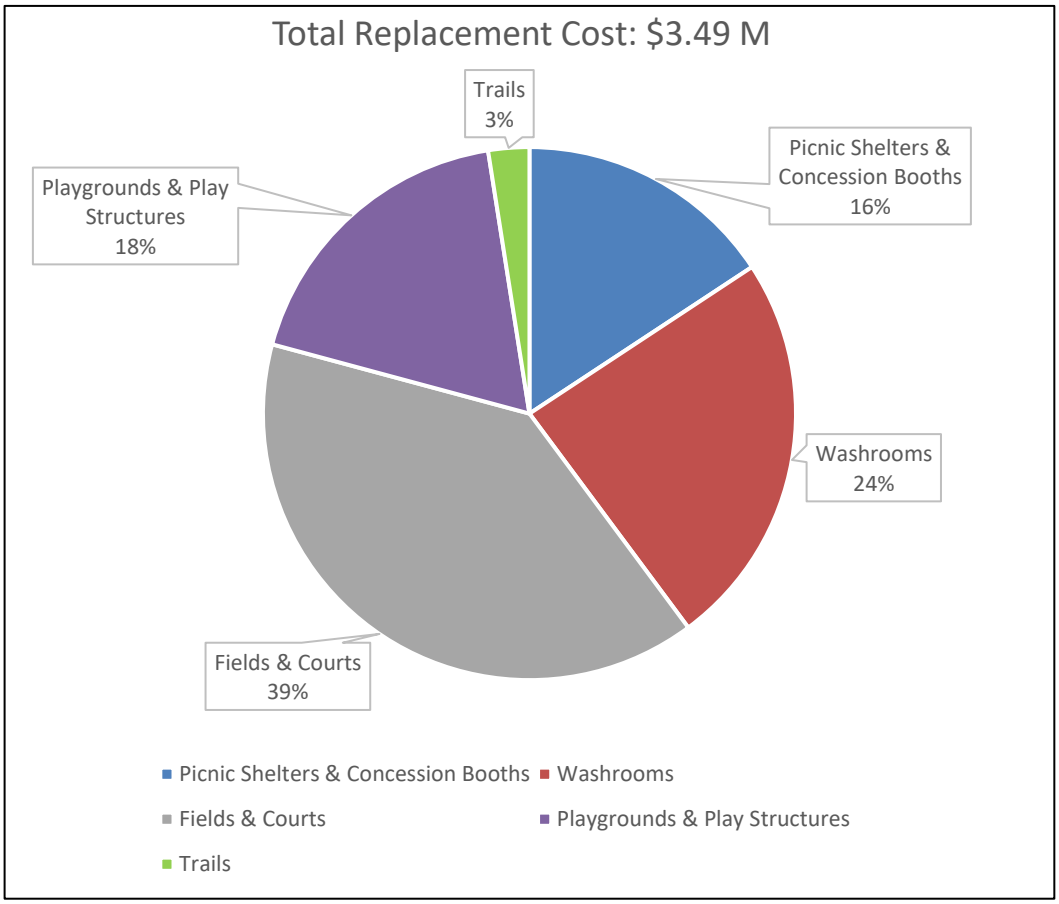


Figure 16 Replacement Cost: Outdoor Recreation & Land Improvement Assets by Asset Segment

Asset Condition

Table 16 and Figure 17 below identify the current average condition and source of available condition data for each asset segment in this category.

Table 16 Outdoor Recreation & Land Improvement Assets Condition Summary

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Picnic Shelters & Concession Booths	39	Poor	100 % Assessed
Washrooms	49	Fair	100 % Assessed
Fields & Courts	60	Good	Assessed & Age-based
Play Structures	60	Good	Assessed & Age-based
Trails	84	Very Good	Assessed & Age-based
Total	**45**	**Fair**	

When reviewing condition for all outdoor recreation and land improvement assets the overall distribution shows that 80% of the assets are in fair or better condition and about 15% of the assets in very poor condition. Figure 18 shows the breakdown of the condition of the assets based on the asset segment.

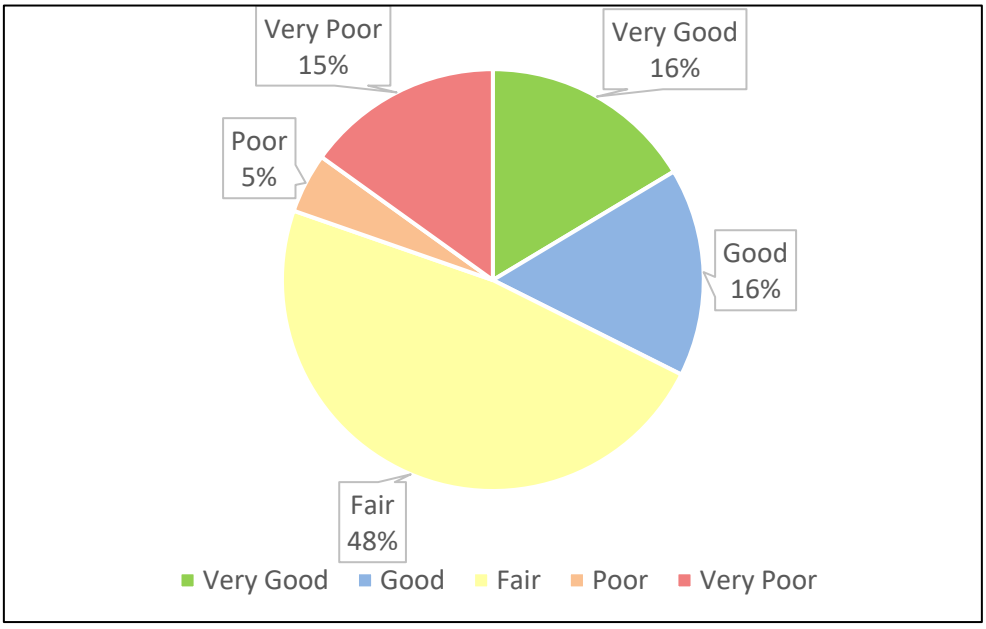


Figure 17 Asser Condition- Outdoor Recreation & Land Improvements: Overall

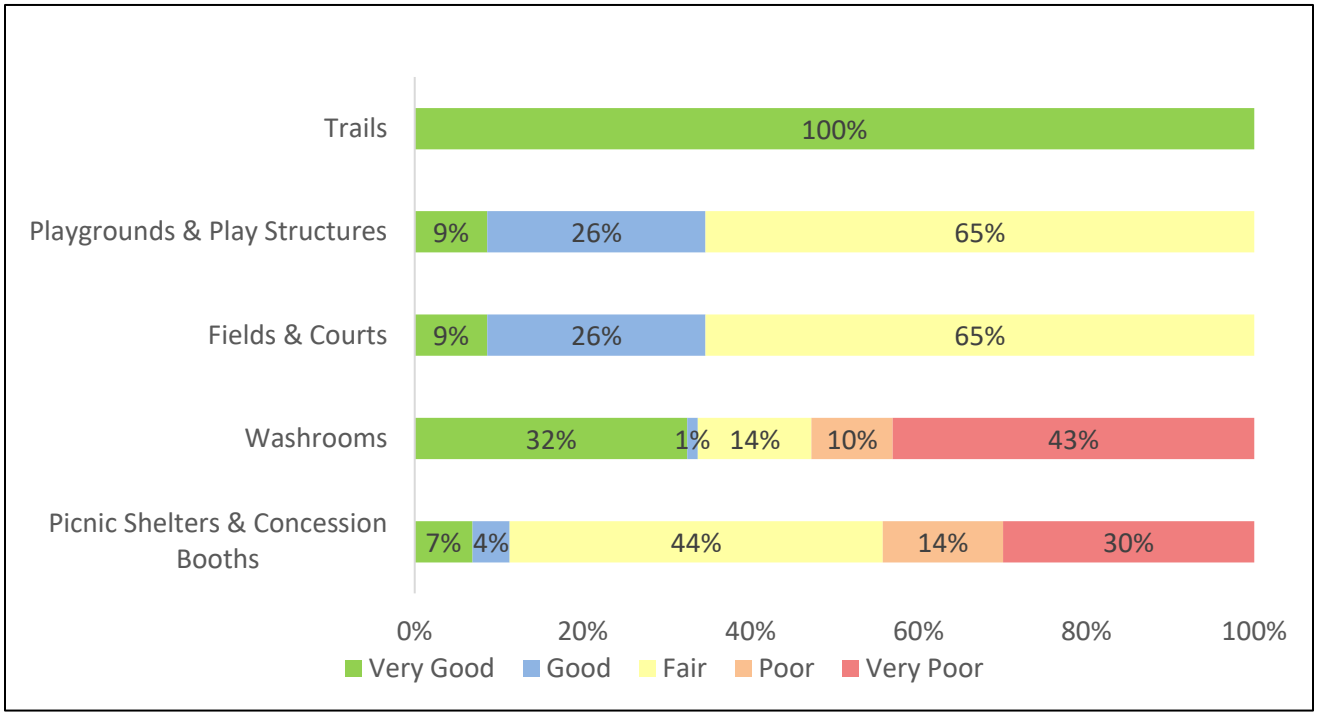


Figure 18 Asset Condition- Outdoor Recreation & Land Improvement: By Asset Type

Current Approach to Condition Assessment

Accurate and reliable condition data better equips staff to estimate the remaining service life of assets and identify the most cost-effective approach to their management. Currently some outdoor recreation assets rely on age-based condition, which is based on the assets age compared with its expected useful life. Where assessed or age-based condition is used, it is based on the following scale.

Condition	Rating
Very Good	80 and above
Good	60 and above
Fair	40 and above
Poor	20 and above
Very Poor	0 and above

Estimated Useful Life & Average Age

Table 17 summarizes the Estimated Useful Life (EUL) and average age for each Outdoor Recreation & Land Improvements asset segment. As indicated in Table 17 below all segments are on average lower in age than their estimated useful life, but in some cases not by much.

Table 17 Outdoor Recreation & Land Improvement Assets Age & Service Life Remaining

Asset Segment	EUL (Years)	Weighted Average Age (Years)	Weighted Average Service Life Remaining (Years)
Picnic Shelters & Concession Booths	40 Years 3 Months	24 Years 4 Months	15 Years 11 Months
Washrooms	44 Years	21 Years 9 Months	22 Years 4 Months
Fields & Courts	25 Years 10 Months	13 Years 10 Months	12 Years
Playgrounds & Play Structures	25 Years 10 Months	13 Years 10 Months	12 Years
Average	**40 Years 11 Months**	**27 Years 6 Months**	**13 Years 5 Months**

Lifecycle Management Strategy

Lifecycle management strategies work to proactively manage asset deterioration. Table 18 below summarizes the Township's current practices.

Table 18 Typical Lifecycle Management Strategies for Outdoor Recreation & Land Improvement Assets

Activity Type	Description of Current Strategy	Risks Associated with Not Completing the Activities
Non-Infrastructure Solutions	Condition Assessment Programs	Inadequate planning leading to inaccurate forecast estimates and short- & long-term plans
	Parks, Recreation & Economic Development Master Plan	
	Accessibility Plan	Regulatory requirement
Maintenance & Inspection	On a weekly basis, staff cut the grass at all Township Parks, trails and managed cemeteries. During this time, a walk-through inspection of outdoor recreation assets is conducted, and routine maintenance is done.	Deficiencies are not identified through inspections
	Snow and ice removal maintenance	Health and safety risk
	Play structures inspected and preventative maintenance done on the picnic shelters, concession booths & public washrooms. Township has two playground inspectors and inspections are done monthly.	Increased lifecycle costs if maintenance not scheduled or done correctly. Premature asset failure
	Residents can submit complaints to the Township regarding the state of outdoor recreation assets. Complaints are reviewed, recorded, and responded to accordingly.	Service levels drop, customer dissatisfaction

Activity Type	Description of Current Strategy	Risks Associated with Not Completing the Activities
Replacement & Rehabilitation	In 2021 the Township of Mapleton published a Parks & Recreation Strategic Master Plan which included Facilities & Outdoor Recreation assets. The purpose of doing so was to better understand current and projected future needs, assess the parks and recreation services, human resources, policies, and infrastructure and recommend a framework for prioritizing future decisions. The Township continues to advance replacement and rehabilitation projects, often based on recommendations of the staff.	Increased lifecycle costs if not done properly or as scheduled. Coordination with other asset classes might delay planning forecasts
Disposal	Obsolete assets are decommissioned as needed.	Environmental impacts & costs overrun.
Growth	Space requirements will change as the Township continues to grow and staffing requirements increase to maintain the levels of service also increase Expansion of the new developments would require more parkland and trails to ensure all residents have access to the services provided by the Township.	Delayed or cancelled activities lead to inability to accommodate increased demands.

Forecasted Capital Requirements

The following graph illustrates the forecasted lifecycle requirements over a 10-year period for the Outdoor Recreation & Land Improvement Assets. The cost required to maintain existing levels was determined to be $95,106 annually to ensure asset performance in perpetuity. The average forecasted funding over the up-coming 10-year period was determined to be $41,162 annually, resulting in a funding gap of $53,994 annually.

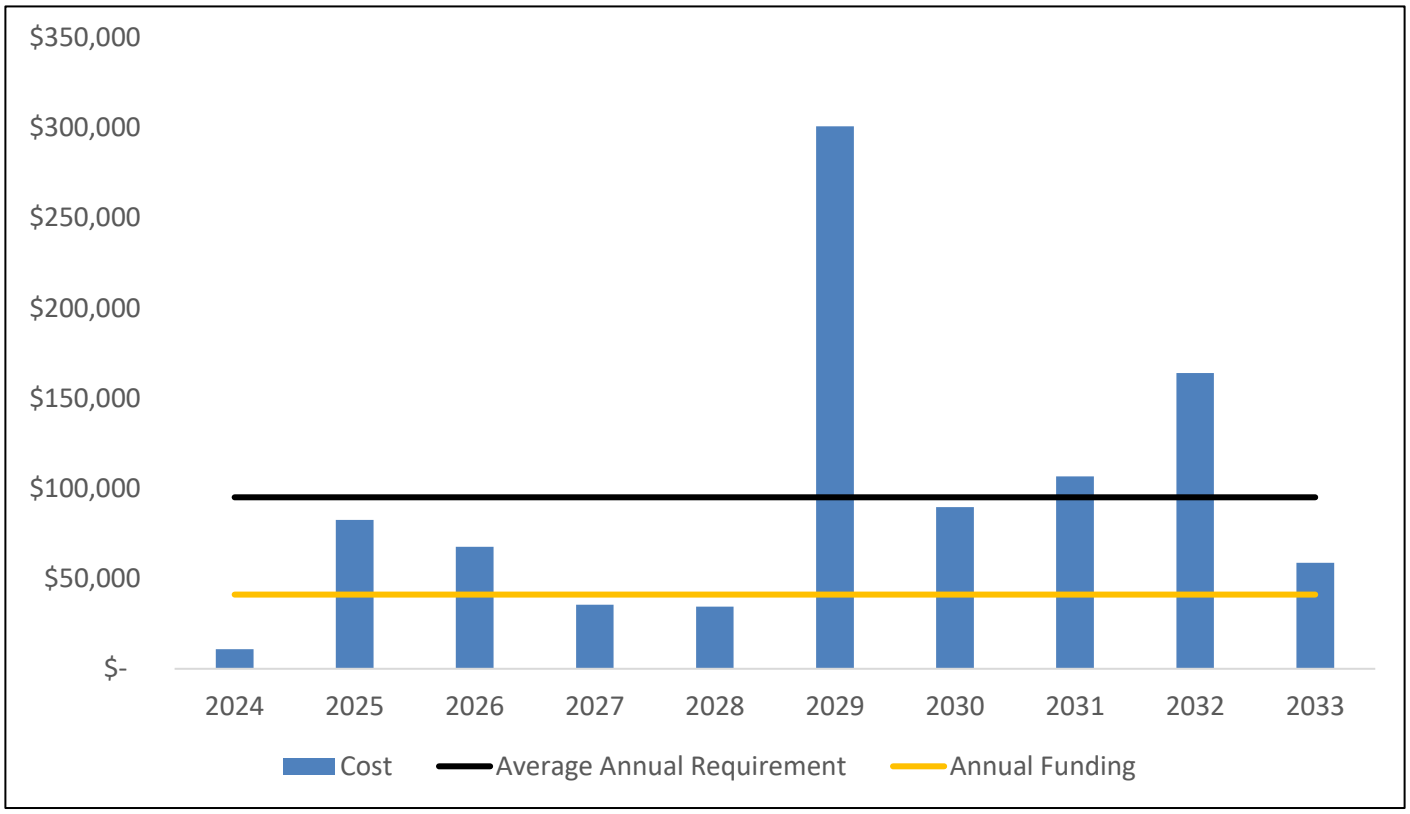


Figure 19 Average Annual Capital Requirements- Outdoor Recreation & Land Improvement Assets

Risk & Criticality

Risk Matrix

The asset-specific attributes that municipal staff utilize to define and quantify risk for their outdoor recreation assets are as listed below.

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Economic)

The level of risk held by Outdoor Recreation & Land Improvement assets is summarized in Figure 20. These risk scores are calculated based on the above parameters. Please refer to Appendix E for a more detailed overview of the risk weighting and criteria. Using the model described above the probability and consequence of failure and the overall risk of all land improvement category assets is illustrated below. Most assets are low to moderate risk (in green, blue and yellow). There are no high-risk assets and 12 moderate-high risks assets (in orange) with a total replacement value of $606k This represents about 17% of the outdoor recreation category total replacement cost.

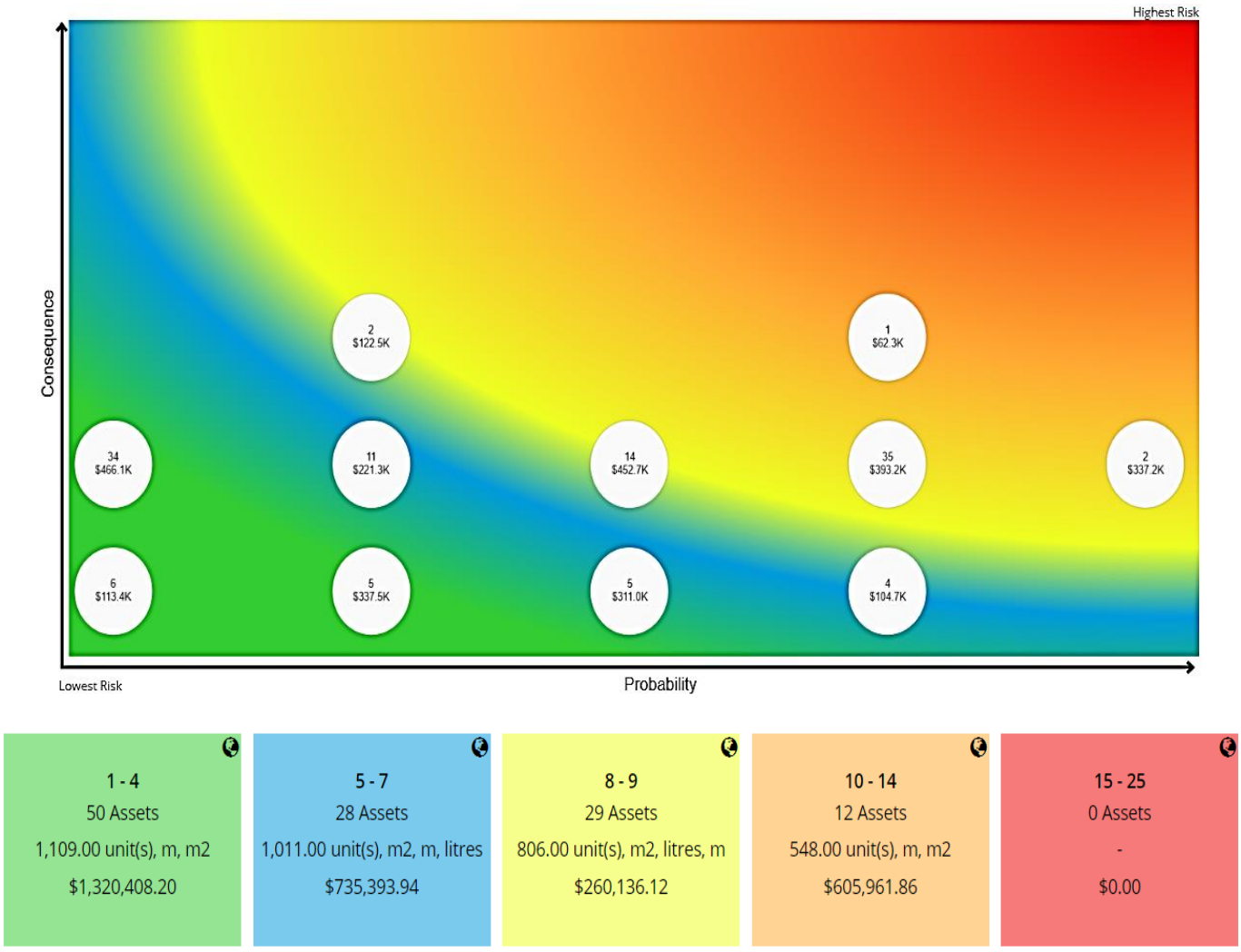


Figure 20 Risk Heat Map and Risk Ratings- Outdoor Recreation & Land Improvement Assets

Levels of Service

Table 19 and Table 20 identify Mapleton's current community and technical level of service (LOS) for outdoor recreation and land improvement assets. These metrics were determined by the Township based on data availability and local relevance.

Community Levels of Service

Table 19 Outdoor Recreation & Land Improvement Assets Community LOS

Service Attribute	Qualitative Description	Current LOS (2023)
Accessible & Reliable	Outdoor Recreation assets provide adequate physical access and are available for their defined use within prescribed working hours	The assets primarily consist of sports fields and courts, playground structures, splashpads, and trails. To the extent possible based on budget and existing asset design, these assets are accessible, or plans are in development to improve their accessibility.
Safe & Regulatory	Appropriate actions and interventions are taken to ensure the regular safe use of outdoor recreation assets.	Outdoor Recreation & Land Improvement assets are inspected at various intervals based on the asset type and in most cases are inspected at least weekly. Residents can also file service requests if they identify issues relevant to any of the Township's assets.
Quality	Outdoor Recreation assets are managed cost- effectively and deliver quality service.	Various maintenance and inspection activities are performed including weekly grass cutting and general inspection. Long-term rehabilitation and replacement decisions are supported by the staff based on Township's near- and long-term recreation needs based on demographics and suitability of existing assets.

Technical Levels of Service

Table 20 Outdoor Recreation & Land Improvement Assets Technical LOS

Service Attribute	Technical Metric	Current LOS (2023)
Scope	Average Building code compliance rate for Picnic shelters, Concession booths, washrooms and gazebo	**90%**
Accessible & Reliable	Average AODA compliance rate for the playground structures in the Township.	**91%**
	Number of hectares of parkland (sports fields, children's parks, nature parks)	**33**
Quality	% of Park assets in fair or better condition	**80**
	% of playgrounds that meet regulated requirements.	**100%**

5.3 Fire Services

Fire related assets represent a variety of asset types that serve to provide fire suppression, rescue operations, fire prevention inspections, public fire safety education, and first response emergency medical services. These comprehensive fire-related services ensure the safety and well-being of the community, protecting life and property through skilled and prepared firefighting teams.

Fire Assets Inventory and BCA (Background)

The assets condition, lifecycle strategies and investment requirements information were collected as part of the Building Condition Assessments (BCA), draft Fire Master Plan and from the expertise of Fire Management Team. This information, as collected for Fire Services assets is reflected herein.

Asset Inventory & Replacement Cost

Table 21 and Figure 21 summarize the replacement cost and quantities of the Township's asset inventory.

Table 21 Fire Services Asset Inventory Summary

Asset Segment	Quantity (# Components)	Replacement Cost Method	Total Replacement Cost
Fire Facilities	2	User-Defined	$5,542,175
Fire Fleet	9	User-Defined	$4,481,504
Fire Machinery and Equipment	8	User-Defined	$462,620
Total			**$10,486,299**

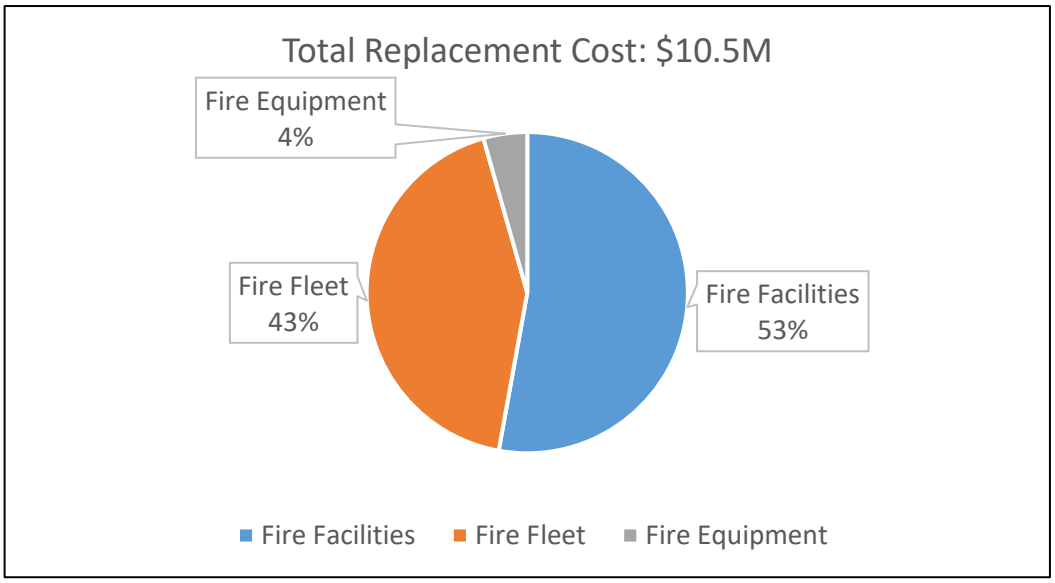


Figure 21 Replacement Cost: Fire Services Assets by Asset Segment

Asset Condition

Table 22 and Figure 22 below identify the current average condition and source of available condition data for each asset segment.

Table 22 Fire Services Assets Condition Summary

Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Fire Facilities	35	Poor	100% Assessed
Fire Fleet	30	Poor	Age-based
Fire Equipment	31	Poor	Age-based
Total	**32**	**Poor**	

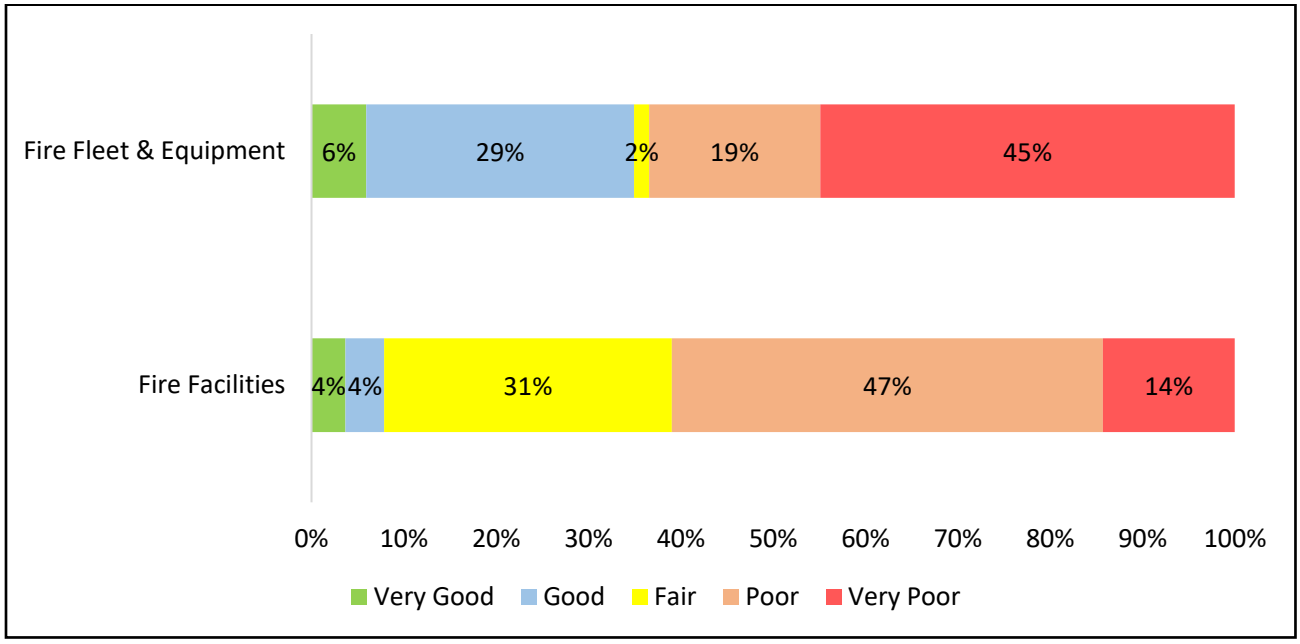


Figure 22 Asset Condition- Fire Services: By Asset Type

When reviewing condition for all Fire Services assets the overall distribution is shown in Figure 23 with 38% of the assets in fair or better condition and 29% in very poor condition.

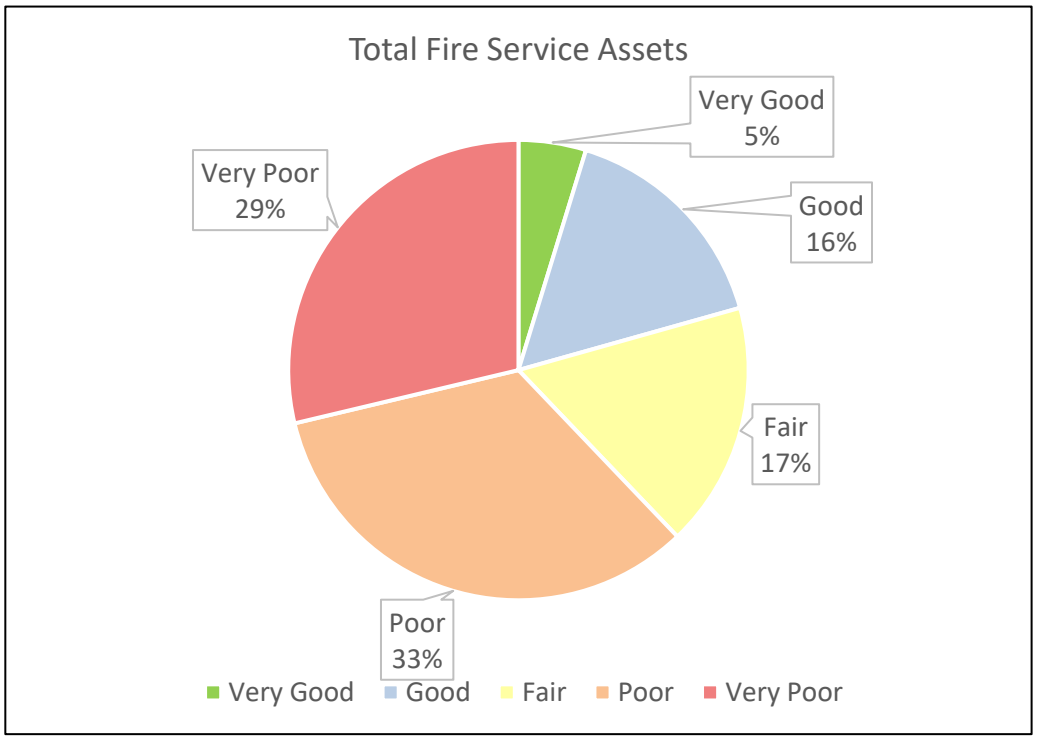


Figure 23 Asset Condition- Fire Services: Overall

Current Approach to Condition Assessment

Accurate and reliable condition data better equips staff to estimate the remaining service life of assets and identify the most cost-effective approach to their management. Currently fire fleet and equipment assets rely on age-based condition, which is based on the assets

age compared with its expected useful life. Fire Facilities assets, which include two Fire Halls (Drayton & Moorefield and a generator building for Drayton fire hall), were assessed for condition by a third-party engineering consulting firm specializing in assessments of buildings.

The assessments are based on the following scale:

Condition	Rating
Very Good	80 and above
Good	60 and above
Fair	40 and above
Poor	20 and above
Very Poor	0 and above

Estimated Useful Life & Average Age

The Township Fire rescue operates out of two fire halls: Drayton and Moorefield fire hall. The Drayton Fire Hall, built in 1981 with an addition in 2013, is over 40 years old with a replacement cost of $and its condition is considered fair to poor. Despite a five-year Facility Condition Index (FCI) of 2.2%, the aging infrastructure requires significant attention and is facing about $887,000 in upcoming renewal needs in next 10 years. The input received for the draft Fire Master Plan indicated that the firefighters have had numerous complaints regarding condition of the hall and needs repairs and renovations both internally and externally. The Moorefield Fire Hall is a relatively newer building (built in 1991) and has a replacement value of $2.95m and a five-year FCI of 3.6%. The building assets are in fair to poor condition and needs repairs and renewals of about $730,000 in next 10 years. The Fleet assets replacement cycle based on our internal program and staff expertise.

Table 23 Fire Services Assets EUL, Average Age and SLR

Asset Segment	EUL (Years)	Weighted Average Age (Years)	Weighted Average SLR (Years)
Fire Facilities	35 Years 6 Months	31 Years 7 Months	4 Years
Fire Fleet	17 Years 5 Months	13 Years 7 Months	3 Years 10 Months

Lifecycle Management Strategy

Lifecycle management strategies work to proactively manage asset deterioration. Table 24 below summarizes the Township's current practices.

Table 24 Typical Lifecycle Management Strategies for Fire Services Assets

Activity Type	Description of Current Strategy	Risks associated with not completing the activities
Maintenance & Inspection	Fire fleet and equipment assets inspections are completed through a combination of internal fire staff and an external contractor. Fire hose inspections are completed by the staff internally.	Increased risk of equipment failure during emergencies, potential safety hazards for staff and the public, and non-compliance with regulatory standards.
	Snow and ice removal maintenance on Fire Facilities assets (Drayton and Moorefield Fire Hall).	Unsafe conditions that could hinder emergency response times, potential liability from accidents, and accelerated deterioration of facility assets due to neglect
	Building condition assessments completed in 2023 for the Drayton and Moorefield Fire halls. The data collected through the assessments identified recommended repairs and replacement schedules. This information is central to the selection of long-term capital projections. In some cases, the BCA recommend studies to better understand existing state, functionality, and risks and develop infrastructure management solutions accordingly.	Unforeseen asset failures, inefficient use of resources, and poorly timed capital expenditures.
	For Fleet, Mapleton Fire staff has a management plan in works.	
Replacement & Rehabilitation	Replacement plan is under the work for all our fleet and major equipment. The Township of Mapleton plans to advance replacement and rehabilitation projects, based on recommendations from the internal replacement plan and the expertise of Fire Management Team.	Increased downtime of critical assets, higher repair costs, potential for catastrophic failure, and disruption in emergency services

Forecasted Capital Requirements

Figure 24 illustrates the forecasted lifecycle requirements over a 10-year period for the Fire Services assets. The cost required to maintain existing levels is $640,720 while the average forecasted funding for the up-coming 10-year period is $474,800 resulting in a funding gap of $164,920 annually.

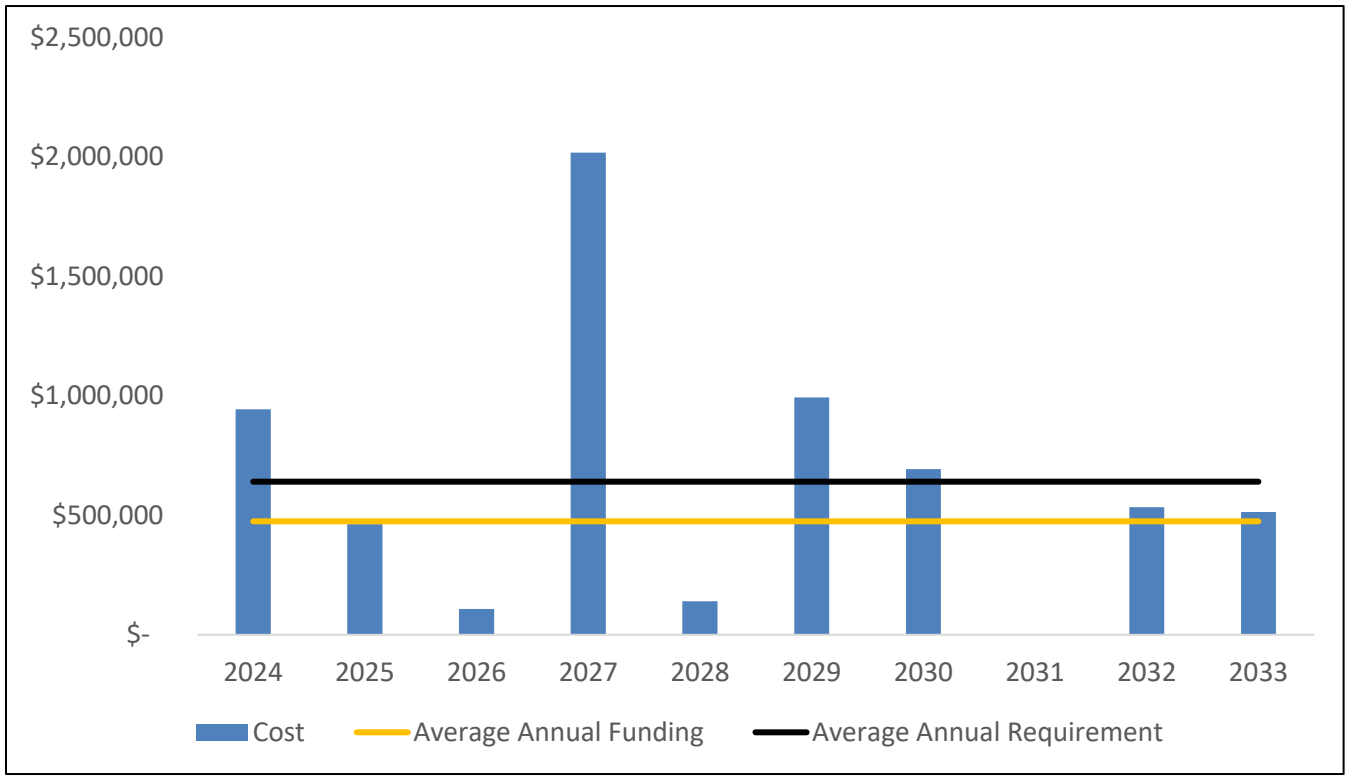


Figure 24 Average Annual Capital Requirements- Fire Services Assets

Risk & Criticality

Risk Matrix

The asset-specific attributes that municipal staff utilize to define and quantify risk for their Fire Facilities and Fleet assets are as listed below; their weighting to the model is listed in bracket. For the purposes of risk calculation, fire facilities and fleet assets are grouped with other facilities and fleet assets. However, within this grouping, fire assets are assigned the CoF score of 5 under Facility Segment and Usage Type & Criticality criteria.

Table 25 Fire Facilities Assets Risk Criteria

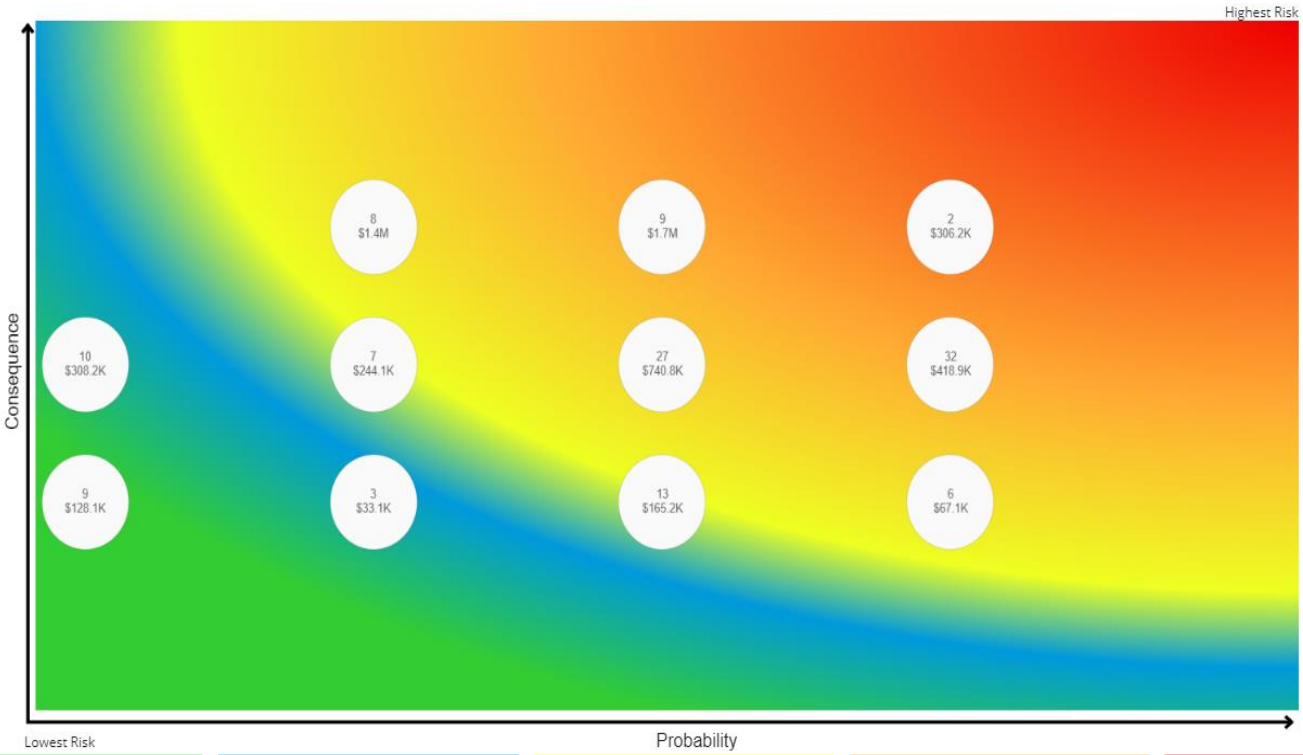
Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost (Economic)
5-Year FCI (%)	Level 3 Component Group (Health & Safety)
	Facility Segment (Social)

Table 26 Fire Fleet & Machinery Assets Risk Criteria

Probability of Failure (POF)	Consequence of Failure (COF)
Condition (80%)	Replacement Cost: 50%
Service Life Remaining (20%)	Usage Type & Criticality: 50%

The level of risk held by Fire Facilities assets is summarized in the matrix below. These risk scores are calculated based on the above parameters in Table 25 and Table 26. Please refer to Appendix E for a more detailed overview of the risk weighting and criteria. Using the model described above the probability and consequence of failure and the overall risk of all Fire Services category assets is illustrated below.

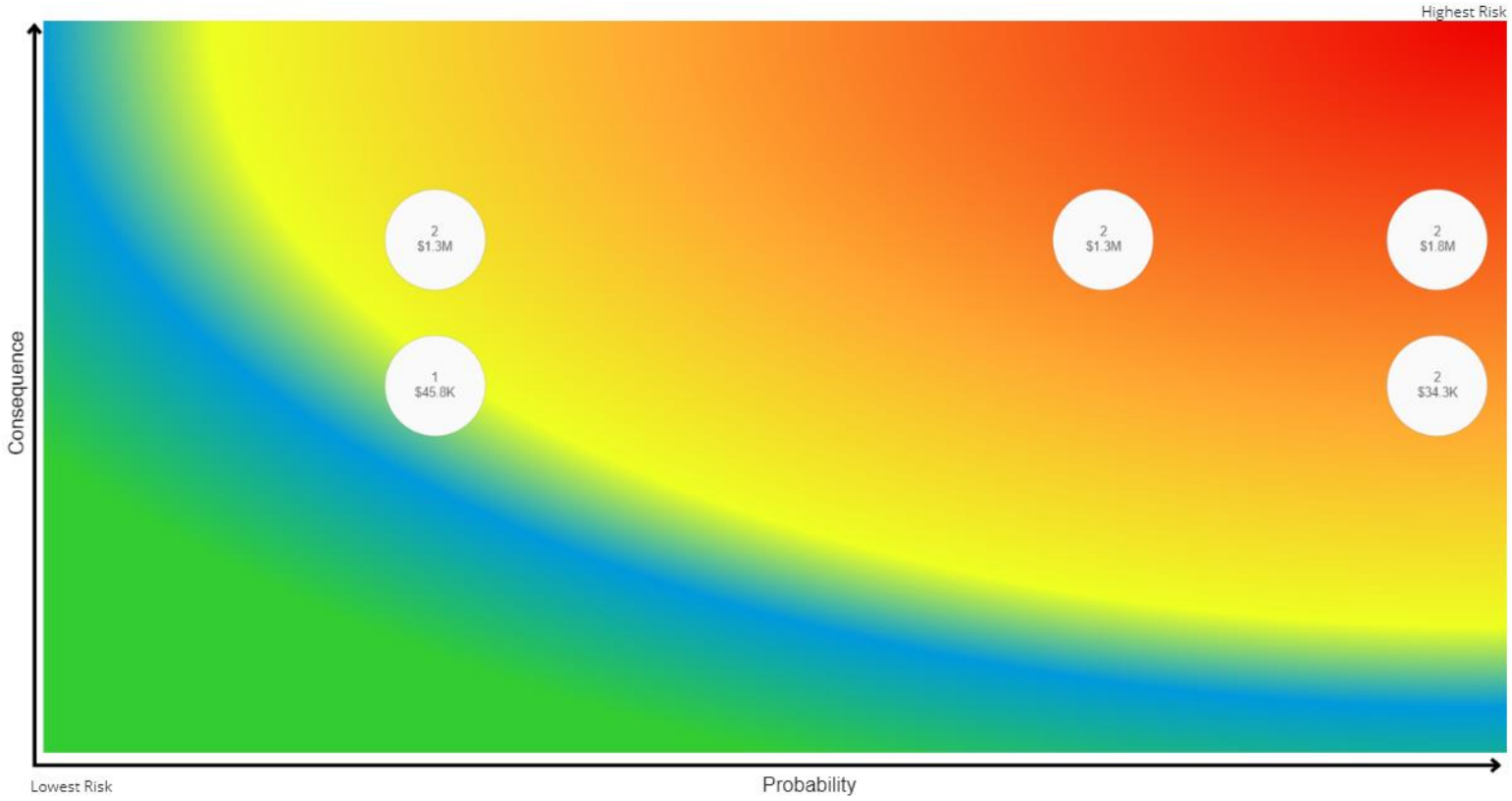
Using the model described above the probability and consequence of failure and the overall risk of Fire Facilities assets is illustrated in Figure 25. Most assets are moderate-high to high risk (in orange and red) with a replacement cost of about $4.67 million. Other assets are low to moderate risk with a replacement cost of about $879k.



1 - 4	5 - 7	8 - 9	10 - 14	15 - 25
13 Assets	11 Assets	18 Assets	79 Assets	5 Assets
3,907.00 m2, unit(s)	692.00 m2, unit(s)	2,740.00 m2, m, unit(s)	17,512.00 m, m2, unit(s), litres	2,596.00 m2, unit(s)
$331,971.66	$151,673.45	$395,205.64	$4,231,829.05	$431,496.01

Figure 25 Risk Heat Map and Risk Ratings: Fire Facilities Assets

Figure 26 shows the risk heat map and ratings for the Fire Fleet assets. Most of the assets are high-risk assets with the replacement cost of $3.13 million which accounts for 64% of the total replacement cost of the Fire Fleet assets. Low to moderate risk assets account for the 36% of the total replacement cost.



1 - 4	5 - 7	8 - 9	10 - 14	15 - 25
0 Assets	1 Asset	2 Assets	0 Assets	6 Assets
-	- m	2.00 unit(s)	-	6.00 unit(s)
$0.00	$45,799.00	$1,305,146.00	$0.00	$3,130,559.00

Figure 26 Risk Heat Map and Risk Ratings: Fire Fleet Assets

Levels of Service

Tables 26 and **27** identify the Township's current community and technical level of service (LOS) for Fire related assets. These metrics were determined by Mapleton based on data availability and local relevance.

Community Levels of Service

Table 27 Fire Services Assets Community LOS

Service Attribute	Qualitative Description	Current LOS (2023)
Fire Suppression	Well trained and equipped firefighters directed by capable officers to stop the spread of fires once they occur and to assist in protecting the lives and safety of residents.	At present, Mapleton shares joint Fire Management agreement with Wellington North and Minto. This includes the Fire chief, two Deputy Fire Chiefs as well as a Training Officer, a Fire Prevention Officer and Admin Coordinator. Mapleton has 40 volunteer firefighters. Fire fleet and equipment assets undergo regular and rigorous inspection and testing. Inspections are completed both by internal staff and external contractors based on the asset type (yearly external and as well as internal staff).
Fire Prevention & Public Education	Providing education to the community residents to fulfill responsibilities for their own fire safety. Ensuring that buildings have the required fire protection systems, safety features including fire safety plans, and that these systems are maintained, to minimize the severity of fires	Mapleton participates in school and youth group visits to deliver educational messages, attends the Seniors Centre for Excellence to provide fire safety tips annually and hosts a Safe Kids Day. Mapleton is a partner in a jointly owned Fire Safety Trailer, which is used to promote fire safety public education at shared events. For Fire Prevention, the inspections are completed arising out of complaint, request or self-initiated and fire investigations are provided.
Training	Fire Services personnel receive the training necessary to meet legislative requirements.	The Fire services are working towards compliance for the legislative requirements effective in 2026 and the training programs meet the appropriate NFPA standards.
Condition	Assets are maintained in a state of good repair	The comments received from firefighters highlight the need for Drayton fire station to go under repairs and renovations. Moorefield fire hall is in adequate condition but needs some cosmetic and routine maintenance completed. The Township also has relatively modern fleet and equipment inventory with some needed renewals.

Technical Levels of Service

Table 28 Fire Services Assets Technical LOS

Service Attribute	Technical Metric	Current LOS (2023)
Fire Suppression	NFPA 1720 - Emergency Response (Rural): 6 Firefighters in 14 Minutes, 80% of time	Working on data to reflect compliance
	NFPA 1720 - Emergency Response (Suburban – Drayton, Moorefield and Alma): 10 Firefighters in 10 Minutes, 80% of time	Working on data to reflect compliance
	Dispatch Response - 95% of Calls Answered in 15 Seconds	Working on data to reflect compliance
	Dispatch Response - 99% of Calls Answered in 40 Seconds	Working on data to reflect compliance
Fire Prevention & Public Education	Fire Inspection Cycles (based on type of building) followed.	Part of Mapleton's fire services risk assessment and currently working on internal inspection program
	Number of request and complaint inspections completed in 2023	6
Training	Volunteer Firefighter Complement	NFPA 1001 Standard for Firefighter training
Condition	% of assets that are in fair or better condition (in terms of replacement cost)	38%
	% of assets that are in poor or worse condition (in terms of replacement cost)	62%

5.4 Fleet and Machinery

The Township owns and maintains an inventory of fleet and machinery assets. All these assets provide a critical resource to the Township as they convey staff and materials, enabling the delivery of important services and the ongoing maintenance of a wide variety of core and non-core assets. The following summarizes fleet asset segments and common assets within.

- Public Works: A variety of roadside vehicles and other assets like tandem trucks, pick-up trucks, and trailers (also includes assets used for By-law and Building Dept). Machinery assets include graders, snowblowers and other attachments.
- Recreation & Culture: Two pick-up trucks for staff access to recreational assets (e.g., facilities and parks) and cemeteries. Machinery includes mowers, tractors and attachments.
- Administration: IT Equipment (Note: this AMP excludes IT infrastructure and equipment, and recommends and IT Master Plan be undertaken to support long-term planning for future technology investments)

Asset Inventory & Replacement Cost

Table 29**,** Figure 27 and Figure 28 below summarizes the Township's fleet & machinery inventory quantities, replacement costs and methods.

Table 29 Fleet & Machinery Assets Replacement Costs

Asset Category	Asset Segment	Quantity (# assets)	Unit	Total Replacement Cost
Fleet	Recreation & Culture	5	Each	$241,592
	Public Works	21	Each	$4,307,636
Machinery & Equipment	Recreation & Culture	15	Each	$497,578
	Public Works	23	Each	$3,027,762
	Total	**64**		**$8,074,568**

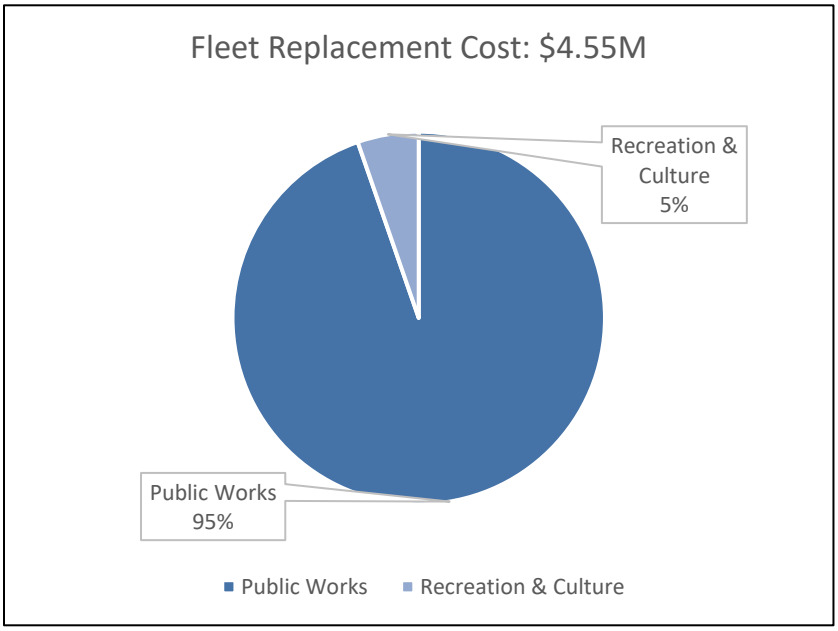


Figure 27 Fleet- Replacement Cost by Asset Segment

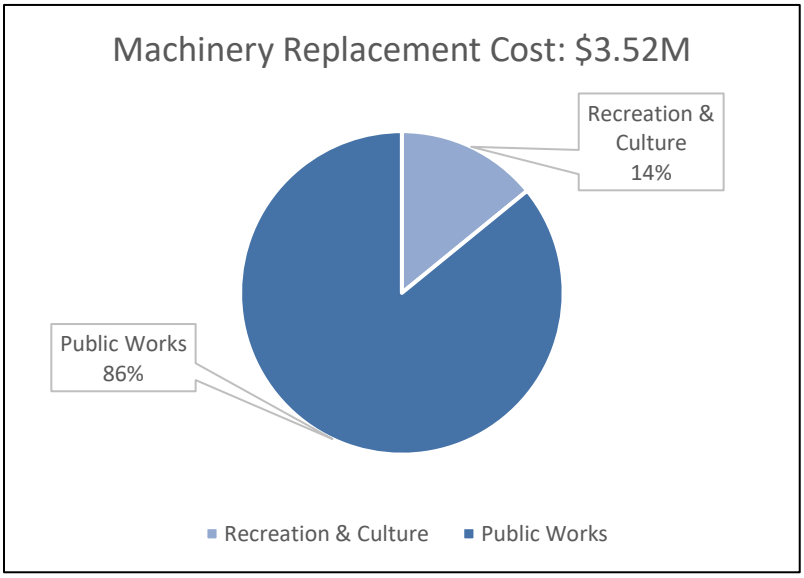


Figure 28 Machinery- Replacement Cost by Asset Segment

Asset Condition

Table 30, Figure 29 and Figure 30 summarize the condition of the Fleet assets. As indicated below most assets are in fair to good condition.

The asset condition of fleet, machinery and equipment are assessed using age-based information. This AMP strongly recommends the Township develop a fleet management strategy with key performance indicators (KPIs) to optimize investments in fleet, machinery and equipment.

Table 30 Fleet & Machinery Assets Condition Summary

Asset Category	Asset Segment	Average Condition (%)	Average Condition Rating	Condition Source
Fleet	Public Works	65	Good	Age-based
	Recreation & Culture	45	Fair	Age-based
Machinery & Equipment	Public Works	44	Fair	Age-based
	Recreation & Culture	35	Poor	Age-based
	Total	**50**	**Fair**[4]	**Age-based**

[4] Fleet assets assessed condition strongly considers asset age and mileage. Fleet assets are regularly inspected for performance and safety and only assets deemed safe and suitable are retained for use.

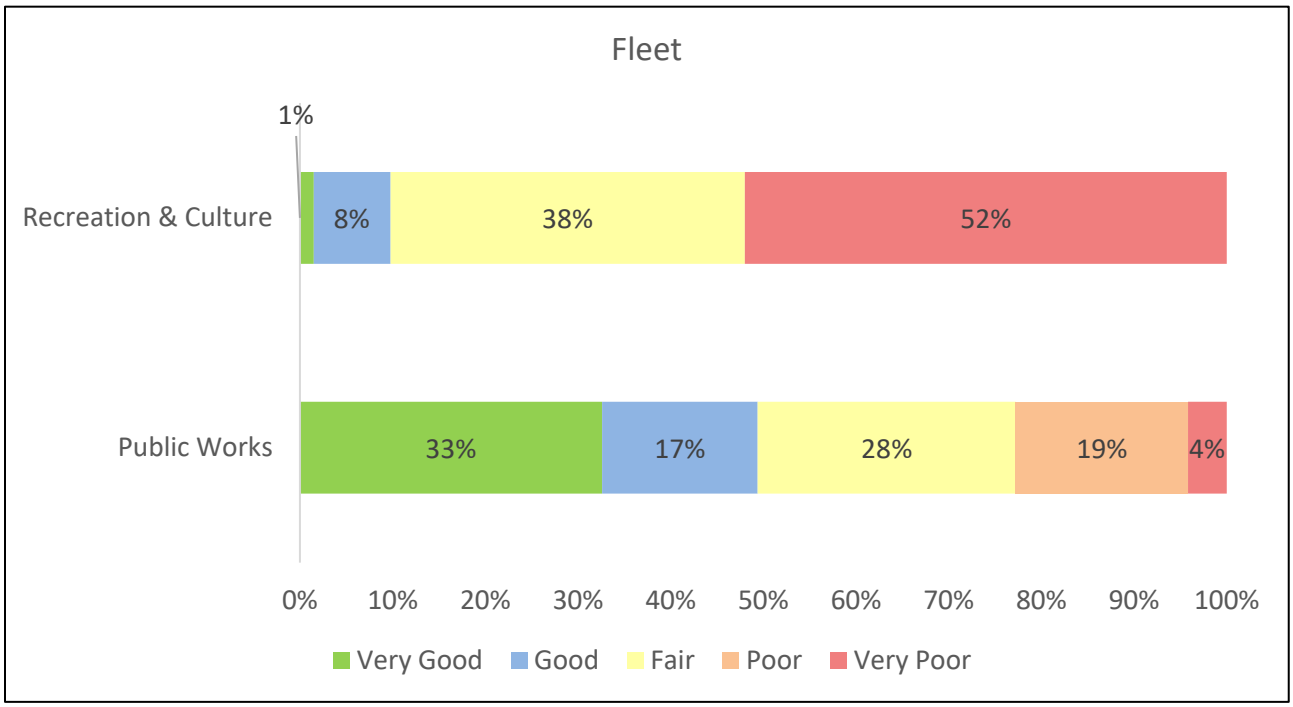


Figure 29 Asset Condition- Fleet: By Asset Type

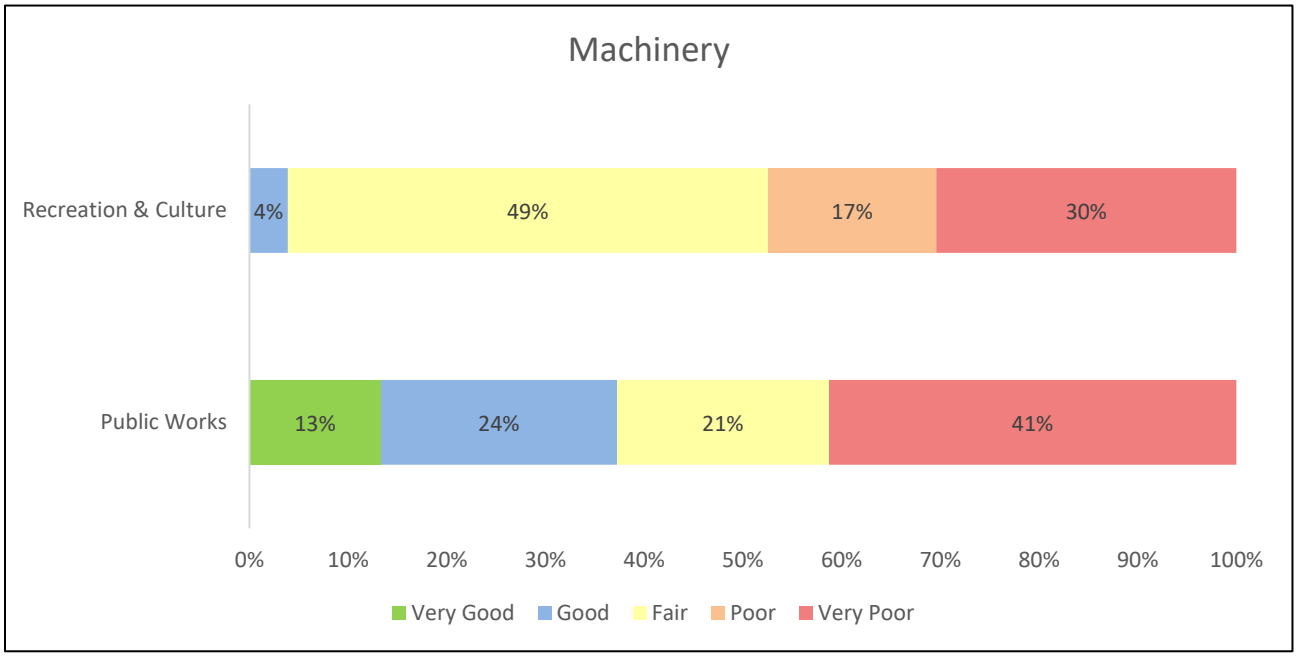


Figure 30 Asset Condition- Machinery: By Asset Type

Current Approach to Condition Assessment

Condition assessments are based on the age and mileage of the Fleet assets and scores are applied based on a 0-100 scale based on the following ranges:

Table 26: Fleet Assets Condition Rating Scale

Condition	Ranges
Very Good	80 and above
Good	60 and above
Fair	40 and above
Poor	20 and above
Very Poor	0 and above

Estimated Useful Life & Average Age

Overall, the Estimated Useful Life (EUL) for Mapleton's Fleet and Machinery assets is 13

Years 8 Months and Average age is 9 Years 2 Months. The assets have Service Life Remaining (SLR) of 4 Years 6 Months. The Fleet and Machinery assets are replaced based on our internal program and staff expertise.

Table 31 Fleet & Machinery Assets EUL, Average Age and SLR

Asset Segment	EUL (Years)	Weighted Average Age (Years)	Weighted Average Service Life Remaining (Years)
Public Works	15 Years 3 Months	8 Years 1 Month	7 Years 2 Months
Recreation & Culture	11 Years 3 Months	10 Years 8 Months	7 Months

Lifecycle Management Strategy

Table 32 below summarizes the current lifecycle practices for fleet and machinery assets.

Table 32 Lifecycle Strategies for Fleet Machinery & Assets

Activity Type	Description of Current Strategy	Risks Associated with Not Completing the Activities
Maintenance & Inspection	Annually, all non-fire related fleet are inspected by staff and local mechanics.	Deficiencies not identified through inspections.
	Additional fleet assets inspections occur based on mileage and/or service hour requirements.	Increased lifecycle costs if maintenance not done regularly.
	All non-fire fleet assets are maintained and repaired by staff and/or external contractor.	Premature asset failure, service level drop, and health and safety risk.
Renewal	There is a 10-year capital replacement forecasts for fleet assets.	Increased lifecycle costs if not scheduled properly.
	Replacement activities are determined based on internal expertise (organizational priorities, available budget etc.) A well performing asset will continue to be utilized beyond its expected useful life; in contrast a poor performing asset may be replaced in advance of its expected useful life.	Replacement/ Rehab activities may not extend the lifecycle as expected.
Disposal	Obsolete assets are decommissioned as needed.	Environmental impacts & cost overruns.

Forecasted Capital Requirements

Figure 31 The following graph illustrates the forecasted lifecycle requirements over a 10-year period for the Fleet and Machinery Assets. The cost required to maintain existing levels was determined to be $667,100 annually to ensure asset performance in perpetuity. The average forecasted funding over the up-coming 10-year period was determined to be $564,000 annually, resulting in a funding gap of $103,100 annually.

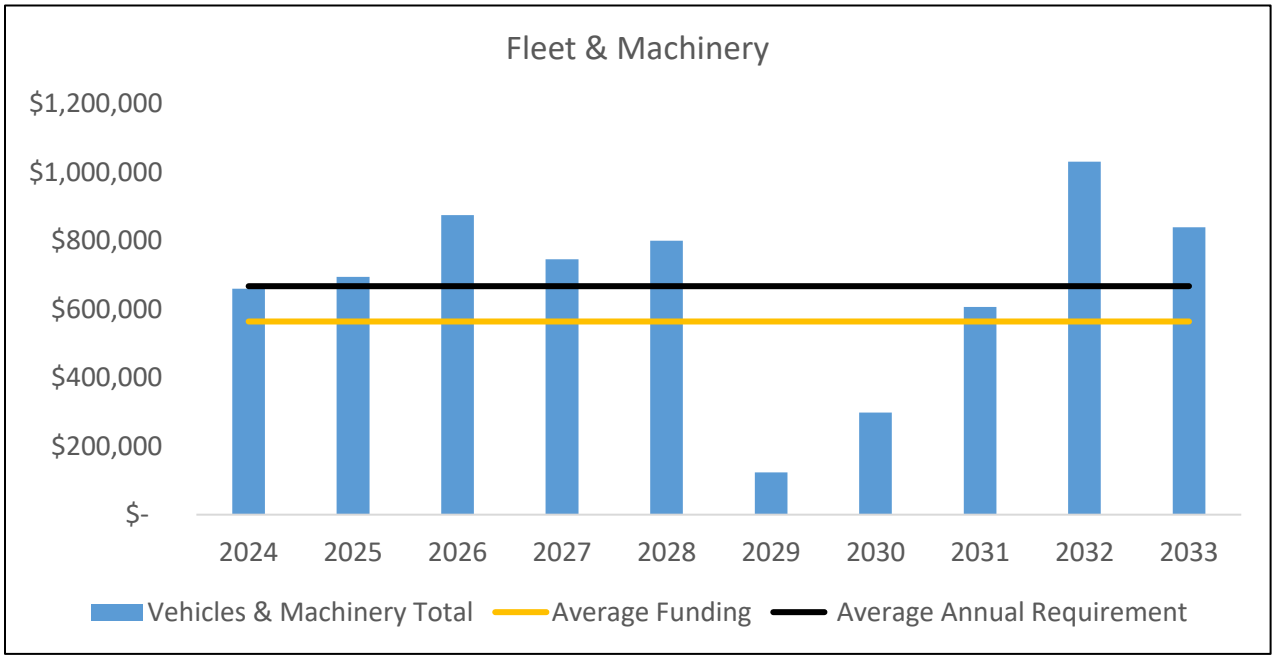


Figure 31 Average Annual Capital Requirements- Fleet & Machinery Assets

Risk & Criticality

Risk Matrix

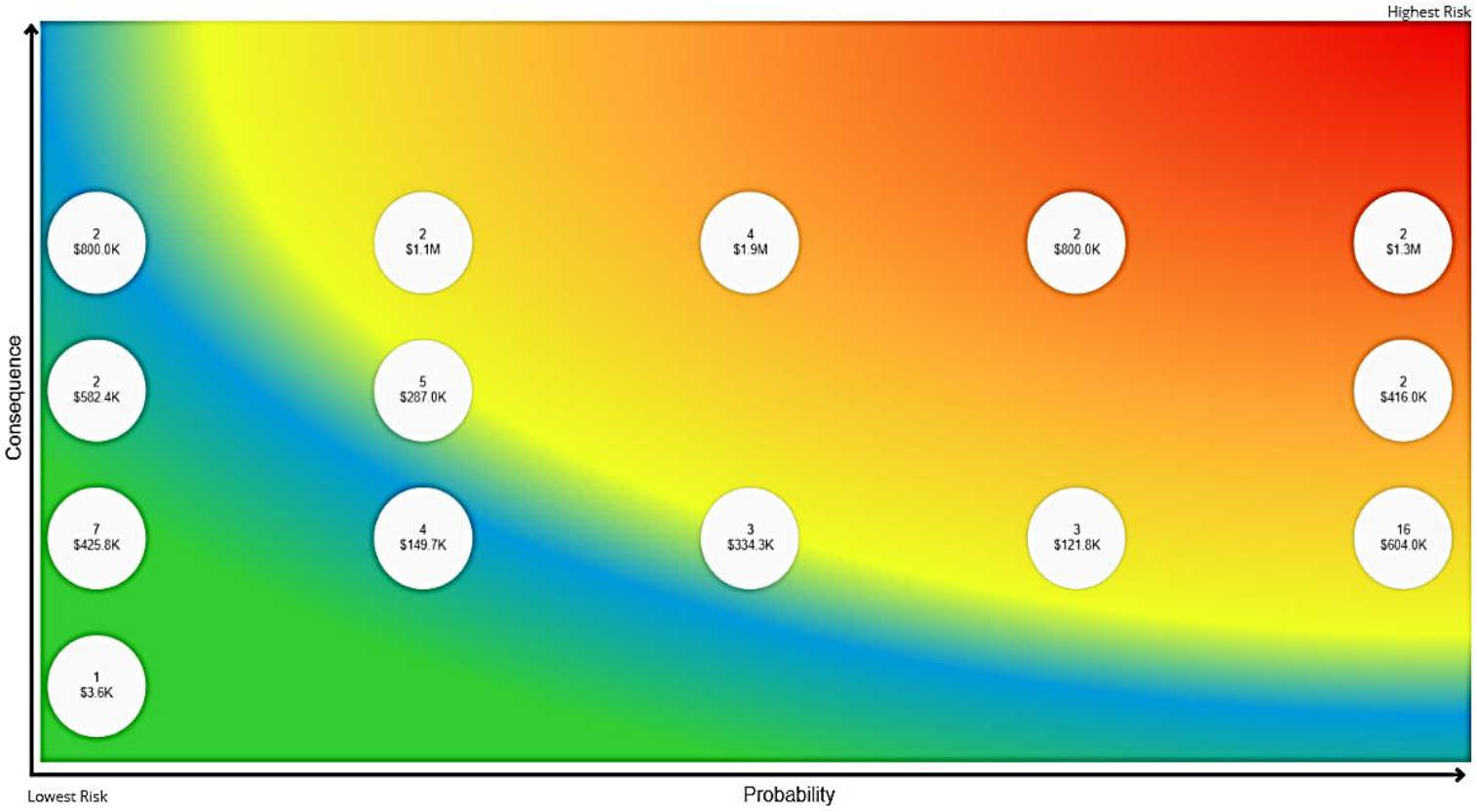
The asset-specific attributes that municipal staff utilize to define and quantify risk for their fleet and machinery assets are as listed below; their weighting to the model can be referred to in Appendix E. For Usage type, the Township prioritizes criticality and risk based on the potential impact on public works and municipal operations. Tandem trucks receive the highest rating due to their vital role in snow plowing, which ensures that fire trucks and emergency vehicles can access all areas during winter. Failure to maintain these assets could result in severe financial losses and risk to life. Similarly, three of our pick-up trucks are crucial for road patrols, emergency response, and providing back-up support. The absence of these vehicles would significantly hinder our ability to manage emergencies and maintain road safety. Loaders also hold a high criticality rating, as their unavailability would necessitate costly outsourcing. Other pick-up trucks, the by-law SUV, and the Building Department's pick-up truck are rated lower but still important, as their absence would primarily affect our operational efficiency and reputation.

Table 33 Fleet & Machinery Assets Risk Criteria

Probability of Failure (POF)	Consequence of Failure (COF)
Condition	Replacement Cost
Service Life Remaining	Usage Type & Criticality

The risks held by Fleet and Machinery assets is summarized in the matrix below. These scores are based on the risk parameters described in Table 33.

Using the model described above the probability and consequence of failure and the overall risk of Fleet and Machinery assets is illustrated in Figure 32.



1 - 4	5 - 7	8 - 9	10 - 14	15 - 25
15 Assets	9 Assets	4 Assets	21 Assets	6 Assets
11.00 unit(s), m	7.00 unit(s), m	4.00 unit(s)	21.00 unit(s)	6.00 unit(s)
$1,910,812.00	$672,052.00	$1,160,921.00	$2,464,806.00	$2,515,977.00

Figure 32 Risk Heat Map and Risk Ratings: Fleet & Machinery Assets

Levels of Service

Table 34 and Table 35 identify Mapleton's current community and technical level of service (LOS) for their fleet and machinery assets and exclude all fire fleet assets. These LOS have been set by Mapleton based on existing data availability, reliability, and value to asset management tracking.

Community Levels of Service

Table 34 Fleet & Machinery Assets Community LOS

Service Attribute	Qualitative Description	Current LOS (2023)
Scope	List of day-to day fleet in operation and description of services provided	The Township's fleet & machinery asset class comprises various vehicles and equipment used across different departments, including Roads, Parks, Facilities, Cemetery, By-law, and Building Departments. The assets include pick-up trucks, trailers, tandem trucks, loaders, SUVs, Graders, Mowers, Snowblowers etc. These vehicles are essential for day-to-day operations such as maintenance, transportation, and specialized tasks.
Capacity	Description of capacity and how fleet is meeting the needs of user groups	The capacity of the fleet is designed to meet the operational needs of various departments within the Township. The fleet includes vehicles of different sizes and capabilities to ensure that all tasks, from routine maintenance to heavy-duty operations, can be performed efficiently. The diverse range of vehicles allows the Township to allocate resources effectively and ensure that all user groups have access to the necessary equipment.
Reliability	Description of service reliability	The fleet's reliability is maintained through a comprehensive inspection and maintenance program. Each vehicle undergoes regular inspections based on its usage. Daily inspections are conducted for frequently used vehicles like pick-up trucks, while other equipment is inspected monthly or as needed. This systematic approach ensures that potential issues are identified and addressed promptly, maintaining high reliability and minimizing downtime.
Condition	Description of fleet condition (images). Description of vehicle inspection/ replacement program	The Township's fleet assets range in condition from very good to very poor and on average are in good (60%) condition as of the 2023 assessment.
Safety	Description of routine maintenance and check-up procedures	All fleet & machinery assets are inspected regularly by Township staff depending on the usage (e.g. daily for pick-up trucks, monthly for grader during use). Repairs are completed as needed based on inspections and asset servicing requirements.

Technical Levels of Service

Table 35 Fleet & Machinery Assets Technical LOS

Service Attribute	Technical Metric	Current LOS (2023)
Scope	# of vehicles	Pick-up Trucks =13 Tandem Trucks =8 Trailers =3 Graders =4 Mowers =8 Snowblowers =3
Capacity	Utilization %	Pick-up Trucks =90% Tandem Trucks =50% (utilization during winter is 100%) Trailers = 50% (seasonal) Lawnmowers, graders, snowblowers have high seasonal utilization
Reliability	# days to repair defects	1 (as the equipment is fairly new, repairs are needed less)
	# of out-of-service days / service disruptions	1.5-2 days
Condition	% of assets that are in fair or better condition (in terms of replacement cost)	75% (Fleet) 49% (Machinery)
	% of assets that are in poor or very poor condition	25% (Fleet) 51% (Machinery)
Safety	% of fleet with pre-trip inspections completed regularly	100%
	# of safety complaints/ service requests about unsafe conditions	Zero

6. Recommendations

Key Insights

Data Improvement and State of Infrastructure

- Ensure the asset register is continuously updated to reflect changes such as replacements, new acquisitions, and major repairs or rehabilitations. This will help maintain accurate and current data across all asset categories
- Enhance the collection and tracking of condition data for all assets to move towards more accurate, condition-based assessments rather than relying solely on age-based data.
- Implement regular surveys and feedback mechanisms to assess resident satisfaction with the services provided, ensuring that asset management strategies align with community expectations.
- Continue developing the work order management system in the Computerized Maintenance Management System (CMMS) to enhance tracking of repair and maintenance activities and costs. Improve understanding of operating costs for specific asset types to support better asset management practices

Levels of Service

- Continue to measure current levels of service in accordance with the metrics established which are expected to provide meaningful and reliable inputs into asset management planning. Consider incorporating regular resident feedback through surveys.
- Align with O.Reg. 588/17 by identifying proposed levels of service and developing strategies to close the gaps between current and desired levels of service.

Risk Management

- **Risk Refinement:** Continuously improve the risk rating calculations by refining the factors that affect probability and/or consequence of failure.
- **Stakeholder Involvement:** Engage Council and the community to obtain input on risk weightings and ensure consistent risk calculations across various asset categories to support uniform decision making.

Lifecycle Management Strategies

- **Collaborative Efforts**: Continue collaboration with all the departments responsible for managing the assets. Leverage external resources and opportunities for knowledge sharing to stay aligned with best practices. Prioritize repairs and replacements, focus on completing those activities by the recommended dates, particularly for high-risk assets.
- **Lifecycle Evaluation**: Regularly review and update lifecycle events, timing and costs in the CMMS. Adjust lifecycle models and useful life estimates every 3-5 years as asset knowledge improves.
- Explore various project scheduling and procurement strategies such as completing multiple similar projects concurrently to obtain cost and project management benefits (i.e., economies of scale).

Specific Improvements

- Regularly evaluate and update replacement unit costs to ensure they reflect the total capital costs of asset replacement or reconstruction. Share critical asset condition and attribute data with asset management team for consistent integration into the asset register.
- **Facilities:** Implement standardized naming conventions for buildings to enhance the accuracy and efficiency of record-keeping for facility maintenance. Continue to complete Building Condition Assessment (BCA) at least every 4 years.
- **Outdoor Recreation & Land Improvements:** Improve the inventory by updating asset construction and installation years and ensure accurate documentation of purchase costs. Consider updating the Parks & Recreation Master Plan and including Township-wide Trails.
- **Fire Services:** Document the purchase years for critical fire equipment assets and improve communication with the fire management team to better track service levels and fire services assets data.
- **Fleet & Machinery:** Establish a fleet management strategy with KPIs to optimize investments
- **Information Technology:** Develop an IT Master Plan and incorporate IT Assets within the 2025 AMP.

Description of Growth Assumptions

The demand for infrastructure and assets that support the delivery of infrastructure services (i.e., fleet and machinery and equipment) may change over time due to a variety of factors. Population growth and demographic change are often major factors affecting infrastructure demand. Understanding the key drivers of growth and demand aids in decisions relating to infrastructure upgrade or disposal.

Changes in demand, often driven by population size and expectations, can affect what asset types and quantities are required to meet the community's expected level of service.

Mapleton Official Plan

The Township of Mapleton has adopted the Wellington County Official Plan to guide and shape development and land use planning. The plan seeks to ensure that the Township grows in a socially, economically, culturally, and environmentally balance manner.

Wellington County Official Plan

Wellington County Official Plan is a legal document intended to give direction over the next 20 years, to the physical development of the County, its local municipalities and to the long-term protection of County resources. Through this Plan, County Council will outline a long-term vision for Wellington County's communities and resources. The Plan provides policy to attain the long-term vision.

Wellington County supports certain community planning concepts recognized in Ontario. These concepts include:

- sustainable development
- land stewardship
- healthy communities
- complete communities

The following table displays the Township's 2016 census and forecasted population, and households counts.

Table 36 Township of Mapleton- Projected Growth

Township of Mapleton
Projected Growth in Wellington County to 2041

	2016	2036	2041
Total Population[1]	10,785	13,575	14,060
Households	3,065	4,050	4,235
Total Employment[2]	4,590	6,360	6,670

	2016	2036	2041
DRAYTON			
Total Population[1]	2,285	3,650	3,990
Households	780	1,210	1,315
MOOREFIELD			
Total Population[1]	440	1,730	1,970
Households	160	545	625
OUTSIDE URBAN CENTRES			
Total Population[1]	8,060	8,195	8,100
Households	2,125	2,295	2,295

Impact of Growth on Lifecycle Activities

By July 2025, Mapleton's asset management plan must include a discussion of how the assumptions regarding future changes in population and economic activity informed the preparation of the lifecycle management and financial strategy.

Planning for forecasted population growth may require the expansion of existing infrastructure and services. As growth-related assets are constructed or acquired, the Township is committed to integrating them into their inventory and thereafter their AMP. While new construction will add to the assessment base and offset some of the costs associated with growth, the Township will need to review the lifecycle costs of growth-related infrastructure. These costs should be considered in long-term funding strategies that are designed to maintain the current or the proposed level of service.

7. Financial Strategy

Financial Strategy Overview

An effective asset management program must be aligned with the Township's Long-Term Integrated Financial Strategy. The continued improvement and refinements to financial plans will ensure that Township identifies the financial resources required for sustainable asset management based on existing asset inventories, current levels of service, and projected growth requirements.

This report develops such a financial plan by presenting several scenarios for consideration and culminating with final recommendations. As outlined below, the scenarios presented model different combinations of the following components:

Use of traditional sources of municipal funds:

- Property taxes
- User fees
- Reserves / Reserve Funds
- Debt

Use of non-traditional sources of municipal funds:

- Reallocated budgets
- Partnerships
- Procurement methods

Use of Senior Government Funds:

- Canada Community Building Fund (CCBF)
- Ontario Community Infrastructure Fund (OCIF)

Note: Application-based funding programs are excluded due to lack of predictability.

According to O. Reg 588/17, if the financial strategy results in a funding shortfall, the Province requires the inclusion of a specific plan as to how the impact of the shortfall will be managed. In determining the legitimacy of a funding shortfall, the Province may evaluate the Township's approach to the following:

1. Has the Township considered a reduction in levels of service?
2. Have all asset management and financial strategies been considered? Has the use of debt should be considered.
3. Do user fees reflect the cost of the applicable service? If not, increased user fees should be considered.

Annual Requirements & Capital Funding

Annual Requirements

The annual requirements represent the amount the Township should allocate annually to each asset category to meet replacement needs as they arise, prevent infrastructure backlogs, and achieve long-term sustainability. In total, the Township must allocate approximately $2.5 million annually to address capital requirements for the assets included in this AMP.

Table 37 Average Annual Funding Requirement

Asset Category	Average Annual Requirement
Facilities	$1,124,243
Land Improvements	$95,106
Fleet & Machinery	$667,100
Fire Services	$640,718
Total	**$2,527,167**

Annual Funding Available

Based on analysis of the Township's existing 10-year capital forecast the Township is contributing approximately $1,782,511 towards capital initiatives per year from sustainable revenue sources. Given the annual capital requirement of $2,527,167, there is currently a **funding gap**, for non-core infrastructure of **$744,656** annually.

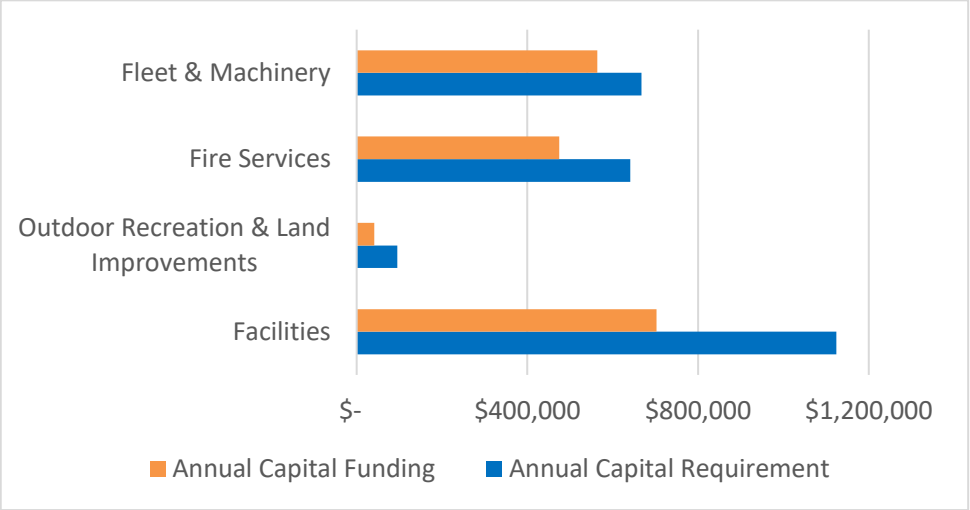


Figure 33 Annual Funding Shortfall by Category

Funding Objective

The following scenarios would enable Mapleton to achieve full funding within 1 to 10 years for all Township-owned non-core infrastructure.

For each scenario developed strategies are included, where applicable, regarding the use of cost containment and funding opportunities.

Current Funding Position

The following tables show, by asset category, Mapleton's average annual asset investment requirements, current funding positions, and funding increases required to achieve full funding on assets funded by taxes.

Asset Category	Avg. Annual Requirement	Avg. Annual Reserve Contributions	Annual Deficit
Facilities	$1,124,243	$702,536	$421,707
Land Improvements	$95,106	$41,162	$53,944
Fire Services	$667,100	$474,813	$165,905
Fleet & Machinery	$640,718	$564,000	$103,100
Total	**$2,527,167**	**$1,782,511**	**$744,656**

The average annual investment requirement for the above categories is **$2,527,167**. Annual funding currently allocated to these assets for capital purposes is **$1,782,511**, leaving an annual deficit of **$744,656**. Put differently, these infrastructure categories are currently funded at **71%** of their long-term requirements.

Full Funding Requirements

In 2024, the Township of Mapleton had annual tax revenues of **$9,864,012**. As illustrated in the following table, without consideration of any other sources of revenue or cost containment strategies, full funding would require the following tax change over time:

Table 38 Full Funding Requirements

Asset Category	Tax Levy Adjustment
Facilities	4.28%
Land Improvements	0.55%
Fire Services	1.68%
Fleet & Machinery	1.05%
Total	**7.56%**

Based on the funding requirements noted above, the following scenarios have been developed for consideration on how to narrow the funding deficit over 1 to 10 years.

	1 year	3 years	5 years	10 years
Infrastructure Deficit	$744,656	$744,656	$744,656	$744,656
Tax Increase Required	7.56%	7.56%	7.56%	7.56%
Annual Increase	**7.56%**	**2.46%**	**1.47%**	**0.73%**

Financial Strategy Recommendations

Considering the above information, it is recommended that the Township pursue the 5-year option to close the funding deficit of $744,656 for non-core infrastructure assets. This would result in full funding being achieved within 5 years by:

1. Increasing the annual tax levy by **1.47%** each year over the next **5 years** solely for the purpose of phasing in full funding of the Township's existing non-core assets and infrastructure at the existing service levels; and,
2. Increasing future capital forecasts by the applicable inflationary index on an annual basis, in addition to the infrastructure funding deficit phase-in.

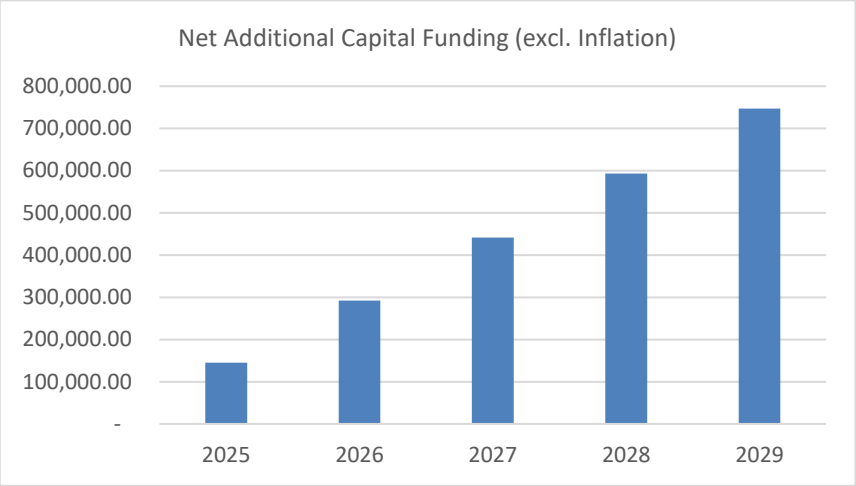


Figure 34 Net Additional Capital Funding (excluding Inflation)

Raising funding through the property tax infrastructure purposes can be very difficult to do. However, considering a longer phase-in window than what has been proposed may have even greater consequences in terms of infrastructure failure.

Cost Containment

As with any spending on municipal infrastructure, staff are encouraged to follow cost containment practices to ensure that where possible, spending is limited to items critical to meeting the service levels of the community. Cost containment helps to limit the reliance of property tax increase to fund operating and capital expenditures.

Funding Opportunities

Application-based senior government infrastructure funding program cannot be incorporated within this AMP, unless there are firm commitments in place. The Township's Core and Non-Core Asset Management Plans include CCBF and OCIF formula-based funding where applicable since this funding is a multi-year commitment.

Capital Funding Prioritization

While the recommendation above achieves full funding on an annual basis in 5 years and provides financial sustainability over the period modeled, the Township continues to require prioritizing capital projects to fit the resulting annual funding available. Prioritizing future projects will require the use of a capital prioritization framework to be developed by staff that incorporates updated condition assessment data and risk analysis. While the recommendations above include no further use of debt, the results of future condition and risk analysis may require otherwise.

Use of Debt Financing

For reference purposes, the following table outlines the premium required on a project if financed by external debt. For example, a $1M project financed at 3.0% over 15 years would result in a 26% premium or $260,000 of increased costs due to interest payments. For simplicity, the table does not consider the time value of money or the effect of inflation on delayed projects.

	Number of Years Financed					
Interest Rate	**5**	**10**	**15**	**20**	**25**	**30**
7.0%	22%	42%	65%	89%	115%	142%
6.5%	20%	39%	60%	82%	105%	130%
6.0%	19%	36%	54%	74%	96%	118%
5.5%	17%	33%	49%	67%	86%	106%
5.0%	15%	30%	45%	60%	77%	95%
4.5%	14%	26%	40%	54%	69%	84%
4.0%	12%	23%	35%	47%	60%	73%
3.5%	11%	20%	30%	41%	52%	63%
3.0%	9%	17%	26%	34%	44%	53%
2.5%	8%	14%	21%	28%	36%	43%
2.0%	6%	11%	17%	22%	28%	34%
1.5%	5%	8%	12%	16%	21%	25%
1.0%	3%	6%	8%	11%	14%	16%
0.5%	2%	3%	4%	5%	7%	8%

It should be noted that long-term interest rates are beginning to fall at the time of this plan being tabled. Sustainable funding models that include debt need to incorporate the risk of rising interest rates. For example, a change in 15-year rates from 3% to 6% would change the premium from 26% to 54%. Such a change would have a significant impact on the sustainability of the Town's long-term financial plan.

There is currently $0 of debt outstanding for the assets covered by this AMP with corresponding principal and interest payments of $0. The Township currently has $8.7M in outstanding debt, all of which pertains to core infrastructure assets (roads, bridges, underground). It is worth noting that debt capacity will be impacted in the near term from critical investments in core infrastructure (water and wastewater).

Therefore, it is beneficial for the revenue options recommended within this plan to allow Mapleton to fully fund its long-term non-core infrastructure requirements without further use of debt.

Use of Reserves

Available Reserves

Reserves play a critical role in long-term financial planning. The benefits of having reserves available for infrastructure planning include:

- the ability to stabilize tax rates when dealing with uncertainty
- financing one-time or short-term investments
- accumulating the funding for significant future infrastructure investments
- managing the use of debt
- normalizing infrastructure funding requirements

The table below outlines the details of the reserves currently available to Mapleton.

Table 39 Reserves Currently Available to Mapleton

Reserves	Balance at December 31, 2023
Capital Reserve*	9,746,795
Protective Service Reserve	762,957
Cemetery Reserve	5,100
Total Tax Funded Reserves	**10,514,852**

*Note the Capital Reserve is utilized for both core and non-core tax-funded infrastructure

There is considerable debate in the municipal sector as to the appropriate level of reserves that a municipality should have on hand. There is no clear guideline that has gained wide acceptance.

In reviewing the existing long-term financial planning strategy, staff see the need for the Township to develop a reserve fund framework and strategy that highlights the purposes, sources, uses and target balances for the various reserves and reserve funds. The existing reserves allow the scenarios to assume that, if required, available reserves may be used for high priority and emergency infrastructure investments in the short- to medium-term.

Recommendation

In 2025, Ontario Regulation 588/17 will require Mapleton to integrate proposed levels of service for all asset categories in its asset management plan update. We recommend that a comprehensive review and update of the reserve fund framework and debt management strategy be undertaken to ensure alignment with the Township's Asset Management program moving forward.

Acknowledgements

Staff Acknowledgements

Township of Mapleton Staff created this asset management plan (AMP) in accordance with Ontario Regulation 588/17. It contains a comprehensive analysis of Mapleton's non-core infrastructure assets.

The creation of this plan was a collaborative effort that required coordination and significant input from various service areas across the Township. We extend our heartfelt thanks to everyone involved in the process. Your commitment and diligence were instrumental in bringing this plan to fruition.

We would also like to acknowledge the ongoing support of the Township's leadership team and Council throughout the development of the AM Plan. Your guidance and encouragement have been crucial in shaping a plan that ensures best value from our assets.

Thank you all for your continued efforts and dedicated to the Township's asset management journey. Your work is vital in helping us achieve long-term sustainability and resilience for our community.

Asset Management Working Group

- Amanpreet Bains, Asset Procurement Manager
- Kailyn Barnett, Finance Clerk
- Patrick Kelly CPA, CMA, Director of Finance/ Treasurer

Departmental Staff

- Building Department
- Clerks Department
- Finance Department
- Fire Department
- Public Works Department
- Parks and Recreation Department

Appendices

Appendix A: Infrastructure Report Card

Table 40 Infrastructure Report Card of Non-Core Assets

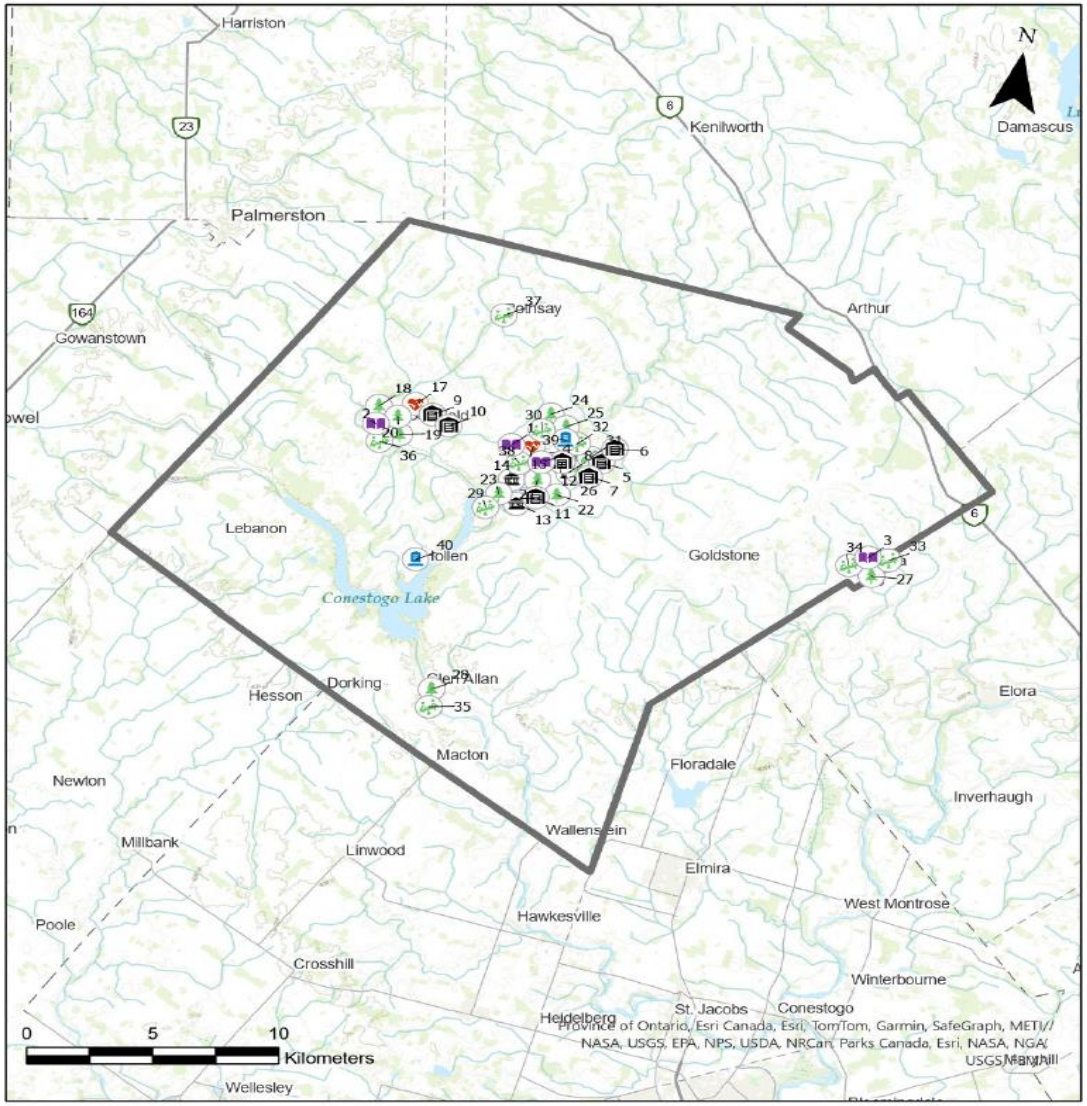
Asset Category	Replacement Cost (millions)	Average Asset Condition	Financial Capacity	
Facilities	$55.6	Fair (53%)	Annual Requirement:	$1,124,243
			Funding Available:	$702,536
			Annual Deficit:	**$421,707**
Outdoor Recreation & Land Improvement	$3.5	Fair (45%)	Annual Requirement:	$95,106
			Funding Available:	$41,162
			Annual Deficit:	**$53,944**
Fire Services	$10.5	Poor (32%)	Annual Requirement:	$640,718
			Funding Available:	$474,813
			Annual Deficit:	**$165,905**
Fleet & Machinery	$8.1	Fair (50%)	Annual Requirement:	$667,144
			Funding Available:	$564,020
			Annual Deficit:	**$103,124**
Overall	$77.6M	Fair (50%)	Annual Requirement:	$2,527,167
			Funding Available:	$1,782,511
			Annual Deficit:	**$744,656**

Appendix B: Building Condition Assessments (BCA): Assessed Condition

Table 41 Assessed Condition Ratings: Building Condition Assessments

Condition	Rating	Definition
Good	1	The element is functioning as intended; normal deterioration may be observed. However, no repairs are anticipated within the next 5 years. The lifecycle replacement, which is based on the EUL and age, is anticipated in the long term (RUL 5 years +).
Fair	2	The element is generally functioning as intended and based on the EUL and age, the lifecycle replacement is anticipated in the long term (5 years +). The major repair is recommended in short term (1 to 4 years).
Poor	3	The element is not functioning as intended, failed or at risk of imminent failure. To minimize disruption to the building operations (frequent maintenance calls) and/or to maintain element continued performance, an element lifecycle replacement is required in the next 2 years (RUL 0 -2 years).

Appendix C: Township-Owned Facilities Map



Township of Mapleton
Owned Buildings

Department
- Administration & Other
- Emergency Services
- Outdoor Recreation
- Parks & Playgrounds
- Public Works
- Recreation & Culture
- Cemetery

ID	Name	Address
1	PMD Arena	68 Main Street West
2	MCC	15 Ball Ave
3	Alma Community Centre	51 Simpson Street East
4	Drayton Festival Theatre	33 Wellington Street South
5	Maintenance Building- Mapleton Works Shop	7275 SDR 16
6	Sand/Salt Building - Peel Drayton	7275 SDR 16
7	Bldg-30 - Traffic Sign Storage Room	7275 SDR 16 Drayton
8	Municipal Administration Office	7275 SDR 16
9	Sand/Salt Building - Moorefield	5-7 Hilwood Drive
10	Storage Building- Moorefield Behind MCC	5-7 Hilwood Drive
11	Splash Pad Mechanical Building	85 Andrew Drive East
12	Storage Building	58 Wood Street
13	Chapel	138 Wellington County Road 11
14	Medical Clinic & Offices	11 Andrew Drive West
15	Drayton Fire Hall	12 Main Street West
17	Moorefield Fire Hall	5-7 Hilwood Drive
18	Bldg 20 Washrooms Moorefield	16 Ball Ave Moorefield
19	Bldg 21 Concesston Booth	15 Ball Ave Moorefield
20	Bldg 22 Picnic Shelter	15 Ball Ave Moorefield
21	Bldg 26 ABC Gazebo	88 Andrew Drive East Drayton
22	ABC Picnic Shelter	87 Andrew Drive East Drayton
23	ABC Washrooms	86 Andrew Drive East Drayton
24	Bldg 27 Picnic Shelter Centennial Park	58 Wellington Street North Drayton
25	Bldg 28 Washrooms/Booth Kinsmen	38 Elm Street Drayton
26	Bldg 31 Picnic Shelter Kinsmen Park	38 Elm Street Drayton
27	Picnic Shelter	40 Peel Street East Alma
28	Bldg 29 Picnic Shelter	6525 SDR 17 Glen Allan
29	ABC Park	85 Andrew Drive East Drayton
30	Riverside Park	57 Wellington Street North Drayton
31	Drayton Ball Diamonds, Soccer Pitch & Agricultural Fairgrounds	56 John Street Drayton
32	Kinsmen Park Playground	38 Elm Street, Drayton, ON
33	Wallace Cummings Park	40 Peel Street East, Alma, ON
34	Alma Ball Diamond	4 Simpson Street East, Alma, ON
35	Glen Allan Park	6525 Sideroad 17, Glen Allan, ON
36	Moorefield Ball Park	15 Ball Avenue, Moorefield, ON
37	Rothsay Optimist Park	110 Head Street, Rothsay, ON
38	Rotary Park	33 Queen St, Drayton
39	Drayton Cemetery	187 Wellington Street North, Drayton
40	Hollen Cemetery	8051 Hollen Road, Moorefield

Appendix D: Facilities Levels of Service Details

The assessment of Buildings in terms of Building Code Compliance, Fire Code Compliance and AODA requirements was performed internally by the staff.

Table 42 Facilities Levels of Service- Details

Buildings	Building Code Compliance %	AODA Compliance %	Fire Safety Codes Compliance	Safety Inspections Frequency
Recreation & Culture				
PMD Arena	90% - If comments on JHSI addressed	100%	100%	JHSI (approx. monthly)
MCC	90% - If comments on JHSI addressed	100%	100%	JHSI (approx. monthly)
Alma Community Centre	100%	100%	100%	JHSI (approx. monthly)
Drayton Festival Theatre				
Bldg-20-Washrooms Moorefield	60% meets Building Code Compliance	60% meets current AODA standards	100%	Unknown
	Building Envelope penetrations require grates/ sealing	BF washroom requires Power Door Operator		
	Plumbing Vent(s) to Terminate above the roof	Entrances to be light		
		Sidewalk required to Washroom with lighting		
Bldg-21 - Concession Booth Moorefield	75% meets Building Code Compliance	0% - Not Accessible	10%	Unknown
	Fire Extinguisher(s)			
Bldg-22 - Picnic Shelter Moorefield	100%	100%	100%	Unknown

Bldg-26 - ABC Gazebo	100%	0%- Not Accessible	100%	Unknown
Bldg-27 - Picnic Shelter Centennial Park	100%	75%	100%	Unknown
		Sidewalk with lighting req. from parking lot		
Bldg-28 - Washrooms/Booth Kinsmen	75%	75%	100%	Unknown
	Second floor window plywood to be covered in water resistant	Door req. Power Opener		
	Ventilation Fan req. in bathroom	Alert Button and Alarm w light req.		
Bldg-29 - Picnic Shelter, Glen Allan	100%	75%	100%	Unknown
		Sidewalk with lighting req. from parking lot		
Bldg-30 - Traffic Sign Storage Room	100%	0% - Not Accessible	100%	Unknown
Bldg-31 - Picnic Shelter, Kinsmen Park	100%	75%	100%	Unknown
		Sidewalk with lighting req. from parking lot		
Picnic Shelter, Alma	100%	75%	100%	Unknown
		Sidewalk with lighting req. from parking lot		
ABC Picnic Shelter-Drayton	100%	75%	100%	Unknown
		Sidewalk with lighting req. from parking lot		
ABC Washrooms	75%	60% meets current AODA standards	100%	Unknown

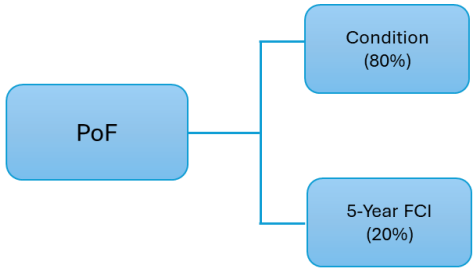
	Ventilation Fan req. in bathroom	BF washroom requires Power Door Operator		
		Entrances to be light		
Public Works				
Maintenance Building-Mapleton Works Shop	100%	100%	100%	JHSI (approx. monthly)
Sand/ Salt Building-Moorefield	90%		90%	Unknown
	Fire Extinguisher Req.		Fire Extinguisher Req.	
Sand/ Salt Building- Peel Drayton	90%		90%	Unknown
	Fire Extinguisher Req.		Fire Extinguisher Req.	
Splash Pad Mechanical Building	100%		100%	Unknown
Storage Building 58 Wood St.	90% - If comments on JHSI addressed		100%	JHSI (approx. monthly)
Storage Building-Moorefield Behind MCC	100%		100%	Unknown
Administration & Other				
Municipal Administrative Office	100%	100%	100%	JHSI (approx. monthly)
Chapel	75%		75%	Unknown
	Entrance to be light		Fire Extinguisher	

	Handrails have 12" extension at bottom			
Medical Clinic & Offices	90% - If comments on JHSI addressed	100%	100%	JHSI (approx. monthly)
Emergency Services				
Drayton Fire Hall	100%		100%	Unknown
Generator Building- Drayton Fire Hall	100%		100%	Unknown
Moorefield Fire Hall	100%		100%	Unknown

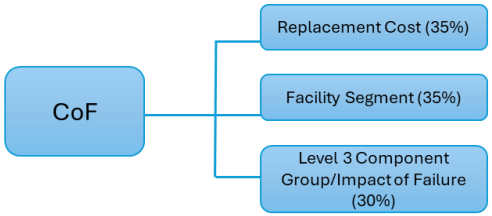
Appendix E: Risk Rating Criteria

This section illustrates risk models for each of the Township's non-core asset types. For some asset types, limited attribute data was available in assigning the probability and/or consequence of failure ratings. In the absence of attribute data, the risk matrices illustrated previously relied on asset condition (or age) for estimating the probability of failure and replacement costs for estimating the consequence of failure.

A. Facilities



Criteria	Value/ Range	PoF Score
Asset Condition	0-20	5- Almost Certain
	20-40	4- Likely
	40-60	3- Possible
	60-80	2- Unlikely
	80-100	1- Rare
5-Year FCI (%)	80-100	5- Almost Certain
	60-80	4- Likely
	40-60	3- Possible
	20-40	2- Unlikely
	0-20	1- Rare



Criteria	Value/ Range	CoF Score
Financial	>$250,000	5- Severe
	$100,000- $250,000	4- Major
	$50,000- $100,000	3- Moderate
	$25,000- $50,000	2- Minor
	>$25,000	1- Insignificant
Facility Segment	Fire halls, Emergency shelters	5- Severe
	Recreation Facilities, Administration	4- Major
	Public washrooms/ Picnic shelters	3- Moderate
	Traffic sign shed/ Sand-salt sheds	2- Minor
	Storage sheds/ Chapel	1- Insignificant
Impact of Failure (Citywide)	Fire/ Life Safety	5- Severe
	Full Closure	4- Major
	Partial Closure	3- Moderate
	Occupant Discomfort	2- Minor
	Nuisance/ Aesthetics	1- Insignificant

Risk

Probability of Failure Metrics

+ New Metric

Economic - Weight: 100%

Field	Metric
Condition	80 - 60 - 40 - 20 - 0
5-Year FCI (%)	20 - 40 - 60 - 80 - 100
Total	

Consequence of Failure Metrics

+ New Metric

Economic - Weight: 35%

Field	Metric
Replacement Cost	25,000 - 50,000 - 100,000 - 250,000 - 1,000,000
Total	

Social - Weight: 35%

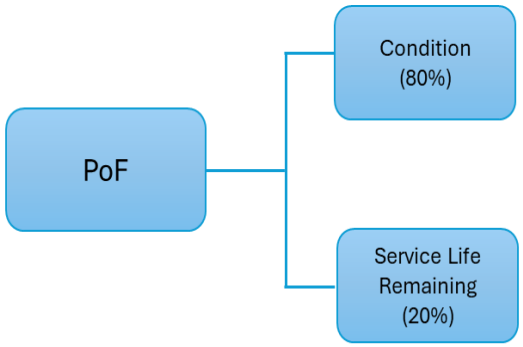
Field	Metric
Segment	Chapel and Columbarium -> 1 - Insignificant , Hydro Building Structure -> 1 - Insignificant , Storage Building -> 1 - Insignificant , Storage Building 58 Wood St. -> 1 - Insignificant , Storage Building- Moorefield Behind MCC -> 1 - Insignificant , Bldg-30 - Traffic Sign Storage Building -> 2 - Minor , Sand/ Salt Building- Moorefield -> 2 - Minor , Sand/ Salt Building- Peel Drayton -> 2 - Minor , ABC Picnic Shelter- Drayton -> 3 - Moderate , ABC Washrooms -> 3 - Moderate , Bldg-20 - Washrooms Moorefield -> 3 - Moderate , Bldg-21 - Concession Booth Moorefield -> 3 - Moderate , Bldg-22 - Picnic Shelter Moorefield -> 3 - Moderate , Bldg-26 - ABC Gazebo -> 3 - Moderate , Bldg-27 - Picnic Shelter Centennial Park -> 3 - Moderate , Bldg-28 - Washrooms/Booth Ball Diamond (Elm Street) -> 3 - Moderate , Bldg-29 - Picnic Shelter, Glen Allan -> 3 - Moderate , Bldg-31 - Picnic Shelter, Kinsmen Park -> 3 - Moderate , Drayton Festival Theatre -> 3 - Moderate , Medical Clinic and Offices -> 3 - Moderate , Splash Pad Mechnical Building -> 3 - Moderate , Washrooms ABC -> 3 - Moderate , Alma Community Centre- Alma -> 4 - Major , Maryborough Community Centre (MCC) -> 4 - Major , Municipal Administrative Office -> 4 - Major , Drayton Fire Hall -> 5 - Severe , Generator Building- Fire Hall -> 5 - Severe , Maintenance Building-Mapleton Works Shop -> 5 - Severe , Moorefield Fire Hall -> 5 - Severe , PMD Arena- Original -> 5 - Severe
Total	

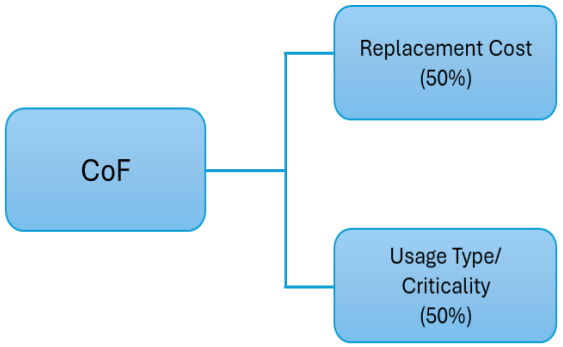
Health and Safety - Weight: 30%

Field	Metric
Impact of Failure	Nuisance/ Aesthetics -> 1 - Insignificant , Secondary Damage -> 2 - Minor , Occupant Discomfort -> 2 - Minor , Restricted Access/ Partial Closure -> 3 - Moderate , Building Failure/ Full Closure -> 4 - Major , Fire/ Life Safety -> 5 - Severe
Total	

Figure 35 Risk Framework: Facilities

B. Fleet & Machinery





Criteria	Value/ Range	PoF Score
Asset Condition	0-20	5- Almost Certain
	20-40	4- Likely
	40-60	3- Possible
	60-80	2- Unlikely
	80-100	1- Rare
Service Life Remaining (%)	0-20	5- Almost Certain
	20-40	4- Likely
	40-60	3- Possible
	60-80	2- Unlikely
	80-100	1- Rare

Criteria	Value/ Range	CoF Score
Financial	>$1,000,000	5- Severe
	$500,000- $1,000,000	4- Major
	$250,000- $500,000	3- Moderate
	$100,000- $250,000	2- Minor
	>$100,000	1- Insignificant
Usage Type/ Criticality	Fire Services/ Roads (snow-cleaning)	5- Severe
	Roads and Sidewalks	4- Major
	Parks, cemetery & Road's attachments	3- Moderate
	Cemetery trailer	2- Minor

Risk

Probability of Failure Metrics

+ New Metric

Economic - Weight: 100%

Field	Metric
Condition	80 - 60 - 40 - 20 - 0
Service Life Remaining (%)	80 - 60 - 40 - 20 - 0
Total	

Consequence of Failure Metrics

+ New Metric

Economic - Weight: 50%

Field	Metric
Replacement Cost	100,000 - 250,000 - 500,000 - 1,000,000 - 1,000,001
Total	

Operational - Weight: 50%

Field	Metric
Usage Type/ Criticality	1 -> 1 - Insignificant , 2 -> 2 - Minor , 3 -> 3 - Moderate , 4 -> 4 - Major , 5 -> 5 - Severe
Total	

Figure 36 Risk Framework: Fleet & Machinery