



Township of Algonquin Highlands

2025 Asset Management Plan



Report Information



Municipality: Township of Algonquin Highlands

Title: 2025 Asset Management Plan

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Date: 20 November, 2025

Cover Image: Dorset Tower and the Community Beyond (*Credit: Discover Muskoka*)

Disclaimer and Notices

This Asset Management Plan (AMP) has been prepared for the Township of Algonquin Highlands for the purpose of meeting the requirements of Ontario Regulation 588/17 and to inform long-term infrastructure and financial planning needs. It reflects the best available information at the time of publication and is intended to be a living document that will evolve as better data and methods become available.

The AMP is a strategic planning tool. It is not a capital budget, nor does it commit the Municipality to specific projects, funding levels, or service outcomes. All decisions regarding future investments, priorities, or service levels remain at the discretion of Council through the annual budget and capital planning process.

Financial figures contained in this document represent high-level estimates developed from available asset registers, staff input, condition assessments, and industry costing sources. These estimates are subject to change as new studies, inspections, or more detailed designs are completed.

The analysis within the AMP is based on the processes described herein, which include a series of assumptions using available data. While the Municipality strives for accuracy, some information may be incomplete, approximate, or based on best professional judgment. Updates to the AMP will continue to improve the quality of data and projections over time.

This document is provided for planning purposes only and should not be relied upon for litigation, claims, or other uses beyond its intended scope. Where consultants or third-party data sources have been used, liability is limited to the terms of those professional services agreements. The consultant's role in preparing this document was limited to the consolidation and presentation of available data and Township input, which is the sole basis for information and analysis provided herein.

Accessibility Note

A text description of images and figures that appear in this report is provided in Appendix C.

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Glossary of Terms

Acronyms

AMP	Asset Management Plan
AODA	Accessibility for Ontarians with Disabilities Act
BCI	Bridge Condition Index
CCBF	Canada Community Building Fund
CRV	Current Replacement Value
EUL	Expected Useful Life
GHG	Greenhouse Gas
HCB	High-Class Bituminous
HVAC	Heating, Ventilation, and Air Conditioning
IJPA	Infrastructure for Jobs and Prosperity Act
LCB	Low-Class Bituminous
LOS	Levels of Service
MMS	Minimum Maintenance Standards
MTO	Ministry of Transportation Ontario
O.Reg 588/17 (Regulation)	Asset Management Planning for Municipal Infrastructure
OCIF	Ontario Community Infrastructure Fund
OSIM	Ontario Structure Inspection Manual
PCI	Pavement Condition Index
PM	Preventive Maintenance
RCR	Ride Comfort Rating
TCA	Tangible Capital Asset

Definitions

Community Levels of Service	Community levels of service describe how residents and stakeholders experience, value, and assess the quality of municipal services, serving as a basis to evaluate whether community expectations are being met
Expected Useful Life	The expected useful life is the estimated duration during which an asset is anticipated to function effectively and deliver the required level of service
Financial Strategy	The financial strategy outlines the municipality’s approach to meeting the requirements of Ontario Regulation 588/17, specifically detailing the costs necessary to maintain existing levels of service for municipal infrastructure assets
Funding Gap	A funding gap occurs when identified investment needs lack dedicated or assigned funding sources to carry out the planned activities required to maintain or improve municipal infrastructure
Levels of Service (LOS)	Levels of Service represent both qualitative descriptions and quantitative technical measures that define the municipality’s commitments, standards, and expectations for the performance and reliability of infrastructure assets
Lifecycle Cost	Lifecycle cost refers to the total expenditure associated with an asset throughout its entire lifespan, including all phases such as planning, acquisition, construction, operation, maintenance, renewal, disposal, and the related engineering and design work
Lifecycle Management	Lifecycle management includes the processes and activities involved in overseeing infrastructure assets from planning through to disposal, and may include stages such as acquisition, construction, operation, maintenance, renewal, and associated engineering and design tasks.
Operating Costs	Operating costs represent the total expenses incurred to operate a municipal asset over its service life, which includes energy consumption, labor, materials, and other ongoing operational expenditures
Own Source Revenues	Own source revenues are funds generated directly by the municipality through taxation, licensing fees, user charges, or other municipal-imposed fees
Replacement Value/Replacement Cost	Replacement value (or replacement cost) is the estimated amount required to fully replace an asset with a new one of equivalent capacity and function, at current market prices
State of the Infrastructure	State of the Infrastructure provides a summary overview of the municipality’s assets, including information on replacement costs, average asset ages, current conditions, and overall asset health, as required under O.Reg. 588/17
Technical Levels of Service	Technical levels of service consist of specific, measurable indicators used to assess and report whether the community and corporate levels of service targets are being achieved

Executive Summary

The Township of Algonquin Highlands manages a diverse portfolio of public infrastructure assets that provide important services for residents, businesses, and visitors. This portfolio includes Roads, Bridges & Culverts, Buildings, Land Improvements, Vehicles, and Machinery & Equipment. Together, these assets support the local economy, contribute to quality of life, and meet the community's day-to-day needs.

This Asset Management Plan (AMP) outlines the assets owned by the Township, their current condition, identified risks, investment requirements, and a financial strategy to sustain them over the next 10 years. The AMP covers the assets recorded in the Township's Tangible Capital Asset (TCA) register, according to the thresholds set in the Township's TCA Policy. The AMP has been prepared in accordance with *Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure*.

The Regulation requires that each municipality develop a plan for its infrastructure assets, adopt it by Council, and make it available to the public. This AMP provides a technical and financial roadmap for how the Township can manage its capital assets. It aims to facilitate long-term expenditure planning, safeguard the quality and performance of infrastructure, and support the sustainable delivery of services.

Asset Portfolio Overview

The current replacement value of the Township's asset portfolio across its six major asset classes is estimated to be \$76.7 million in 2025. The breakdown of assets by value is shown in the chart below:

Figure 1: Asset Portfolio by Current Replacement Value

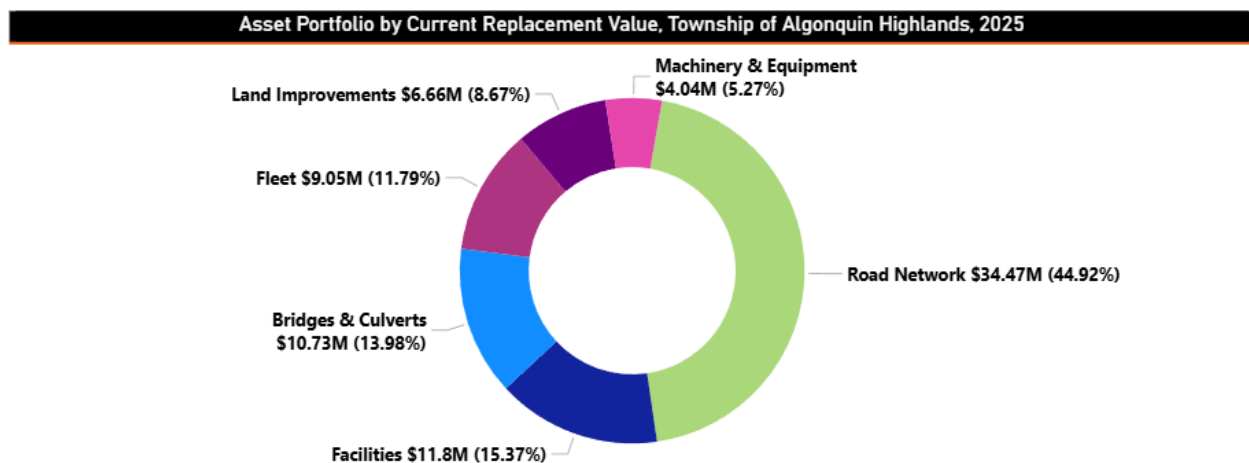


Figure 1 illustrates the Township's assets by replacement value. Roads represent the largest share at approximately \$34.5 million. Facilities are the second largest at \$11.8 million, followed by Bridges & Culverts at \$10.7 million. Fleet (\$9.1 million), Land Improvements (\$6.7 million) and Machinery & Equipment (\$4.0 million) complete the municipality's tangible capital asset inventory. Additional detail on asset condition, replacement costs, and investment needs are presented starting in Section 2.

The condition of municipal assets influences the township's reinvestment needs over the next 10 years. Overall asset condition is estimated for each asset class as summarized in the graph that follows.

Figure 2: Asset Portfolio Condition

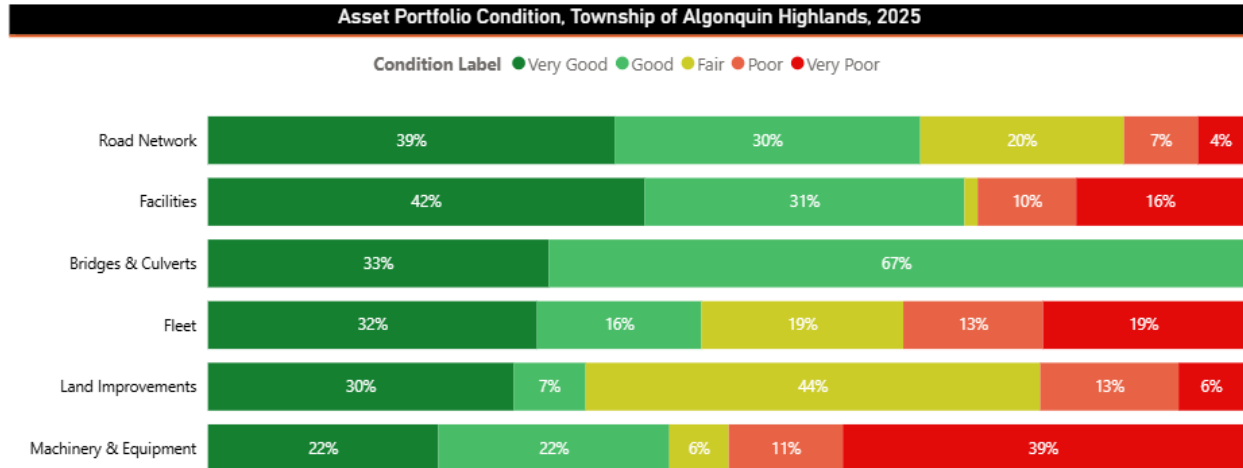


Figure 2 presents the overall condition of Algonquin Highlands' asset portfolio in 2025. Bridges and culverts are shown to be in the best condition overall among asset classes, with 100% of assets in good or very good condition. Roads also show a strong profile, with over two-thirds (69%) rated good to very good and 11% rated as poor or very poor. Facilities have a similar profile with (73%) evaluated as in good or very good condition, though 26% are estimated to be poor or very poor. Fleet, Land Improvements and Machinery & Equipment are all more evenly distributed from very good to very poor, reflecting the shorter lifecycle of these assets as being more frequently replaced.

Asset Financial Needs and Strategy

The AMP outlines the Township's proposed Levels of Service for each asset category and presents a set of Lifecycle Activities designed to maintain assets to that level and to manage identified risks. These activities include specific projects to address pressing infrastructure needs (such as major road rehabilitation, or fleet and facility replacements) as well as capital maintenance activities (such as window or fencing upgrades). Together, these comprise the Township's asset lifecycle activity needs.

Over the next ten years, funding requirements for costed asset lifecycle activities total \$36.1 million, for an average of \$3.61 million per year (in year-of-expenditure dollars). This includes funds for anticipated major capital projects, including the replacement of Fire Station #60, but excludes projects where funding needs are still under review.

The funding needs total represents an annual reinvestment of approximately 4.7% of the Township's asset value, for maintaining or improving current assets the Township owns and expanding the Township's asset base in response to community growth. These investments in service quality aim to keep pace with growth while continuing to meet service delivery expectations. In addition to identifying funding priorities for asset maintenance and renewal, the AMP also outlines strategies to improve data quality, strengthen strategic planning, and maintain regulatory compliance.

1. Introduction

1.1 Introduction to the Asset Management Plan

The Township of Algonquin Highlands (the “Township”, “Algonquin Highlands”, or “Municipality”), located within Haliburton County in Central Ontario, manages a diverse and extensive portfolio of infrastructure assets. These assets provide municipal services that residents, businesses, and visitors rely on to support local economic activity, enhance quality of life, and protect the local environment.

This Asset Management Plan (AMP) provides a framework for managing the Township’s capital assets, including Roads, Bridges & Culverts, Facilities, Land Improvement, Fleet, and Machinery & Equipment assets, throughout their lifecycle. The AMP evaluates available asset data, professional assessments, and staff expertise, to inform decision-making that enhances value for the Township through the effective management of capital assets, while meeting evolving community needs.

This AMP also outlines steps for continuous improvement to maintain long-term benefits from the Township’s investment in Asset Management. It consolidates available information regarding municipal assets, the current state of infrastructure, investment priorities, and opportunities to strengthen asset management practices. The AMP, and the analysis within it, aims to build the Township’s capacity to forecast infrastructure needs, plan reinvestments, and deliver sustainable, cost-effective services.

1.2 Algonquin Highlands Municipal Assets in Context

Township of Algonquin Highlands is home to approximately 2,588 residents in 3,325 dwellings, according to the 2021 census. The municipality was amalgamated in 2001 from the Townships of Stanhope, Sherborne et al. (including McClintock, Livingstone, Lawrence, Nightingale), Dorset, Carnarvon, and Oxtongue Lake, which have economic roots in logging, farming, and tourism.

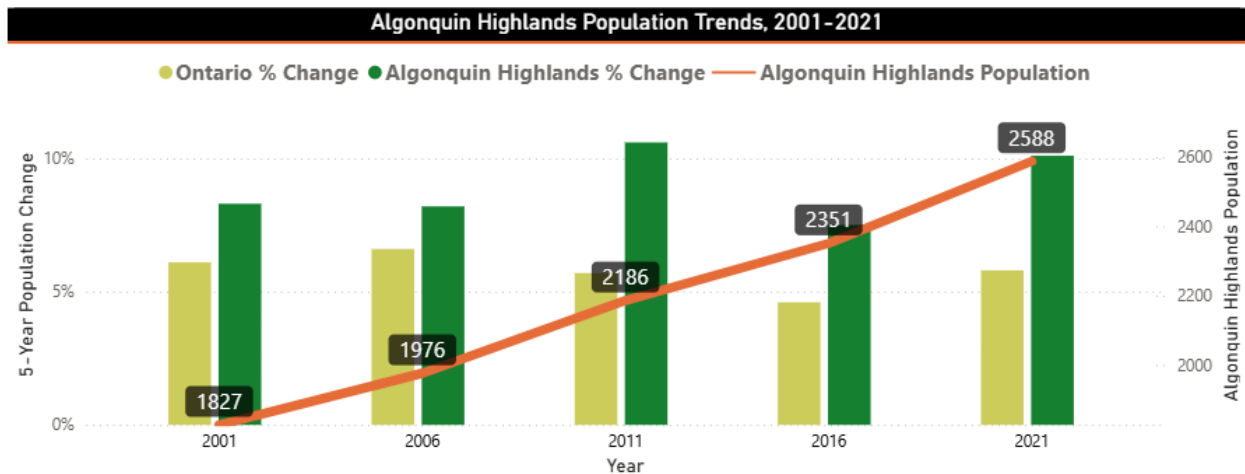
The Township’s history resulted in the development of a varied portfolio of infrastructure assets across a broad geographic area, which provide services, support economic activity, and protect the safety and well-being of the community. This AMP provides a broad-based approach toward maintaining and improving these assets to meet current service needs and prepare for future demands. The plan links long-term planning and investment decisions to factors influencing asset management, including population and environmental considerations:

Population Trends

The population of Township of Algonquin Highlands increased from 2,351 in 2016 to 2,588 in 2021, a total increase of approximately 10.1% over 5 years, which exceeds the population growth rate across the Province. Algonquin Highlands’ rate of population growth has outpaced the province in every census since at least 2001. Changes in population affect both the demand for services and the municipal revenue available to fund infrastructure needs.

Figure 1.1 on the following page outlines the population trends in the Municipality, with comparisons to the Provincial rate of growth.

Figure 1.1: Algonquin Highlands Population Trends, 2001-2021



Population dynamics affect the management of assets in important ways:

- Growth can strain existing assets and systems, necessitating capacity upgrades, service expansions, and additional investment, depending on the locations where growth takes place.
- Decline may result in underutilized assets, rising per-user costs, and the need to review service levels to maintain affordability.

Census data also shows that the number of dwellings in Algonquin Highlands as being higher than its permanent population, which points to the Township’s important role as a seasonal destination for cottaging. Overall, population trends suggest an increasing demand for municipal services (such as Roads, Facilities, and Land Improvements) with increasing potential revenues to support this growth.

Climate and Environment

Climate change presents new challenges to maintaining municipal services, with extreme weather events, shifting temperature patterns, and more frequent freeze-thaw cycles affecting asset performance and lifecycle costs.

Algonquin Highlands has traditionally experienced warm, humid summers and long, cold, snowy winters, but trends suggest¹ the region will experience hotter summers, milder winters, more frequent extreme rainfall and windstorm events, and seasonal shifts that may affect water levels in lakes and rivers.

The changing climate is expected to impact municipal infrastructure in important ways:

- **Buildings:** Shorter component lifespans, higher energy demand, and increased maintenance due to extreme heat days, heavier precipitation, and variable freeze-thaw cycles. Potential for increased community demand for cooling centres and emergency evacuation locations due to wildfires or extreme weather.

¹ Ontario Provincial Climate Change Impact Assessment Technical Report, MECP, 2023

- **Roads:** More frequent cracking, rutting, and frost-related damage caused by heavier rainstorms, increased spring runoff, and temperature fluctuations.
- **Wildfires:** Higher temperatures and drier conditions increase wildfire hazard potential in surrounding forests, heightening reliance on facilities such as roads and bridges for emergency response.

Proactive investments in adaptive and mitigation measures, like buildings with fire-resistant design features and emergency backups, may protect residents and infrastructure from the negative impacts of climate change.

Overall, infrastructure and related capital assets should be maintained in a condition that provides safe and functional services for residents, even in the face of population growth, changing service demands, and climate-related challenges.

Through this AMP, the Township sets out a strategy to achieve proposed service levels while adapting to population changes, supporting climate resilience, and acknowledging financial realities. Progress will be monitored annually so that asset management practices continue to support reliable service delivery, consistent with the service delivery objectives outlined herein.

1.3 Asset Management Planning Approach

O.Reg 588/17 requires each municipality complete an evaluation of the current state, condition, and performance needs of their assets. This AMP was developed using the Township’s asset data, available consultant reports, the 2020 Asset Management Plan, and staff input, to assess the infrastructure portfolio, Levels of Service (LOS), risks, and investments required to achieve proposed LOS over the next ten years. It is guided by principles of financial prudence, social responsibility, and environmental sustainability.

The following asset categories are addressed in this AMP:

Table 1.1: Algonquin Highlands – Tangible Capital Asset Categories

Asset Category	Example assets
Roads	Surface treated and gravel roads
Bridges & Culverts	Bridges and structural culverts
Facilities	Parks, recreation & trails facilities, fire stations, airport facilities, waste management facilities, public works facilities and an administration facility
Land Improvements	Parking lots, cemetery improvements, boat launches, airport proper improvements, and landfill property improvements
Fleet	Light vehicles, heavy vehicles, and trailers
Machinery & Equipment	Lawn mower, generators, ATVs, canoes, computers, software programs and various tools

For each asset class, the following are outlined:

- *Current and proposed Levels of Service (LOS)*, including technical and community measures.
- *Planned lifecycle activities* over the next 10 years for maintenance, rehabilitation, and renewal.
- *Financial forecasts* of funding needed to support sustainable long-term asset management.

AMP Structure

The AMP is organized with three main components:

1. **State of the Infrastructure** – Introduces the AMP and summarizes the size, value, and overall condition of the municipality’s infrastructure.
2. **Management of Assets** – Provides detailed profiles of each major asset class, including inventory, condition, LOS, lifecycle activities, and financial requirements.
3. **Financial Strategy** – Consolidates investment needs across all asset classes into a 10-year financial outlook and discusses strategies for sustainable funding.

The development of this AMP followed a methodology designed to inform asset management decisions using credible data and practices validated by Township staff. Key components include:

- **Asset Valuation:** Replacement values were derived using historical costs adjusted for inflation or third-party valuations, as shown in *Appendix A2*. For age-based valuations, historical costs were escalated by an annual rate of 3%, based on recent construction and material price changes.
- **Levels of Service (LOS):** Ontario Regulation 588/17 requires municipalities to document both current and proposed *community* and *technical* LOS for all assets:
 - *Community LOS* state residents’ priorities and expectations for municipal services.
 - *Technical LOS* metrics quantify how these priorities or expectations are being met.

LOS statements in this AMP were developed in discussion with municipal staff. They may continue to be refined in future AMP updates. Continuous monitoring of LOS will assist in evaluating the impacts of asset lifecycle investments and setting priorities for future interventions.

- **Lifecycle Activities:** Lifecycle management includes activities to sustain asset performance throughout its service life, including design, construction, operation, maintenance, renewal, and decommissioning. *O.Reg. 588/17* requires that AMPs identify the lifecycle activities to maintain LOS over 10 years and to estimate associated costs.
- **Asset Financial Requirements:** Financial requirements for each asset class are presented at the end of each section, to estimate funding needed to achieve proposed LOS over a 10-year planning period. These requirements are then used to inform the Financial Strategy in Section 9.

Condition Assessment Methodology

Asset condition is reported in this AMP using available information – where possible, asset condition is drawn from recent technical assessments; where such data is not available, age-based estimates were applied using the methodology detailed in *Appendix A3* and outlined below:

- **Formal Condition Assessments:** Inspections with needs assessments have been completed within the last 2 years for Bridges & Culverts. Condition information from the Township’s 2020 AMP was used as an estimate of current condition for Roads. The detailed condition information available for these assets is used to assess their condition in this AMP.

- **Age-Based Condition Estimates:** Where qualified condition assessments are not available, asset condition is estimated in this AMP based on the asset’s current age and its expected useful life (EUL), applying the ratings outlined below and detailed in *Appendix A3*.

Table 1.2: Age-Based Condition Rating Methodology

Condition Rating	Remaining Useful Life (%)
Very Good	75% or higher
Good	50% to 74%
Fair	25% to 49%
Poor	0% to 24%
Very Poor	Less than 0%

The table above shows asset condition ratings based on asset age as a proportion of their total EUL. Assets beyond their EUL in this report are noted as being in ‘Very Poor’ condition. Staff may evaluate the actual condition of these assets as part of planning for their replacement, based on visual inspections and performance relative to need.

Continuous Improvement

This AMP provides a snapshot of asset information current in 2025. Asset needs and conditions are constantly changing, and asset planning capacity also evolves through improvements to asset data, technology, and management practices.

As better condition assessments, refined valuation methods, and enhanced LOS tracking become available, future updates to the AMP will continue to strengthen the municipality’s ability to plan and manage its infrastructure in a transparent, cost-effective, and sustainable manner. Updates will also reflect evolving strategic objectives to continue reflecting the Township’s financial and policy priorities.

1.4 Data Sources

This AMP was developed using the most current and reliable asset information available at the time of preparation. Key data sources include:

1. Technical Reports and Studies

- Professional reports on specific assets, evaluating asset condition, rehabilitation needs, and timelines for renewal.
- Reports for were completed recently for the Township’s Bridges & Culverts. The 2020 Asset Management Plan also includes information used to supplement more recent data sources.

2. Tangible Capital Asset (TCA) Register

- Asset acquisition dates, estimated replacement values, and asset classifications.
- Asset age information can be used to infer asset condition when professional evaluations are unavailable.
- Where possible, TCA information was updated during the preparation of this AMP to reflect validated asset inventories and revised lifecycle activity needs.

3. Financial Records and Capital Plans

- Municipal financial statements since 2019 show historical capital expenditures, reserves, and funding allocations that give an indication into the Township's financial capacity.

Data from these sources was combined to define and assess current asset conditions, supporting informed decision-making and prioritization of investments across asset classes. Preference has been given to verified and recent data to ensure the integrity of this AMP. Further details on data sources and methodology are provided in *Appendix A2*.

1.5 Limitations of the AMP

A common challenge in asset management is the reliability of underlying data. While this AMP uses the best available information, data should be considered a reflection of the municipality's current asset records and subject to refinement as new information becomes available. Efforts to strengthen data collection and analysis across departments will support more accurate and informed decision-making in future AMP updates. Along with data limitations, other key limitations include:

- **Estimates for Asset Replacement Values:** Replacement cost estimates in this AMP provide indicative values for planning purposes. Actual costs for construction, rehabilitation, or acquisition will vary and be determined at the time of procurement. These estimates allow the municipality to understand the scale of expected capital investment over 10 years.
- **Useful Life Projections:** Estimated remaining useful lives are derived from asset age, type, and municipal experience. Actual performance may differ due to factors such as usage intensity, environmental conditions, and maintenance practices. Regular asset condition assessments are essential for validating and refining these estimates.
- **Lifecycle Activity Assumptions:** Lifecycle forecasts are based on municipal staff input and relevant Township policy. They do not consider every asset's unique condition, operational environment, or maintenance history. More accurate lifecycle needs may be developed through consultation with asset operators and engineering professionals and incorporated into future AMP updates.
- **Unforeseen Events and Changing Conditions:** Future events including extreme weather, usage shifts, or regulatory changes may impact asset performance and service demand in ways not anticipated in this AMP. These events may alter maintenance, rehabilitation, or replacement needs from the forecasts herein.

The quality of analysis is supported by quality data, which is used to determine lifecycle plans, to prepare expenditure forecasts, and ultimately to assess the Township's ability to sustainably meet proposed Levels of Service. The Township plans to continue to invest in appropriate asset studies and to develop master plans for key services such as parking, airport, fire, and parks, recreation and trails. Studies such as these are expected to provide additional data to assess the Township's asset portfolio and further direction as the portfolio grows and changes.

2. State of the Infrastructure

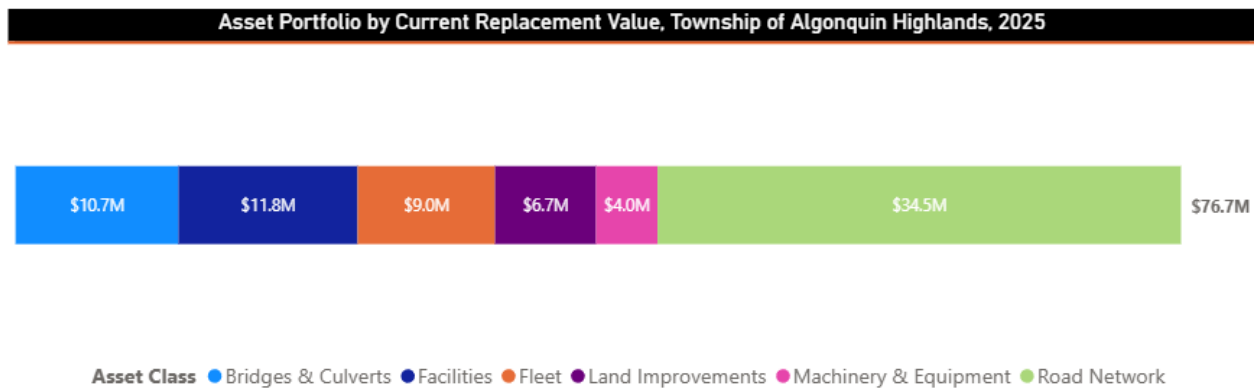
The State of the Infrastructure section of the AMP provides an overview of the major capital assets owned and operated by Algonquin Highlands. It provides a broad introduction to the Township’s asset portfolio and investment needs. This section presents key metrics for the Townships six major asset categories, including their total current replacement value, asset age, and asset condition.

The data shown in this section is a snapshot of the Township’s assets overall. It outlines key trends across the asset portfolio to be assessed in greater detail in the sections that follow, for each asset class.

2.1 Asset Overview

Algonquin Highlands manages infrastructure assets with an estimated current replacement value of approximately \$76.7 million. Roads represent the largest share of the asset portfolio, accounting for 44.9% of the total replacement value, with an estimated value of \$25.4 million.

Figure 2.1: Asset Portfolio by Current Replacement Value, 2025



The bar graph above shows the relative value of each of the six major capital asset classes that the municipality owns. The breakdown of assets by value shown in the graph is as follows:

- Roads: \$34.5 million (44.9% of all assets by value)
- Bridges & Culverts: \$10.7 million (14.0%)
- Facilities: \$11.8 million (15.4%)
- Land Improvements: \$6.7 million (8.7%)
- Fleet: \$9.0 million (11.8%)
- Machinery & Equipment: \$4.0 million (5.3%)

The charts and tables below provide further details on the replacement value, condition, and planned lifecycle activities for each asset class.

2.2 Asset Condition

The condition of the Township’s assets has an important influence on the need for reinvestment. Asset condition has been assessed according to the age-based methodology presented in *Appendix A3* or was developed based on information from condition assessments completed in recent years by professional consultants. A graph presenting an overview of the Township’s asset condition is presented below:

Figure 2.2: Asset Portfolio Condition

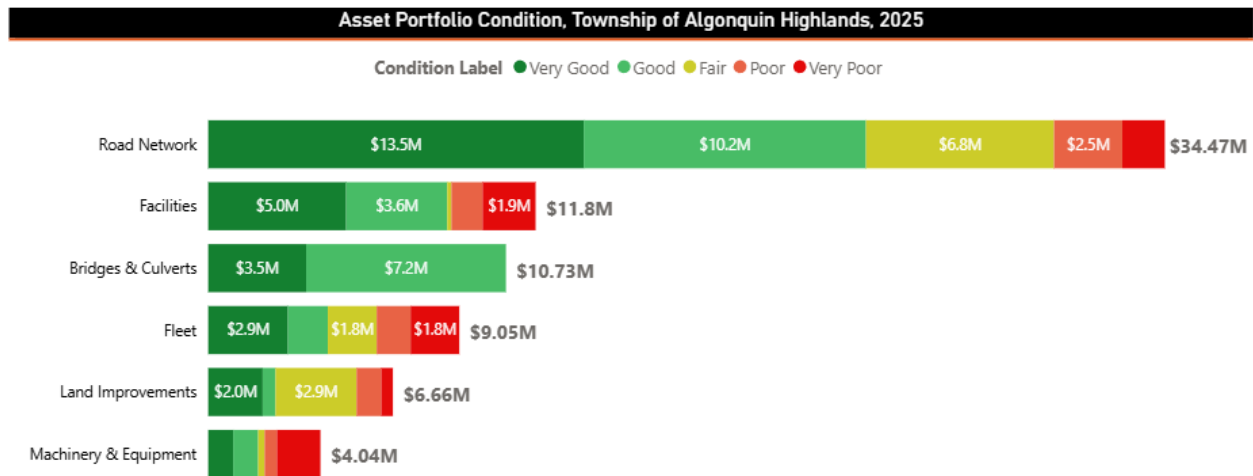


Figure 2.2 shows a summary of the condition of each of the municipality’s major asset classes, with the following key details:

- Assets such as **the Township’s Roads, Bridges & Culverts, and Facilities** generally have most assets by value in Good or Very Good condition, reflecting proactive maintenance and/or recent investments in these asset types.
- Assets including **Fleet, Land Improvements, and Equipment** show a more even distribution of assets across condition ratings from Very Good to Very Poor. This is often because assets of this type are subject to more frequent replacement, and an even distribution across condition ratings may reflect that regular replacement cycle.

These condition ratings are used to inform lifecycle planning and investment priorities in this AMP. Service capacity, reliability, and resilience of assets are all closely related to asset condition.

2.3 Portfolio Summary

A key objective of the AMP is to estimate the Lifecycle Activities and funding required to maintain assets and achieve proposed Levels of Service for the next 10 years. Table 2.1 below shows an overview of assets for each of the six asset classes. Annual funding needs demonstrate the average annual funding estimated as required for major maintenance, rehabilitation, and replacement activities for each asset class, in year of expenditure, from 2026 to 2035.

The specific lifecycle activity requirements that form the basis of these annual funding needs are outlined in the subsequent sections of the AMP, for each asset class. Data sources used to develop these estimates are detailed in *Appendix A2*.

Table 2.1: Municipal Asset Portfolio Summary

Asset Category	Current Replacement Value (2025 Est.)	Quantity / Inventory of Assets	% in Fair or Better Condition	Annual Funding Needs (Average Estimate)
Roads	\$34,471,691	110.7 km	88.4%	\$1,198,968
Bridges & Culverts	\$10,728,480	5	100%	\$122,664
Facilities	\$11,796,826	47	74.3%	\$1,060,673
Land Improvements	\$6,655,563	30	80.3%	\$160,468
Fleet	\$9,048,046	86	67.1%	\$682,322
Machinery & Equipment	\$4,044,121	112	50.3%	\$382,089
Total	\$76,744,739			\$3,607,183

Table 2.1 displays the estimated asset value, inventory, high-level condition information, and average annual funding needs for each of the Township’s asset classes over the next 10 years. Note, actual funding needs will depend on the projects that are approved in the Township’s capital budgets and on supplier prices at the time of purchase.

The Township’s asset reinvestment needs are evaluated in further detail in the following sections, considering the lifecycle strategies required to meet proposed levels of service and address risks for each asset class.

3. Roads

The Municipality’s Road infrastructure includes gravel and surface treated roads, drainage components and a limited set of streetlights. These assets enable the safe movement of people and goods. Road operations are to comply with Ontario’s regulatory framework, including:

- *Ontario Highway Traffic Act (HTA)*
- *Minimum Maintenance Standards for Municipal Highways (O. Reg. 239/02)*
- Municipal by-laws and design standards governing construction, maintenance, and traffic safety

The Township’s existing road network consists of road infrastructure comprised of 110.7 km of roads including 75.0 km of surface treated and 35.7 km of gravel roads. Municipal roads are all Class 5 for Ontario Minimum Maintenance Standards under O.Reg 239/02.

3.1 Asset Overview

The Municipality’s Road infrastructure includes surface treated and gravel roads, as well as minor surface drainage installations (ditches and minor culverts). As of 2025, the estimated replacement value of road assets is \$34.5 million, based on an estimated replacement value of \$40 per square meter of gravel roads and \$50 per square meter of surface-treated roads, including base and sub-base. This is comparable to the replacement value estimates in the Township’s 2020 AMP, as staff noted these unit prices continue to be representative of actual costs of road works in the Township.

Table 3.1: Inventory Overview - Roads

Road Type	Roadway Length	Current Replacement Value (2025 Est.)	% of Assets in Fair or better Condition
Surface Treated	75.0 km	\$24,472,773	94.8%
Gravel	35.7 km	\$9,998,918	72.9%
Total	110.7 km	\$34,471,691	88.4%

Asset Condition

Road asset condition ratings are derived from assessments conducted during the preparation of the Township’s 2020 AMP, which involved field assessment of roadway assets. For road asset condition, a unique condition scale based on pavement condition index (PCI) is used. Asset condition ratings are assigned based on the PCI as shown in the table on the following page.

Table 3.2: Asset Condition Ratings – Roads

Condition Rating	Pavement Condition Index (PCI)
Very Good	71 or better
Good	56 to 70
Fair	41 to 55
Poor	26 to 40
Very Poor	0 to 25

Further details on condition assessment sources and methodology are provided in *Appendix A*.

Figure 3.1: Asset Condition - Roads

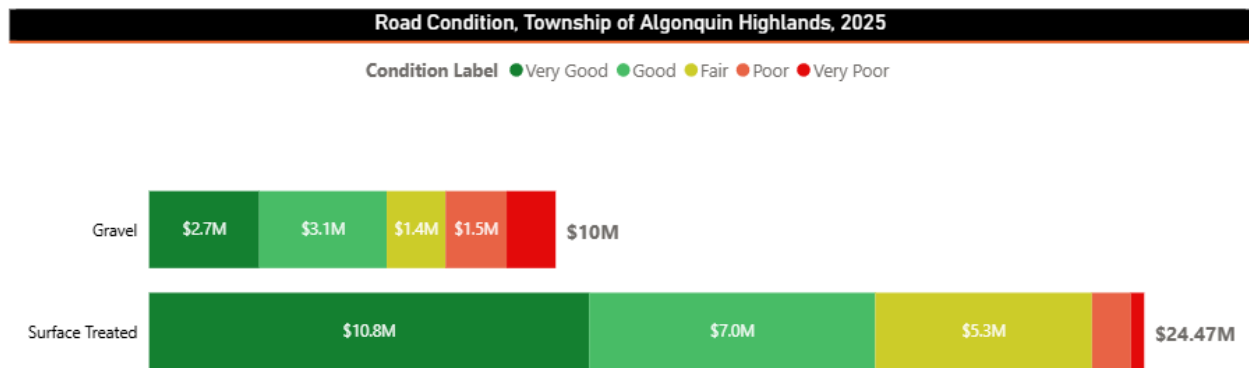


Figure 5 shows the distribution of conditions among road network assets by value, demonstrating Surface Treated roads mainly in Very Good condition, with Gravel roads in a mix of Very Good to Fair condition.

- The road network is in good condition overall, with Surface Treated roads having an average PCI of 63.1 (*good*) and Gravel Roads showing an average surface condition rating of 58 (*good*).
- Approximately 60% of the gravel network is in *good or very good* condition, with approximately 73% of gravel roads rated as *fair* or better.
- Certain roads are noted as being in *very poor* condition and require rehabilitation as outlined below.

Table 3.3: Images of Asset Condition - Roads



The images in Table 3.3 demonstrate roads of various qualities in the Township. These images also respond to the Levels of Service - Quality statement in Table 3.4. The six images provide examples of Gravel and Surface Treated roads in Good, Fair, and Poor condition, and were provided in the Township’s 2020 AMP. They demonstrate deteriorating road condition with greater prevalence of imperfections such as potholes and cracking, related to wear and environmental factors.

3.2 Levels of Service (LOS)

O. Reg. 588/17 provides a set of LOS tables for municipalities to report on *Community* and *Technical* Levels of Service for Road assets, using defined metrics and criteria. The Township’s LOS are as follows:

Table 3.4: Community LOS – Roads

Attribute	Description	Current LOS	Proposed LOS
Scope	Description, which may include maps, of the road network in the municipality and its level of connectivity.	See maps in Appendix 1	Same as current, with potential for future additions
Quality	Description or images that illustrate the different levels of road class pavement condition.	See images in Table 3.2	Follow Provincial Minimum Maintenance Standard for Class 5 roads

Table 3.5: Technical LOS – Roads

Attribute	Metric	Current LOS	Proposed LOS
Scope	Number of lane-kilometres of each of arterial roads, collector roads and local roads as a proportion of square kilometres of land area of the municipality.	Local: 0.11 lane-km per km ² Collector: 0 Arterial: 0	Maintain the extent of the current road network, adding 1.5km in 2027 at Little Hawk subdivision, and allow for future additions for approved developments
Quality	<p>1. For paved roads in the municipality, the average pavement condition index value.</p> <p>2. For unpaved roads in the municipality, the average surface condition (e.g. excellent, good, fair or poor).</p>	<p>1. Paved Road PCI = 63.1 (Good)</p> <p>2. Unpaved Surface Condition = 58.0 (Good)</p>	<p>1. Maintain paved road average PCI across the network at 60 or above.</p> <p>2. Maintain unpaved road surface condition average across the network at 50 or above.</p>

3.3 Risk Assessment

Township staff identified potential risks to maintaining road service in Algonquin Highlands:

- **Forest Access Roads Liability:** The Township maintains a limited number of forest access roads that are not municipally owned, which may expose it to liability if incidents occur, with potential costs for assets that are technically outside its jurisdiction. Responding to incidents on these roadways could divert funds away from Township-owned assets.
- **Flooding and Washouts:** Certain segments and culverts are vulnerable to flooding and washouts, leading to temporary road closures, emergency access challenges, and costly repairs. Roadway geometry prevents long-term resolution of local issues without significant redesign.
- **Beaver-Related Damage:** Nuisance beavers contribute to flooding and infrastructure damage by damming ditches and watercourses, which can undermine culverts, roadbeds, and local drainage systems, especially when beaver activity on private property is left unchecked. The Township has taken initiatives to work with landowners to better control beaver activity.
- **Culvert Capacity and Replacement:** Aging or undersized culverts present a risk of failure during high flows. While replacements are typically upsized based on historical flow, extreme events could still exceed design capacity and temporarily disrupt transportation routes.

Risk mitigation strategies include data-informed road renewal planning, regular condition assessments, drainage maintenance, and targeted capital reinvestment to preserve safe and efficient road service.

3.4 Lifecycle Activities

Effective lifecycle management assists in retaining road asset value and meeting proposed service levels, while managing costs over the lifespan of road network assets. Key lifecycle activities include:

- **Maintenance**
 - Routine pothole repairs, crack sealing, and grading of gravel roads to extend surface life.
 - Regular inspection and maintenance of roadside ditches, culverts, and shoulders to maintain drainage capacity.
 - Winter control operations, including snow plowing, sanding, and salting, to maintain safe road conditions.
- **Rehabilitation**
 - Resurfacing of surface treated roads using overlays, slurry seals, and other treatments to extend treated surface life.
 - Structural rehabilitation of deteriorated road sections and drainage features.
 - Re-gravelling and dust suppression programs for gravel roads based on usage and wear.
- **Replacement and Disposal**
 - Full-depth reconstruction of roads when rehabilitation is no longer cost-effective or does not address safety concerns and/or other needs.
 - Replacement of culverts and drainage structures nearing end-of-life.
 - Environmentally responsible recycling and disposal of pavement and granular materials.
- **Network Expansion and Improvements**
 - Adoption of new treated or gravel roads following new developments.
 - Strategic upgrades to road geometry, drainage, and structures to improve safety and performance.

This lifecycle framework promotes proactive planning and risk-based prioritization, to maintain quality services across the road network in line with proposed LOS.

Asset Financial Requirements

Sustaining safe and reliable road infrastructure requires ongoing investment in maintenance, rehabilitation, and renewal. Based on Algonquin Highland's road asset data and maintenance practices, the Township estimates a need for average annual expenditures of approximately **\$618,436** for roadway surface maintenance per year starting in 2026.

Key planned works over the next 10 years include:

- Routine re-gravelling of high-use gravel roads and upgrades to improve durability.
- Slurry seal and surface treatments for treated roads to extend surface life.
- Structural rehabilitation of priority road segments and drainage features (North Shore Rd).
- Full-depth reconstruction of roads where rehabilitation is no longer feasible or roads are no longer suited to current traffic loads (Big Hawk Lake Rd).

Annualized road maintenance and rehabilitation needs are estimated based on total roadway length. The following table provides cost estimates for annual road lifecycle activities.

Table 3.6: Annual Lifecycle Activities – Roads

Road Type	Activity	Total Length	Annual Rehabilitation	Cost per km	Annual Cost, 2026
Gravel	Regrading, new Gravel Lifts	35.7 km	As needed	N/A	\$ 64,909
Surface Treated	Slurry Seal	75.0 km	7.5 km (10%)	\$20,800	\$ 155,376
Surface Treated	Single Surface Treatment	75.0 km	3.7 km (5%)	\$28,600	\$ 106,821
Surface Treated	Double Surface Treatment	75.0 km	3.7 km (5%)	\$78,000	\$ 291,330
Total Road Network		110.7 km	15 km (13.6%) plus gravel		\$ 618,436

Table 3.6 shows the average annual rehabilitation funding needs for roadway surfaces, based on staff indications of the current cost to rehabilitate sections of gravel and surface treated roads, and historical budget allocations.

In addition to these funding needs, the Township identified two priority projects that require capital funding in the coming years:

Table 3.7: Major Works – Roads

Road Name	Length (km)	Cost	Timeframe	Notes
North Shore Rd	2.2	\$3,500,000	2026-27	Embankment deficiencies, erosion
Big Hawk Lake Rd	1	\$1,400,000	2026	Increasing roadway width and parking
Total	3.2	\$ 4,900,000	2026-27	

These investments aim to maintain a safe and reliable road network and meet community expectations for road service quality. Costs for multi-year projects are divided evenly across the years of their implementation.

Together, the major capital projects and the annual maintenance and rehabilitation needs comprise the Township's funding needs to meet proposed LOS and address identified risks for roads. The lifecycle funding requirements for roads for each year from 2026 to 2035 are summarized in the table below:

Table 3.8: Annual Funding Needs - Roads

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Annual LCA \$	618,436	636,989	656,099	675,782	696,055	716,937	738,445	760,598	783,416	806,919
Major Works \$	3,150,000	1,750,000	-	-	-	-	-	-	-	-
Funding \$	3,768,436	2,386,989	656,099	675,782	696,055	716,937	738,445	760,598	783,416	806,919

Table 3.8 outlines the annual funding needs to maintain road levels of service over the coming 10 years, based on estimates in the tables above.

4. Bridges and Culverts

The Municipality owns and maintains a set of bridges and culverts that provide transportation links for the safe movement of people, goods, and emergency services. These structures also allow for watercourses to transit the municipality, controlling the risk of flooding. These assets support economic activity and community connectivity and should comply with Ontario’s regulatory framework, including:

- *Ontario Public Transportation and Highway Improvement Act (PTHIA)*, O. Reg. 104/97
- *Ontario Structure Inspection Manual (OSIM)* standards for bridge and culvert inspections

Under PTHIA standards for bridges, the structural integrity, safety and condition of every bridge shall be determined by an inspection in accordance with the Ontario Structure Inspection Manual (OSIM) every two years. It also states that every bridge shall be kept safe and in good repair.

4.1 Asset Overview

The Municipality’s Bridge and Culvert portfolio includes 4 bridges and 1 large structural culvert (over 3 m in diameter), as well as associated components such as guardrails and support structures. The estimated replacement value of these assets is **\$10.7 million** in 2025.

- For AMP purposes, typical useful lives are estimated at up to 50 years for concrete and steel bridges and 30 years for major culverts.
- Two (2) bridge assets were constructed prior to 2000, based on estimated age these assets are in the middle of their lifespan and may be subject to eventual repair or replacement needs.

Table 4.1: Inventory Overview – Bridges and Culverts

Asset Sub-Class	Inventory of Assets	Current Replacement Value	Average Age (Years)	Remaining Useful Life (Est avg %)	% of Assets in Fair or Better Condition
Bridge	4	\$10,073,400	20.8	66.6%	100%
Culvert	1	\$655,080	8	77.1%	100%
Total	5	\$10,728,480	18.2	67.3%	100%

Asset Condition

Bridge and Culvert condition ratings are assessed every two years by a qualified professional to comply with OSIM-mandated inspection processes. The Township’s last inspections were completed in 2024 by Keystone Bridge Management Corp. Key findings of those inspections are summarized as follows:

Figure 4.1: Asset Condition – Bridges and Culverts

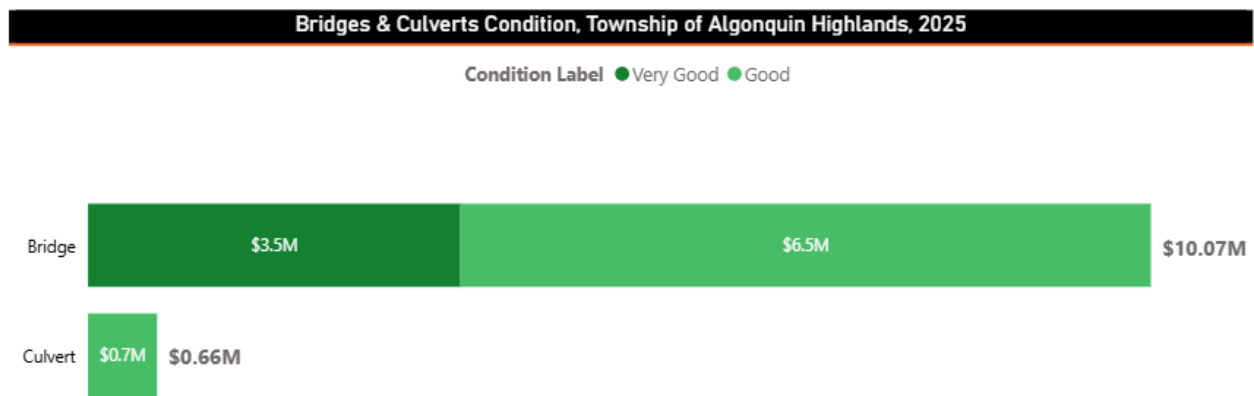


Figure 4.1 shows the Township’s Bridge and Culvert conditions by value, with the following observations:

- All structures are noted as being in Good or Very Good condition in the Bridge Condition Assessment report text.
- A numerical Bridge Condition Index (BCI) is also provided and used in the LOS tables below.
- Bridges described as being Very Good condition have a combined replacement value of \$3.5 million, and those in Good condition have a value of \$6.5 million.
- The one culvert asset has a value of \$0.66 million and is in Good condition.

Table 4.2: Images of Asset Condition – Bridges and Culverts





	Very Good	Good	Good
Bridge	 Airport Road Bridge	 Bear Lake Road Bridge	 Buckslide Dam Bridge
Culverts	N/A	 Dawson Road Culvert	N/A

Table 4.2 presents four images as examples of Algonquin Highlands’ Bridges and Culverts in Very Good and Good condition. Condition has an important bearing on asset rehabilitation and replacement needs.

4.2 Levels of Service (LOS)

The regulation O. Reg. 588/17 provides Community and Technical Levels of Service metrics for Bridges and Culverts, while the municipality may opt to add its own metrics to assess the performance of these assets.

Table 4.3: Community LOS – Bridges and Culverts

Attribute	Description	Current LOS	Proposed LOS
Scope	Description of the traffic that is supported by municipal bridges (e.g., heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists).	Heavy transport, motor, and emergency vehicles. Some bridges are used by pedestrians and cyclists.	Maintain support for current traffic levels. Review improvements for pedestrian safety during major projects.
Quality	<p>1. Description or images of the condition of bridges and how this would affect use of the bridges.</p> <p>2. Description or images of the condition of culverts and how this would affect use of the culverts.</p>	<p>Images are provided in Table 4.2, above. Condition does not restrict the use of bridges and culverts.</p>	Conduct regular inspections as required and complete maintenance as recommended by qualified professionals.

Table 4.4: Technical LOS – Bridges and Culverts

Attribute	Metric	Current LOS	Proposed LOS
Scope	Percentage of bridges in the municipality with loading or dimensional restrictions.	One of the Township's bridges currently has load restrictions. That this is a design limitation, not a result of the structure's condition. No bridges have dimensional restrictions.	Maintain current bridge and culvert performance.
Quality	<p>1. For bridges in the municipality, the average bridge condition index value.</p> <p>2. For structural culverts in the municipality, the average bridge condition index value.</p>	<p>Bridge BCI: 76.5 Culvert BCI: 86.5</p>	Maintain BCI in compliance with regulatory requirements.

4.3 Risk Assessment

Sustaining LOS for bridges and culverts involves managing several common risks to these assets:

- *Aging Infrastructure*: Progressive deterioration of structural components increases the likelihood of load restrictions or closures. Failure to comply with regulated inspection schedules and complete recommended maintenance may compromise safety over time.
- *Climate Change and Environmental Impacts*: More intense rainfall and flooding events place additional hydraulic and structural stress on bridges and culverts. Sedimentation and debris accumulation in culverts reduce flow capacity, increasing flooding risk.
- *Financial Constraints*: Insufficient funding for renewal and rehabilitation within the newly established, dedicated reserve fund for bridges and culverts. This means continued contributions to the reserve are required for funds to be available when eventual capital needs emerge.

Mitigation strategies would include timely rehabilitation, regular sediment and debris management, risk-responsive prioritization of capital investments, and maintenance of an adequate financial reserve to respond to capital needs when they arise.

4.4 Lifecycle Activities

Proactive lifecycle management will allow bridges and culverts to provide safe, reliable, and cost-effective service throughout their lifespan, including the following key activities:

- **Maintenance**
 - Routine inspections in accordance with Ontario Structure Inspection Manual (OSIM) requirements.
 - Periodic cleaning of drainage channels, joints, and bearing assemblies to prevent deterioration. Debris and sediment removal in culverts to sustain capacity.
 - Vegetation management around structures to maintain clear sightlines and reduce the risk of structural impacts.
- **Rehabilitation**
 - Structural repairs to decks, superstructures, and substructures extending useful life.
 - Concrete patching, bearing replacement, joint sealing, and corrosion protection for steel components.
 - Relining or strengthening of culverts with deteriorating barrels or compromised hydraulic function.
 - Rehabilitation plans prioritized by structural condition, safety risk, and traffic importance.
- **Replacement and Disposal**
 - Replacement of bridges and culverts where rehabilitation is no longer cost-effective.
 - Full reconstruction of end-of-life structures, including upgrades to meet current design and loading standards.
 - Environmentally responsible disposal or recycling of decommissioned materials.

These Lifecycle Activities, over the lifecycle of these assets, serve to reduce unplanned closures, schedule capital investments when needed, and maintain compliance with regulatory standards.

Asset Financial Requirements

Maintaining safe and reliable bridge and culvert infrastructure requires ongoing investment over the asset lifecycle. Based on Algonquin Highland’s bridge asset condition and inspection reports, only limited works are required at this time. However, effective long-term management of these high-value, higher-risk assets will depend on building up reserve funds to manage high-cost projects when they arise.

Table 4.5: Capital Works – Bridges and Culverts

Bridge / Culvert	Works	Estimated Cost	Planned Year
Bear Lake Road Bridge	Timber Crib Repair	\$60,000	2026
St. Peter’s Bridge	Upgrade Guardrail	\$20,000	2026

The above works were identified as required by in the Township’s 2024 Bridge Condition Assessments. These costs can be covered by the forward-looking Bridge funding reserve as outlined in Table 4.6.

Even with limited bridge maintenance projects required in the near term, it is prudent for the Township to reserve funds for future work. Bridges may typically have service lives of 50 years or more, but when renewal or replacement is required, costs can be substantial. By setting aside funds over time, the township can avoid sudden, large financial pressures when a bridge requires major works.

Table 4.6: Annual Funding Needs – Bridges and Culverts

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Funding \$	107,000	110,210	113,516	116,922	120,429	124,042	127,764	131,597	135,544	139,611

Funds in 2026 may be used in part to cover identified project needs in Table 4.5. Excess funds and all funding from 2027 onward may be reserved for long-term Bridge and Culvert maintenance, rehabilitation, and replacement needs. The value of \$107,000 is estimated based on 1% of the estimated bridge inventory replacement value with an increase of 3% p.a. to match inflation expected thereafter.

Continuing to reserve these amounts over a 50-year period should provide up to 50% of the replacement value of the Township’s bridges by 2076. These funds may be used as a stable fund available for bridge and culvert repair and replacement as needs arise.

5. Facilities

Algonquin Highlands owns and maintains a portfolio of municipal facilities that support administrative, operational, emergency, and community services. These assets exist to provide safe, functional, and accessible spaces for municipal staff, store and maintain equipment, and support recreational, cultural, and civic programs for residents and visitors. Facilities are to be managed in compliance with Ontario's regulatory and safety framework, including:

- *Ontario Building Code (OBC)* – structural, safety, and design standards
- *Fire Protection and Prevention Act (FPPA)* – fire safety system maintenance and operations
- *Accessibility for Ontarians with Disabilities Act (AODA)* – accessibility for public-facing buildings
- *Occupational Health and Safety Act (OHSA)* – health and safety of municipal staff and visitors

The municipality may also follow its own by-laws and facility asset standard operating procedures.

5.1 Facilities Overview

The Municipality's Facilities portfolio includes administrative offices, public works facilities and garages, fire stations, and recreational buildings. As of 2025, their replacement value is estimated at **\$11.8 million**.

Table 5.1: Inventory Overview – Facilities

Asset Sub-Class	Count of Assets	Current Replacement Value	Average Age (Years)	Remaining Useful Life (Est Avg %)	% of Assets in Fair or better Condition
Administration	2	\$1,843,206	18.1	53.3%	60.0%
Airport	11	\$3,458,198	24.7	60.3%	82.2%
Fire Stations	3	\$1,160,523	15.7	45.9%	71.0%
Parks, Recreation & Trails	21	\$3,230,848	14.7	60.2%	74.3%
Public Works Garages ²	5	\$1,830,635	35.7	54.0%	71.9%
Waste Management	5	\$273,416	13.8	59.2%	100%
Total	47	\$11,796,826	18.8	56.7%	74.3%

² Note, as of 2025 the Township is completing a new Public Works Garage which will increase the asset value and reduce average asset in this category once commissioned.

Key notes related to the Facilities Inventory outlined in Table 5.1 include:

- The portfolio includes an estimated **47** facilities. Several facilities have high-value components such as HVAC systems and roofing also included in the Township’s facilities asset register.
- Average asset age is **18.8** years, with a typical EUL of **40 years** while some components EUL is set at **15 years** for asset management purposes.
- Weighted average remaining service life is **56.7%**, meaning most facilities have not yet reached the mid-point of their expected lifecycle.

Asset Condition

Facility condition ratings are estimated based on asset age relative to expected service life. Most facilities are estimated to be in **Good to Very Good** condition, though several buildings and components within them are approaching the end of their expected service lives. Certain facilities, including at the Airport and Fire Station #60, are noted by staff as having issues that are being addressed or will be fixed soon.

Figure 5.1: Asset Condition – Facilities

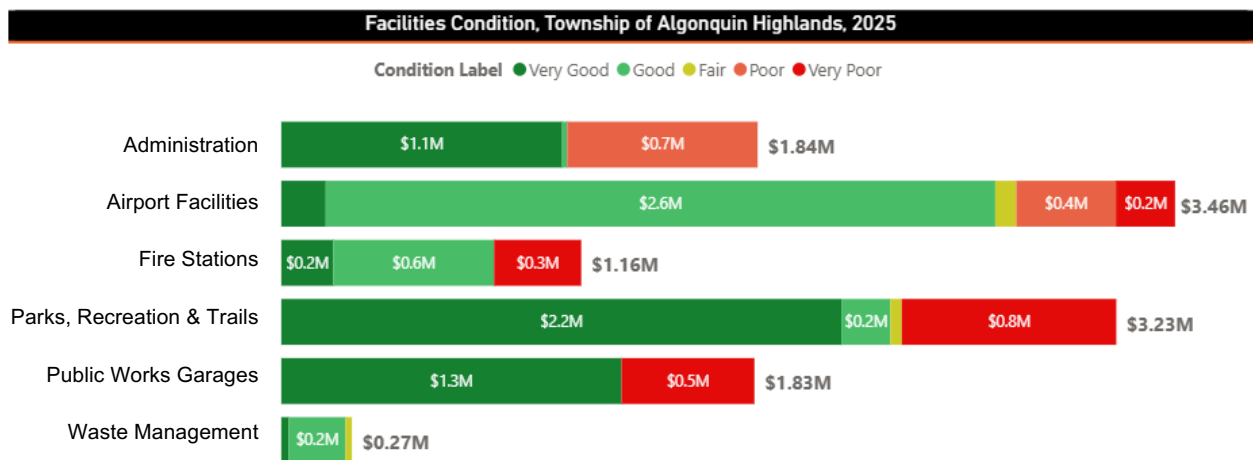


Figure 5.1 illustrates the distribution of asset conditions across the Facilities portfolio based on the age relative to the estimated useful life of the asset or component. Condition assessments are broken down by the department that is assigned as the primary owner of the asset. The following are highlights from Facilities condition data:

- Most Facilities are in Very Good or Good condition, across departments.
- Airports, Fire Stations, Parks Recreation and Trails, and Public Works Garages, all have assets in the *Poor to Very Poor* condition, indicating facilities that have exceeded their estimated useful life.

The age-based evaluation of asset condition calls for Township staff to assess asset needs prior to planning the replacement or improvement of any asset or component. A set of building condition assessments may provide further details regarding asset condition that has been validated in the field.

Images of Township Facilities are provided on the following page.

Table 5.2: Images of Asset Condition – Facilities



Dorset Recreation Centre
Parks, Recreation and Trails Facility



Oxtongue Community Centre
Parks, Recreation and Trails Facility



Stanhope Library
Parks, Recreation and Trails Facility



Terminal Building
Airport Facility



Fire Station #60, Dorset
Fire Station



Township Office
Administration Facility

Table 5.2 shows a selection of the Township's Facilities assets, demonstrating some of the diversity in the Township's Facilities portfolio.

5.2 Levels of Service (LOS)

The Municipality has defined a set of LOS to monitor Facilities for their continued use:

Table 5.3: Community LOS – Facilities

Attribute	Description	Current LOS	Proposed LOS
Service	List of services required to be provided municipal facilities.	Administrative and Office Airport Terminal, Garage and Hangars Fire Stations Parks, Recreation and Trails Community Centres and Recreation Centres Landfill Attendants Stations Libraries Museums Storage Garages	Municipality continues to provide suitable facilities to enable these activities.
Suitability	Description of key criteria for the municipality to consider facilities to be suited to purpose.	Condition – free from structural defects and hazards to health and safety Accessibility – contains elements compliant with AODA standards Suitability – of a suitable size and layout to support its intended function	Municipality will work toward maintaining facilities that are in a state of good repair, with appropriate accessible elements, and suited to purpose.

Table 5.4: Technical LOS – Facilities

Attribute	Metric	Current LOS	Proposed LOS
Suitability	Number and list of Facilities with identified suitability, condition, or accessibility issues and a description of their deficiency.	Staff identified 8 buildings with limitations to meeting service needs: <ul style="list-style-type: none"> Township Office: Suitability Museum Storage Building: Suitability Oxtongue Lake Community Centre: Accessibility Trails Office: Suitability Dorset Main Garage: Suitability Dorset Tower Stairs: Suitability Airport Terminal: Accessibility Airport Hangars: Condition (Roof) 	The Township will work towards reducing these deficiencies according to the schedule below and as budgets allow.

Tables 5.3 and 5.4 outline the Township’s LOS metrics as well as current and proposed LOS for Facilities.

5.3 Risk Assessment

Maintaining Levels of Service for Facilities is affected by risk factors identified by Township staff:

- *Accessibility limitations:* Several older buildings, such as the Airport Terminal Building, Stanhope Community Centre, and Oxtongue Community Centre, have accessibility constraints that may limit their usability for all members of the community.
- *Condition and serviceability:* The Stanhope and Oxtongue community centres require assessment for accessibility and serviceability, to identify risks and costs to meet long-term service needs. The study should inform sustainable ways to meet those service expectations.

In addition, several risk factors commonly affect operations of municipal Facilities:

- *Aging Infrastructure:* End-of-life mechanical systems, building envelopes, and accessibility features increase the likelihood of service disruptions.
- *Regulatory Compliance:* Upgrades may be required to meet evolving building codes, fire safety regulations, and accessibility standards.
- *Climate Impacts:* Increased freeze-thaw cycles and extreme weather events accelerate deterioration of roofs, siding, and site works.
- *Operational Dependence:* Failures or closures of critical facilities could disrupt essential municipal services and community programs.

Risk mitigation strategies include ongoing condition monitoring, prioritization of high-risk assets, and investment in timely upgrades to maintain operational reliability and regulatory compliance.

5.4 Lifecycle Activities

Lifecycle management supports the continued safety, functionality, and cost efficiency of the Municipality's Facilities. Continued service relies on preventative maintenance and timely rehabilitation of building envelopes, mechanical systems, and accessibility features. Lifecycle activities across maintenance, rehabilitation, replacement/disposal, and expansion include:

- **Maintenance**
 - Regular inspections and safety checks across facilities, addressing minor repairs and preventative maintenance.
 - Scheduled cleaning and servicing of HVAC, plumbing, and electrical systems.
 - Routine upkeep of recreational facilities, including monthly safety inspections of playground and fixed equipment.
- **Rehabilitation**
 - Renewal of building envelopes (roofs, siding, windows) and mechanical systems approaching end-of-life.
 - Targeted upgrades for accessibility, energy efficiency, and compliance with evolving safety standards.
 - Rehabilitation of common use spaces, HVAC systems, and site works at recreational facilities to support heavy community use.
- **Replacement or Disposal**

- Full replacement of facilities that have reached the end of their structural life or no longer meet operational needs.
- Decommissioning and disposal of redundant assets in accordance with municipal policies and community needs assessments.
- Planned renewal of recreational structures and fixed equipment to maintain safety and usability.
- **Expansion**
 - Upgrades and new construction to meet growing demand for administrative, operational, and community programming spaces.
 - Modernization initiatives to enhance energy efficiency, accessibility, and operational resilience.
 - Strategic planning to co-locate services and optimize municipal land and building use.

Lifecycle planning is guided by asset age, condition, maintenance histories, and operational risk data to support cost-effective reinvestment and service continuity.

Asset Lifecycle Needs

The Township’s Facilities require regular investment in maintenance and rehabilitation to maintain levels of service. Based on assessments in the 2020 AMP, the Township’s average annual projected needs for building maintenance from 2026 to 2035, inflated to 2025 dollars at 3% p.a., is \$231,748. This is equivalent to annual capital reinvestment rate of 1.96% of the current replacement value of the Township’s Facilities as of 2025. This places the forecast annual capital needs for maintenance and rehabilitation of Facilities to approximately 2% of total Facility value.

The Township proposes a lifecycle strategy that maintain this amount as a flexible budget to address maintenance and rehabilitation of building components and systems, such as HVAC, lighting, doors and windows, as they arise. In years when major maintenance and repairs are not required, the Township may allocate available Facilities funding to reserves, to offset future major capital costs.

Table 5.5: Maintenance and Rehabilitation Funding Needs - Facilities

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Funding \$	231,748	238,700	245,861	253,237	260,834	268,659	276,719	285,021	293,571	302,378

Table 5.5 shows projected annual average Facilities maintenance costs per year. This annual maintenance fund was determined by staff to have an appropriate approach to addressing minor renovations and upgrades to existing facilities as those needs and opportunities arise.

In addition, the Township has identified a set of targeted major investments that will respond to end-of-life, major rehabilitation, and expansion project needs. These projects comprise major capital investments in excess of the annual maintenance funding requirement outlined above.

Table 5.6: Capital Works – Facilities

Asset	Activity	Risk-Based Priority	Cost (est.)	Year (est.)	Notes
Airport Hangars	Roof Replacement	High	\$1,000,000	2026	Immediate risk of loss of services at the airport.
Dorset Recreation Centre	HVAC Upgrades	High	\$250,000	2026	Potential risk of building closure, complaints, climate risk due to heat.
Stanhope Community Centre	Accessibility Upgrades and Strategy	High	TBD	TBD	Accessibility limitations. Facility study needed.
Oxtongue Community Centre	Accessibility Upgrades and Strategy	High	TBD	TBD	Accessibility limitations. Facility study needed.
Dorset Museum	Outbuilding Replacement	Medium	TBD	TBD	Outbuilding is no longer suitable for use, requires major rehabilitation or replacement.
Fire Station #60	Replacement Fire Station	Medium	\$6,000,000	2030	Suitability issues and potential risks call for a replacement plan.
Township Office	Retrofit or Expansion	Low	TBD	TBD	Lack of adequate space to house all staff and provide public access.
Trails Office	Retrofit or Expansion	Low	TBD	TBD	Lack of adequate space to house all staff and provide public access.
Dorset Tower and Grounds	Retrofit Strategy	Low	\$500,000	2026-2030	Need for strategy and ongoing funds to maintain this high-use public asset in a state of good repair.
Airport Terminal	Accessibility Upgrades	Low	\$200,000	2028	Identify sources of funding and continue to provide alternate accessible services.
Dorset Garage	Strategy Development	Low	TBD	TBD	Underutilized asset, could be repurposed or redeveloped, and consider long-term strategy.

Renewal investments are prioritized to address safety, accessibility, and operational risk, to support the sustainable operation of municipal Facilities. It should be noted that, apart from the Airport Hangars,

Dorset Tower, and Dorset Recreation Centre, these major projects constitute improvements to Levels of Service relative to current. Identified costs totaling \$6.2 million represent increases above what would be required to maintain current Levels of Service, i.e. allow current service deficiencies to persist, without upgrades to accessibility, suitability, and condition.

Asset Funding Needs

The Township will continue to invest in regular maintenance and care of its Facilities with an annual maintenance budget and incorporate targeted expenses for major projects into its lifecycle funding needs, as shown in the combined funding requirements table below.

This table includes annualized funding needs for multi-year projects and excludes funding for projects where costs and dates have not yet been determined.

Table 5.7: Annual Funding Needs – Facilities

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Capital Maintenance	231,748	238,700	245,861	253,237	260,834	268,659	276,719	285,021	293,571	302,378
Major Projects	1,350,000	100,000	300,000	100,000	6,100,000	-	-	-	-	-
Funding \$	1,581,748	338,700	545,861	353,237	6,360,834	268,659	276,719	285,021	293,571	302,378

Table 5.7 shows the Township’s annual funding requirements for Facilities, based on the Lifecycle Strategy and identified costs for specific projects listed in Table 5.6 above.

6. Land Improvements

The Municipality owns and maintains a portfolio of municipal Land Improvements that enable key services including the airport, administrative, waste management, and parks, recreations and trails. These assets provide support activities related to land use, including security fencing, park features, and landfill assets. Land Improvements are to comply with Ontario’s regulatory and safety framework, including:

- *Ontario Building Code (OBC)* – safety and design standards for structures
- *Accessibility for Ontarians with Disabilities Act (AODA)* – accessibility in parks and playgrounds
- *Occupational Health and Safety Act (OHSA)* – health and safety of municipal staff and visitors

Land Improvements are also managed according to municipal by-laws and operational guidelines.

6.1 Land Improvements Overview

The Municipality’s Land Improvements portfolio includes assets such as fences, retaining walls, docks and landings, and other non-Facility assets installed on municipal land. The replacement value is estimated at **\$6.66 million**.

- The portfolio includes **30** land improvements, including Airport tarmac and lighting, retaining walls, weigh stations, and cemetery assets.
- Average asset age is **8.4** years, with EUL ranging from **10-50 years**, depending on the asset.
- Weighted average remaining service life is **41.5%**, indicating assets in the latter half of their EUL.

Table 6.1: Inventory Overview – Land Improvements

Department	Count of Assets	Current Replacement Value	Average Age (Years)	Remaining Useful Life (Est Avg %)	% of Assets in Fair or Better Condition
Administration	1	\$14,712	7	53.3%	100%
Airport	6	\$3,911,170	8.7	26.9%	78.1%
Cemetery	1	\$27,214	3	80%	100%
Parks, Recreation & Trails	18 ³	\$1,253,565	8.8	43.9%	66.5%
Waste Management	4	\$1,448,902	7.6	77.9%	97.8%
Total	30	\$6,655,563	8.4	41.5%	80.3%

³ Includes Docks and Landings

Asset Condition

Land Improvement condition ratings are based on asset age relative to expected service life as outlined in *Appendix A3*. Many land improvements are in **good to fair** condition, though some assets are approaching the end or beyond their expected service lives, as shown in the graphic below.

Figure 6.1: Asset Condition – Land Improvements

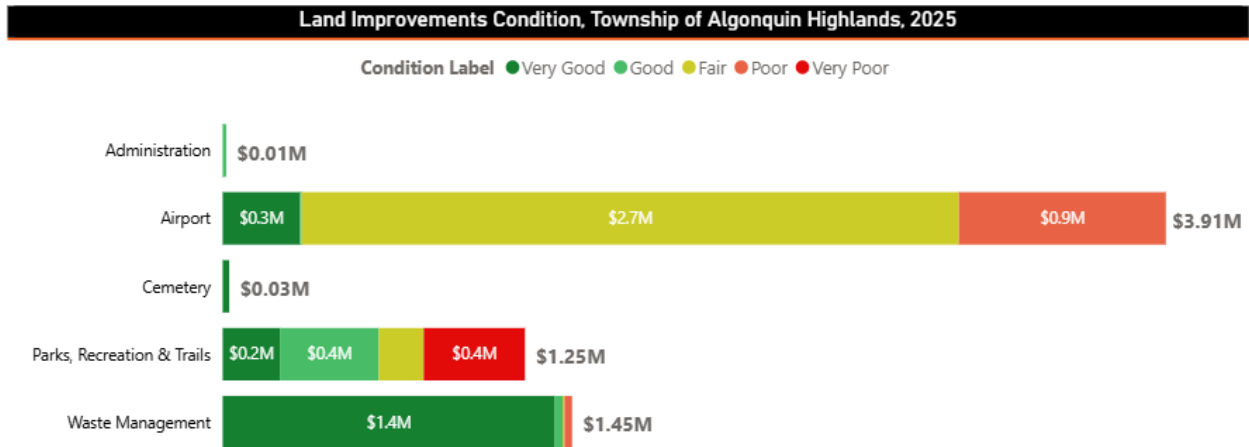






Figure 6.1 shows asset conditions across Land Improvements, with the following notable details:

- The Township’s most valuable land improvements are at the Airport, with a total estimated replacement value of \$3.91 million, mainly in Fair to Poor condition.
- The Township has significant Waste Management land improvements estimated to be in Very Good condition, with a combined estimated replacement value of \$1.45 million.
- Parks, Recreation and Trails land improvements are roughly evenly distributed in condition from Very Good to Very Poor, and have a total value of \$1.25 million.
- Cemetery and Administration assets of this type are lower in value at \$30,000 and \$10,000 respectively, and are in Good to Very Good condition.

Conditions above are estimates and field validation of asset condition should be completed prior to planning major maintenance, rehabilitation, or replacement works.

Table 6.2 on the following page provides images of examples of the Township’s land improvements, demonstrating some of the variety of assets in this category.

Table 6.2: Images of Assets – Land Improvements

 <p>A large, open-sided wooden gazebo with a peaked roof, situated in a park setting with trees and a clear sky.</p>	 <p>Two blue and white electric vehicle charging stations with yellow bollards, located in front of a brick building.</p>
<p>Tapscott Lopes Park Gazebo, a new asset in 2024</p>	<p>EV Charging Stations at Dorset Recreation Centre</p>
 <p>A tall, metal lattice tower with a viewing platform at the top, surrounded by lush green trees.</p>	 <p>Black recycling bins with a white sign that says '12 RECYCLING' and 'Containers' nearby.</p>
<p>Dorset Scenic Tower</p>	<p>Bins at Maple Lake Waste Disposal Site</p>

6.2 Levels of Service (LOS)

The Municipality has defined a set of LOS to monitor Land Improvements for their continued use for municipal operations and community programming.

Table 6.3: Community LOS – Land Improvements

Attribute	Description	Current LOS	Proposed LOS
Service	List or description of services provided by municipal Land Improvements	Airport Runway, Tarmac, Lighting Playgrounds Cemeteries Fire Training Ground	Municipality continues to provide suitable Land Improvements to

		<p>Dry Hydrants Parks Beaches Campsites and Canoe Routes Courts and Sports Fields Pavilions Ski and Hiking Trails Outdoor Ice Rinks Parking Lots Lake Access / Boat Launches Fencing & Security Aggregate Pits Landfill / Waste Management Septage Management Water, Sewer and Heat for Buildings</p>	<p>support these activities.</p>
Suitability	<p>Description of how the municipality evaluates Land improvements to be suited to purpose.</p>	<p>Condition – free from condition-related defects including hazards to health and safety</p> <p>Accessibility – assets contain elements compliant with AODA standards</p> <p>Suitability – of a suitable size and layout to support its intended function</p>	<p>The Township will work toward maintaining suitable, accessible Land Improvements in a state of good repair.</p>

Table 6.4: Technical LOS – Land Improvements

Attribute	Metric	Current LOS	Proposed LOS
<i>Service and Suitability</i>	<p>Number of land improvements with functional inadequacies and description of the impact on services</p>	<p>Township staff identified 8 Land Improvement assets which do not conform to expectations on condition, accessibility, or suitability:</p> <ul style="list-style-type: none"> • Parking lots: Capacity • Boat Launches: Condition and Suitability • Runway Lights: Compatibility • Cemetery: Capacity • Landfill: Future land development for capacity increase at Oxtongue • Septage Lagoon: Capacity relative to policy guideline • Peekaboo Rock Viewpoint: Accessibility and Condition • Log Chute: Condition 	<p>Township commits to assessing opportunities to improve these Land Improvements based on value and need.</p> <p>The Township will work towards reducing these deficiencies according to the schedule below and as budgets allow.</p>

Tables 6.3 and 6.4 summarize LOS metrics, current and proposed performance for Land Improvements.

6.3 Risk Assessment

Township staff identified the following risks to maintaining Levels of Service for Land Improvements:

- **Parking Lots:** Several parking areas, particularly near lake landings, have been identified as insufficient for community needs. Council has initiated a parking strategy review, but future expansion of parking options may involve significant costs.
- **Airport Lighting System:** The existing lighting system is aging and uses components that are no longer compatible with currently available supplies. If the system does not see a full overhaul to match current LED lighting types, a risk may emerge as lights wear out that night or low-light landings may not be possible. This requires capital investment in the lighting system.
- **Airport Runway and Tarmac:** The runway and tarmac are specialized assets with long-term degradation risks that require a dedicated renewal and maintenance strategy.
- **Docks and Landings:** According to staff, many of the Township's docks and landings were built to service smaller watercraft or lower volumes of boat traffic than what is currently seen on lakes in the community. Thus, some may be undersized or lack engineering features required to handle their current usage. Overall, aging docks and landings may pose a risk to service delivery as they continue to age. Any plans for rehabilitation of Docks and Landings should consider long-term user needs and capacity requirements on a case-by-case basis.

Risk mitigation strategies may include ongoing condition monitoring, prioritization of high-risk assets, and investment in timely upgrades to maintain operational reliability and regulatory compliance.

6.4 Lifecycle Activities

Effective lifecycle management maintains the safety, functionality, and cost efficiency of the Municipality's Land Improvements. Lifecycle activities across maintenance, rehabilitation, and replacement include:

- **Maintenance**
 - Routine inspections and upkeep of grounds, pathways, parking areas, retaining walls, fencing, lighting, and other site features.
 - Regular cleaning, surface repairs, and vegetation control to preserve aesthetics, accessibility, and safety.
 - Preventive maintenance of drainage systems, signage, and exterior fixtures to reduce deterioration and extend service life.
- **Rehabilitation**
 - Targeted rehabilitation of paved surfaces, curbs, retaining structures, and drainage infrastructure to restore functionality.
 - Renewal of site lighting, fencing, and accessibility features to meet updated safety, energy efficiency, and accessibility standards.
 - Landscape and soil restoration, regrading, and erosion control to maintain environmental integrity and usability.
 - Coordination of rehabilitation works with adjacent facilities or utility upgrades to improve project efficiency and reduce service disruptions.

- **Replacement and Disposal**

- Full replacement of land improvements that have reached the end of their useful life or no longer meet operational or community needs.
- Planned renewal of site features such as landings, playgrounds, parking lots, and retaining walls to maintain safety and service quality.
- Decommissioning or removal of obsolete site elements, with environmentally responsible disposal or selective reuse of materials (e.g., asphalt, concrete, metals).

Lifecycle planning is data-informed, guided by asset age, condition assessments, maintenance histories, and operational risk assessments, to determine cost-effective reinvestment for service continuity. The Township is considering developing master plans which may affect the planning of certain assets, which may include Fire, Parks Recreation and Trails, Airport assets.

Asset Lifecycle Needs

The Township’s Land Improvements require regular maintenance and rehabilitation to maintain levels of service. Based on assessments in the 2020 AMP, the Township’s average annual projected needs for regular maintenance and rehabilitation work, excluding major projects from 2026 to 2035, is \$127,329. This is equivalent to annual capital reinvestment rate of 1.91% of the current replacement value.

The Township proposes a lifecycle strategy that maintain this amount as a flexible budget to address maintenance and rehabilitation of fences, ball diamonds, gazebos, and other land improvements. In years when maintenance and repairs are not required, the Township may allocate available funding to reserves, to offset future major capital costs.

Table 6.5: Maintenance and Rehabilitation Funding – Land Improvements

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Funding \$	127,329	131,149	135,083	139,136	143,310	147,609	152,037	156,598	161,296	166,135

Table 6.5 shows projected annual average maintenance funding needs per year. This annual fund was determined by staff to be an appropriate approach to addressing minor renovations and upgrades as those needs arise.

In addition, the Township has identified a set of targeted major investments that will respond to end-of-life and expansion needs. These projects comprise major capital investments exceeding the total annual maintenance funding requirement outlined above.

Renewal investments are prioritized to address safety, accessibility, and operational risk, so that municipal facilities continue to support reliable and sustainable service delivery.

Table 6.6: Capital Works – Land Improvements

Asset	Activity	Cost (est.)	Year (est.)	Notes
Parking Lots	Create a Township parking strategy	TBD	TBD	Strategy may address long-term parking needs including street parking, lots, and community groups that may offer parking.
Oxtongue Lake Landfill	Tree Clearing	\$45,000	2026	Allows for capacity improvements at this site.
Airport Apron	Strategy Required	TBD	TBD	Align with runway and other maintenance
Airport Runway Lighting	Update to LED lighting units	\$100,000	2026	Replacement bulbs are no longer compatible with current fixtures
Airport Runway	Maintenance	TBD	TBD	Align with apron and other maintenance
Log Chute	Rehabilitation	TBD	TBD	Asset is a tourist attraction, requires major rehabilitation.
Docks and Landings	Rehabilitation, expansion and replacement	TBD	TBD	Rehabilitate according to schedule with costs to be determined based on individual asset capacity needs.
Total		\$145,000	2026	

Asset Financial Needs

Based on the current age and condition, staff assessment of suitability and risks, the following investment profile is presented for Land Improvements:

- *Estimated capital requirement:* Approximately **\$1.6 million** over the next **10 years**.
- *Key cost drivers:* Regular maintenance and rehabilitation, as well as targeted improvements and replacements of land improvements at the end of their service lives, including recreational assets such as docks and landings.

Table 6.7: Annual Funding Needs – Land Improvements

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Funding \$	272,329	131,149	135,083	139,136	143,310	147,609	152,037	156,598	161,296	166,135

Table 6.7 shows the Township’s annual funding requirements for Land Improvements, based on the Lifecycle Strategy and identified costs for specific projects listed in Table 6.6 above. The Township will continue to invest in regular maintenance with an annual budget and targeted expenses for major projects as part of its lifecycle funding needs.

7. Fleet

The Municipality owns and operates a fleet of vehicles and watercraft that support the delivery of a wide range of municipal services, including administrative operations, emergency response, winter maintenance, parks, recreation and trails, and airport functions. These assets are in regular use to support municipal service delivery and community well-being. Fleet assets are managed in compliance with Ontario's regulatory and safety framework, including:

- *Highway Traffic Act (HTA)* – licensing, vehicle safety standards, and operational requirements.
- *Occupational Health and Safety Act (OHSA)* – vehicle operations protect staff and the public.
- *Ministry of Transportation (MTO) Vehicle Inspection Standards* – preventative maintenance, safety inspections, and roadworthiness.
- *Environmental Protection Act (EPA)* – emissions standards and environmental protection.

The Township also has specific municipal fleet management policies that govern scheduling, operational readiness, and lifecycle planning.

7.1 Asset Overview

The Municipality's fleet consists of a fleet of vehicles and water vessels. The fleet supports operational, emergency, and community services. In 2025, the replacement value is estimated at **\$9.05 million**.

- As of 2025, the fleet includes vehicles, motorized boats, and canoes in use across service categories, supporting municipal functions ranging from administration to winter control.
- The fleet includes a variety of light-, medium-, and heavy-duty vehicles, including pickup trucks, fire apparatus, and service vehicles dedicated to water, wastewater, and parks operations.
- Average asset age is **8.6** years, with typical useful lives ranging from **8 to 20 years**.
- Weighted average remaining service life is **45.9%**, with several older vehicles operating beyond their expected lifecycle, and overall vehicles in the latter half of their useful lives.

The vehicle portfolio is organized based on the departments assigned as primary vehicle owner. An overview of the asset inventory is provided below.

Table 7.1: Inventory Overview – Fleet

Department	Inventory of Assets	Current Replacement Value	Average Age (Years)	Remaining Useful Life (Est avg %)	% of Assets in Fair or better Condition
Airport	2	\$47,104	9	6.6%	22.1%
Building Dept	2	\$111,598	5	32.2%	42.9%
Fire	22	\$3,963,071	15.6	38.3%	62.1%
Parks, Recreation & Trails	41	\$601,005	6.5	53.3%	78.0%
Roads	19	\$4,325,268	5.2	52.6%	71.3%
Total	86	\$9,048,046	8.6	45.9%	67.1%

Note: Inventory numbers are subject to change, as the Township purchases or retires fleet assets.

Asset Condition

Vehicle condition is estimated based on asset age relative to expected service life as outlined in *Appendix A3*. Overall, the fleet is in **fair to good condition**, with many units at the midpoint of their lifecycle. Several service vehicles, such as fire apparatus, airport vehicles, and older road maintenance units have surpassed their expected service lives but continue to meet operational requirements due to low utilization, permitted extensions to useful life, or targeted maintenance overhauls.

Figure 7.1: Asset Condition – Fleet

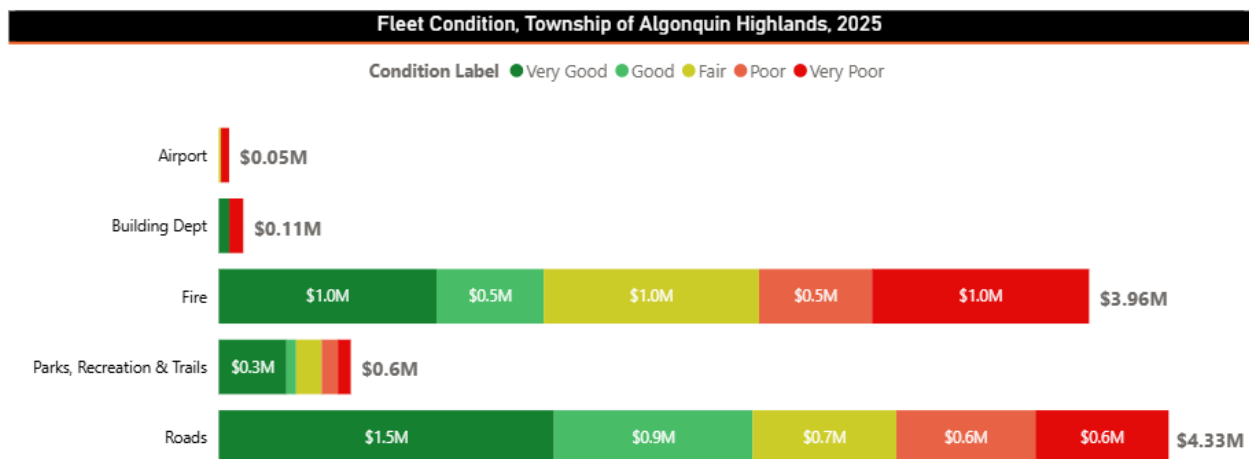


Figure 7.1 shows the distribution of asset conditions across the municipal vehicle fleet. Key features include the following:

- The Roads and Fire departments have the largest inventory of Fleet assets, with a total estimated current replacement value of \$4.33 million and \$3.96 million, respectively.
- Most Fleet assets are distributed fairly evenly from Very Good to Very Poor, which reflects an even mix of Fleet assets by age.

An even distribution of assets across condition ratings may be reflective of effective fleet management practices at the Township. This indicates the fleet is managed so that replacements may be staggered over the years to come.

7.2 Levels of Service (LOS)

The regulation for asset management requires municipalities to define and monitor their own *Community* and *Technical* Levels of Service for non-core assets, including Fleet. The Municipality monitors LOS for its vehicle Fleet to support municipal service delivery, operational efficiency, and public safety:

Table 7.2: Community LOS – Fleet

Attribute	Description	Current LOS	Proposed LOS
Services	Description of the duties expected by Township Vehicles	Council/Staff Services Building Services and Bylaw Enforcement Staff transportation Maintenance of parks, trails and public spaces Airport operations Cemetery operations and maintenance Road Maintenance Snow Removal Brushing, Ditching Landfill Maintenance Fire/Emergency Response Health and Safety Public Education	Maintain current. Vehicles actively used across service areas. Maintain fleet size and composition to meet operational demands.
Useful Life	Approach to vehicle replacements	Vehicles are assessed for replacement at the end of life as determined in the Vehicle Lifecycle Replacement methodology. Critical vehicles are replaced as per schedule.	Maintain current availability of vehicles.
Maintenance and Safety	Description of vehicle inspection and maintenance processes.	Pre-operation circle checks and safety inspections; defects repaired by mechanics. Public Works vehicles are maintained according to a fixed cost schedule, and excess funds are placed into reserve. Other vehicles are maintained as needed per vehicle maintenance budget.	Maintain current maintenance and safety processes.

Table 7.3: Technical LOS – Fleet

<i>Attribute</i>	<i>Metric</i>	<i>Current LOS</i>	<i>Proposed LOS</i>
Services	Number and description of services required from vehicles, where vehicles are inadequate or insufficient to meet demand.	None at present.	Maintain adequate fleet to provide services.
Useful Life	% of vehicles past their useful life	25.6% past EUL	Work toward Fleet replacement so that no more than 20% are their past EUL
Environment and Emissions	Number of Hybrid and Electric Vehicles in the Fleet	1 in Fire; 1 in Building	Planning purchase of a 3 rd EV vehicle. Will expand EV fleet and support infrastructure as need and budget allow.

7.3 Risk Assessment

Several risk factors have been identified by staff as potentially impacting the Township’s ability to meet its required Levels of Service for fleet assets:

- *Expanded Service Delivery Needs:* Current number of vehicles may be insufficient if new services are introduced (e.g., septic reinspection, expanded bylaw enforcement). Council approval will be required to purchase additional vehicles if service levels are increased.
- *Vehicle Allocation Constraints:* Current use of fleet is not always optimized to task, due to a shortage of vehicles such as pickup trucks that results in inefficient practices. For example, tandem trucks are used to transport staff to sites. While the risk implications are minor, a lack of redundancy and capacity in the fleet may result in unnecessary wear and tear, and costs, for high-value vehicles.
- *Efficiency Risks:* Current fleet just meets present levels of service; additional demands could strain availability and increase reliance on surplus or borrowed vehicles. Surplus or underutilized vehicles are temporarily borrowed across departments (e.g., Public Works vehicles used by bylaw staff). Strategic addition of vehicles would improve service delivery and reduce reliance on ad-hoc substitutions.

In addition, several common risk factors are present in the Township’s fleet:

- *Aging Fleet:* Several fire vehicles have exceeded their useful lives but are still within the age permitted for their current use by the Fire Underwriter’s Survey. The Township will monitor the risk of service disruptions related to vehicle age and plan for timely replacement of these assets.
- *Operational Dependence:* Vehicle failures could delay critical services such as snow removal or emergency response. Older vehicles may require upgrades or replacements to meet evolving safety and environmental standards.

- *Climate and Usage Impacts:* Harsh operating conditions and heavy seasonal usage accelerate wear on winter control and road maintenance vehicles.

Risk mitigation strategies include continued proactive maintenance planning and schedule-based vehicle replacements, including prioritization of timely replacement of emergency service vehicles.

7.4 Lifecycle Activities

Fleet reliability calls for timely maintenance, rehabilitation of heavy-duty vehicles, and replacement of vehicles at end-of-life. Typical lifecycle activities for vehicles include:

- **Maintenance**
 - Daily pre-operation inspections (circle checks), weekly and monthly preventive maintenance, and scheduled servicing per manufacturer guidelines.
 - Regular monitoring of fluid levels, tire condition, braking systems, and safety equipment.
 - National Fire Protection Association (NFPA 1911) standards for inspection and testing of fire apparatus.
- **Rehabilitation**
 - Mid-life overhauls for fire, winter control, and high-value heavy-duty vehicles to extend operational life.
 - Refurbishment of critical components (e.g., hydraulic systems, mounted equipment, and drivetrains).
 - Targeted upgrades for emissions systems, safety technology, and service-specific modifications according to operational requirements.
- **Expansion, Replacement and Disposal**
 - Planned replacement of vehicles that have reached the end of their useful life or are no longer cost-effective to maintain.
 - Evaluation of remounting or reusing mounted equipment before complete vehicle replacement.
 - Decommissioning, sale, and/or environmentally compliant disposal of retired vehicles.

Asset Funding Requirements

The asset lifecycle funding needs for the Township's fleet is planned to address scheduled replacement requirements at the end of these assets service life. The funding requirements were developed using the current age and condition, and expected useful life of each Fleet asset:

- *Estimated capital requirement:* Approximately **\$6.82 million** in total over the next 10 years.
- *Key cost drivers:* Replacement of major fleet assets at end of service life.

Table 7.4: Annual Funding Needs - Fleet

Dept	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Airport			11,387		42,526					
Building Dept						57,112		80,779		
Fire	529,904	41,541	32,501	76,142	975,219	64,565		47,074	117,731	
Parks, Recreation & Trails	59,869	53,530	99,529	33,009	27,820	299,758	27,693	83,083	81,800	52,472
Roads		671,359	654,955	62,670		629,688		139,029	1,667,172	103,301
Total (\$)	589,772	766,429	798,372	171,821	1,045,565	1,051,123	27,693	349,967	1,866,704	155,773

Table 7.4 outlines the annual funding requirements for replacement of Fleet assets, based on cost projections for each asset. A detailed Fleet replacement schedule is provided in *Appendix B*.

8. Machinery & Equipment

The Municipality owns and operates Machinery and Equipment that support emergency response, winter maintenance, waste management, parks and recreation, airport and other services. Equipment assets are managed in compliance with Ontario's regulatory and safety framework, including:

- *Occupational Health and Safety Act (OHSA)* – equipment operations protect staff and the public
- *Ministry of Transportation (MTO) Vehicle Inspection Standards* – preventative maintenance, safety inspections, and roadworthiness for licensed vehicles such as public works machinery
- *Environmental Protection Act (EPA)* – environmental protection for equipment operations.

The municipality may also follow its own equipment management policies for scheduling, operational readiness, and lifecycle planning including replacement.

8.1 Machinery & Equipment Overview

The Township's Machinery and Equipment portfolio consists of operational, emergency, and community service equipment. The estimated replacement value is **\$4.0 million** and including assets installed in fixed locations as well as heavy machinery, used for example for roads maintenance.

- Average asset age is **10.3** years, with typical useful lives ranging from **8-20 years** per the Township's TCA policy. Average remaining service life is **35.9%**, weighted by asset value.

Table 8.1: Inventory Overview – Machinery & Equipment

Department	Count of Assets	Current Replacement Value	Average Age (Years)	Remaining Useful Life (Est avg %)	% in Fair or Better Condition
Administration	16	\$387,318	7.1	53.8 %	62.2%
Airport	3	\$114,901	11.3	57.9%	58.4%
Fire	34	\$1,195,855	9.6	46.5%	69.5%
Generators & Water	4	\$396,136	8.8	5.9%	5.0%
Parks, Recreation & Trails	19	\$482,976	7.9	51.8%	76.1%
Public Works	24	\$979,506	16.5	29.6%	41.6%
Waste Management	12	\$487,429	8.3	11.8%	20.6%
Total	112	\$4,044,121	10.3	35.9%	50.3%

Asset Condition

Machinery and Equipment condition ratings are evaluated based on asset age relative to expected service life, as outlined in *Appendix A3*. Overall, the Township’s equipment ranges in condition, with many units at past the end of their estimated lifecycle. Inspection and evaluation of these assets may be needed to determine if they require rehabilitation or replacement.

Figure 8.1: Asset Condition - Machinery & Equipment

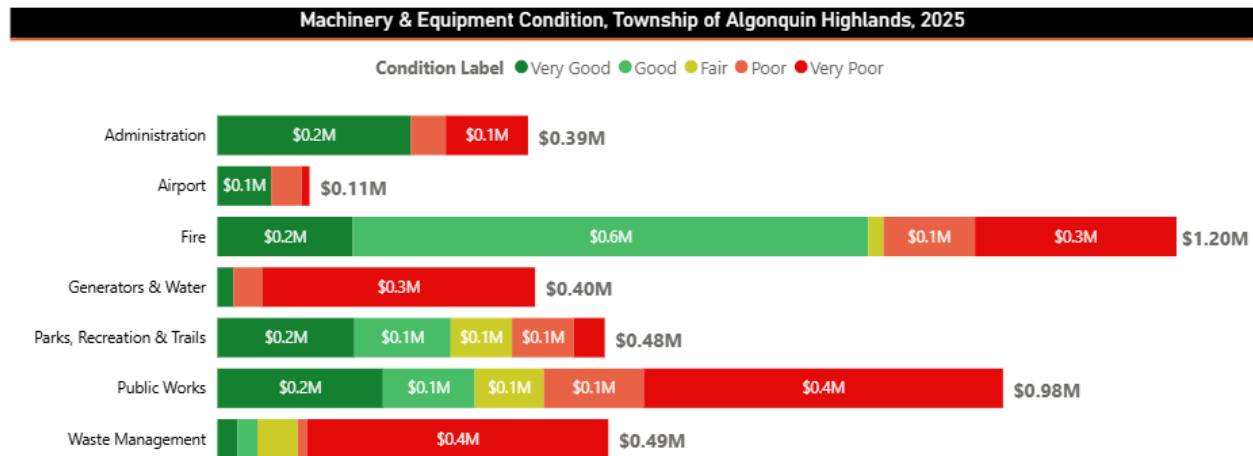


Figure 8.1 shows the distribution of asset conditions based on age across municipal equipment assets, with the following key highlights:

- A total of \$4.0 million in machinery and equipment is distributed across Township departments, with the largest values in Fire and Airport equipment.
- Certain equipment assets by value are in Poor or Very Poor condition, indicating those assets are reaching or past the end of their expected useful life, such as in Public Works and Waste Management. Field condition assessment of these assets may confirm if replacement is needed.
- While some assets are in Very Good or Good condition, overall condition is weighted towards Machinery & Equipment assets on average approaching the end of their EUL.

Condition of Machinery & Equipment assets is based on age, however a review of actual condition based on observation will assist to plan asset rehabilitation or replacement based on demonstrated need.

8.2 Levels of Service (LOS)

Ontario Regulation O. Reg. 588/17 requires municipalities to define and monitor both *Community* and *Technical* Levels of Service for non-core assets. The Municipality monitors LOS for its Equipment to ensure it continues to support municipal service delivery, operational efficiency, and public safety.

Table 8.2: Community LOS – Machinery & Equipment

Attribute	Description	Current LOS	Proposed LOS
Services	Description of the duties expected by Township Equipment	Council/Staff Services Building and Bylaw Enforcement Staff transportation Maintenance of parks, trails and public spaces Airport operations Cemetery operations and maintenance Road Maintenance Snow Removal Brushing, Ditching Landfill Maintenance and operations Fire/Emergency Response Health and Safety Public Education	Maintain current services.
Lifecycle Management	Approach to Equipment replacements	Pieces of Equipment are assessed for replacement at the end of life. Critical equipment is replaced on a fixed schedule.	Maintain current availability of equipment.

Table 8.3: Technical LOS – Machinery & Equipment

Attribute	Metric	Current LOS	Proposed LOS
Services and Suitability	Number and description of services required from equipment, where equipment is inadequate or insufficient to meet demand.	0 – none identified	Maintain Equipment inventory to meet operational demands.
Lifecycle Management	% of equipment past its Expected Useful Life (EUL)	30.4% past EUL	Work toward Equipment replacement so that no more than 20% are their past EUL

8.3 Risk Assessment

There are several common risks in the operation of Machinery and Equipment that may affect the Township's ability to maintain required Levels of Service for these assets. Typical risks include:

- *Aging Equipment:* Several equipment assets are noted to have exceeded their useful lives, potentially increasing the risk of breakdowns and service disruptions, with costly repairs. Evaluation of assets at their scheduled end-of-life and planning replacements will assist in maintaining effective, functional equipment.

- *Operational Dependence:* Equipment failures could delay or prevent critical services such as snow removal, public works operations, and emergency response.
- *Regulatory Compliance:* Certain equipment such as Fire apparatus may require regular upgrades or replacements to meet safety and environmental standards. The Fire department plans its equipment replacements to comply with industry leading practice.
- *Climate and Usage Impacts:* Harsh operating conditions and heavy seasonal usage accelerate wear on winter control and road maintenance equipment.

Risk mitigation strategies include proactive maintenance scheduling, condition-based replacement planning, and prioritization of critical service equipment for reliability and safety compliance.

8.4 Lifecycle Activities

Effective lifecycle management supports reliable, safe, and cost-effective equipment management. Activities across maintenance, rehabilitation, replacement, and expansion include:

- **Maintenance**
 - Routine inspections, lubrication, and calibration per manufacturer recommendations and operational frequency.
 - Monitoring of wear components such as belts, hoses, bearings, cutting edges, and hydraulic lines to prevent premature failure.
 - Scheduled preventive maintenance programs emphasizing cleaning, filter replacement, and fluid testing to maintain optimal performance.
 - Tracking maintenance ratios (preventive vs. reactive) to manage costs and reduce unplanned equipment downtime.
 - Compliance with applicable safety standards (e.g., CSA, OHSA) for inspection, guarding, and safe operation of equipment.
- **Rehabilitation**
 - Mid-life refurbishment or rebuilds of key equipment (e.g., loaders, mowers, compactors, and pumps) to extend useful service life.
 - Overhaul or replacement of major components such as hydraulic assemblies, electrical systems, control modules, and engines.
 - Upgrading attachments or technology (e.g., control systems, sensors, or energy-efficient motors) to improve performance and safety.
 - Repainting, structural reinforcement, or reconditioning of critical assemblies to address corrosion or wear.
- **Replacement and Disposal**
 - Planned replacement of machinery and equipment that have reached the end of their useful or economic life, or where repair is no longer cost-effective.
 - Assessment of potential component reuse, trade-in value, or repurposing opportunities before full disposal.
 - Environmentally responsible decommissioning and disposal of hazardous materials, fluids, and obsolete parts in accordance with regulatory requirements.
 - Lifecycle cost analysis to guide replacement timing and ensure investment efficiency.
- **Expansion**

- Procurement of additional or specialized machinery and equipment to support new or expanded municipal services, aligned with service delivery goals.
- Integration of modern, energy-efficient, and low-emission technologies (e.g., electric tools, battery-operated units, automated control systems).

Asset Funding Requirements

Based on the current age and condition, staff assessment of suitability, and risks, the following investment profile is presented for Machinery & Equipment assets:

- *Estimated Funding Need:* Approximately **\$3.82 million** in total over the next 10 years.
- *Key cost driver:* Replacement of major equipment assets at end of service life.

Table 8.4: Annual Funding Needs – Machinery & Equipment

Department	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Administration	37,496	7,826			8,005	43,469		287,538	86,843	9,280
Airport		40,231								13,350
Fire	107,294	72,507	20,508		50,973	797,266	35,794	178,920	29,127	28,377
Generators & Water		38,138								
Parks, Recreation & Trails	60,690	19,288		53,121	46,970	15,930		148,917		64,382
Public Works		157,553	16,202		87,616	135,641	428,466	38,773		54,064
Waste Management		26,942	9,821	54,769		51,821	45,212		9,731	402,040
Total (\$)	205,480	362,485	46,530	107,889	193,563	1,044,126	509,472	654,148	125,701	571,493

Table 8.4 outlines the annual funding requirements for replacement of Machinery & Equipment assets, based on cost projections for each asset on a replacement schedule detailed in *Appendix B*.

9. Financial Strategy

This section consolidates the financial requirements evaluated as necessary to sustain the municipality's tangible capital assets over a 10-year planning horizon. It translates the findings of previous sections including asset condition, lifecycle activities, levels of service, and risk-based prioritization into a coordinated investment and funding outlook.

The Financial Strategy builds on the principle that reliable financial planning is part of sustainable asset management. Investment priorities are derived from lifecycle needs identified for each asset category, recognizing that timely rehabilitation, renewal, and replacement are critical to maintaining service levels and mitigating the risks of deferred maintenance or loss of service and their resulting costs.

Key considerations shaping this Financial Strategy include:

- *Lifecycle Perspective:* Funding projections are grounded in the lifecycle activities necessary to sustain target levels of service, as detailed in asset class sections and the Linear Infrastructure Investment Plan (Section 5.6).
- *Service Level Commitments:* Financial forecasts reflect the resources needed to maintain or achieve the levels of service, aligning with community expectations and regulatory obligations.
- *Data-Driven Refinement:* Projections are based on the current state of assets, risk profiles, and available condition data, with the expectation of continuous improvement as asset information matures.
- *Integration with Municipal Planning:* The strategy complements the Municipality's Capital Planning work, annual budgeting processes, and long-term financial planning framework, to support alignment between asset needs and funding availability.

As data quality improves, projected investment requirements will be recalibrated to further enhance the accuracy of this plan. This iterative approach supports evidence-based decision-making, helping the Municipality allocate resources effectively across its assets.

9.1 Annual Asset Investment Needs

Analysis of lifecycle requirements for each asset category indicates that annual investment needs will fluctuate over 10 years, driven by the timing of major rehabilitations, replacements, and capacity upgrades. Current projections show a range from a low of **\$1.56 million in 2029** to a high of **\$8.56 million in 2030**, reflecting scheduled renewal of high-value assets, especially Fire Station #60.

Overall, the total capital funding need identified in this AMP over the 10-year timeframe is \$36.1 million, for an annual average of **\$3.61 million**. This does not include funding requirements for projects that do not currently have a cost estimate. Timely investments will assist the Township avoid cost escalation that may result from deferring projects and mitigate service disruptions.

The table below summarizes the investment profile for all municipal asset categories, consolidating the estimated funding needs across the municipality's portfolio over the next 10 years:

Table 9.1: 10-Year Asset Funding Needs Forecast

Year / Asset Funding (\$)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Roads	3,768,436	2,386,989	656,099	675,782	696,055	716,937	738,445	760,598	783,416	806,919
Bridges & Culverts	107,000	110,210	113,516	116,922	120,429	124,042	127,764	131,597	135,544	139,611
Facilities	1,581,748	338,700	545,861	353,237	6,360,834	268,659	276,719	285,021	293,571	302,378
Land Improvement	272,329	131,149	135,083	139,136	143,310	147,609	152,037	156,598	161,296	166,135
Fleet	589,772	766,429	798,372	171,821	1,045,565	1,051,123	27,693	349,967	1,866,704	155,773
Machinery & Equipment	205,480	362,485	46,530	107,889	193,563	1,044,126	509,472	654,148	125,701	571,493
Total (Millions \$)	6.525	4.096	2.295	1.565	8.560	3.352	1.832	2.338	3.366	2.142

Table 9.1 shows investment needs across the six major asset categories, based on the lifecycle activities and their costs as discussed in each respective section of the AMP.

Figure 9.1: 10-Year Capital Needs Projection

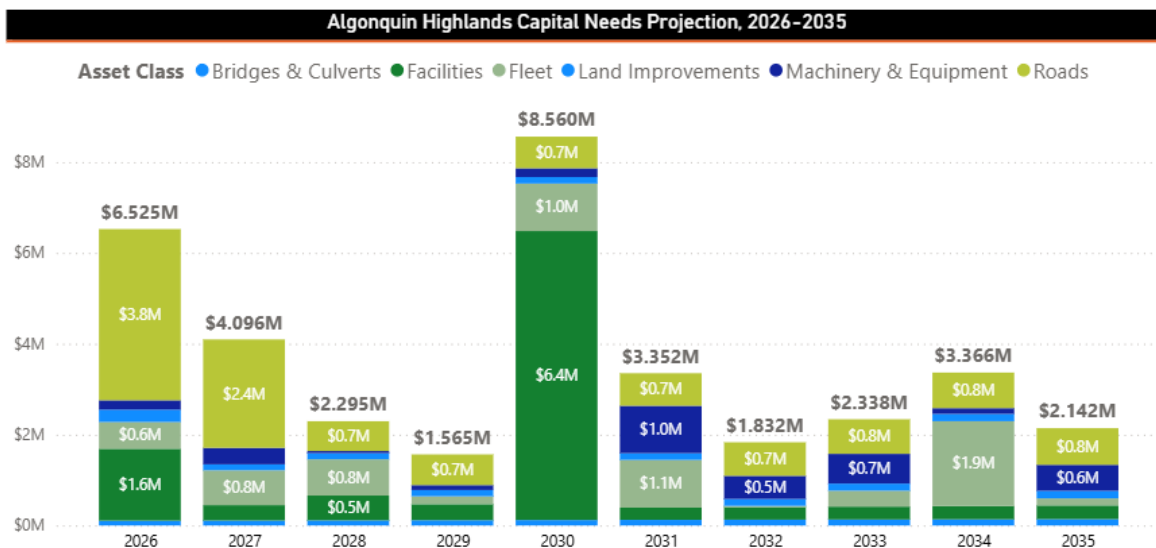


Figure 9.1 represents in graphic format the projected funding requirements for all assets over the 10-year planning horizon. This indicates the financial resources necessary to implement the costed lifecycle

activities outlined across asset classes. Peaks in 2026 and 2030 are due to major additions to roadways and the construction of a new Fire Station #60 in those years. Overall, these projections reflect:

- *Rehabilitation and Maintenance Needs:* Investments to maintain current and target levels of service, including rehabilitation of infrastructure and planned replacement of critical assets as they reach the end of their service life.
- *Capacity and Compliance Projects:* Works identified as required to address increasing demand for services and adapt to emerging risks such as climate change or technological shifts. For example, replacement of the Airport Runway Lights and retrofits to the Dorset Tower.
- *Major capital works:* Funding for major projects such as roadway upgrades to North Shore Rd, replacement of Fire Station #60, and expansion of the Docks and Landings.

Managing Funding Variability

Given the uneven distribution of capital funding needs across the planning period, the Municipality may continue to leverage:

- *Dedicated Capital Reserves:* To offset costs in years where required investments exceed average annual budgets.
- *External Funding Sources:* Including provincial or federal grants, low-interest loans, community fundraising and donations, and other strategic partnerships with local and regional groups to reduce the burden on municipal revenues, especially for environment, community, and tourism-oriented initiatives.
- *Asset Prioritization Frameworks:* Ongoing use of tools like the Township's asset risk framework to review funding priorities and direct available funds to where they are needed most.

Where actual expenditures fall below projected needs or additional funding becomes available, unspent amounts may be allocated to reserves. This approach provides financial flexibility for years of increased financial need, supporting consistent levels of service over time.

9.2 Financial Context

Under *O. Reg. 588/17*, municipalities must demonstrate internal capacity to meet long-term rehabilitation and replacement obligations. The Municipality's financial capacity to meet its asset funding needs can be estimated based on historic capital additions, funding sources, and reserves.

Recent Capital Additions

Tangible capital asset (TCA) investment trends offer useful context for planning the 10-year lifecycle needs identified in Section 9.1. The Municipality's audited financial statements show annual net additions have ranged from a low of **\$1,387,909** in **2022** to a high of **\$5,131,690** in **2024**. Over the **2020-2024** period, the annual average net capital addition was **\$2,807,367** (net of disposals and write-downs).

Not all capital additions have been drawn from Township funds; some capital contributions may have come from other funding sources or transfers in-kind.

Table 9.2: Net Capital Additions, 2020-2024

Year / Net Change in \$ by Asset Type	2020	2021	2022	2023	2024	Five-Year Average
Roads and Bridges	851,628	277,024	-28,890	395,123	446,654	388,308
Buildings	660,658	69,796	43,757	338,019	2,230,417	668,529
Vehicles	(93,486)	798,479	58,512	221,940	1,069,063	410,902
Machinery, Equipment and Furniture	263,922	543,814	286,782	216,962	204,823	303,261
Land and Land Improvements	211,575	233,399	1,027,748	2,528,385	1,180,733	1,036,368
Total (\$)	1,894,297	1,922,512	1,387,909	3,700,429	5,131,690	2,807,367

Table 9.2 above shows the net value of additions to capital assets of all types from 2020 to 2024. Note, the Township’s financial statements combine certain asset classes in a single line in a manner slightly different than those used in this AMP. The purpose of this table is to give a general indication of asset additions annually for related assets, for comparison with projections in the AMP.

Capital Budgets

The Net Capital Additions described above represent the net sum of asset additions and disposals based on funding from all sources. The Township has set out a capital budget in recent years that allocates internal funding, including reserve funding, to address capital investment priorities, as follows:

Table 9.3: Capital Budgets, 2020-2025

Year	2020	2021	2022	2023	2024	2025
Capital Budget (\$)	2,244,337	2,465,659	3,662,855	2,772,200	4,389,406	5,606,920

Since 2024, the Township has presented a capital budget that is greater than the average annual financial need identified in this AMP. The average annual capital budget since 2020 is **\$3.52 million**. This may indicate that the costs in the AMP are, overall, close to the demonstrated financial capacity of the Township.

Note that there are projects identified herein that do not have a cost estimate and are not included in the estimated financial need. The Township should continue to seek external funding for eligible projects to reduce strain on resources over time, retain reserves for emergencies, and allocate funding across projects of all types.

Capital Reserves

The Municipality has grown its Working Capital and Capital Reserves through commitments of surplus funds over recent years:

Table 9.4: Reserve Fund Balances, 2020-2024

Year / Reserve	2020	2021	2022	2023	2024
Working Capital	1,683,203	1,767,492	2,006,009	1,620,043	515,855
General government	344,129	399,051	454,827	513,753	383,130
Protection	816,380	502,445	756,567	838,970	408,862
Transportation	2,510,607	2,650,173	2,987,584	3,573,227	2,920,725
Environmental	1,268,441	1,650,609	1,030,473	691,959	770,769
Health	14,766	40,516	25,516	16,343	24,860
Recreation and culture	1,184,161	1,478,169	1,928,700	2,178,915	2,064,569
Planning and development	128,712	176,490	190,590	204,514	193,664
Total Reserves	7,950,399	8,664,945	9,380,266	9,637,724	7,282,434

The Township's total reserves at the start of 2025 were approximately **\$7.28 million**, reflecting growth in reserve funds related to investment returns and to the use of reserve funds to complete recent major capital works, such as the new Public Works garage.

Reserves can be used to address multiple needs:

- *Smoothing Investment Peaks:* Offsetting costs in years where lifecycle requirements exceed annual capital budgets.
- *Funding Strategic Projects:* Allowing for multi-year accumulation of funds to meet the Municipality's share of major rehabilitation or renewal projects, such as Fire Station #60.
- *Strategic Contributions:* Having funds available when external matching funding opportunities arise for identified capital projects.
- *Risk Management:* Maintaining a minimum reserve balance to address emergency needs and unexpected asset failures that could carry significant financial and service-level impacts.

The total value of Working Capital and Capital reserves may continue to be used for these needs. Reserve Funds should not be considered an accumulated surplus, rather, as funds that may be used with appropriate discretion and oversight as required by law and according to the Township's reserve fund policies.

Implications for the Financial Strategy

The Township's historic capital spending, surpluses, and reserve funds demonstrate its capability to undertake the lifecycle activities as identified across this AMP with costs shown in Section 7.1. Based on historic average capital asset additions and average capital budgets, the Township has an estimated annual funding capacity of \$2.81 million to \$3.52 million, which approaches the annual funding need.

9.3 Funding Strategies

Overall, maintaining the Township's asset portfolio will depend on continued strategic contributions to reserves, obtaining access to external funding programs, and aligning annual capital budgets with the long-term reinvestment needs of the asset portfolio. This will support the Municipality's ability to deliver services and manage risks, while responsibly managing revenues from residents and businesses.

Revenue Sources

Municipal assets are funded from multiple revenue streams, aligned with the nature of the service:

- *Tax-Supported Assets:* Most assets in this AMP are funded from the general tax levy.
- *Service Levies:* Service Levies may be allocated support certain assets. For example, the Township may allocate a portion of revenues from tourism rental levies to cover costs of retrofits to tourism-oriented infrastructure such as Docks and Landings.
- *External Grants and Contributions:* The Township receives stable funding contributions through sources such as the Ontario Community Infrastructure Fund (OCIF) and the Canada Community Building Fund (CCBF, former Gas Tax), which may support eligible projects such as roadway maintenance and rehabilitation.
- *Fleet and Equipment Operating Cost Management:* While the Township often uses reserves to procure fleet and equipment assets, for certain assets it uses a process to lease the fleet to itself, such that the use of those assets pays for their cost of ownership. Public Works also uses reserves to balance funding needed for Fleet lifecycle maintenance activities year-over-year.

Leveraging External Funding

External programs, including federal and provincial grants, increasingly tie project funding eligibility to specific policy objectives, such as housing-enabling infrastructure. While new housing is not a primary objective for Algonquin Highlands, the Municipality may monitor and pursue opportunities to align projects with available funding streams. Potential external funders may include:

- *Housing, Infrastructure and Communities Canada – Investing in Canada Infrastructure Fund*
- *Federation of Canadian Municipalities Green Municipal Fund – Climate-Ready Initiatives*
- *Canada Community Building Fund (CCBF)*

Proactive project planning supports the Township's ability to capitalize on short-lived funding windows. The AMP itself provides the supporting evidence required by many programs, by identifying and prioritizing certain projects that serve community needs.

Supplementary Local Funding Strategies

In addition to grants and transfers, the Municipality may adopt or expand local revenue measures to enhance long-term funding sustainability:

- *Capital Levies:* Targeted levies can be introduced to address specific infrastructure renewal needs or to maintain service levels, with Council-approved adjustments reflecting annual investment priorities.

- *Capital Reserve Contributions:* Regular contributions build reserves to fund in-year rehabilitation, cover emergency needs, and meet municipal matching requirements for external funding. A reserve target may be established to ensure long-term adequacy.
- *Debt Financing:* Prudently employed, debt financing can address significant lifecycle investments within regulated repayment limits. Algonquin Highlands monitors borrowing capacity under Ministry guidelines and may re-evaluate debt utilization as existing debentures mature.

A robust funding strategy requires a balanced approach: maximizing external funding opportunities, maintaining stable local contributions, and strengthening reserves to offset funding variability. Aligning funding strategies with lifecycle planning enables the Municipality to deliver timely rehabilitation and renewal activities, mitigate risks of service disruption and escalating costs, and uphold levels of service commitments in a financially sustainable manner.

9.4 Financial Strategy Summary

The Municipality's ability to provide reliable and sustainable services depends on a financial strategy that balances long-term investment needs with available funding. This financial strategy translates asset conditions, lifecycle requirements, risk considerations, and levels of service into a 10-year investment roadmap to be funded through internal and identified external funding sources. Key findings include:

- **Investment Requirements:** Forecasted needs vary over the 10-year horizon, with peaks associated with major capital projects.
- **Financial Context:** The use of external grants, as well as current spending and reserve management practices, influences the Municipality's capacity to meet these needs.
- **Sustainability Strategies:** A balanced approach, drawing on tax revenues, dedicated reserves, external grants, and, where appropriate, debt financing, is expected to provide necessary funds.
- **Future Readiness:** Continuing to use capital reserves, refining financial forecasts as data improves, and aligning budgets with long-term priorities will position the municipality to respond to planned rehabilitation and unforeseen events. Proactive preparation of "shovel-ready" projects will also improve the Municipality's ability to capture time-limited funding opportunities.

This financial strategy provides the foundation for informed decision-making, reduces the risk of deferred maintenance, and supports the continued delivery of essential services. By committing to continuous improvement grounded in reliable data, sound asset management practices, and ongoing collaboration, the Township has the potential to remain financially resilient.

10. Conclusion and Next Steps

The Municipality's ability to deliver reliable, sustainable services is supported through effective asset management that aligns lifecycle investment requirements with available funding. Looking ahead, the Township of Algonquin Highlands may continue to refine its financial forecasts as asset data, lifecycle modelling, and levels of service targets are further developed. Capital budgets will be better aligned with long-term priorities, maintaining a balance between affordability and service reliability.

Efforts to strengthen capital reserves, such as for Bridges and Facilities will provide greater flexibility to respond to planned rehabilitation needs and unplanned asset failures. At the same time, the Municipality can look to maximize external funding opportunities by preparing shovel-ready projects to take advantage of short-lived grant windows.

This AMP is intended to support informed decision-making, reduce risks associated with deferred maintenance, and enable the sustainable delivery of municipal services. By committing to continuous improvement with reliable data and collaboration across departments, the Township of Algonquin Highlands will continue to manage its assets in a fiscally prudent manner.

10.1 Continuous Improvement

There are opportunities to strengthen asset management practices for the Township over time. Continuous improvement helps to continue informing infrastructure investment decisions that are evidence-based, financially sustainable, and aligned with the service expectations of the community.

Key Activities to Strengthen Asset Management

Sustained progress in asset management calls for focused actions to improve data quality, analytical tools, and decision-making processes:

- *Software and Data Management:* The Municipality's asset management software consolidates asset information but maintaining accurate and up-to-date records is an ongoing challenge for many municipalities. Dedicating resources from across departments to maintaining asset records may help improve data accessibility and reliability for data-driven planning and reporting.
- *Data Collection:* Targeted efforts to gather asset condition and performance data, particularly for high-value or high-risk assets such as Facilities, will enhance the Municipality's ability to prioritize interventions and refine lifecycle investment forecasts.
- *Data Validation:* Reviewing assets that have exceeded their estimated useful life helps determine whether replacement is necessary or if extended service life is feasible. Adjustments to service life assumptions and condition ratings e.g., for Fleet and Equipment, can help projections reflect actual asset performance.
- *Risk Management:* Embedding risk-based decision-making in planning and budgeting processes enables the Municipality to allocate resources to assets where failure would have the greatest impact. A consistent methodology for assessing and updating asset risk profiles may be implemented with risks reviewed regularly to confirm risk-based priorities.

- *Levels of Service (LOS):* Continuous refinement of LOS metrics, as defined in this AMP, helps investment decisions to better align with both community expectations and regulatory requirements. Additional metrics can identify when service expansion, upgrades, or replacements are warranted.

Next Steps for Asset Management

Building on these activities, the Municipality may consider the following initiatives over the coming years:

- *Refinement of Proposed Levels of Service:* Incorporate community engagement and strategic planning insights to define and track LOS performance. Establishing clear processes for consultation will help service delivery goals to remain aligned with community priorities.
- *Enhanced Financial Forecasting:* As asset data, costs, and LOS data improve, refine annual expenditure projections for each asset category over the 10-year horizon. Improved forecasting will enable more accurate planning for especially for rehabilitation and expansion needs.
- *Integration with Financial Strategy:* Use enhanced data, refined LOS, and updated risk assessments to strengthen the financial planning framework outlined in Section 9, to relate asset needs, funding strategies, and long-term service sustainability.

By committing to these continuous improvement actions, the Municipality will build a more resilient and adaptive asset management framework, one capable of supporting informed decisions, optimizing investments, and safeguarding the long-term delivery of municipal services.

10.2 Conclusion

Algonquin Highlands manages a diverse portfolio of assets that provide essential services, support community well-being, and sustain long-term economic, social, and environmental resilience. Many of these assets are in Good or Very Good condition, but some have reached or surpassed their expected service life. Addressing challenges such as aging infrastructure, growing service demands, and funding pressures requires a shift toward proactive, data-driven asset management.

This AMP provides a roadmap for sustaining municipal infrastructure by linking asset condition, lifecycle strategies, risk management, and service level commitments with long-term financial planning. It highlights the need for consistent reinvestment in assets and emphasizes the importance of aligning capital spending with community priorities, regulatory obligations, and available funding.

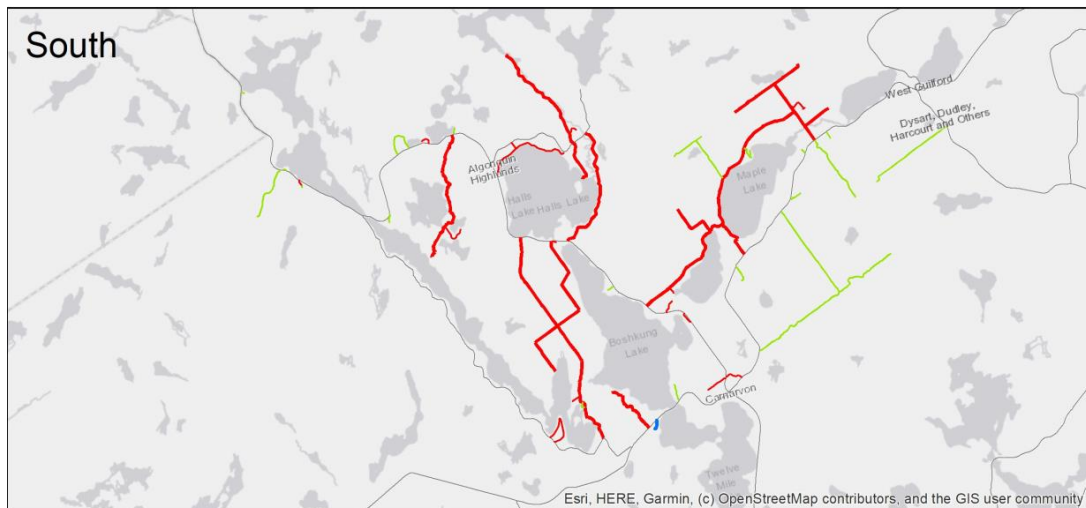
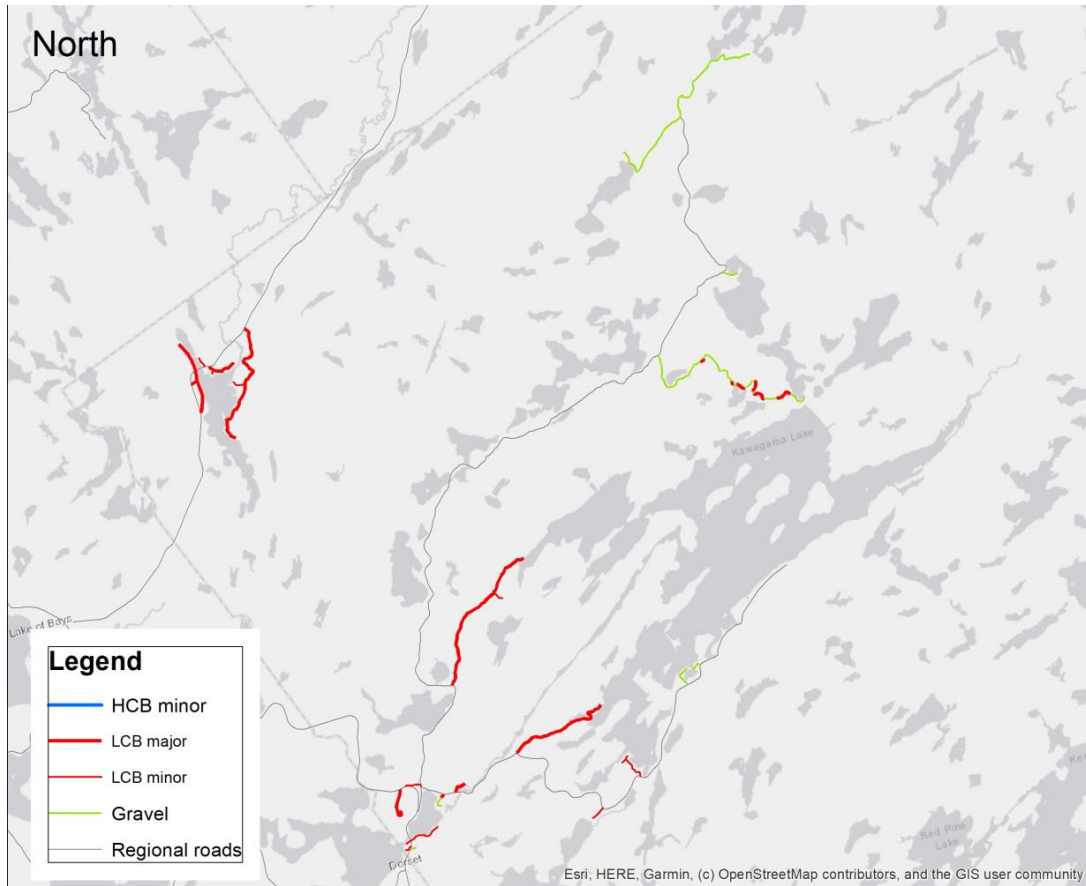
Moving forward, Algonquin Highlands will focus on strengthening asset data, refining levels of service, and prioritizing investments that deliver the greatest value to residents. Implementing the financial strategies outlined in Section 9 and pursuing continuous improvement initiatives outlined above will enable the Township to anticipate future funding requirements, plan capital projects efficiently, and mitigate the risks of deferred maintenance.

Ultimately, this AMP reflects a commitment to building a stronger, more resilient community. By following its recommendations, Algonquin Highlands can maintain confidence that its infrastructure is managed responsibly and sustainably, ensuring reliable service delivery today and in the years to come.

Appendix A: Asset Data and Analysis

Appendix A1: Service Area Views

The following map views illustrate the spatial extent of municipal roads, as required for Levels of Service in Section 3 – Roads. The Township maintains more detailed road maps for asset planning purposes.



Appendix A2: Data Sources

The asset condition, lifecycle activity, and financial projections in this AMP are based on the best available data at the time of preparation. Data were consolidated from multiple sources to create a reliable foundation for asset management planning. Continuous improvement to data will assist in maintaining the reliability of asset condition and cost information.

Table A.2: Primary Data Sources by Asset Class

Asset Class	Key Documents & Reports	Asset Condition Basis	Lifecycle & Financial Basis
Roads	- 2020 Asset Management Plan, Field Condition Assessments - Township TCA Inventory	Based on values in the 2020 AMP	Lifecycle cost model and Township staff input
Bridges & Culverts	- Structure Inspection Report, Keystone Bridge Management Corp, 2024	Inspection-based	Based on study
Buildings	- TCA Inventory, 2020 AMP, and municipal input	Age-based	2020 AMP costing and Township input
Vehicles	- TCA Inventory, 2020 AMP, and municipal input	Age-based	TCA and fleet lifecycle tracking
Equipment	- TCA Inventory, 2020 AMP, and municipal input	Age-based	TCA and equipment lifecycle tracking

In addition, the Municipality’s audited financial returns from **2019 to 2024** were used to provide historical financial context in Section 9 of this AMP.

Why Data Sources Matter

Reliable, consistent data underpins all aspects of this AMP, from asset condition ratings and lifecycle planning to financial forecasting and risk assessment. Continuous refinement of these data sources will improve investment planning accuracy, strengthen the Municipality’s funding strategies, and support evidence-based decisions on service levels and priorities.

Appendix A3: Asset Condition and Estimated Useful Life Approach

Asset conditions presented in this AMP are based on the most reliable assessment data available for each asset category, as outlined in *Appendix A2: Data Sources*. Where direct condition inspections were unavailable, asset condition has been estimated using an age-based approach that compares the current age of the asset to its estimated useful life.

Methodology

The remaining useful life (RUL) of each asset is calculated as:

$$\text{RUL (\%)} = (\text{Useful Life} - \text{Current Age}) \div \text{Useful Life}$$

For example:

- An asset installed in [Year] is [XX] years old as of [Current Year].
- With an estimated useful life of [YY] years, the remaining useful life is:
 - $([YY] - [XX]) \div [YY] = [X\%]$.
- This equates to [Remaining Years] years remaining out of an expected [YY] years.

Condition ratings based on remaining useful life:

Condition Rating	Remaining Useful Life (%)
Very Good	75% or higher
Good	50% to 74%
Fair	25% to 49%
Poor	0% to 24%
Very Poor	Less than 0%

Integration with Asset Management Planning

- *Lifecycle Forecasting*: RUL estimates guide capital planning for maintenance, rehabilitation, and replacement activities.
- *Risk-Based Decision-Making*: Combined with asset criticality and performance, RUL informs prioritization of investments where failure risks are highest.

- *Financial Strategy Alignment:* Age-based condition data underpin the funding forecasts outlined in Section 7, linking asset condition directly to required reinvestment.

Limitations of the Age-Based Approach

While practical and consistent, this method provides only an approximation of actual asset performance. Factors such as operating environment, usage intensity, maintenance history, and unforeseen deterioration can significantly affect asset condition. Consequently:

- Age-based ratings may *over- or under-estimate* remaining service life.
- Actual asset inspections remain the preferred method for validating condition and refining lifecycle forecasts.

As part of the Municipality's continuous improvement program (Section 8), the development of a more comprehensive condition assessment framework including regular field inspections and standardized evaluation templates will enhance the accuracy of future asset condition reporting.

Appendix B: Asset Details

The tables in this Appendix provide detailed information about the assets included in each of the Township’s asset classes. Lifecycle Activities shown in the tables below are estimates, intended to indicate assets that may warrant further review or consideration for future projects. They are based on the estimated useful life and condition of the assets in accordance with the Municipality’s Tangible Capital Asset (TCA) policy.

Table B.1: Asset Details - Roads

Asset Type	CRV, Est. (2025)	Asset Length	Overall Condition	Lifecycle Activity, Estimate
Paved: Surface Treated (LCB)	\$24,472,773	75.0 km	PCI = 63.1 (Good)	North Shore Rd - Rehabilitate in 2026-27: \$3,500,000 Big Hawk Lake Rd - Rehabilitate in 2026: \$1,400,000
Unpaved: Gravel	\$9,998,918	35.7 km	Surface Condition = 58.0 (Good)	

Table B.2: Asset Details - Bridges & Culverts

Asset	CRV, Est. (2025)	Asset Dimension (L * W)	Age (Years)	Notes	Lifecycle Activity, Estimate
# 1 - Bear Lake Bridge	\$1,781,900	21.3 m * 5.6 m	55	Bridge is in good serviceable condition. Soiling of floor members due to open deck. Some decay present in abutment crib in SW corner, this will require partial replacement of timbers in a few years time. Rainstorm impacted 2024 inspection.	Maintenance in 2026: \$60,000
# 2 - Buckslide Dam	\$1,351,360	8.8 m * 9.0 m	16	This structure should be considered as two structures. The new bridge spans the old structure, and is in good condition. The original structure carries the water from the dam overflow as a concrete culvert. The condition of the culvert structure appeared good. The construction date was changed from 1950 to 2009 to	Post-2035

				reflect the condition of the new bridge.	
# 3 - St. Peter's Bridge	\$3,410,330	31.0 m * 9.15 m	6	Overall, this bridge is in good condition. The main concern is the missing drainage tubes at the bridge corners. Current damage is minimal, extensions should be replaced to prevent further damage to the girder ends and bearing seats.	Maintenance in 2026: \$20,000
# 5 - Airport Road Bridge	\$3,529,810	23.7 m * 10.7 m	6	Structure is in overall very good condition. There is no warrant for rehabilitation at this time. Consider replacing joint seals as a maintenance activity.	Post-2035
Dawson Road Culvert	\$655,080	19.0 m * 3.84 m	8	Overall this culvert is in good condition.	Post-2035

Table B.3: Asset Details – Facilities

B.3.1 Administration Facilities

Asset	Component	CRV, Est. (2025)	Age (Years)	Lifecycle Activity, Estimate
Dorset Municipal Office	Facility	\$-	57	
	New Heating / Cooling unit	\$-	10	
Algonquin Highlands Administration Building	Facility	\$736,863	35	Rehabilitate in 2030: \$854,227
	Addition	\$947,567	8	
	New Windows/Door	\$65,493	6	
	Ground Source Furnace	\$19,245	7	Rehabilitate in 2033: \$24,379
	Basement Renovation with new office spaces and attic insulation	\$74,038	4	

B.3.2 Airport Facilities

Asset	Component	CRV, Est. (2025)	Age (Years)	Lifecycle Activity, Estimate
Airport Terminal Building	Facility	\$57,856	60	Maintenance in 2028: \$200,000
	New Deck and Accessible Ramp	\$31,042	9	
	New Septic Bed	\$11,363	8	
	Radiant Tube Heater	\$6,859	6	
Storage / Maintenance Garage	Facility	\$121,021	37	Rehabilitate in 2028: \$132,243
Hangar Building - Near Residence	Facility	\$81,659	21	
Hangar Building A	Facility	\$-	45	
Hangar Building B	Facility	\$170,868	45	
Hangar Building C	Facility	\$264,274	34	Rehabilitate in 2031: \$315,243
Hangar Building, D	Facility	\$162,376	17	
	Heat Pump, Removal and replacement of insulation	\$122,987	6	
New Hangar 1/4	Facility	\$606,973	11	
New Hangar 2/4	Facility	\$606,974	11	
New Hangar 3/4	Facility	\$606,974	11	
New Hangar 4/4	Facility	\$606,974	11	

B.3.3 Fire Stations

Asset	Component	CRV, Est. (2025)	Age (Years)	Lifecycle Activity, Estimate
Fire Station #60, Dorset	Facility	\$336,932	43	Replace in 2030: \$6,000,000
Fire Station # 70, Oxtongue	Facility	\$126,447	5	
Fire Station #80, Stanhope	Facility	\$34,355	14	

	Accessible Bathroom and Kitchen Upgrade	\$67,470	7	
	Addition	\$587,994	17	

B.3.4 Parks, Recreation and Trails Facilities

Asset	Component	CRV, Est. (2025)	Age (Years)	Lifecycle Activity, Estimate
Dorset Tower	Facility	-	-	Maintenance / Rehabilitation in 2026-30: \$500,000
	Radio Equipment Bunker	\$7,326	8	
	Gatehouse Solar	\$10,002	11	
	Addition of gate / cage at bottom of tower	\$12,994	5	
	Ticket Booth - Electrical Upgrades	\$7,490	2	
Trails Office	Facility	\$8,512	18	
	Frost Centre Property is leased to the Township for \$1. Foundation, decking and wall renovations	\$30,178	19	
	New propane furnace and woodstove	\$10,460	10	
Dorset Recreation Centre	Facility	\$822,423	9	Upgrade to HVAC in 2026: \$250,000
	Weight Room Renovation	\$26,183	8	
	Fire Alarm Panel replacement	\$6,718	5	
	Shingle replacement	\$30,779	5	
	Mould & HVAC	\$16,406	3	
Stanhope Library	Facility	\$260,055	49	
	Septic Bed Relocation/ Replacement	\$12,375	8	

	Roof replacement/ shingling	\$22,215	6	
	Window and Door Replacement	\$24,119	6	
	New Carpet	\$8,289	2	
	Lift Project	\$100,342	2	
Stanhope Heritage Museum	Facility	\$28,974	70	
Dorset Heritage Museum	Facility	\$564,589	17	
	Flat Roof Additions	\$59,268	14	
Elvin Johnson Park	Facility	\$-	40	
Shelter at Heritage Log Chute	Facility	\$46,312	20	
Oxtongue Community Centre	Facility	\$104,313	77	Rehabilitate in 2028: \$113,985
	Repoint Building, Stonework	\$12,911	9	
Oxtongue Community Centre Pavilion	Facility	\$83,985	6	
Stanhope Firefighters Community Centre	Facility	\$465,413	50	
	New Air Conditioning System and Unit	\$25,461	9	
	Foundation Sealing/Improvements	\$80,957	8	
	Propane Furnace	\$16,684	5	
Big East Lake	Public Launch	\$8,512	18	
Herb Lake	Public Launch	\$10,232	21	
Sherborne Lake	Public Launch	\$9,934	20	
Kennisis Dam	Public Launch	\$9,934	20	
Little Hawk Lake	Public Launch	\$11,842	23	
Big Hawk Lake	Public Launch	\$11,842	23	
Wren Lake	Public Launch	\$10,232	21	

Stanhope Tennis Court	Fence Replacement	\$6,986	4	
	Resurfacing	\$233,889	2	
Stanhope Park Playground	Safety Surfacing	\$8,594	2	
Dorset Skating Rink	Change Room	\$10,440	5	

B.3.5 Public Works Garages

Asset	Component	CRV, Est. (2025)	Age (Years)	Lifecycle Activity, Estimate
Dorset Garage - Kawagama Lake Road	Facility	\$1,280,341	10	
	New Well, Additional Building Costs	\$36,254	9	
	Facility	\$180,536	58	
Storage Building, Holding Yard - Kawagama Lake Road	Facility	\$1,836	75	Rehabilitate in 2030: \$2,128
Stanhope Garage	Facility	\$251,207	50	
Stanhope Equipment Garage	Facility	\$80,462	43	
Brine Storage Tanks	Facility	\$-	5	

Note, as of 2025 the Township is completing a new Public Works Garage which will be included as a new asset in this table, once commissioned.

B.3.6 Waste Management

Asset	Component	CRV, Est. (2025)	Age (Years)	Lifecycle Activity, Estimate
Dorset Waste Management Building	Facility	\$24,744	29	
Dorset Landfill - Attendant Station, Reuse Building	Facility	\$9,155	10	
Maple Lake Scale House	Facility	\$8,332	9	
Oxtongue Landfill	Power Source	\$11,255	5	

Lagoon	Facility	\$219,930	16	
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Table B.4: Asset Details - Land Improvements

Asset	CRV, Est. (2025)	Department	Age (Years)	Lifecycle Activity, Estimate
Administration Office Parking Lot Paving	\$14,713	Administration	7	Rehabilitate in 2033: \$18,638
Airport – Lot B Parking Lot Paving	\$7,686	Airport	9	Rehabilitate in 2031: \$9,178
Runway	\$858,058	Airport	14	Rehabilitate in 2026: \$883,800
Runway Lighting	\$6,592	Airport	5	Upgrade in 2026: \$100,000 & Rehabilitate in 2035: \$8,859
Airport Drainage	\$321,103	Airport	3	Post-2035
Airport – Parking Apron Paving	\$2,606,119	Airport	11	Rehabilitate in 2029: \$2,933,210
Airport Paving	\$111,612	Airport	10	Rehabilitate in 2030: \$129,389
Columbarium	\$27,215	Cemetery	3	
Dorset Scenic Tower	\$25,617	Parks, Recreation & Trails	11	Rehabilitate in 2029: \$28,832
Stanhope Park - Parking Lot Paving	\$153,541	Parks, Recreation & Trails	7	Rehabilitate in 2033: \$194,502
EV Charging Stations - Dorset Recreation Centre	\$193,979	Parks, Recreation & Trails	0	Post-2035
Bear Lake Launch	\$8,826	Parks, Recreation & Trails	16	Post-2035
Dorset Launch	\$8,826	Parks, Recreation & Trails	16	Post-2035
Trails Office Launch and Dock	\$49,220	Parks, Recreation & Trails	15	Rehabilitate in 2025: \$49,220
Otter Lake Launch	\$8,669	Parks, Recreation & Trails	11	Rehabilitate in 2029: \$9,757

New Boat Ramps	\$9,026	Parks, Recreation & Trails	10	Rehabilitate in 2030: \$10,463
Raven Lake Boat Launch	\$18,705	Parks, Recreation & Trails	9	Rehabilitate in 2031: \$22,334
Raven Lake Boat Launch - two new docks	\$22,432	Parks, Recreation & Trails	3	Post-2035
Kawagama Landing Boat Launch / Docks	\$47,237	Parks, Recreation & Trails	8	Rehabilitate in 2032: \$58,095
Little Hawk Boat Launch	\$13,565	Parks, Recreation & Trails	7	Rehabilitate in 2033: \$17,184
Clinto Lake Landing Dock Upgrade	\$238,681	Parks, Recreation & Trails	5	Rehabilitate in 2035: \$320,767
Hardwood Landing Dock Upgrade - continuation from 2018	\$4,373	Parks, Recreation & Trails	6	Rehabilitate in 2034: \$5,706
Stanhope Tennis Court	\$352,711	Parks, Recreation & Trails	15	Rehabilitate in 2025: \$352,711
Elvin Johnson Park Playground	\$47,095	Parks, Recreation & Trails	11	Rehabilitate in 2029: \$53,006
Stanhope Park - Accessible Park / Washrooms	\$30,113	Parks, Recreation & Trails	9	Rehabilitate in 2031: \$35,956
Swing Set / Safety Surface at Oxtongue Community Centre	\$20,951	Parks, Recreation & Trails	0	Post-2035
Repaving - Oxtongue Landfill	\$7,918	Waste Management	9	Rehabilitate in 2031: \$9,454
Fencing - McClintock Lagoon	\$31,677	Waste Management	6	Rehabilitate in 2034: \$41,331
Maple Lake Retaining Walls	\$31,374	Waste Management	13	Rehabilitate in 2027: \$33,285
Maple Lake Operations Centre Improvements	\$1,377,934	Waste Management	3	Post-2035

Table B.5: Asset Details - Fleet

Asset	Model/ Purchase Year	CRV, Est. (2025)	Department	Age (Years)	Lifecycle Activity, Estimate
Chevy Silverado - transferred to airport	2014	\$36,684	Airport	11	Replace in 2030: \$42,526
Snow Dogg Plow - for 2014 Silverado	2018	\$10,421	Airport	7	Replace in 2028: \$11,387
Chevrolet Equinox	2017	\$63,768	Building Dept	8	Replace in 2025: \$63,768 Replace in 2033: \$80,779
RAV 4	2023	\$47,831	Building Dept	2	Replace in 2031: \$57,112
Willys Jeep model BJ with Boyer Moder J133 Fire Pump & Utility Box Pkg., red	1980	\$22,690	Fire	45	-
22' Stanley Boat	1998	\$29,743	Fire	27	Replace in 2028: \$32,501
Chevrolet U-7927 Utility Contractor's body, model GM4, white	1999	\$-	Fire	26	-
Freightliner Fire Truck, model N10, red	2001	\$447,127	Fire	24	Post-2035
Yamaha ATV, model FM4, green	2003	\$-	Fire	22	-
Bombardier TRX, red	2003	\$20,062	Fire	22	Replace in 2033: \$25,413
International, model 705, red	2003	\$416,509	Fire	22	Post-2035
Skidoo Model SKANDIC, yellow	2003	\$17,099	Fire	22	Replace in 2033: \$21,661
Bombardier ATV, model Outlander, yellow	2004	\$18,612	Fire	21	Replace in 2034: \$24,285
20' Stanley Boat, License # 46E43552	2007	\$39,156	Fire	18	Replace in 2027: \$41,541
International - tanker	2010	\$410,136	Fire	15	Replace in 2030: \$475,461
International Mini Pumper	2010	\$431,096	Fire	15	Replace in 2030: \$499,758

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2014 GMC Sierra	2014	\$71,619	Fire	11	Replace in 2034: \$93,446
2016 Chevrolet Silverado	2016	\$66,288	Fire	9	Replace in 2026: \$68,276
Ford Rescue Unit (Unit 63)	2016	\$224,091	Fire	9	Replace in 2026: \$230,814
Ford Rescue Unit (Unit 71)	2016	\$224,091	Fire	9	Replace in 2026: \$230,814
12' Crossover	2017	\$15,474	Fire	8	Post-2035
GMC Sierra 2500 (Unit 1)	2019	\$67,651	Fire	6	Replace in 2029: \$76,142
Freightliner Fire Tanker	2019	\$450,301	Fire	6	Post-2035
HME Heavy Duty Mini EVO Pumper on F450	2021	\$417,170	Fire	4	Post-2035
RAV 4 SUV	2023	\$54,072	Fire	2	Replace in 2031: \$64,565
Pumper	2024	\$520,085	Fire	1	Post-2035
Kawasaki Mule - 50% trails	2017	\$7,479	Parks, Recreation & Trails	8	Replace in 2027: \$7,934
Legend Boat and 25hp Mercury Motor	2019	\$13,600	Parks, Recreation & Trails	6	Replace in 2027: \$14,429
SkiDoo Skandic SWT 900A	2021	\$21,900	Parks, Recreation & Trails	4	Replace in 2029: \$24,649
GMC Sierra 1500	2018	\$46,318	Parks, Recreation & Trails	7	Replace in 2026: \$47,708 & Replace in 2034: \$60,435
Chevrolet Silverado 1500	2020	\$91,083	Parks, Recreation & Trails	5	Replace in 2028: \$99,529
GMC Sierra 2500	2023	\$100,090	Parks, Recreation & Trails	2	Replace in 2031: \$119,512
GMC Sierra 1500	2023	\$136,842	Parks, Recreation & Trails	2	Replace in 2031: \$163,397
GMC Sierra 2500	2025	\$51,348	Parks, Recreation & Trails	0	Replace in 2033: \$65,046
Rental Canoe Algonquin 16 #182	2018	\$3,936	Parks, Recreation & Trails	7	Replace in 2026: \$4,054 &

					Replace in 2034: \$5,135
Rental Canoe Algonquin 16 #193	2019	\$3,821	Parks, Recreation & Trails	6	Replace in 2027: \$4,054 & Replace in 2035: \$5,135
Rental Canoe Algonquin 16 #173	2017	\$4,054	Parks, Recreation & Trails	8	Replace in 2025: \$4,054 & Replace in 2033: \$5,135
Rental Canoe Algonquin 16 #140	2014	\$4,430	Parks, Recreation & Trails	11	Replace in 2030: \$5,135
Rental Canoe Algonquin 16 #141	2014	\$4,430	Parks, Recreation & Trails	11	Replace in 2030: \$5,135
Rental Canoe Algonquin 16 #172	2017	\$4,054	Parks, Recreation & Trails	8	Replace in 2025: \$4,054 & Replace in 2033: \$5,135
Rental Canoe Algonquin 16 #162	2016	\$4,175	Parks, Recreation & Trails	9	Replace in 2032: \$5,135
Rental Canoe Algonquin 16 #144	2014	\$4,430	Parks, Recreation & Trails	11	Replace in 2030: \$5,135
Rental Canoe Algonquin 16 #112	2011	\$4,840	Parks, Recreation & Trails	14	Replace in 2027: \$5,135 & Replace in 2035: \$6,505
Rental Canoe Algonquin 16 #242	2024	\$3,296	Parks, Recreation & Trails	1	Replace in 2032: \$4,054
Rental Canoe Algonquin 16 #191	2019	\$3,821	Parks, Recreation & Trails	6	Replace in 2027: \$4,054 & Replace in 2035: \$5,135
Rental Canoe Algonquin 16 #161	2016	\$4,175	Parks, Recreation & Trails	9	Replace in 2032: \$5,135
Rental Canoe Algonquin 16 #115	2011	\$4,840	Parks, Recreation & Trails	14	Replace in 2027: \$5,135 & Replace in 2035: \$6,505
Rental Canoe Algonquin 16 #183	2018	\$3,936	Parks, Recreation & Trails	7	Replace in 2026: \$4,054 & Replace in 2034: \$5,135

Rental Canoe Algonquin 16 #241	2024	\$3,296	Parks, Recreation & Trails	1	Replace in 2032: \$4,054
Rental Canoe Algonquin 16 #231	2023	\$3,395	Parks, Recreation & Trails	2	Replace in 2031: \$4,054
Rental Canoe Algonquin 16 #223	2022	\$3,497	Parks, Recreation & Trails	3	Replace in 2030: \$4,054
Rental Canoe Algonquin 16 #163	2016	\$4,175	Parks, Recreation & Trails	9	Replace in 2032: \$5,135
Rental Canoe Algonquin 16 #192	2019	\$3,821	Parks, Recreation & Trails	6	Replace in 2027: \$4,054 & Replace in 2035: \$5,135
Rental Canoe Algonquin 16 #181	2018	\$3,936	Parks, Recreation & Trails	7	Replace in 2026: \$4,054 & Replace in 2034: \$5,135
Rental Canoe Prospector 17 #222	2022	\$3,606	Parks, Recreation & Trails	3	Replace in 2030: \$4,180
Rental Canoe Prospector 17 #243	2024	\$3,399	Parks, Recreation & Trails	1	Replace in 2032: \$4,180
Rental Canoe Prospector 17 #233	2023	\$3,501	Parks, Recreation & Trails	2	Replace in 2031: \$4,180
Rental Canoe Prospector 17 #232	2023	\$3,501	Parks, Recreation & Trails	2	Replace in 2031: \$4,180
Rental Canoe Prospector 17 #221	2022	\$3,606	Parks, Recreation & Trails	3	Replace in 2030: \$4,180
Rental Canoe Prospector 17 #212	2021	\$3,714	Parks, Recreation & Trails	4	Replace in 2029: \$4,180
Rental Canoe Prospector 17 #211	2021	\$3,714	Parks, Recreation & Trails	4	Replace in 2029: \$4,180
Work Canoe - Swift Kipawa, White #142, #SWI-C-7839-0614	2014	\$4,568	Parks, Recreation & Trails	11	Replace in 2034: \$5,960
Work Canoe - Algonquin 16' #154, White #SWI-C-7837- 0614	2015	\$4,301	Parks, Recreation & Trails	10	Replace in 2035: \$5,780
Work Canoe - Swift Prospector Red, #YYU-02089-G12	2021	\$3,714	Parks, Recreation & Trails	4	Replace in 2031: \$4,435

Work Canoe - Swift Dumoine Red, #SWI-C-10497-507	2017	\$4,180	Parks, Recreation & Trails	8	Replace in 2027: \$4,435
Work Canoe - Algonquin 16 #171, White #SWI-C-10535-517	2017	\$4,054	Parks, Recreation & Trails	8	Replace in 2027: \$4,301
Yellow Langford 15 Prospector # ZLD00307M03E	2003	\$6,132	Parks, Recreation & Trails	22	Replace in 2033: \$7,767
Western Star 1	2014	\$266,260	Roads	11	Replace in 2034: \$347,409
Western Star 2	2014	\$263,532	Roads	11	Replace in 2034: \$343,849
Chevy Silverado	2015	\$76,865	Roads	10	Replace in 2025: \$76,865 & Replace in 2035: \$103,301
Westernstar	2017	\$632,820	Roads	8	Replace in 2027: \$671,359
International	2018	\$290,438	Roads	7	Replace in 2028: \$317,370
Caterpillar Backhoe/Loader	2018	\$182,321	Roads	7	Replace in 2028: \$199,228
Chevy Silverado 2500	2018	\$126,617	Roads	7	Replace in 2028: \$138,358
Chevrolet Silverado 1500 (with cap)	2019	\$55,681	Roads	6	Replace in 2029: \$62,670
BWS 30 Ton Tag Equipment Trailer	2019	\$46,575	Roads	6	Post-2035
314DLCR Caterpillar Hydraulic Excavator	2019	\$329,850	Roads	6	Replace in 2034: \$430,379
Freightliner Tandem 114SD	2021	\$324,322	Roads	4	Replace in 2031: \$387,258
Dodge Ram 4500	2021	\$203,032	Roads	4	Replace in 2031: \$242,430
Chevrolet 2500	2021	\$-	Roads	4	-
Chevrolet Silverado 1500	2023	\$109,751	Roads	2	Replace in 2033: \$139,029

Spray Patcher, Trailer Mount	2024	\$133,899	Roads	1	Post-2035
Ford F550	2024	\$133,355	Roads	1	Post-2035
Catapillar Grader	2024	\$696,191	Roads	1	Post-2035
Freightliner Tandem	2024	\$418,107	Roads	1	Replace in 2034: \$545,535
Miska Trailer	2024	\$35,651	Roads	1	Post-2035

Table B.6: Asset Details - Machinery & Equipment

Asset	Model/ Purchase Year	CRV, Est. (2025)	Department	Age (Years)	Lifecycle Activity, Estimate
Stamford Generator, Mounted on trailer	1999	\$43,089	Administration	26	Post-2035
Asyst Accounting Software	2003	\$32,572	Administration	22	-
Council Chambers - AV Upgrades, Screen, Furniture	2017	\$7,377	Administration	8	Replace in 2027: \$7,826
Sharp Copier	2021	\$6,418	Administration	4	Replace in 2026: \$6,610 & Replace in 2031: \$7,663
Admin - Website Redesign Project	2023	\$-	Administration	2	-
Microsoft GP Dynamics Software - Central Square	2023	\$119,580	Administration	2	Replace in 2033: \$151,480
PSD Citywide Software	2024	\$20,858	Administration	1	Replace in 2034: \$27,215
Tablets	2023	\$5,796	Administration	2	Replace in 2033: \$7,343
Cloudpermit Software	2024	\$45,700	Administration	1	Replace in 2034: \$59,629
Server	2003	\$19,943	Administration	22	Replace in 2033: \$25,263

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AV Equipment	2021	\$21,397	Administration	4	Replace in 2026: \$22,039 & Replace in 2031: \$25,549
PSD CityWide Asset Mgmt Software	2023	\$19,162	Administration	2	Replace in 2033: \$24,274
Bang the Table Software	2021	\$8,590	Administration	4	Replace in 2026: \$8,848 & Replace in 2031: \$10,257
Laptops for Council and Staff	2023	\$8,283	Administration	2	Replace in 2033: \$10,493
New AH Website	2023	\$21,648	Administration	2	Replace in 2033: \$27,423
Back up Power Supply, Manual System	2005	\$9,934	Airport	20	Replace in 2035: \$13,350
Card Lock System	2012	\$37,922	Airport	13	Replace in 2027: \$40,231
Security Camera	2024	\$67,046	Airport	1	Post-2035
HONDA 6500 Generator, model EM6500S	2000	\$12,563	Fire	25	Replace in 2030: \$14,564
Portable Pump, 31 H.P. Vanguard Motor, CET - model DMD50G	2000	\$31,407	Fire	25	Replace in 2030: \$36,409
CTC 18 HP Pump with Briggs & Stratton Engine	2003	\$10,847	Fire	22	Replace in 2033: \$13,741
18 H.P. Vanguard Portable Pump, Model 350447	2003	\$9,772	Fire	22	Replace in 2033: \$12,379
140 H.P. Johnson Outboard Motor	2004	\$22,324	Fire	21	Replace in 2034: \$29,127
Motorola Console complete for one dispatch position	2006	\$10,414	Fire	19	Replace in 2026: \$10,726
MSA Thermal Imaging Camera	2006	\$30,950	Fire	19	Replace in 2026: \$31,879

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135 H.P. Evinrude Outboard Motor, model E135FSLSTA	2007	\$17,024	Fire	18	Replace in 2027: \$18,061
B & S Triple Pump Power Unit	2011	\$14,615	Fire	14	Replace in 2031: \$17,451
Kohler Pump	2011	\$10,236	Fire	14	Replace in 2031: \$12,222
4 Wheeler Stan hope	2012	\$14,552	Fire	13	Replace in 2032: \$17,897
4 Wheeler Dorset	2012	\$14,552	Fire	13	Replace in 2032: \$17,897
Dorset Marine Unit Refurb	2013	\$25,339	Fire	12	Replace in 2033: \$32,098
Hurst Spreader	2013	\$26,667	Fire	12	Replace in 2033: \$33,781
Two (2) Motorola Repeater with Battery Backup and Booster Kits	2016	\$62,805	Fire	9	Replace in 2026: \$64,689
Motorola Radios, Repeater, Radio Equipment (in bunker)	2017	\$25,390	Fire	8	Replace in 2027: \$26,936
Radios and Base Stations - all departments	2017	\$25,931	Fire	8	Replace in 2027: \$27,510
Repeater	2018	\$7,933	Fire	7	Replace in 2028: \$8,669
Radios and GPS Equipment - all departments	2018	\$10,834	Fire	7	Replace in 2028: \$11,839
SCBA Equipment	2021	\$414,623	Fire	4	Replace in 2031: \$495,081
Fill Station	2021	\$84,333	Fire	4	Replace in 2031: \$100,698
Fit Tester	2021	\$6,520	Fire	4	Replace in 2031: \$7,785
Fire Hose	2021	\$11,798	Fire	4	Replace in 2031: \$14,087

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Extracation Equipment	2021	\$116,777	Fire	4	Replace in 2031: \$139,437
Dehumidifier w/pump	2021	\$8,797	Fire	4	Replace in 2031: \$10,504
Zodiak	2023	\$8,545	Fire	2	Replace in 2033: \$10,824
ATV	2023	\$31,995	Fire	2	Replace in 2033: \$40,531
Rapid Deployment Boat	2023	\$4,669	Fire	2	Replace in 2033: \$5,915
AC Cooling Unit	2023	\$5,786	Fire	2	Replace in 2033: \$7,330
Forest Fire Gear	2023	\$17,621	Fire	2	Replace in 2033: \$22,322
Wildfire Nozzles & Accessories	2024	\$52,868	Fire	1	Post-2035
Lockers	2024	\$16,138	Fire	1	Post-2035
Technical Rescue Equipment	2024	\$10,119	Fire	1	Post-2035
Fire Station Washing Machine	2025	\$21,115	Fire	0	Replace in 2035: \$28,377
Water Systems - OXTCC0, Tower, Dorset Museum, Airport, Dorset Rec Centre	2015	\$29,115	Generators & Water	10	Replace in 2027: \$30,888
Stanhope Municipal Complex - Water System Upgrade	2017	\$6,834	Generators & Water	8	Replace in 2027: \$7,250
Generators	2010	\$340,208	Generators & Water	15	Replace in 2025: \$340,208
Generator Replacements	2023	\$19,981	Generators & Water	2	Post-2035
Chain Link Fence, Dorset Rink	2002	\$18,181	Parks, Recreation & Trails	23	Replace in 2027: \$19,288
Ski Trail Groomer - Ginzugroomer/Trac ksetter	2010	\$8,000	Parks, Recreation & Trails	15	Replace in 2030: \$9,274

Portable Toilet	2013	\$11,191	Parks, Recreation & Trails	12	Replace in 2033: \$14,176
Dorset Tower Vault Privies (4)	2013	\$16,000	Parks, Recreation & Trails	12	Replace in 2033: \$20,268
Elvin Johnson Park – Zipline and Tree House	2014	\$20,454	Parks, Recreation & Trails	11	Replace in 2029: \$23,021
Trail Counters & System	2015	\$11,410	Parks, Recreation & Trails	10	Replace in 2035: \$15,334
Elvin Johnson Park – Signage, Kiosk Panels, Highway Billboards	2015	\$9,754	Parks, Recreation & Trails	10	Replace in 2035: \$13,108
Elvin Johnson Park – Playground Equipment	2015	\$20,799	Parks, Recreation & Trails	10	Replace in 2030: \$24,112
Web Cameras - Airport and Dorset Tower	2016	\$11,718	Parks, Recreation & Trails	9	Replace in 2030: \$13,584
Stanhope Park Playground Equipment, 1095 North Shore Rd.	2017	\$85,457	Parks, Recreation & Trails	8	Post-2035
Dorset Recreation Centre - Fitness Equipment	2017	\$26,743	Parks, Recreation & Trails	8	Replace in 2029: \$30,099 & Replace in 2035: \$35,940
Dorset Recreation Centre - Fitness Equipment	2019	\$58,923	Parks, Recreation & Trails	6	Replace in 2026: \$60,690 & Replace in 2033: \$74,641
Kubota Mower	2021	\$76,582	Parks, Recreation & Trails	4	Post-2035
Kubota Tractor	2021	\$13,341	Parks, Recreation & Trails	4	Replace in 2031: \$15,930
Boat Motor	2023	\$6,031	Parks, Recreation & Trails	2	Replace in 2033: \$7,640
Ski Trail Groomer - Drag - Black Custom Built by	2023	\$3,360	Parks, Recreation & Trails	2	Replace in 2033: \$4,256

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Bracebridge Machine					
Tractor	2023	\$22,052	Parks, Recreation & Trails	2	Replace in 2033: \$27,935
Lawn Tractor & Cab	2024	\$27,551	Parks, Recreation & Trails	1	Post-2035
Park Lighting	2024	\$35,431	Parks, Recreation & Trails	1	Post-2035
Steamer	1900	\$-	Public Works	125	-
Steamer, Model "A"	1979	\$-	Public Works	46	-
John Deere Lawn Tractor, LX 188	1995	\$14,564	Public Works	30	Replace in 2025: \$14,564 & Replace in 2035: \$19,572
Bush Hog, model SM60	2005	\$14,449	Public Works	20	Replace in 2025: \$14,449 & Replace in 2035: \$19,418
John Deere Lawn Tractor, LX 289	2005	\$11,216	Public Works	20	Replace in 2025: \$11,216 & Replace in 2035: \$15,073
Motorola MTR 2000 repeater, complete with battery back up system at Dorset Lookout Tower. Complete reprogramming of radio fleet	2007	\$23,886	Public Works	18	Replace in 2027: \$25,340 & Replace in 2032: \$29,376
Tractor with blower	2010	\$16,490	Public Works	15	Replace in 2030: \$19,116
John Deer Tractor with plow & deck	2011	\$13,913	Public Works	14	Replace in 2031: \$16,613
Meyer Plow	2011	\$11,632	Public Works	14	Replace in 2031: \$13,889
New Holland Tractor	2012	\$324,496	Public Works	13	Replace in 2032: \$399,089
Thompson Steamer	2015	\$32,521	Public Works	10	Post-2035

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LED Street Lights	2015	\$59,089	Public Works	10	Replace in 2030: \$68,500
Unleaded Fuel Tank (at Airport)	2016	\$12,099	Public Works	9	Replace in 2031: \$14,447
Hopper Salt/Sand Spreader	2017	\$17,261	Public Works	8	Replace in 2025: \$17,261 & Replace in 2033: \$21,865
Spray Patcher, Trailer Mount	2017	\$124,623	Public Works	8	Replace in 2027: \$132,213
Plow - for Grader	2018	\$14,827	Public Works	7	Replace in 2028: \$16,202
Snyder Water Tank (for back of tandem trucks)	2019	\$5,970	Public Works	6	Post-2035
Catapillar Backhoe 420-07	2021	\$180,078	Public Works	4	Post-2035
Cardlock System	2021	\$21,514	Public Works	4	Replace in 2031: \$25,688
Win-Fuel System (Hardware)	2021	\$6,620	Public Works	4	Replace in 2031: \$7,905
Win-Fuel Software	2021	\$17,020	Public Works	4	Replace in 2031: \$20,323
Flailhead	2021	\$30,799	Public Works	4	Replace in 2031: \$36,776
AVL Equipment	2023	\$13,348	Public Works	2	Replace in 2033: \$16,908
Security Camera	2024	\$13,094	Public Works	1	Post-2035
40 yard Recycle Bins, Open Bin	2007	\$13,705	Waste Management	18	Replace in 2027: \$14,539
40 yard Recycling Bin	2011	\$18,455	Waste Management	14	Replace in 2031: \$22,036
Recycling Bins	2012	\$36,762	Waste Management	13	Replace in 2032: \$45,212
Gates and Lagoon	2014	\$14,491	Waste Management	11	Replace in 2029: \$16,310
Waste Compactors - Dorset Landfill	2015	\$299,156	Waste Management	10	Replace in 2025: \$299,156

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					& Replace in 2035: \$402,040
Solar Panels - Dorset Transfer Station	2017	\$11,691	Waste Management	8	Replace in 2027: \$12,403
Waste Container	2018	\$8,987	Waste Management	7	Replace in 2028: \$9,821
Waste Container with Cover	2019	\$26,712	Waste Management	6	Replace in 2029: \$30,065
Deep Cycle Battery Bank - Dorset Landfill	2019	\$7,458	Waste Management	6	Replace in 2029: \$8,394 & Replace in 2034: \$9,731
Bear Bins (2)	2021	\$24,944	Waste Management	4	Replace in 2031: \$29,785
Blocks for bunkers	2024	\$5,738	Waste Management	1	Post-2035
Roll Off Bins Roll-off cover	2024	\$19,330	Waste Management	1	Post-2035

Appendix C: Image Descriptions

The following descriptions are provided for accessibility purposes, to describe the images and figures that appear throughout this Asset Management Plan in text format.

Figure 1: Asset Portfolio by Current Replacement Value

The figure is a donut chart illustrating the distribution of the Township of Algonquin Highlands' total asset portfolio by current replacement value for the year 2025. The chart is divided into six asset categories, each showing its estimated replacement value in millions of dollars (M) and corresponding percentage of the total portfolio.

- **Road Network:** \$34.47 million, representing **44.92%** of total replacement value.
- **Facilities:** \$11.8 million, representing **15.37%**.
- **Bridges and Culverts:** \$10.73 million, representing **13.98%**.
- **Fleet:** \$9.05 million, representing **11.79%**.
- **Land Improvements:** \$6.66 million, representing **8.67%**.
- **Machinery and Equipment:** \$4.04 million, representing **5.27%**.

The largest portion of the Township's asset portfolio is the Road Network, followed by Facilities and Bridges & Culverts. The smallest share is attributed to Machinery and Equipment.

Figure 2: Asset Portfolio Condition, Township of Algonquin Highlands, 2025

The figure is a horizontal stacked bar chart showing the 2025 condition distribution of the Township of Algonquin Highlands' asset portfolio across six major asset categories. Each bar represents the proportion of assets in five condition ratings: **Very Good**, **Good**, **Fair**, **Poor**, and **Very Poor**.

Asset Condition Summary (by Asset Class)

Asset Class	Very Good	Good	Fair	Poor	Very Poor
Road Network	39%	30%	20%	7%	4%
Facilities	42%	31%	1%	10%	16%
Bridges & Culverts	33%	67%	0%	0%	0%
Fleet	32%	16%	19%	13%	19%
Land Improvements	30%	7%	44%	13%	6%
Machinery & Equipment	22%	22%	6%	11%	39%

Overall, the chart indicates that the **Road Network**, **Facilities** and **Bridges & Culverts** assets are in relatively good condition, while **Fleet** and **Machinery & Equipment** show the highest proportions of assets in **Poor** or **Very Poor** condition.

Figure 1.1: Algonquin Highlands Population Trends, 2001-2021

The figure is a combination chart showing population trends in the Township of Algonquin Highlands between 2001 and 2021. The chart includes green and yellow bars representing percentage population change for Algonquin Highlands and Ontario respectively, along with an orange line showing Algonquin Highlands' total population.

- **2001:** Population of **1,827**; Algonquin Highlands' population change approximately **8.3%**, Ontario population change approximately **6.1%**.
- **2006:** Population of **1,976**; Algonquin Highlands' population change approximately **8.2%**, Ontario population change approximately **6.6%**.
- **2011:** Population of **2,186**; Algonquin Highlands' population change approximately **10.6%**, Ontario population change approximately **5.7%**.
- **2016:** Population of **2,351**; Algonquin Highlands' population change approximately **7.5%**, Ontario population change approximately **4.6%**.
- **2021:** Population of **2,588**; Algonquin Highlands' population change approximately **10.1%**, Ontario population change approximately **5.8%**.

Overall, the chart indicates that the Township of Algonquin Highlands experienced steady population growth across all five census periods, with higher growth rates than the provincial average from 2001 to 2021.

Figure 2.1: Asset Portfolio by Current Replacement Value

The figure is a stacked bar chart illustrating the distribution of the Township of Algonquin Highlands' total asset portfolio by current replacement value for the year 2025. The chart is divided into six asset classes, each represented by a distinct color and labeled with its estimated replacement value in millions of dollars (M). The total replacement value for all assets is \$76.7 million.

- **Road Network:** \$34.5 million
- **Facilities:** \$11.8 million
- **Bridges & Culverts:** \$10.7 million
- **Fleet:** \$9.0 million
- **Land Improvements:** \$6.7 million
- **Machinery & Equipment:** \$4.0 million

The largest portion of the Township's asset portfolio is the **Road Network**, while the smallest share is **Machinery & Equipment**. The visual emphasizes the relative proportion of each asset class contributing to the Township's overall asset base in 2025.

Figure 2.2: Asset Portfolio Condition

The figure is a horizontal stacked bar chart showing the 2025 condition distribution of the Township of Algonquin Highlands' asset portfolio across six major asset categories. Each bar represents the proportion of assets in five condition ratings: Very Good, Good, Fair, Poor, and Very Poor.

Asset Condition Summary (by Asset Class)

Asset Class	Very Good	Good	Fair	Poor	Very Poor	Total
Road Network	\$13.5M	\$10.2M	\$6.8M	\$2.5M	\$1.5M	\$34.47M
Facilities	\$5.0M	\$3.6M	\$0.2M	\$1.1M	\$1.9M	\$11.80M
Bridges & Culverts	\$3.5M	\$7.2M				\$10.73M
Fleet	\$2.9M	\$1.4M	\$1.8M	\$1.2M	\$1.7M	\$9.05M
Land Improvements	\$2.0M	\$0.4M	\$2.9M	\$0.9M	\$0.4M	\$6.66M
Machinery & Equipment	\$0.9M	\$0.9M	\$0.2M	\$0.4M	\$1.6M	\$4.04M

Bridges & Culverts are in the best overall condition, with all assets rated Good or Very Good. Road Network has the largest value in Very Good condition.

Figure 3.1: Asset Condition - Roads

The figure is a horizontal stacked bar chart showing the 2025 condition distribution of the Township of Algonquin Highlands' road network by surface type. Each bar represents the proportion of road assets in four condition ratings: Very Good (dark green), Good (light green), Fair (yellow), and Very Poor (red).

Road Condition Summary (by Surface Type)

Surface Type	Very Good	Good	Fair	Poor	Very Poor	Total
Gravel	\$2.7M	\$3.1M	\$1.4M	\$1.5M	\$1.2M	\$10M
Surface Treated	\$10.8M	\$7.0M	\$5.3M	\$1.0M	\$0.3M	\$24.47M

Surface Treated roads represent most of the road network by value at \$24.47M, with most assets (\$10.8M) in Very Good condition, though \$0.3M are in Very Poor condition requiring replacement. Gravel roads total \$10M, with the \$7.2M in Fair or better condition.

Figure 4.1: Asset Condition – Bridges and Culverts

The figure is a horizontal stacked bar chart showing the 2025 condition distribution of the Township of Algonquin Highlands' bridges and culverts by structure type. Each bar represents the proportion of assets in two condition ratings: Very Good (dark green) and Good (light green).

Bridges & Culverts Condition Summary (by Structure Type)

Structure Type	Very Good	Good	Fair	Poor	Very Poor	Total
Bridge	\$3.5M	\$6.5M				\$10.07M
Culvert		\$0.7M				\$0.66M

Bridges represent most of the asset value at \$10.07M, with \$3.5M in Very Good condition and \$6.5M in Good condition. Culverts total \$0.66M, with \$0.7M in Good condition. All bridges and culverts are rated Good or Very Good, indicating this asset class is in excellent overall condition with no immediate replacement needs.

Figure 5.1: Asset Condition - Facilities

The figure is a horizontal stacked bar chart showing the 2025 condition distribution of the Township of Algonquin Highlands' facilities by facility type. Each bar represents the proportion of assets in five condition ratings: Very Good (dark green), Good (light green), Fair (yellow), Poor (red), and Very Poor (dark red).

Facilities Condition Summary (by Department)

Facility Type	Very Good	Good	Fair	Poor	Very Poor	Total
Administration	\$1.1M			\$0.7M		\$1.84M
Airport Facilities	\$0.2M	\$2.6M	\$0.1M	\$0.4M	\$0.2M	\$3.46M
Fire Station	\$0.2M	\$0.6M			\$0.3M	\$1.16M
Parks, Recreation & Trails Facilities	\$2.2M	\$0.2M			\$0.8M	\$3.23M
Public Works & Garage	\$1.3M				\$0.5M	\$1.83M
Waste Management		\$0.2M				\$0.27M

Airport Facilities represent the largest facility value at \$3.46M, predominantly in Good condition. Parks, Recreation & Trails Facilities total \$3.23M with most assets in Very Good condition, though \$0.8M are in Very Poor condition. Administration and Public Works & Garage facilities show mixed conditions with portions in Poor condition requiring attention.

Figure 6.1: Asset Condition – Land Improvements

The figure is a horizontal stacked bar chart showing the 2025 condition distribution of the Township of Algonquin Highlands' land improvements by facility type. Each bar represents the proportion of assets in five condition ratings: Very Good (dark green), Good (light green), Fair (yellow), Poor (red), and Very Poor (dark red).

Land Improvements Condition Summary (by Department)

Facility Type	Very Good	Good	Fair	Poor	Very Poor	Total
Administration		\$0.01M				\$0.01M
Airport	\$0.3M		\$2.7M	\$0.9M		\$3.91M
Cemetery	\$0.03M					\$0.03M
Parks, Recreation & Trails	\$0.2M	\$0.4M	\$0.2M		\$0.4M	\$1.25M
Waste Management	\$1.4M					\$1.45M

Airport land improvements represent the largest value at \$3.91M, with the majority (\$2.7M) in Fair condition and \$0.9M in Poor condition requiring replacement. Waste Management land improvements total \$1.45M, predominantly in Very Good condition. Parks, Recreation & Trails land improvements show mixed conditions across all rating categories, totaling \$1.25M.

Figure 7.1: Asset Condition – Fleet

The figure is a horizontal stacked bar chart showing the 2025 condition distribution of the Township of Algonquin Highlands' fleet by department. Each bar represents the proportion of fleet assets in five condition ratings: Very Good (dark green), Good (light green), Fair (yellow), Poor (red), and Very Poor (dark red).

Fleet Condition Summary (by Department)

Department	Very Good	Good	Fair	Poor	Very Poor	Total
Airport			\$0.01M		\$0.04M	\$0.05M
Building Dept	\$0.05M				\$0.06M	\$0.11M
Fire	\$1.0M	\$0.5M	\$1.0M	\$0.5M	\$1.0M	\$3.96M
Parks, Recreation & Trails	\$0.3M		\$0.1M	\$0.1M	\$0.1M	\$0.60M
Roads	\$1.5M	\$0.9M	\$0.7M	\$0.6M	\$0.6M	\$4.33M

Roads fleet represents the largest value at \$4.33M, with assets distributed across all condition ratings. Fire fleet totals \$3.96M, showing significant portions in both Very Good condition (\$1.0M) and Very Poor condition (\$1.0M), indicating mixed renewal needs.

Figure 8.1: Asset Condition - Machinery & Equipment

The figure is a horizontal stacked bar chart showing the 2025 condition distribution of the Township of Algonquin Highlands' machinery and equipment by department. Each bar represents the proportion of assets in five condition ratings: Very Good (dark green), Good (light green), Fair (yellow), Poor (orange), and Very Poor (red).

Machinery & Equipment Condition Summary (by Department)

Department	Very Good	Good	Fair	Poor	Very Poor	Total
Administration	\$0.2M			\$0.05M	\$0.1M	\$0.39M
Airport	\$0.1M			\$0.04M	\$0.01M	\$0.11M
Fire	\$0.2M	\$0.6M		\$0.1M	\$0.3M	\$1.20M
Generators & Water	\$0.02M			\$0.04M	\$0.34M	\$0.40M
Parks, Recreation & Trails	\$0.2M	\$0.1M	\$0.1M	\$0.1M		\$0.48M
Public Works	\$0.2M	\$0.1M	\$0.1M	\$0.1M	\$0.4M	\$0.98M
Waste Management	\$0.03M	\$0.02M	\$0.05M	\$0.01M	\$0.38M	\$0.49M

Fire department machinery and equipment represent the largest investment at \$1.20M, with the majority (\$0.64M) in Good condition. Public Works totals \$0.98M with \$0.45M in Very Poor condition requiring replacement. Waste Management and Generators & Water equipment show significant portions in Very Poor condition, indicating urgent renewal needs. Overall, this asset class shows the most diverse condition distribution with substantial investments needed across multiple departments.

Figure 9.1: 10-Year Capital Needs Projection

The figure is a vertical stacked bar chart showing the Township of Algonquin Highlands' projected capital needs from 2026 to 2035 across six asset classes. Stacked bottom to top, the classes are: Bridges & Culverts (shown in mauve), Facilities (green), Fleet (tan), Land Improvements (light blue), Machinery & Equipment (purple), and Roads (yellow).

Capital Needs Projection Summary (by Year and Asset Class)

Year	Bridges & Culverts	Facilities	Fleet	Land Improvements	Machinery & Equipment	Roads	Total
2026	\$0.1M	\$1.6M	\$0.6M	\$0.3M	\$0.2M	\$3.8M	\$6.525M
2027	\$0.1M	\$0.3M	\$0.8M	\$0.1M	\$0.4M	\$2.4M	\$4.096M
2028	\$0.1M	\$0.5M	\$0.8M	\$0.1M	\$0.0M	\$0.7M	\$2.295M
2029	\$0.1M	\$0.4M	\$0.2M	\$0.1M	\$0.1M	\$0.7M	\$1.665M
2030	\$0.1M	\$6.4M	\$1.0M	\$0.1M	\$0.2M	\$0.7M	\$8.560M
2031	\$0.1M	\$0.3M	\$1.1M	\$0.1M	\$1.0M	\$0.7M	\$3.352M
2032	\$0.1M	\$0.3M	\$0.0M	\$0.2M	\$0.5M	\$0.7M	\$1.832M
2033	\$0.1M	\$0.3M	\$0.3M	\$0.2M	\$0.6M	\$0.8M	\$2.338M
2034	\$0.1M	\$0.3M	\$1.9M	\$0.2M	\$0.1M	\$0.8M	\$3.366M
2035	\$0.1M	\$0.3M	\$0.2M	\$0.2M	\$0.6M	\$0.8M	\$2.142M

The highest capital investment is projected for 2030 at \$8.560M, driven primarily by Facilities needs (\$6.4M). The second highest year is 2026 at \$6.525M, with significant Road (\$3.8M) and Facilities (\$1.6M) investments. Land Improvements and Bridges & Culverts show consistent replacement needs throughout the 10-year period.