JULY 1, 2025

TOWNSHIP OF MCKELLAR ASSET MANAGEMENT PLAN

2025 - 2035

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BUHLIN ASSET MANAGEMENT

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1. Executive Summary

Purpose of the Plan

This Asset Management Plan (AMP) provides the Township of McKellar with a structured, data-driven framework for managing its infrastructure in a sustainable, cost-effective manner. It aligns with the requirements of Ontario Regulation 588/17 and serves as a tool for informed decision-making. The plan covers all major municipal asset classes, including transportation, buildings and facilities, fleet and equipment, parks and recreation, and IT and communications. It identifies the current state of these assets, evaluates risks, outlines lifecycle management strategies, and estimates the financial resources required to maintain desired levels of service.

Key Findings

McKellar's total infrastructure replacement value is estimated at **$58.53 million**, with the transportation network representing the largest share. Condition data shows that while many assets are performing well, there are significant renewal needs in specific areas, including roads, bridges, certain fleet units, and playground equipment.

- **Transportation**: High-value and high-risk asset class, with several bridges and road sections approaching end of life.
- **Fleet & Equipment**: Overall in serviceable condition, but some units are near replacement; current shop space is inadequate for the growing fleet.
- **Buildings & Facilities**: Generally in fair condition; isolated renewal needs exist.
- **Parks & Recreation**: Key assets like playgrounds and docks require ongoing investment to maintain safety and functionality.
- **IT & Communications**: Mostly modernized, but some systems will require replacement within the next decade.

Financial modeling through DOT shows that **capital demand over the next 10 years will significantly exceed available funding** under current practices, particularly in peak investment years such as 2026, 2031, and 2035. The municipality relies heavily on property taxes and grants, with reserve contributions being inconsistent and limited in size.

Strategic Directions

The AMP recommends a proactive, long-term approach to managing infrastructure:

1. **Prioritize high-risk, high-value assets** — particularly in transportation and fleet services.
2. **Stabilize and grow reserve contributions** to smooth funding requirements and reduce reliance on unpredictable grants.
3. **Adopt multi-year capital budgeting** aligned with lifecycle projections to support timely asset renewal.
4. **Develop a grant readiness program** to position shovel-ready projects for rapid funding applications.
5. **Expand Public Works shop capacity** to support fleet maintenance and efficiency.
6. **Improve data quality and asset condition tracking** to refine forecasts in future AMP updates.

This is McKellar's **first AMP iteration using DOT**. As asset data improves, staff knowledge grows, and the municipality advances its asset management maturity, future updates will provide even more accurate and actionable information. Implementing the strategies in this plan will help McKellar manage its infrastructure sustainably, control long-term costs, and maintain essential services for residents.

2. Introduction

Municipal Context

The Township of McKellar is a rural municipality located in the Parry Sound District of Ontario, nestled within the scenic landscape of cottage country and known for its lakes, forests, and strong community character. The Township spans a land area of approximately 207 square kilometers and is home to a mix of year-round residents and seasonal property owners, many of whom are drawn to McKellar's abundant recreational opportunities, tranquil environment, and close-knit community feel.

According to the 2021 Census, McKellar had a permanent population of 1,419, marking an increase of 27.7% from its 2016 population of 1,111. Despite the modest population size, the Township experiences significant seasonal fluctuation due to its popularity as a destination for cottagers, tourists, and recreational visitors, especially during the summer months. This population dynamic influences infrastructure usage, service delivery, and long-term planning.

The Township is composed of a variety of settlement areas, natural features, and lakeside developments, including the well-known Lake Manitouwabing. Accessibility to the region is supported by a network of local roads and proximity to the Town of Parry Sound, which provides additional services, shopping, and transportation links.

McKellar maintains a rich historical and cultural heritage, evidenced by heritage buildings such as the Hemlock and St. Stephen churches, and supports vibrant community life through facilities like the Community Centre, a library, fire halls, parks, and recreational spaces. The municipal government actively manages and plans for the sustainable maintenance of these assets to support service delivery, enhance livability, and provide resilience against future challenges.

As McKellar continues to evolve, the Asset Management Plan plays a crucial role in guiding investment, maintenance, and renewal decisions to ensure infrastructure meets the current and future needs of residents and visitors alike.

Asset Management Objectives

The Township of McKellar is committed to a structured and strategic approach to managing its infrastructure assets in order to deliver reliable, cost-effective services to the community. The overarching objective of asset management is to align infrastructure decisions with community needs, service expectations, and long-term financial sustainability.

This Asset Management Plan (AMP) directly supports the objectives outlined in the Township's Strategic Asset Management Policy, which was adopted in 2019 in accordance with Ontario Regulation 588/17.

That policy provides a foundation for the Township's approach, ensuring that asset management practices are systematic, transparent, and embedded within municipal decision-making.

Key Objectives

The objectives of asset management in McKellar include:

1. **Establishing a consistent framework** for asset management across all departments and service areas.
2. **Enhancing transparency and accountability** in municipal decision-making by linking strategic planning, budgeting, service levels, and risk management.
3. **Supporting prudent financial planning** by forecasting infrastructure needs and aligning them with available resources.
4. **Prioritizing infrastructure investments** to address the most critical risks and service delivery challenges.
5. **Maintaining core public services** through the proactive management of infrastructure lifecycle needs.
6. **Promoting sustainability** by considering economic, environmental, and social factors in infrastructure planning and renewal.
7. **Fostering alignment** between asset management and other municipal strategies, such as the Official Plan, Emergency Management Plan, and Accessibility Plan.

Long-Term Vision

The Township's long-term asset management vision is to:

- Proactively manage municipal assets to meet the present and future needs of residents, seasonal property owners, and businesses.
- Ensure service delivery is sustainable, resilient, and responsive to demographic and climate trends.
- Maximize the value of municipal investments through data-driven decisions, risk-based prioritization, and continuous improvement.

Through this AMP, the Township aims to strengthen asset knowledge, improve coordination between departments, and build the internal capacity necessary to support sound infrastructure stewardship. Over time, asset management will become a central tool in managing risk, supporting growth, and delivering services that residents rely on every day.

Regulatory Requirements

The Township of McKellar's Asset Management Plan (AMP) has been developed in accordance with Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure, which came into effect on January 1, 2018, under the Infrastructure for Jobs and Prosperity Act, 2015. This regulation

mandates a structured, phased approach to municipal asset management planning and outlines specific content and timelines for compliance.

Overview of O. Reg. 588/17

The regulation sets out requirements for all Ontario municipalities to develop and adopt an AMP that supports strategic, evidence-based decision-making across the full life cycle of infrastructure. The regulation is divided into key components with corresponding deadlines:

Requirement	Description	Deadline
Strategic Asset Management Policy	Municipalities must adopt a formal policy guiding asset management principles, responsibilities, and goals.	**July 1, 2019** *(Completed by McKellar under By-law No. 2019-36)*
Core Infrastructure AMP	AMP must include current levels of service, condition, replacement cost, and lifecycle activities for core assets: roads, bridges, water, wastewater, and stormwater.	**July 1, 2022** (Completed by R.J Burnside & Associates Ltd.)
Full AMP – All Assets	AMP must expand to include all municipal assets, including facilities, fleet, parks, and IT. The plan must address current levels of service, condition, and replacement cost.	**July 1, 2024** (requirements met with 2025 AMP)
Proposed Levels of Service and Financial Strategy	AMP must define proposed levels of service, costs to maintain those levels, and strategies to fund them over the long term.	**July 1, 2025** (Completed by Buhlin Asset Management)

Key Requirements of an AMP Under the Regulation

Each AMP developed under O. Reg. 588/17 must include:

- **Inventory and Valuation** of assets owned by the municipality.
- **Current Levels of Service**, supported by both qualitative descriptions and technical metrics.
- **Condition Assessments** for all asset classes.
- **Lifecycle Activities**, including operations, maintenance, renewal, and replacement.
- **Replacement Cost Estimates** and future capital needs.
- **Proposed Levels of Service**, to be achieved over a 10-year horizon.
- **Financial Strategy** to support sustainable service delivery.
- **Risk and Climate Change Considerations** impacting asset performance and planning.

Implications for the Township of McKellar

The regulation has several significant implications for how the Township manages its infrastructure:

Structured Planning and Documentation

The Township must document how it plans for the long-term sustainability of all infrastructure assets and integrate this into financial, operational, and capital planning. This requires clearly defined policies, procedures, and timelines to ensure consistency and accountability in infrastructure decisions.
To address this, McKellar will use its Asset Management Plan as a living document, updated regularly

and aligned with budget processes to ensure infrastructure needs are properly reflected in long-term planning.

Increased Transparency and Accountability

Council, staff, and the public are now more engaged in understanding the state of local infrastructure and the trade-offs involved in service levels and funding. Public reporting requirements encourage municipalities to explain decisions and justify investment priorities.

The Township will engage Council and the public through targeted workshops, summaries, and website content that highlights the link between service levels, condition, and funding needs.

Lifecycle and Risk-Based Decision-Making

The Township is required to look beyond short-term repairs and consider full life cycle strategies, including when to maintain, rehabilitate, or replace assets to minimize total cost and risk. This shift requires new tools and methods for identifying and addressing high-risk or high-cost assets proactively.

McKellar will build lifecycle strategies into its AMP by defining maintenance and renewal triggers, and will prioritize projects based on condition, criticality, and service impact.

Data Collection and System Development

There is an ongoing need to improve data quality, perform condition assessments, and invest in systems that can support evidence-based decision-making. Reliable, up-to-date asset data is critical to making accurate forecasts and informed capital investment decisions.

To improve asset data, the Township will continue compiling inventories, applying Remaining Service Life (RSL) calculations, and exploring options for low-cost data management tools suited to small municipalities.

Integration with Other Municipal Plans

Asset management must now be coordinated with other strategic documents such as the Official Plan, budgets, emergency plans, and climate adaptation policies. This integration ensures that infrastructure decisions support broader community goals and are not made in isolation.

McKellar will align its AMP with existing policies and ensure updates to related plans—like budgeting frameworks and emergency response planning—incorporate asset management findings and priorities.

Resource and Capacity Needs

Meeting regulatory deadlines requires both staff time and expertise. For small municipalities like McKellar, this often means leveraging consultants, software systems, and shared services to meet expectations.

The Township will continue working with external experts and regional support programs to meet AMP deadlines, while gradually building internal knowledge through staff training and standardized templates.

Looking Ahead

McKellar has met the requirements for the Strategic Asset Management Policy and Core Infrastructure AMP. This current AMP represents compliance with the 2024 deadline to cover all municipal assets, and work is now underway to meet the 2025 deadline, which will include the development of proposed levels of service and a comprehensive financial strategy.

The Township views the regulation not just as a compliance exercise, but as a framework for building more resilient, cost-effective, and service-oriented infrastructure management practices.

3. State of Local Infrastructure

Asset Inventory Overview

The Township of McKellar owns and manages a wide range of infrastructure assets that support essential municipal services, community programs, and local quality of life. These assets form the foundation for service delivery across transportation, public facilities, fleet and equipment, parks and recreation, and supporting lands. A well-maintained and up-to-date inventory allows the Township to plan effectively for operations, maintenance, renewal, and future investment.

The inventory presented in this section provides a high-level overview of McKellar's municipal asset portfolio by category. For each asset class, the summary includes key characteristics such as asset type, quantity, age range, and service function. This information supports the development of lifecycle strategies, informs the assessment of current conditions, and provides a basis for evaluating levels of service and associated financial planning. Establishing a clear understanding of what the Township owns is a critical first step in effective asset management.

Asset Categories

Transportation

The Township of McKellar's transportation network is a critical component of its municipal infrastructure, supporting the safe and efficient movement of people, goods, and services throughout the community. The transportation asset class consists primarily of a road network that spans approximately 107 kilometers, including gravel roads, surface-treated roads, and a limited number of paved sections. This network serves both year-round and seasonal residents and is essential for access to homes, businesses, emergency services, and recreational destinations. The inventory also includes related supporting infrastructure such as bridges, ditches, guardrails, and road shoulders. These assets are managed by the Public Works Department, which maintains records of road classifications, surface types, and maintenance histories to guide service delivery and long-term planning. Understanding the scope and composition of the transportation network is the first step in evaluating its condition, performance, and investment needs.

Asset Type	Quantity	Length	Year Range	Notes
Gravel Roads	83	49.6 km	1960s–2020s	Primary surface type across rural and lower-traffic areas
Asphalt Roads	48	28.8 km	1980s–2020s	Paved sections in built-up or high-use zones
Surface Treated Roads	47	28.9 km	1970s–2010s	Common for rural collector routes
Bridges (OSIM)	7	157.1 m	1970s–2010s	Inspected under OSIM; range includes older steel and concrete
Culverts	2	28.8 m	1980s – 2010s	Carries water beneath roads; prevents flooding and erosion.
Guardrails	4	N/A	1990s–2010s	Installed near bridges or steep embankments

Roadside Ditches	332	208 km	1960s	Gradual buildout with road development and improvements
Earth Shoulders	156	83.6 km	1960s	Typically constructed alongside gravel roads
Gravel/Stone Shoulders	190	120.6 km	1980s	Installed during resurfacing or rehabilitation projects
Surface Treated Shoulders	10	6.6 km	1990s–2000s	Found along older surface treated roads
Asphalt Shoulders	2	N/A	2000s–2010s	Typically constructed with asphalt roads
Other Shoulder Types	4	3.8 km	Various	Includes legacy or unique segments not fitting standard types

Buildings & Facilities

The Township of McKellar owns and manages a diverse portfolio of facilities and land improvements that support the delivery of municipal services, emergency response, administration, recreation, and community heritage. These assets are distributed throughout the Township and provide the physical spaces and infrastructure required for both internal operations and public use.

The buildings include an administrative office, community centre, fire hall, public works garage, storage buildings, transfer station, and recreational facilities. Several of these buildings have undergone renovations or additions in recent years to extend their usefulness and functionality.

In addition to built facilities, the Township maintains a range of land improvements and site infrastructure such as gates, fences, compacted pads, and landscaped areas. These improvements enhance operational sites like the transfer station and contribute to the appearance and identity of the community through features cenotaph, commemorative sculptures, and flower beds.

Together, these built assets form the backbone of municipal service delivery and provide space for both day-to-day functions and long-term community development.

Asset Category	Quantity	Year Range	Notes
Public Works Garage	1	2000	4-bay garage at 676 Hwy 124
Fire Halls	2 (+1 addition)	1994–2017	Two stations, including major addition in 2009
Administrative/ Community Buildings	1 (+1 addition)	1990–2010	Includes municipal office, community centre, and library
Recreational Buildings	1	1999	Rink building at 701 Hwy 124
Storage Buildings	1	2004	Standalone structure at Public Works site
Transfer Station	1	2005	Includes main structure and auxiliary building
Heritage/Vacant Buildings	2	1890	Hemlock and St. Stephen churches under renovation
Land Improvements	6+	2003–2023	Includes cenotaph, fencing, compacted pads, gates, flower beds, 150th Horse sculpture

Parking Lots	4	2016–2023	Ball diamond, trail access, community centre, and Catherine St. lot
Land Parcels	50+	Various	Includes cemeteries, parks, road allowances, and subdivision lands

Fleet & Equipment

The Township of McKellar maintains a comprehensive fleet and equipment inventory to support core municipal services across Public Works, Fire Services, Parks and Recreation, Waste Management, and general municipal operations. These assets are essential for the delivery of year-round services such as snow removal, road maintenance, emergency response, park upkeep, and facility operations.

The fleet includes a mix of light-duty and heavy-duty trucks, snowplows, backhoes, graders, and fire apparatus. Alongside these vehicles, the Township owns and operates a wide variety of equipment such as lawn mowers, trailers, fuel tanks, generators, compactors, and utility attachments. This equipment supplements vehicle operations and supports fieldwork, site maintenance, waste handling, and emergency preparedness.

Assets are distributed across departments and are generally shared as needed, with condition and age tracked to support replacement planning. Many newer units have been added in recent years, though some older equipment remains in service or has recently been retired. Maintaining a diverse and up-to-date inventory is essential for operational readiness, safety, and efficient service delivery.

Asset Category	Quantity	Year Range	Notes
Light-Duty Trucks & SUVs	5	2009–2022	Includes Silverado, RAM 1500, Equinox, etc.
Heavy-Duty Trucks	4	2018–2024	Includes tandem and medium-duty Freightliners, plow trucks
Fire Vehicles	4	1996–2022	Includes pumper trucks and quick response vehicles
Construction Equipment	5	2001–2016	Includes backhoes, tractors, graders
Small/Utility Equipment	20+	2002–2023	Includes lawn mowers, trailers, fuel tanks, plows, steamer, shelving
Fire Equipment & PPE	6+	2005–2023	Includes firefighting gear, hoses, cylinders, boiler
Waste Management Equipment	10+	2002–2016	Includes compactors, roll-off bins, containers (including animal-proof)

Parks & Recreation

The Township of McKellar owns and operates a variety of parks and recreation assets that provide residents and visitors with opportunities for outdoor leisure, sports, community gatherings, and waterfront access. These assets support physical activity, social connection, tourism, and community well-being. The recreation inventory includes parks, playgrounds, a sports field, pavilions, a wilderness trail, docks, and various site amenities located throughout the municipality.

Recreational infrastructure serves a wide demographic—ranging from young children to seniors—and plays an important role in promoting active lifestyles and community engagement.

Several assets, including pavilions and docks, are located in parks such as Minerva, Stewart, and Armstrong Parks, while multi-use recreation facilities like a covered rink and bleachers support events and seasonal activities.

The Parks and Recreation assets are distributed across the community and are managed by the Township to meet seasonal demands and long-term recreation goals. Keeping a detailed inventory supports the planning of maintenance, renewal, and enhancement projects to ensure continued service and safety.

Asset Category	Quantity	Year Range	Notes
Playgrounds	4	2007–2008	Located at Armstrong Park, Maplewood Park, Minerva Park, and Stewart Park
Wilderness Trail	2	2009–2010	Unpaved trail offering scenic pedestrian access for walking and exploration.
Sports Fields & Courts	4	1999–2010	Includes baseball fencing, rink surface, and a grass basketball court
Bleachers	1	2019	Portable aluminum bleachers for spectators
Docks	4	2016–2021	Located at Armstrong Lake, McKellar Lake, Stewart Park, and Minerva Park
Recreation Structures (Other)	4	1995–2018	Includes pavilions, gazebo, and rink skirting

Valuation

Replacement Costs

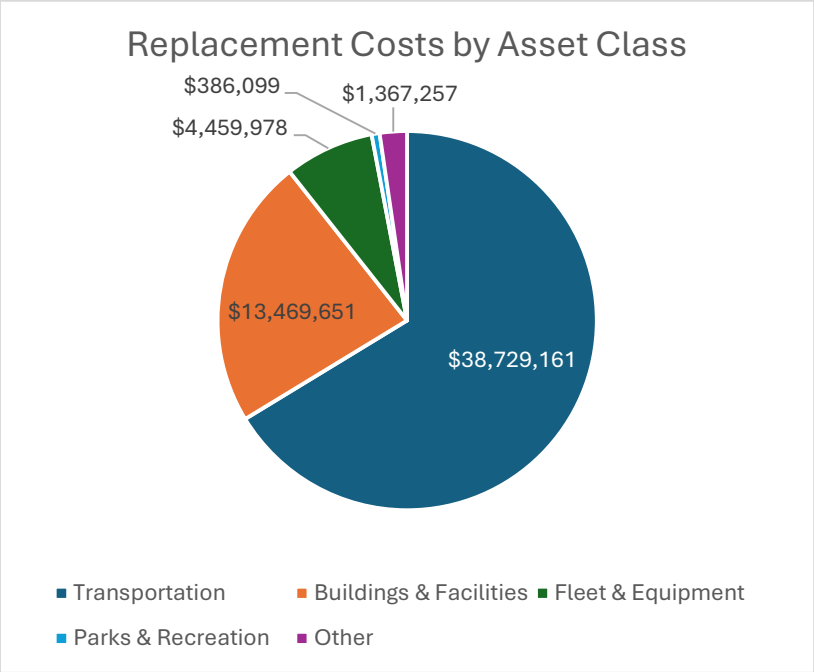
Understanding the replacement cost of municipal infrastructure assets is critical for effective long-term financial and service delivery planning. Replacement cost refers to the estimated expense of replacing an asset with a new one of similar capacity, function, and compliance with current standards. This approach enables the Township of McKellar to assess the true scale of its asset base, prioritize reinvestment, and plan for sustainable future funding.

Replacement Cost by Asset Class

The Township of McKellar's infrastructure portfolio has an estimated total replacement value of approximately $58.53 million. This valuation spans all major asset classes and reflects both core service infrastructure and supporting community assets. The following are the key findings by asset class:

- Transportation assets (primarily roads and bridges) represent the largest portion of the portfolio, with a combined replacement value exceeding $38.7 million. This immense valuation emphasizes the scale of responsibility for road maintenance, safety, and accessibility.
- Facilities, including municipal buildings and land, are the next largest asset group, collectively valued at over $13.1 million, reflecting their critical role in governance, operations, and community services.

- Fleet and Equipment assets contribute approximately $5.4 million, supporting public works, emergency services, and recreation operations.
- Parks & Recreation assets are valued at around $1.75 million, providing important quality-of-life infrastructure for residents and visitors alike.
- IT Assets, Land Improvements, Parking Lots, and miscellaneous "Other" assets account for smaller, yet meaningful components of the portfolio that ensure smooth daily operations and public engagement.

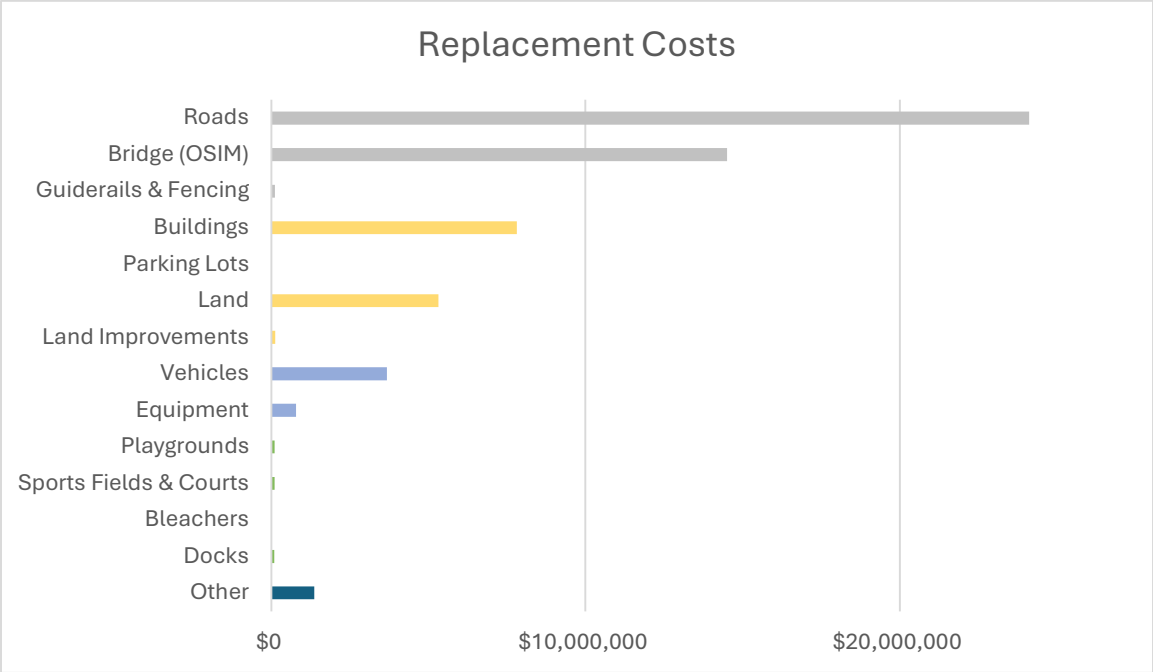


Replacement Cost by Asset Sub-Class

A more detailed breakdown is presented in the bar chart titled Replacement Costs by Asset Sub Class. Highlights include:

- Roads, at over $24 Million, represent by far the most valuable asset sub-class, underscoring the significance of strategic maintenance and capital renewal planning.
- Bridges, guided by OSIM standards, and culverts have a replacement value of $14.25 million, requiring ongoing inspection and prioritization.
- Buildings, including the community centre, fire halls, and public works garage, are valued at $7.8 million.
- Land holdings add over $5.3 million in value, reflecting strategic properties for operations and future development.
- Vehicles and Equipment collectively represent $5.4 million, supporting the Township's operational resilience and emergency response capacity.

- Smaller but essential sub-classes—such as docks, wilderness trail, recreation equipment, playgrounds, bleachers, and IT hardware—contribute to community function and aesthetic appeal, ranging from $15,000 to $215,000 each.



Implications for Financial Planning

The replacement cost data provides the foundation for estimating long-term infrastructure needs and setting appropriate levels of capital reserves. By understanding the scale and distribution of replacement costs across asset classes, the Township is better positioned to:

- Prioritize lifecycle investments
- Plan phased renewals
- Align funding strategies with future asset needs

This data will be used in conjunction with condition assessments and risk profiles in the development of the Township's financial strategy and lifecycle activities.

Condition Assessment

Transportation

Roads

The Township of McKellar evaluates the condition of its road network using a standardized Pavement Condition Index (PCI) methodology, supported by a 2021 Roads Needs Assessment. This assessment used a combination of visual inspection and a Ride Comfort Rating (RCR) to develop calculated PCI values for all surface types—gravel, surface treated, and asphalt. Surface distresses such as potholes, rutting, edge breaks, washboarding, and various forms of cracking were evaluated based on severity and density, feeding into a detailed DMI (Distress Manifestation Index) calculation. These results were

then converted into PCI scores using a consistent formula to enable cross-comparison across the entire road network.

Ride Comfort Results

The assessment included Ride Comfort Ratings (RCR), which classify how smooth or bumpy the road feels during travel. The results indicate that most roads in McKellar offer a good driving experience:

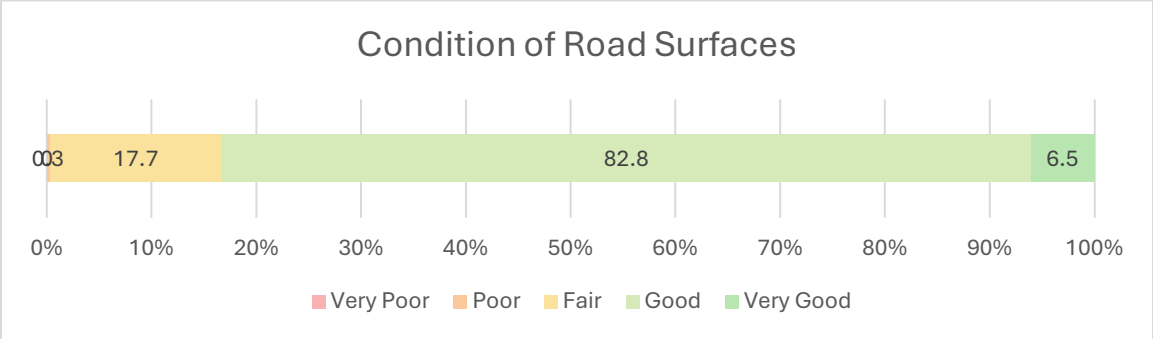
Ride Comfort Rating	Description	Kilometers	Percent of Network
8 < RCR ≤ 10	Excellent – Very smooth surface	13.0 km	12%
6 < RCR ≤ 8	Good – Smooth with minor bumps	76.1 km	71%
4 < RCR ≤ 6	Fair – Intermittent bumps	17.9 km	17%
2 < RCR ≤ 4	Poor – Frequent bumps	0.3 km	<1%
0 < RCR ≤ 2	Very Poor – Uncomfortable	0.0 km	0%

These findings show that 83% of the road network has a RCR above 6, reflecting a largely smooth and reliable ride across the Township's roads.

Pavement Condition Index (PCI) Results

The PCI ratings derived from the Roads Needs Assessment further validate the high condition of McKellar's road assets. Ratings are grouped into 10-point bands, where higher values reflect better surface performance and fewer structural issues.

PCI Range	Condition Description	Kilometers	Percent of Network
90 < PCI ≤ 100	Very Good	6.5 km	6%
70 < PCI ≤ 90	Good	82.8 km	86%
50 < PCI ≤ 70	Fair	17.7 km	17%
30 < PCI ≤ 50	Poor	0.3 km	<1%
PCI ≤ 30	Very Poor	0.0 km	0%



This profile shows that 92% of McKellar's roads (89.3 km out of approximately 107 km) are in Good or Very Good condition. Only one segment of road, less than 1% of the network, falls into the Poor category, with no segments identified in Very Poor condition. These results indicate a well-performing road network that has benefited from proactive maintenance and rehabilitation in recent years.

Assessment Methodology

The 2021 Roads Needs Assessment employed a structured condition rating system:

- RCR measured road ride quality based on comfort.
- DMI captured severity and extent of visible distress.
- PCI synthesized RCR and DMI to assign a standardized score from 0 to 100.

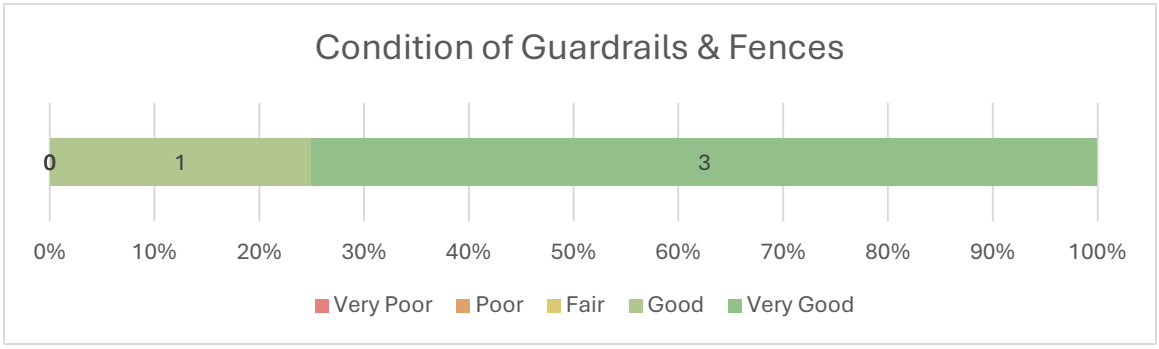
This approach ensured a reliable assessment across surface types and identified both current deficiencies and longer-term rehabilitation needs. For more information on the calculations refer to the 2021 Roads Needs Assessment Report.

The condition of McKellar's roads reflects strong overall performance, with minimal infrastructure in substandard condition. Continued tracking of PCI and RCR through regular updates will support long-term capital planning and lifecycle optimization. These findings provide a solid basis for identifying targeted investments and preserving high service levels for road users across the Township.

Guardrails & Fencing

The condition of guardrails and fencing assets in the Township of McKellar has been assessed using a Remaining Service Life (%RSL) approach. This method estimates the percentage of useful life remaining for each asset based on age and expected service duration. The %RSL values are categorized into five condition bands as follows:

Condition	Range
Very Poor	0 <= %RSL < 10
Poor	10 <= %RSL < 30
Fair	30 <= %RSL < 60
Good	60 <= %RSL < 80
Very Good	80 <= %RSL <= 100



The chart above shows the distribution of the Township's four guardrail and fence assets by condition rating. The results indicate:

- Three assets are rated in Excellent condition (≥ 80% RSL), indicating they are relatively new or have substantial remaining service life.
- One asset is rated in Good condition (60–80% RSL), suggesting it is aging but still within an acceptable functional state.
- There are no assets rated in Fair, Poor, or Very Poor condition.

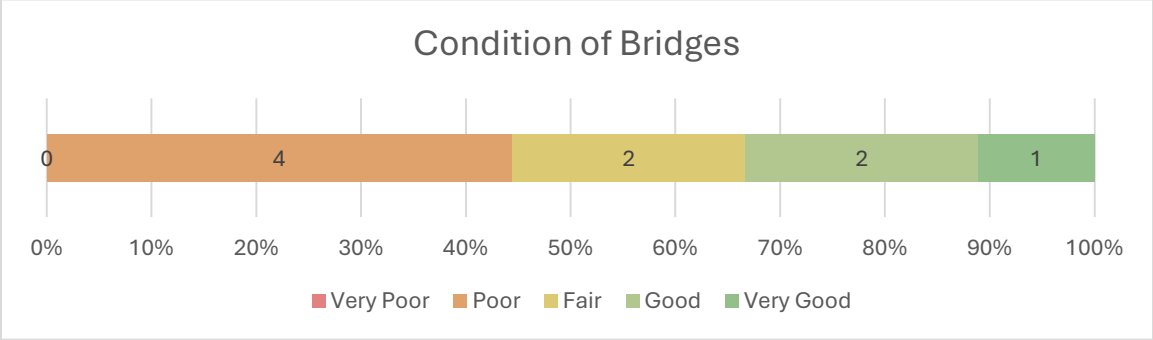
This condition profile reflects a well-maintained subset of transportation infrastructure, with all assets rated above 60% remaining life. Given their role in supporting road safety and edge protection, continued routine inspection and timely replacement at the end of service life will be important in sustaining this high level of performance.

As the Township continues to mature its asset management practices, future assessments may benefit from visual inspections and structural assessments aligned with bridge or roadside safety programs. This will help validate age-based ratings and support informed reinvestment decisions.

Bridges

The condition of McKellar's bridges has been evaluated using the **Condition Rating (CR)** scale consistent with Ontario's **OSIM (Ontario Structure Inspection Manual)** standards. Each bridge is rated on a scale from 1 to 10, where higher scores indicate better physical condition and structural performance. The Township's bridge inventory includes nine structures assessed using this method. The classification bands are outlined below:

Condition	Range
Very Poor	1 <= CR < 3
Poor	3 <= CR < 5
Fair	5 <= CR < 7
Good	7 <= CR < 9
Excellent	9 <= CR <= 10



Based on the most recent assessment:

- **1 bridge** is in **Excellent** condition (CR ≥ 9)
- **2 bridges** are in **Good** condition (CR 7–8.9)
- **2 bridges** are in **Fair** condition (CR 5–6.9)
- **4 bridges** are in **Poor** condition (CR 3–4.9)
- **No bridges** are in **Very Poor** condition

This distribution reflects a generally serviceable bridge network but highlights the need for reinvestment planning, particularly for the four structures identified in Poor condition. These assets may not present

immediate safety concerns but are likely experiencing moderate structural degradation or functional limitations that could worsen without intervention. To support future decision-making and capital planning, all bridges are scheduled to be inspected again in 2025, which will provide updated condition data and help confirm prioritization for maintenance or renewal.

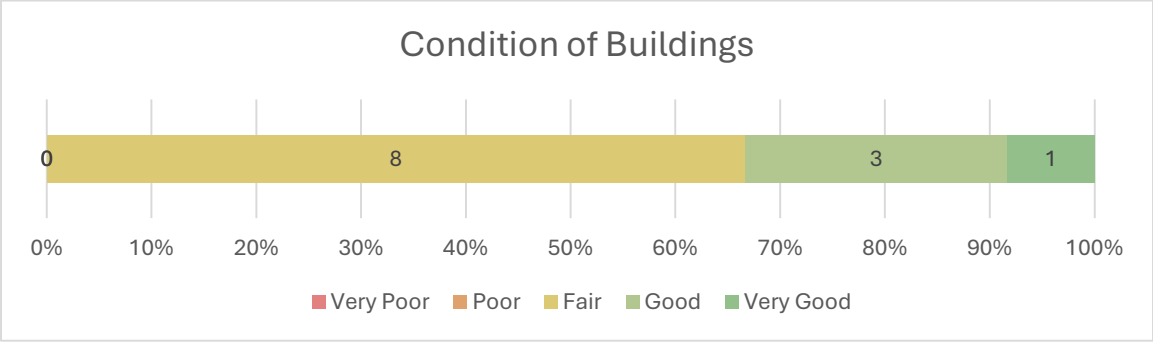
Bridges play a critical role in supporting community mobility and emergency access. Going forward, the Township should prioritize the rehabilitation or replacement of bridges in Poor condition through capital planning. Continued adherence to biennial OSIM inspections will ensure condition data remains current and supports risk-informed decisions.

Buildings and Facilities

Buildings

The Township of McKellar has assessed the condition of its buildings using a Remaining Service Life (%RSL) methodology. This approach estimates the proportion of usable life remaining for each building, based on typical lifecycle expectations and age, supplemented by limited inspection data where available. This is a useful method in the absence of a formal Facility Condition Index (FCI) program, and it provides a high-level view of building health across the asset class.

Condition	Range
Very Poor	0 <= %RSL < 5
Poor	5 <= %RSL < 20
Fair	20 <= %RSL < 60
Good	60 <= %RSL < 80
Excellent	80 <= %RSL <= 100



The chart titled "Condition of Buildings" shows the current distribution across these categories:

- **1 building** is in **Excellent** condition
- **3 buildings** are in **Good** condition
- **8 buildings** are in **Fair** condition
- **0 buildings** are in **Poor** or **Very Poor** condition
    - **Public Works Shop 52% Useful Life but does not meet needs**

- **Sand Dome Storage Shed 50% Useful Life but does not meet needs**

This indicates that the majority of the Township's buildings are well maintained and have more than half of their expected life remaining. The presence of eight buildings in Fair condition suggests emerging maintenance needs that should be addressed in future capital planning. These may relate to systems nearing end-of-life, such as plumbing infrastructure.

The Excellent and Good categories include key facilities like the Fire Hall. The Township should continue with routine inspections and seasonal maintenance activities and monitor aging components to ensure service continuity.

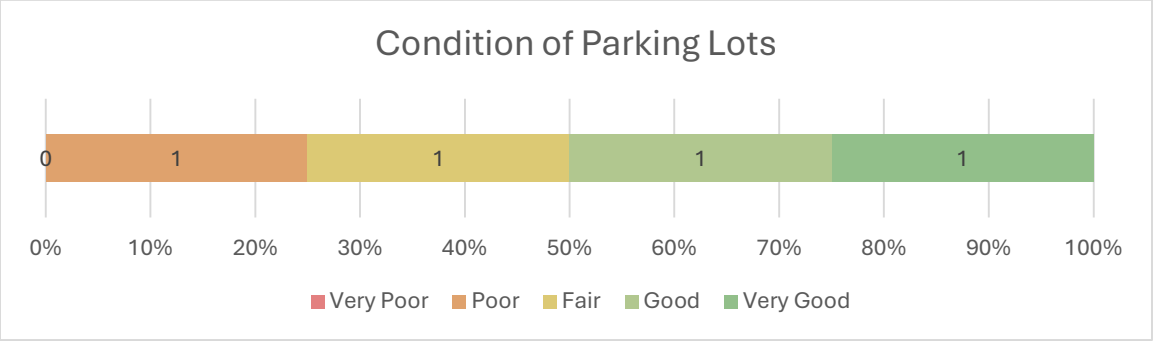
As buildings represent a significant portion of the Township's total replacement value, maintaining accurate, up-to-date condition data will be essential. Future improvements could include formalizing an internal inspection protocol or commissioning a Facility Condition Index (FCI) assessment to complement the %RSL approach.

Parking Lots

The Township of McKellar has evaluated the condition of its municipal parking lots using a % Remaining Service Life (%RSL) approach. This method estimates condition based on the age of the surface relative to its expected lifespan. Though no specialized inspections have been conducted, this technique allows for baseline condition classification in the absence of a formal assessment program.

Parking lots have been grouped using the following %RSL scale:

Condition	Range
Very Poor	0 <= %RSL < 35
Poor	35 <= %RSL < 50
Fair	50 <= %RSL < 70
Good	70 <= %RSL < 85
Excellent	85 <= %RSL <= 100



The chart above illustrates the distribution of parking lot conditions based on remaining service life. As shown:

- **Very Good** condition lots represent one of the four assets, indicating a recently constructed or resurfaced lot with maximum remaining service life.

- **Good** condition includes one lot, suggesting that a quarter of the inventory is in solid shape with limited wear.
- **Fair** condition accounts for one parking lot, which may require light repairs or surface treatment within the next several years.
- **Poor** condition also applies to one lot, signaling that some deterioration is present and future renewal may be needed.
- **Very Poor** condition lots are not currently present in the inventory, reflecting the Township's ability to maintain basic surface standards across these assets.

While the sample size is small, the even spread across conditions highlights the need for consistent monitoring and a proactive maintenance approach. A formal visual inspection process could further validate these estimates and guide long-term investment planning.

Land

At present, no formal condition assessments have been completed for municipally owned land parcels in the Township of McKellar. These lands include parks, cemeteries, road allowances, and undeveloped or surplus properties. Unlike built infrastructure, land typically does not deteriorate in the same way over time; however, its usability and value can be influenced by factors such as drainage, vegetation, accessibility, and encroachments.

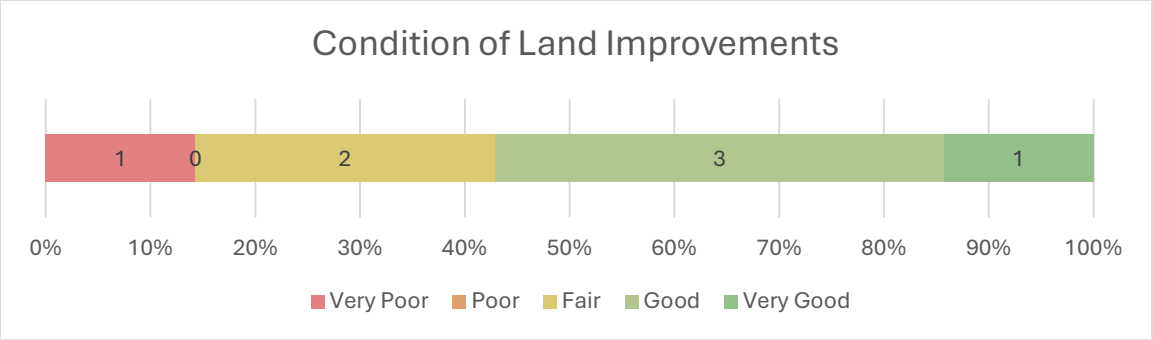
While a traditional 1–5 condition scale is not applicable, future assessments could consider categorizing land based on functional use, environmental constraints, and strategic value to municipal operations or community development. A simple classification (e.g., Active Use, Passive Use, Surplus, or Encumbered) could be adopted to help prioritize stewardship, development potential, or disposition planning.

For the purposes of this AMP, land is included in the inventory and valuation, but no condition rating is assigned at this time.

Land Improvements

Land improvements were assessed using the **Remaining Service Life (RSL)** method, which estimates asset condition based on the proportion of expected life remaining. This approach is well-suited to non-structural assets where visual inspections or performance data may be limited. The following condition ranges were applied:

Condition	Range
Very Poor	0 <= %RSL < 5
Poor	5 <= %RSL < 20
Fair	20 <= %RSL < 60
Good	60 <= %RSL < 80
Excellent	80 <= %RSL <= 100



The chart above displays the distribution of land improvement assets by condition category:

- **Very Good condition** assets represent approximately **12%** of the total, indicating some recently installed or upgraded features.
- **Good condition** assets make up roughly **42%**, suggesting that the majority are in satisfactory shape with no immediate concerns.
- **Fair condition** assets account for **30%**, typically showing signs of age, exposure, or minor deterioration.
- **Poor condition** items represent around **11%**, warranting short-term repairs or monitoring.
- **Very Poor condition** assets comprise about **5%**, signaling the need for replacement or significant intervention.

This distribution reflects a mix of asset ages and upkeep levels. Continued low-cost preventative maintenance and scheduled renewal efforts will help extend asset life and maintain public-facing infrastructure.

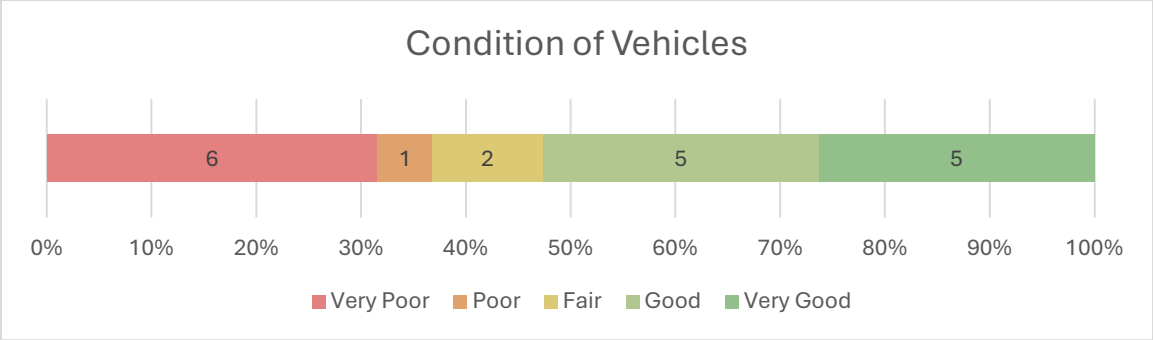
Fleet & Equipment

Vehicles

The Township's vehicle fleet was assessed using the Remaining Service Life (RSL) methodology, which estimates the percentage of expected service life remaining for each unit based on age and use. This method provides a standardized and scalable approach to evaluating condition, particularly in the absence of detailed mechanical inspection data.

The following RSL categories were applied:

Condition	Range
Very Poor	0 <= %RSL < 5
Poor	5 <= %RSL < 20
Fair	20 <= %RSL < 60
Good	60 <= %RSL < 80
Excellent	80 <= %RSL <= 100



The chart above illustrates the distribution of vehicle conditions across the fleet:

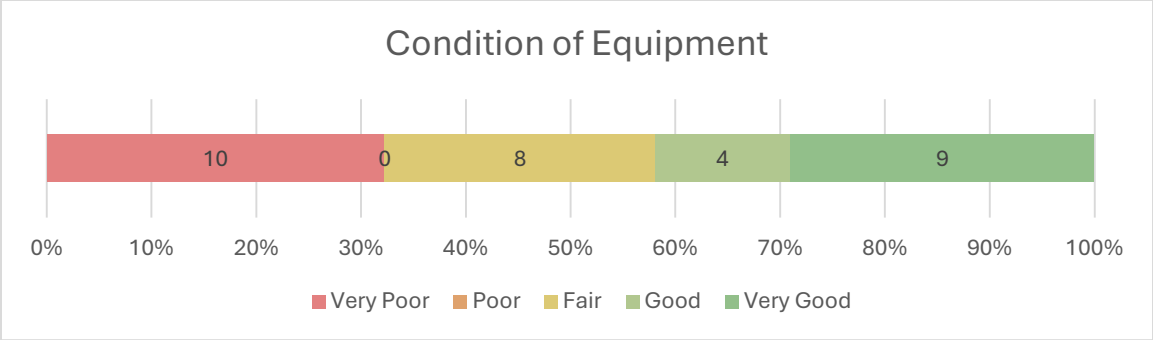
- **Very Poor condition** vehicles make up the largest share at **31.6%**, indicating an urgent need for planned replacement to ensure reliability and safety.
- **Good and Very Good** segments each account for **26.3%**, reflecting a mix of mid-life and newly acquired assets.
- **Fair condition** vehicles represent **10.5%**, showing that some units still have multiple service years remaining with minimal concerns.
- **Poor condition** vehicles make up **5.3%**, suggesting that a few are approaching end-of-life but may still be operational.

This distribution reflects a diverse fleet in terms of age and remaining utility. The high proportion of Very Poor units points to a need for a targeted renewal strategy over the next few years to maintain reliable service delivery. A structured replacement schedule aligned with life cycle costing would support a more balanced condition profile over time.

Equipment

The Township's equipment assets were evaluated using a Remaining Service Life (RSL) scale that estimates the percentage of expected life remaining. This method is particularly useful for small or auxiliary assets where detailed inspections may not be feasible on a routine basis. The RSL categories applied were:

Condition	Range
Very Poor	0 <= %RSL < 5
Poor	5 <= %RSL < 20
Fair	20 <= %RSL < 60
Good	60 <= %RSL < 80
Excellent	80 <= %RSL <= 100



The chart above shows the condition distribution across the Township's equipment inventory:

- **Very Poor condition** equipment accounts for **32.3%**, indicating a large portion of the inventory is at or near end-of-life and likely requires urgent replacement planning.
- **Very Good** assets represent **29%**, showing that many newer or recently maintained assets are in excellent condition.
- **Good condition** assets make up **12.9%**, highlighting that a quarter of the inventory remains dependable and functional with ongoing upkeep.
- **Fair condition** equipment totals **25.8%**, typically indicating mid-life assets that require regular maintenance to prevent accelerated decline.
- **No equipment** is currently classified as **Poor**, which may reflect past upgrades or a lack of interim-stage items in the fleet.

This condition spread reflects a significant polarizing trend between aging, soon-to-be-retired equipment and newer, recently acquired units. As part of future asset management efforts, establishing replacement cycles for high-use equipment and integrating routine lifecycle reviews will help prevent the buildup of Very Poor assets and ensure operational continuity.

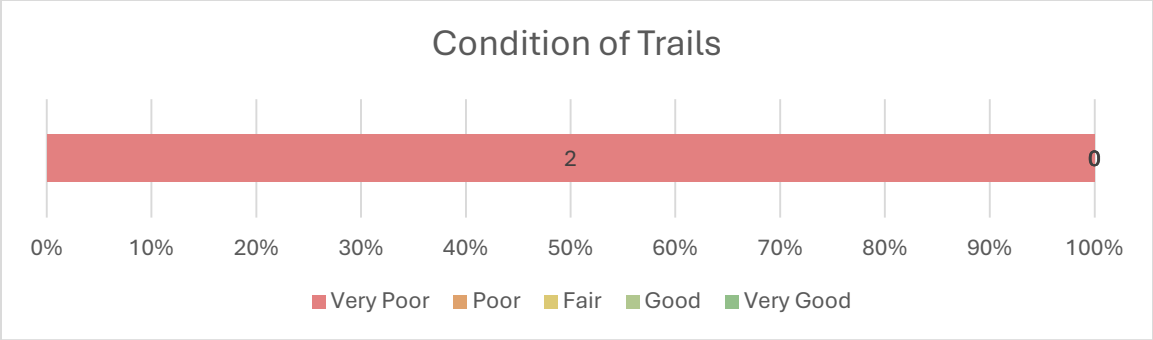
Parks & Recreation

Trails

The Township's wilderness trail has been assessed using a Remaining Service Life (RSL) scale, reflecting the percentage of expected asset life remaining based on installation year and estimated useful life. This method is particularly useful for passive infrastructure like trails, which are infrequently inspected in detail.

The following RSL condition bands were applied:

Condition	Range
Very Poor	0 <= %RSL < 25
Poor	25 <= %RSL < 50
Fair	50 <= %RSL < 65
Good	65 <= %RSL < 80
Excellent	80 <= %RSL <= 100



As illustrated in the chart:

- **100% of the trail inventory** (2 trail segments for same trail) is currently classified as **Very Poor**, indicating that both trails are approaching or have exceeded their expected service life.
- This result points to a pressing need for physical condition assessments to confirm current usability and plan for renewal or rehabilitation.

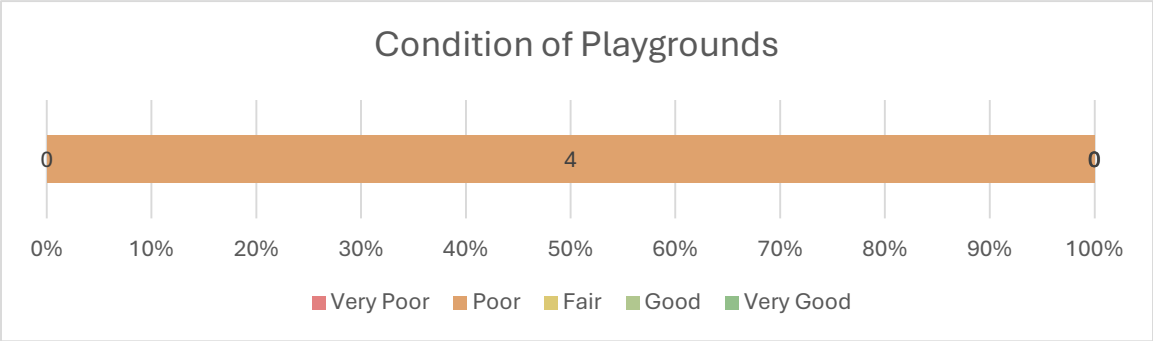
These assets play a key role in active transportation and outdoor recreation and are especially valued by residents and visitors. As such, it is recommended that a physical inspection of both trail sections be completed in the short term to validate condition status and inform future capital planning. Investment in trail renewal may also align with broader recreation and tourism goals in the community.

Playgrounds

The Township of McKellar maintains playground equipment across four park locations. These assets contribute significantly to community well-being by supporting active recreation for children and families. The condition of playground infrastructure has been assessed using a Remaining Service Life (RSL) model, which estimates the percentage of useful life remaining based on asset age, typical service life, and available records.

The following RSL condition bands were applied for classification:

Very Poor	**0 <= %RSL < 5**
Poor	5 <= %RSL < 20
Fair	20 <= %RSL < 60
Good	60 <= %RSL < 80
Excellent	80 <= %RSL <= 100



As illustrated in the chart:

- **100% of the Township's playground equipment** is currently classified as being in **Poor** condition.
- This indicates that the infrastructure is nearing the end of its useful life and may pose safety, accessibility, or functionality concerns in the near future.

While this RSL-based analysis provides a high-level risk indicator, it is important to follow up with **detailed inspections** to assess structural integrity, compliance with current safety standards, and accessibility features. Given the centralized role of these spaces in local recreation and community use, a **phased renewal strategy** should be considered, with attention to age-appropriate design, inclusive play features, and compliance with CSA playground safety standards.

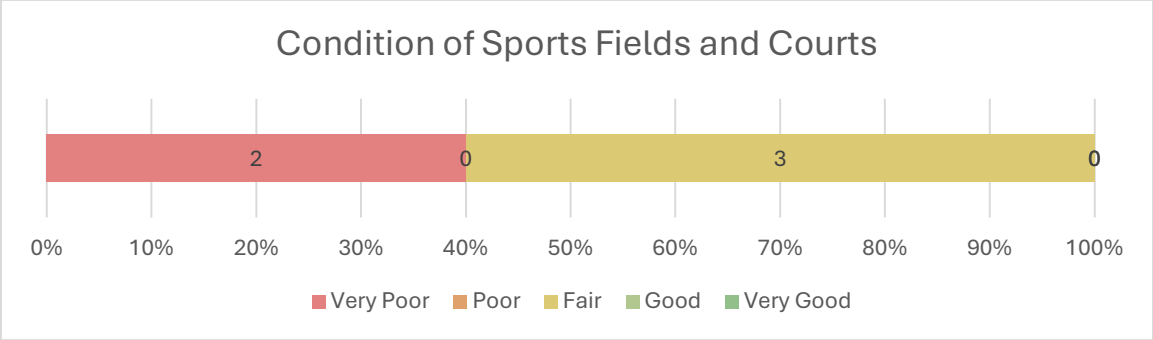
Strategic investment in playground renewal may also support broader objectives related to youth engagement, tourism, and active living in McKellar.

Sports Fields & Courts

The Township's sports fields and courts were evaluated using the Remaining Service Life (RSL) method, which estimates condition based on the proportion of expected life remaining. This method supports consistent classification in the absence of detailed physical inspections.

The condition ratings were assigned based on the following RSL thresholds:

Condition	Range
Very Poor	0 <= %RSL < 5
Poor	5 <= %RSL < 20
Fair	20 <= %RSL < 60
Good	60 <= %RSL < 80
Excellent	80 <= %RSL <= 100



According to this methodology:

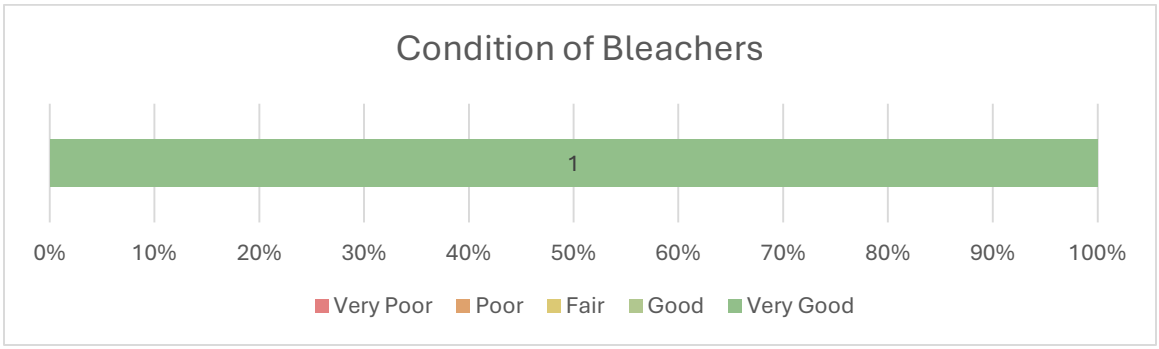
- **3 assets** are in **Fair condition**, indicating moderate wear but still functional.
- **2 assets** are in **Very Poor condition**, signaling they are near the end of their usable life.
- No assets are currently rated as Good, Very Good, or even Poor, highlighting a sharp divide in the dataset.

This distribution suggests that while some sports infrastructure still meets community needs, others may soon require upgrades or renewal. As these assets support youth engagement, recreation, and community events, developing a replacement schedule based on functional priority is recommended. A more detailed condition inspection may also help validate these findings and support grant funding or capital investment applications.

Bleachers

The Township's bleacher infrastructure is assessed using a Remaining Service Life (RSL) approach, offering a simple and consistent way to estimate condition based on the proportion of expected asset life remaining. The rating scale applied is:

Condition	Range
Very Poor	0 <= %RSL < 5
Poor	5 <= %RSL < 20
Fair	20 <= %RSL < 60
Good	60 <= %RSL < 80
Excellent	80 <= %RSL <= 100



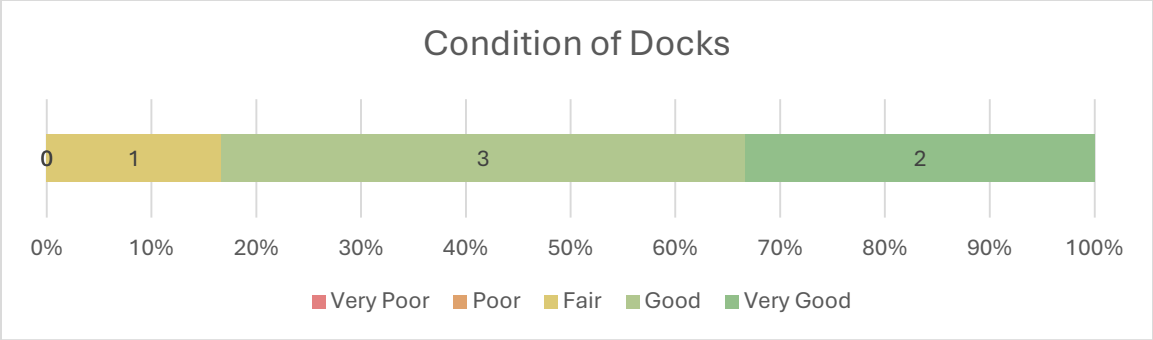
The single set of portable aluminum bleachers in the inventory is rated in **Very Good** condition, indicating it is newer and operating well within its expected service life. No concerns have been reported regarding structural integrity or functionality.

This rating confirms that no short-term reinvestment is required for bleachers, and routine maintenance (e.g., fastening checks, seasonal inspection) should continue to preserve condition and user safety.

Docks

The Township of McKellar's dock assets are assessed using the % Remaining Service Life (RSL) methodology, providing a structured scale to estimate condition and prioritize renewals. The scale used is:

Condition	Range
Very Poor	0 <= %RSL < 5
Poor	5 <= %RSL < 20
Fair	20 <= %RSL < 60
Good	60 <= %RSL < 80
Excellent	80 <= %RSL <= 100



The condition breakdown for docks is as follows:

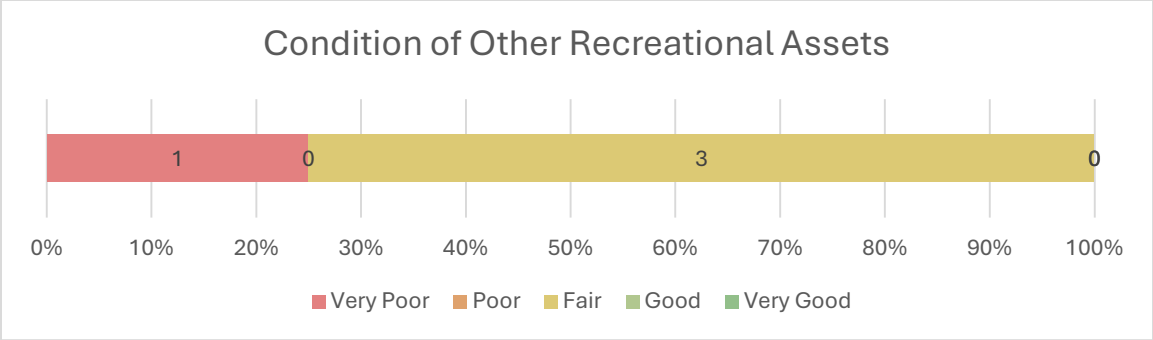
- **Very Good**: 2 docks – 33% of the dock inventory is in excellent condition, indicating successful recent installations or refurbishments.
- **Good**: 3 docks – functioning well but may require monitoring or minor maintenance in the mid-term.
- **Fair**: 1 dock – serviceable, though approaching mid-life; may benefit from targeted repair.
- **Poor - Very Poor**: 0 docks – no assets fall in this condition band, suggesting a well-maintained overall portfolio.

This distribution highlights a well-maintained dock portfolio, with no assets in Poor or Very Poor condition. The presence of multiple docks in Good to Very Good condition suggests that past investments have been effective, while the single Fair-rated dock presents an opportunity for targeted repair to maintain overall service quality.

Other

Other recreation assets—such as gazebos, pavilions, and rink skirting—have been evaluated using a Remaining Service Life (RSL) methodology. This approach classifies condition based on the proportion of expected life remaining, using the following scale:

Condition	Range
Very Poor	0 <= %RSL < 0
Poor	0 <= %RSL < 20
Fair	20 <= %RSL < 60
Good	60 <= %RSL < 80
Excellent	80 <= %RSL <= 100



As illustrated in the chart above:

- **Fair condition**: 3 assets – representing the majority of this group, mid-life degradation currently identified.
- **Good condition**: 0 assets – no assets currently fall within this range; improvement efforts may raise assets into this category.
- **Poor or Very Poor**: 0 assets – no immediate replacement needs are present, reflecting responsible upkeep.
- **Very Poor condition**: 1 asset – approaching or past end of life; likely a candidate for renewal in the short term.

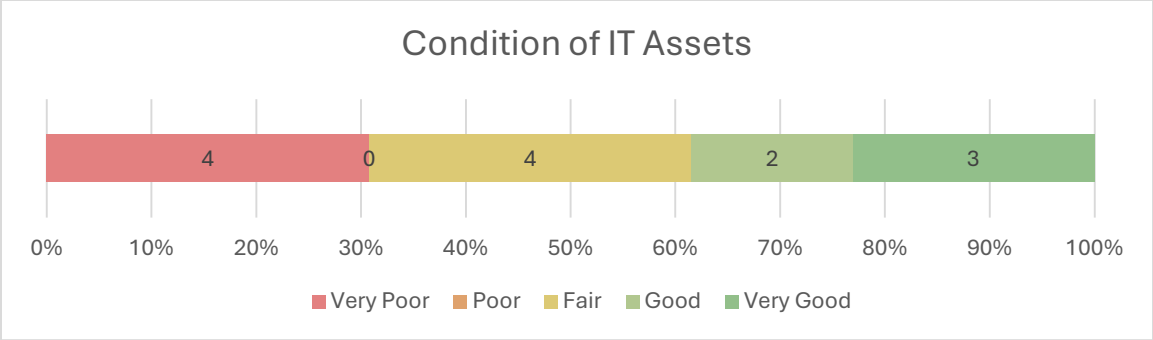
This distribution reflects an overall stable asset class with most assets performing adequately. The single asset in Very Poor condition indicates the need for focused short-term renewal, while the rest of the group appears to be meeting its intended service role with minimal risk.

IT & Communications

IT Assets

The condition of IT assets is evaluated using the % Remaining Service Life (RSL), with categories defined as:

Condition	Range
Very Poor	0 <= %RSL < 5
Poor	5 <= %RSL < 20
Fair	20 <= %RSL < 60
Good	60 <= %RSL < 80
Excellent	80 <= %RSL <= 100



The chart above illustrates the current distribution of IT assets by condition:

- **Very Poor (4 assets)** – These assets are near or at the end of their useful lives and represent a risk of failure or serious inefficiency. This includes the municipality's property tax software, which is no longer secure and does not integrate with the accounting software. As a result, the Treasurer must manually reconcile data between systems, effectively doubling the time required to complete routine tasks.
- **Fair (4 assets)** – These systems are still functioning but are likely approaching obsolescence or experiencing performance limitations. Upgrades or replacements should be planned in the medium term to avoid service interruptions or increased staff burden.
- **Good (2 assets)** – These assets are currently meeting performance needs with minimal issues and are expected to remain serviceable in the near term.
- **Very Good (3 assets)** – Recently procured or well-maintained assets that offer dependable service and align with modern standards.
- **Poor (0 assets)** – No assets currently fall in this transitional state, indicating a gap between strong performers and those nearing end-of-life.

Overall, this profile reflects an IT portfolio in transition. While some systems are still reliable, a number of aging or incompatible assets—particularly within core financial operations—are creating inefficiencies and user dissatisfaction. Council has expressed concerns regarding the quality and clarity of financial reports generated by the current system. Addressing these concerns, especially by prioritizing replacement or integration of the financial and tax systems, should be considered a high priority in the next budgeting cycle to improve administrative efficiency and reporting standards.

Assessment Methods

This first iteration of the Asset Management Plan (AMP) for the Township of McKellar relies solely on **Remaining Service Life (RSL)** to assess asset condition. RSL is a widely used, lifecycle-based proxy for condition, which estimates how much useful life remains based on known or assumed installation dates and expected service life values. It provides a foundational understanding of when assets are likely to need renewal or replacement.

The Township of McKellar does not currently have a formal internal inspection program in place for assessing asset conditions beyond Remaining Service Life (RSL) estimates. Instead, the Township relies

on project-specific condition assessments when required—typically in response to planned upgrades, funding applications, or service issues. While these targeted inspections provide useful data, they are not conducted as part of a consistent, systematic, or cyclical condition assessment program. Establishing a more structured approach would support long-term capital planning and improve asset management decision-making.

As the Township's asset management capacity grows, this section can be expanded to incorporate a broader range of assessment methods. Examples of potential methods that may be introduced include:

- **Visual Inspections** – Performed annually or seasonally by Public Works for signs of wear, damage, or hazards.
- **Non-Destructive Testing** – For infrastructure like bridges or critical pipes (e.g., ultrasound, pressure testing).
- **Performance Monitoring** – Tracking of outages, failures, or operational disruptions, particularly for fleet, IT, and mechanical systems.
- **User Feedback & Service Requests** – Logging community-reported issues or complaints tied to asset performance or usability.
- **Regulatory Inspections** – Safety and code compliance audits for buildings, playgrounds, and fire or emergency equipment.
- **Condition Rating Systems** – Such as PCI, FCI, Bridge Condition Ratings (OSIM), and component-based condition scores for buildings or equipment.

Over time, combining these approaches with lifecycle modeling and RSL projections will strengthen condition accuracy and better inform long-term planning.

Expected Service Life

In this AMP, **Expected Service Life (ESL)** refers to the typical number of years an asset is expected to remain in service under normal operating conditions, assuming regular maintenance. ESLs have been assigned to each asset type based on industry benchmarks, manufacturer guidelines, and best practices used in similar municipalities.

As RSL was the sole condition assessment method used in this iteration, the **ESL formed the basis for all condition calculations**, with the percentage of remaining life (RSL) derived as:

% RSL = (Expected Service Life – Age) ÷ Expected Service Life × 100

Where asset age was known or reliably estimated, this formula provided a standardized way to compare assets across different classes. The thresholds for Very Poor to Very Good condition categories were then established relative to %RSL, with each asset class having its own set of condition definitions tailored to its characteristics and usage patterns.

In future AMP iterations, this section may be enhanced by validating and refining ESLs through inspection data, failure records, or performance tracking. Additionally, ESLs can be updated as

materials, technology, and maintenance practices evolve, ensuring continued relevance in forecasting renewal and replacement needs.

4. Levels of Service

Current Levels of Service

Understanding the current levels of service (LOS) is essential for evaluating how well the Township of McKellar's infrastructure is meeting the needs of the community today. This section provides a detailed snapshot of service performance across key municipal asset classes, reflecting both the technical functioning of assets and the public's experience with the services they support.

In alignment with Ontario Regulation 588/17, the Township has documented levels of service using a combination of qualitative descriptions and quantitative performance metrics. These indicators assess accessibility, reliability, safety, condition, performance, and cost-effectiveness for each asset class. Where available, technical data such as uptime percentages, inspection results, or cost per unit have been used to support these assessments. In areas without formal measurement programs, staff experience and operational records have been relied upon to provide realistic and meaningful insights into service delivery.

The following subsections outline the current LOS for each major asset class, including both strengths and challenges, and provide the foundation for setting realistic and achievable future service targets.

Transportation

The Township of McKellar's road network, comprising approximately 107 km of roadway, is the municipality's largest and most publicly visible asset. Overall, the road system is functioning at a reasonable level, but several challenges and expectations have placed increased pressure to maintain or improve services, especially to align with what residents might expect in more urbanized areas of southern Ontario.

From the public's perspective, most roads are accessible year-round, with only minor isolated issues caused by weather or surface wear. Residents generally feel they can travel throughout the Township reliably; however, road surface conditions, especially on surface-treated roads, are an increasing concern. There is strong public desire for smooth, asphalt roads, and some private road owners are actively seeking to have their roads brought up to municipal standards for assumption.

Despite this moderate performance, several constraints are affecting long-term service delivery. Surface-treated roads are deteriorating due to deferred maintenance, and freeze-thaw cycles are causing frost heaves on poorly based roads, many of which require full reconstruction. Council's shift toward asphalt over surface treatment is changing capital priorities, while the small annual capital budget limits the ability to take on large-scale projects without relying on debenture financing.

To maintain current levels of service, the Township continues with key operational activities such as gravel grading, cold patching, micro sealing, brushing, sweeping, and ditching, along with ongoing road

patrolling and engineering planning. These practices are helping to extend the life of existing infrastructure despite budgetary limitations.

Given the strategic importance of roads and the strong community interest in improving road conditions, this service area has been assigned a High priority for ongoing attention in the asset management program.

Characteristic	Indicator	Metric	Current Level of Service	Current Metric
Accessibility	Roads are passable year-round, except during extreme events	% of year with full access	Roads are accessible year-round with minor isolated issues	95–98% year-round access
Reliability	Gravel roads maintain drivability between grading cycles	Avg time between required grading (weeks)	Roads remain functional for 4+ weeks with minor surface issues	≥ 4 weeks
Safety	Roads are maintained to ensure safe travel	# of safety-related incidents or complaints	Most roads meet basic safety expectations; signage is in place	≤ 2 complaints/year
Condition	Road surfaces are in Good condition or better	% of roads rated "Good" (PCI)	Most roads are in fair to good condition; some aging segments	65–79% rated ≥ 80 PCI
Performance	Roads support all intended users (including emergency access)	% of routes accessible to emergency services	Most roads are accessible to emergency services year-round	90–94% accessible
Cost Effectiveness	Average cost per km of road maintenance	$/km for grading, drainage, and upkeep	Balanced approach to grading, materials, and repairs	$4,000–$4,999/km/year

Fleet

The Municipality of McKellar's Public Works fleet remains in generally good condition, with regular maintenance supporting reliable service. However, some vehicles are nearing or past their expected service life, with key replacements anticipated in the short to medium term. The municipality is also considering leasing as a future option to better manage fleet costs and renewal cycles. As a result, the fleet should now be considered a moderate priority for lifecycle planning.

From the community's perspective, the equipment is consistently available when needed during seasonal operations, such as snow removal or grading. There have been no significant disruptions in availability, supporting the impression that the service is dependable and well-coordinated. Public expectations are being met with no notable concerns raised regarding service reliability or performance.

Operationally, the current technical data supports this positive view. Equipment availability is high, with an estimated 95–98% uptime. While occasional breakdowns occur, these are infrequent (typically 1–2 per year) and have minimal impact on operations. The condition of the equipment remains strong, with an average rating between 3.6 and 4.5 on a 5-point scale, indicating most equipment is in good or better condition.

Performance data shows that the equipment completes 95–98% of tasks without performance issues, reflecting effective task completion and suitability for the municipality's needs. Operational cost data is

also within an acceptable range, averaging $65–74 per hour for the core fleet, which includes fuel, maintenance, and repair costs—suggesting a balanced approach to cost-effective service delivery.

There are some noted limitations that could affect future service, such as the overcapacity of the Public Works garage which leads to some equipment being stored outdoors. However, this has not yet impacted service levels. In addition, the upcoming replacement of two older pickup trucks is expected to bring the entire fleet to a newer age bracket, further enhancing service reliability and consistency.

Characteristic	Indicator	Metric	Current Level of Service	Current Metric
Accessibility	Equipment is available when needed during seasonal operations	% of time equipment is available as scheduled	Equipment is generally well-managed and reliably available	95–98% availability
Reliability	Equipment operates without unplanned breakdowns	Number of major breakdowns per year	Occasional breakdowns; manageable impact on operations	1–2/year
Safety	Equipment meets operator safety standards and passes seasonal inspections	# of failed inspections or incidents reported	All major safety issues addressed; occasional minor findings	1 issue/year
Condition	Equipment is in Good or better condition	Condition rating (1–5 scale)	Equipment is maintained in Good or better condition	Avg rating 3.6–4.5
Performance	Equipment performs the intended task effectively	% of completed jobs without performance issues	Equipment consistently completes tasks without concern	95–98%
Cost Effectiveness	Operating cost per hour of use	$/hour for core fleet (fuel, maintenance, etc.)	Balanced cost for reliable operation	$65–74/hour

Building and Facilities – Current Level of Service

In accordance with Ontario Regulation 588/17, this section describes the current levels of service for municipal buildings and facilities using both qualitative indicators and technical metrics. These assets support a wide range of municipal functions and contribute to the effective delivery of public services.

Overall, the municipality's facilities are operating at a high level of service. Facilities are generally open during scheduled hours, with only minor disruptions. Routine inspections and maintenance are regularly performed on key building systems, including geothermal HVAC and water systems, helping to sustain system reliability and extend asset life. Seasonal maintenance and repairs are also conducted to address wear and operational demands throughout the year.

Safety standards are being met through regular inspections, with no active deficiencies identified. Facilities are in good physical condition, though some aging systems are noted. Most users report that facilities meet their needs, and public concerns have been limited and addressed as they arise.

Despite these limitations, municipal buildings continue to meet service expectations and are supported by ongoing monitoring and maintenance.

Characteristic	Indicator	Metric	Current Level of Service	Current Metric
Accessibility	Facilities are available and accessible during scheduled hours	% of scheduled operating hours open	Facilities generally operate as scheduled with minor downtime	90–94% open
Reliability	Facilities remain operational without frequent service disruptions	# of unscheduled closures per year	Occasional issues, but resolved quickly	1–2/year
Safety	Facilities meet applicable safety standards and inspections	# of safety deficiencies or incidents	Safety checks completed; no active deficiencies	0 issues/year
Condition	Facilities are in Good or better physical condition	Facility Condition Index (FCI)	Facilities in good condition, some aging systems	FCI 0.11–0.20
Performance	Facilities support intended functions and user experience	% of users satisfied or reporting concerns	Facility is well equipped and meets most users' needs	95–98% satisfaction
Cost Effectiveness	Operational costs are balanced and aligned with service delivery	$/sq ft (utilities, maintenance, insurance)	Balanced cost; older systems performing adequately	$6.51–$8.00

Parks and Recreation – Current Level of Service

The Township of McKellar, located in Ontario's Parry Sound District, is a rural recreational municipality renowned for its abundant natural amenities, including more than 15 lakes, numerous rivers.

These natural assets form the backbone of the community's outdoor lifestyle, supporting seasonal activities such as boating, fishing, hiking, and snowmobiling. As such, the township places a strong emphasis on maintaining high-quality parks and recreational services to support resident well-being and tourism.

McKellar's parks and green spaces are managed with a focus on accessibility, safety, and community satisfaction. Parks are kept fully operational during the summer season, with scheduled maintenance, safety inspections, and ongoing community engagement to guide service delivery. Notable planned enhancements include new playground equipment for Broadbent in 2026 and the addition of a new ballfield as part of a funded project, both aimed at expanding recreational opportunities.

However, the township faces several constraints, including seasonal maintenance demands, increasing public expectations for beach cleanliness and play safety, and ongoing issues such as large goose populations affecting park usability. Additionally, the Lakeshore Road Boat Launch has been flagged for redesign to enhance public safety.

Despite these challenges, the current levels of service remain strong, with high satisfaction ratings and cost-effective operations.

Characteristic	Indicator	Metric	Current Level of Service	Current Metric
Accessibility	Parks and green spaces are open and usable during the summer season	% of planned open days parks are usable	Parks fully accessible with seasonal prep and no closures	≥ 99% usable days
Reliability	Grass is cut and play areas are maintained on a regular schedule	% of scheduled maintenance completed on time	Fully optimized maintenance with schedule adherence	≥ 99% on-time
Safety	Playground structures are safe and compliant with inspection standards	% of structures rated "Good" or better	Equipment is safe and maintained in good condition	90–95% rated Good+
Condition	Grounds, benches, and features are in good condition and functional	% of features in "Fair" or better condition	Most features are functional and well maintained	80–89% rated ≥ 3/5
Performance	Parks meet the recreational needs of the community	% of public feedback rated as positive/neutral	Parks offer general satisfaction for most age groups	85–89% satisfied
Cost Effectiveness	Cost per acre for maintenance activities	$/acre for mowing, garbage, upkeep	Balanced seasonal costs and acceptable service levels	$3,000–3,499

IT and Communications – Current Level of Service

The Township of McKellar, located in Ontario's Parry Sound District, is a rural municipality that continues to maintain strong operational capacity through a well-managed and high-performing information technology (IT) and communication infrastructure. Despite being in a region with limited access to traditional broadband providers, the Township has implemented Starlink satellite internet at the office/library/community center. This solution has proven reliable for day-to-day operations, with staff reporting consistent access to phones, internet, and shared systems such as email and file servers.

While the overall performance of the Township's IT systems remains strong, a few constraints and operational considerations should be noted. As Starlink is currently the primary internet provider, recent global pressures have resulted in a slight decline in service reliability. Continued service availability in Canada is assumed but not guaranteed, and this dependency presents a potential vulnerability.

Seasonal operations also introduce temporary demands on the system. For example, reliable connectivity is necessary at Minerva Park, where a summer vendor market depends on functioning internet service to process point-of-sale (POS) transactions. There is also growing public and council interest in enhancing digital transparency by livestreaming council meetings via platforms such as YouTube—an upgrade that, while not critical, would enhance public engagement and will likely be explored through the Township's IT provider.

In contrast to the overall strength of the IT and communications systems, the Township's financial software environment presents an ongoing challenge. The current property tax system does not integrate with the accounting software, requiring manual reconciliation by staff. This lack of

interoperability has led to inefficiencies, increased administrative time, and frustration with the reporting capabilities of the system. Addressing this gap would improve workflow, reduce staff burden, and better align with council expectations for financial reporting.

Despite these considerations, McKellar's IT systems are characterized by high uptime, minimal downtime, secure operations, and strong user satisfaction. Devices are regularly updated, security protocols are enforced, and system backups are automated. These factors place the Township's IT and communications systems in a high level of service category, with no immediate upgrades required.

Characteristic	Indicator	Metric	Current Level of Service	Current Metric
Accessibility	Staff have access to phones, internet, and key systems during working hours	% of uptime during work hours	Systems available consistently during working hours	98–99% uptime
Reliability	Critical systems (e.g., email, file sharing) operate without frequent disruptions	# of unplanned outages or lockouts	Very reliable system; rare downtime	≤ 1/year
Safety	Systems have appropriate security controls (e.g., antivirus, backups)	# of identified security gaps/year	Secure systems with automated backups and staff training	0/year
Condition	Hardware and systems are up to date and functional	% of devices <5 years old	Equipment well maintained and scheduled for renewal	80–89%
Performance	Systems meet staff needs for communication and productivity	Staff satisfaction	Systems meet needs with few complaints	90–94% satisfied
Cost Effectiveness	IT cost per workstation (hardware, licenses, support)	$/device/year	Balanced IT investment and performance	$800–999

Proposed Levels of Service (2025–2035)

The Proposed Levels of Service outlined in this section represent the Township of McKellar's long-term goals for the performance of its infrastructure assets over the next 10 years. These targets are intended to guide decision-making, inform investment planning, and ensure that services continue to meet the evolving needs and expectations of the community.

In accordance with Ontario Regulation 588/17, municipalities are required to define proposed levels of service based on both qualitative community perspectives and quantitative technical metrics. These service levels reflect not only the Township's desired outcomes, but also consider key factors such as available funding, asset condition, regulatory requirements, and operational capacity.

The proposed levels of service were developed with input from staff, council priorities, and public feedback, and are designed to be ambitious but achievable. They provide a framework for improving service delivery, managing risk, and allocating resources in a way that supports long-term infrastructure sustainability. Each asset class section that follows outlines the targeted improvements and associated performance metrics that McKellar aims to reach by the year 2035.

Transportation

The Township maintains over 107 kilometers of municipal roads that are essential for everyday travel, emergency access, and supporting our local economy. As part of our commitment to responsible infrastructure management, and in accordance with Ontario Regulation 588/17: *Asset Management Planning for Municipal Infrastructure*, we have developed proposed levels of service for our road network.

These proposed service levels are based on how we want our roads to perform, what our residents have told us they expect, and the challenges we face such as limited budgets, aging infrastructure, and harsh seasonal conditions. Our goal is to provide roads that are safe, reliable, and accessible throughout the year, while making the most of every dollar we spend.

Residents have expressed a desire for smoother, better-quality roads—similar to those found in more urban areas of the province. While the Township is committed to making improvements, it is important to recognize the limitations of a rural context, including available resources and geographic challenges. The proposed levels of service aim to balance these realities by improving road conditions where feasible, enhancing safety, and planning more strategically for future repairs and upgrades.

Characteristic	**Indicator**	**Metric**	**Proposed Level of Service**	**Proposed Metric**
Accessibility	Roads are passable year-round, except during extreme events	% of year with full access	All roads are accessible year-round without disruption	≥ 99% year-round access
Reliability	Gravel roads maintain drivability between grading cycles	Avg. time between required grading (weeks)	Roads maintain drivability for 5+ weeks due to high-quality materials and sub-base	≥ 5 weeks between grading
Safety	Roads are maintained to ensure safe travel	# of safety-related incidents or complaints	Safety proactively managed; very few complaints and no recorded incidents	≤ 1 complaint/year
Condition	Road surfaces are in Good condition or better	% of roads rated “Good” (PCI)	Road network is in good condition, few isolated issues	80–89% of roads rated ≥ 80 PCI
Performance	Roads support all intended users, including emergency access	% of routes accessible to emergency services	Roads are accessible with few limitations; turnaround and clearances are sufficient	95–98% of routes accessible

Fleet

The Township’s fleet is a critical operational asset that supports the delivery of essential municipal services, including road maintenance, snow plowing, seasonal work, and parks and recreation upkeep. These vehicles and equipment enable staff to respond effectively to routine tasks, emergencies, and seasonal demands—especially during winter when road safety is paramount.

As part of our asset management obligations under Ontario Regulation 588/17: *Asset Management Planning for Municipal Infrastructure*, we have assessed the current condition and performance of our core fleet. Based on this assessment, we have developed proposed levels of service to ensure the fleet remains safe, reliable, and cost-effective, both now and into the future.

The Township’s fleet is a critical component of service delivery, supporting operations such as snow removal, road grading, and emergency response. While many units have been replaced or upgraded in

recent years, several are now approaching the end of their useful life. Preventive maintenance and operator training have helped to reduce breakdowns, but the age profile of certain vehicles—particularly older pickups and tandem trucks—signals a growing need for renewal. Given the operational importance of these assets, the fleet is now considered a higher strategic priority. Continued monitoring of performance, safety compliance, and usage trends will be essential, along with proactive planning to ensure timely and cost-effective replacements. The following table outlines the proposed levels of service for the Township's fleet. These service levels provide a framework for decision-making and help ensure accountability, efficiency, and long-term sustainability.

Characteristic	**Indicator**	**Metric**	**Proposed Level of Service**	**Proposed Metric**
Accessibility	Equipment is available when needed during seasonal operations	% of time equipment is available as scheduled	Equipment is generally well-managed and reliably available	95–98% availability
Reliability	Equipment operates without unplanned breakdowns	Number of major breakdowns per year	Rare breakdowns due to good maintenance scheduling	≤ 1 breakdown/year
Safety	Equipment meets operator safety standards and passes seasonal inspections	# of failed inspections or incidents reported	Equipment passes inspections with no safety-related failures	0 issues/year
Condition	Equipment is in Good or better condition	Condition rating (1–5 scale)	Equipment is maintained in Good or better condition	Avg. rating 3.6–4.5
Performance	Equipment performs the intended task effectively	% of completed jobs without performance issues	Equipment consistently completes tasks without concern	95–98% success rate
Cost Effectiveness	Operating cost per hour of use	$/hour for core fleet	Balanced cost for reliable operation	$65–$74/hour

Buildings and Facilities

The Township's buildings and facilities are essential assets that support the delivery of municipal services and community programs. These include the Community Centre at 701 Highway 124 (which also houses the Municipal Office and Library), recreational spaces, and key operational buildings such as the Public Works Garage. Maintaining these facilities in safe, functional, and accessible condition is critical to both internal operations and public use.

In alignment with Ontario Regulation 588/17: *Asset Management Planning for Municipal Infrastructure*, the Township has evaluated the current state and performance of its facilities to establish proposed levels of service. These levels of service are designed to reflect both community expectations and operational needs while recognizing financial and infrastructure limitations.

While the condition of several facilities remains strong due to past upgrades and regular maintenance, some aging infrastructure is now requiring reinvestment. Priority projects include resolving plumbing and structural issues, and planning for the future of the Public Works Garage, which is currently undersized and functionally constrained.

Characteristic	**Indicator**	**Metric**	**Proposed Level of Service**	**Proposed Metric**

Accessibility	Facilities are available and open during posted hours	% of scheduled operating hours open	Facilities consistently open and available with planned closures only	95–98% open
Reliability	Facilities remain operational without unscheduled closures	# of unscheduled closures per year	Rare disruptions due to well-managed systems	≤ 1/year
Safety	Facilities meet building code and health & safety standards	# of safety deficiencies or incidents	Safety checks completed; no active deficiencies	0 issues/year
Condition	Facilities are in Good or better condition (FCI-based)	Facility Condition Index (FCI)	Facilities in excellent condition with recent upgrades	FCI ≤ 0.10
Performance	Facilities are suitable for intended use and user experience	% of users satisfied or reporting functional concerns	Facility is well equipped and meets most users' needs	95–98% satisfaction
Cost Effectiveness	Annual operating cost per square foot	$/sq ft (utilities, maintenance, insurance)	Efficient operation through upgraded systems and practices	$5.01–$6.50

Parks and Recreation

The Township of McKellar is committed to enhancing recreational opportunities and ensuring that public amenities remain accessible, safe, and enjoyable for residents and visitors. As part of the proposed levels of service, several activities are planned to improve the quality, availability, and safety of key recreational assets. These improvements support the community's recreational lifestyle, which is particularly important given the Township's role as a seasonal and tourist destination.

Planned capital activities include the installation of new playground equipment at Broadbent Park, the construction of a new ballfield at 701 Hwy 124, and the development of a new public boat launch at Lakeshore Road to improve access and safety for water users. These investments are categorized as medium priority, recognizing that while they are not essential services, they significantly enhance the Township's appeal and quality of life for both residents and seasonal visitors.

Several constraints and public concerns were considered when planning these activities. Seasonal factors, such as weather-related maintenance windows, influence the timing of implementation. Notable public feedback includes concerns about geese affecting beach cleanliness and safety issues at existing boat launch locations, particularly at Lakeshore Road.

Characteristic	**Indicator**	**Metric**	**Proposed Level of Service**	**Proposed Metric**
Accessibility	Parks and green spaces are open and usable during the summer season	% of planned open days parks are usable	Parks fully accessible with seasonal prep and no closures	≥ 99% usable days
Reliability	Grass is cut and play areas are maintained on a regular schedule	% of scheduled maintenance completed on time	Fully optimized maintenance with schedule adherence	≥ 99% on-time
Safety	Playground structures are safe and compliant with inspection standards	% of structures rated "Good" or better	Equipment is safe and maintained in good condition	90–95% rated Good+
Condition	Grounds, benches, and features are in good condition and functional	% of features in "Fair" or better condition	High standard of upkeep and appearance	90–95% rated ≥ 3/5

Performance	Parks meet the recreational needs of the community	% of public feedback rated as positive or neutral	Parks offer general satisfaction for most age groups	85–89% satisfied
Cost Effectiveness	Cost per acre for maintenance activities	$/acre for mowing, garbage, upkeep	Balanced seasonal costs and acceptable service levels	$3,000–3,499

IT and Communications

Information Technology is an essential support service that underpins all Township operations. It ensures that staff can communicate, access files, manage data, and run software applications needed for daily tasks. A well-functioning IT system is crucial for efficiency, accountability, and public transparency—especially with the growing importance of remote access, cybersecurity, and digital service delivery.

The Township's IT infrastructure was significantly updated in 2024 with a new server and other equipment, putting the municipality in a strong position. However, as service expectations evolve, additional challenges are emerging—particularly around system integration and software interoperability. The current lack of connectivity between the property tax and accounting software has created inefficiencies, requiring staff to duplicate effort and reconcile information manually. Improving this integration will be a key focus over the next 10 years to enhance administrative efficiency and support better financial reporting.

While overall service demand is stable, expectations around livestreaming, connectivity in rural or seasonal locations, and enhanced internal processes are growing. Continued attention to security, hardware renewal, system modernization, and reliable internet access will be essential to maintaining and improving service levels.

Characteristic	**Indicator**	**Metric**	**Proposed Level of Service**	**Proposed Metric**
Accessibility	Staff have access to phones, internet, and key systems during working hours	% of uptime during work hours	Systems available consistently during work hours	98–99% uptime
Reliability	Critical systems (e.g., email, file sharing) operate without disruptions	# of unplanned outages or lockouts	Very reliable system; rare downtime	≤ 1/year
Safety	Systems have appropriate security controls	# of identified security gaps or incidents	Secure systems with automated backups and staff training	0/year
Condition	Hardware and systems are up to date and functional	% of devices < 5 years old	Equipment well maintained and scheduled for renewal	80–89%
Performance	Systems meet staff needs for communication and productivity	Staff satisfaction (survey or feedback)	Systems meet needs with few complaints	90–94% satisfied
Cost Effectiveness	IT cost per workstation (hardware, licenses, support)	$/device/year	Balanced IT investment and performance	$800–999

Implementation Plan

General Transportation

The Township of McKellar has established a set of proposed Levels of Service (LOS) for its transportation infrastructure that reflect both community expectations and operational realities. While some LOS targets have already been achieved, others will require targeted investments, operational improvements, and long-term planning to meet performance goals over the next 10 years. This implementation plan outlines the activities, timing, and responsibilities necessary to achieve the proposed LOS by 2035.

Summary of LOS Implementation Approach

- **Maintain** current LOS for Accessibility, Performance, and Cost Effectiveness, as these are already near target levels.
- **Improve** LOS for Reliability, Safety, and Condition through a combination of capital projects, planning initiatives, and routine maintenance.
- **Staggered implementation** ensures fiscal responsibility by balancing capital investments over time.
- **Start Year**: 2026 – aligns with strategic planning, budgeting cycles, and allows time to secure funding or grants.
- **End Year**: 2035 – 10-year target horizon per O. Reg. 588/17.

Implementation Activities by LOS Characteristic (2026–2035)

Accessibility (Maintain)	≥ 99% year-round access (current: 95–98%)	Already near target; minor improvements and monitoring will sustain LOS	- Continue winter maintenance and snow removal - Monitor known seasonal trouble spots	2026–2035	Public Works Department	Minimal (Operating Budget)
Reliability (Improve)	≥ 5 weeks between grading (current: ≥ 4 weeks)	Achievable with better sub-base and consistent gravel program	- Create 5-Year Gravel Road Improvement Plan - Implement gravel upgrades - Ongoing grading optimization	2026–2029 (Plan + Implementation) 2029–2035 (Ongoing)	Public Works, Engineering Consultant	Gradual increase; capital and operating budgets
Safety (Improve)	≤ 1 complaint/year (current: ≤ 2/year)	Improve signage, conditions, and address boat launch risks	- Signage audit and updates - Reconstruct Lakeshore Rd Boat	2026–2027 (Signage) 2026–2028 (Boat Launch)	Public Works Superintendent	Low–Moderate; signage via operating; boat launch capital (~2028–2030)

			Launch - Seasonal inspections and enforcement	2026–2035 (Monitoring)		
Condition (Improve)	80–89% rated ≥ 3/5 PCI (current: 65–79%)	Requires investment in capital renewal and targeted upgrades	- Design for Hardies Road - Reconstruct Hurdville & Hardies - Implement 5-Year Capital Plan - Extend upgrades to remaining segments	2025–2026 (Design) 2025–2035 (Major Rebuilds)	Public Works, Council, Engineering Consultants	High; $3.8M Hurdville, TBD Hardies – phased
Performance (Maintain)	95–98% emergency access (current: 90–94%)	Already strong; maintain with patrols and targeted upgrades	- Maintain ditching and brush - Improve turnaround areas	2026–2028 (Turnarounds) 2026–2035 (Routine Access)	Public Works	Low–Moderate; within operating budget
Cost Effectiveness (Maintain)	$4,000–$4,999/km/year (same as current)	Maintain balance of service and cost	- Annual cost reviews vs. inflation - Monitor unit costs and optimize maintenance schedules	Annual (Reviews) 2026–2035 (Ongoing)	Treasurer, Public Works Superintendent	Monitored annually; no major cost incr

Timeline Summary (2026–2035)

Year(s)	Key Milestones
2025	Engineering for Hardies Road; confirm capital forecast; begin Hurdville reconstruction
2026	LOS plan launch; develop gravel & capital plans; signage audit; reconstruct Hardies Road
2025–2027	Implement gravel improvements; start patrol upgrades
2028–2030	initiate final upgrades from gravel/capital plan
2031–2035	Continue targeted upgrades and renewals to meet condition target

Responsible Parties

- **Public Works Department**: Lead for roadwork, patrols, and routine maintenance
- **Engineering Consultants**: Support for capital design and road condition planning
- **Council**: Approval of capital expenditures and policy changes
- **Treasurer/Finance**: Budget planning and cost tracking

Fleet

The Township of McKellar's fleet is essential for delivering core municipal services such as road maintenance, parks upkeep, snow removal, and emergency support. While the current fleet is in good condition and meets most operational needs, some improvements are required to reduce breakdown frequency and eliminate minor safety risks. The following implementation plan outlines the activities, timelines, and responsibilities required to maintain and improve Levels of Service (LOS) for the fleet over the next 10 years.

Summary of LOS Implementation Approach

- **Maintain** current LOS for Accessibility, Condition, Performance, and Cost Effectiveness, which are already meeting or near meeting proposed targets.
- **Improve** LOS for Reliability and Safety through targeted vehicle replacements and enhanced inspection protocols.
- **Staggered investments** to align with replacement schedules and available capital capacity.
- **Start Year**: 2026 – allows 2025 planned vehicle replacements to be completed and scheduling to begin.
- **End Year**: 2035 – in line with 10-year planning window under O. Reg. 588/17.

Implementation Activities by LOS Characteristic (2026–2035)

LOS Characteristic	Proposed Metric	Rationale	Key Activities	Timeline	Responsible Party	Cost Impact
Accessibility (Maintain)	95–98% availability	Target already met. Continue maintenance and seasonal prep to ensure availability.	- Keep parts, oil, and filters in stock - Monitor seasonal equipment needs and rotate based on usage	2026–2035	Public Works Department	Minimal (Operating Budget)
Reliability (Improve)	≤ 1 breakdown/year (currently 1–2/year)	Replace aging vehicles to reduce breakdown risk and maintain service continuity.	- Replace 2 aging pickup trucks - Evaluate and update fleet replacement schedule	2025 (initial truck) 2026 (additional replacements as needed)	Public Works Supeintendent	Moderate – Capital cost of $80K–$100K per unit

Safety (Improve)	0 safety-related issues/year (currently 1/year)	Minor deficiencies can be eliminated through enhanced inspections and replacements.	- Increase frequency of safety inspections - Ensure safety features on all new purchases - Replace vehicles with outdated safety features	2026–2030	Public Works; Roads Supervisor	Low to moderate; within operating and capital budgets
Condition (Maintain)	Avg rating 3.6–4.5 (1–5 scale)	Fleet is in good condition. Maintain through ongoing routine maintenance.	- Continue routine servicing - Monitor fleet condition and document annually	2026–2035	Public Works; Mechanic/Shop	Minimal (Ongoing Maintenance Budget)
Performance (Maintain)	95–98% of jobs completed without issue	Equipment is meeting performance expectations. Maintain through preventive maintenance and training.	- Maintain performance logs - Replace equipment showing repeat issues	2026–2035	Public Works Foreman	Low; absorbed in normal operations
Cost Effectiveness (Maintain)	$65–74/hour	Current performance is aligned with cost expectations. Continue optimizing efficiency.	- Track cost/hour and review annually - Optimize utilization of vehicles and equipment	Annual Reviews 2026–2035	Treasurer; Public Works Manager	Monitored annually; no significant cost change

Timeline Summary (2026–2035)

Year(s)	Key Milestones
2025	Replace F550 work truck (planned purchase)
2026	Begin monitoring new pickup truck performance; confirm annual replacement plan
2027–2028	Replace 2 additional units for Parks and Public Works Superintendent; replace tandem truck
2029–2030	Continue condition-based replacements; improve inspection protocols
2031–2035	Maintain LOS with targeted replacements and low-cost upgrades

Responsible Parties

- **Public Works Department**: Oversee vehicle operations, inspections, and replacements
- **Public Works Superintendent**: Track condition, maintenance, and downtime metrics
- **Council**: Approve capital investments and fleet purchase schedules

- **Treasurer/Finance**: Monitor cost per hour, track capital and maintenance spending

Buildings & Facilities

The Township of McKellar's municipal buildings and facilities provide essential spaces for public programming, community events, and administrative operations. Assets such as the Community Centre, which houses the Municipal Office, and the Public Works Garage are integral to service delivery. While many facilities are in good condition and operating effectively, some areas require investment to meet accessibility, efficiency, and long-term sustainability goals. This implementation plan outlines a phased strategy over the next 10 years to maintain and improve the Township's proposed levels of service.

Summary of LOS Implementation Approach

- **Maintain** current LOS for Safety, Performance, and Accessibility, as these are already at or near proposed targets.
- **Improve** LOS for Reliability, Condition, and Cost Effectiveness through capital upgrades, targeted renovations, and system modernization.
- **Prioritize** upgrades at 701 Hwy 124 (Community Centre) and the Public Works Garage due to known functional and capacity issues.
- **Start Year**: 2026 – following identification and prioritization of facility upgrades and funding strategy.
- **End Year**: 2035 – 10-year outlook in alignment with O. Reg. 588/17.

Implementation Activities by LOS Characteristic (2026–2035)

LOS Characteristic	Proposed Metric	Rationale	Key Activities	Timeline	Responsible Party	Cost Impact
Accessibility (Improve)	95–98% open (current: 90–94%)	Facility access is generally reliable; improved scheduling and public communication will maintain availability.	- Continue routine inspections on geothermal HVAC and building systems - Monitor operating hours and adjust as needed to ensure availability	2026–2035	Public Works; Facilities Manager	Minimal (Operating Budget)
Reliability (Improve)	≤ 1 unscheduled closure/year (current: 1–2/year)	Some older systems (e.g., plumbing, HVAC) may contribute to occasional disruptions.	- Inspect and upgrade failing systems (e.g., steam sewer pipes) - Monitor emergency closures and address root causes	2026–2028 (targeted upgrades) Ongoing (monitoring)	Facilities Supervisor	Moderate; repairs spread over time
Safety (Maintain)	0 issues/year	Facilities are compliant and monitored. Ongoing inspections will maintain status.	- Maintain current inspection and safety compliance schedule	2026–2035	Public Works; Building Inspector	Minimal (Operating Budget)

Condition (Improve)	FCI ≤ 0.10 (current: 0.11–0.20)	Targeted capital upgrades required for aging systems and building shells.	- Roof replacement over Library and Council Chambers - Water/sewer pipe inspection and phased replacements - Complete gymnasium floor upgrade - Begin plan to address AODA non-compliance	2026–2029 (major work) 2030–2035 (AODA, future repairs)	Public Works; Council	High; phased investment strategy
Performance (Maintain)	95–98% user satisfaction	Facilities are functional and meet user expectations. Continued maintenance will preserve performance.	- Respond to user feedback and address issues such as noise, layout, or access - Review function of all public-use spaces during annual inspections	2026–2035	Public Works Superintendent; Administrative Staff	Low (Service-Based Adjustments)
Cost Effectiveness (Improve)	$5.01–$6.50/sq.ft. (current: $6.51–$8.00)	Upgrade older systems (e.g., HVAC, water) to improve efficiency and reduce utility costs.	- Replace inefficient systems - Seek funding or grants to support upgrades - Track utility and insurance trends annually	2027–2032 (system upgrades) Annual (tracking)	Treasurer; Public Works Superintendent	Moderate; capital + operational savings over time

Timeline Summary (2026–2035)

Year(s)	Key Milestones
2025	Prepare capital forecast for facility upgrades (roof, flooring, HVAC, water and sewer)
2026	Complete flat roof repair; explore PW Garage renovation
2027–2029	Begin gym floor upgrade and building system inspections (701 Hwy 124); Complete PW Garage renovation
2030–2032	Replace failing steam pipes
2033–2035	Continue routine maintenance and evaluate any new facility needs

Responsible Parties

- **Public Works Department**: Lead on maintenance, inspections, and overseeing capital work
- **Public Works Superintendent**: Monitor LOS indicators, plan maintenance, and manage contractors
- **Council**: Approve major capital investments and renovation projects
- **Treasurer/Finance**: Track operating costs per square foot and manage funding strategies

Parks & Recreation

The Township of McKellar provides and maintains a variety of parks, playgrounds, baseball field, and waterfront amenities that support both resident well-being and seasonal tourism. While this service is not essential for basic municipal operations, it contributes significantly to the Township's recreational character and quality of life. The current levels of service for most indicators are already meeting community expectations. However, improvements in asset condition and safety, particularly in areas like aging equipment and waterfront infrastructure, are planned to ensure facilities remain safe, accessible, and attractive over the next 10 years.

Summary of LOS Implementation Approach

- **Maintain** current LOS for Accessibility, Reliability, Performance, and Cost Effectiveness, which are already aligned with targets.
- **Improve** LOS for Safety and Condition through targeted capital projects and routine inspections.
- **Enhance** public confidence in waterfront and playground assets through proactive renewal.
- **Start Year**: 2025 – aligns with NOHFC grant timeline and seasonal procurement.
- **End Year**: 2035 – 10-year outlook in accordance with O. Reg. 588/17.

Implementation Activities by LOS Characteristic (2026–2035)

LOS Characteristic	Proposed Metric	Rationale	Key Activities	Timeline	Responsible Party	Cost Impact
Accessibility (Maintain)	≥ 99% usable days	Parks are already fully accessible with seasonal prep and no closures.	- Continue seasonal opening procedures - Inspect trails, docks, and green spaces before summer season	2026–2035	Parks Staff; Recreation Lead	Minimal (Operating Budget)
Reliability (Maintain)	≥ 99% on-time maintenance	Schedule adherence is currently high and well managed.	- Maintain current mowing and maintenance schedule - Adjust for weather impacts if needed	2026–2035	Parks Supervisor	Low (Routine Service Cost)

Safety (Improve)	90–95% of structures rated "Good"+	Playground structures and docks need continual inspection to prevent safety issues.	- Continue annual playground inspections - Conduct seasonal dock and launch inspections - Installing new equipment at Broadbent Park	2025–2027 (Broadbent) Annual (Inspections)	Public Works; Recreation Staff	Moderate – capital equipment purchase + inspections
Condition (Improve)	90–95% of features rated ≥ 3/5 (currently 80–89%)	New assets and upgrades needed to improve appearance and function.	- Build new ballfield at 701 Hwy 124 - Upgrade waterfront at Lakeshore Rd - Maintain wilderness trail, benches, signage	2025 (Ballfield) 2026–2028 (Boat Launch) Ongoing maintenance (2030–2035)	Recreation Staff; PW Supervisor	High – Capital upgrades (NOHFC-funded, others TBD)
Performance (Maintain)	85–89% satisfaction	Community satisfaction is stable; ensure continuity through cleanliness and seasonal upkeep.	- Collect seasonal feedback - Ensure timely issue resolution (e.g., beach cleaning, equipment repair)	2026–2035	Parks Staff; Clerk's Office (Surveys)	Low – Addressed in regular operations
Cost Effectiveness (Maintain)	$3,000–3,499/acre	Cost-effective seasonal operations already in place.	- Monitor costs per acre - Adjust seasonal staff hours and material use as needed	Annual (Budget Review) 2026–2035	Treasurer; Parks Supervisor	Monitored yearly; no major change expected

Timeline Summary (2025–2035)

Year(s)	Key Milestones
2025	build new ballfield; begin dock and boat launch inspections; confirm ballfield upkeep strategy
2026	Install new Broadbent playground equipment
2026–2028	Complete Lakeshore Road Boat Launch redesign and construction
2029–2035	Monitor condition metrics and maintain through seasonal maintenance

Responsible Parties

- **Public Works Staff**: Oversee day-to-day park operations and feedback collection
- **Public Works Department**: Perform seasonal and structural inspections, assist with upgrades

- **Council**: Approve major park improvement projects and funding commitments
- **Treasurer/Finance**: Monitor seasonal cost-effectiveness and budget adjustments

IT & Communications

The Township of McKellar's IT and Communications systems have undergone recent modernization, including the installation of a new server and updated hardware in 2024. These improvements have significantly enhanced system reliability, accessibility, and security. As a result, current levels of service are strong across all categories. However, modest improvements are planned to expand digital engagement (e.g., council meeting streaming), integrate more efficient communication tools, and further reduce vulnerability through consistent system management. This plan maintains a proactive posture over the next 10 years to sustain performance, security, and adaptability in a changing digital landscape.

Summary of LOS Implementation Approach

- **Maintain** all LOS targets across Accessibility, Reliability, Safety, Condition, Performance, and Cost Effectiveness, as systems are currently meeting expected performance.
- **Improve** functionality and transparency through specific service upgrades (e.g., VoIP, livestreaming, accounting module).
- **Capitalize** on recent investments by maintaining vendor support contracts and backup systems.
- **Start Year**: 2026 – continuation of strong system management practices.
- **End Year**: 2035 – long-term monitoring and selective improvement planning under O. Reg. 588/17.

Implementation Activities by LOS Characteristic (2026–2035)

LOS Characteristic	Proposed Metric	Rationale	Key Activities	Timeline	Responsible Party	Cost Impact
Accessibility (Maintain)	98–99% uptime during work hours	Strong system uptime due to managed services and infrastructure upgrades.	- Maintain managed service provider contract - Regular performance checks and staff feedback	2026–2035	IT Contractor; Municipal Admin	Covered in $1,296/unit/year
Reliability (Maintain)	≤ 1 unplanned outage/year	Outages are rare; maintain by continuing support service and backup protocols.	- Monitor unplanned outages - Maintain proactive support and system logs	2026–2035	IT Contractor	Included in annual cost
Safety (Maintain)	0 incidents/year	Automated backups and antivirus provide robust protection.	- Continue software updates - Ensure cybersecurity	2026–2035	IT Contractor; Clerk's Office	Minimal; existing subscription

			compliance through vendor			
Condition (Maintain)	80–89% of devices <5 years old	Recent hardware upgrades position Township well; renew on rolling basis.	- Establish device lifecycle replacement schedule - Renew licenses and ensure warranty support	2026–2035	Clerk's Office; Finance	Staggered hardware upgrades (~2029 onward)
Performance (Maintain)	90–94% user satisfaction	Staff needs are being met; no significant performance concerns.	- Maintain helpdesk logs - Monitor feedback annually to ensure satisfaction	Annual reviews	Clerk's Office	Low – tracked in admin duties
Cost Effectiveness (Maintain)	$800–999/device/year	Fully managed service is cost-effective relative to IT performance.	- Review vendor contracts annually - Optimize software licensing and subscriptions	Annual	Treasurer; IT Vendor	Ongoing – $1,296/device (includes bundled services)

Timeline Summary (2026–2035)

Year(s)	Key Milestones
2026–2027	Initiate council meeting livestreaming; Implement new accounting software
2027–2028	POS machine for Transfer
2028–2029	Monitor impact on operations
2030–2035	Begin planning for device replacement cycle; continue vendor reviews

Responsible Parties

- **IT Contractor/Service Provider**: Lead on maintenance, system reliability, security, and implementation of new services, manage licenses, subscriptions, staff support, and feedback mechanisms
- **Treasurer/Finance**: Manage IT cost tracking and capital approvals for software upgrades
- **Council**: Approve significant financial commitments (e.g., new accounting systems)

5. Asset Management Strategy

Lifecycle Management

Purpose and Approach

Effective life cycle management allows the Township of McKellar to deliver reliable services while maximizing the value and performance of its infrastructure over time. By managing each phase of an asset's life—from planning to disposal—the Township can reduce emergency repairs, extend service life, and make more efficient use of limited financial and staff resources.

McKellar uses a phased, service-based approach to life cycle management that aligns maintenance and renewal decisions with established Levels of Service (LOS), condition data, and available operational capacity. As resources allow, this approach will continue to evolve toward more proactive, data-informed decision-making.

Life Cycle Activities Overview

Phase	Description
Planning	Identify asset need, service objective, and funding requirements.
Procurement	Select appropriate technology, materials, and contractors/suppliers.
Operations	Day-to-day use of assets to deliver services to the community.
Maintenance	Scheduled (preventative) or unscheduled (reactive) work to preserve condition.
Renewal / Upgrade	Significant investment to restore or increase service life or performance.
Disposal	Decommissioning, sale, or removal of the asset when no longer viable.

Asset Class–Specific Strategies

Transportation

Key Activities & Frequencies

- **Planning**: Road and bridge needs are identified through public feedback, operational observations, and formal condition assessments such as Pavement Condition Index (PCI) and Ontario Structure Inspection Manual (OSIM) reports. At present, planning is conducted annually; no long-term gravel rotation or capital plan is in place.
- **Procurement**: Gravel and equipment parts are sourced locally, with larger projects—such as hot mix asphalt upgrades—tendered to qualified contractors. Consultant engineers are engaged for bridge inspections and design work.
- **Operations**: The Public Works Department operates the road network year-round. Snow removal, grading, and general roadway upkeep are core seasonal activities.

Activity	LOS Characteristic Supported	Description	Estimated Annual Cost ($)
Road Patrols & Visual Inspections	Safety, Reliability, Accessibility	Regular drive-by or informal checks to identify surface hazards, flooding, debris, or signage issues.	$12,000–$15,000
Seasonal Load Restriction Management	Reliability, Accessibility	Signage and enforcement of spring weight limits to protect roads during thaw.	$2,000
Sign Installation (Seasonal / Regulatory)	Safety, Accessibility	Installation/removal of seasonal signs (e.g., load restrictions, snow routes, road closures).	$5,000
Coordination of Snow Operations	Accessibility, Cost Effectiveness	Planning and oversight of plow/sanding operations (routing, timing, staffing).	$287,000
Public Communication (Road Closures, Notices)	Accessibility, Reliability	Posting of road notices, closures, or service updates to public platforms or signage boards.	$500
Bridge Access Monitoring	Safety, Reliability	Ensuring bridges remain passable and checking for visible hazards between OSIM inspections.	$3,000

- **Maintenance**:
  Preventative: Gravel roads are graded approximately once every three weeks from spring through fall. Dust control is applied to gravel roads in the spring. Street signage, drainage ditches, and roadside brushing are maintained seasonally.
  Reactive: Asphalt patching is performed as needed; culvert replacements are completed when failure occurs. No formal flushing program is in place for drainage structures.

Activity	Frequency	Estimated Annual Cost
Grading Gravel Roads	Every 3 weeks (Spring-Fall)	$24,300
Dust Control (all gravel roads)	Annually (Spring)	$93,600
Pothole Repairs / Asphalt Patching	As needed / Seasonal	$57,300
Roadside Brushing	Spring and Fall	$20,000
Ditching & Drainage Maintenance	As needed / Project-based	$188,400
Gravel Application	Spring and as needed	$35,000
Street Signage Maintenance	As needed	$15,600
Sweeping / Debris Removal	Annually (Spring)	$10,000
Culvert Maintenance / Replacement	Reactive only	$30,000

- **Renewal / Upgrade**: There is no formal renewal plan; instead, roads and bridges are selected for capital upgrades based on condition, public concern, and funding availability. Large projects (e.g., full road reconstruction) are funded via the annual budget or debentures, and engineering designs are completed in advance where possible.

Activity	Description	Estimated Capital Cost (per event)
Reconstruction of Road Segments	Full-depth road renewal projects based on PCI and operational priorities.	$350,000-$500,000/km
Bridge Rehabilitation or Replacement	Performed in response to OSIM inspections or critical infrastructure needs.	$1.2M-$2.5M depending on structure
Capital Gravel Replenishment	Targeted gravel reapplication on roads showing sub-base deterioration.	$35,000-$70,000 per km
Surface Treatment Upgrades	Upgrading gravel roads to surface-treated standard when warranted.	$75,000-$125,000 per km

- **Disposal**: Road segments may be removed from service or reclassified if no longer needed, though most are retained. Bridges are retired or replaced based on OSIM recommendations and public safety considerations.

Activity	Description	Considerations
Decommissioning Road Segments	Retirement of low-use or redundant roads, often seasonal or rural routes.	Requires public consultation and legal process; cost avoidance more than capital outlay.
Bridge Removal	Removal of unsafe or obsolete bridges based on condition and use.	Engineering assessment and public safety key drivers.
Surface Downgrading (e.g., hot mix to gravel)	Reverting failing surface-treated or asphalt roads to gravel for cost savings.	Short-term cost savings vs. long-term LOS impact.

Supporting Tools and Data Used in DOT

The Transportation Asset Class in McKellar's Asset Management Plan includes three primary asset types: roads, bridges, and guardrails. These assets are managed and analyzed within the DOT software platform, which uses standardized treatment methods and lifecycle models to estimate future investment needs. Each asset type has distinct characteristics and renewal strategies that inform the long-term planning process. The table below outlines the specific treatment methods applied within DOT for each asset type, forming the basis for lifecycle cost projections and decision-making.

Asset Type	Type of treatment	Treatment	Typical condition range for use
Roads	Routine Maintenance	**Grading 4 Times** (Annual grading to maintain gravel road surface shape)	Good - Very Good
		HMA-Crack Sealing (Seal pavement cracks to prevent moisture infiltration and damage)	Good – Very Good
	Minor Rehabilitation	**HMA-Ovly** (One Lift Overlay / Mill and One Lift Overlay)	Good
		HMA-2Ovly (Two lifts of hot mix asphalt overlay)	Fair
		HMA-CIR/CIREAM & 1Ovly (Cold in-place recycle with one asphalt overlay)	Fair
		HMA-CIR/CIREAM & 2Ovly (Cold in-place recycle with two asphalt overlays)	Fair
		HMA-CIR/CIREAM & Thin Ovly (Cold in-place recycle with thin asphalt overlay)	Fair
	Preventative Maintenance	**HMA-ST** (Single Surface Treatment (Chip Seal))	Good
		HMA-DST (Double surface treatment using asphalt and aggregate)	Fair Good
		HMA-DST SAMI (Surface treatment with stress-absorbing membrane interlayer)	Fair - Good
		HMA-Enh2Surf (Enhanced double surface treatment for added durability)	Fair
		HMA-EnhSurf (Enhanced single surface treatment for improved performance)	Good
	Reconstruction	**HMA-Recon 90 HMA** (Full Depth Reconstruction (350 Gran B, 150 Gran A, 90 HMA))	Very Poor - Poor
		HMA-Recon 140 HMA (Full Depth Reconstruction (350 Gran B, 150 Gran A, 140 HMA))	Very Poor - Poor
Guardrails & Fencing	Preventative Maintenance	**Preventative Maintenance**	Good – Very Good
	Reconstruction	**Reconstruction**	Poor
Bridge	Reconstruction	**Reconstruction**	Very Poor

McKellar uses condition-based indicators to support life cycle decisions, including:

- **PCI** (Pavement Condition Index) for roads
- **Remaining Service Life (RSL)** estimates for most other assets

As inspection programs continue to expand, the Township will improve its ability to forecast long-term capital needs and plan upgrades more proactively. Asset data is housed in spreadsheets and will continue to evolve with the support of AMP documentation and tracking.

Challenges and Opportunities

- **Challenges**: Staff and budget limitations often result in reactive maintenance rather than proactive renewal. Some infrastructure, especially culverts and surface-treated roads, is aging without a formal capital plan for lifecycle renewal.
- **Opportunities**: The Township can benefit from creating a gravel rotation schedule, formalizing inspection routines, and developing 3–5 year capital planning frameworks for each major asset class. These steps would support more strategic decision-making and reduce lifecycle costs over time.

Fleet

Key Activities & Frequencies

- **Planning**: Fleet and equipment needs are identified annually based on operational requirements, user feedback, asset reliability, and Remaining Service Life (RSL). Replacement planning is primarily reactive, although efforts are being made to standardize condition tracking across asset groups (e.g., vehicles, trailers, fire apparatus).
- **Procurement**: New vehicles and equipment are purchased through municipal budget approval or grant funding. Local dealers and authorized distributors are used for equipment and truck purchases. Fire vehicles are procured with compliance to NFPA guidelines and Council-approved capital planning.
- **Operations**: The Township's fleet is operated daily by Public Works, Fire Services, and Parks & Recreation staff. Fleet operations ensure services such as snow removal, firefighting, road maintenance, and facility upkeep are delivered efficiently. Key operational activities that directly support Levels of Service (LOS) include vehicle assignment, fueling, inspections, and documentation.

Activity	LOS Characteristic Supported	Description	Estimated Annual Cost
Fleet Dispatch and Scheduling	Accessibility, Reliability	Vehicles and equipment assigned daily for municipal tasks based on seasonal needs.	$2,000
Vehicle and Equipment Monitoring	Reliability, Condition	Regular checks for warning lights, odometer logs, and operator-reported issues.	$2,500
Fueling and Fluid Management	Cost Effectiveness	Daily fueling and routine checks to ensure readiness.	$5,000
Safety Inspections & Pre-Trip Checks	Safety, Reliability	Operators complete pre-use checks and safety forms before each use.	$3,000
Fleet Documentation and Reporting	Cost Effectiveness, Reliability	Maintenance logs, usage reports, and performance data recorded to guide planning.	$1,500

- **Maintenance**: The Township performs a mix of in-house and outsourced preventative and reactive maintenance. Fire vehicles, plow trucks, and light-duty vehicles undergo routine servicing based on mileage or hours of use. Seasonal tire changeovers, fluid checks, and emergency repairs are coordinated by the Public Works Manager and recorded in logbooks.

Activity	Frequency	Estimated Annual Cost
Oil & Filter Changes	As per manufacturer / 2–4x per year	$6,000
Brake Servicing	Annually or as needed	$4,000
Tire Replacement / Rotation	Annually / mileage-based	$3,500
Seasonal Tire Changeovers	Spring and Fall	$2,500
Cooling System Checks	Seasonally or as needed	$2,000
Battery Replacement	As needed (3–5 year cycle)	$1,200
Lighting and Electrical Fixes	As needed / inspection-based	$1,800
Engine Repairs	As needed / major issues	$8,000
Emergency Repairs	As needed / breakdown events	$7,000
Vehicle Washes & Clean-outs	Monthly or as needed	$1,500

- **Renewal / Upgrade**: Renewal decisions are based on age, condition, and cost-effectiveness of continued maintenance. Fire apparatus are replaced according to national standards, while light and heavy-duty trucks are replaced on a 10–15 year cycle. Equipment such as graders, mowers, and trailers are reviewed for replacement when reliability declines or repairs exceed asset value.

Activity	Description	Estimated Capital Cost (per unit)
Replacement of Pickup Trucks	Replaced on a 10–15 year cycle based on reliability and repair needs.	$80,000–$100,000
Replacement of Fire Vehicles	Replaced using NFPA standards and condition data.	$350,000–$550,000
Replacement of Heavy Trucks	Based on service hours, downtime, and availability of parts.	$250,000–$400,000
Replacement of Equipment	Based on usage, condition, and cost-benefit of continued operation.	$30,000–$150,000

- **Disposal**: Equipment and vehicles are retired through resale, trade-in, or salvage. The Township aims to recover some financial value from assets nearing end of life, and practices environmental stewardship by recycling where appropriate.

Activity	Description	Considerations
Resale of Retired Vehicles	Vehicles with resale value are auctioned or sold locally.	Offsets replacement costs; value depends on condition.
Trade-In During Procurement	Units are traded in when purchasing new ones.	Reduces net capital cost and simplifies transactions.
Asset Salvage or Recycling	Non-operational or obsolete equipment is stripped for parts or recycled.	Environmentally responsible disposal of unsalvageable assets.

Supporting Tools and Data Used in DOT

The Fleet & Equipment Asset Class in McKellar's Asset Management Plan includes vehicles and specialized equipment critical to delivering core municipal services such as road maintenance, snow removal, and infrastructure inspection. These assets are evaluated and managed using the DOT software platform, which applies lifecycle modeling based on standardized treatment types and typical condition ranges. DOT uses a combination of routine maintenance, preventative servicing, major rehabilitation, and full replacement to forecast future investment needs. Each treatment is applied depending on the condition of the asset, with the model targeting a remaining service life (RSL) of 60% across the fleet within the next 10 years. The lifecycle model also aims to maintain a maximum achievable network condition by ensuring timely replacements and ongoing servicing. The table below outlines the specific treatments and condition thresholds used in DOT to support long-term planning and resource allocation for the Fleet & Equipment portfolio.

Asset Type	**Type of treatment**	**Treatment**	**Typical condition range for use**
Vehicles	Routine Maintenance	**Annual Routine Maintenance** (required perioding oil change, filters, etc.)	Fair – Very Good
	Major Rehabilitation	**Major Rehabilitation** (major repairs)	Fair
	Preventative Maintenance	**Preventative Maintenance** (Major service where all elements are checked)	Fair
	Reconstruction	**New Purchase** (Replacement of vehicle)	Fair
Equipment	Reconstruction	**Replacement** (Replacement of equipment)	Very Poor

The Township of McKellar uses **Remaining Service Life (RSL)** estimates as the primary condition-based indicator for fleet and equipment assets. This data informs both short- and long-term decisions about maintenance timing, capital replacement, and budgeting. Vehicles and equipment are tracked in asset spreadsheets, which include acquisition year, condition notes, and estimated replacement timelines.

As the Township continues to formalize its asset management program, future improvements may include:

- Adoption of digital maintenance logs or fleet management software
- Expansion of routine condition inspections and lifecycle tracking
- Integration of usage data (e.g., hours operated or kilometers driven) into renewal planning

These tools will enhance forecasting and help the Township make better-informed decisions about equipment renewal, surplus, and procurement.

Challenges and Opportunities

Challenges:

- Limited garage space restricts indoor storage and accelerates equipment wear, particularly in winter months.
- Some vehicles are aging and continue in use due to funding limitations, which increases the frequency of reactive repairs.

- Equipment replacement decisions are sometimes made without a long-term forecast or consistent evaluation framework.

Opportunities:

- Implementing a standardized vehicle lifecycle replacement schedule will help spread capital costs more predictably over time.
- Improving recordkeeping of maintenance and breakdowns will support better risk management and support funding justifications.
- Planning for an upgraded or expanded Public Works facility would help address equipment overcrowding and reduce offsite storage risks.

Buildings & Facilities

Key Activities & Frequencies

Planning:

The Township identifies building renewal needs through a combination of operational reports, public requests, and condition data (e.g., FCI). While full building assessments are not yet standardized, known concerns—such as roof leaks, HVAC issues, or undersized facilities—are used to prioritize annual capital decisions. The Community Centre is flagged as a high-priority facility due to its multi-use role.

Procurement:

Work is delivered through a mix of internal resources and contracted trades. Local contractors are used for roofing, plumbing, and HVAC work. Engineering services are occasionally retained for structural or envelope reviews, though this is not routine. Materials for minor repairs (lights, filters, caulking, plumbing parts) are stocked seasonally.

Operations:

The Township's operations team manages scheduling, security, and access across all municipal buildings. Heating/cooling systems are monitored daily in winter and weekly during other seasons. Alarms, inspections, and public use notices are coordinated centrally.

Activity	Description	Estimated Annual Cost
Facility Scheduling and Access Management	Control of public access, locking/unlocking buildings, and managing schedules	$4,000
Security Checks and Alarm Management	Fire panel and alarm system monitoring	$2,500
Daily Facility Inspections	Visual inspections of public spaces, washrooms, exits	$3,000
Heating/Cooling System Programming	Monitoring thermostats, checking geothermal and furnace system settings	$2,000
Public Communication (Closures, Bookings)	Coordinating bookings, facility notices, and weather-related closures	$1,000

Maintenance:

The Township performs a range of routine and reactive building maintenance. According to the staff survey, responsibilities include roof patching, caulking, filter changes, and minor plumbing and electrical work. Pest control and janitorial oversight are contracted. Aging infrastructure at 701 Hwy 124 (Community Centre) requires seasonal attention, and roof replacement is anticipated.

Activity	Frequency	Estimated Annual Cost ($)
HVAC System Inspections	Quarterly or seasonal	$4,000
Roof Inspections and Minor Repairs	Annually / after storms	$3,500
General Plumbing Maintenance	As needed / quarterly	$2,500
Electrical System Checks	Annually / as needed	$2,000
Fire System Inspections	Annually (regulated)	$1,000
Pest Control and Janitorial Oversight	Monthly / contract-based	$59,500
Window, Door, and Lock Repairs	As needed	$1,500
Interior Repairs	Annually / as needed	$28,500
Grounds Maintenance	Seasonal (snow, grass, entry)	$15,000
Seasonal Deep Cleans	Spring/Fall transitions	$3,500

Renewal / Upgrade:

Facility renewals are capitalized as individual projects. Based on survey input, upcoming needs include roof replacement over the Library and Council Chambers, repairs to sewer lines, and potential geothermal component upgrades. Accessibility retrofits remain a long-term priority.

Activity	Description	Estimated Capital Cost (per event)
Roof Replacement	Full membrane or shingle systems; e.g., flat Library roof	$25,000–$120,000
HVAC System Replacement	Geothermal or forced air, depending on site and age	$50,000–$180,000
Water Line or Sewer Repairs	Repair/replacement of aging infrastructure causing leaks	$15,000–$50,000
Structural or Envelope Upgrades	Insulation, wall repairs, or foundation work	$30,000–$250,000
Flooring, Lighting, and Interior Renewal	Paint, lighting retrofits, gym floor resurfacing	$10,000–$60,000
AODA Compliance Upgrades	Entryway retrofits, lift installation, accessible washroom upgrades	$15,000–$150,000

Disposal:
Obsolete or surplus buildings may be decommissioned, sold, or converted for lower-priority use. The Township has noted space constraints at the Public Works garage but limited room for expansion.

Activity	Description	Considerations
Demolition of Obsolete Facilities	Full removal of aging, unused, or unsafe buildings	Requires environmental review; avoids future maintenance cost
Surplus Sale or Transfer	Transfer of old churches or underused sites to community groups	Can reduce long-term costs while supporting local needs
Conversion to Storage	Use of older assets for low-intensity municipal storage	Avoids need for new builds; reuses existing square footage

Supporting Tools and Data Used in DOT

The Buildings & Facilities Asset Class encompasses a diverse range of assets, including buildings, internal equipment, parking lots, land, and land improvements. These assets are modeled within the DOT software platform using treatment-based lifecycle approaches tailored to the condition and function of each asset type. For buildings, the model applies treatments such as minor repairs, preventative maintenance, and full replacement, typically triggered when assets fall into fair condition or below. Equipment associated with buildings is scheduled for replacement once it reaches very poor condition, aligning with asset-specific performance thresholds.

Parking lots are treated separately, with scenarios including minor rehabilitation (e.g., regrading and applying gravel) or full reconstruction when deterioration becomes critical. Land assets, such as turf areas or landscaped surfaces, are evaluated for surface renewal when conditions decline significantly. Due to their variability, land improvements—such as fencing, signage, or site furnishings—have not been included in the current DOT scenario modeling, as they are managed through operational budgets or case-by-case maintenance.

The current lifecycle scenario for Buildings & Facilities aims to minimize total costs over the next 10 years while achieving a target of 60% remaining service life (RSL) across the portfolio. This modeling approach ensures that future investments are aligned with condition-based needs, while supporting long-term service delivery through timely and cost-effective interventions.

Asset Type	**Type of treatment**	**Treatment**	**Typical condition range for use**
Buildings	Minor Rehabilitation	**Minor Repairs**	10-80
	Reconstruction	**Asset Replacement**	Fair
	Preventative Maintenance	**Preventative Maintenance** (Major service where all elements are checked)	Fair
	Reconstruction	**New Purchase** (Replacement of vehicle)	Fair
Equipment	Reconstruction	**Replacement** (Replacement of equipment)	Very Poor
Parking Lots	Minor Rehabilitation	**Repairs** (Regrade and apply gravel if required)	Very Poor – Good
	Reconstruction	**Full Asset Replacement** (Replace Parking Lot surface and structure)	Very Poor
Land	Reconstruction	**Full Asser Replacement** (Replace surface cover of Land)	Very Poor
Land Improvements	None	No scenario has been run in this class as the assets vary so much in how they are managed	--

The Township uses Facility Condition Index (FCI), and Remaining Service Life (RSL) estimates to inform investment planning. Data is currently managed in spreadsheets, with site-level insights provided by operations staff. Over time, improved building inspections and expanded digital recordkeeping will help optimize renewal timing.

Challenges and Opportunities

Challenges:

- The Community Centre is aging and hosts multiple functions, increasing its exposure and maintenance burden.
- The Public Works Garage is undersized and not AODA compliant, posing safety and functional risks.
- Preventative upgrades are often deferred due to limited budget, increasing long-term costs.

Opportunities:

- Formalize a 5-year facility capital plan based on RSL and public feedback.
- Prioritize Community Centre upgrades and consider expanding garage/storage space.
- Use condition data to plan renewals ahead of critical failures and reduce emergency repairs.

Parks & Recreation

Key Activities & Frequencies

Planning:

Planning is currently conducted year-to-year based on public input, grant availability, and seasonal demands. Upcoming improvements include a new ballfield at 701 Hwy 124 and new playground equipment for Broadbent Park, both targeted for 2025. Safety and aesthetics are the primary drivers of renewal decisions.

Procurement:

Park upgrades are procured through vendor quotes or capital tenders. Playground equipment, docks, and ballfield infrastructure are typically sourced from specialized suppliers. Materials for fencing or surface repairs are sourced locally when possible.

Operations:

Township staff are responsible for managing public access, site readiness, and seasonal operations at park facilities. Activities like opening docks, monitoring vendor setups, and responding to community concerns are part of this operational routine.

Activity	Description	Estimated Annual Cost ($)
Seasonal Opening/Closing of Parks	Preparing sites for public use each spring; securing assets before winter	$4,000
Dock and Boat Launch Setup	Annual installation and inspection of docks and boat launch signage	$3,000
Event and Vendor Coordination	Managing summer events and ensuring safe public/vendor access	$2,500
Signage and Safety Posting	Seasonal or event-related signage installation	$1,500
Community Use Communication	Notices for public events, closures, or project disruptions	$1,000

Maintenance:

Seasonal maintenance is carried out by municipal staff and contractors. This includes grass cutting, playground checks, cleaning, and routine surface repairs. Staff survey responses noted regular inspection of play areas and issues with geese at beaches.

Activity	Frequency	Estimated Annual Cost ($)
Grass Cutting and Field Maintenance	Weekly (Spring to Fall)	$15,000
Playground Equipment Inspections	Monthly (Summer); after events	$2,500
Dock and Boat Launch Inspections	Start/end of season + as needed	$2,000
Garbage Collection and Cleaning	Weekly (High use areas)	$3,000
Minor Repairs (Benches, Trails, Signs)	As needed	$4,000
Brushing and Vegetation Management	Seasonal	$2,500
Goose Control Measures (Beaches)	As needed / summer	$1,500

Renewal / Upgrade:

Capital improvements are based on project need and funding availability. Current renewal projects include NOHFC-supported infrastructure and lifecycle-driven replacements.

Activity	Description	Estimated Capital Cost (per event)
New Playground Installation	Installation at Broadbent Park (2025)	$75,000–$100,000
New Ballfield Development	At 701 Hwy 124 (NOHFC-funded) – expected completion in 2025	$200,000–$300,000
Dock Replacement or Upgrades	Replacement of aging or unsafe dock structures	$25,000–$40,000 per dock
Trail Repairs or Resurfacing	Gravel, signage, and accessibility upgrades	$10,000–$30,000 per segment

Pavilion and Fence Refurbishment	Replacement of aged wood, repainting, minor structure upgrades	$15,000–$50,000

Disposal:

End-of-life assets, such as aged docks or unusable recreation equipment, are removed when no longer safe or serviceable. Some facilities (e.g., old rink structures) have already been decommissioned.

Activity	Description	Considerations
Playground or Dock Removal	Retirement due to safety concerns or redundancy	Requires public notice and replacement plan
Field or Court Decommissioning	Repurposing space if no longer in use	Involves community engagement
Move on	Conversion to passive recreation (e.g., green space, walking trails)	May reduce maintenance costs

Supporting Tools and Data Used in DOT

The table below summarizes how different Parks & Recreation asset types were incorporated into the DOT scenario analysis and treatment planning. For many of these assets—including trails, sports fields and courts, and bleachers—no scenarios were modeled in the current planning cycle. This is largely due to limited asset condition data, the relatively low cost and criticality of these assets compared to others, and the absence of significant forecasted capital interventions within the 10-year planning horizon.

Playgrounds were the only asset in this category for which a treatment strategy was defined in DOT. Full reconstruction—typically involving replacement of the entire playground structure—was modeled when assets fell into a "Very Poor" condition range. This reflects a risk-averse approach given the public safety and liability considerations associated with playground equipment. As data collection efforts improve and condition information becomes more consistent, additional Parks & Recreation assets may be included in future scenario modeling to support more proactive planning.

Asset Type	Type of treatment	Treatment	Typical condition range for use
Trails	None	No scenarios were run with these assets	--
Playgrounds	Reconstruction	**Full Asset Replacement** (replacement of playground structure)	Very Poor
Sports Fields & Courts	None	No scenarios were run with these assets	--
Bleachers	None	No scenarios were run with these assets	--

McKellar uses **Remaining Service Life (RSL)** estimates and operational observations to inform renewal priorities. As formal inspection routines evolve, the Township will be better positioned to track trends in asset wear and performance, enabling targeted reinvestments. Asset condition data is currently recorded in spreadsheets and reviewed annually for funding decisions.

Challenges and Opportunities

Challenges:

- Seasonal parks require intensive upkeep in a short time frame.
- Some equipment is aging, and maintenance is reactive due to limited staffing.

- Geese populations continue to affect beach usability and visitor satisfaction.

Opportunities:

- Upcoming grant-funded projects (e.g., new ballfield) present a chance to modernize infrastructure.
- Formalizing inspection routines and scheduling proactive repairs can improve safety and community satisfaction.
- Condition tracking will help prioritize future playground, trail, and dock upgrades.

IT & Communications

Key Activities & Frequencies

Planning:

Planning for IT upgrades is completed in coordination with the Township's managed service provider. Hardware life cycles are tracked in an inventory, and software needs (e.g., accounting system upgrades) are discussed annually during budgeting. Council's interest in livestreaming meetings is also influencing future IT planning.

Procurement:

Most IT assets are sourced through managed services contracts, including servers, licensing, and support. Recent upgrades include VoIP phones, a new server, and updated workstations. Software like property tax modules is purchased based on operational needs and budget timing.

Operations:

Staff rely on IT systems for communication, file access, and service delivery. Public transparency efforts, such as livestreamed meetings, are supported by the IT provider. Operations also include ensuring connectivity at remote sites like Minerva Park, where vendors require internet for POS systems.

Activity	LOS Characteristic Supported	Description	Estimated Annual Cost ($)
Server Operations & File Hosting	Accessibility, Reliability	Central server hosting shared municipal data and applications.	Included in managed cost
Internet Access Management	Accessibility, Performance	Starlink satellite internet across facilities and vendor support at Minerva.	$3,000
Email and Account Management	Accessibility, Safety	Managing staff accounts, credentials, and access permissions.	Included in managed cost
Council Meeting Support	Accessibility, Performance	Audio/visual setup, potential livestreaming, and public interface support.	$1,500 (est. for 2025+)

Maintenance:

IT maintenance is performed under a managed service agreement. This includes regular updates, security patching, antivirus scanning, backup verification, and helpdesk support. Systems are monitored for uptime, and staff receive ongoing support for troubleshooting.

Activity	Frequency	Estimated Annual Cost ($)
Software Updates & Security Patching	Weekly or as issued	Included in managed cost
Antivirus & Endpoint Protection	Continuous	Included in managed cost
Data Backups (Automated + Offsite)	Daily	Included in managed cost
Hardware Cleaning & Maintenance	Annually or as needed	$1,000
User Support & Helpdesk Services	On-demand	Included in managed cost

Renewal / Upgrade:

Replacement of hardware and systems is planned based on age, performance, and evolving needs. Most assets are on a 4–5 year replacement cycle. New capabilities, such as livestreaming or accounting software integration, are treated as upgrades rather than replacements.

Activity	Description	Estimated Capital Cost
Workstation Replacement	Desktop/laptop lifecycle replacements (rotating basis every 4–5 years).	$2,000–$3,000 per unit
Server Replacement	Core server upgraded in 2024; next expected replacement in 2029.	$15,000–$20,000
VoIP Phone System Install	Replaced in 2024; next expected renewal in 2030+.	$3,000
New Accounting Software	Potential upgrade with property tax module.	$50,000–$100,000
Livestream Equipment Setup	To support Council meeting streaming (projected).	$5,000–$8,000

Disposal:

When IT assets reach end-of-life, they are securely decommissioned. This includes data wiping, physical destruction of hard drives, and recycling or donating non-sensitive components.

Activity	Description	Considerations
Data Wiping & Decommissioning	Secure erasure of data before disposal of equipment.	Required to comply with privacy laws
Physical Recycling or Donation	Devices recycled or reused depending on condition and data risk.	May be managed by IT provider
Inventory Update	Retired devices removed from tracking systems.	Essential for audit and replacement planning

Supporting Tools and Data

McKellar uses a managed IT services model that includes real-time system monitoring and hardware tracking. While Remaining Service Life (RSL) is used to estimate renewal timing, performance data and uptime monitoring also support decision-making. The Township is exploring options for livestreaming Council meetings and improving redundancy at key sites.

Challenges and Opportunities

Challenges:

- The Township is fully dependent on Starlink for internet service, creating a potential single-point failure.
- Seasonal sites like Minerva Park require temporary connectivity and operational support.
- Hardware aging cycles must be carefully budgeted to avoid service interruptions.

Opportunities:

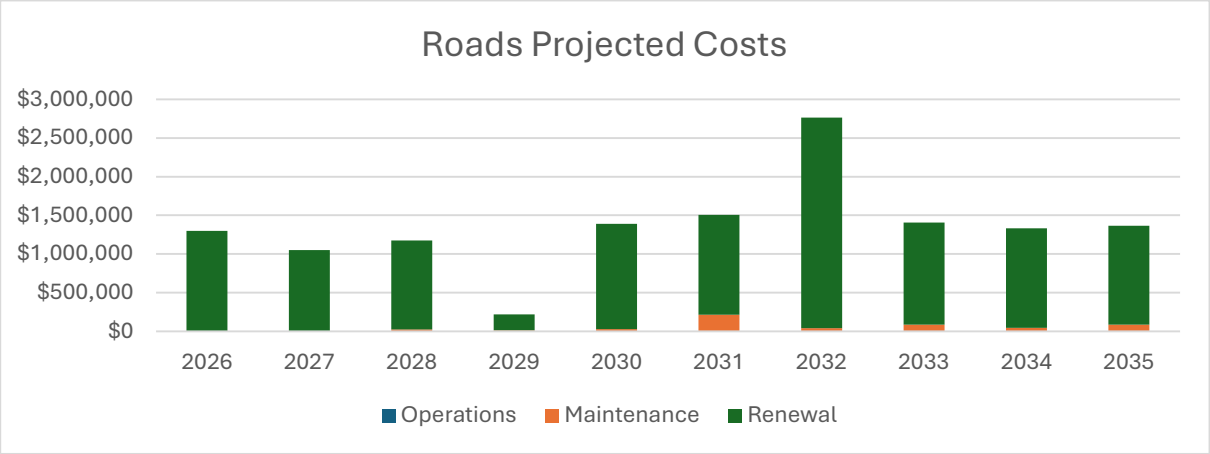
- New server and workstations in 2024 provide a strong foundation for future IT stability.
- Livestreaming and digital communications can enhance transparency and public engagement.
- Ongoing managed service agreements support consistent cybersecurity and user satisfaction.

10-Year Projection of Life Cycles

Transportation

Roads

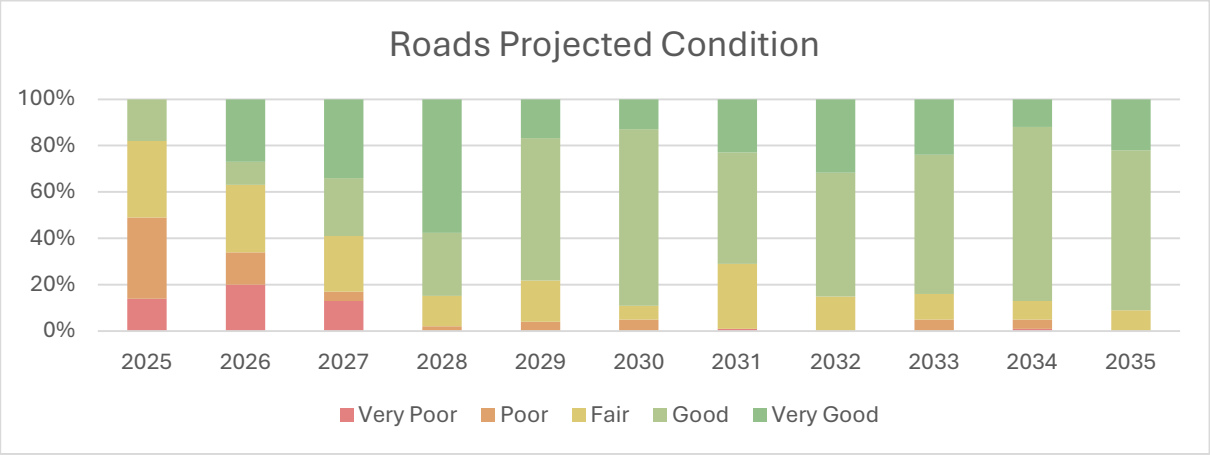
The 10-year projection for roads provides a clear picture of anticipated investment needs and the expected condition of the road network under the proposed lifecycle strategy. The "Roads Projected Costs" chart illustrates the anticipated spending across operations, maintenance, and renewal activities. The most significant costs are associated with renewal, reflecting planned minor and major rehabilitation and reconstruction work. Peak investment in 2032 are where targeted renewal projects are scheduled to address aging infrastructure and critical segments identified through condition and risk analysis. Maintenance and operational costs remain relatively stable and modest in comparison, supporting routine upkeep and smaller-scale interventions.



Roads – Meet LOS Conditions 2

The "Roads Projected Condition" chart demonstrates how this investment strategy translates into improved network performance. By 2028, assets in Very Poor and Poor condition are significantly reduced, and by 2031, the majority of the network shifts into Good or Very Good condition. This upward

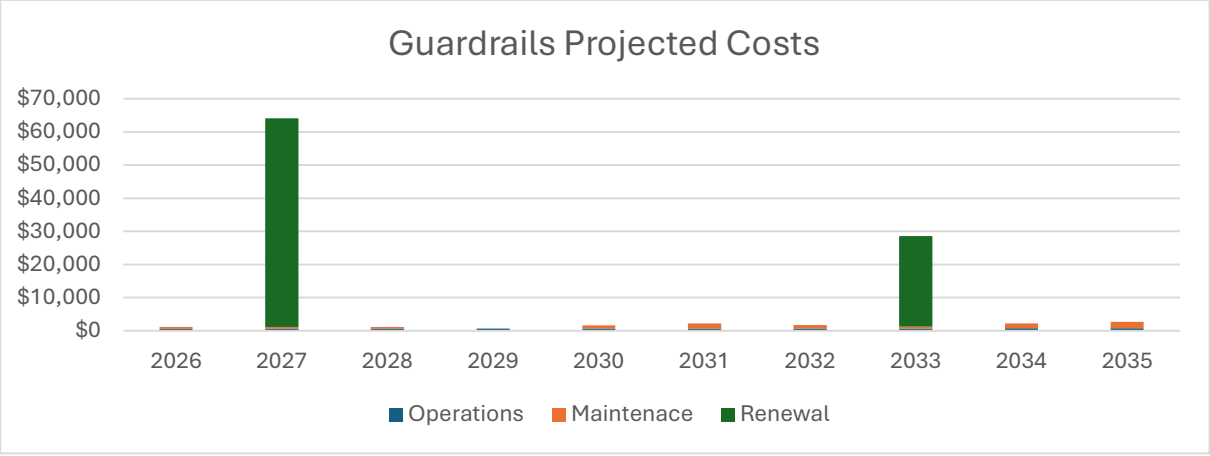
trend reflects the benefits of the strategic renewal investments made in the earlier years of the plan. Sustained renewal in the outer years ensures this condition distribution is maintained, with 70–80% of the road network expected to remain in Good or better condition by 2035.



Together, these charts reinforce the importance of aligning capital investment with long-term performance objectives. They also demonstrate the municipality's proactive approach to managing infrastructure condition while balancing budgetary constraints and service delivery goals.

Guardrails

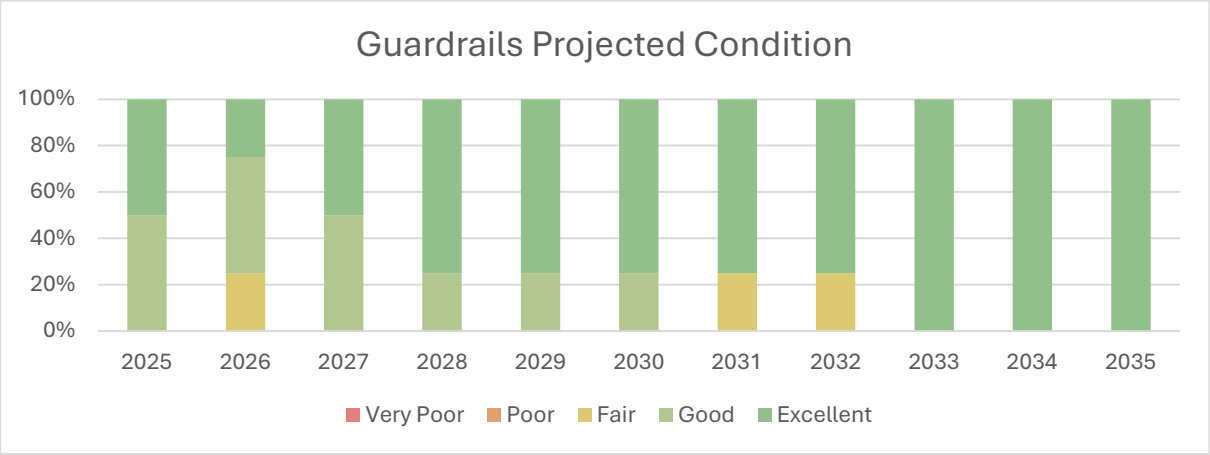
The 10-year life cycle cost projections for the Township's guardrail assets reflect a stable and well-managed asset class that requires only modest intervention over the coming decade. These projections include routine operations, scheduled maintenance, and two key renewal events to address end-of-life replacements. The cost and condition forecasts were developed using Remaining Service Life (RSL) modeling and are shown in the charts below.



Guardrails – Max Net Condition

The projected cost profile shows that maintenance and operational needs remain low throughout the 10-year period. Annual maintenance costs—which cover small repairs or component upkeep—rise gradually from $500 in 2026 to $2,000 in 2035. Operational costs, such as staff time for inspections and reporting, remain stable between $600 and $717 per year.

Two major renewal events are planned: one in 2027 ($63,023) and another in 2033 ($27,406). These expenditures correspond to full replacements for aging guardrail segments based on projected service life and represent the majority of the capital investment required for this asset class.



The projected condition chart illustrates how these planned interventions maintain asset quality over time. In 2025, about half of the guardrail assets are in Excellent condition, with the remainder split between Good and Fair. Without immediate reinvestment, the model predicts a brief decline in 2026, with a small percentage of assets dropping into the Poor category.

The 2027 renewal reverses this decline, restoring all assets to Excellent or Good condition. A similar pattern appears around 2032, followed by the 2033 renewal, which again elevates the network to nearly 100% Excellent condition through to 2035.

These coordinated renewal activities help to prevent deterioration, minimize safety risks, and ensure long-term reliability with relatively low financial impact. The strategy shown here demonstrates a cost-effective approach that aligns well with asset performance goals.

As the Township continues to mature its asset management program and collects more condition and inspection data, future projections will become increasingly refined. Over time, guardrail lifecycle forecasts will shift from RSL-based modeling to field-informed decisions, enhancing accuracy and responsiveness to changing asset needs.

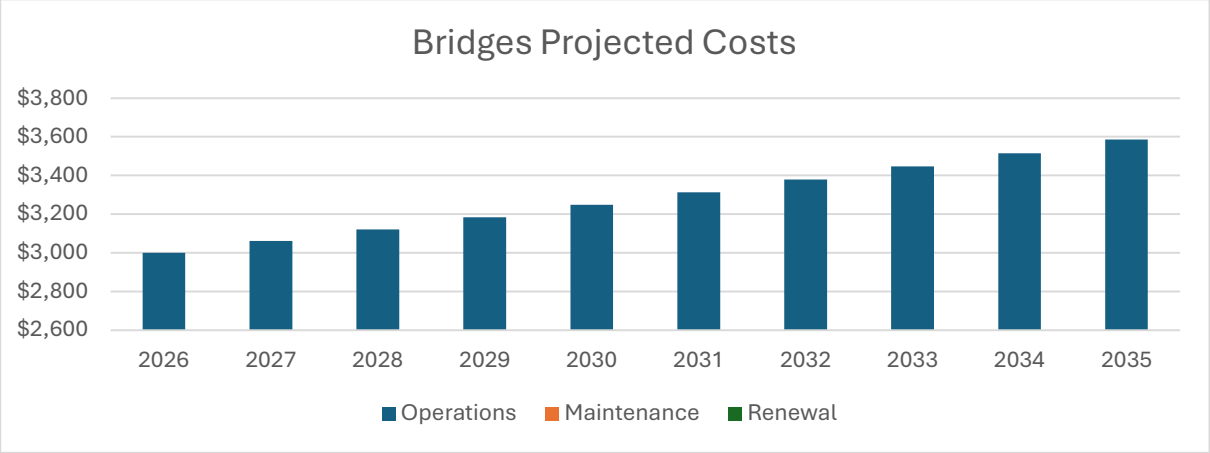
Bridges

Bridges in the Township of McKellar represent a critical infrastructure component, ensuring safe passage over waterways and supporting key routes in both urban and rural areas. As of the current Asset Management Plan, projected costs for bridges primarily reflect operational spending, with no planned maintenance or renewal events shown in the current 10-year scenario. This is not necessarily reflective of asset needs, but instead indicative of data limitations, particularly around condition assessments.

A comprehensive bridge inspection program is scheduled for 2025, which will significantly improve the understanding of each structure's current condition, risks, and required interventions. The results of this inspection will be incorporated into the next iteration of the Asset Management Plan, and it is

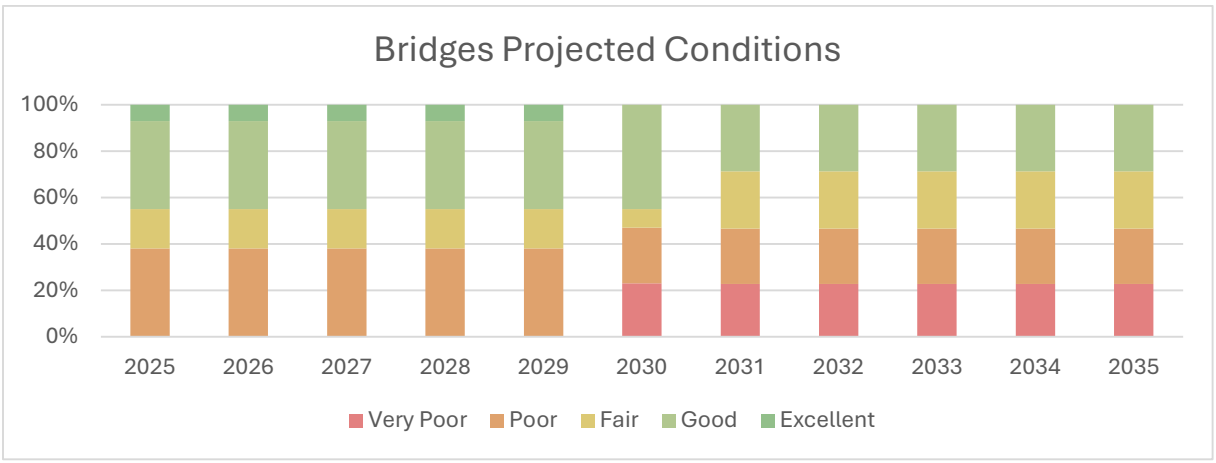
anticipated that both cost projections and strategic reinvestment timing will shift as a result. This highlights the evolving nature of asset management at this stage in McKellar's program maturity.

As shown in the chart below, operations costs gradually increase over the 10-year period, likely due to inflation and general service delivery needs. However, the absence of renewal or maintenance spending indicates a need for better input data, which the 2025 bridge inspections will help provide.



Bridges – Maintain Fair to Good

The projected condition chart below shows a stable but aging bridge network, with a persistent portion of the portfolio in *Poor* or *Very Poor* condition across the 10-year period. Without any planned maintenance or capital reinvestment, the system does not recover significantly in terms of overall condition. These trends emphasize the importance of reinvestment planning and reinforce the need for updated data through the 2025 inspection cycle.

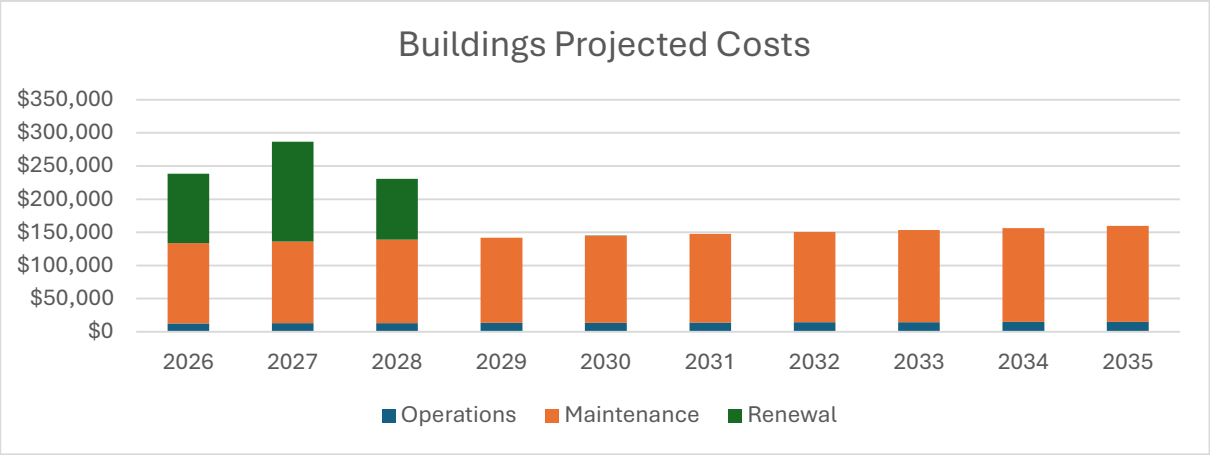


Buildings & Facilities

Buildings

The chart below illustrates the projected life cycle costs for the Township's building assets over the next 10 years. These costs are categorized into three key areas: operations, maintenance, and renewal.

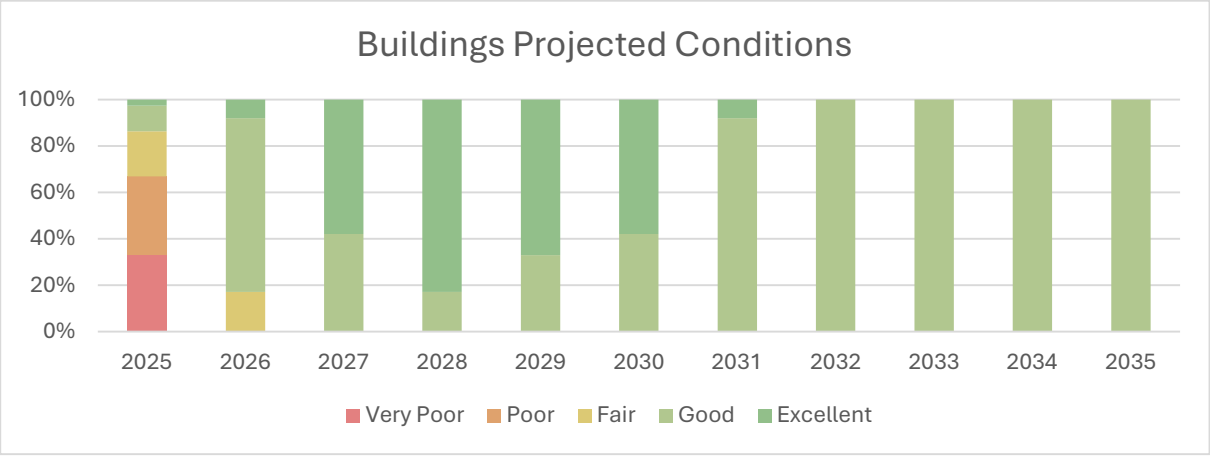
Operational costs represent the routine activities required to keep facilities functioning and services running, such as utility payments and janitorial work. Maintenance costs refer to regular upkeep activities, including system checks, minor repairs, and scheduled servicing of building systems. Renewal costs capture more significant investments, such as major upgrades, replacements of critical components, or full facility reconstructions when assets reach the end of their useful life.



Buildings – Maintain Level of Service

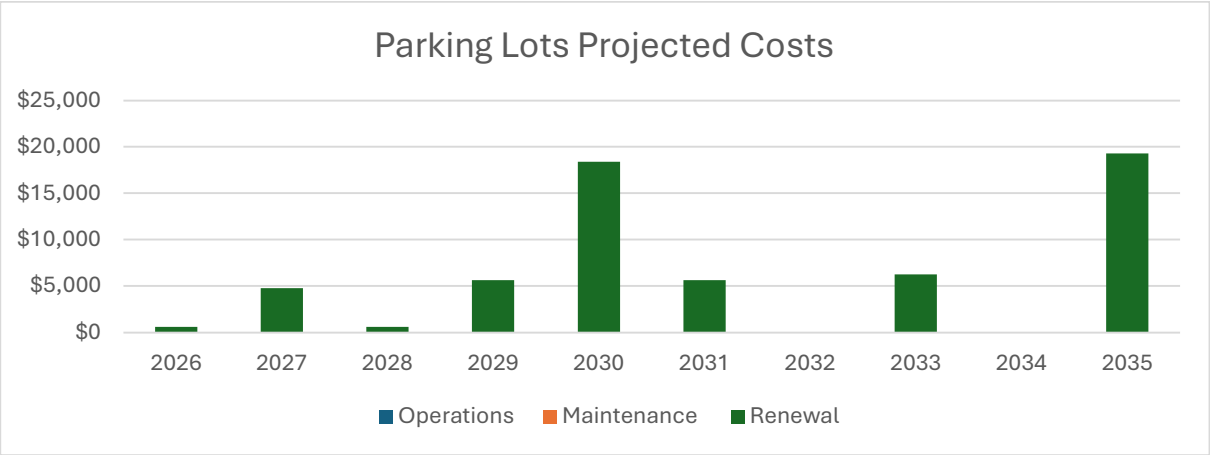
As shown, there is a significant investment in building **renewal activities** in 2026, 2027, and 2028. These years reflect high-value reinvestment projects intended to elevate the condition of key building assets that are currently aging or showing signs of functional decline. After 2028, the Township's building portfolio is projected to transition into a steady state of operations and ongoing maintenance, indicating that the anticipated investments in the early years are intended to stabilize long-term asset condition.

The condition projections below illustrate the expected impact of this renewal effort. In 2025, nearly 70% of building assets were rated in Very Poor, Poor, or Fair condition. However, by 2027, the scenario shows a sharp improvement—largely eliminating lower-condition assets from the portfolio. From 2028 onward, nearly all building assets are projected to remain in Good to Excellent condition, supporting improved reliability and reduced long-term risk.



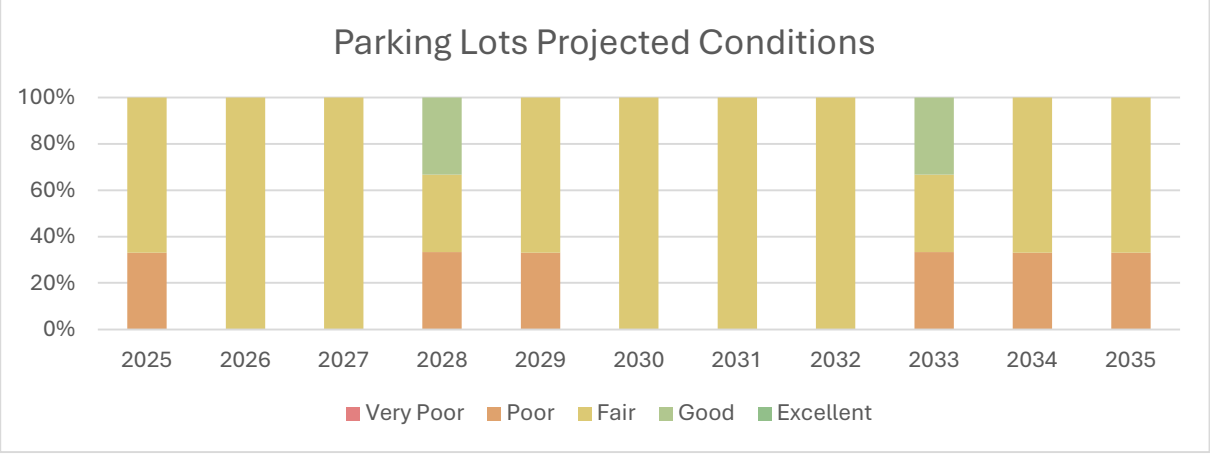
Parking Lots

Parking lots are a key component of the Township's facilities portfolio, providing access to community buildings and recreational spaces. Though often less visible in infrastructure discussions, these assets require ongoing attention to ensure safety, accessibility, and usability year-round. The following analysis presents a forecast of investment needs for parking lot assets over the next decade, accounting for planned resurfacing and structural upkeep.



Parking Lots – Max Net Perf 6K

Over the 10-year forecast period, projected investment in parking lots is focused entirely on **renewal** activities, with several strategic resurfacing and reconstruction efforts spaced throughout the decade. These occur in 2027, 2029–2031, 2033, and 2035. No regular operating or maintenance costs have been modeled at this time, which reflects the current limited data rather than a long-term service reality. It is expected that as asset-level costing becomes more robust, future iterations of the plan will include day-to-day maintenance and operational costs such as snow clearing, crack sealing, or line painting.



The condition forecast indicates that without sustained investment, the parking lot network remains in mostly Fair condition, with notable proportions in Poor and Very Poor categories through the entire forecast period. Intermittent improvement is observed following renewal years, such as in 2028 and

2033, when segments of the network are upgraded. However, these improvements are short-lived without ongoing maintenance, and condition levels begin to erode again in subsequent years.

This pattern suggests a reactive approach to asset management, with long stretches of condition decline punctuated by major capital works. Introducing even modest maintenance budgets and a more proactive renewal cycle could improve overall condition stability and reduce long-term costs. Future plans should consider developing a more structured maintenance program to complement the larger renewal efforts.

Land

At this time, no condition or risk data is available for the Township's land assets. As a result, these assets have not been included in the 10-year life cycle cost projections. Once baseline condition assessments or risk evaluations are completed in future planning cycles, lifecycle modeling and cost forecasting can be developed to better support long-term asset management for this category.

Land Improvements

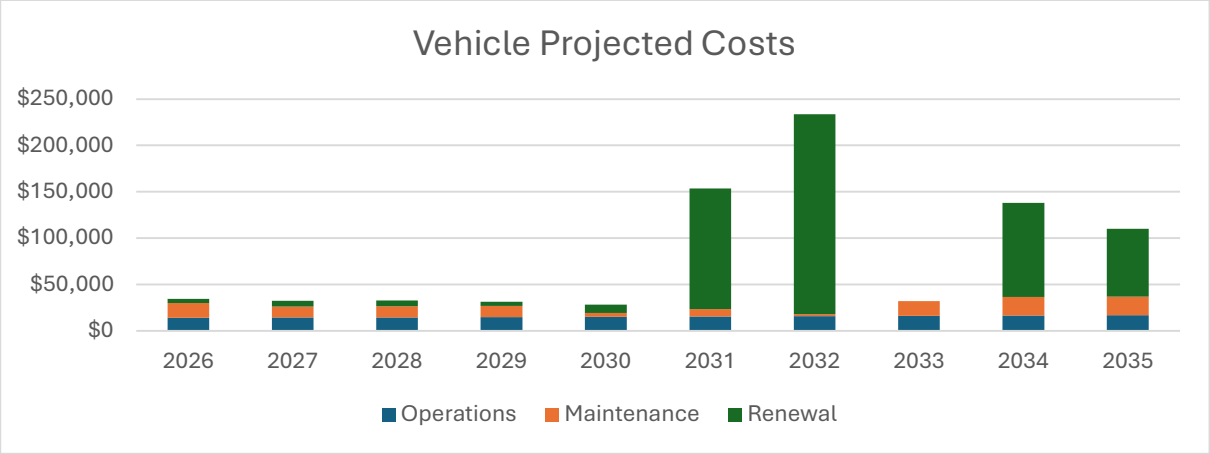
Due to the diverse nature of the Township's Land Improvement assets—which include items such as a compactor, sculpture, gates, flower bed, and a memorial—a consistent lifecycle scenario could not be developed using the DOT software. These assets vary widely in function, materials, and maintenance needs, making it difficult to apply standardized treatment or renewal strategies. As a result, Land Improvements have not been included in the 10-year projected cost estimates. Future planning efforts may benefit from asset-specific costing or the development of subcategories to support more targeted lifecycle forecasting.

Fleet & Equipment

Vehicles

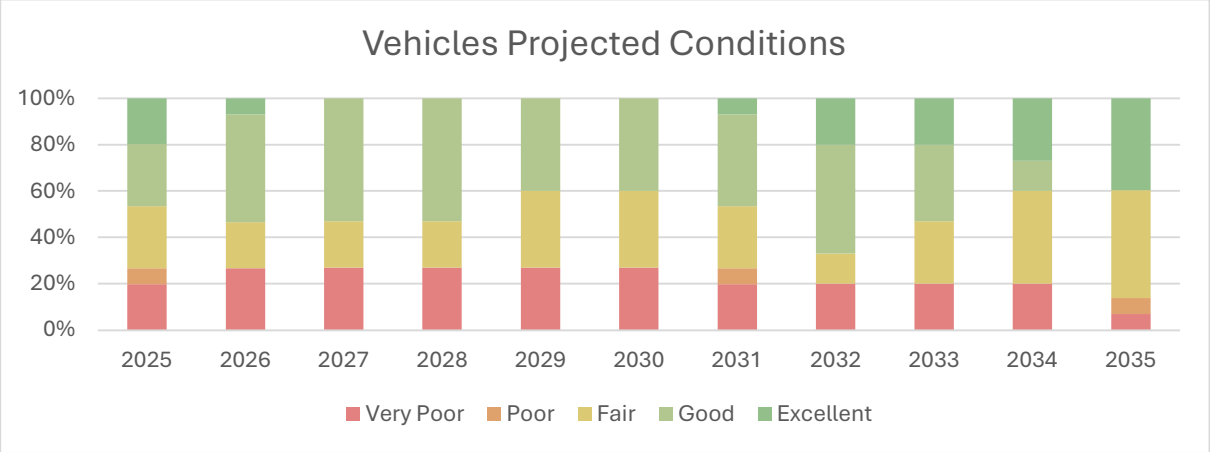
The vehicle fleet plays a vital role in enabling service delivery across a range of municipal operations—from snow removal and road grading to utility maintenance and by-law enforcement. The projected life cycle costs reflect the total investment required to keep the fleet operational, safe, and effective over the next ten years.

As shown in the chart below, renewal needs dominate the cost profile, with significant spikes in 2031, 2032, and 2034. These reflect major replacement years for aging vehicles that are currently in poor or very poor condition. Day-to-day maintenance and operational costs remain relatively stable throughout the decade, highlighting predictable ongoing investment.



Vehicles – Target LoS : municipality by 2035

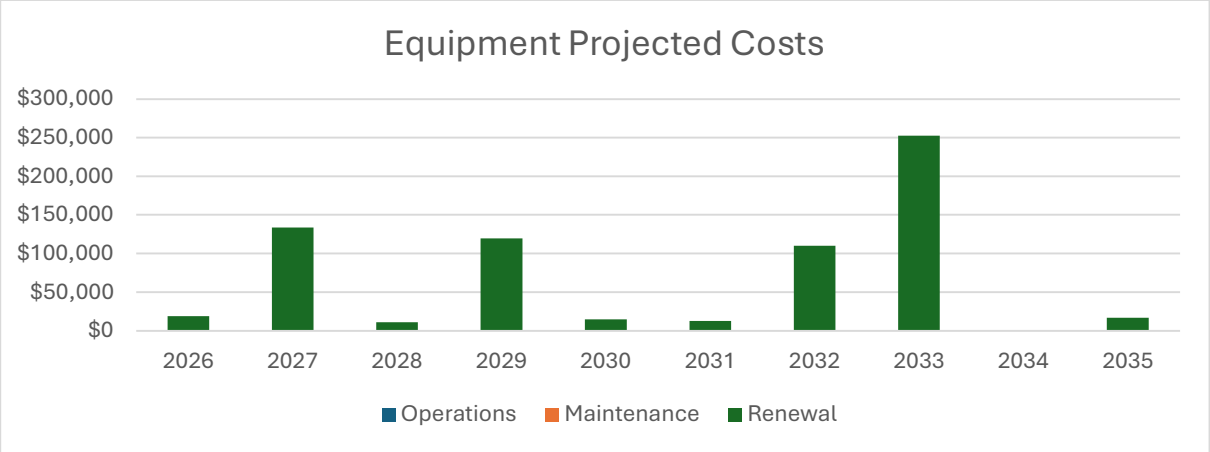
The condition forecast indicates gradual improvement across the fleet. As vehicles in poor or very poor condition are replaced, the proportion of assets in "Good" and "Excellent" condition steadily rises. However, the early years of the forecast show a heavy concentration of vehicles in lower condition states, underscoring the importance of following through on renewal investments.



The insights from this projection should inform future budgeting and procurement strategies. Prioritizing timely vehicle replacements will not only improve condition profiles but also reduce unplanned maintenance and service disruptions. Over time, this approach can support a more reliable and cost-efficient fleet that aligns with service expectations and operational resilience.

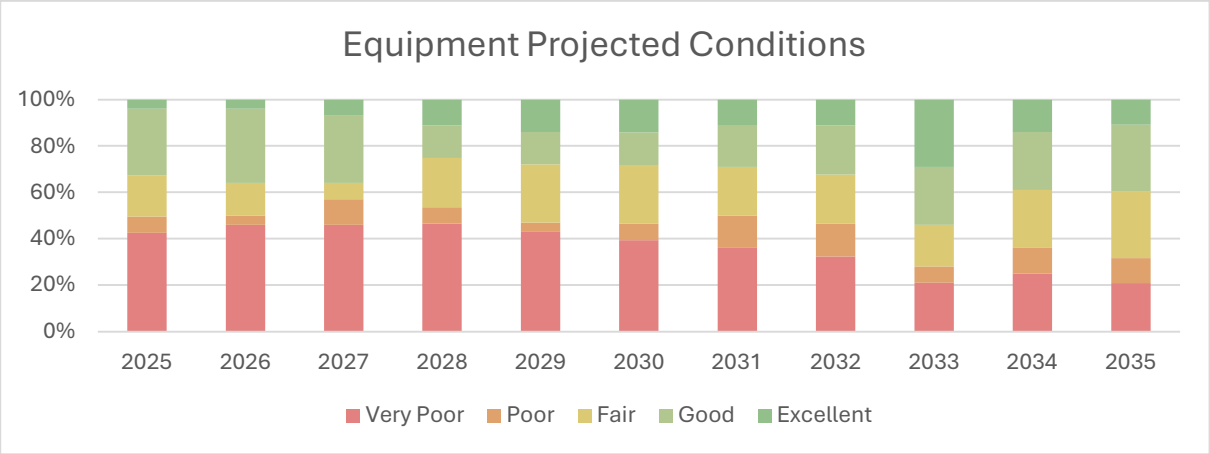
Equipment

The Township's equipment portfolio includes a range of small and large tools and machinery used to support ongoing service delivery. From graders and loaders to compact utility equipment, these assets are essential to maintaining transportation, park, and facility services. However, many of these assets have limited useful lives, and the Township is facing a high proportion of equipment already in Very Poor or Poor condition, which indicates an aging equipment in urgent need of renewal.



Equipment – Meet LOS Conditions 130K – end of planning

The chart illustrates a renewal-heavy expenditure forecast, with notable investment spikes in 2027, 2029, 2032, and 2033. These peaks reflect planned replacements for key equipment assets, where lifecycle thresholds will be reached or surpassed. There are minimal operational or maintenance costs shown, consistent with the nature of equipment assets—most require relatively low ongoing servicing but demand significant capital investment when end-of-life is reached.



As shown in the conditions chart, current asset health is a concern, with over 40% of equipment rated in Very Poor condition in 2025. Although renewal activities improve overall condition ratings by 2030, a significant portion of the equipment remains in Fair or lower condition throughout the decade. These projections reinforce the need for targeted reinvestment in equipment to reduce risk exposure and ensure service continuity. Proactive renewal planning is essential to reduce the backlog and avoid unplanned downtime due to failure.

Parks & Recreation

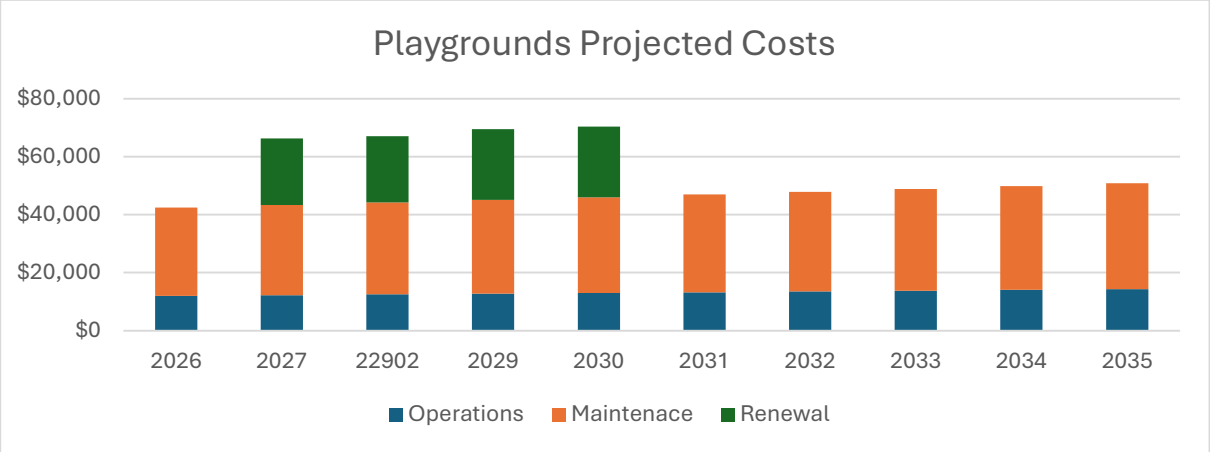
Trails

The Wilderness Trail is currently not supported by detailed asset data, making it difficult to assess its overall condition, usage, or long-term maintenance needs. At present, the trail receives minimal attention in terms of upkeep, with only occasional clearing or informal maintenance taking place on an as-needed basis. As a result of this limited activity and the absence of a structured maintenance

program, no operating, maintenance, or renewal costs have been attributed to the trail system in the financial projections.

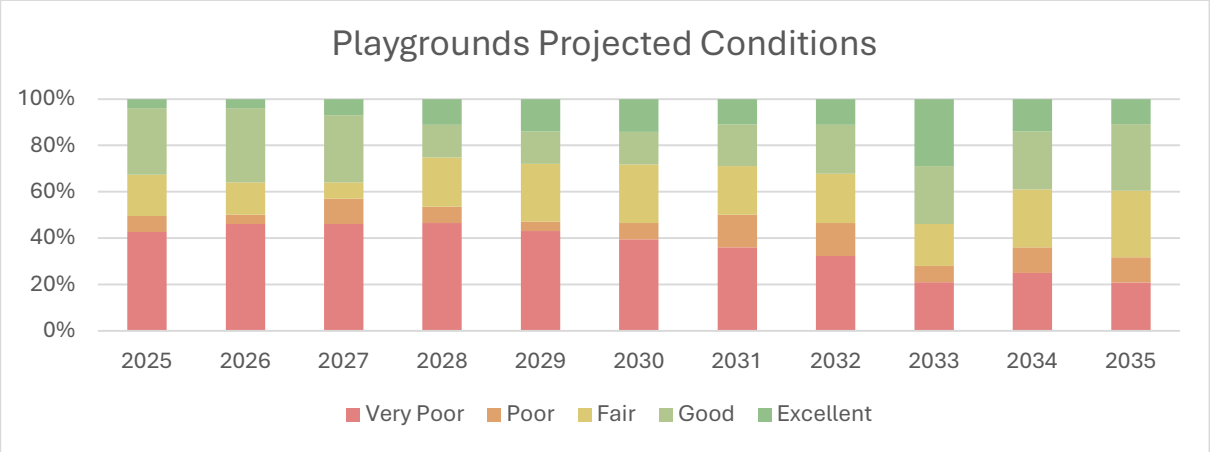
Playgrounds

The Township's playgrounds represent a critical component of community wellbeing, offering recreational value and supporting active lifestyles for residents of all ages. The existing inventory includes a mix of older and newer equipment, with varying condition levels. The projected investment strategy focuses heavily on ongoing maintenance, complemented by targeted renewals early in the forecast to address aging or non-compliant components. The cost profile suggests an emphasis on sustaining usability and safety over time, with annual maintenance and operations expenditures remaining consistent through 2035. Renewals are clustered between 2027 and 2030, after which no major replacements are forecast within the current planning horizon.



Playgrounds – Achieve LOS by 2030 – Budget 20K

The projected condition profile shows gradual improvement through the first half of the decade, reflecting the impact of early renewal work. By 2030, the share of playgrounds in "Very Poor" or "Poor" condition begins to decrease, with a corresponding increase in "Good" and "Excellent" ratings. Despite this progress, nearly half the portfolio remains in "Fair" condition by 2035, signaling the need for continued oversight and potential reassessment in future plans. Regular inspections, hazard mitigation, and timely component replacement will be essential to ensure that playgrounds remain safe and engaging for the community.



Sports Fields & Courts

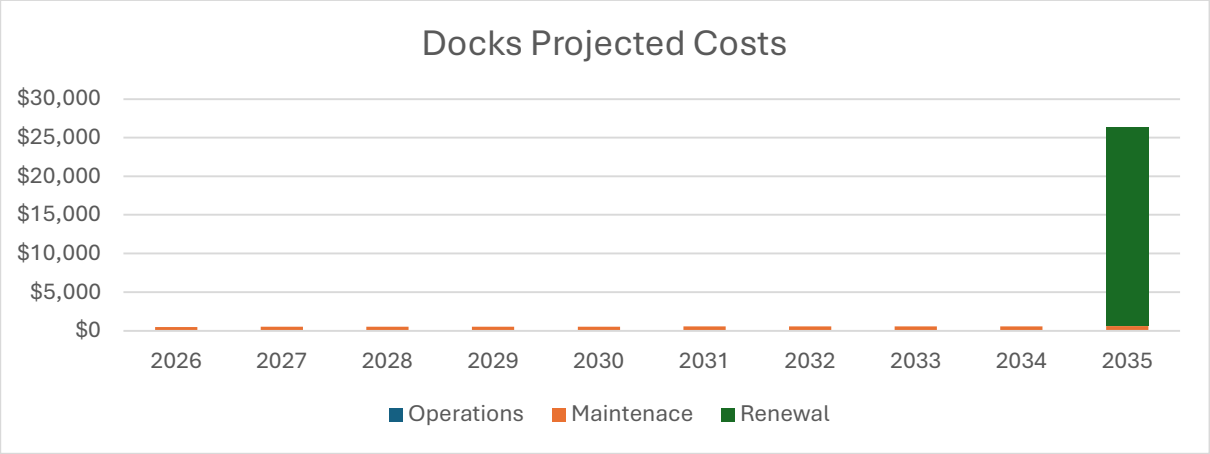
The Township's sports fields and courts, while valued for recreational and community use, currently represent a relatively small portion of the overall asset portfolio in both scale and financial impact. Due to their limited complexity and infrequent maintenance needs, no asset-specific renewal scenarios were developed as part of this forecast. Routine upkeep is minimal and typically carried out on an as-needed basis, resulting in no attributed costs in the capital planning model at this time. Future assessments may consider these assets more closely if use increases or condition concerns arise, but for now, their impact on the Township's long-term financial strategy remains modest.

Bleachers

The Township's bleachers, acquired in 2019, are still within the early stages of their life cycle and are not anticipated to require significant investment over the next 10 years. Given their relatively recent purchase and good current condition, no major maintenance or renewal activities are forecast during the planning horizon. As a result, the bleachers have minimal influence on projected costs and have not been included in any scenario modeling at this time. Regular inspections will continue to ensure they remain safe and functional, but no substantial financial impact is expected.

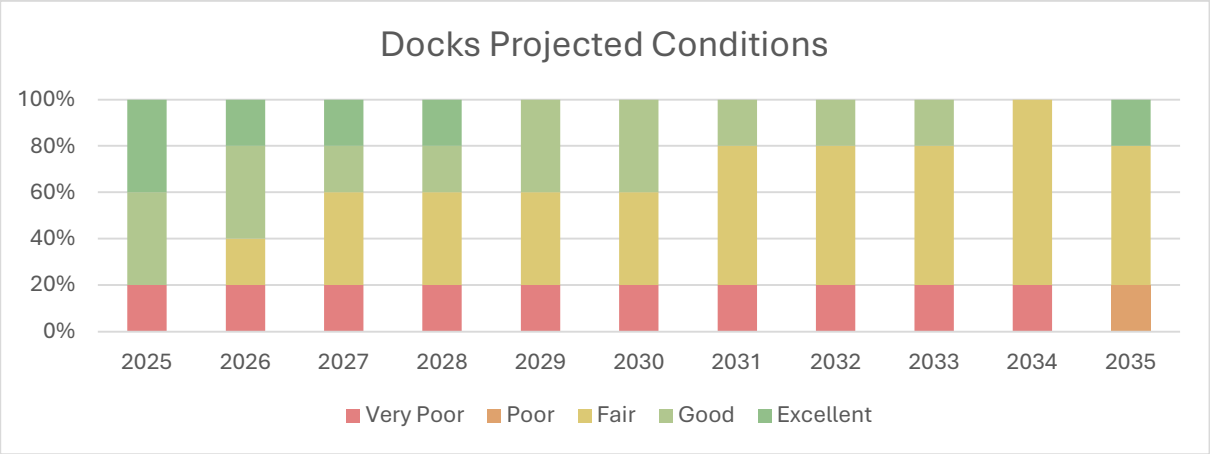
Docks

The Docks asset class, while relatively small in scale, serves a critical role in supporting marine access, recreational boating, and seasonal tourism. Due to the limited number of assets, annual operations and maintenance costs remain low, with a consistent baseline level of maintenance activity projected throughout the 10-year planning horizon. As shown in the chart below, a single renewal event is forecast for 2035, corresponding to the planned replacement of one aging dock structure.



Docks – Achieve LOS by 2035 – Budget 40K

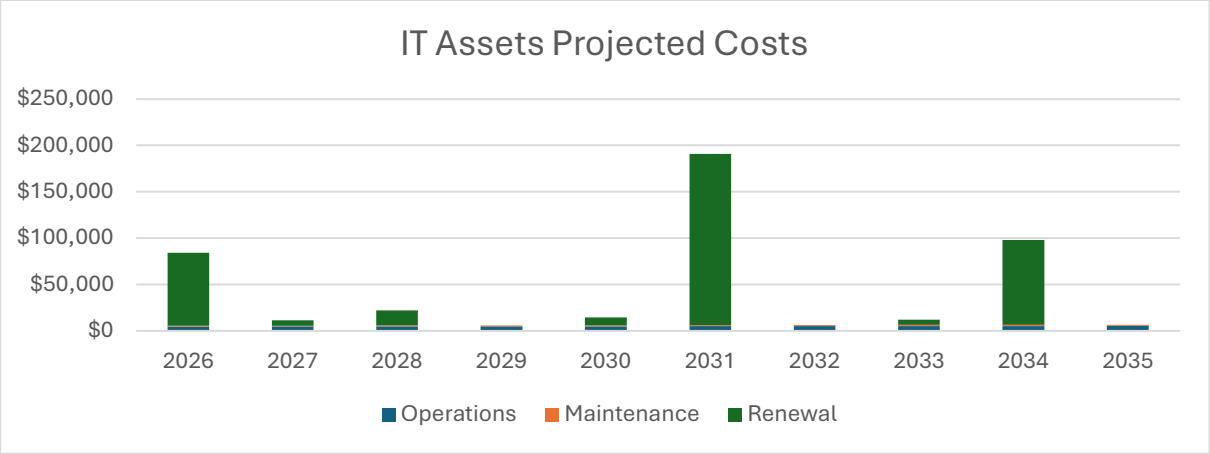
Despite minimal investment needs in most years, condition modeling indicates a gradual decline in overall asset condition, with an increasing proportion of docks falling into the Fair and Poor categories by 2030. This deterioration underscores the need for strategic reinvestment at key points in the planning horizon to avoid functional or safety issues. The following chart illustrates the expected condition profile over time.



IT & Communications

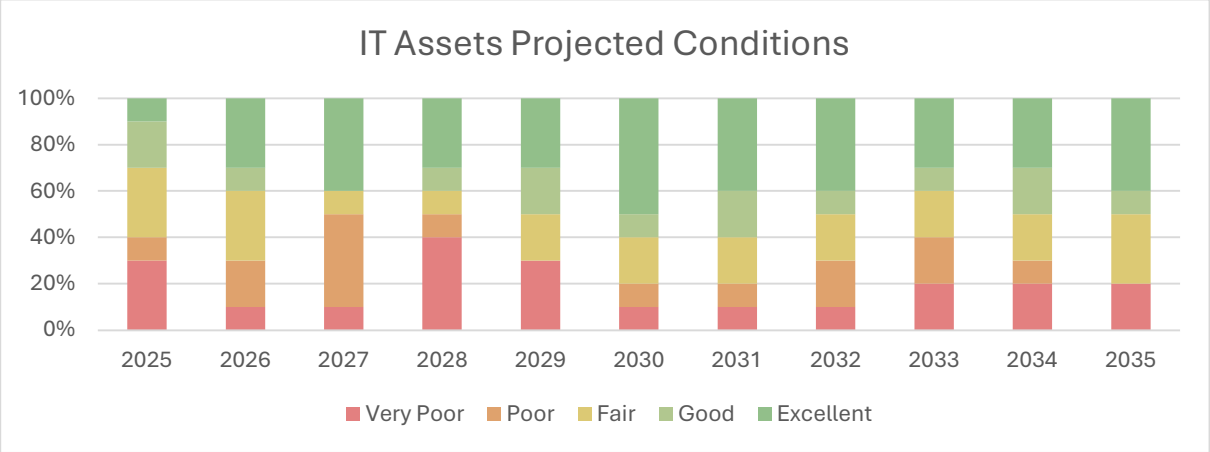
IT Assets

The IT asset class includes a wide range of equipment and systems that support administrative, operational, and communication functions. While not large in number or physical footprint, these assets are critical to the effective operation of municipal services. Replacement costs for IT equipment—particularly servers, security systems, and network hardware—can be significant in certain years, as seen in 2026, 2031, and 2034. These are driven by planned renewals aligned with the expected useful lives of major systems. The overall investment pattern reflects a cyclical replacement strategy, with smaller annual allocations for operations and maintenance.



IT Assets – Meet LOS Conditions

Condition projections for IT assets show steady improvement through targeted renewals. Assets in Very Poor or Poor condition are projected to decline through the decade, while the share of assets in Good and Excellent condition increases notably by 2035. This is particularly important for minimizing operational disruptions and ensuring data security, system compatibility, and efficient service delivery.



Risk Management

The following risk assessment provides a detailed evaluation of critical assets and associated risks across key service areas in the Township of McKellar. This analysis considers the likelihood and potential impacts of asset failure within a 5–10 year horizon, along with contributing environmental, operational, or regulatory factors. It also outlines any existing mitigation strategies and identifies areas where further measures may be required. This risk-based approach supports the Township's compliance with Ontario Regulation 588/17 and lays the foundation for more informed capital planning and operational decision-making.

At the time of writing this Asset Management Plan, no formal, organization-wide risk assessment process has been completed. As such, the risks presented in this plan are based on the data currently housed within the DOT (Decision Optimization Technology) system. This includes general asset

attributes such as age, condition, performance, and replacement cost. These system-generated outputs represent a starting point and may evolve significantly as better data is collected and as internal capacity grows to support risk-based asset management practices.

Looking ahead, a more refined approach to risk management can be developed through targeted assessments by asset class. For example, bridges and culverts may benefit from engineering inspections that assess structural integrity and load capacity, while recreational infrastructure may require user safety audits or accessibility reviews. Water and wastewater systems may incorporate regulatory compliance risk, operational downtime exposure, or environmental vulnerability assessments. Each asset class has unique failure modes and consequences, and tailoring assessments accordingly will result in more meaningful and actionable risk profiles.

Improving the Township's risk management framework will also support stronger scenario planning, lifecycle forecasting, and investment prioritization. By understanding which assets pose the greatest risk to service delivery, health and safety, or environmental compliance, staff and Council can more confidently make trade-offs between competing projects, justify funding applications, and communicate decisions transparently to the community. As this risk maturity improves, new data—including incident reports, condition ratings, maintenance logs, and stakeholder feedback—can be integrated into DOT to continuously refine and update risk scores.

In the short term, risk management efforts should focus on building internal capacity, establishing clear risk criteria for each asset group, and developing simple data collection tools that align with staff workflows. Over time, this foundation can support the development of a formal Risk Management Policy and Procedure, ensuring that risk becomes a consistent lens through which all asset-related decisions are made. Until then, the risks outlined in this plan should be treated as preliminary and subject to change as additional data becomes available.

General Transportation

Critical Assets

The Township's General Transportation service relies heavily on an integrated system of roads, bridges, and culverts. These assets are essential to the community's functionality, supporting daily travel, local commerce, school transportation, and access to health and emergency services. Roads form the primary means of movement within and beyond the Township, while bridges and culverts ensure continuity across rivers, creeks, and other natural barriers. In many areas, there are limited or no alternative routes, which elevates the importance of each segment of the network. These assets also play a crucial role in seasonal operations, such as snow clearing and spring grading, and are directly linked to resident quality of life and public safety. Due to their widespread use, high value, and long service lives, roads, bridges, and culverts represent some of the most critical and costly assets in the Township's infrastructure portfolio.

Main Risks

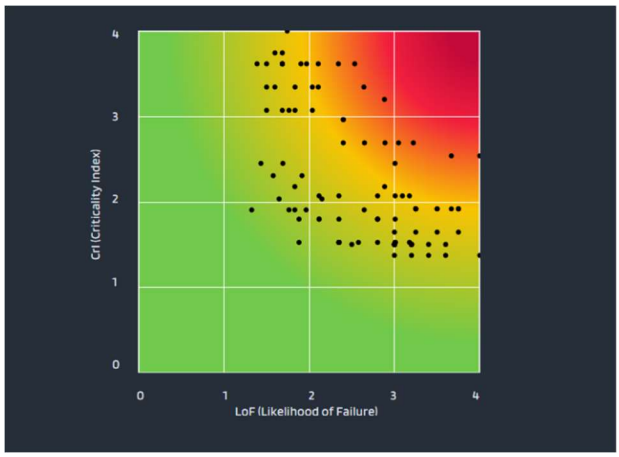
The primary risks facing the Township's General Transportation assets include road surface failure, washouts, and culvert blockages—each with the potential to significantly disrupt access and compromise safety. Road surface failure, particularly on gravel roads, can lead to unsafe driving conditions, increased maintenance demands, and accelerated asset deterioration. Washouts are

typically caused by high-intensity precipitation or rapid spring melts and pose a severe threat to both gravel and paved road segments, especially where drainage is insufficient or aging culverts are undersized. Culvert blockages—often the result of beaver activity—can cause upstream flooding, roadbed erosion, and eventual structural damage to adjacent infrastructure. These risks are heightened in areas with poor drainage, limited redundancy in the road network, and high environmental exposure.

Likelihood of Occurrence

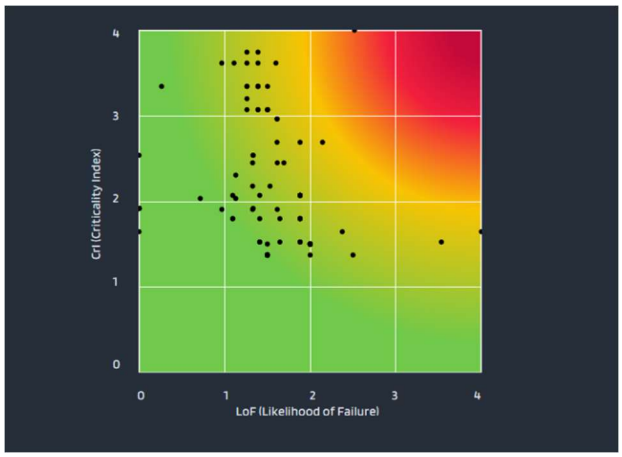
To assess risk within the General Transportation asset class, the Township utilized risk heat matrices that map the Likelihood of Failure (LoF) against the Criticality Index (CrI) for each subclass of asset—namely roads, bridges, and culverts. These visual tools help identify assets that pose the highest risk by combining how likely they are to fail with how severe the consequences of that failure would be. Assets in the lower-left quadrant of the matrix (green) are considered low-risk, while those in the upper-right quadrant (red) represent high-risk priorities requiring proactive attention. LoF scores consider asset condition, age, and failure history, while CrI reflects each asset's functional importance to mobility, emergency access, and service delivery. Together, this approach provides a structured, data-informed foundation for evaluating risk exposure today and projecting how that risk may change over the next decade.

Roads Current Risk Heat Matrix



Roads – Meet LOS Condition – 2025

Roads Projected Risk Heat Matrix

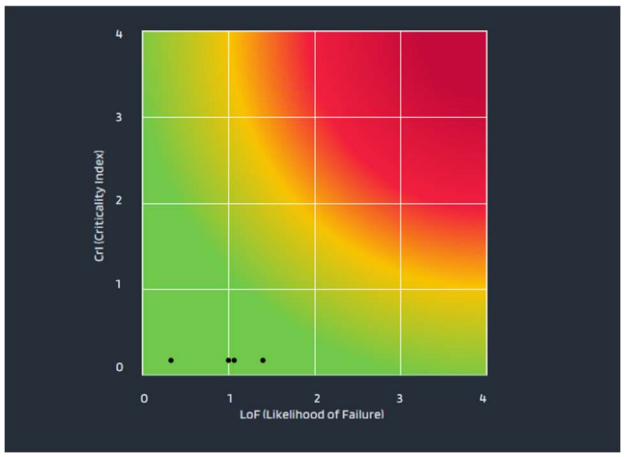


Roads – Meet LOS Conditions - 2035

Guardrails

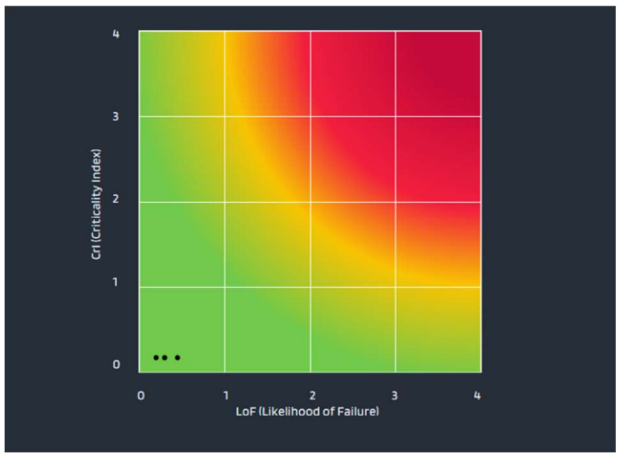
The Risk Heat Matrices for guardrails in 2025 and 2035 illustrate a low-risk profile for this asset subclass both currently and in the future. In 2025, all guardrail assets are positioned in the green zone of the matrix, indicating low Likelihood of Failure (LoF) and low Criticality (Cri). This reflects their current condition and the limited consequence their failure would have on broader transportation service delivery. By 2035, the risk profile is projected to improve even further, with all guardrails anticipated to remain in the lowest risk category. This suggests that either continued minimal wear or timely renewal efforts are effective in mitigating future risk. While guardrails are important for roadside safety, their isolated nature and low replacement cost contribute to their low criticality rating. It is recommended that these assets continue to be monitored through routine inspections to ensure this risk profile is maintained over time.

Guardrails Current Risk Heat Matrix



Guardrails – Max Net Condition – 2025

Guardrails Projected Risk Heat Matrix



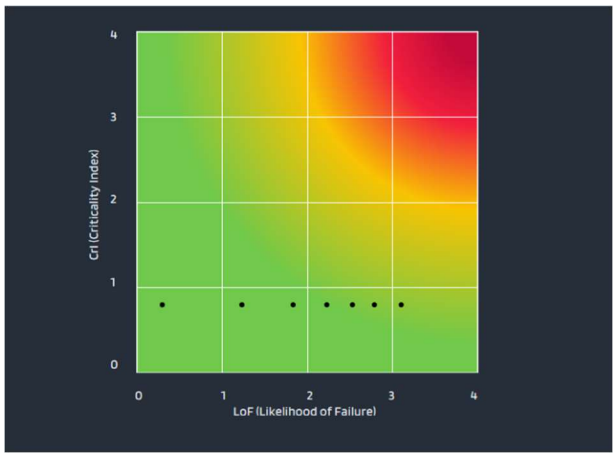
Guardrails – Max Net Condition – 2035

Bridges

The Risk Heat Matrices for bridges in 2025 and 2035 illustrate a consistently elevated likelihood of failure across multiple bridge assets, even though criticality scores remain relatively low. In 2025, most bridge assets cluster along the bottom portion of the matrix with Likelihood of Failure (LoF) values ranging from 1.0 to just under 3.0, suggesting that while failure is not imminent, the probability of occurrence is moderate across much of the inventory. The situation appears to persist into 2035, where LoF values remain in the same general range and trend slightly higher, indicating an increased probability of failure over time if no significant interventions are undertaken.

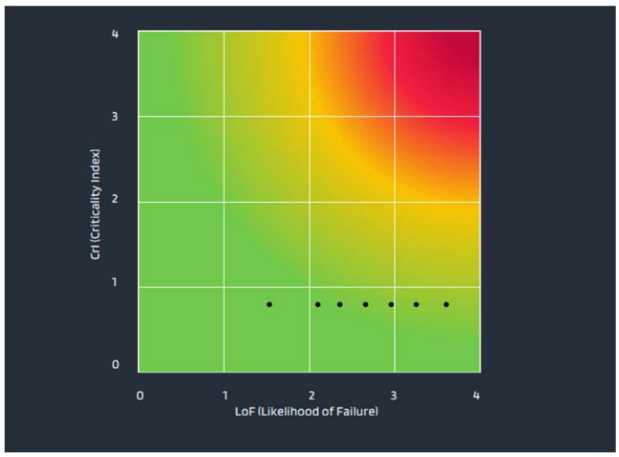
Despite their low Criticality Index (CI) scores—meaning their individual failure would not cause major system-wide disruptions—this trend is important. Bridges are exposed to a variety of stressors such as aging structures, limited load-bearing design, seasonal freeze-thaw cycles, and watercourse erosion, all of which gradually elevate their risk profiles. The consistent horizontal spread in both matrices demonstrates that the LoF, not criticality, is the driver of risk in this sub-class. Without enhanced monitoring, targeted capital investment, and routine maintenance, these risks are expected to increase. These findings reinforce the importance of a proactive bridge assessment and renewal strategy to maintain service reliability and reduce the likelihood of costly emergency failures in the long term.

Current Bridges Risk Heat Matrix



Bridges – Maintain Fair to Good

Projected Bridges Risk Heat Matrix



Bridges – Maintain Fair to Good – 2035

Impacts of Risk Materialization

When transportation infrastructure assets such as roads, bridges, culverts, and guardrails experience failure, the consequences can be immediate, wide-reaching, and costly. Service disruptions are among the most direct impacts, with road closures or detours affecting daily commutes, school transportation, delivery routes, and emergency services. Even temporary outages in key corridors can significantly limit access to remote or rural areas, cutting off residents and delaying critical support services.

More concerning, however, are the public safety hazards that arise from these failures. Bridge deterioration or washouts can lead to structural collapse or dangerous driving conditions. Blocked culverts and failed drainage systems can cause localized flooding, reducing visibility, damaging adjacent infrastructure, and increasing the likelihood of collisions. Similarly, missing or damaged guardrails diminish roadside safety, particularly on curves, slopes, or bridge approaches.

From a financial standpoint, unplanned failures typically require emergency response, which incurs higher costs than scheduled repairs or renewals. In addition to direct repair expenses, there may be collateral costs related to equipment mobilization, environmental remediation, or the need for temporary infrastructure. The reactive nature of emergency work can also divert resources away from planned capital and maintenance programs, compounding future infrastructure challenges.

Ultimately, failure to proactively manage risks within the transportation network can escalate routine deterioration into critical events that jeopardize safety, compromise accessibility, and strain municipal budgets.

Contributing Factors

Several key factors contribute to the elevated risk profile of transportation assets in the Township, each influencing the likelihood and severity of potential failures.

One of the most significant drivers is climate change, particularly the increase in high-intensity rainfall events and rapid seasonal melt. These conditions contribute to more frequent and severe flooding, which places additional stress on culverts, ditches, and road bases. Prolonged saturation of roadbeds weakens structural integrity, accelerates surface deterioration, and increases the risk of washouts—especially on gravel roads or near water crossings.

Aging infrastructure is another critical factor. Much of the Township's road and bridge network was constructed decades ago, and many components are reaching or exceeding their original service lives. As materials degrade and structural elements weaken, the probability of failure increases, particularly if regular maintenance or renewal has been deferred due to limited funding or resource constraints.

An increasing beaver population has also become a localized but impactful challenge. Beaver dams built near or within culvert inlets can significantly reduce flow capacity or fully obstruct drainage infrastructure. This often leads to upstream flooding, water overtopping roads, and eventual damage or collapse of embankments. In remote or wooded areas, monitoring and mitigation can be difficult, allowing problems to go undetected until major failures occur.

Together, these contributing factors create a compounding effect: climate conditions exacerbate the vulnerability of aging assets, while wildlife-related disruptions introduce unpredictable risks that require responsive management. Understanding and addressing these underlying drivers is essential for reducing risk exposure and supporting long-term asset resilience.

Current Mitigation Strategies

The Township of McKellar has implemented a range of mitigation strategies aimed at minimizing the likelihood and impact of transportation asset failures. These strategies are focused on early detection, preventative maintenance, and monitoring environmental indicators to reduce reactive responses and extend asset service life.

Proactive road patrolling is a cornerstone of the Township's current approach. Regular visual inspections by public works staff help identify early signs of surface deterioration, shoulder drop-off, drainage issues, and debris accumulation. These patrols are particularly important during seasonal transitions and post-storm events when the risk of damage is highest.

Routine maintenance of gravel and paved surfaces helps maintain safe travel conditions and slows long-term degradation. Grading, pothole repair, shoulder reconditioning, and ditching are scheduled based on observed need and seasonal demand. These activities not only improve service levels but also support asset preservation.

Culvert and bridge inspections are conducted at scheduled intervals, guided by provincial requirements and local priorities. These inspections are used to assess structural condition, identify blockages or sediment buildup, and prioritize rehabilitation or replacement. Structures with identified vulnerabilities are monitored more closely to ensure public safety and uninterrupted service.

The Township also engages in monitoring water levels and flow conditions, particularly near known flood-prone areas or infrastructure that has previously experienced overtopping or washouts. This helps anticipate and prepare for high-risk scenarios. In some cases, staff may pre-emptively clear blockages, lower water upstream, or post warnings in advance of heavy precipitation events.

Collectively, these mitigation strategies reflect the Township's commitment to managing risks within its operational capacity and budget constraints. While effective at reducing short-term exposure, additional measures—such as system-wide risk assessments, real-time monitoring technology, and capital reinvestment—will be needed to address long-term vulnerabilities.

Additional Measures Required

While current mitigation practices offer important protections, several additional measures are recommended to improve long-term risk management and service reliability in McKellar's transportation network. These enhancements would not only reduce the likelihood of failure but also support more proactive planning and decision-making.

One key opportunity is the implementation of a formalized risk assessment process for roads, bridges, culverts, and related infrastructure. As of the time of writing, no comprehensive organization-wide risk assessment has been completed. Developing a standardized framework for evaluating risk—incorporating criticality, condition, and environmental exposure—would allow for better prioritization of maintenance, rehabilitation, and capital investments.

Improved data collection and condition monitoring are also necessary. While regular patrols and inspections exist, a more structured approach—such as implementing digital inspection logs, condition rating systems, or GPS-enabled tracking—would help track trends over time and support evidence-based decision-making. For example, a more refined understanding of culvert performance during seasonal floods or freeze-thaw cycles could inform both capital planning and emergency preparedness.

Another key area is the development of climate adaptation strategies. Increased rainfall intensity and frequency, fluctuating freeze-thaw cycles, and broader climate variability are contributing to infrastructure vulnerabilities, especially in gravel road networks and low-lying culvert crossings. Adapting design standards, integrating low-impact drainage solutions, and expanding natural buffers are all potential strategies that could reduce exposure.

In addition, the Township may benefit from coordinating beaver management efforts in partnership with conservation authorities or wildlife management organizations. Beaver-related blockages are becoming a more significant risk driver for culvert failure and localized flooding. A coordinated response—possibly including exclusion devices, flow control structures, or scheduled monitoring—would reduce reactive maintenance and improve asset performance.

Finally, increased capital reinvestment is likely required to offset the growing risk associated with aging infrastructure. Many assets are approaching or exceeding their expected useful life, particularly bridges and large culverts. Establishing long-term funding strategies, applying for external grants, and using scenario modeling tools like DOT can help identify optimal renewal timelines and avoid emergency failures.

These additional measures would improve McKellar's ability to manage transportation risks in a more systematic, data-driven, and resilient manner—ensuring infrastructure continues to serve residents reliably and safely over the long term.

Fleet and Equipment

Critical Assets

The Township of McKellar's fleet and equipment assets are integral to the day-to-day delivery of municipal services and emergency response. These include snowplows, graders, dump trucks, utility vehicles, and heavy machinery such as loaders and backhoes, as well as smaller service equipment and attachments used in roads, drainage, parks, and facility operations.

Due to the Township's limited fleet size, each vehicle and piece of equipment often serves multiple functions and is considered operationally critical. For example, a single plow truck may be responsible for servicing a significant portion of the road network during winter events, while the grader may be the only asset capable of re-establishing gravel road surfaces after spring thaw or storm washouts. Similarly, specific utility vehicles and attachments play key roles in seasonal maintenance and event response, and their absence may delay critical services or increase reliance on contracted support.

Because of this dependency on a small number of versatile and aging assets, downtime or failure in even one unit can disrupt scheduled operations, create service delays, and elevate costs. These fleet assets are not easily interchangeable or quickly replaced, which elevates their criticality within the Township's overall service delivery system.

Main Risks

The primary risks associated with the Township's fleet and equipment assets include mechanical failure, unexpected downtime during peak operational periods, and delayed replacement due to procurement or budget constraints. These risks are heightened by the age and utilization rates of many units, as several are operating beyond their typical service life.

In winter months, the failure of snow-clearing equipment such as plows or sanders presents immediate safety concerns for the traveling public and may restrict access for emergency vehicles. In the summer and shoulder seasons, the inability to operate graders, mowers, or loaders on schedule can lead to the deterioration of gravel road surfaces, unmanaged vegetation, or unaddressed drainage issues, all of which have compounding impacts on infrastructure performance and user safety.

Additionally, there is a risk of compliance issues or liability where fleet assets are not able to meet expected service levels or fail in a way that contributes to property damage or injury. In many cases, the lack of redundancy means that failure of a single vehicle or machine may delay or halt municipal operations until the asset can be repaired or replaced, reinforcing the importance of maintaining a reliable and responsive fleet.

Likelihood of Occurrence

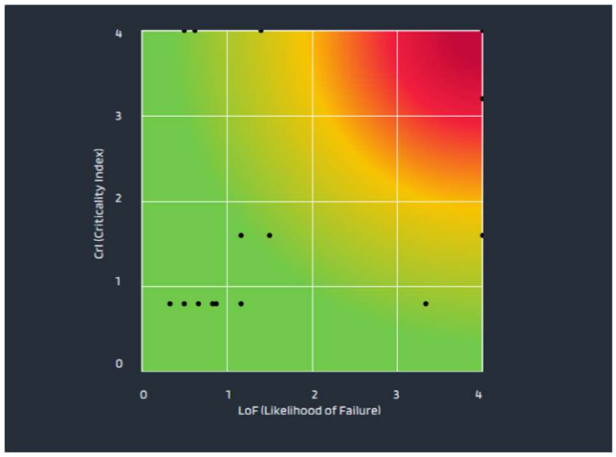
The likelihood of failure across fleet and equipment assets varies by subclass and is influenced by factors such as asset age, usage intensity, maintenance history, and availability of replacement parts. The Township's current fleet includes several aging units that have surpassed or are approaching the end of their expected service life, increasing the probability of mechanical breakdown or reduced performance. Preventative maintenance programs can help extend the life of these assets; however, without consistent condition monitoring or usage tracking, accurately forecasting failures remains a challenge. The risk heat matrices presented for each subclass reflect 2025 baseline conditions and 2035 projections, offering a snapshot of how likelihood may evolve over time with projected investment patterns.

Vehicles

The 2025 and 2035 risk heat matrices for municipal vehicles illustrate the shifting risk profile across the fleet over the next decade. In 2025, several vehicles are clustered in the low likelihood and low criticality zone, indicating a generally stable and reliable fleet. However, a few assets begin to approach higher criticality levels, reflecting their importance in service delivery—such as emergency response, snow

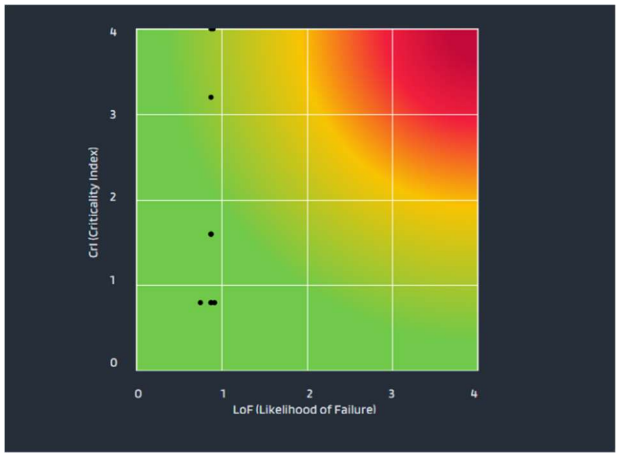
removal, or transportation of staff and equipment. By 2035, the projected risk profile shows a more concentrated distribution in the lower-left quadrant, with fewer assets in the higher criticality or likelihood zones. This suggests that either targeted replacements or proactive lifecycle planning will reduce exposure to operational risks. The trend implies effective fleet renewal planning and investment, but it also reinforces the need to monitor high-criticality vehicles closely, as their failure—despite being unlikely—could have significant service impacts.

Vehicles Current Risk Heat Matrix



Vehicles – Target LoS : municipality by 2035 – 2025

Vehicles Projected Risk Heat Matrix

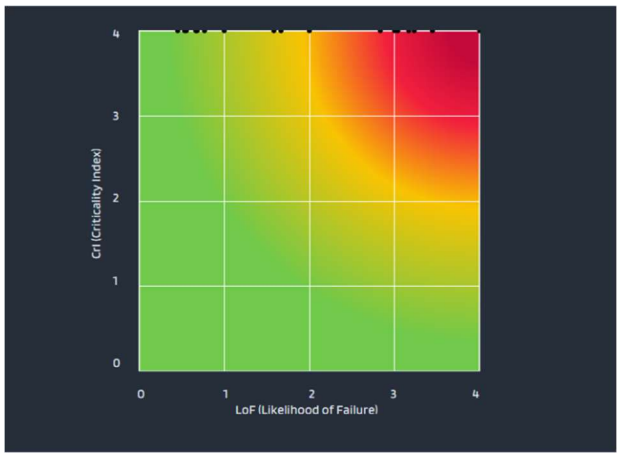


Vehicles – Target LoS : municipality by 2035 – 2035

Equipment

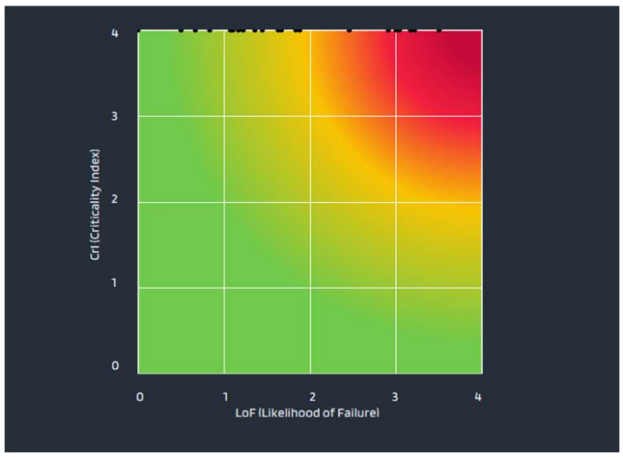
The Equipment Risk Heat Matrices for 2025 and 2035 illustrate a relatively high concentration of assets rated with elevated criticality but with generally low to moderate likelihood of failure. This is reflective of the Municipality's proactive investment in specialized equipment that plays a critical role in service delivery—such as graders, plow trucks, and backhoes—while recognizing the challenges in forecasting failure due to variable usage, operating conditions, and maintenance practices. The 2035 matrix shows a slight shift toward a lower likelihood of failure across the asset group, suggesting improved risk outlook due to planned renewal and continued maintenance. However, the overall criticality remains high due to the specialized nature and limited redundancy of many equipment types, meaning that failures—while infrequent—would have a notable operational impact if they do occur.

Equipment Current Risk Heat Matrix



Equipment - Meet LOS Conditions 130K - end of planning – 2025

Equipment Projected Risk Heat Matrix



Equipment - Meet LOS Conditions 130K - end of planning - 2035

Impacts if Risks Materialize

The materialization of risk within the Fleet & Equipment category can result in immediate and cascading operational disruptions. A vehicle or equipment failure during critical service windows—such as snow clearing, road grading, or emergency response—can delay essential services and compromise public safety, particularly in remote or hard-to-access areas. Financial impacts include unplanned repair or replacement costs, rental of substitute equipment, overtime labor, and potential contractual penalties if service commitments are not met. Additionally, downtime of specialized or single-use equipment (e.g., a snow plow or fire response unit) has amplified consequences due to the limited backup capacity within a small municipal fleet. Reputational risks may also arise if service disruptions become visible or prolonged, leading to community dissatisfaction or loss of public confidence.

Contributing Factors

Several key factors contribute to elevated risk levels in the Fleet & Equipment category. Aging assets are a primary concern, with older vehicles and machinery becoming increasingly prone to mechanical failure, reduced efficiency, and higher maintenance demands. Limited redundancy within the municipal fleet means that even a single failure can have outsized operational impacts. Seasonal intensity and harsh operating conditions—such as winter snow clearing or gravel road maintenance—exert additional wear and tear on equipment, accelerating deterioration. Supply chain delays and rising costs for replacement parts or new equipment further exacerbate the risk, especially during periods of high demand. Additionally, constrained capital budgets and staffing resources may delay timely preventative maintenance, contributing to a higher likelihood of failure across the fleet.

Current Mitigation Strategies

The Township currently employs a number of risk-reducing practices to extend the life of its fleet and mitigate the operational impacts of equipment failure. Preventative maintenance schedules are in place for vehicles and machinery, including regular oil changes, tire rotations, brake inspections, and fluid top-ups, helping to reduce unexpected breakdowns. Operators conduct pre-use inspections to identify visible wear or mechanical concerns before deploying equipment. When possible, equipment is rotated to balance usage and reduce over-reliance on any single asset. Additionally, the Township monitors

asset age, usage hours, and maintenance history to inform replacement planning, ensuring that high-risk units are flagged for future renewal. Emergency repair protocols are also in place to minimize service disruption when unexpected failures occur.

Additional Measures Required

To further reduce risk exposure and enhance service continuity, the Township should consider adopting a more data-driven approach to fleet and equipment management. This could include implementing asset tracking systems that monitor usage hours, fuel consumption, and maintenance history in real time, enabling predictive maintenance and early intervention. Expanding the formal asset condition assessment program to include structured evaluations of mechanical systems, body condition, and reliability scores would provide more objective data for risk forecasting. The Township may also benefit from developing a Fleet Replacement Strategy that aligns with service needs, risk tolerance, and funding availability—ensuring that aging or high-use assets are proactively replaced before failure. Finally, building reserve funds specifically for emergency repairs and replacements would improve financial resilience when unexpected failures occur.

Buildings and Facilities

Critical Assets

Buildings and facilities form the backbone of municipal service delivery, housing essential functions such as administration, recreation, emergency preparedness, and community programming. Critical assets within this class include the municipal office, community centre, fire halls, public works garages, and any facility used for public events or emergency coordination. These structures must remain accessible, safe, and functional to support both day-to-day operations and the municipality's ability to respond during disruptions. In particular, buildings supporting emergency services and public safety are considered high-priority due to the potential consequences of service loss or infrastructure failure. The age, usage intensity, and physical condition of each building influence its criticality and role in risk planning.

Main Risks

Key risks associated with municipal buildings and facilities include structural degradation, HVAC or electrical system failures, and inadequate accessibility or fire/life safety compliance. Aging infrastructure may lead to unexpected repair costs or force closures that interrupt service delivery, especially in high-use buildings such as community centres or emergency facilities. Severe weather events can further exacerbate these vulnerabilities, particularly for facilities with older roofing or drainage systems. Additionally, deferred maintenance increases the likelihood of health and safety concerns arising from mold, poor indoor air quality, or non-compliance with evolving building codes and accessibility standards. The impact of these risks is often magnified in buildings with no redundancy in service function or limited alternative spaces.

Likelihood of Occurrence

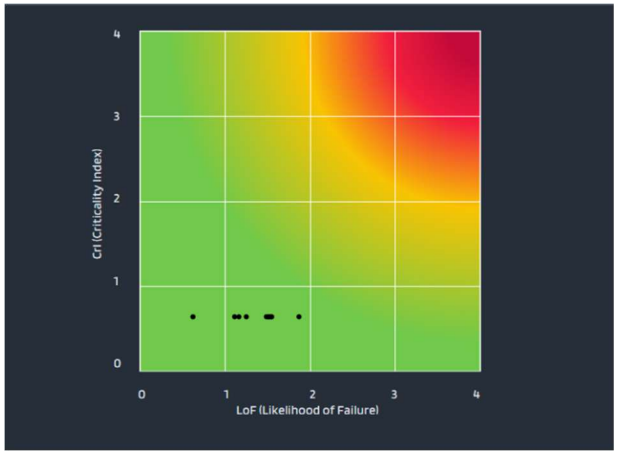
The likelihood of asset failure within the Buildings & Facilities portfolio varies based on asset type, age, use intensity, and historical maintenance practices. At the time of writing, risk likelihood estimates have been informed by available condition data and criticality scores within the DOT system; however, no formalized risk assessment has yet been completed. As a result, current projections serve as a

preliminary guide and may evolve as more comprehensive building inspections, system-level assessments (e.g., HVAC audits, structural reviews), and usage data are gathered. This section uses the current (2025) and projected (2035) risk heat matrices to provide insight into how the likelihood of risk materialization may change over time with asset aging and investment levels.

Buildings

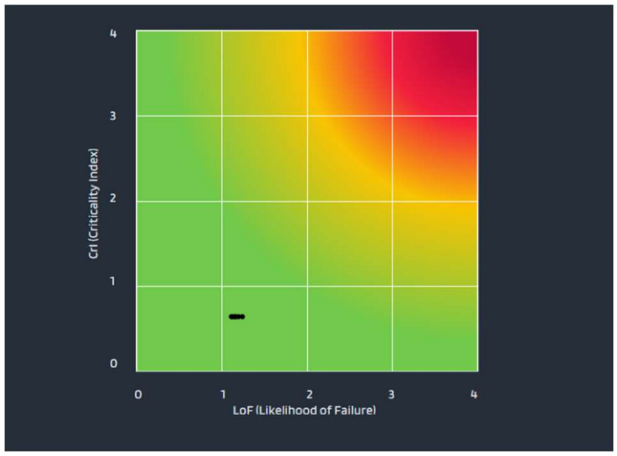
Looking at the 2025 and 2035 risk heat maps for municipal buildings, things are generally in good shape. Most assets fall into the low-risk zone, with both the likelihood of failure and criticality rated on the lower end of the scale. In the 2025 snapshot, there's a bit more variation, with a few buildings creeping up in terms of potential failure risk. But by 2035, the picture improves, with most buildings grouped more tightly in the bottom-left corner, suggesting risk is expected to remain low or even decrease. This likely reflects continued maintenance efforts, recent upgrades, or limited exposure to major hazards. Still, it'll be important to keep tabs on buildings that are aging or heavily used to make sure risks don't quietly build up over time.

Buildings Current Risk Heat Matrix



Buildings – Maintain Level of Service – 2025

Building Projected Risk Heat Matrix

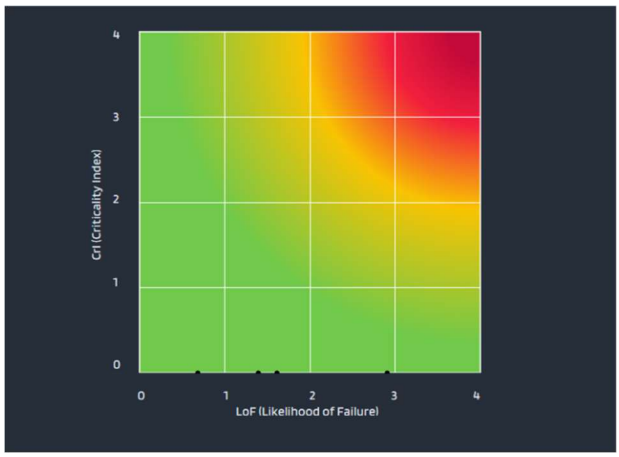


Buildings – Maintain Level of Service – 2035

Parking Lots

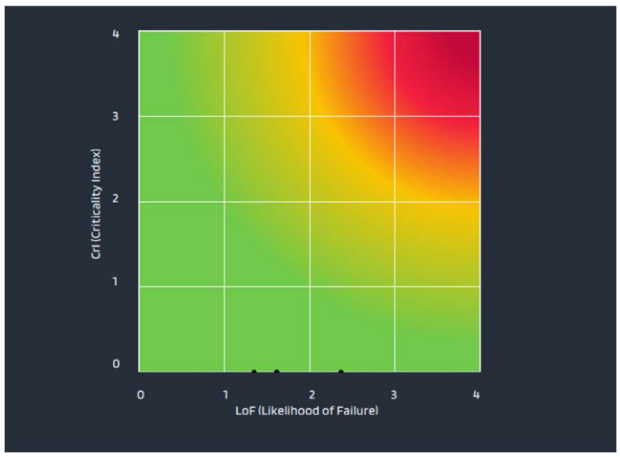
When we look at the risk outlook for municipal parking lots, the data tells a reassuring story. The 2025 and 2035 heat maps show that most assets fall within the low-risk (green) zones, with only a few drifting toward moderate likelihood of failure. These assets generally have a low criticality score, meaning that even if deterioration occurs, it's unlikely to result in major service disruptions or safety concerns. That said, there is a slight increase in likelihood of failure projected by 2035, which highlights the importance of continuing routine inspections and surface maintenance to catch early signs of wear and tear. Keeping ahead of cracking, drainage issues, and line fading will help ensure these assets continue to perform well into the future.

Parking Lots Current Risk Heat Matrix



Parking Lots – Max Net Perf 6K – 2025

Parking Lots Projected Risk Heat Matrix



Parking Lots – Max Net Perf 6K – 2035

Land

Due to the lack of available condition and performance data for the Township's land assets, a current or projected risk assessment could not be completed at this time. As a result, no risk heat matrix has been developed for this asset class. Future updates to the Asset Management Plan should include a structured evaluation of land asset risks—such as erosion, drainage issues, or safety hazards—once sufficient data becomes available. This will support more informed decision-making and integration of land assets into the broader risk management framework.

Land Improvements

A risk heat matrix has not been developed for Land Improvement assets at this time. The variability in asset types and the lack of standardized condition or risk data prevent meaningful aggregation into a single risk model. While many of these assets are relatively low in replacement cost, some may present localized risks related to safety or liability. These risks are currently managed reactively or through operational budgets. As the asset inventory is refined, the Township may consider developing individual risk profiles or prioritization methods for high-use or high-exposure assets.

Impacts of Risk Materialization

If risks associated with parking lot assets were to materialize, the impacts would primarily be related to accessibility, liability, and user satisfaction. Surface deterioration—like large potholes, uneven pavement, or pooling water—can pose trip hazards or vehicle damage risks, particularly in high-use areas near municipal buildings or recreation sites. These issues can lead to complaints, insurance claims, or even injury, which carry both financial and reputational consequences for the municipality. In extreme cases, a severely degraded lot may need to be temporarily closed for repairs, causing inconvenience to staff, residents, or event-goers who rely on the space. While these impacts are generally lower in severity compared to other asset classes, they can still add up if not addressed proactively.

Contributing Factors

Several factors contribute to the deterioration and associated risks of municipal parking lots. Age is a major influence—many lots were constructed decades ago and have not been resurfaced since.

Weather also plays a significant role; freeze-thaw cycles common in our region can cause cracking and heaving, especially if drainage is poor. Heavy usage by service vehicles, snowplows, or during community events accelerates wear, particularly at access points and along turning paths. Lastly, limited maintenance budgets often push parking lot repairs to the bottom of the priority list, allowing small problems to grow into more costly issues over time.

Current Mitigation Strategies

To manage risks and prolong the life of municipal parking lots, the municipality implements a range of preventative and maintenance strategies. Regular visual inspections help identify surface cracking, ponding, and edge deterioration early on. Minor patching and crack sealing are completed as needed to prevent water infiltration and further damage. Snow clearing and sanding during winter months reduce the risk of accidents and surface abrasion. Drainage is monitored and cleared to minimize standing water, which can accelerate surface degradation. While full resurfacing is infrequent due to budget constraints, the municipality prioritizes high-traffic or safety-sensitive locations for more intensive repair when necessary.

Additional Measures Required

To strengthen the municipality's ability to manage future risks and extend the useful life of parking lot assets, a few additional measures should be considered. Developing a more structured condition assessment program—such as biannual inspections with standardized scoring—would allow for earlier identification of emerging issues and more accurate capital planning. Introducing a sealcoating program every 5–7 years could help preserve surface integrity and reduce the frequency of major repairs. Improved data tracking for maintenance history and surface age would also enhance decision-making around prioritization and funding. Lastly, where feasible, converting gravel parking areas to paved surfaces could reduce long-term maintenance costs and improve accessibility and safety.

Parks and Recreation

Critical Assets

The Parks & Recreation asset class includes a diverse set of assets that contribute to the community's quality of life, health, and well-being. Critical assets in this category include playgrounds, sports fields, courts, bleachers, docks, and wilderness trails. While not essential to core service delivery in the same way as roads or water infrastructure, these assets play a significant role in public engagement, community events, tourism, and recreation. They support physical activity, social connection, and access to the natural environment. Their importance becomes especially evident during warmer months and for youth and senior populations who rely on accessible outdoor spaces for recreation. Many of these assets are exposed to the elements and require consistent maintenance and timely renewals to remain safe and functional.

Main Risks

Main risks associated with Parks & Recreation assets revolve around deterioration of recreational infrastructure, safety hazards, and environmental degradation. Playground equipment may become unsafe due to wear, damage, or outdated safety standards. Sports fields and courts can become unusable or hazardous due to poor drainage, erosion, or surface failures. Trail systems face risks from overgrowth, flooding, or lack of structural integrity in boardwalks or bridges. Docks are vulnerable to ice

damage, fluctuating water levels, and decay. Additionally, limited monitoring and maintenance can lead to issues going unnoticed until failure occurs, increasing the risk of liability and reducing the availability of recreational spaces for the community.

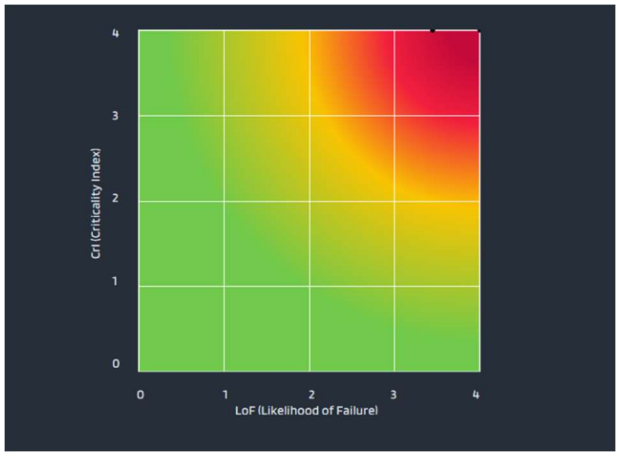
Likelihood of Occurrence

The likelihood of failure for Parks & Recreation assets varies widely depending on the type, usage, and exposure of the asset. Many of these assets are outdoors and subject to weather, environmental wear, and seasonal use, making them particularly vulnerable to gradual deterioration or sudden damage. However, due to the limited condition data currently available and the absence of structured inspection or monitoring programs for many sub-classes, estimates of failure likelihood rely heavily on assumptions and modeled projections. As more condition assessments and usage data become available in future iterations of the Asset Management Plan, these estimates will become more accurate and better tailored to the unique characteristics of each asset type.

Playgrounds

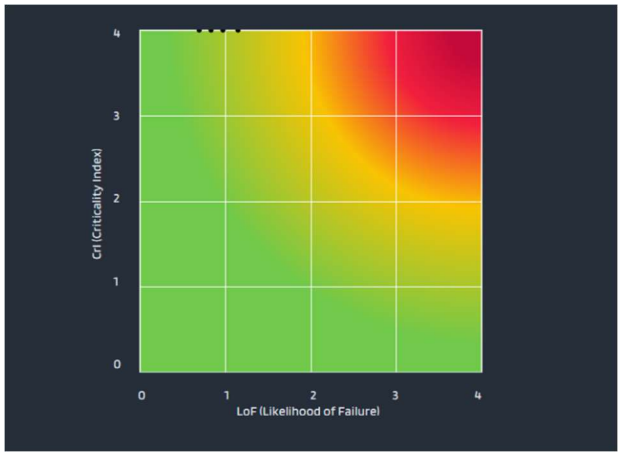
The likelihood of risk occurrence in playground infrastructure remains relatively low, as illustrated in the risk matrices for 2025 and 2035. Most assets fall within the green zone, indicating a low probability of failure, with only isolated instances approaching moderate likelihood. This reflects the municipality's ongoing efforts to conduct routine inspections, address maintenance needs promptly, and ensure compliance with safety standards. However, without sustained investment and upkeep, these likelihood ratings could escalate over time, particularly as equipment ages or is exposed to more frequent use and harsh weather conditions. Maintaining this low-risk profile will require continued vigilance and proactive planning.

Playgrounds Current Risk Heat Matrix



Playgrounds - Achieve LOS by 2030 - Budget 20K – 2025

Playgrounds Projected Risk Heat Matrix



Playgrounds - Achieve LOS by 2030 - Budget 20K – 2035

Impacts of Risk Materialization

If risks within playground infrastructure materialize, the consequences can be both immediate and serious. The most significant impact is to public safety—equipment failure or hazardous conditions could result in injury to children or other users. This not only raises legal and liability concerns but can also erode public trust in municipal maintenance practices. In addition, damaged or unsafe playgrounds may lead to the closure of community spaces, reducing recreational opportunities for

families and affecting overall community well-being. Financially, emergency repairs or replacements often come at a higher cost than planned maintenance, further straining municipal budgets.

Contributing Factors

Several factors contribute to the risks associated with playground infrastructure. Aging equipment is a primary concern—many playground structures experience wear over time, particularly in high-use areas or where materials have degraded due to UV exposure or corrosion. Weather conditions, including freeze-thaw cycles and heavy precipitation, can also deteriorate structural integrity or impact safety surfacing. Limited inspection capacity or deferred maintenance due to budget constraints may allow minor issues to escalate into serious safety risks. Additionally, vandalism or misuse of playground equipment can further compromise functionality and safety.

Current Mitigation Strategies

To manage risk in playground infrastructure, the municipality relies on a combination of regular visual inspections, scheduled maintenance, and responsive repairs. Playground equipment is monitored for structural integrity, wear-and-tear, and safety hazards, with issues like broken components or damaged surfacing addressed promptly. Safety audits or third-party inspections may be conducted periodically to ensure compliance with CSA standards. Where possible, older or non-compliant structures are flagged for renewal or phased replacement through the capital planning process. Community reporting also serves as a helpful tool for identifying issues between inspections.

Additional Measures Required

While current inspection and maintenance practices provide a baseline level of risk management, additional measures are needed to further reduce the likelihood and consequences of failure. These include implementing a formalized playground inspection program aligned with CSA standards, with documentation and tracking of deficiencies over time. Introducing staff training specific to playground safety and risk identification will help ensure consistent, informed assessments. Establishing a renewal strategy that prioritizes high-risk or aging equipment based on condition and usage can also support proactive planning. Lastly, improving public education and signage about safe use of equipment may help reduce user-related incidents.

Information Technology and Communications

Critical Assets

Critical assets in the IT and Communications category include the Township's servers, workstations, networking equipment, communication radios, and associated infrastructure used for municipal operations and public safety coordination. These systems are vital to daily administration, financial transactions, record-keeping, emergency response communication, and internal connectivity between departments. As digital systems become more integral to service delivery, maintaining the reliability and security of these assets is essential to ensuring continuity, responsiveness, and transparency in municipal governance.

Main Risks

The primary risks associated with IT and Communications assets include hardware failure, cybersecurity breaches, data loss, and communication system downtime. These risks can result in

significant service interruptions, compromised sensitive information, and delayed emergency response or administrative functions. As reliance on digital infrastructure increases, so too does the exposure to potential technical failures or external threats such as malware or ransomware attacks. Limited redundancy and aging IT equipment may further elevate the risk profile, especially in smaller municipalities with constrained budgets.

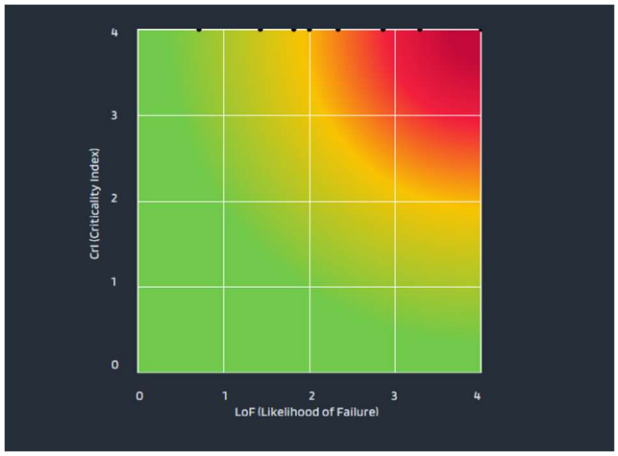
Likelihood of Occurrence

The likelihood of occurrence for IT and Communications risks depends heavily on the age and reliability of equipment, the level of cybersecurity measures in place, and the availability of routine maintenance and updates. While some risks—like hardware aging—can be anticipated through lifecycle tracking, others—such as cybersecurity breaches—are less predictable and often evolve rapidly. Without a dedicated IT risk assessment completed to date, the projections in this Asset Management Plan rely on available DOT data and informed assumptions. As digital systems continue to expand their role in municipal operations, the frequency and complexity of potential disruptions are expected to increase, emphasizing the need for proactive risk monitoring and investment in resiliency.

IT Assets

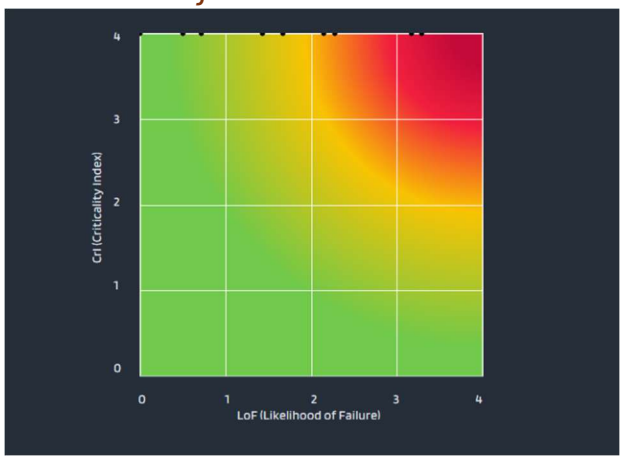
The 2025 risk heat map shows that all current IT assets fall within the low-risk zone, reflecting their relatively recent acquisition, good condition, and lower likelihood of immediate failure. However, by 2035, the map indicates a moderate upward shift in the likelihood of failure for several assets. This reflects the natural aging of equipment and the increasing pace of technological change, which can lead to obsolescence even before physical failure occurs. While overall criticality remains low, this trend highlights the importance of ongoing monitoring, regular updates, and proactive replacement planning to maintain reliability and security.

IT Assets Current Risk Heat Matrix



IT Assets - Maintain LOS Conditions - 2025

IT Assets Projected Risk Heat Matrix



IT Assets - Maintain LOS Conditions - 2035

Impacts of Risk Materialization

If risks associated with IT and Communications infrastructure are realized, the consequences can be significant and far-reaching. A failure of critical IT systems—such as servers, data storage, or communication networks—could disrupt internal municipal operations, delay emergency responses, and compromise access to essential records and public information. Loss of connectivity or system

downtime may halt everything from financial transactions and utility billing to interdepartmental communications and remote work capabilities.

In more severe scenarios, failures could lead to the loss of sensitive or regulated data, exposing the municipality to privacy breaches, legal liability, and reputational damage. The impacts of risk materialization in this asset class are often compounded by their cross-cutting influence on other service areas such as water, wastewater, and emergency services, where reliable digital communication and data systems are essential for coordination and control.

Contributing Factors

Several factors contribute to the overall risk profile of the municipality's IT and Communications infrastructure. One of the most pressing is the increasing reliance on digital systems for core municipal functions, which elevates the impact of even minor technical failures. Aging hardware and outdated software also pose a challenge, particularly if systems are no longer supported or compatible with current security protocols.

Cybersecurity threats—such as phishing, ransomware, and unauthorized access—are a growing concern, especially for small municipalities with limited IT staffing and resources. Environmental risks, including power surges or outages and severe weather events, can also affect IT system performance, especially where backup power or climate controls are insufficient. Finally, as more services shift to cloud-based platforms, internet reliability becomes a key vulnerability in ensuring continuous service delivery.

Current Mitigation Strategies

The municipality has implemented several mitigation strategies to manage risks associated with its IT and Communications infrastructure. Core systems are backed up regularly, with critical data stored both on-site and in the cloud to ensure continuity in the event of a system failure. Antivirus software, firewalls, and password protocols are in place to protect against cybersecurity threats, and staff receive periodic training on cyber hygiene and phishing awareness.

Network hardware and servers are monitored for performance, and aging devices are replaced on a scheduled basis as budgets allow. Battery backup systems and surge protection are in place to protect against power interruptions. In addition, the municipality uses managed service providers for certain IT functions, helping to extend internal capacity and ensure compliance with best practices.

Additional Measures Required

To further strengthen the resilience of its IT and Communications systems, the municipality should consider implementing a more comprehensive asset inventory and lifecycle tracking system. This would ensure hardware and software are replaced proactively before failure becomes imminent. Conducting regular IT risk assessments and penetration testing could help identify vulnerabilities that are not currently captured in routine monitoring.

Establishing a formalized IT disaster recovery plan—including recovery time objectives (RTOs) and recovery point objectives (RPOs)—would provide greater clarity and preparedness in the event of a cyberattack or system outage. Enhanced staff training on emerging digital threats, such as ransomware, would further reduce the risk of human error. Lastly, investing in more robust cybersecurity

infrastructure, such as multi-factor authentication (MFA) and endpoint detection and response (EDR) systems, would help mitigate risks as technology and threat landscapes evolve. These measures will become increasingly important as the municipality's reliance on digital tools and remote communications continues to grow.

Risk Tolerance Statement

The Municipality of McKellar demonstrates a low tolerance for risks that could compromise public safety, essential service delivery, or environmental protection. Infrastructure that supports emergency response, transportation access, water management, and digital communications is prioritized to minimize the likelihood and impact of failure. While the municipality is willing to accept moderate short-term risks in areas with low public exposure or limited operational impact—such as minor park amenities or non-critical IT equipment—there is a clear intent to proactively manage risks as more data becomes available. This balanced approach recognizes current resource constraints but aims to strengthen risk mitigation over time through improved condition assessments, scenario modeling, and ongoing refinement of asset data in the DOT platform. The municipality's evolving understanding of risk tolerance will continue to guide capital investment decisions and maintenance strategies to ensure long-term sustainability and resilience.

Climate Change Considerations

The Township of McKellar recognizes the growing importance of addressing climate change within asset management planning. Climate change presents increasing risks to infrastructure through extreme weather events, freeze-thaw cycles, flooding, and long-term environmental shifts. This section outlines how the Township has considered climate change in the development of this asset management plan, including infrastructure vulnerabilities, anticipated costs, and our strategies for adaptation and mitigation.

Projected Climate Changes for McKellar (2025–2075)

Climate Variable	Historical (1976–2005)	2050s Projection	2080s Projection	Change from Baseline
Avg. Temp (°C)	4.5	7.0 – 8.0	9.0 – 10.0	+2.5 to +5.5
Annual Precip. (mm)	900	950 – 1050	1000 – 1150	+50 to +250
Snowfall (cm)	250	220 – 240	200 – 220	–10% to –20%
>30°C Days	5	15 – 25	25 – 35	+10 to +30
Freeze-Thaw Cycles	10–20	20–30	30–40	+10 to +30
>25 mm Rain Events	2–3/year	4–6/year	6–8/year	+2 to +6/year
Growing Season (days)	150	160–170	170–180	+10 to +30
Frost-Free Days	120	130–140	140–150	+10 to +30
Snow Cover Days	120	100–110	90–100	–10 to –30
Severe Storms/Year	5–10	10–15	15–20	+5 to +15

Summary of Climate Change Impacts

Climate change is no longer a distant risk—it is a present and evolving challenge that is already influencing municipal operations and infrastructure in McKellar. Over the coming decades, rising temperatures, shifting precipitation patterns, and an increase in extreme weather events will continue to impact the Township's ability to deliver reliable services. The following summarizes the most significant impacts and their operational implications:

Rising Temperatures and Extended Heat Events

McKellar is expected to experience a dramatic increase in days exceeding 30°C, rising from an average of 3.6 per year (1976–2005) to nearly 15 per year by 2050. This will lead to increased demand for cooling in municipal buildings, elevate the risk of heat-related illness among vulnerable populations, and affect the performance of outdoor equipment and infrastructure. Buildings with insufficient insulation or ventilation will face higher energy costs and occupant discomfort.

More Frequent Freeze-Thaw Cycles and Severe Storms

Warmer winters and fluctuating temperatures will result in more frequent freeze-thaw cycles—one of the leading causes of road deterioration. Water infiltration into pavement layers followed by freezing will cause cracking, potholes, and surface degradation at an accelerated rate. Severe weather events, including high-intensity rainfall and wind, will also increase the frequency of emergency response activities and drive up maintenance requirements.

Increased Flooding and Erosion Risks

Heavy precipitation days (20mm+) are projected to rise from 6.6 per year to 8.1 per year by 2050. These events threaten low-lying roads, culverts, stormwater systems, bridges, and shoreline assets such as

docks and boat launches. Erosion from intense rainfall and fluctuating water levels may compromise the structural integrity of roads and recreation infrastructure, increase sediment loads in water bodies, and lead to more frequent and costly damage.

Rising Operational and Capital Costs Across Departments

All service areas—from Public Works to Recreation to IT—are likely to see increases in maintenance demands, emergency response needs, and energy use. For example, fleet vehicles will be required more frequently for snow and debris clearing, while HVAC systems in public buildings will need to work harder during extreme temperature swings. These impacts strain limited staff and financial resources, potentially diverting funds from other priorities.

The Need for Proactive Adaptation and Integrated Planning

Climate change will test the durability, flexibility, and resilience of municipal infrastructure. To maintain levels of service and manage long-term costs, the Township must adopt a proactive, integrated approach. This includes adapting infrastructure designs, enhancing preventive maintenance, integrating climate data into planning, and ensuring that capital investments are future-ready. Coordination across departments and access to reliable data will be essential to manage risk and ensure continuity of service.

Vulnerabilities of Infrastructure to Climate Change

Transportation Infrastructure

Roads and bridges in the Township of McKellar are increasingly vulnerable to a range of climate-related stressors, including warmer winters, increased flooding, more frequent freeze-thaw cycles, and severe storm events. Each of these factors contributes to accelerated infrastructure degradation and potential disruptions to transportation services.

- **Warmer winters** lead to more frequent freeze-thaw cycles, a major contributor to pavement deterioration. During freeze-thaw cycles, water infiltrates cracks in the pavement or sub-base, freezes, and expands, causing internal stress and fracturing the road surface.
- **Increased flooding and intense precipitation** exacerbate these issues by saturating the road base and surrounding soils, reducing load-bearing capacity and causing erosion or undermining of subgrade materials.
- **Severe storm events** increase the risk of immediate damage through flooding, debris deposition, and erosion. Storm surges and high runoff can overwhelm drainage infrastructure.

Collectively, these factors cause a faster rate of infrastructure deterioration, necessitating more frequent repairs, higher maintenance costs, and potentially causing service interruptions.

Buildings and Facilities

The Township's buildings and facilities—including the garage and fire halls—are situated near climate-sensitive zones, such as Highway 124 adjacent to the lake. This location places these structures at elevated risk of flooding due to several climate-driven factors. Proximity to the lake increases exposure to rising water levels, storm surge, and surface water runoff during extreme precipitation events. As climate projections show an increase in the frequency and intensity of storms, as well as higher annual

precipitation, the risk of water intrusion and property damage becomes more significant—particularly for facilities located at lower elevations or with inadequate drainage.

In addition to external flood risk, internal vulnerabilities exist due to aging mechanical systems. The HVAC systems in both the garage and fire halls are critical to maintaining air quality, operational readiness, and the protection of temperature-sensitive equipment. However, these systems are currently operating with reduced energy efficiency and may not have the capacity to adapt to rising temperature extremes or prolonged cold spells. A sudden system failure—especially during a major storm or heat event—could compromise emergency response operations, increase repair costs, and pose health and safety risks to staff. Furthermore, the garage is poorly insulated, leading to significant heat loss in winter, which drives up operational energy costs and increases reliance on these already strained systems.

Fleet and Equipment

The Township's fleet is expected to experience increased operational demand in response to climate change-driven weather extremes, particularly heavier and more frequent snowstorms as well as flood events. These conditions impose significant strain on municipal equipment, accelerating wear and tear, increasing fuel consumption, and elevating maintenance requirements.

A critical vulnerability lies in the **current inadequacy of equipment storage facilities**. Limited indoor storage for snowplows, salt spreaders, and other winter control machinery exposes vehicles to harsh environmental conditions, such as freezing temperatures, moisture, and corrosive road salts. This accelerates mechanical degradation and shortens equipment lifespan.

Parks and Recreation

Increased lake water levels and intensified shoreline erosion present significant risks to waterfront infrastructure such as boat ramps, docks, and other recreational facilities. Rising water levels can submerge or destabilize these assets, while erosion undermines structural foundations. These conditions may render facilities temporarily unusable and necessitate costly repairs or replacements.

IT and Communications

Severe weather events, particularly storms, can cause internet outages and disrupt telecommunications infrastructure. Power surges, physical damage to cables, and flooding of communication hubs are key risks. While no critical service interruptions are currently anticipated, the increasing frequency and severity of storms require contingency planning to ensure operational continuity.

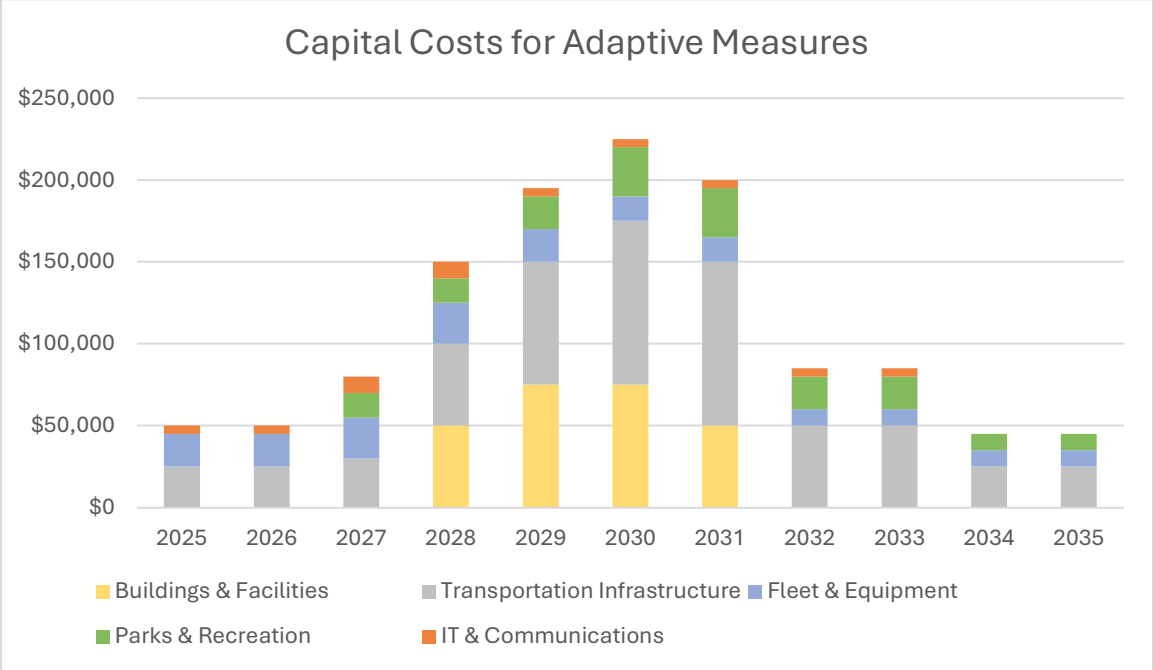
Anticipated Costs

The Township anticipates that climate change will result in escalating maintenance and repair expenditures, particularly within the transportation and fleet sectors. Increased freeze-thaw cycles and extreme precipitation accelerate road surface degradation. Equipment subjected to harsher conditions will require more frequent servicing and earlier replacement.

Older building systems, particularly those with outdated HVAC and insulation, will contribute to higher energy consumption and operational costs unless proactively addressed.

Adaptation Measures

Asset Category	Adaptation Strategy
Transportation Infrastructure	Improve roadside drainage, upgrade surface-treated roads to asphalt, and reinforce culverts and flood-prone structures.
Buildings and Facilities	Improve thermal performance through insulation and sealing. Upgrade HVAC systems to handle extreme conditions.
Fleet and Equipment	Expand indoor storage to minimize exposure, increase preventive maintenance, and plan for future replacement.
Parks and Recreation	Enhance drainage, increase inspection frequency, and monitor shoreline assets for erosion and damage.
IT and Communications	Use VoIP systems and remote work capabilities to ensure continuity during outages.



Mitigation Measures

The Township of McKellar is committed to reducing greenhouse gas emissions and improving the sustainability of municipal operations. These efforts align with broader provincial and national climate goals and are designed to reduce long-term operating costs, enhance infrastructure resilience, and demonstrate environmental leadership. The following strategies form the foundation of McKellar's climate mitigation approach:

1. Building Retrofits

McKellar aims to reduce energy consumption and greenhouse gas emissions in municipal buildings through targeted retrofits. These include upgrading insulation, sealing building envelopes, replacing outdated HVAC systems with energy-efficient models, and transitioning to LED or motion-sensitive lighting.

Benefits:

- Lower heating and cooling costs
- Improved indoor air quality
- Reduced carbon footprint

2. Fleet Modernization

Fleet and equipment account for a notable share of municipal emissions. The Township will explore replacing older, high-emission vehicles and equipment with more fuel-efficient or low-emission alternatives, including hybrid or electric options where feasible. Preventive maintenance programs will also be optimized to extend the useful life and fuel efficiency of existing vehicles.

Benefits:

- Lower fuel consumption
- Reduced maintenance needs
- Reduced tailpipe emissions

3. Climate-Informed Capital Planning

All new capital projects will be reviewed for climate resilience and sustainability features. For example, road projects may include enhanced drainage, energy-efficient lighting, or sustainable materials. Facility upgrades may prioritize solar-ready infrastructure or climate-resilient designs.

Benefits:

- Infrastructure better suited to withstand future climate stress
- Alignment with funding eligibility for green infrastructure programs
- Long-term operational savings

Mitigation Measures – Implementation Table

Strategy	Initiative	Timeline	Estimated Cost (2025–2035)	Anticipated Benefit
Building Retrofits	HVAC upgrades, LED lighting, insulation	2026–2029	$175,000	20–30% reduction in building energy use
Fleet Modernization	Replace 2 trucks with low-emission models	2027–2031	$150,000	Lower fuel costs, 10–15% GHG reduction
Climate-Informed Capital Plans	Drainage upgrades, solar-ready design	Ongoing (2025+)	$100,000 (est. inclusion in project budgets)	Enhanced climate resilience, cost avoidance

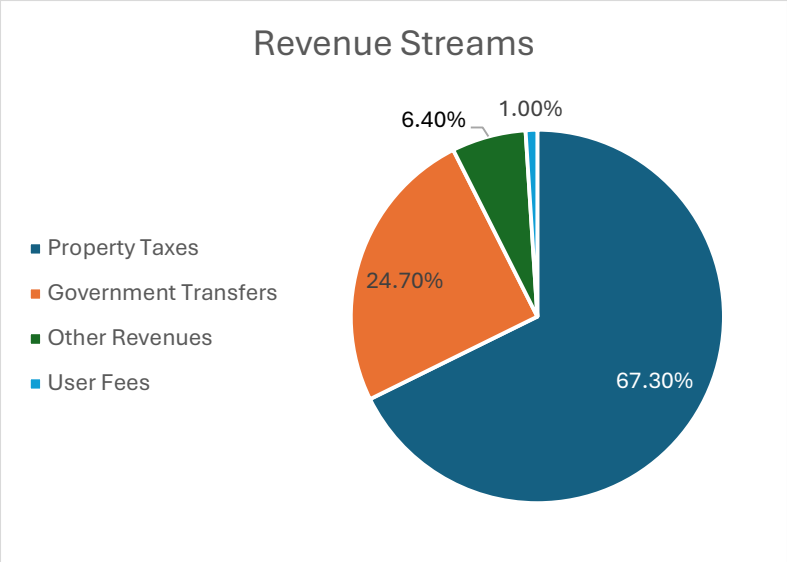
6. Financial Strategy

Funding Sources

Revenue Streams

A clear understanding of revenue streams is essential for long-term infrastructure planning and financial sustainability. In 2023, the Township's infrastructure-related funding came from a mix of local and external sources, reflecting both municipal fiscal capacity and reliance on intergovernmental support.

The breakdown of 2023 infrastructure funding is as follows:



Property taxes are the municipality's most stable and predictable revenue stream, forming the foundation of its asset management financing. However, they are not sufficient on their own to cover the long-term replacement costs of aging infrastructure, particularly in a small, rural municipality with a limited assessment base.

Government transfers (grants) play a critical role in supplementing local revenue. Programs such as the Canada Community-Building Fund (CCBF), Investing in Canada Infrastructure Program (ICIP), and provincial conditional grants provide essential funding for capital renewal projects that would otherwise be deferred due to affordability challenges. These external transfers are particularly important when addressing large-scale infrastructure needs such as bridge rehabilitation, road reconstruction, or wastewater system upgrades — all of which have high costs but limited revenue recovery potential through user fees.

User fees currently represent a small proportion of infrastructure-related revenue. This is typical in municipalities where water, wastewater, or recreation services are subsidized or funded through general taxation rather than full cost recovery. While increasing user fees could improve cost recovery in theory, any such approach must consider community affordability and equity impacts.

Finally, "Other Revenues" — which include investment income, permits, fines, or one-time recoveries — make up a modest portion of funding and are not considered a stable funding source for long-term asset management planning.

Financial Sustainability

Current Financial Demand

The projected capital expenditure demand over the next decade highlights both the scale and timing of infrastructure reinvestment required to sustain service delivery in the Township. The data shows that capital needs will not be evenly distributed year-to-year — instead, there are significant peaks, particularly in 2026, 2031, and 2035, driven largely by major Transportation renewal projects. These peaks reflect planned interventions on high-priority road segments and structures identified through the DOT life cycle modeling as being at or near the end of their service life.

	Transportation	Buildings & Facilities	Fleet & Equipment	Parks & Recreation	IT & Communications
2026	$1,301,434	$238,777	$53,266	$43,000	$84,275
2027	$1,119,253	$291,321	$165,949	$66,762	$11,352
2028	$1,179,104	$231,316	$43,599	$67,639	$22,164
2029	$223,580	$147,311	$150,903	$70,052	$5,837
2030	$1,394,175	$163,367	$43,061	$70,965	$14,571
2031	$1,509,956	$153,035	$166,142	$47,475	$190,570
2032	$2,767,924	$150,343	$343,631	$48,425	$6,194
2033	$1,437,483	$159,590	$284,598	$49,393	$12,060
2034	$1,338,997	$156,417	$137,986	$50,381	$97,886
2035	$1,370,749	$178,825	$126,588	$77,123	$6,573

Transportation remains the dominant investment category over the entire horizon, accounting for the majority of projected capital demand. This is not surprising given the size of the road network, its critical role in community access and safety, and the high unit costs associated with road and bridge renewal. Investment in this category will directly support year-round accessibility, improved road safety, and reduced reactive maintenance costs.

Other asset classes — such as Buildings & Facilities and Fleet & Equipment — show a more consistent, lower-level demand spread over the 10 years. These investments will help preserve operational capacity, extend the life of key service buildings, and ensure essential equipment remains available for service delivery. For example, planned fleet renewals will reduce the risk of service interruptions during snow clearing or road maintenance operations.

Although Parks & Recreation and IT & Communications require smaller overall investments compared to core infrastructure, these expenditures are still significant in terms of community benefit. Parks and recreation spending supports safe and accessible public spaces, while IT investments enhance operational efficiency, service responsiveness, and cybersecurity resilience.

It is important to note that these projections represent the first iteration of the Asset Management Plan developed with DOT. As new and more accurate data is collected and incorporated into the system, and

as the municipality's asset management program matures, these figures will almost certainly evolve. Increased organizational knowledge, better asset condition data, and ongoing education for staff and Council will strengthen future projections and decision-making. Over time, this refinement will allow the Township to more accurately forecast capital demand, prioritize investments, and balance funding requirements with service expectations.

Budgeting Practices

Effective asset management depends on sustainable budgeting practices that align available funding with long-term capital and operational needs. In McKellar, the first iteration of the Asset Management Plan developed with DOT provides an initial baseline for these needs. Over time, as the municipality collects more detailed asset condition data, gains experience in asset management, and refines its forecasting models, both the projections and the associated funding strategies will become more precise.

At present, capital funding is drawn from a mix of property tax revenues, grants, reserve contributions, and debt financing. Each of these sources plays a role, but none alone is sufficient to meet projected capital demand — particularly in peak years such as 2031, 2032, and 2035. While reserves are an important tool for smoothing out funding spikes, contributions have been inconsistent in recent years. For example, in 2023, several reserve contributions were withdrawn within the same year, leaving balances largely unchanged. This practice limits the municipality's ability to build a stable funding base for large-scale projects.

Grants have been, and will continue to be, an essential part of funding McKellar's capital program. However, they are opportunistic in nature — applied for when specific needs arise — and there are currently no shovel-ready projects that could be quickly advanced when new funding programs open. This limits the municipality's ability to take immediate advantage of grant opportunities.

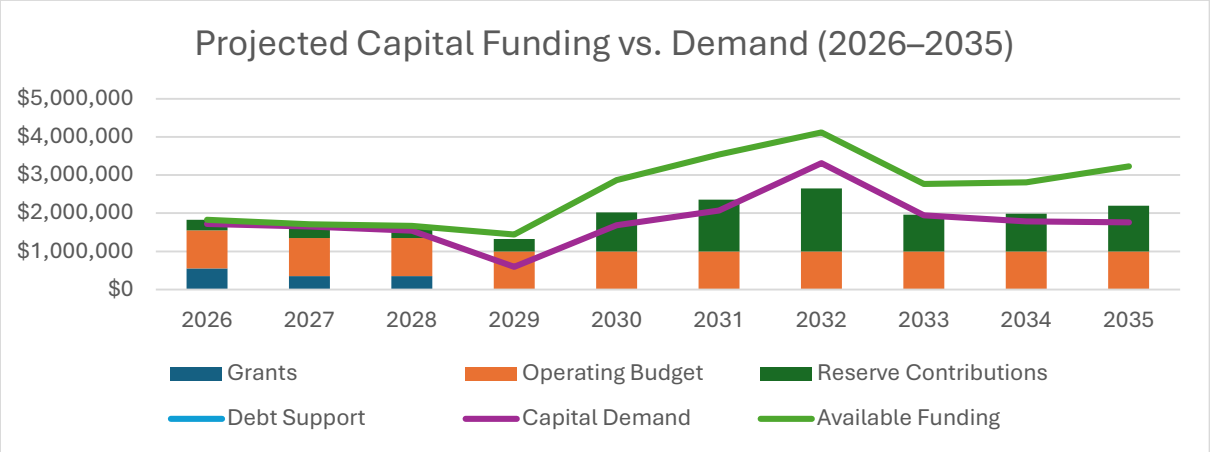
Debt financing is an acceptable and useful tool for long-lived assets, and McKellar's current debt levels leave room for strategic borrowing. However, debt should be used thoughtfully, ensuring repayment schedules align with the life of the assets being funded and that ongoing operational needs are not compromised by debt servicing costs.

To move toward more sustainable funding for asset management, the following budgeting practices are recommended:

- Establish **predictable annual reserve contributions** tied to asset life cycles rather than ad-hoc amounts.
- Create **dedicated reserves for major asset classes** such as roads, fleet, and buildings to protect funds from being reallocated to other priorities.
- Maintain a **multi-year capital budget** aligned with DOT life cycle projections to support proactive, rather than reactive, investment decisions.
- Develop a **grant readiness program** by identifying and designing priority projects so they can be quickly submitted when funding opportunities arise.
- Use **debt strategically** for long-lived, high-value infrastructure to spread costs over time.

- Integrate **operations and maintenance funding** with capital planning to ensure ongoing service reliability and reduce the risk of premature asset failure.

By implementing these practices, McKellar can strengthen its ability to meet operational and capital needs, reduce reliance on unpredictable external funding, and better manage future peaks in infrastructure demand. This approach will not only help address the current funding gap but will also lay the groundwork for more predictable, data-driven decision-making in future iterations of the AMP.



Infrastructure Deficit

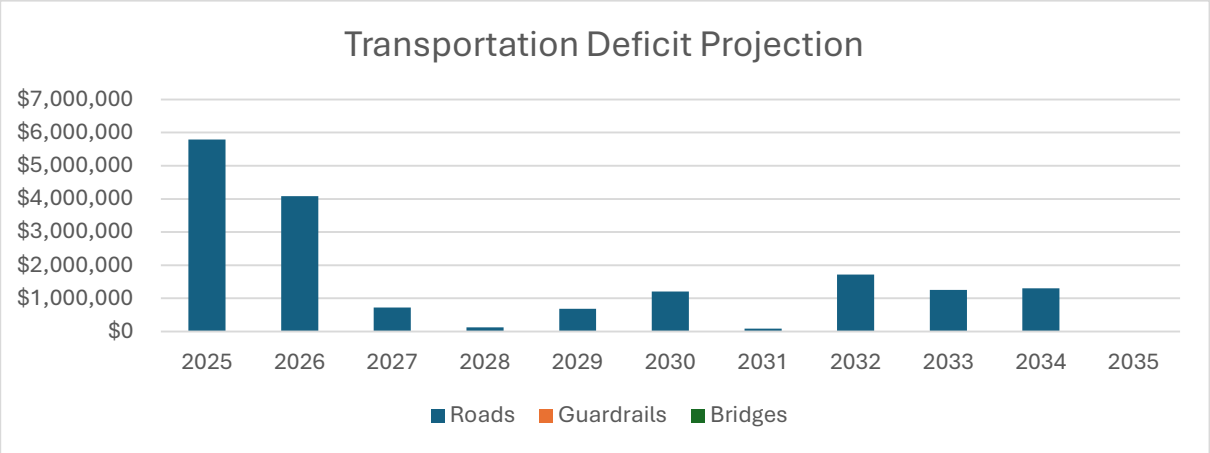
The infrastructure deficit represents the gap between the municipality's current funding capacity and the investment required to maintain assets at the desired levels of service over the next 10 years. This shortfall can occur for a variety of reasons, including historical under-investment, unplanned asset deterioration, or the timing of major renewal projects coinciding within a short period. Understanding the size, timing, and drivers of these gaps is essential for making informed decisions about capital planning, budgeting, and service level priorities.

The projections in this section are drawn from the municipality's first use of the Decision Optimization Technology (DOT) software as part of this Asset Management Plan. They are based on available asset data, condition estimates, and life-cycle cost modeling at the time of writing. While this provides a valuable starting point, these figures should be viewed as preliminary. As McKellar collects more detailed condition and risk data, improves asset inventory accuracy, and matures its asset management processes, these deficit estimates will evolve and become more precise.

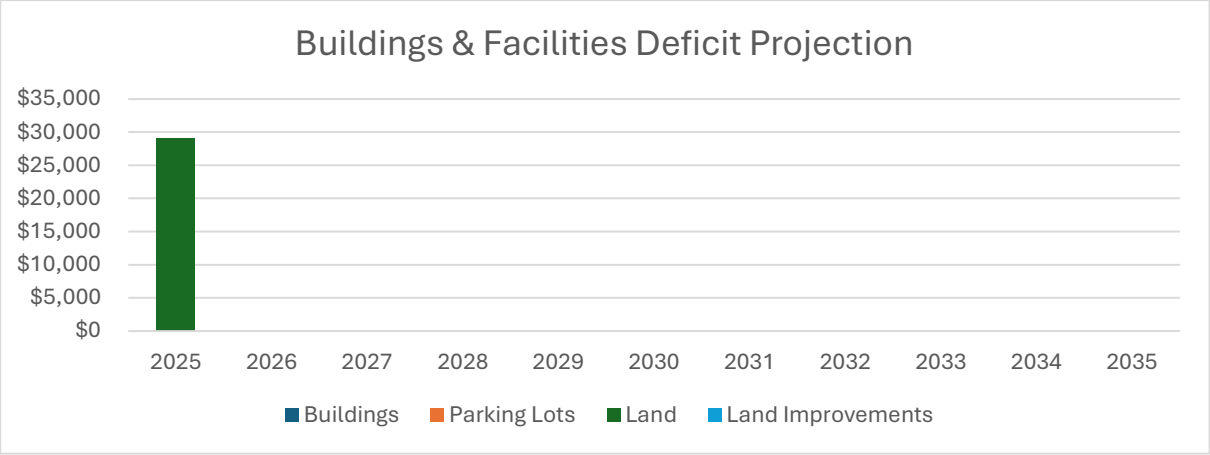
It is also important to note that the infrastructure deficit is not static. Proactive renewal, improved maintenance practices, and targeted capital investments can reduce the shortfall, while deferral of necessary work can cause it to grow. In some cases, demand for investment will spike in certain years due to the planned renewal of high-value assets such as major road sections, bridges, or fleet equipment. In others, the deficit may be driven by smaller but critical assets, such as playgrounds or IT systems, that have a significant impact on service delivery and community satisfaction.

By presenting the infrastructure deficit projections by asset class, this section highlights where funding pressures are greatest, both now and in the future. This information can guide Council and staff in

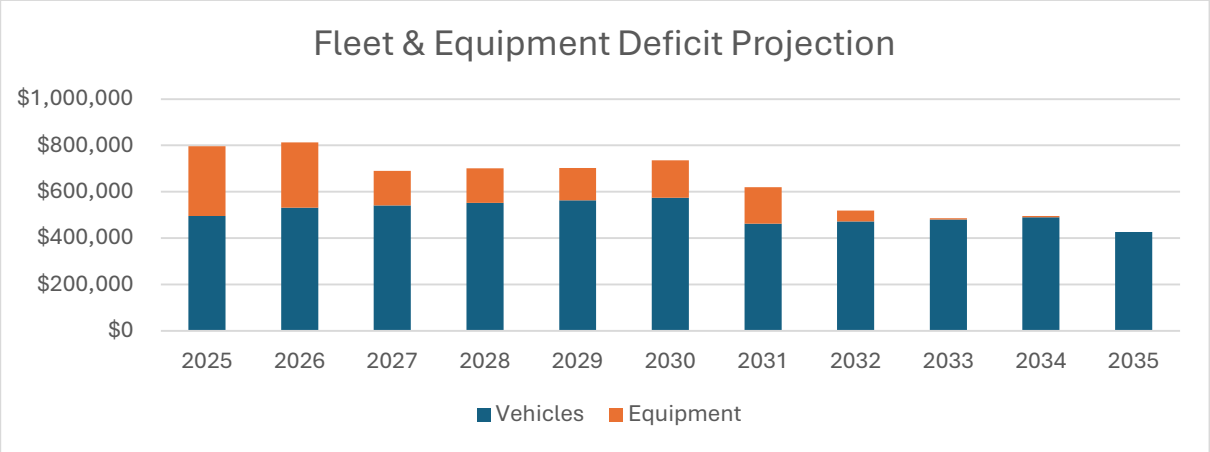
setting priorities, exploring funding strategies, and aligning capital planning with the municipality's long-term service delivery goals.



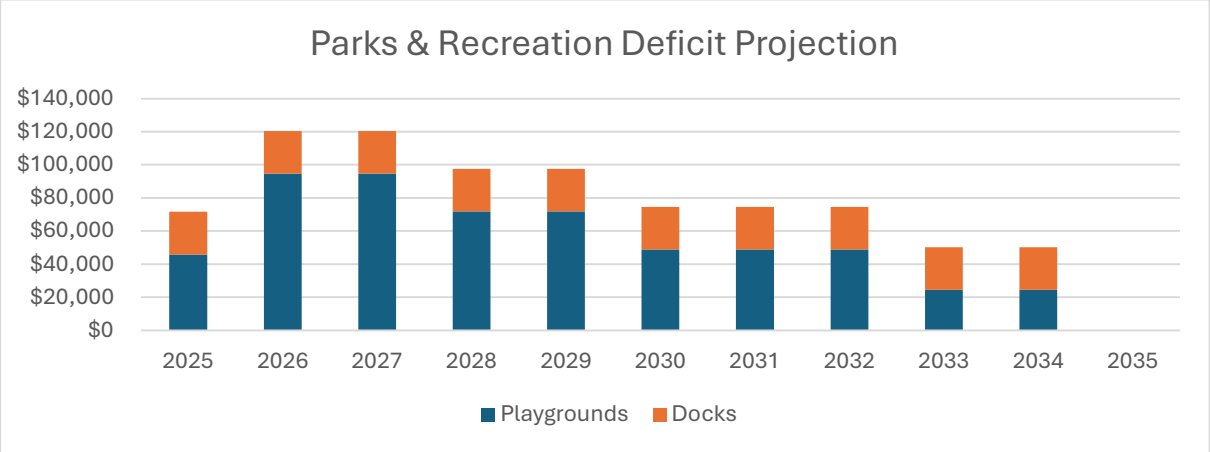
The Transportation deficit projection shows significant near-term funding pressure, particularly in the first few years of the forecast period. Roads dominate the projected deficit, with early years reflecting a high backlog of work identified in DOT. This is consistent with the age profile and condition distribution of the network. In later years, the annual deficit levels off but still remains substantial. This reinforces the importance of establishing sustainable capital funding and reserve contributions now, to address current needs while preparing for future demand. As more refined condition data becomes available and planned projects are adjusted, these figures will be updated in future AMP iterations.



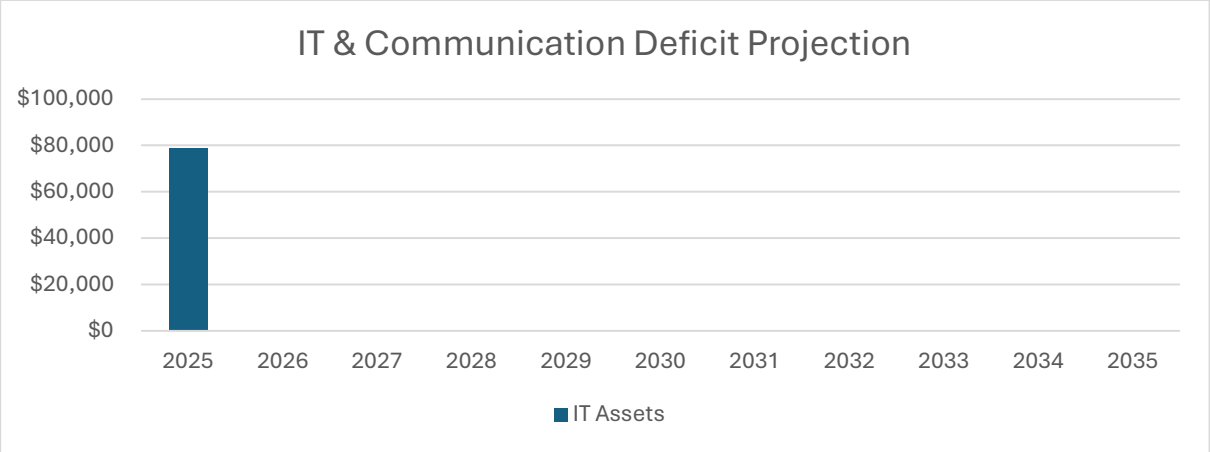
The Buildings & Facilities deficit is relatively small compared to other asset classes, with the bulk of the identified shortfall concentrated in the current year. This reflects isolated high-cost renewal needs rather than a systemic funding challenge across the portfolio. That said, even small deficits can lead to deferred work, particularly if unexpected failures occur. Ongoing facility condition assessments and a planned renewal strategy will help manage this class over time. These numbers will likely shift as updated condition inspections are completed in future planning cycles.



The Fleet & Equipment deficit projection shows a more consistent funding gap across the 10-year period. The demand is driven primarily by vehicle renewal needs, with equipment replacement requirements tapering off later in the forecast. This reflects predictable life-cycle replacement cycles but also highlights the importance of maintaining a dedicated fleet reserve to avoid sharp budget impacts in renewal years. In future AMP updates, improved tracking of usage hours, maintenance costs, and asset condition will allow for more precise replacement timing and could reduce the projected deficit.



The Parks & Recreation deficit projection shows modest but steady funding shortfalls over the forecast period, primarily related to playground and dock renewal needs. While these assets have lower individual replacement costs than roads or fleet, they are highly visible to the public and directly impact quality of life in the community. Timely reinvestment is key to maintaining safety and accessibility standards. Over time, as more detailed asset condition data is collected for park amenities, these projections can be refined to better align with actual renewal timing and requirements.



The IT & Communications deficit is concentrated in the first year of the forecast, reflecting planned near-term renewal of critical systems and equipment. Once this initial investment is made, the projected shortfall levels off, indicating a lower ongoing funding need. However, IT asset renewal cycles can be unpredictable, as changes in technology, security threats, and software compatibility can shorten useful life. Regular review of IT needs and integration with the municipality's broader capital planning will ensure that technology investments remain aligned with service delivery requirements.

7. Growth and Demand Forecast

The Township of McKellar has maintained a stable population profile over recent census periods, with modest fluctuations that reflect the area's rural character and seasonal dynamics. While current forecasts do not project rapid population growth, the Township anticipates a gradual increase in residents, particularly among retirees and seasonal occupants seeking rural living environments. Importantly, much of McKellar's core infrastructure—including its roads, community facilities, and water systems—was constructed with capacity beyond current demand, often reflecting historical or seasonal peak usage.

As a result, the Township benefits from inherent surplus capacity in several infrastructure systems. This built-in reserve enables McKellar to accommodate future population growth without requiring immediate or large-scale asset expansion. For example, the current road network is well-positioned to manage foreseeable increases in traffic volumes without major capacity upgrades. This allows the Township to focus strategically on targeted asset renewals, lifecycle maintenance, and risk mitigation, rather than prioritizing high-cost capacity expansions.

From an economic standpoint, McKellar's outlook remains cautiously positive. The local economy is grounded in seasonal tourism, agriculture, and small-scale commercial activity, with opportunities for growth in eco-tourism, rural entrepreneurship, and retirement-oriented services. The Township's spare infrastructure capacity reduces barriers to investment and provides a platform for low-impact development, enabling sustainable economic diversification without placing undue strain on municipal systems.

Population Growth Trends

McKellar's permanent population, recorded at 1,491 in the 2021 Census, reflects a stable rural community characterized by a mix of year-round residents and a significant seasonal population. While the Township's historical population base has remained relatively constant over the past several decades, modest growth is anticipated over the next 15 years. Forecasts suggest a gradual increase—driven by retirees, lifestyle-focused in-migration, and seasonal property conversions to full-time residences.

This projected demographic shift, while moderate, provides the Township of McKellar with a strategic opportunity: to optimize the use of existing infrastructure and service capacity while planning incremental enhancements to support emerging community needs. With no immediate pressure to expand core infrastructure, the Township can focus its capital investments on asset renewal, service optimization, and long-term sustainability. The ability to accommodate population growth within existing systems will help McKellar maintain affordability and service reliability, while supporting a gradual transition to a more diversified and resilient rural economy.

Census Year	2021 Census	2026 Census	2031 Projection	2036 Projection
Population	1491	1569	1569	1650

Economic and Industry Growth

As of 2021, the Township's economy is sustained by a mix of local service businesses, construction and contracting work, seasonal tourism. Small-scale enterprises—including general stores, marinas, and restaurants—provide essential goods and services to both permanent and seasonal residents. The construction and landscaping sector remains active, especially during warmer months when seasonal property maintenance and small-scale development increase. Tourism and recreation play a vital role, with cottaging, fishing, hiking, and snowmobiling drawing visitors and supporting businesses. Retirees and some remote workers contribute to the local economy through spending and property tax revenue. Public sector employment—including municipal services, education, and emergency response—also supports a stable workforce. Between 2026 and 2036, the Township anticipates continued low economic growth, with no major new businesses or industrial expansion. Growth is expected primarily in the tourism sector, the short-term rental market, and small-scale home-based businesses and contractors. These sectors will contribute to seasonal population increases and place additional pressures on local infrastructure, especially the road network, as more visitors and retirees relocate to the area.

Census Year	Economic Growth Summary
2021 Census	Low economic activity sustained by existing businesses and services.
2026 Projection	Continued low growth, with minor increases in tourism and short-term rental activity.
2031 Projection	Ongoing low growth, with gradual rise in seasonal tourism-related businesses
2036 Projection	Low but stable growth driven by small-scale home-based businesses and construction

Housing Demand Projections

As of the 2021 Census, the Township of McKellar had a modest and largely stable housing market, characterized by a predominance of single-family dwellings and seasonal cottages. New residential construction has remained limited, with infill and rural lot development occurring on an as-needed basis. In many cases, the pace of housing supply has exceeded permanent population growth, contributing to relatively stable vacancy rates and a continued emphasis on seasonal occupancy. Looking ahead to 2026 and beyond, the Township anticipates steady demand for single-family homes, particularly among retirees and seasonal property owners transitioning to full-time residency. Rental housing availability is expected to remain limited, with pressure increasing during peak seasons. Through the 2030s, McKellar may experience incremental diversification in housing forms, including estate-lot subdivisions and adaptable rural dwellings that accommodate aging populations and smaller households. A long-term housing plateau is anticipated as population growth levels off, enabling the Township to plan conservatively and avoid overbuilding.

Projected Housing Demand – Township of McKellar

Census Year	**2021 Census**	**2026 Projection**	**2031 Projection**	**2036 Projection**
Housing Demand	Limited new builds; primarily infill and seasonal conversions.	Continued development of single-family homes for permanent use; rising seasonal-to-permanent transitions.	Gradual introduction of estate-lot and adaptable dwellings for retirees and smaller households.	Stable demand: potential housing plateau as population stabilizes.

Transportation and Road Network

The Township's asset management planning emphasizes maintaining and optimizing the existing road infrastructure rather than expanding the network. Anticipated traffic growth—driven by increased tourism and seasonal population influx—will primarily impact local and collector roads. Local roads are expected to experience approximately **1% annual traffic growth**, while **collector roads** may see up to **2% annual growth** due to higher usage from visitors and retirees. Although **no new road construction or public transit systems** are planned, the Township will focus on **resurfacing and maintaining arterial roads** to address accelerated wear and tear. These efforts are necessary to preserve road condition, ensure safe travel, and support the Township's evolving economic and demographic patterns.

Road Type	Annual Traffic Growth	Planned Investments	Purpose
Local Roads	~1%	Ongoing maintenance and resurfacing	Accommodate gradual increases in residential and seasonal traffic
Collector Roads	~2%	Targeted resurfacing and structural repairs	Address higher usage from tourism and regional traffic
Arterial Roads	N/A (existing use)	Prioritized for resurfacing	Mitigate wear from increased traffic volumes and seasonal fluctuations
New Road Construction	None planned	N/A	Focus remains on optimizing and maintaining existing road network
Public Transit	None planned	N/A	Low population density does not support transit system development

Parks and Recreation Utilization

Parks and outdoor recreational amenities in the Township of McKellar are valued assets that serve both permanent residents and seasonal visitors. Current utilization levels are moderate for parks and good or outdoor recreational facilities, reflecting a balance between community demand and seasonal variability.

As McKellar continues to attract retirees, outdoor enthusiasts, and young families seeking rural quality of life, recreational infrastructure will need to be maintained and potentially enhanced. Investments in new playgrounds, sports fields, trails, and public gathering spaces will support active living, intergenerational engagement, and community wellness over the long term.

Parks and Recreational Infrastructure Utilization

Category	Current Utilization	Future Utilization (1–5 years)	Future Utilization (6–10 years)
Parks	~50%	~50%	~50%
Outdoor Recreational Facilities	~70%	~70%	~70%

Fleet Services

The Township's municipal fleet, which includes public works vehicles and heavy equipment, is currently operating at full capacity. As service demands increase—particularly in areas such as winter road maintenance, rural servicing, and infrastructure support—fleet availability will become a key operational pressure point.

To ensure continued service delivery and reliability, McKellar will need to consider the phased acquisition of additional vehicles and equipment over the next 5 to 10 years. Lifecycle asset replacement planning, coupled with strategic procurement, will be essential to maintaining fleet readiness and minimizing service disruptions.

As the Municipality's fleet of vehicles and heavy equipment continues to grow to meet increasing service demands, the capacity of the current Public Works shop has reached its operational limits. The existing facility is no longer adequate for housing, maintaining, and storing the full range of fleet assets,

resulting in inefficiencies in maintenance scheduling, vehicle accessibility, and workspace utilization. This constraint directly impacts the ability to perform timely preventative maintenance and repairs, potentially shortening asset life cycles and increasing operating costs. The immediate demand for expanded or upgraded shop space is critical to ensure that fleet operations can keep pace with both current and future service delivery requirements. Addressing this need will also improve workflow, enhance safety, and support the municipality's ability to maintain a modern, efficient fleet in the years ahead.

Fleet and Equipment Utilization

Category	Current Utilization	Future Utilization (1–5 years)	Future Utilization (6–10 years)
Fleet (Public Works Vehicles)	100%	100%	100%
Heavy Equipment	100%	100%	100%

Building and Facilities Demand

Public buildings in McKellar, including the municipal office, community centres, and library, are currently utilized at approximately 80% capacity. Indoor recreational facilities are similarly estimated to be at 70% utilization. While these assets remain functional and sufficient for current service levels, projected increases in public programming, administrative activity, and year-round occupancy may create future demand pressures.

To accommodate evolving community needs, the Township may require renovations, repurposing of existing spaces, or potential expansion of civic infrastructure. This approach will ensure that public facilities remain accessible, efficient, and responsive to long-term service delivery goals.

Building and Facility Utilization

Category	Current Utilization	Future Utilization (1–5 years)	Future Utilization (6–10 years)
Public Buildings	~80%	~80%	~80%
Indoor Recreational Facilities	~70%	~70%	~70%

Community and Stakeholder Engagement

The Township of McKellar is committed to ongoing engagement with residents, developers, and regional partners to support transparent and informed decision-making. Through consultation and collaboration, the municipality ensures that infrastructure and growth planning reflect local priorities, foster public trust, and accommodate evolving community needs. **Sustainability and Resilience**

Infrastructure planning in McKellar integrates sustainable and resilient design principles to enhance long-term service delivery and reduce vulnerability to climate-related impacts. These measures support the Township's commitment to environmental stewardship and help safeguard community well-being amid changing environmental conditions and growth pressures.

Community Engagement and Resilience Strategy Table

Category	Description
Engagement Approach	Ongoing communication and collaboration with residents, developers, and regional stakeholders.
Decision-Making Principles	Transparent, inclusive planning that reflects community priorities and promotes informed infrastructure and growth management.
Sustainability Objectives	Apply sustainable design standards in infrastructure projects to support environmental goals and reduce ecological footprint.
Resilience Measures	Incorporate climate adaptation strategies to manage risks and improve infrastructure performance under future environmental conditions.
Community Well-Being Focus	Ensure infrastructure supports long-term livability, safety, and accessibility in response to both growth and climate-related

Growth Planning Summary Table: Parks, Fleet, Facilities, and Transportation

Category	Current Status	Planned Response
Parks and Recreation	Sufficient quantity: Parks are currently underutilized. Buildings are heavily used; demand expected to grow.	Monitor usage over the next 10 years; plan improvements as demand increases and user demographics shift. Construct new baseball field; maintain and upgrade recreational infrastructure to support increased use.
Fleet and Equipment	Fully utilized and in good condition; meets current operational needs. Modest increase anticipated over the next decade	Maintain existing assets; reassess capacity and functionality as operational or service demands change. Continue with scheduled maintenance and timely replacement to ensure ongoing performance and reliability
Public Buildings	At or near full capacity, growing demand anticipated. Interested in repurposing two churches for public use. Public Works building is currently operating over capacity; lacks sufficient indoor storage for equipment	Construct new rental facility and gymnasium to expand community service delivery and program space. Conduct a feasibility and renovation assessment to determine suitability and alignment with community needs. Expand public works facility to accommodate future fleet growth, storage needs and operational efficiency
Transportation Network	Generally adequate for current traffic and seasonal use; rural roads require upkeep.	Maintain current road network; plan strategic upgrades to surface treatment and drainage where usage grows.

Long-Term Demand Projections (2031–2041)

Infrastructure Upgrades and Priorities

Over the 2031–2041 planning horizon, McKellar Township anticipates a series of infrastructure challenges and emerging opportunities, driven by both aging assets and shifting community demographics. Anticipated infrastructure upgrades will focus on high-priority areas such as bridge replacement and the development of a dedicated facility for the Parks Department to accommodate increased recreational programming and operational demands.

A notable demographic trend influencing future service requirements is the aging population and the continued transition of waterfront properties from seasonal to full-time occupancy. This evolution in residency patterns is expected to generate increased demand for core municipal services, necessitating infrastructure enhancements to maintain service levels, safety, and overall quality of life within the community.

Critical Infrastructure Gaps

The most significant infrastructure gap identified for the 2031–2041 period is the need for extensive bridge rehabilitation and replacement. As traffic volumes grow and design standards evolve, existing bridge infrastructure must be upgraded to meet modern engineering and safety requirements. In addition, the Township is experiencing increased pressure to improve road conditions, with a focus on transitioning select gravel surfaces to paved standards to better serve both residents and visitors.

A lack of detailed long-term planning for certain assets—particularly roads in poor condition, currently presents a planning risk. The adoption and continued implementation of a regulation-compliant Asset Management Plan (AMP) is expected to strengthen prioritization processes, ensuring that road reconstruction and capital investment decisions are aligned with council direction and service delivery goals.

Planned Infrastructure Expansion (1–5 Years)

In the short term, McKellar Township will focus on targeted infrastructure expansion and reconstruction projects that address the most immediate operational and structural needs. Priority initiatives include the reconstruction of Hurdville Road and Hardie Road, along with the potential expansion of the existing public works (PW) garage to resolve capacity limitations and support core service delivery.

Although the Township frequently receives complaints regarding road conditions, technical assessments reveal that many of the roads in question are not currently operating near traffic capacity. As a result, expansion is not deemed urgent for those areas. Instead, the Township is emphasizing maintenance and reconstruction activities that address structural deficiencies and service life extension.

A formal road needs study is currently being used to guide infrastructure decision-making. This study evaluates both physical condition and complaint data, ensuring that prioritization is based on comprehensive evidence rather than capacity pressures alone.

In the near term, McKellar will focus on time-sensitive reconstruction projects including:

Year	Department	Description	Approximate Cost
2025/2026	Transportation	Hurdville Road reconstruction	$1,200,000 – $1,500,000
2026	Transportation	Hardie Road reconstruction	950,000 – $1,300,000
2026	Buildings		

Population and Economic Growth – Trends and Projections

The Township of McKellar has experienced relatively stable population levels over the past decade, with seasonal variations driven by a significant cottage and recreational housing presence. Permanent population growth has been modest, with limited in-migration and an aging demographic profile. According to Statistics Canada and provincial forecasts, marginal growth in the permanent population is expected over the next 10 to 20 years, primarily as seasonal residents transition to year-round occupancy. This trend is likely to continue, driven by retirees and remote workers seeking rural living environments.

Economically, the Township's tax base remains predominantly residential. There is limited industrial or commercial activity, and the local economy relies heavily on tourism, small-scale agriculture, and service-based sectors. Large-scale economic expansion is not anticipated, but incremental residential development and growth in tourism-related services may increase demand on municipal infrastructure and service delivery capacity.

Growth Accommodation Strategies

Strategy	Timeline	Related Assets	Expected Outcome
Facility condition assessments	2025–2026	Public Works, Fire Stations	Support data-driven capital planning
Shared service exploration	Ongoing	Recreation, Roads	Improved cost efficiency and service
Lifecycle optimization efforts	Annual	All asset classes	Extend asset life and manage risk
Population and demand monitoring	5-year review	Planning & AMP process	Ensure infrastructure stays responsive

Impact on Assets – Future Demand

Despite limited urbanization pressures, McKellar's aging population and the shift toward full-time residential use of seasonal properties are expected to increase demand on core infrastructure assets. Roads, water access points, and community facilities will face more intensive year-round usage, particularly during the spring and summer months when recreational activity peaks.

Existing infrastructure—particularly roads, culverts, and buildings—is aging and will be subject to increased wear without a corresponding increase in funding from user fees or the tax base. As asset utilization intensifies, the Township will need to manage lifecycle performance more actively to ensure reliability, safety, and continued service delivery.

Asset Demand Impact Assessment

Asset Class	Current Utilization	Anticipated Impact from Growth	Notes
Roads & Bridges	Moderate	Seasonal increases	Increased wear during summer months
Buildings & Facilities	At/near capacity (PW)	Slightly increasing demand	Facility expansion may be necessary
Recreation Assets	Moderate	Higher peak usage	May require service level adjustments
Stormwater / Culverts	Aging infrastructure	Minimal change expected	Lifecycle replacement priority

Expansion Plans – Strategies to Accommodate Growth-Related Needs

In response to these evolving conditions, the Township of McKellar will implement the following strategies to manage infrastructure demands associated with modest growth:

1. **Facility Upgrades and Modernization**
   The Township will assess the capacity of existing public works buildings, community halls, and recreational facilities to determine whether upgrades or expansion are required to meet service expectations.
2. **Asset Optimization**
   Through condition assessments and performance monitoring, the Township will extend the useful life of existing infrastructure. Targeted interventions will be prioritized through the asset management framework to align investment with risk and performance needs.
3. **Growth-Aware Capital Planning**
   Population and seasonal usage trends will be integrated into the capital planning process to ensure that new investments are responsive to future demand.
4. **Collaborative Opportunities**
   The Township will explore intermunicipal collaboration to share infrastructure and services—particularly in the areas of recreation, emergency response, and roads—to maximize efficiency and mitigate cost pressures.

These strategies will be continuously refined through monitoring of demographic and economic indicators, allowing McKellar to maintain responsive and responsible infrastructure planning.

8. Continuous Improvement and Monitoring

Performance Monitoring

To gauge progress in embedding asset management across the organization, McKellar will track eight core performance metrics—spanning data quality through stakeholder engagement—using a four-level maturity scale. This dashboard will be updated annually, with full assessments every three years, to illustrate growth from “Initial” practices toward an “Optimized” state.

Characteristic	Indicator	Initial (Level 1)	Developing (Level 2)	Mature (Level 3)	Optimized (Level 4)
Quality of Data	% of asset data complete, accurate, and up-to-date	< 50% complete; significant inaccuracies	50–75% complete; some inaccuracies	75–95% complete; minimal inaccuracies	≥ 95% complete, accurate, and current
Goal Alignment	% of LOS metrics aligned with community and regulatory goals	No LOS metrics defined	Some LOS defined; inconsistent alignment	Most LOS aligned and actively monitored	All LOS fully aligned and monitored
Risk Mitigation	% of high-priority risks with formal mitigation strategies	Risks unmanaged; no AM integration	Some risks identified; mitigation inconsistent	Most risks identified and addressed via formal strategies	All risks identified, managed, and embedded in AM decision-making
Operational Efficiency	Time and resources required to complete AM activities	Inconsistent processes; heavy manual effort	Partially standardized; still resource-intensive	Well-defined processes; moderately efficient	Fully streamlined; minimal time/resources; high-quality outputs
Workforce Capability	% of staff trained in AM practices and actively participating	< 25% staff trained or engaged	25–50% trained; occasional participation	50–75% trained; actively involved	> 75% fully trained and engaged
Financial Sustainability	Extent to which AM data informs budget and long-term planning	Financial planning independent of AM data	Some AM data used for short-term budgeting	AM data informs most budget decisions; some long-term alignment	AM data fully integrated into short- and long-term financial strategies
Community Alignment	Level of public and stakeholder involvement in AM planning	No public/stakeholder engagement	Limited engagement; occasional input	Regular engagement; feedback incorporated	Active, consistent collaboration; decisions reflect stakeholder input
Transparency	Frequency and quality of AM progress reports to Council and stakeholders	Reports are rare or ad hoc; lack actionable insights	Reports produced occasionally; inconsistent depth	Reports regularly produced; actionable insights	Reports timely, detailed, and integrated into strategic planning and stakeholder communication

Review Cycles

Township of McKellar will undertake a comprehensive AMP update every three years, refreshing inventories, condition assessments, lifecycle strategies, and the financial forecast. In the interim, annual progress reviews will reassess KPIs, update risk registers, and recalibrate treatment triggers. This two-tiered cadence balances robust strategic planning with the agility to respond to emerging issues or funding opportunities.

Improvement Plan (2025–2029)

Over the next five years, the Township will execute a phased program to elevate its asset management maturity. Each year targets specific capabilities, engaging cross-functional teams to embed AM in daily operations.

Year	Key Actions	Participants	Deliverable / Milestone
2025	Launch GIS mobile data-capture; data audit and cleanup	AM Steering Committee; IT; Public Works	Mobile app deployed; 2025 Data Completeness Report
2026	Pilot condition assessment protocols for roads, water, wastewater	Public Works crews; Contracted inspectors	Condition Rating Guide; Pilot Inspection Report
2027	Integrate condition data into CMMS; develop automated KPI dashboards	IT; Finance; AM Coordinator	Live AM Dashboard; Monthly KPI Reports
2028	Facilitate FMEA workshops across asset classes; finalize risk-mitigation action plans	AM Steering Committee; Department Heads	Published Risk Register; Mitigation Strategy Documents
2029	Embed AM decision-rules in budget cycles; implement lifecycle costing and renewal forecasting	Finance; AM Coordinator; Department Managers	10-Year Capital Forecast; AM-driven Budget Approval

Training & Development Program (2025–2029)

A robust training regimen will build AM expertise across Council, staff, and contractors, ensuring sustainable adoption.

Year	Activity/Event	Participants	Expected Outcomes
2025	AM Fundamentals Workshop	Public Works; Finance; IT; AM Steering	Shared understanding of AM principles; alignment
2026	Field Inspection & Data-Capture Training	Public Works crews; Inspectors	Consistent, accurate condition data collection
2027	CMMS & Dashboard Hands-On Sessions	IT staff; AM Coordinator; Managers	Self-service reporting; real-time decision support
2028	FMEA & Risk-Management Course	Department Heads; Steering Committee	Formal risk identification; proactive mitigation planning
2029	Council & Community AM Forum	City Council; community stakeholders	Transparency; collective feedback; strengthened public trust

Advantages of Trained Personnel

Well-trained staff will deliver more consistent and accurate asset data, reducing reliance on external consultants and accelerating decision-making. Enhanced operational efficiency and risk mitigation capabilities lower long-term costs, while transparent reporting and stakeholder engagement build public confidence and ensure that AM principles guide every budget and capital decision.

Appendix A: Glossary of Terms

Asset
A physical component of an infrastructure system that contributes to service delivery (e.g., roads, water mains, pumps, parks).

Asset Management Plan (AMP)
A tactical document that outlines how an organization will manage its assets over their full lifecycle to meet service objectives, regulatory requirements, and financial constraints.

Capital Reserve Fund
A financial account set aside over time to accumulate the necessary resources for future asset renewals and replacements, smoothing budget impacts and ensuring funding availability when major capital expenditures are due.

Condition Assessment
A systematic inspection and evaluation process that determines the physical state of an asset, often using ratings or scores to guide maintenance and renewal decisions.

Condition Rating
A numeric or qualitative score assigned to an asset based on observed defects, performance data, or inspection results; commonly on a 1–5 or PCI (0–100) scale.

Criticality
An index reflecting an asset's importance to overall system performance and the consequences of its failure (e.g., isolating large service areas or disrupting critical services).

Disposal
The end-of-life activity involving safe removal, recycling, or disposal of asset materials once replacement or reconstruction has occurred.

Failure Modes & Effects Analysis (FMEA)
A structured risk-assessment methodology that identifies potential failure points, assesses their likelihood and consequence, and prioritizes mitigation actions.

Lifecycle Cost
The total cost of owning, operating, maintaining, renewing, and disposing of an asset over its entire useful life.

Level of Service (LOS)
The defined standard or target for how an asset or service should perform, expressed via community-focused indicators (e.g., accessibility, safety) and technical metrics (e.g., PCI thresholds, response times).

Maintenance
Routine and corrective activities undertaken to preserve asset condition and functionality (e.g., crack sealing, mowing, valve exercising).

Optimization Scenario
A modeled projection in DOT (or similar software) that balances funding constraints, intervention timing, and target LOS to identify the most cost-effective treatment strategy over time.

Operating Cost
Expenses associated with day-to-day use of an asset, including labor, energy, consumables, and minor repairs.

Preventive Maintenance
Scheduled, proactive maintenance tasks designed to prevent asset deterioration (e.g., seal coating, flushing, inspections).

Procurement
The process of acquiring goods and services—through tendering, RFPs, or term contracts—necessary to deliver maintenance, renewal, and new-asset activities.

Remaining Service Life (RSL)
An estimate of the time (usually in years or as a percentage) an asset is expected to function before requiring major rehabilitation or replacement.

Replacement Cost
The current estimated expense to replace an asset at today's market rates, including materials, labor, and disposal of old assets.

Rehabilitation
A treatment category that restores an asset to satisfactory condition without full reconstruction (e.g., overlaying, relining, component upgrades).

Renewal
Capital activities that restore an asset to its original function and capacity, typically including full-depth reconstruction or component replacement.

Risk
A function of the likelihood of an asset's failure and the consequences of that failure, used to prioritize interventions and allocate resources.

Risk Matrix
A two-dimensional grid that plots likelihood (x-axis) against consequence (y-axis) to categorize overall risk levels (e.g., low, medium, high).

Scenario Modeling
Running alternative "what-if" analyses in asset-management software to explore the impacts of different funding levels, treatment mixes, or timing on asset condition and service levels.

Service Level
The measurable performance threshold an asset must meet to satisfy customer expectations and regulatory requirements, often expressed as a percentage or frequency (e.g., 95% compliance, one incident per five years).

Spare Capacity
Built-in excess asset capability—such as water-treatment capacity or road network redundancy—that can accommodate growth or absorb disruptions without immediate upgrades.

Total Cost of Ownership (TCO)
The aggregate of all lifecycle costs (planning, procurement, operations, maintenance, renewal, disposal) associated with an asset over its life.

Work Order Management System (WOMS)
A software tool for tracking and scheduling maintenance, inspection, and renewal activities, often integrated with GIS and CMMS platforms.

Appendix B: DOT Scenarios

The lifecycle forecasts, investment projections, and renewal strategies presented throughout this Asset Management Plan were developed using Decision Optimization Technology (DOT) software. DOT allows the Township to model a variety of asset renewal and maintenance strategies based on available condition, risk, and cost data. Each scenario in DOT applies a defined set of treatment rules, performance targets, and budget assumptions to predict future asset condition and funding requirements over a specified planning horizon.

For this AMP, a series of tailored scenarios were created for each asset class to reflect McKellar's service level objectives, financial capacity, and operational realities. These scenarios were run between *[insert year range if desired]*, and the details — including scenario name, notes, projection start year, last run date, and the staff or consultant responsible — are documented in Appendix X. This ensures transparency in the modeling process and provides a reference point for future updates.

The scenarios listed in the appendix represent the exact models used to generate the projections and recommendations in this plan. As McKellar collects more accurate condition data, refines cost estimates, and matures in its asset management practices, these scenarios can be adjusted and re-run to produce updated projections. This iterative process ensures that future AMPs will be based on increasingly reliable information, allowing Council and staff to make more informed investment decisions.

Transportation

Roads

Meet LOS Conditions 2	This is an attempt to get the LOS provided by McKellar into the software.	2026	Jul 29, 2025 (20:36)	chad@buhlinam.ca

Guardrails

Max Net Condition		2026	Jul 23, 2025 (19:13)	chad@buhlinam.ca

Bridges

Maintain Fair to Good		2026	Jul 23, 2025 (19:39)	chad@buhlinam.ca

Buildings and Facilities

Buildings

Maintain Level of Service	Minimal Cost for 5 Years	2026	Jun 19, 2025 (15:36)	ashlee@buhlinam.ca

Parking Lots

Max Net Perf 6K	No Limit of funds to repair and maintain	2026	Jun 19, 2025 (16:19)	ashlee@buhlinam.ca

Fleet & Equipment

Vehicles

Target LoS : municipality by 2035	network condition minimum: 72	2026	Jun 17, 2025 (19:21)	chad@buhlinam.ca

Equipment

Meet LOS Conditions 130K - end of planning	Max Condition Gain Min 60%RSL	2026	Jun 17, 2025 (19:44)	chad@buhlinam.ca

Parks & Recreation

Playgrounds

Achieve LOS by 2030 - Budget 20K		2026	Jun 25, 2025 (15:30)	chad@buhlinam.ca

Docks

Achieve LOS by 2035 - Budget 20K		2026	Jun 25, 2025 (16:04)	chad@buhlinam.ca

IT & Communications

IT Assets

Meet LOS Conditons	Meet LOs conditions	2026	Jul 28, 2025 (12:48)	chad@buhlinam.ca