THE TOWNSHIP OF SOUTH ALGONQUIN

7 Third Avenue
Whitney, Ontario

AGENDA

ASSET MANAGEMENT COMMITTEE MEETING
June 26, 2023 9:00 a.m.

Council Chambers
Municipal Office
7 Third Avenue
Whitney, Ontario

And ZOOM and livestreamed to You Tube Channel: South Algonquin Council

Open Meeting/Call to order-9:00 a.m.

1. Land Acknowledgement

We acknowledge that we are gathered on the unceded Traditional Territory of the Algonquin Anishinaabeg people, specifically the Matouweskarini (people of the Madawaska River). We further acknowledge that the Algonquin People have been stewards of this land since time immemorial and we strive to treat the land along with the flora and fauna it supports, the people, their customs and traditions, with honour and respect. Today, this area is home to people of all walks of life, and we acknowledge the shared opportunities and responsibilities to live, work and survive within this beautiful territory. Chi-miigwetch, All my relations

2. Additions / Amendments to the Agenda

3. Adoption of the Agenda
    - Darla Campbell and Liza Guilbeau Dillion Consulting -Presentation of Asset Management Plan

4. Disclosure of Pecuniary Interest

5. Unfinished Business

6. New Business
    - Galeairy Lake Boat Launch
    - Overnight Camping & Litter on Municipal Property
    - Recreation Plan
    - Playground Inspection
    - Level of Service for Road Maintenance Policy
    - All Terrain Vehicle By-Law
    - Office Closure July 7th - Generator Hookup.
    - Major Lake Road Bridge Closure - Inspection July 12th 10:00 a.m. until 3:00 p.m.
    - Good Samaritan – Accident Highway 523
    - Railway Bed Petition

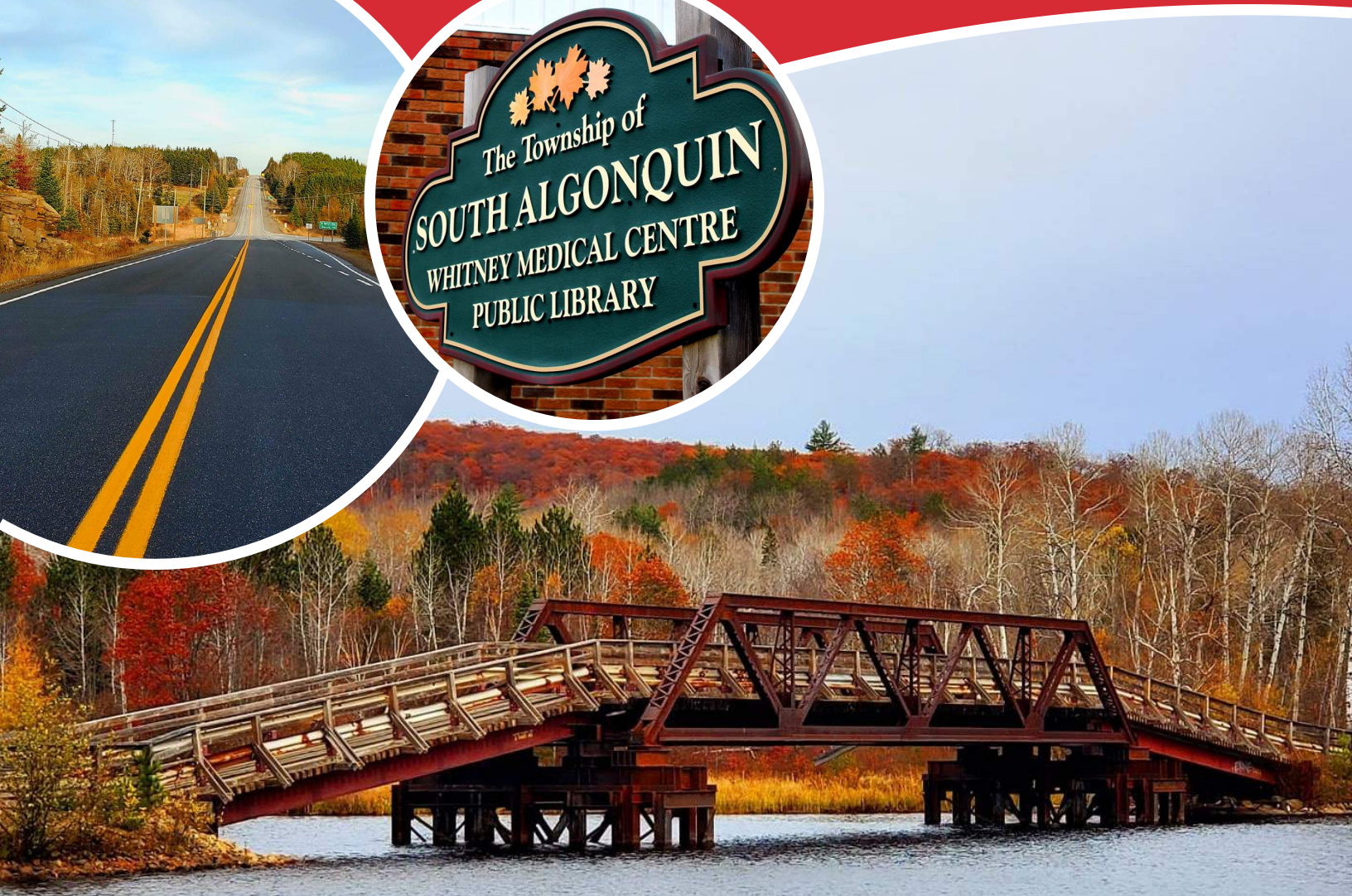
7. Adjournment

NOTE: Submissions received from the public, either orally or in writing, may become part of the public record.
There may be limited capacity in the Council Chambers.

THE TOWNSHIP OF
SOUTH ALGONQUIN

ASSET MANAGEMENT PLAN

2022



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Acronyms, Abbreviations, Definitions

An abbreviation and an acronym are both shortened versions of something else. Both can often be represented as a series of letters. Many people are unable to tell the difference between an abbreviation and an acronym.

°C	degrees Celsius
a.m.	ante meridiem
AADT	average annual daily traffic
ALOS	Asset Level of Service
AM	Asset Management
AMP	Asset Management Plan
AODA	Accessibility for Ontarians with Disabilities Act
BCI	Bridge Condition Index
Bldg	Building
C	climate change factor
CAO	Chief Administrative Officer
CDN	Canadian Dollars
CLOS	Community Level of Service
Corp	Corporation
CSA	Canadian Standards Association
CSP	Corrugated Steel Pipe
DMI	Distress Manifestation Index
e.g.	exempli gratia (for example)

ES	Executive Summary
etc.	etcetera (and so forth)
FCM	Federation of Canadian Municipalities
HCB	High Class Bituminous
i.e.	id est (that is)
ID	identification
IT	Information Technology
km	kilometre
KPI	key performance indicator
LCB	Low Class Bituminous
LED	light-emitting diode
LOS	Level of Service
Ltd.	Limited
m	metre
M	million
m^2	square metre
Maint	maintenance
Max	maximum
Min	minimum
MOE	Ministry of the Environment
MTO	Ontario Ministry of Transportation
N	North

N/A	Not Applicable
No.	number
O & M	Operations and Maintenance
O. Reg.	Ontario Regulation
OSIM	Ontario Structure Inspection Manual
PCI	Pavement Condition Index
p.m.	post meridiem
PW	Public Works
Qty	quantity
RCR	Ride Comfort Index
Reconst	reconstruction
Rehab	rehabilitation
St	street
sq.	square

Executive Summary

The Township of South Algonquin (Township or South Algonquin) is updating its 2013 Asset Management Plan (AMP) in alignment with O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure and the Township's Strategic Asset Management Policy (FIN-003-00).

The AMP documents South Algonquin's assets and strategies based on known information at the time of writing the report. This plan is a snapshot of a period as of December 2022. Assets will continue to deteriorate and investments will be required to improve the condition and extend the useful life of the infrastructure, to meet the "fit for purpose" measure of the assets in delivery of the services and meeting (or moving towards) the proposed LOS established by the Township.

Overview of the AMP

The Introduction (**Section 1.0**) presents an overview of key concepts of asset management such as the State of Local Infrastructure, Levels of Service, Risk Assessment, and concludes with a Roadmap with Next Steps.

This is followed by a section on Growth within the Township (**Section 1.7**).

The core assets included in the AMP are:

- Roads (**Section 2.0**); and
- Bridges and Culverts (**Section 3.0**)

The non-core assets included in the AMP are:

- Solid Waste (**Section 4.0**);
- Fleet and Equipment (**Section 5.0**);
- Buildings and Facilities (**Section 6.0**); and
- Parks and Land (**Section 7.0**)

The final chapter is the Financial Strategy (**Section 7.0**).

Policy Alignment

This asset management plan was developed in alignment with the Township's Strategic Asset Management Policy (FIN-003-00).

The purpose of the Townships policy is to provide leadership in and commitment to the development and implementation of the Municipality's asset management program. It is intended to guide the consistent use of asset management across the organization, to facilitate logical and evidence-based decision-making for the management of municipal infrastructure assets and to support the delivery of sustainable community services now and in the future.

By using sound asset management practices, the Municipality will work to ensure that all municipal infrastructure assets meet expected performance levels and continue to provide desired service levels in the most efficient and effective manner. Linking service outcomes to infrastructure investment decisions will assist the Municipality in focusing on service, rather than budget, driven asset management approaches.

Within the policy the Township states the importance of strategic alignment with other planning documents at the Township, namely the Township of South Algonquins Official Plan, and the Township of South Algonquin's Strategic Plan. These plans were designed to meet the legislative requirements and work together to achieve the Township's mission of providing innovation and excellence in service delivery. These plans will be reviewed regularly by staff and annual spending requirements in support of the plans' objectives will be incorporated into the budgeting process. All of the Township's plans rely to some extent on the physical assets owned by the Township and the commitment of staff to ensure their strategic use. This includes the long-term maintenance, repair, and replacement of existing assets along with the acquisition of new assets to meet the evolving needs in the Township.

Stakeholder Engagement: As established in the policy, the Township recognizes the importance of stakeholder engagement as an integral component of a comprehensive asset management approach. The Township commit to provide opportunities for residents and other stakeholders serviced by the Township to provide input into asset management planning.

This was achieved through workshops with staff and a public engagement on-line survey on LOS.

Regulatory Alignment

The 2023 AMP is an update to the 2013 AMP which was in alignment with the new regulation, **O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure**. The regulation requires the following four phases of compliance:

1. By July 2019: Municipalities to have a strategic asset management policy.
2. By July 2022: All core assets to be covered in the asset management plan with current LOS. Core assets include water, wastewater, stormwater, roads and bridges/culverts.
3. By July 2024: All assets owned by the municipality to be covered in the AMP. Non-core assets include buildings, fleet and equipment as well as green infrastructure assets.
4. By July 2025: Municipalities will have approved proposed LOS and the lifecycle management and financial strategy for ten-year period to achieve the proposed LOS.

The current edition of the AMP meets Phase 3 requirements with the exception of natural assets.

Inclusion of all assets owned by the Township provides an overview of what is needed to continue to deliver the services required of the community in the future. The asset management plan identifies the required investments to maintain service delivery for the next 10 years. The plan will be updated on an ongoing basis with the availability of new information and the regulation requires annual reporting to Council on the progress (and barriers) to implementing the AMP.

Roadmap with Next Steps

Next Steps – Regulatory Compliance

Future updates would include more robust financial strategy to meet phase 4 requirements. This will be supported by the implementation of new asset management software (TownSuite) currently underway.

The next update would also include green infrastructure assets (i.e. natural assets) owned by the Township and further assessment on infrastructure vulnerability to the impacts of climate change related to operations, levels of service and lifecycle management.

Next Steps – Recommendations in AMP 2022

Recommendations – Regulatory

In future updates of this report a recommendation to the Township would be to implement a Building Condition Assessment program for all their Building and Facilities assets. As well, the Parks and Lands asset category has several buildings (privy's and changing facilities) that have been updated or added to the inventory since the previous Asset Management Plan done in 2013. A full condition assessment (which would include the breakdown of each building and facility by overall components) of the entirety of the buildings owned by the Township would allow a more comprehensive cost breakdown for planning and maintenance activities and would ensure the whole of these asset categories has been captured. Given the complicated nature of assessing these buildings from a component stand point and the time commitment needed in this assessment, it is recommended the Township has a third party to facilitate this work.

The Township should also investigate the potential closure costs for each of their Solid Waste sites to ensure future planning for these costs can be considered.

Recommendations – Continuous Improvement

A full inventory of the assets owned by the Township should be undertaken as there are still some unknowns with respect to the final inventory counts and asset IDs. Having the Townsuite system online now the Township should find this task more manageable and straightforward.

State of Local Infrastructure

Each section on the State of Local Infrastructure sets out:

i. a summary of the assets in the category;
ii. the replacement cost of the assets in the category;
iii. the average age of the assets in the category, determined by assessing the average age of the components of the assets;

iv. the information available on the condition of the assets in the category; and
v. a description of the Townships approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate.

The Township delivers services that require ownership of infrastructure in the following assets categories:

- Roads;
- Bridges and Culverts;
- Solid Waste;
- Fleet and Equipment;
- Buildings and Facilities; and
- Parks and Lands.

Each service area is presented in a separate chapter that follows this format:

- Summary;
- Average Age;
- Replacement Cost;
- Condition;
- LOS; and
- Performance.

Asset Inventory

South Algonquin maintains databases of their assets including detailed attributes of the assets. The inventory was compiled prior to initiation of this work and updated throughout the work as needed, and was provided by South Algonquin. The inventory data is currently being transferred to the fully integrated cloud based Townsuite municipal software system from the OGRA system. We are currently using outputs from the Townsuite system and excel files for inventory tracking purposes. The inventory includes assets that are owned by South Algonquin that provide services in the following asset categories:

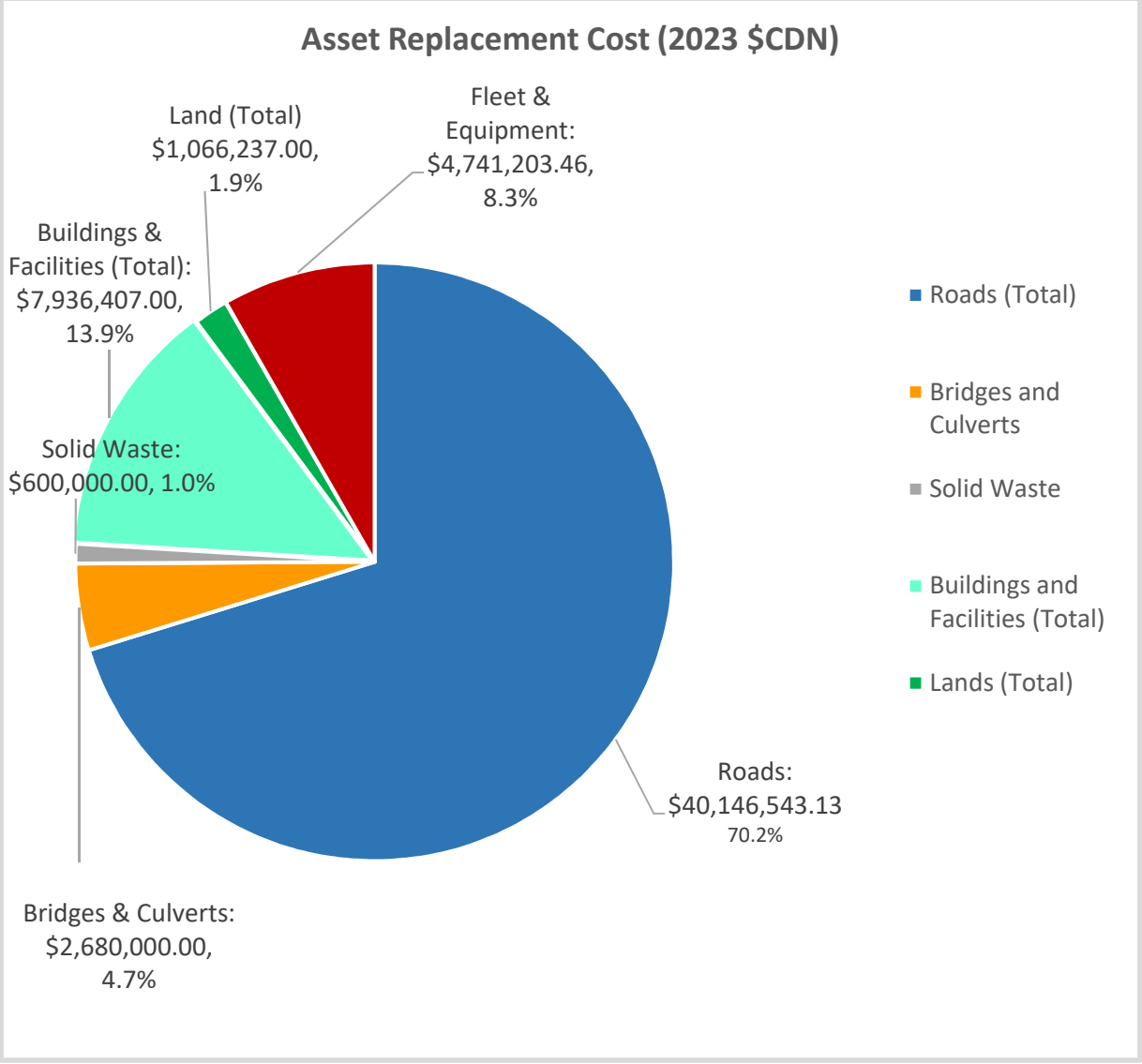
- Roads;
- Bridges and Culverts;

- Solid Waste;
- Fleet and Equipment;
- Buildings and Facilities; and
- Parks and Lands.

Asset Replacement Costs

The total replacement cost for the Township' infrastructure assets is: $56.87 million (in 2023 dollars). The distribution of this replacement cost is shown in **Figure ES-1** with roads, bridges and culverts making up 76% of the replacement costs.

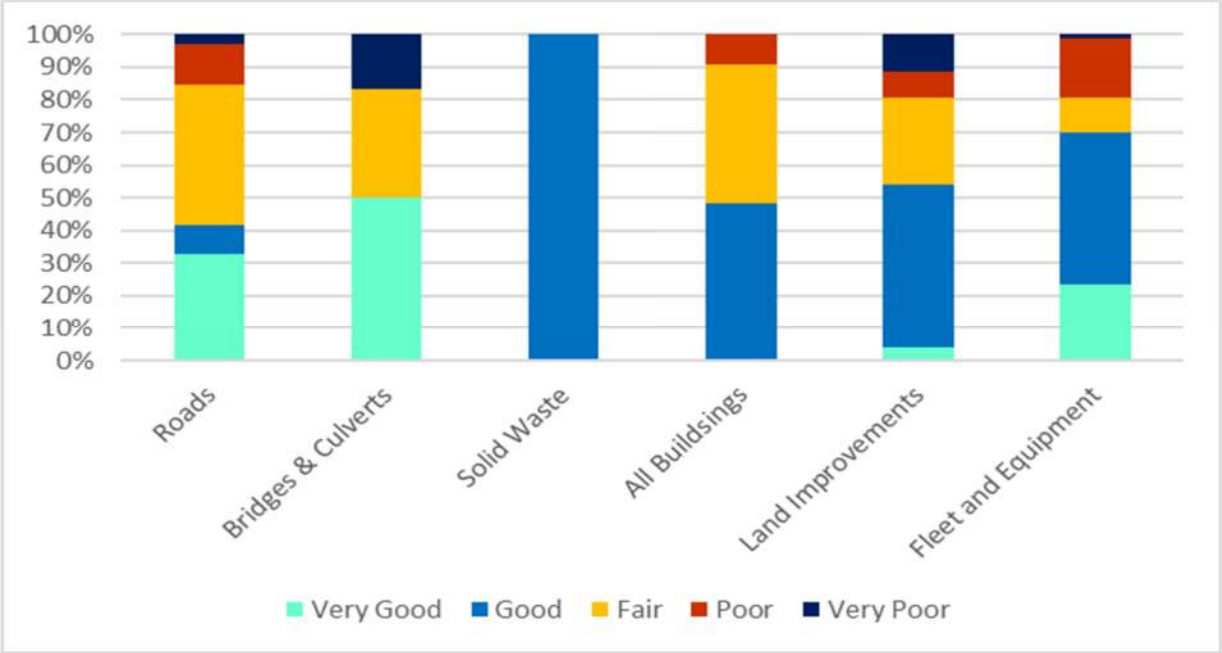
Figure ES-1: Asset Replacement Cost



Asset Condition Summary

A summary of the condition for each of the Township' infrastructure assets is shown in **Figure ES-2**. On average across all asset categories, 18% of the Township' infrastructure assets have a condition rating of Very Good, 42% have a condition rating of Good, 26% have a condition rating of Fair, 8% have a condition rating of Poor, and 5% have a condition rating of Very Poor.

Figure ES-2: Asset Condition 2022



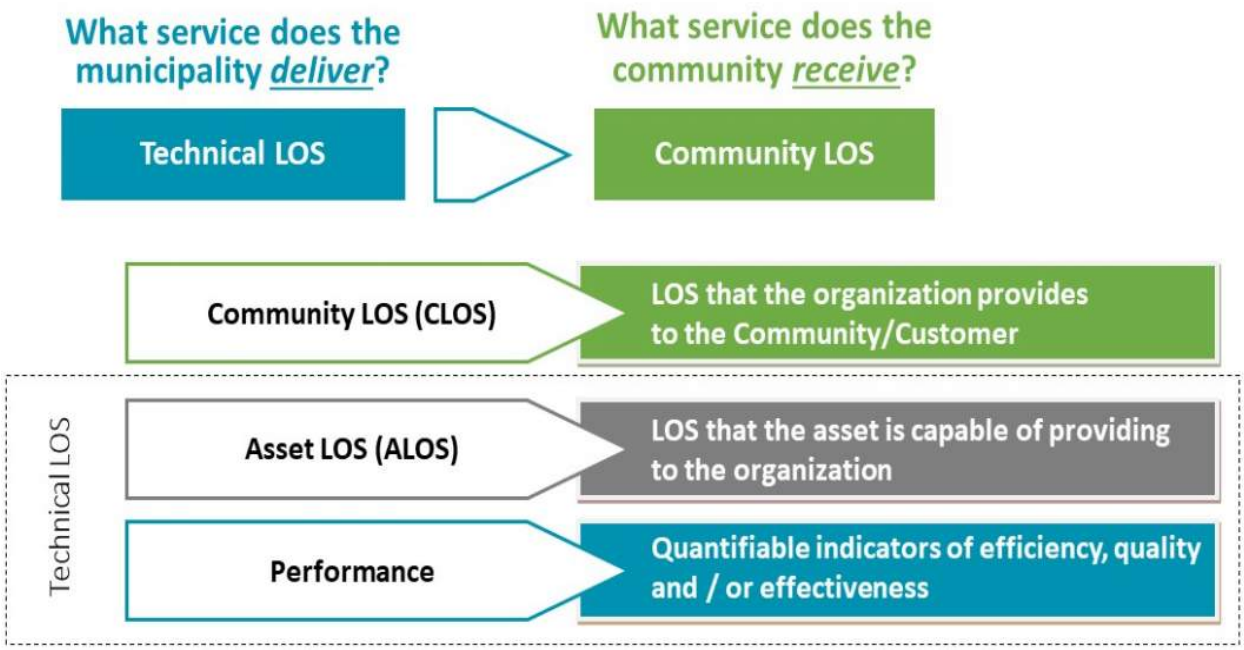
Levels of Service

The current and proposed levels of service are described in terms of technical metrics and qualitative descriptions for each asset type. These measures are prescribed for core assets (including roads, and bridges and culverts) within O. Reg. 588/17.

Levels of Service (LOS) are presented in **Figure ES-3** and defined as follows:

- **Community LOS:** LOS that the organization provides to the community, intended to be customer-focused, providing a qualitative description of scope and quality; and
- **Technical LOS:** LOS that the asset is capable of providing to the Township which is further measured by the performance of the asset, providing technical metrics that support the delivery of LOS.

Figure ES-3: Levels of Service (Community LOS, Technical LOS and Performance)



The current and proposed LOS are described in terms of technical metrics and qualitative descriptions for each asset type. These descriptions are prescribed for core assets (including roads, and bridges and culverts) within Ontario Regulation (O. Reg.) 588/17.

Through the AMP development, South Algonquin sought to establish current and proposed LOS, in accordance with O. Reg. 588/17 for core assets. For the non-core assets included within this AMP, South Algonquin sought to define and establish current and proposed LOS in line with the intent of O. Reg. 588/17.

As part of this process, South Algonquin undertook education and working sessions with internal stakeholders, and provided a survey for public feedback to understand LOS concepts, and gain understanding of public perception of the levels of service and the public's expectation for service delivery.

Acknowledgements

The consulting team would like to express our appreciation to the staff for their cooperation and input to this update. We acknowledge their commitment and flexibility to contribute to this project despite the challenges brought into daily operations as a result of the global pandemic.

Project Team

- Bryan Martin, CAO/Clerk Treasurer
- Jennifer Baragar, Deputy Treasurer
- Dave Gatley, Public Works Superintendent (to Oct 2022)
- Steven Ronholm, Public Works Superintendent (starting May 2023)

About this Report

Dillon Consulting Limited was retained by the Township of South Algonquin to conduct an update to their Asset Management Plan to meet the requirements of O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure and as amended by O. Reg. 193/21.

Consulting Team

- Darla Campbell, Project Manager
- Liza Guilbeau, Asset Management Coordinator and Technical Lead
- Kaelee Oxford, LOS, Risk and AM Strategy
- Sierra Eskritt, Risk and AM Strategy and Analysis
- Joseph Hoekstra, Financing Strategy
- James Mario, Financing Strategy

1.0 Introduction

The Township of South Algonquin (Township or South Algonquin) is updating its 2013 Asset Management Plan (AMP) in alignment with O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure and the Township's Strategic Asset Management Policy (FIN-003-00).

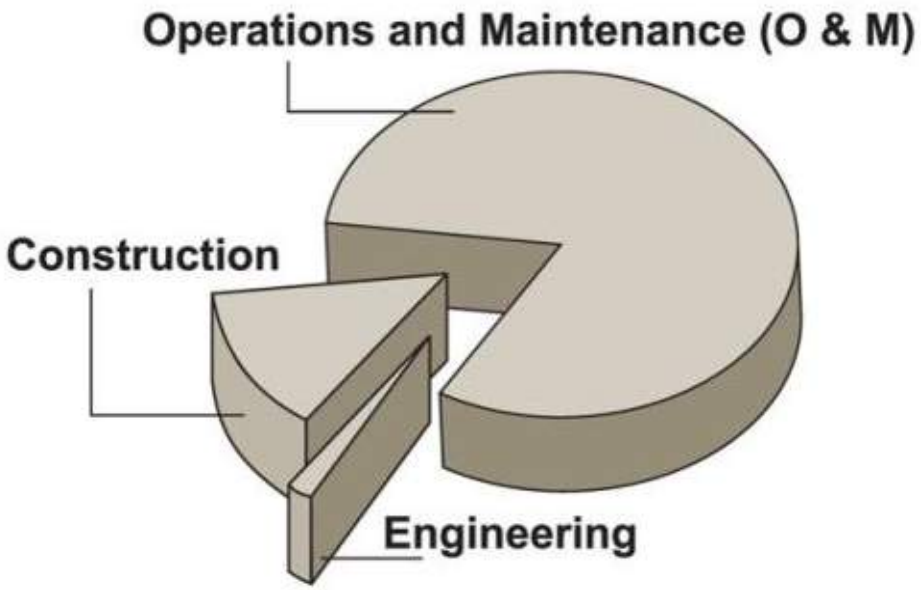
The AMP documents South Algonquin's assets and strategies based on known information at the time of writing the report. This plan is a snapshot of a period as of December 2022. Assets will continue to deteriorate and investments will be required to improve the condition and extend the useful life of the infrastructure, to meet the "fit for purpose" measure of the assets in delivery of the services and meeting (or moving towards) the proposed LOS established by the Township.

1.1 Asset Management Overview

Asset management is a process of making the best possible decisions regarding the creation, maintenance, renewal, rehabilitation, disposal, expansion and procurement of infrastructure assets. The objective of asset management is to maximize the benefits of the assets, minimize risk and provide satisfactory LOS to the public in a sustainable manner. It considers risks related to the lifecycle of the assets and requires a multi-disciplinary team of planning, finance, engineering, technology, maintenance and operations.

Asset management considers the full lifecycle of the infrastructure, not just the initial cost for designing and constructing the asset (20%), but the operations and maintenance each and every year (80%). See **Figure 1-1**.

Figure 1-1: Lifecycle Approach (Infraguide 2005)



The essential questions for asset management, as described in the InfraGuide: Managing Infrastructure Assets (Oct 2005), are:

1. What do you have and where is it?
2. What is it worth?
3. What is its condition and expected remaining service life?
4. What is the Level of Service (LOS) expectation, and what needs to be done?
5. When do you need to do it?
6. How much will it cost and what is the acceptable level of risk(s)?
7. How do you ensure long-term affordability?

These seven essential questions align to four phases of asset management: asset inventory, condition, LOS and analysis and strategy development.

The provision of reliable infrastructure is crucial for ensuring that South Algonquin can continue to deliver sustainable services to its current residents and to accommodate growth in a manner which is environmentally, socially and economically sustainable.

To ensure that South Algonquin is able to provide infrastructure that meets the needs of residents now and in the future South Algonquin has developed and implemented an asset management plan. The intent of the asset management plan is to identify the

technical and financial needs of assets well in advance of a major asset renewal or replacement so that South Algonquin is able to plan for these major projects should the timing and the needs coincide.

1.2 Overview of the AMP

This introduction includes an overview of key asset management principles: State of Local Infrastructure, LOS, Risk Assessment and Lifecycle Strategies. The introduction concludes with a section on Growth and a Roadmap with Next Steps.

The core assets included in the AMP are presented in **Table 1-1**.

Table 1-1: Core and Non-Core Assets

Core Assets	Non-Core Assets
• Roads (**Section 2.0**) • Bridges and Culverts (**Section 3.0**)	• Solid Waste (**Section 4.0**) • Fleet and Equipment (**Section 5.0)** • Buildings and Facilities (**Section 6.0**) • Parks and Land (**Section 7.0**)

Within each section for each asset category, the following topics are presented:

- State of Local Infrastructure;
- Condition;
- Current LOS;
- Current Performance;
- Risk Assessment;
- Lifecycle Activities; and
- Asset Management Strategy

The final chapter is the Financial Strategy (**Section 8.0**).

1.2.1 Policy Alignment

This asset management plan was developed in alignment with the Township's Strategic Asset Management Policy (FIN-003-00).

The purpose of the Townships policy is to provide leadership in and commitment to the development and implementation of the Municipality's asset management program. It is intended to guide the consistent use of asset management across the organization, to

facilitate logical and evidence-based decision-making for the management of municipal infrastructure assets and to support the delivery of sustainable community services now and in the future.

By using sound asset management practices, the Municipality will work to ensure that all municipal infrastructure assets meet expected performance levels and continue to provide desired service levels in the most efficient and effective manner. Linking service outcomes to infrastructure investment decisions will assist the Municipality in focusing on service, rather than budget, driven asset management approaches.

Within the policy the Township states the importance of strategic alignment with other planning documents at the Township, namely the Township of South Algonquins Official Plan, and the Township of South Algonquin's Strategic Plan. These plans were designed to meet the legislative requirements and work together to achieve the Township's mission of providing innovation and excellence in service delivery. These plans will be reviewed regularly by staff and annual spending requirements in support of the plans' objectives will be incorporated into the budgeting process. All of the Township's plans rely to some extent on the physical assets owned by the Township and the commitment of staff to ensure their strategic use. This includes the long-term maintenance, repair, and replacement of existing assets along with the acquisition of new assets to meet the evolving needs in the Township.

Stakeholder Engagement: As established in the policy, the Township recognizes the importance of stakeholder engagement as an integral component of a comprehensive asset management approach. The Township commit to provide opportunities for residents and other stakeholders serviced by the Township to provide input into asset management planning.

This was achieved through workshops with staff and a public engagement on-line survey on LOS.

1.2.2 Regulatory Alignment

The 2023 AMP is an update to the 2013 AMP which was in alignment with the new regulation, **O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure**. The regulation requires the following four phases of compliance:

5. By July 2019: Municipalities to have a strategic asset management policy.
6. By July 2022: All core assets to be covered in the asset management plan with current LOS. Core assets include water, wastewater, stormwater, roads and bridges/culverts.
7. By July 2024: All assets owned by the municipality to be covered in the AMP. Non-core assets include buildings, fleet and equipment as well as green infrastructure assets.
8. By July 2025: Municipalities will have approved proposed LOS and the lifecycle management and financial strategy for ten-year period to achieve the proposed LOS.

The current edition of the AMP meets Phase 3 requirements with the exception of natural assets.

Inclusion of all assets owned by the Township provides an overview of what is needed to continue to deliver the services required of the community in the future. The asset management plan identifies the required investments to maintain service delivery for the next 10 years. The plan will be updated on an ongoing basis with the availability of new information and the regulation requires annual reporting to Council on the progress (and barriers) to implementing the AMP.

1.3 State of Local Infrastructure

Each section on the State of Local Infrastructure sets out:

vi. a summary of the assets in the category;
vii. the replacement cost of the assets in the category;
viii. the average age of the assets in the category, determined by assessing the average age of the components of the assets;
ix. the information available on the condition of the assets in the category; and
x. a description of the Townships approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate.

The Township delivers services that require ownership of infrastructure in the following assets categories:

- Roads;
- Bridges and Culverts;
- Solid Waste;
- Fleet and Equipment;
- Buildings and Facilities; and
- Parks and Lands.

Each service area is presented in a separate chapter that follows this format:

- Summary;
- Average Age;
- Replacement Cost;
- Condition;
- LOS; and
- Performance.

1.3.1 Asset Inventory

South Algonquin maintains databases of their assets including detailed attributes of the assets. The inventory was compiled prior to initiation of this work and updated throughout the work as needed, and was provided by South Algonquin. The inventory data is currently being transferred to the fully integrated cloud based Townsuite municipal software system from the OGRA system. We are currently using outputs from the Townsuite system and excel files for inventory tracking purposes. The inventory includes assets that are owned by South Algonquin that provide services in the following asset categories:

- Roads;
- Bridges and Culverts;
- Solid Waste;
- Fleet and Equipment;
- Buildings and Facilities; and
- Parks and Lands.

1.3.2 Asset Replacement Costs

The total replacement cost for the Township' infrastructure assets is: $56.87 million (in 2023 dollars). The distribution of this replacement cost is shown in **Figure 1-2** and **Figure 1-3** with roads, bridges and culverts making up 75% of the replacement costs.

Figure 1-2: Asset Replacement Cost

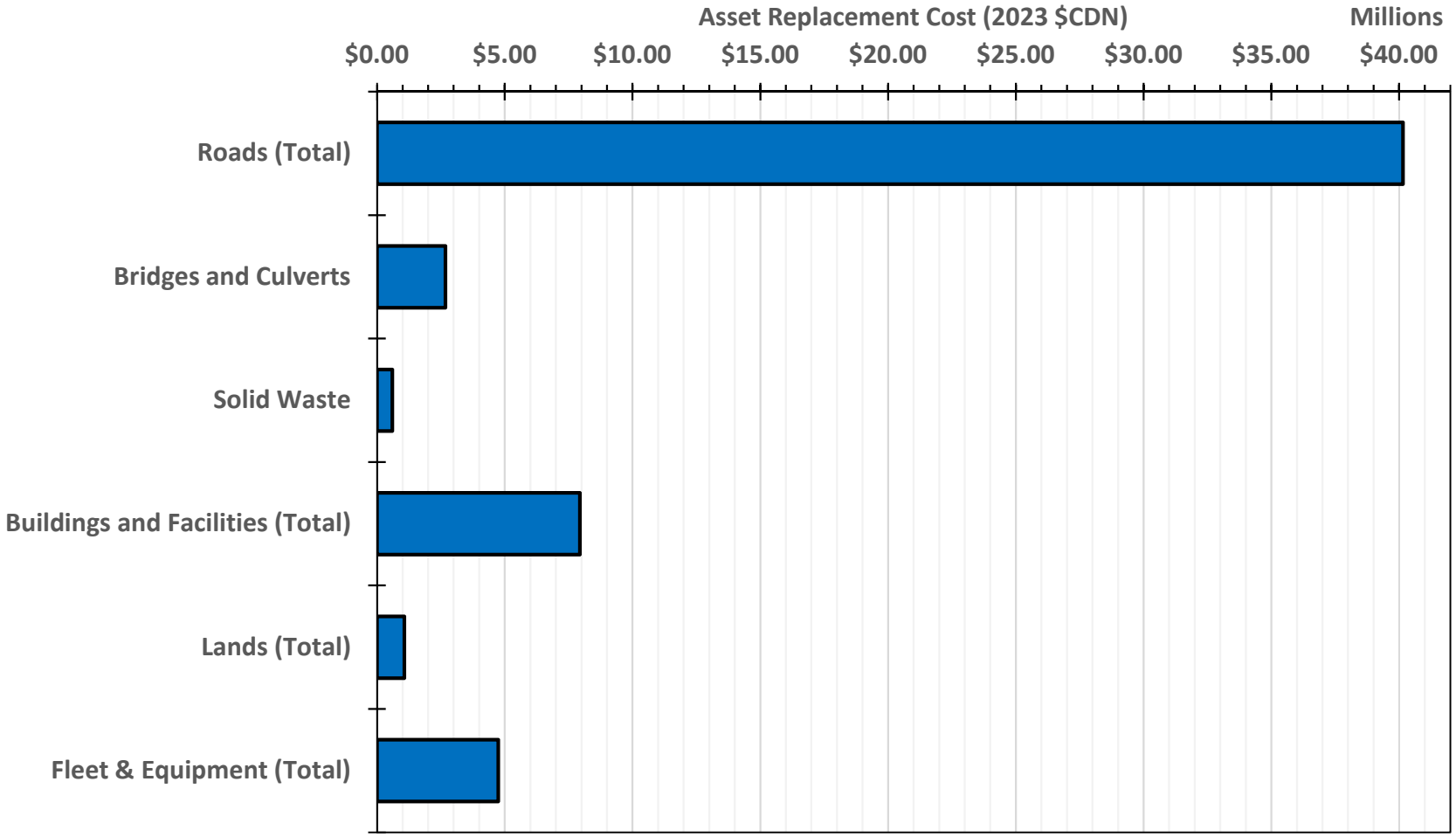
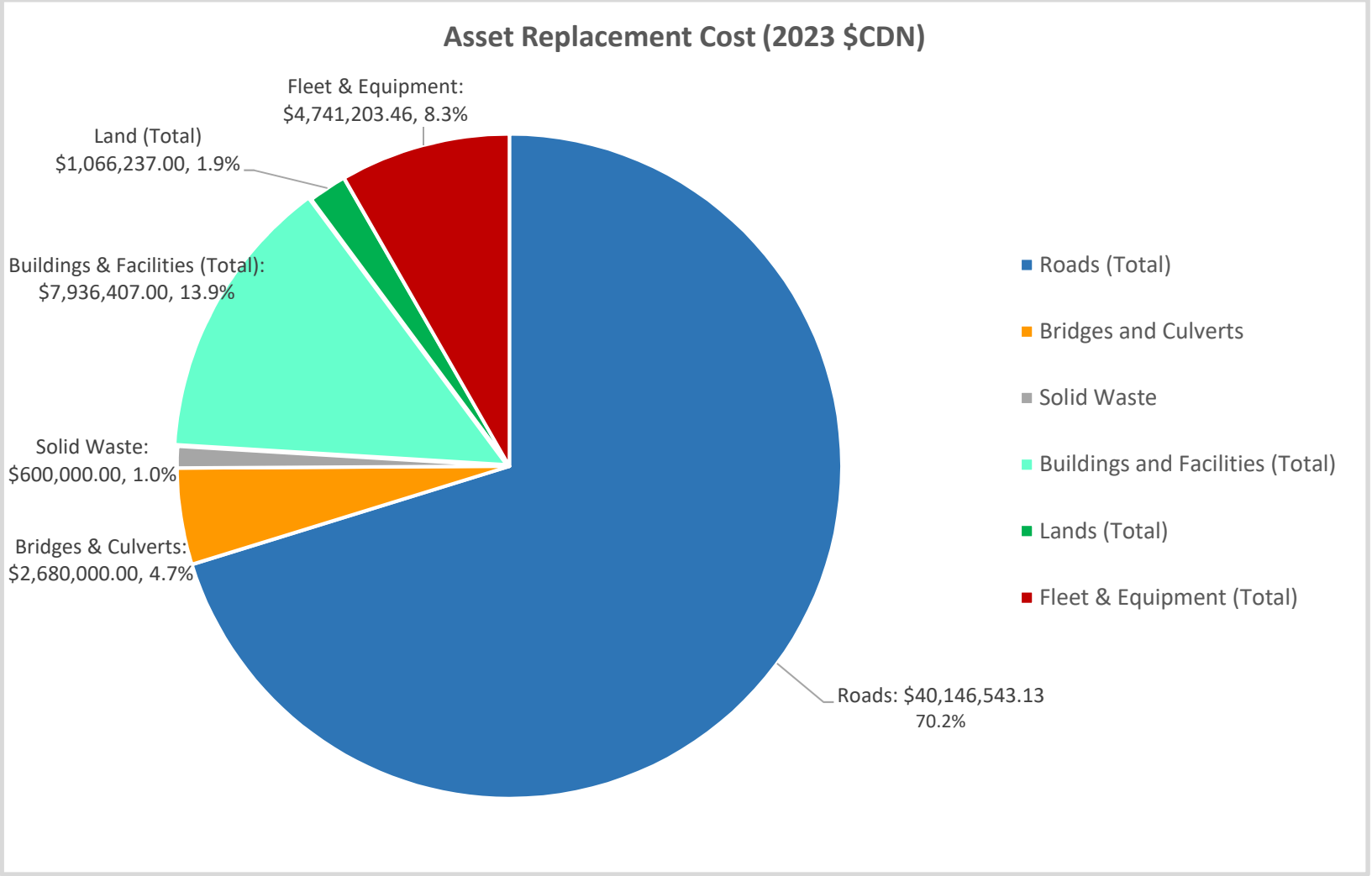


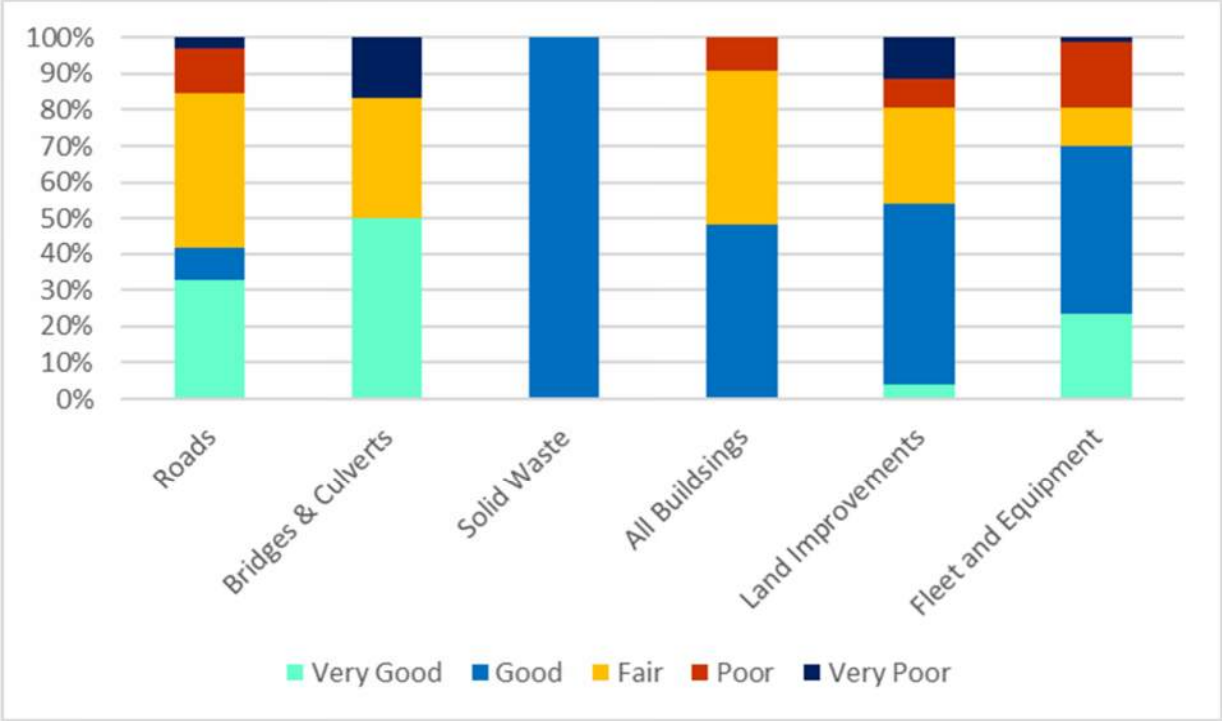
Figure 1-3: Asset Replacement Cost



1.3.3 Asset Condition Summary

A summary of the condition for each of the Township' infrastructure assets is shown in **Figure 1-4**. On average across all asset categories, 18% of the Township' infrastructure assets have a condition rating of Very Good, 42% have a condition rating of Good, 26% have a condition rating of Fair, 8% have a condition rating of Poor, and 5% have a condition rating of Very Poor.

Figure 1-4: Asset Condition 2022



1.3.4 Asset Hierarchy

The asset hierarchy defines the tiers of asset componentry. Each type of asset, both complex and linear, can have its assets defined and inventoried at a high level, or with increased component detail. The Township currently tracks their assets to a component level. An example of the componentry within the roads is shown in **Table 1-2**. The components of the assets have been defined with their category, assets, components and subcomponents.

Table 1-2: Asset Hierarchy Example

Asset Category	Asset Component	Subcomponent
Roads	Road Base Road Surface	Shoulders Ditches

For this AMP, the analysis will focus on assets at the 'asset component' level, with the expectation that the condition and replacement of the components and subcomponents will be consistent with the linear assets. This is predicated on the assumption that all other elements included in the system are required componentry that will be replaced in conjunction with the linear components, and are expected to have similar lifespans and conditions as the linear components.

Buildings and facilities are considered complex assets. Complex assets are classified as assets which have various components which will be considered within the AMP. The components that will be included in the AMP are described in the buildings and facilities chapter of this report.

1.3.5 Asset Inventory

The asset inventory includes assets that are owned by the Township. The Township maintains a registry of assets that includes asset information, location, condition (where available) and age. The inventory was updated as part of this project and the next step for the Township is to apply this information into the new asset management software (Townsuite).

1.4 Levels of Service

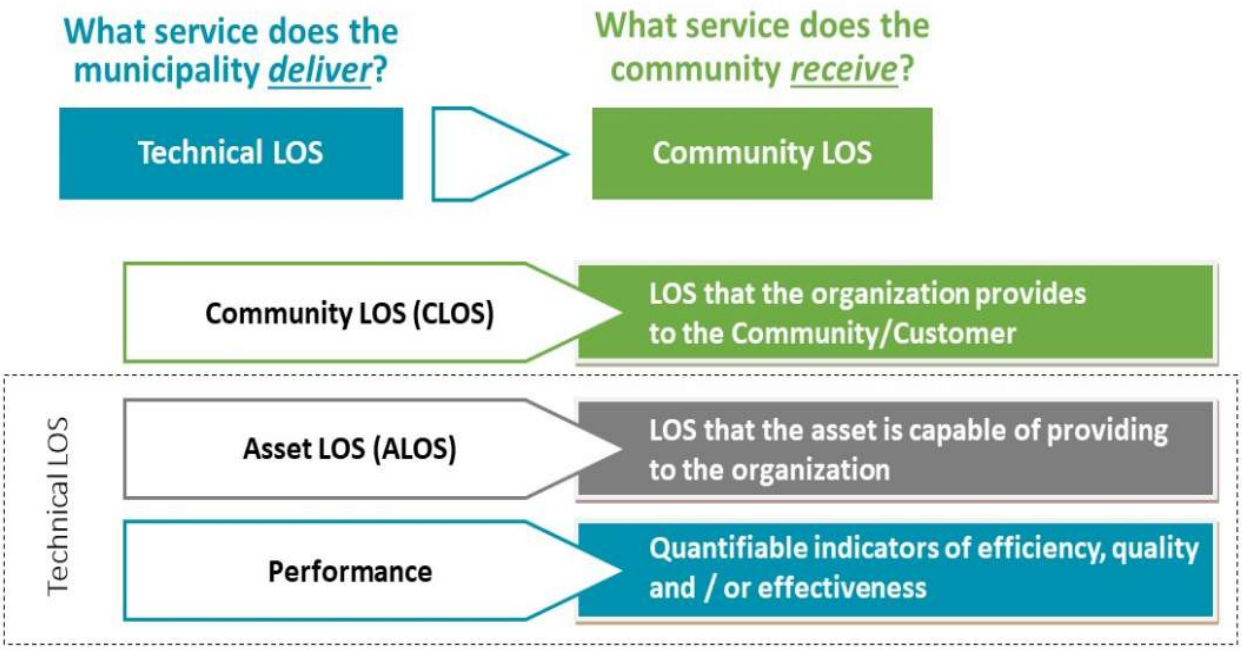
The current and proposed levels of service are described in terms of technical metrics and qualitative descriptions for each asset type. These measures are prescribed for core assets (including roads, and bridges and culverts) within O. Reg. 588/17.

Levels of Service (LOS) are presented in **Figure 1-5** and defined as follows:

- **Community LOS:** LOS that the organization provides to the community, intended to be customer-focused, providing a qualitative description of scope and quality; and

- **Technical LOS:** LOS that the asset is capable of providing to the Township which is further measured by the performance of the asset, providing technical metrics that support the delivery of LOS.

Figure 1-5: Levels of Service (Community LOS, Technical LOS and Performance)



The current and proposed LOS are described in terms of technical metrics and qualitative descriptions for each asset type. These descriptions are prescribed for core assets (including roads, and bridges and culverts) within Ontario Regulation (O. Reg.) 588/17.

Through the AMP development, South Algonquin sought to establish current and proposed LOS, in accordance with O. Reg. 588/17 for core assets. For the non-core assets included within this AMP, South Algonquin sought to define and establish current and proposed LOS in line with the intent of O. Reg. 588/17.

As part of this process, South Algonquin undertook education and working sessions with internal stakeholders, and provided a survey for public feedback to understand LOS concepts, and gain understanding of public perception of the levels of service and the public's expectation for service delivery.

1.4.1 LOS Workshop

A workshop was held with staff from South Algonquin, representing several departments across the organization, Engineering, Facilities, and Administration. The workshop was held on April 29, 2022 through online delivery.

During the LOS of workshop, the concepts of Levels of Service were discussed, including definition of levels of service, impacts of changes to levels of service, and barriers to delivering the service.

The workshop included discussion regarding current Levels of Service at South Algonquin, conducting individual group discussions to identify important parameters for defining service delivery, and local issues and efficiencies for delivery.

1.4.2 LOS Community Survey

The Township undertook a community survey to receive feedback and information regarding Levels of Service in the community.

The purpose of the community survey was to engage with members of the public about levels of service related to asset management in the Township, related to service delivery associated with the infrastructure and asset categories included within this plan. The survey solicited feedback on:

- Overall satisfaction with municipal services;
- Suggestions for service improvements;
- Expectations for levels of municipal services;
- Willingness to pay to maintain or increase services; and,
- Service priorities for funding allocation.

The survey was advertised with a notice in a mail out and was available on the Township' website from July 11, 2022 to July 25, 2022. The community could request a printed copy of the survey or directly participate with the online survey. The survey was completed by 61 respondents with 70% of them being full time residents within the Township. A summary of the survey results was presented in the report, **Asset Management Levels of Service Survey Summary (September 2022).**

The following are the overall themes and findings that emerged from the survey results:

- **Theme #1:** The community is generally satisfied with the programs and services provided by the Township.
- **Theme #2:** The community feels that the majority of the services listed in the survey at this time do not need improvement.
- **Theme #3:** The majority of respondents would like to receive services from the Township at a "family diner" LOS, with medium cost.
- **Theme #4:** Overall, majority of residents are willing to pay an increase or slight increase in fees to maintain the current levels of services.
- **Theme #5:** The respondents indicated a preference to maintain current service (likely pay more)
- **Theme #6:** The services that should be prioritized for funding are Township roads, winter control on roads, and solid waste facilities.

1.4.3 Proposed Levels of Service (LOS)

The proposed Levels of Service (LOS) is an established target for the Township's LOS, set to guide the Township in their current and future asset management. Proposed Levels of Service are a requirement for compliance with O. Reg. 588/17. The Proposed LOS established within this report relates to the target to be achieved in ten-years, the year 2032.

To establish the proposed Levels of Service, the Township established the current LOS, and sought input from the Township' staff, public (through levels of service survey), and Council to understand the preferred levels of service targets.

Through the process, three scenarios were generally considered for proposed levels of service, each a considering a different level of investment to the infrastructure, and the corresponding impact it will have on the LOS being provided. The scenarios considered included the following:

- No change in funding – LOS would decrease over time;
- Increase in funding – LOS would be maintained over time; and
- Greater increase in funding – LOS would increase over time (increase would vary depending on funding increase).

Direction received from Township' staff indicated that the current Levels of Service were generally found to be sufficient, however there are some parameters that will have improved LOS targets. Accordingly, the proposed Levels of Service targets for 2032 have been identified, maintaining the established LOS values from 2022 or slightly improving (rounding up). Proposed Levels of Service are summarized in **Table 1-3**. And described for each asset category in the sections that follow.

Table 1-3: Proposed Levels of Service for 2032

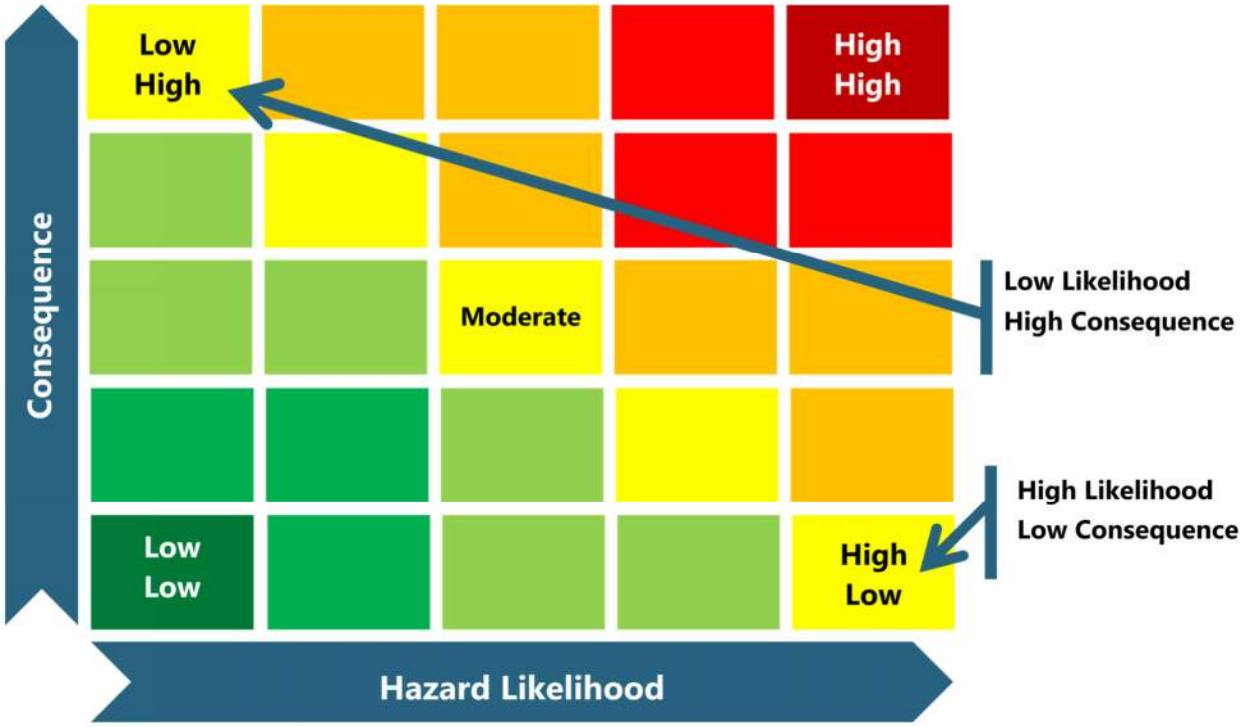
Asset Service	LOS Parameter	LOS Measure	2022 LOS Delivered	Proposed LOS for 2032
Roads – Paved	Quality	Average pavement condition index (PCI)	88 (Good)	Maintain 80 (good) or better.
Roads – Unpaved	Quality	Average condition	Fair	Good
Bridges and Culverts	Quality	Average bridge condition index (BCI) value	68.5 (fair)	68.5 (fair) or better
Solid Waste	Reliability in hours of operation	Provide recycling and garbage facilities within the Township, with minimal maintenance closures.	Maintain open hours of operation (See **Table 4-1**) except two days of closure due to COVID pandemic.	Maintain open hours of facility.
Fleet and Equipment	Reliability	Maintained in good or better condition	24% of Fleet and Equipment condition 'very good', 46% of condition 'good', 11% condition 'fair'.	Maintain these overall condition ratings.
Buildings and Facilities	Customer Satisfaction	Energy efficiency and consumption of greenhouse gases.	65% Energy Efficiency.	Maintain Energy Efficiency.
Parks and Lands	Reliability	Equipment and faculties at parks maintained in good or better condition.	All equipment maintained in 'fair or better' condition.	All equipment maintained in 'fair or better' condition.

1.5 Risk Assessment

In determining the lifecycle activities for each asset category and identifying the priority activities, the risks associated with the options are to be considered. The risk rating for each asset generates a risk profile for the entire asset category.

The assets with the highest risk rating identify the priorities for the Township. As part of assessing risk, consider the factors that increase the likelihood of a hazard occurring (or non-delivery of service) and the consequence. **Figure 1-6** presents a risk "heat map" plotting likelihood and consequence.

Figure 1-6: Risk Heat Map



A priority rating has been developed based on the calculated risk rating and displayed in **Figure 1-6** as part of a 5 by 5 matrix. High risk ratings are shown in the red zone (risk rating 17 to 25), Moderate risk ratings are shown in the orange zone (risk ratings of 10 to 16) and Low risk ratings are in the green and yellow zone (risk ratings of 1 to 9).

The approach and methodology to risk assessment is presented in following sections. A risk profile for each asset category is presented in the corresponding sections for each asset category.

1.5.1.1 Risk Methodology and Approach

Risk assessment will be conducted for each of the asset categories within the AMP. The risk ratings for the assets follow the below risk methodology.

Risk is the likelihood and magnitude of a negative scenario (hazard) occurring that limits the ability of the asset to deliver the service. Risk is the consideration of asset failure and the consequence of the failure.

Risk = Likelihood x Consequence

Consequence considers the severity of the impact, vulnerability of the asset and exposure to the negative scenario.

Applying the methodology of a score of 1 to 5 for the hazard and the consequence, the maximum risk rating is 25 (high).

1.5.1.2 Calculation of Likelihood

The factors that contribute to the likelihood of failure include:

- A – Condition of the asset;
- B – Performance (reliability); and
- C – Vulnerability to climate change.

See **Table 1-4** for description of these factors.

Table 1-4: Likelihood Factors

Factors	Low (1)	Moderate (3)	High (5)
A – Condition	Very Good (1)	Good (2); Fair (3)	Poor (4); Very Poor (5)
B – Performance	Always Reliable	Usually Reliable	Not Reliable
C – Climate Change	No or limited impact, quick recovery or mitigation in place	Limited impact with slower recovery; mitigation plan not in place	Moderate or high impact; no or limited mitigation plan

By separating condition and performance as two separate factors, there is an opportunity to consider assets in poor condition that may still be performing well, as well as good condition assets that are not performing well. The climate change factor brings into consideration assets that are vulnerable to climate change scenarios such as intense rainfall, increased temperatures, extreme weather and drought. The climate change rating includes any mitigation activities in the scoring which reduces the risk and lowers the score.

Therefore, the likelihood of failure is (A + B + C)/3 (i.e., the average of the factors, assuming they are equally weighted).

1.5.1.3 Calculation of Consequence

In calculating consequence, the question to consider is: What increases the impact of non-delivery (or failure of the asset)?

There are two factors that contribute to the consequence which are:

- D – Impact or severity; and
- E – Importance of the asset in delivering service.

Both impact and importance contribute to the consequence and will be multiplied by likelihood. The two ratings will be added together for the consequence maximum score of 5 (D+E). See **Table 1-5** for description of consequence factors.

Table 1-5: Consequence Factors

Factors	Low	Moderate	High
D – Impact	Low or no impact (0)	Moderate impact (1)	High impact (2)
E – Importance of the asset in delivering service	Low importance (1)	Moderate importance (2)	High importance (3)

The impact ratings were established by considering these five possible areas of consequence (as discussed in the Risk Workshop) and determining an overall rating of high, moderate or low by taking an average for the impact of:

- Safety/Injury;
- Financial Loss;
- Reputation with Stakeholders
- Environmental Damage; and,
- Loss of Service.

The importance ratings for assets are established in consultation with South Algonquin staff. The ratings established include assumptions and specific importance values for assets.

1.5.1.4 Calculation of Risk

The risk calculation for each of the assets is determined as follows:

Risk = Hazard x Consequence

Risk = (A + B + C)/3 x (D + E)

Where A = Condition

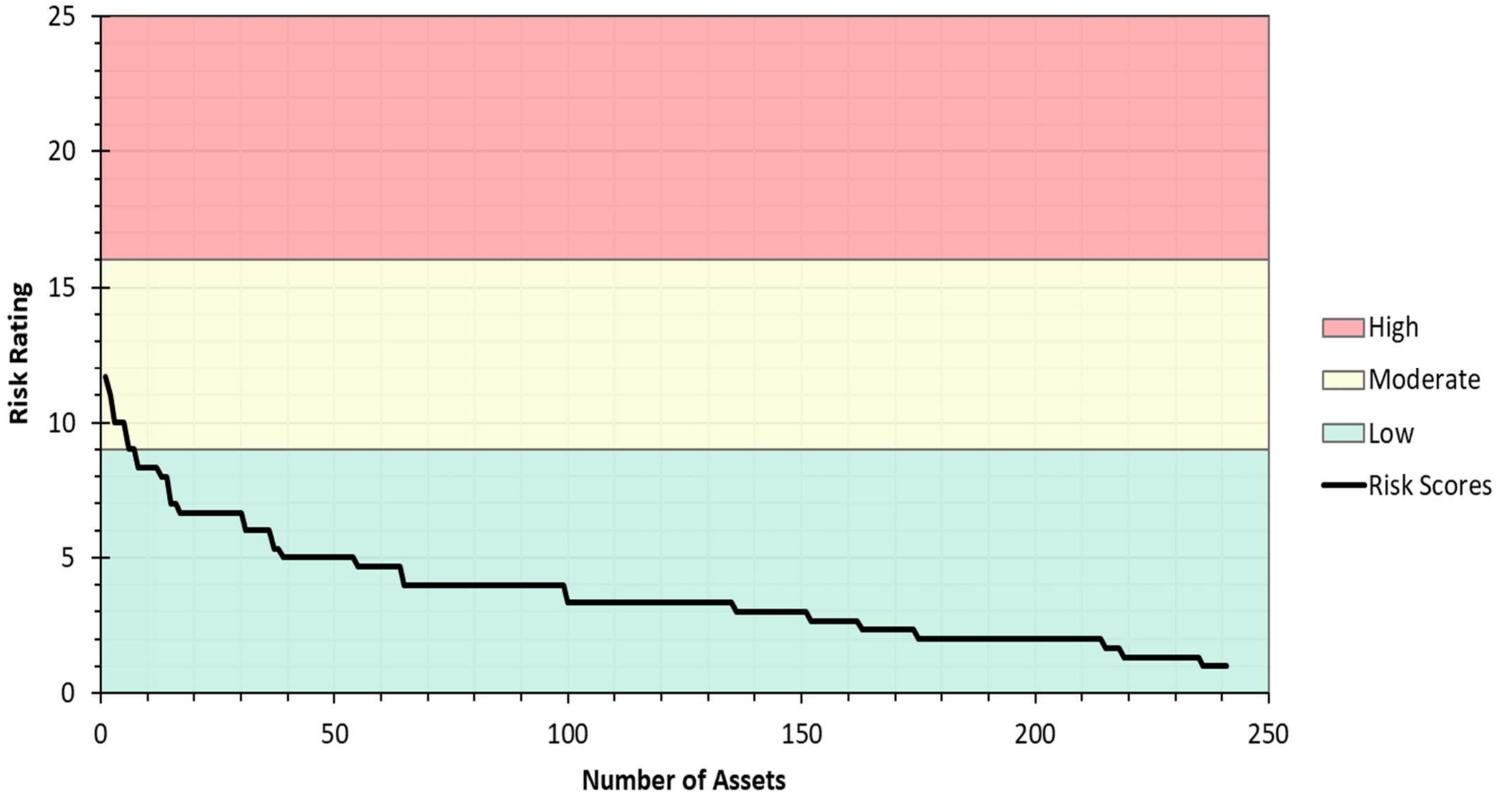
B = Performance

C = Climate Change

D = Impact

E = Importance of the asset

Figure 1-7: Risk Profile for All Assets



Of more than 236 assets tracked within the Township's asset management data, 0% have a high-risk rating and 2.8% have a moderate risk rating. The remaining assets have been identified as a low risk rating.

1.5.1.5 Climate Change

In the Risk Workshop, staff considered the following climate change scenarios and identified low, moderate or high vulnerability for assets in each asset category:

- Mean Annual Temperature;
- Number of Hot Days (> 25 °C);
- Heavy Snow Events;
- Heavy Rain Events;
- Extreme Weather Events; and
- Occurrence and Magnitude of Flooding.

This information was used to inform the assignment of climate change factor (C) in the risk rating calculation for each asset component.

1.5.1.6 Limitation and Assumptions – Risk Assessment

Several key limitations and assumptions were made as part of the risk assessment process, which are summarized below:

- Field condition assessment data was used as available to determine state of infrastructure and risk. In the absence of field condition assessment data, asset age and estimated useful life was used to approximate physical condition.
- Performance of individual assets was assumed as "Always Reliable" unless otherwise indicated by Township staff, reviewed reports or provided asset data.

1.6 Asset Management Strategy

The asset management strategy for South Algonquin assets will employ the lifecycle activities to maximize the useful life and economy of each asset. Lifecycle activities are defined in O. Reg. 588/17 as "activities undertaken with respect to a municipal infrastructure asset over its service life", and refers to potential activities that can be implemented by the Township during the useful life of an asset. The activities are

separated by category, including constructing, maintaining, renewing, operating and decommissioning for each asset category.

The lifecycle activities are typical, and include recommendations for timing of implementation and other best practices for implementation. The activities are used in the asset management strategy.

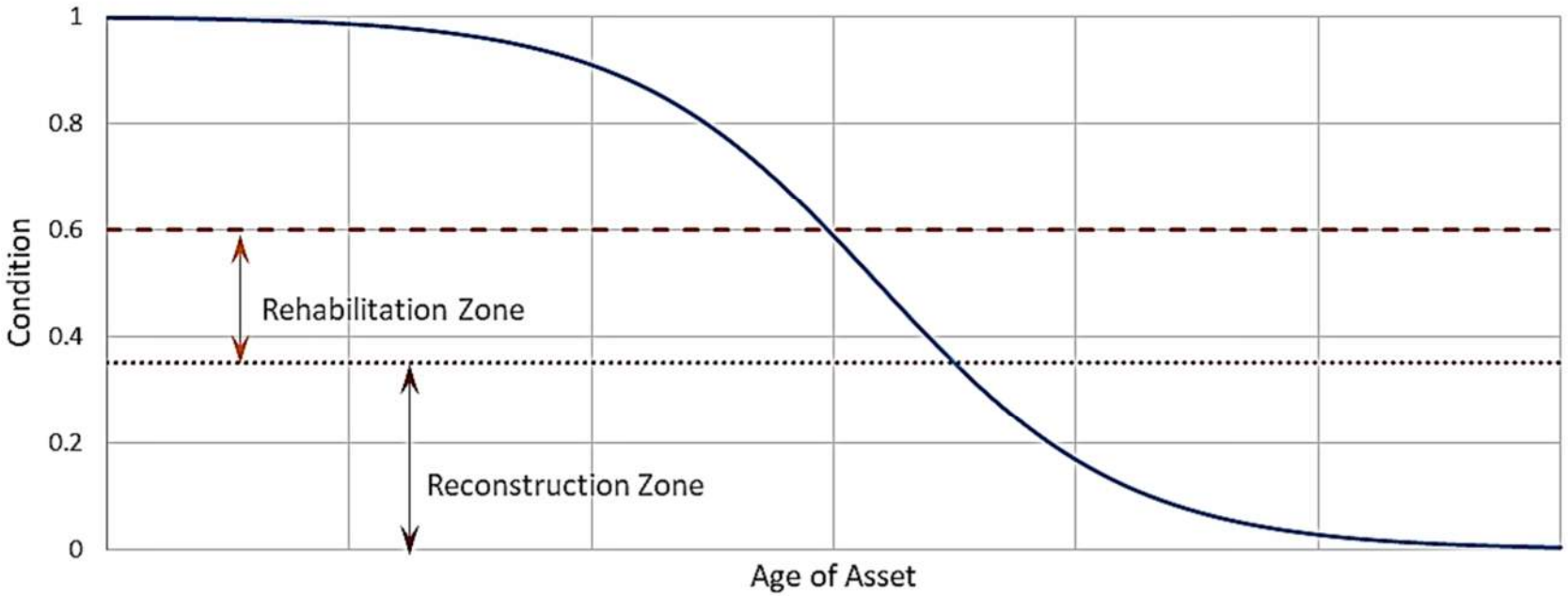
The primary indicator used in the development of a lifecycle strategy is the condition of each asset, however the strategy should also consider other factors, such as:

- Importance of the asset;
- Asset risk score;
- Condition of adjacent sections;
- Replacement requirements for adjacent infrastructure (linear);
- Expansion requirements; and
- Maintenance frequency and type.

As development continues to occur at South Algonquin and the assets continue to deteriorate, these factors will continue to change, and each have an impact on the lifecycle of an asset. Consideration of these factors should be given when devising capital project outlooks and budgeting, and updating of the asset management plan.

The assets will deteriorate on a non-linear basis, and the various lifecycle activities can be implemented at varying stages within an asset's deterioration. **Figure 1-8** provides a visualization of the theoretical deterioration curve for an asset, and the opportunity windows to conduct lifecycle activities within the expected useful life of an asset.

Figure 1-8: Theoretical Deterioration of Assets and Lifecyle Activity Opportunities



Implementation of maintenance activities throughout the lifecycle and rehabilitation works within an appropriate timeframe can assist in optimising the lifespan of an asset.

In reference to the above figure, it is expected that maintenance and operating activities will occur through the full lifecycle of the asset. Renewal works are most appropriately employed within the rehabilitation zone, and reconstruction and decommissioning will most likely occur within the reconstruction zone.

On an ongoing basis, each of the factors listed above should be reviewed and established to assist in asset management planning and decision making.

The strategy section for each asset category considers the lifecycle activities and best practices to develop a high-level strategy that can be used as a guide by the Township in asset management planning and decision making. The strategy will use current South Algonquin practices and suggest best practices to try to optimize the lifecycle of each of South Algonquin's assets, and therefore asset spending.

Analysis of the assets and development of projections are included as part of the strategy section. Analysis considers current replacement cost information, the attributes of the assets, and budgetary information from the Township to analyze the strategy and affordability. The methodologies used for linear and vertical asset analyses are described in the following sections.

1.7 Growth

Population and household data for the growth projections outlined here were obtained from the Official Plan as well as Statistics Canada Census data. Information is based on 2021 data from Statistic Canada and 2012 data from the Official Plan.

The Township of South Algonquin comprises 873.43 square kilometers. It also includes the communities of Aylen Lake, Cross Lake, Gunters, Madawaska, McKenzie Lake, Murchison, Opeongo, Wallace and Whitney. The population and employment forecasts for the municipality are set out in its Official Plan (August 2012) as follows:

- The population reported in the 2021 Census data from Statistics Canada is 1,055.
- Township and local communities should plan to accommodate a population of 1,272 people for the year 2032, if an average population growth of 2.7% is used.

Key considerations for growth projections for Township and its local communities include the following:

- Proximity to natural amenities also has an influence on housing demand in the Township, with seasonal housing growth an important planning consideration for many local municipalities.
- All local municipalities have been experiencing net out-commuting, largely due to job opportunities in the separated and outlining cities surrounding the Township. Out-commuting from the Township of South Algonquin residents is anticipated to continue over the Plan horizon.
- The extent of commuter-sheds relative to employment opportunities is an important consideration in the forecasts and represents a key determinant of the distribution of future population and housing growth within the Township.
- Servicing capacity may place limits on growth for many local areas.

Each consideration and its impacts on the lifecycle of the assets is presented in **Table** 1-6.

Table 1-6: Growth Impacts to Lifecycle Activities

Asset Category	Growth Impact Assumptions	How Assumptions Relate to Lifecycle of the Assets
Roads	Increased traffic in connector roads to adjacent communities	Potential increase in road maintenance costs, capital expenditures (new roads), expansion requirements.
Bridges & Culverts	Increased usage of bridge crossings by vehicles in the area	Potential traffic volume delays and mitigation required. Load considerations and regularly scheduled maintenance checks.
Solid Waste	Increase in demand and usage with increase in population growth	Increased capital costs for purchase of additional lands to meet service needs. Potential increase in maintenance costs.
Fleet and Equipment	Increase in service demands – requiring increased operation or capacity at greater distances	Increased capital costs for purchase of additional assets to meet service needs Increased operational costs in fleet maintenance and operational consumables.

Asset Category	Growth Impact Assumptions	How Assumptions Relate to Lifecycle of the Assets
Buildings and Facilities	Increased facility usage Changing service demands from aging population	Increase in capital expenditure for facility development in response to development Increase in operating costs for facility services and maintenance.
Parks and Lands	Increase in service demands – requiring increased operation or capacity at greater distances	Increased capital costs for purchase of additional asset equipment to meet service needs. Increased operational costs in equipment maintenance and operational consumables.

There are several areas of growth that impact the services and programs of the Township. They are:

- Increasing demand for Fire Service due to increasing population, conversions from seasonal to permanent residences; and
- Greater demand for long-term care beds due to aging population.

1.8 Roadmap with Next Steps

1.8.1 Next Steps – Regulatory Compliance

Future updates would include more robust financial strategy to meet phase 4 requirements. This will be supported by the implementation of new asset management software (TownSuite) currently underway.

The next update would also include green infrastructure assets (i.e. natural assets) owned by the Township and further assessment on infrastructure vulnerability to the impacts of climate change related to operations, levels of service and lifecycle management.

1.8.2 Next Steps – Recommendations in AMP 2022

1.8.2.1 Recommendations – Regulatory

In future updates of this report a recommendation to the Township would be to implement a Building Condition Assessment program for all their Building and Facilities assets. As well, the Parks and Lands asset category has several buildings (privy's and changing facilities) that have been updated or added to the inventory since the previous Asset Management Plan done in 2013. A full condition assessment (which would include the breakdown of each building and facility by overall components) of the entirety of the buildings owned by the Township would allow a more comprehensive cost breakdown for planning and maintenance activities and would ensure the whole of these asset categories has been captured. Given the complicated nature of assessing these buildings from a component stand point and the time commitment needed in this assessment, it is recommended the Township has a third party to facilitate this work.

The Township should also investigate the potential closure costs for each of their Solid Waste sites to ensure future planning for these costs can be considered.

1.8.2.2 Recommendations – Continuous Improvement

A full inventory of the assets owned by the Township should be undertaken as there are still some unknowns with respect to the final inventory counts and asset IDs. Having the Townsuite system online now the Township should find this task more manageable and straightforward.

2.0 Roads

2.1 State of Local Infrastructure

The Township is responsible for maintaining a road network with a total roadway length of 122.09 of centreline kilometres (km) of hard and loose topped roads. This includes:

- 6.68 km of earth roads;
- 77.77 km of gravel roads;
- 21.94 km of Low Class Bituminous (Surface Treatment) roads; and,
- 15.70 km of High Class Bituminous (Asphalt) roads.

The information reported in this Asset Management Plan (AMP) and the subsequent analysis are based on the 2022 Pavement Condition Index (PCI) and condition data provided by a third-party consulting firm from the 2022 Road Inventory and Condition Assessment (2022 Roads Report) done at the request of the Township.

The roads are located across the Township and include roads owned by the separated towns (i.e. Whitney and Madawaska). In some places, local municipal infrastructure (i.e., catch basins) are located within the Township roads rights-of-way. As well some roads, bridges and culverts are located on boundaries with adjacent municipalities and Algonquin Park.

The road network with the Township would be considered a rural single tier road system. Where Rural is defined as areas with sparse development or where

development is less than 50% of the frontage, including developed areas extending less than 300 metres (m) on one side or 200 m on both sides and curb and gutter.

The majority of road assets have two lanes.

2.1.1 Average Age

The average age of the road assets is 64 years, although this does not consider maintenance and rehabilitation activities.

2.1.2 Replacement Costs

Replacement cost for the road assets were determined based on the 2016 Parametric Costing Guide from the Ministry of Transportation (MTO), material information and with reference to the 2022 Roads Report done for the Township by a third party. The replacement costs include costs necessary for full road reconstruction of a segment. It is assumed that all roads will be reconstructed as per their current surface type, i.e. like for like replacement.

The replacement cost of the assets in the road category is estimated at $40,150,000.

2.2 Condition

The condition information for the road network reported in this AMP is based on the 2022 Roads Report, which provided Pavement Condition Index data for paved roads and overall general condition for gravel and earthen roads, by a third-party consulting firm.

The approach to assessing condition of roads is to hire a third-party consulting firm to conduct a road needs study about every five years and for staff to identify changes in observed condition and report these findings to the road's supervisor.

PCI is a rating system that measures the condition of the roadway. It uses two components: a ride comfort rating (RCR) and a distress manifestation index (DMI). The DMI is a visual inspection that rates the road based on physical condition of, and/or damage to the road (pavement and shoulders).

The condition of the roads is organized into five categories from "Very Good" to "Very Poor" using the alignment of PCI scores as shown in the following **Table 2-1**.

Table 2-1: Condition Rating Categories for Roads

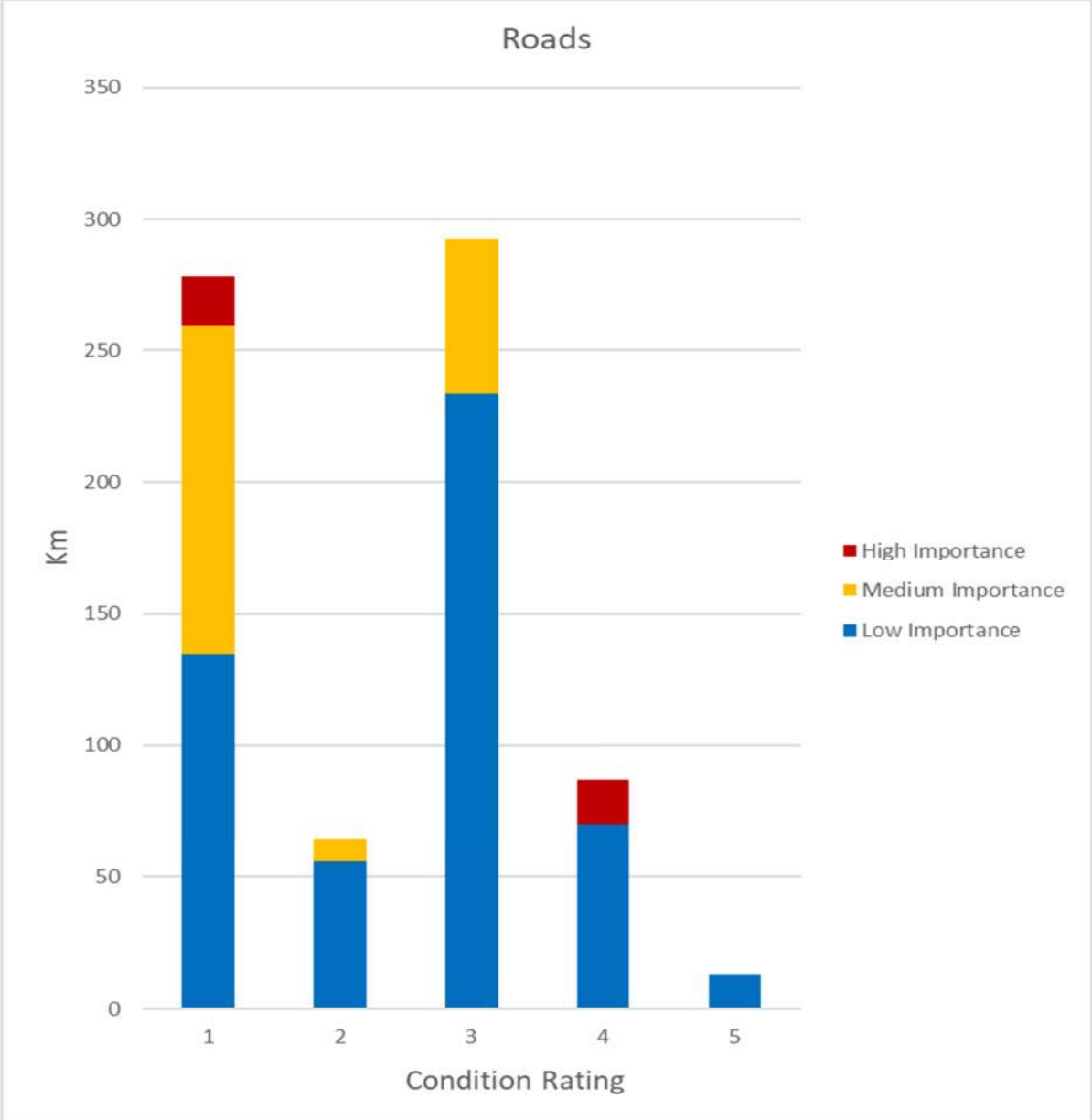
Condition	PCI	Condition Category
Very Good	90 to 100	1
Good	80 to 90	2
Fair	60 to 80	3
Poor	40 to 60	4
Very Poor	0 to 40	5

The average PCI condition rating for the paved road network is 75.5 PCI, an overall High Fair rating (Condition Category 3). The average condition rating for the gravel and earthen roads is 65 (Condition Rating 3).

The majority of the road network is in a “Very Good” to “Fair” condition with less than 16.5% by distance in Poor condition and only 4.5% in very poor condition.

Figure 2-1 summarizes the condition of the road network ranging from “Very Good” to “Very Poor” based on km of road in each condition category. Further, **Figure 2-1** presents the condition of the roads by importance (high, medium or low) shown by colour. Importance is a factor in setting priorities for future lifecycle activities.

Figure 2-1: Condition of Roads (Length [km] and Importance)



Note on Importance:

For Roads, importance was determined based on traffic volume as provided by the 2022 Roads Report completed by a third-party consultant. Where traffic data is not available road surface type was utilized. As such the following values will be used:

- High importance for roads with an AADT greater than or equal to 450 or roads with an asphalt surface treatment;

- Moderate importance for roads with an AADT greater than or equal to 100 but less than 450; and
- Low importance for roads with an AADT less than 100 or roads with granular or earth surface treatments.

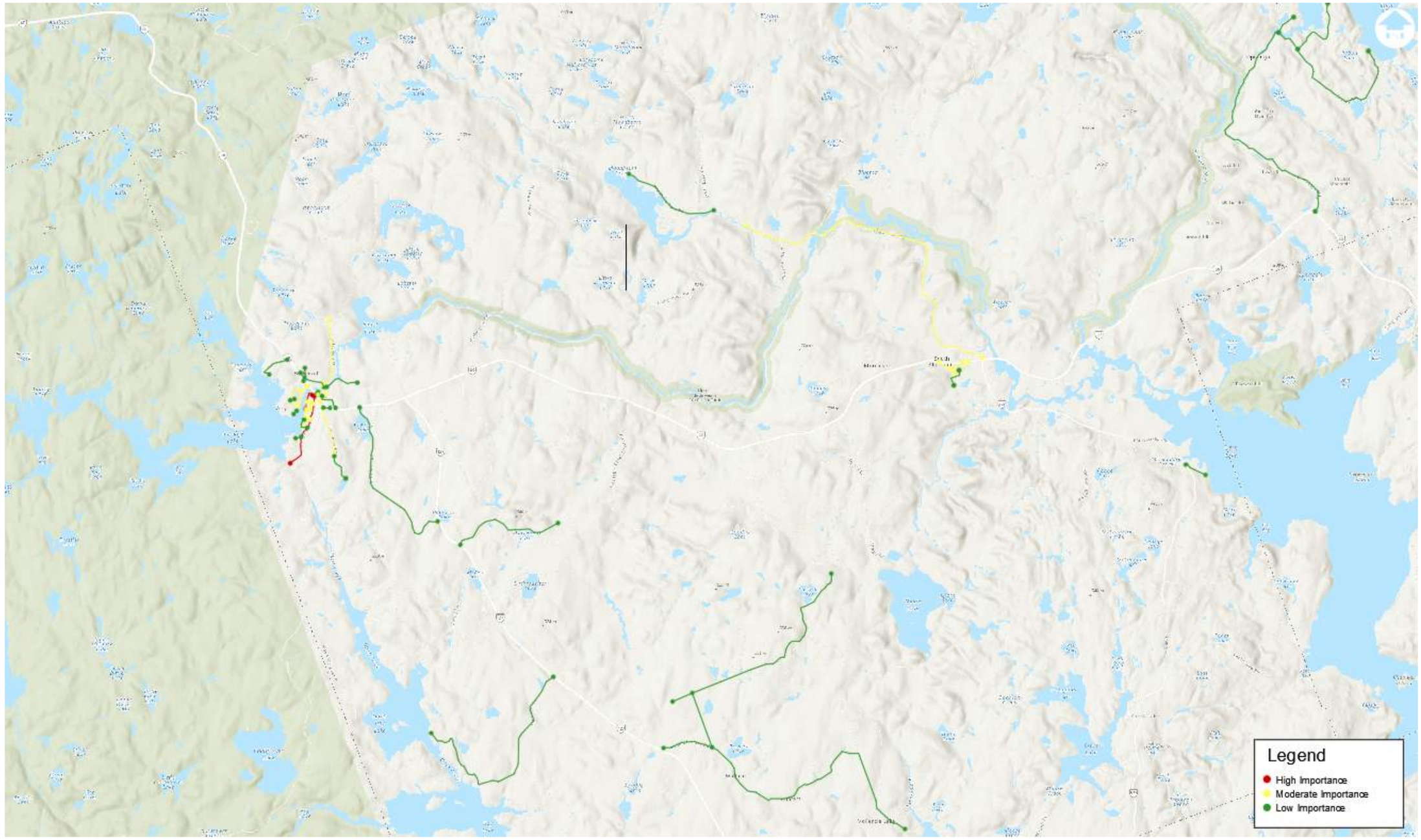
Bridges will be assigned the same importance rating as the road it serves.

2.3 Current LOS

2.3.1 Community LOS – Roads

The roads in the Township are intended to serve through traffic and to collect traffic from the local roads system. Township roads also connect urban centres to each other or the King's Highway System. Township roads provide service to resort and recreational areas. See a map of the Township road network in **Figure 2-2**.

Figure 2-2: Map of Township Roads with Showing Importance



2.3.2 Technical LOS – Roads

The number of lane-km of roads as a proportion of square kilometres (km^2) of land area of the Township is 0.14 km/km^2.

Quality: The technical metric for the condition of roads is the Pavement Condition Index (PCI) for paved roads and the average surface condition for unpaved roads.

1. **Paved:** The average pavement condition index is 88 (Good) for paved roads.
2. **Unpaved:** For unpaved roads, the average surface condition is Fair. There are currently 16.16 km of gravel road that the 2022 Roads Report has identified as needing to be reconstructed now, which is approximately 20% of the total 77.77 km of gravel roads.

2.3.3 Performance – Roads

The current performance of the road network is determined by the following performance measures established by the Township. It is based on actual performance in the most recent year.

- Half loads in spring. See list of roads in load restriction By-Law 15-481.
- Traffic counts. See Appendix for traffic counts locations from 2022.

2.4 Risk Assessment

The risk assessment for roads assets was conducted using the following assumptions and criteria:

Condition: Determined based on estimated condition (using provided condition data from the Roads Needs Study). **Table 2-2** below provides details regarding the provided ratings from the Township's Roads Needs Study and the corresponding rating used within the risk calculation.

Table 2-2: Road Condition Ratings

Condition Rating (PCI)	Corresponding Risk Condition Rating
0 to 19	5 – Very Poor
20 to 39	4 – Poor
40 to 59	3 – Fair
60 to 79	2 – Good
80 to 100	1 – Very Good

Performance: Assumed to be always reliable (value of 1).

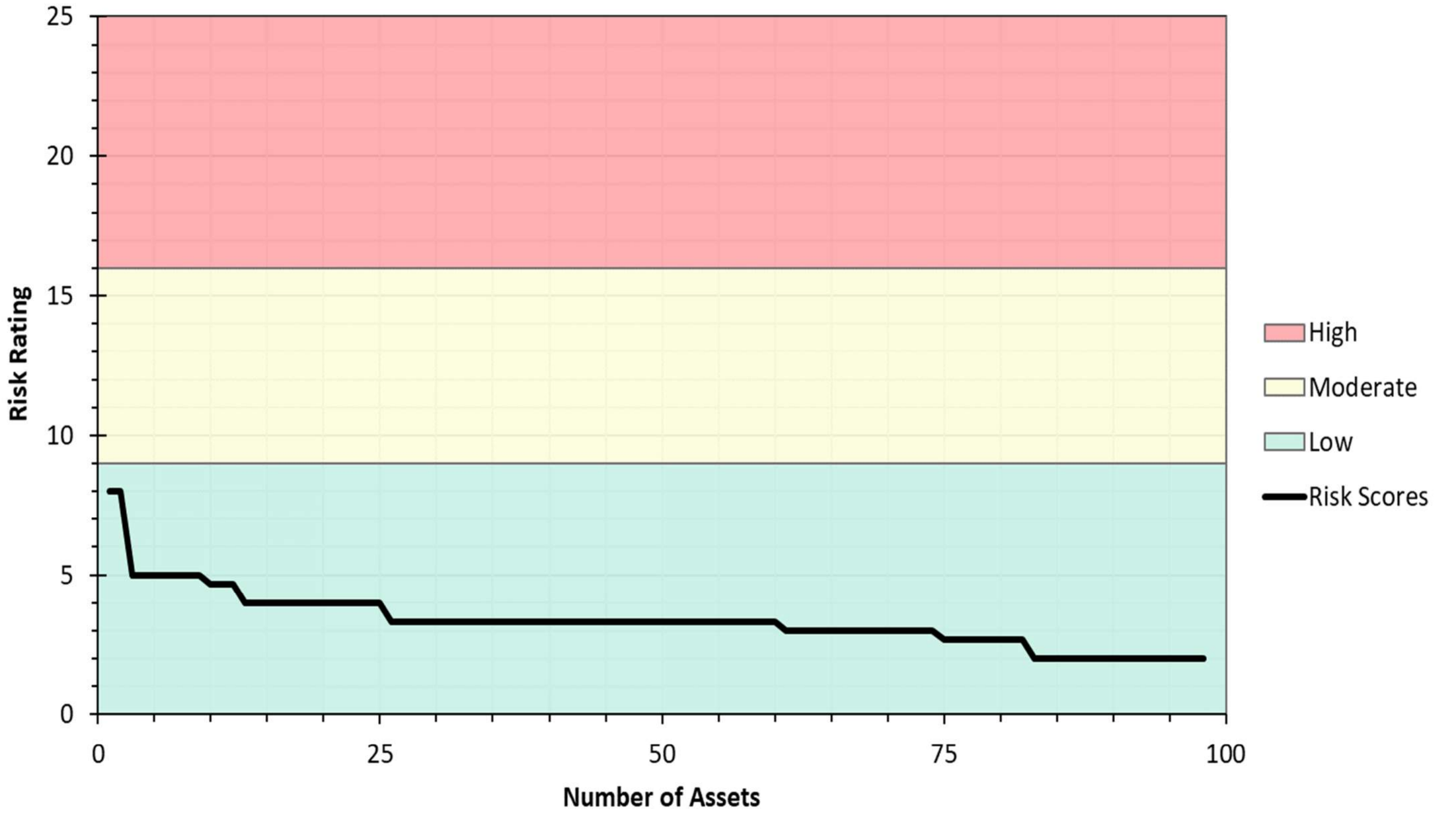
Climate Change: Assumed a value of 1 (Low, No or limited impact, quick recovery or mitigation in place).

Impact: Moderate impact (value of 1) assumed for all assets.

Importance: Importance was determined based on traffic volume as provided by the road needs study by G.D. Jewell Engineering Inc. Where traffic volume data is not available road surface type was utilized to determine importance. As such the following values will be used:

- High importance (value of 3) for roads with an AADT greater than or equal to 450 or roads with an asphalt surface treatment;
- Moderate importance (value of 2) for roads with an AADT greater than or equal to 100 but less than 450; and
- Low importance (value of 1) for roads with an AADT less than 100 or roads with granular or earth surface treatments.

Figure 2-3: Risk Profile for Roads Assets



As depicted in **Figure 2-3** all Road Assets (98) were determined to be in the low risk zone.

2.5 Lifecycle Activities

The following section describes the lifecycle activities that can be implemented within the asset management strategy for road assets. The primary lifecycle activities include construction, maintenance, operation, renewal/rehabilitation, and decommissioning/ disposal.

The lifecycle activities presented below are consistent with best practices for road asset management and maintenance.

2.5.1 Construction

The initial lifecycle activity of a road asset is its construction. The road asset should be constructed to adhere to applicable requirements, codes, and design guidelines. Construction of new road assets is recommended to be in line with recommendations as part of growth, master plan, or other Township strategies. The design of the road asset should consider the LOS expected to be provided by that particular road asset, such as the anticipated speed or volume of traffic. Varying factors in construction include: road classification, surface type, and location.

Construction can also be the replacement of deteriorated assets. Generally, at the end of the useful life of an asset, it can be replaced to ensure the continuation of the desired LOS which the Township provides. At the time of replacement, design should be undertaken to ensure design requirements are met, and adequate capacity is provided for current and future projections.

2.5.2 Maintenance

Maintenance activities are undertaken on the assets throughout their useful life to maintain their operating condition and performance. There are a variety of maintenance activities available to undertake on-road assets depending on the surface type of the roadway, including:

- Ditch and shoulder improvements;
- Grading;
- Calcium treatment;
- Crack sealing;
- Patching/pothole repair; and
- Washout repair.

Maintenance activities can include the full road surface or can be used to address localized repairs on the road surface.

The selection of the maintenance activity is dependent on a variety of factors, including road surface type (material, urban/rural classification), condition (surface and road base), road works history, and importance, among others.

2.5.3 Operating

Operating activities for the road assets include those activities that do not directly deal with the physical state of the road but work to extend the assets' useful life. The operating activities can include non-infrastructure solutions (such as policies, limiting truck traffic, and planning reports), and monitoring/inspection of the assets. Inspection of the road assets is completed by Township staff on a regular basis, and on a broader portion of the network conducted by a third party, in the form of a Roads Needs Study. The Roads Needs Study includes a combination of effort types to suit the needs of the Township. Adjustments are made to reflect road improvements and capital construction, deterioration of pavement or ride conditions, and to coordinate with underground infrastructure work, if applicable. In recent years the Township has procured the services of an independent specialist to provide a Roads Needs Study.

2.5.4 Renewal/Rehabilitation

Renewal or rehabilitation of road assets can be undertaken when maintenance works are no longer sufficient to address road surface deficiencies. These replace significant parts of the road and sub-base but provide large improvements to condition and lifespan. These works can include:

- Resurfacing for paved roads;
- Replacement of material lost for gravel and earthen roads.

The selection of the activity for implementation will require consideration of the same factors listed for maintenance works.

2.5.5 Decommissioning

Decommissioning activities of the road assets include the removal of the road from service. A road may be removed by disposal of the asset components, or establishment of a barricade to prevent continued usage of the asset. Disposal activities should be conducted such that health and safety protocols are being followed, and spent materials are disposed of at an appropriate or approved facility.

2.6 Asset Management Strategy

The asset management strategy for the road assets seeks to use the lifecycle activities in a manner that will achieve cost-effective and sustainable management of the road assets.

The road assets will deteriorate on a non-linear basis, and the lifecycle activities can be implemented at varying stages within an asset's deterioration.

The condition and usage of the road assets are key drivers in the determination of lifecycle activities to use. The Township has engaged a third party for the assessment of the roads, completed in 2022. This condition assessment of the roads is completed on a scheduled basis wherein the entirety of the network is reviewed every three years to five years. A variety of methods can be implemented for undertaking condition assessment of roads, including visual inspection, and street scan technology. A condition rating program can also be implemented that considers the importance or risk of a road segment and prioritizes frequency and timing of condition assessments to higher usage or higher importance roads. This condition assessment program continuation is recommended for the Township.

Maintenance works should be undertaken throughout the lifecycle of an asset. Selection of the appropriate maintenance activity will depend on the type of deterioration being experienced on the asset, and the condition of the asset. Some activities, such as crack sealing, are best utilized on a road segment that is generally in good condition. As the road segment continues to deteriorate, maintenance activities may become a less preferred option as they may become insufficient to address deficiencies. Maintenance

activities can be undertaken on a road segment multiple times prior to the asset requiring rehabilitation activities, depending on the nature and extent of the maintenance works.

Renewal and rehabilitation activities should be undertaken on an asset when it has deteriorated past the point where maintenance activities would be adequate to address condition issues. Selection of the appropriate rehabilitation activity will depend on the road surface material, stage in the lifecycle, and severity and type of deterioration.

At the point where a road asset has deteriorated such that maintenance and rehabilitation options will be inadequate to address condition issues, the road can be a candidate for reconstruction. Reconstruction works will result in a road segment being at a very good condition rating. In general, the current strategy for the road assets at the Township is to allow the road surface asset to degrade near the end of its expected lifecycle, and reconstruct the road surface when required. The road base has a much longer expected useful life than the road surface and is dealt with as required during road works.

Reconstruction and rehabilitation work offer the Township an opportunity to integrate other improvements into the road works. This may include active transportation facilities, upgrades of drainage, street lighting, and changes to the road cross-section to accommodate growing demands.

As the Township reconstructs the roads, the cross-section will vary depending on the location and classification of the road. The width of pavement (number of lanes, presence of on-street pavement), and type of active transportation (sidewalk, multi-use path) will be assessed on a case-by-case basis as roads are identified for reconstruction.

3.0 Bridges and Culverts

3.1 State of Local Infrastructure

The Township has four bridges, the Airy Pedestrian Bridge, Algonquin Street Bridge, Moore's Creek Bridge, Poverty Creek Bridge, and one structural culvert (3 m in span and larger), the McCauley Lake Road Culvert, totaling five structures. The Township also provides winter plowing services for the Victoria Lake Culvert, which is in poor condition. It is used for EMS transit and the Township provides the snow removal services for its constituents as residents live on either side of the structure. Although this structure does not fall within the Townships inventory they assisted Ontario Parks with its replacement in 2022.

3.1.1 Average Age

The average age of bridges is 60 years, whereas the age of the Townships culvert is estimated to be between 30 and 40 years old.

The age distribution of the bridge and culvert structures is shown in **Table 3-1**.

Table 3-1: Age of Bridges and Culverts

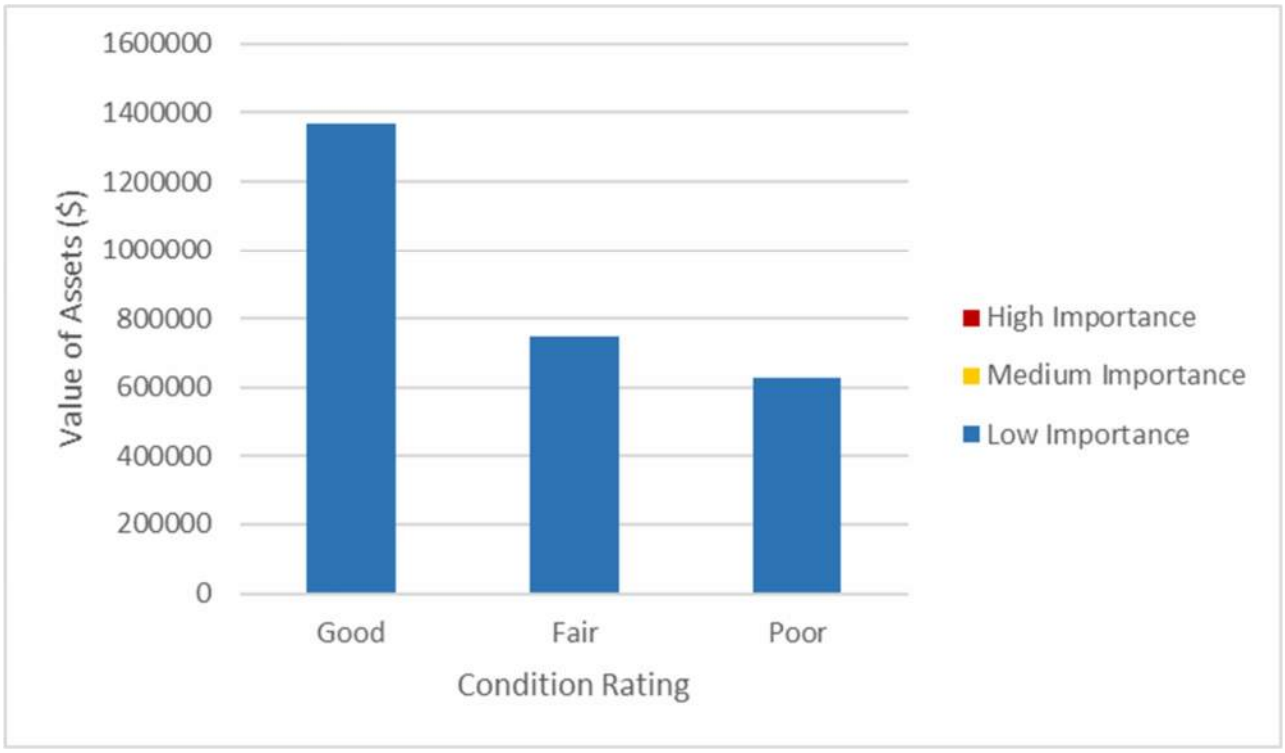
Bridges/Culverts	Age
Algonquin Street Bridge	72
Moore's Creek Bridge	62
Poverty Creek Bridge	77
Airy Pedestrian Bridge	27
McCauley Lake Road Bridge (Culvert)	30 to 40

3.1.2 Replacement Cost

The replacement cost of the bridges/culverts is $2,680,000.

Figure 3-1 presents the replacement cost of bridges/culverts in each of the condition categories, with the importance of the bridges/culverts all being low, based on the reported AADT values. Note that the majority of the bridges and culverts are in Good condition. Only one structure is in Fair and one structure is in Poor condition.

Figure 3-1: Condition of Bridges and Culverts (Value and Importance)



3.2 Condition

The information reported in this AMP and the subsequent analysis are based on the current inventory information maintained by the Township, and the current OSIM reports. OSIM assessments were most recently conducted for the Bridges and Culverts in 2021 by a third-party consulting firm.

The OSIM assessment conducted for the Township consisted of an inspection by a professional engineer pursuant to the Ontario Structural Inspection Manual of up to 55 structural elements which provides an indication of the general overall condition of the bridge or structural culvert (3 plus m span). This overall general condition of Good, Fair, or Poor, which has been assigned to each structure can be further translated into a Bridge Condition Index (BCI) number to allow us to group structures together and help assist in showing the Township where their funds would be best used.

Table 3-2 shows the condition of bridges and culverts and how this would affect use of the bridges. The Bridge Condition Index (BCI) is grouped into three condition categories of Good, Fair and Poor. Photos illustrating an example of the condition in each category are presented in **Figure 3-2** to **Figure 3-4**.

Table 3-2: Condition of Bridges and How it Affects the Use

BCI Range	Condition Rating	Affect Usage
70 to 100	Good (1)	Not Applicable
60 to 70	Fair (3)	Not Applicable
Less than 60	Poor (5)	Possible Load Restrictions

Figure 3-2: Example of Poor Condition Bridge or Culvert – McCauley Lake Road Bridge

Figure 3-3: Example of Fair Condition Bridge or Culvert – Poverty Creek Bridge

Figure 3-4: Example of Good Condition Bridge or Culvert – Algonquin Street Bridge

The bridges and culverts are generally in a good condition (BCI 70 to 100); with one in fair condition (BCI 60 to 70) and one in poor condition (BCI 0 to 60). The Township updates its bridges and culvert conditions every two years. It engages an independent engineering consultant to undertake the inspection work and update the OSIM reports with current condition and a preliminary cost estimate for any works (improvements or replacements) recommended for the structure.

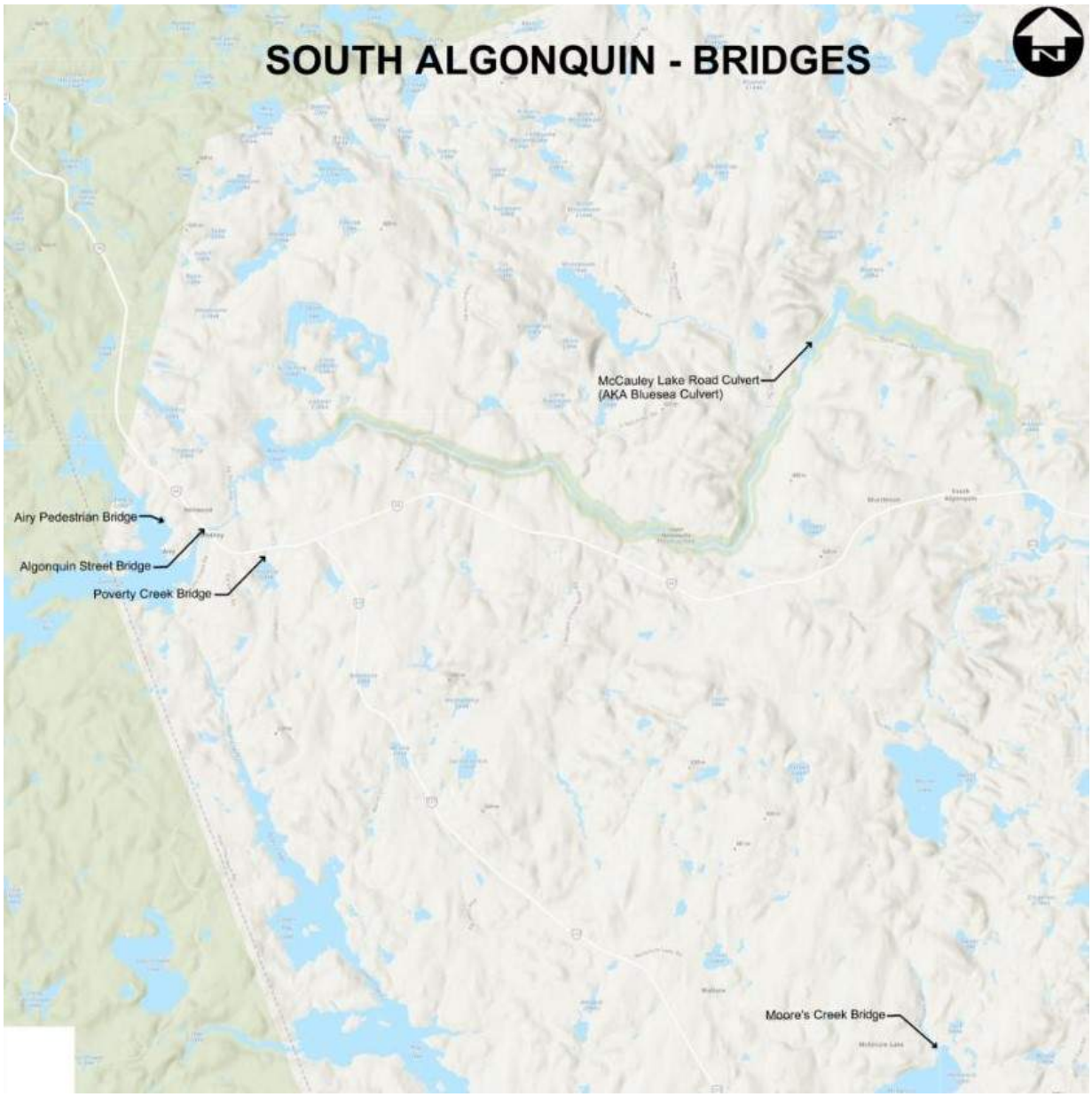
In addition to the condition, other factors such as importance, impacts of climate change and consequence of failure is considered in determining the risk rating for each bridge and culvert. The risk rating and the recommendations in the OSIM report are considered in planning maintenance, repairs and replacement. For example, if a bridge/culvert has a rating of good (BCI of 70) or greater, then minimal maintenance is required within the next five years. In comparison, for bridges and culverts rated fair (BCI of 50 or below) or poor, they require either immediate maintenance/repairs within one year.

3.3 Current LOS

3.3.1 Community LOS – Bridges and Culverts

The Townships bridges and culverts carry motor vehicles, emergency vehicles, heavy transport vehicles (unless otherwise signed), cyclists, and pedestrians. See map **Figure 3-5** of the location of the bridges and culverts in the Township.

Figure 3-5: Location of Bridges and Culverts



3.3.2 Technical LOS – Bridges and Culverts

The number of bridges/culverts in the Township with load or dimensional restrictions are:

- One asset in the bridge and culvert category has load restrictions; and
- Three of bridges and culvert have minimum vertical clearance restrictions.

3.3.3 Performance – Bridges and Culverts

The current performance of bridges and culverts is determined by the above performance measures established by the Township. It is based on actual performance in the most recent year.

See **Table 3-3** for the 2022 performance measures related to:

- Bridges with load restrictions; and
- Bridges with minimum vertical clearance restrictions.

Table 3-3: Performance 2022 – Bridges and Culverts

Description of Measure	ID	Bridge/Culvert Name
Load Restrictions	EQP 233	Poverty Creek Bridge
Minimum Vertical Clearance Restrictions	EQP 232	Moore's Creek Bridge
	EQP 233	Poverty Creek Bridge
		McCauley Lake Road Culvert

3.4 Risk Assessment

The risk assessment for bridge and culvert assets was conducted using the following assumptions and criteria:

Condition: Determined based on BCI ratings supplied by the Township from their OSIM Reports, according to the following:

- BCI from 0 up to 60: condition 5 (poor to very poor);
- BCI from 60 up to 70: condition 3 (fair); and
- BCI from 70 to 100: condition 1 (very good to good).

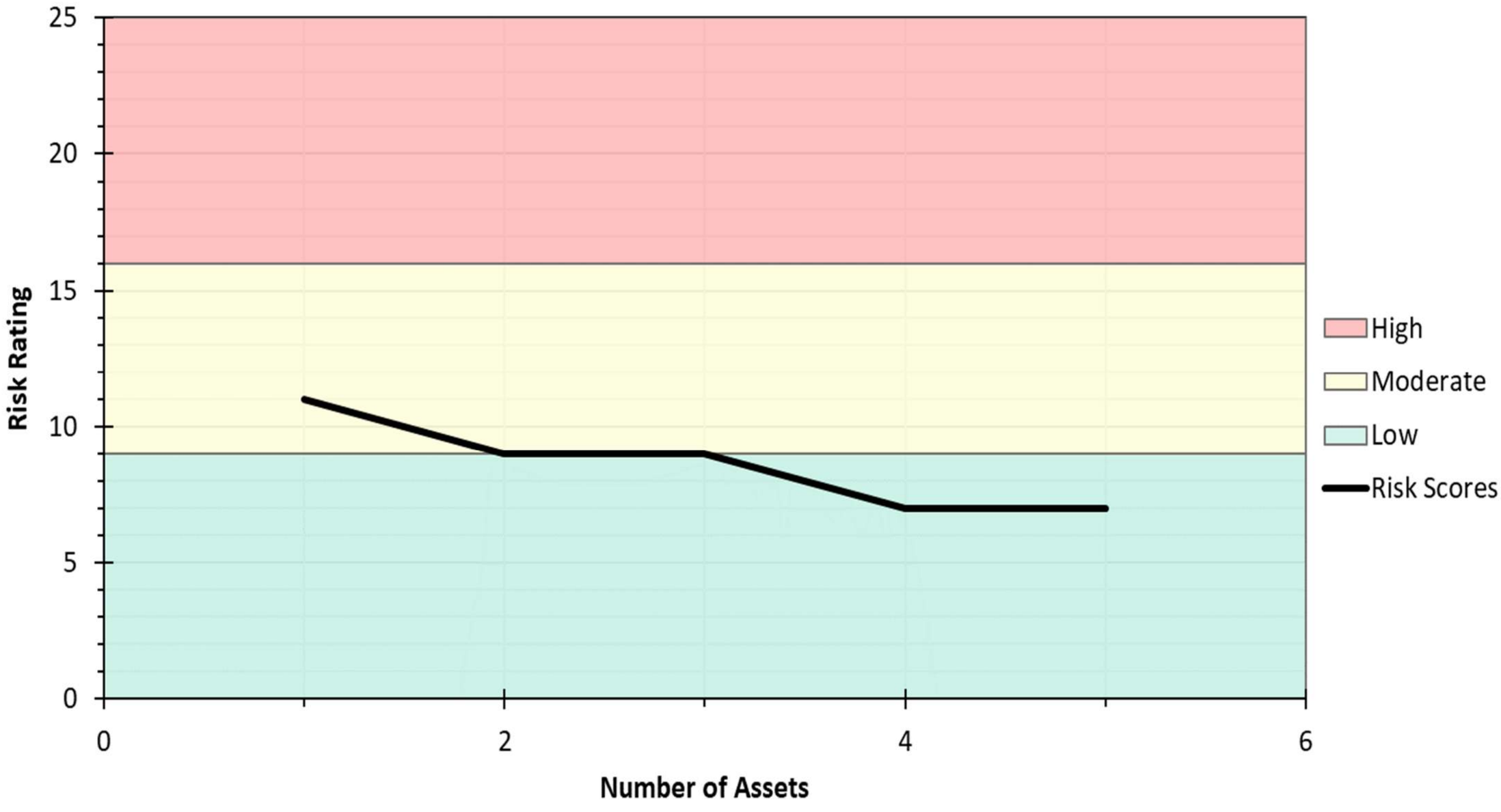
Performance: Assumed to be always reliable (value of 1).

Climate Change: Assumed a value of 5 (Moderate or high impact; no or limited mitigation plan).

Impact: Assumed to all be high impact (value of 2).

Importance: Importance for bridges are consistent with the importance values attributed to the road segments on which the bridges are located.

Figure 3-6: Risk Profile for Bridges and Culverts



As depicted in **Figure 3-6** the five Bridges and Culvert Assets were determined to be in the low risk zone and one is in the moderate risk rating zone.

3.5 Lifecycle Activities – Bridges and Large Culverts

The following section describes the lifecycle activities that can be implemented within the asset management strategy for bridge and structural (large) culvert assets. Note that, as previously discussed, roadway bridge assets refer to the entirety of the asset which is made up of the bridge deck surface and bridge structure. The primary lifecycle activities include construction, inspections, maintenance and rehabilitation replacement, and decommissioning/disposal.

3.5.1 Construction

The start of an asset's lifecycle is its construction. The bridge or structural culvert should be constructed to adhere with the requirements of the O. Reg. 160/02: Standards for Bridges, CSA S6 Canadian Highway Bridge Design Code, and any and all other applicable regional codes and requirements for the bridge and its use. Each bridge or structural culvert should be designed and constructed to provide the services for which it is intended.

3.5.2 Inspections

Under **O. Reg. 160/02: Standards for Bridges**, the Township is required to complete one inspection of all bridges and structural culverts every two years to identify the condition and produce a report outlining the recommended work over a ten-year period. The inspection uses the Ontario Structural Inspection Manual (OSIM) 2018 and is referred to as the OSIM or Bridge Inspection Report. The Township should continue the current biennial OSIM Bridge Inspections along the current schedule, with the next inspections scheduled for 2023. The inspections should include all bridges and culverts with a single or combined span greater than 3 m.

3.5.3 Maintenance

Bridge and culvert assets are long-lived assets with estimated useful lives from 50 to beyond 75 years. Throughout the lifecycle of these assets the majority of expected needs will be maintenance and repair work.

Routine maintenance works are typically used to prolong the lifespan of assets and include both preventative and reactive activities designed to maintain the asset's condition and function. Preventative activities are implemented to provide a predictive response to deterioration or possible performance issues by managing the contributing factors prior to an event occurring. Reactive maintenance is conducted in response to a condition or performance issue and is designed to correct the issue before it causes asset deterioration and possible deficiencies. The scale of maintenance activities varies widely and is dependent on a variety of factors including age, asset utilization, environment, and design. Maintenance should be completed based on recommendations in biennial OSIM reports and industry best practices.

A general summary of bridge and structural culvert maintenance activities include, but are not limited to:

- Cleaning, washing or flushing;
- Railing system maintenance;
- Painting of steel bridge components;
- Bearing maintenance;
- Pest control;
- Deck drainage maintenance; and
- Erosion control.

Repair works are driven by the identification and treatment of deficiencies to prevent the continued deterioration of the deficiency which may cause a reduction in asset condition, performance and LOS delivered. Timing of repairs varies widely as they may be prescheduled based on estimated deterioration, in response to biennial condition reporting, or on an emergency basis. Repairs to bridges vary widely and can be in relation to structural and deck surface components.

3.5.4 Replacement

Replacement of a structure is based on current age, estimated lifespan, and recommendations from condition assessments. Replacement can be used when an asset is nearing or has reached the end of its life, repairs are not technically feasible, estimated future repair costs are greater than replacement cost, or increases to capacity or LOS are required. Replacement activities are typically large in scale and involve the

issuance of a capital project. Timing of replacement activities must consider the impact on adjacent infrastructure, the impact on nearby asset LOS and the replacement or maintenance requirements of connected infrastructure.

3.5.5 Disposal

Disposal activities from bridges and culverts can include the removal from service of a bridge or culvert, through:

- Closure of the bridge or culvert from access;
- Change in LOS of the bridge or culvert to limit access (e.g., vehicular bridge traffic having a reduction or addition of a load posting); and
- Deconstruction of the bridge or culvert.

Disposal activities should be implemented when a bridge or culvert structure has reached the end of its useful life or has degraded to such a state that it can no longer provide the LOS for which it is intended. Removal of a bridge from service without replacement, or decrease in the LOS should be undertaken only when it is decided to no longer be required to provide the LOS to residents.

Disposal activities should be conducted such that health and safety protocols are being followed, and spent materials are disposed of at appropriate or approved facilities.

3.6 Asset Management Strategy – Bridges and Large Culverts

The asset management strategy for bridges and structural culverts is based on maintaining the structures in sufficient condition and performance to allow for continued access to crossings and adequate service delivery. The strategy considers the requirements set out by applicable regulations, and builds on those to include the lifecycle activities summarized above.

Under O. Reg. 160/02: Standards for Bridges, the Township is required to complete one inspection of all bridges and structural culverts every two years to identify conditions and produce a report outlining the recommended work for a 1 to 10-year period. The inspection uses the Ontario Structural Inspection Manual (OSIM) 2018 and is referred to as the OSIM report. The most recent condition assessment and study was completed in 2021, with the next scheduled assessment planned for 2023.

The Township's current strategy for maintaining the bridges includes the procurement of OSIM reports at the required frequency, and completion of the maintenance, rehabilitation and reconstruction works according to the recommendations from the OSIM reports.

Inspections and OSIM reports will identify works to be completed at each of the bridge and culvert structures – each of the inspection types should recommend maintenance works, rehabilitation works, and reconstruction where necessary, as well as prioritization of the works and an estimation of the overall condition of the structure. It is therefore assumed that by following the results of the inspections / OSIMs, the Township will be following a strategy that prioritizes maintenance works as required to maximize the lifecycle of the bridge and large culvert assets.

4.0 Solid Waste

4.1 State of Local Infrastructure

The Township operates two solid waste landfill sites, one known as the Airy (Whitney) Landfill located in the former Airy Township on lands which were purchased from the Crown in 2004, at 426 Nipissing Road, and one known as the Madawaska (Lyell) Landfill located on Crown lands under a Land Use Permit in the former Township of Lyell, at 6319 Highway 523.

4.1.1 Madawaska (Lyell) Landfill Site

The Madawaska (Lyell) landfill site has a total capacity of approximately 79,950 cubic metres (m^3), with an estimated remaining capacity of 38,690 m^3. The site is approved for the following waste types:

- Household Waste;
- Contaminated Fill;
- Shredded C&D Waste; and
- Inert Fill.

The Madawaska (Lyell) landfill also maintains a waste diversion program, where they accept certain items for collection and then redirect these items back to manufacture for disposal. Under the diversion program the landfill accepts the following items free of charge:

- Electronics;
- Tires;
- Batteries; and
- Steel and Aluminum.

There are two buildings located on the landfill site to complete landfilling operations, including:

- Reuse Building; and
- Site Office Trailer.

In addition to the site, the Township owns other equipment that are used in operations, including:

- Loader Waste Disposal Truck (purchased in 1991);
- Compactor (purchased in 1999); and
- Various Garbage and Electronic Bins (TBD).

Operations and filling at the landfill have proceeded in accordance with the Certificate and the Design and Operations report done by Jp2g in 2017. According to the 2021 reporting, there is 38,690 m^3 of capacity remaining in the entirety of the landfill. Based on a comparison of the 2020 and 2021 surveys an estimated 1,310 m^3 of landfilling occurred over this time, therefore it can be averaged out that there is an expected further 29 years of capacity remaining.

4.1.2 Airy (Whitney) Landfill Site

The Airy (Whitney) landfill site has a total capacity of approximately 106,615 m^3 in size, with an estimated remaining capacity of 35,000 m^3. The site is approved for the following waste types:

- Household Waste;
- Contaminated Fill;
- Shredded C&D Waste; and
- Inert Fill.

The Airy (Whitney) landfill also maintains a waste diversion program, where they accept certain items for collection and then redirect these items back to manufacture for disposal. Under the diversion program the landfill accepts the following items free of charge:

- Electronics;
- Tires;
- Batteries; and
- Steel and Aluminum.

There are two buildings located on the landfill site to complete landfilling operations, including:

- Reuse Building; and
- Site Office Trailer.

In addition to the site, the Township owns other equipment that are used in operations, including:

- Loader Garbage Truck (purchased in 2014); and
- Various Garbage and Electronic Bins.

Operations and filling at the landfill have proceeded in accordance with the operational requirements of the site laid out in the "Airy (Whitney) Landfill Design and Operations Report" done by Jp2g in 2004. According to the 2021 reporting, there is 35,000 m^3 of capacity remaining in the entirety of the landfill. Based on a comparison of the November 5, 2020, and December 1, 2021, surveys an estimated 835 m^3 of landfilling occurred over this time, therefore it can be averaged out that there is an expected further 41 years of capacity remaining.

4.1.3 Average Age

The Madawaska (Lyell) landfill site has been in operation since 1972, and has a currently been in operation for 50 years with an expected further 29 years of capacity remaining.

The Whitney (Airy) landfill site has been in operation since 1977, and has a currently been in operation for 45 years with an expected further 41 years of capacity remaining.

4.1.4 Replacement Costs

The replacement cost for the Lyell Landfill Waste asset is $300,000.

The replacement cost for the Airy Landfill Waste asset is $300,000.

The above replacement costs are based on previous AMP data and current inflation rates. This overall replacement cost is based generally on the land pricing, the vehicles and buildings associated with each site's costs fall under the asset category for those items respectively, this cost does not consider the closure cost for either site.

4.2 Condition

The information reported in this AMP and the subsequent analysis are based on the current inventory maintained by the Township and current waste reports, including:

- Waste Management Bylaw 16-517;
- 2021 Annual Monitoring Report Airy (Whitney) Waste Disposal Site ECA No. A530603 (Jp2g Consultants Inc. May 2022); and
- Madawaska Landfill Site Township of South Algonquin ECA No. A7091303 2021 Annual Monitoring Report (Jp2g Consultants Inc. March 2022).

The condition of the waste facility can be assessed as the physical condition of the landfill, or through an environmental lens according to the monitoring that occurs regularly at the site.

The Airy (Whitney) Landfill facility has ongoing sampling and monitoring programs which review the quality of groundwater and surface water. At the time of the 2022 reporting, the 2021 sampling program was completed and only select exceedances were noted in surface water quality samples; however, this is not attributed to poor condition at the landfill but instead to naturally occurring parameters. Furthermore, the report recommends continued monitoring for RUC at monitoring well 92-3 on the perimeter of the landfill property and for the Township to potentially consider initiating a long-term solution that could include obtaining an easement from the Crown for additional properties in this direction. Methane gas monitoring did report that methane was not detected in any of the monitoring wells or on-site buildings during either the spring or the fall monitoring events.

In accordance with the monitoring requirements for the Environmental Compliance Approval (ECA) Certificate of Approval (C of A), monitoring results and operating conditions are reported, most recently in 2021 (Airy Landfill Site, Township of South Algonquin, ECA No. A530603 – 2021 Annual Monitoring Report, Jp2g Consultants Inc.).

The Madawaska (Lyell) Landfill facility has ongoing sampling and monitoring programs which review the quality of groundwater and surface water. At the time of the 2022 reporting, the 2021 sampling program was completed and only manganese, Total Dissolved Solids (TDS), and nitrate exceedances were noted to be over the Reasonable Use Assessments in the ground water sampling; however, there are no groundwater users between the landfilling area and Pete's Lake, where this leachate plume may be

migrating, and as a result the Reasonable Use Policy is being met. There are currently no concerns with respect to the surface water sampling program. Methane gas monitoring was not reported on any of the monitoring wells or on-site buildings during either the spring or the fall monitoring events. Overall, the groundwater monitoring report from 2021 concluded that the site may continue operating in compliance with the current ECA No. A7091303 approval (Jp2g Consultants Inc., 2021).

In accordance with the monitoring requirements for the Environmental Compliance Approval (ECA) Certificate of Approval (C of A), monitoring results and operating conditions are reported, most recently in 2021 (Madawaska Landfill Site, Township of South Algonquin, ECA No. A7091303 - 2021 Annual Monitoring Report, Jp2g Consultants Inc.).

4.3 Current LOS

Levels of service for waste assets are not defined in the regulation, O. Reg. 588/17. As such, levels of service have been established in consultation with the Township. **Table 4-1** and **Table 4-2** outline the Township's current community and technical levels of service for waste management assets.

4.3.1 Community LOS – Solid Waste

Table 4-1: Community Levels of Service – West

LOS Parameter	Community Levels of Service Qualitative Description	Community LOS
Scope	Description, which may include maps facility location	Airy (Whitney) Landfill site located at 462 Nipissing Road, Lot 10, Concession 7 and 8 in the geographical Township of Airy. Lyell (Madawaska) Landfill site located at 6319 Hwy. 523, Lot 7, Concession 11 in the geographical Township of Lyell. Locations shown in **Figure 4-1**.

LOS Parameter	Community Levels of Service Qualitative Description	Community LOS
Availability	Description of hours of operation and available services	**Landfill Site Hours:** **Summer:** Wednesday from 2:30 PM to 6:30 PM Saturday from 8:00 AM to 12: 00 PM Sunday from 10:00 AM to 2:00 PM, May through October. **Winter:** Wednesday from 1:00 PM to 4:00 PM Saturday from 8:00 AM to 12:00 PM Services include household waste, recycling, e-waste, inert waste, tires and batteries.

Figure 4-1: Landfill Location Map

4.3.2 Technical LOS – Solid Waste

Table 4-2: Technical Levels of Service – Waste

LOS Parameter	Technical Levels of Service Technical Metric Description	Technical LOS
Scope	Percent of properties serviced by waste collection.	All properties have waste collection services.
Scope	Annual volume of waste through collection services and material drop-off.	10,858 m^3 material received by the landfill in 2021.
Quality	Meets CoA operating requirement.	Monitoring Requirements have been fulfilled at the time of submission.

4.3.3 Performance – Solid Waste

Asset performance measures were determined in consultation with the Township, which provide relevant metrics against which the Township can gauge the performance of their assets. The performance measures for waste assets, and their current measures are shown in **Table 4-3**.

Table 4-3: Current Performance Measures for Waste

Asset Performances Measure	Current Measure
Waste Fleet maintenance expenses or annual operating cost to provide service ($/household)	Based on available information, the waste fleet operating and maintenance expenses in 2021 were as follows: • Solid Waste Works fleet: $295,963. Based on 1,096 households, this equates to approximately $165/household for annual operating and maintenance cost for waste fleet assets.

Asset Performances Measure	Current Measure
Hours of Operation Maintained	Not currently tracked, but it is recommended that the Township should track this performance measure in the future. Was the landfill open during all hours of operation or were there times due to staffing shortages or COVID-19 that the hours needed to be reduced?

4.4 Risk Assessment

The Risk assessment for solid waste facilities assets was conducted using the following assumptions and criteria:

Condition: Assumed to be in good condition (value of 2).

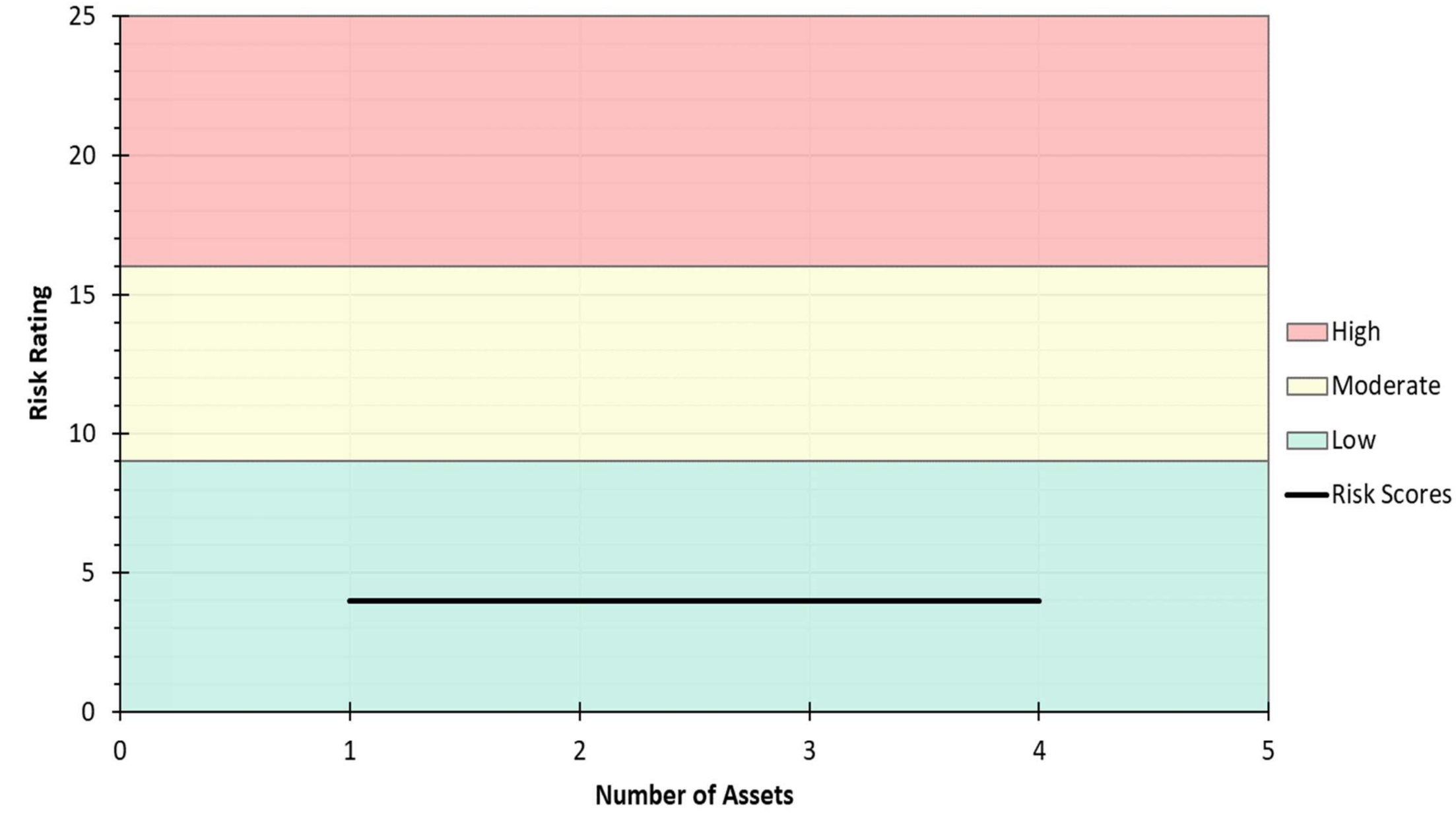
Performance: Assumed to be always reliable (value of 1).

Climate Change: Assumed a value of 3 (Limited impact with slower recovery; mitigation plan not in place).

Impact: Assumed to all be moderate impact (value of 1).

Importance: Importance for solid waste facilities is assumed to be low (value of 1).

Figure 4-2: Risk Profile for Solid Waste Assets



As depicted in **Figure 3-6** four Solid Waste Assets were determined to be in the low risk zone.

4.5 Lifecycle Activities – Solid Waste

The following section describes the lifecycle activities that can be implemented within the asset management strategy for solid waste assets. Note that, as previously discussed, the solid waste assets refer to the entirety of the asset which is made up of varying component systems depending on the use of the lands and buildings that make up each site. The primary lifecycle activities include construction, maintenance, renewal, and decommissioning/disposal.

4.5.1 Construction

The start of a solid waste asset lifecycle is its construction. The site should be selected such that it impacts the population of the Township minimally while being constructed to adhere to the requirements of the Environmental Protection Act (EPA), Ontario Water Resources Act (OWRA), and any and all other relevant legislation. Construction of a new asset should be done such that the current needs of the Township are being addressed, and that the solid waste asset can provide service delivery as intended.

4.5.2 Maintenance

Throughout the full lifecycle of a solid waste asset, the majority of the expected lifecycle activities to be undertaken will be maintenance and servicing works. Maintenance activities can be used to improve the LOS of an asset (or component), to maintain it, or to service existing issues. Activities that fall under the maintenance category can be varied by response type and scale of maintenance requirements. Activities can be required through routine maintenance works, in response to complaints, or on an emergency basis. In general, the expected types of maintenance activities within the lifecycle of a solid waste asset include:

- **Preventative Maintenance:**
  - This type of maintenance activity is undertaken to prevent failure or poor performance of a solid waste asset component. Preventative maintenance works can be undertaken on an ad-hoc basis based on knowledge of the condition, or be undertaken according to a maintenance schedule.

- **Reactive Maintenance:**
  - This type of maintenance activity is undertaken in response to an issue or fault in the asset or component systems. The scale of reactive maintenance works will be variable depending on the system and type of failure or decrease in the LOS.
- **Major Maintenance (Replacement):**
  - This type of maintenance activity is undertaken in response to a component which is no longer able to provide an adequate LOS. Major maintenance (replacement) will be undertaken for one or more components of a solid waste asset. Major maintenance works can be preventative (in anticipation of the end of the service life of a component), or in response to a system failure.

4.5.3 Renewal

As one phase of a solid waste asset reaches capacity there may be the opportunity to renew the lifecycle of the asset by expanding into a new phase. Renewal will require that all regulatory approval processes are completed and all applicable standards are still met. The cost of going through this process may be substantial and will be required to be started in advance of the requirement of the new landfilling area due to the timelines of achieving the approval. In anticipation of this timing and cost need, it is important to gain a thorough understanding of operations and future requirements of the landfilling site through its current reporting or additional studies.

4.5.4 Decommissioning/Disposal

At the end of the useful life of the solid waste asset (capacity has been reached), there are additional costs and liabilities associated with the closure of the site. Once operations are no longer possible, the landfilling activities will cease, however, there will be remaining costs for managing the solid waste asset, as there will be costs associated with closure activities, and ongoing maintenance costs to maintain the condition and safety of the site.

4.6 Asset Management Strategy – Solid Waste

The strategy for the solid waste site would seek to maximize the operational lifespan of the solid waste asset and continue to provide adequate waste services to the Township.

The strategy for solid waste assets should consider the following:

- The strategy should rely on detailed assessment and documentation for the solid waste facility, completed by waste professionals. Understanding of site operations, waste volumes, site capacity, etc., will influence how the site is managed.
- Services provided as part of landfill and solid waste service delivery. The Township provides solid waste collection services, as well as on-site waste disposal services for residents of the Township and adjacent municipalities. These services include refusing disposal beyond household waste. The management strategy for the waste site should consider the operation of each stream of service delivery, and understand the utilization, efficiency and adequacy of each service. The quantity and specifications of assets required (landfill site and ancillary) may change according to the services delivered.

Lifecycle activities undertaken at the solid waste site should be according to the guidance in current landfill guidance, regulations and reporting. Through the lifecycle of the solid waste asset, the Township will have to consider the opening of new phases for landfilling activity, and the impacts of closure and maintenance for the facility.

The Township's solid waste facilities are not yet at the stage where closure is being considered, however, the Township must continue to be aware of the risks and costs associated with this lifecycle stage.

Lifecycle activities undertaken on the ancillary solid waste assets should be undertaken as required to maximize the useful life and sustainability of the asset. Generally, if acquired new, the assets will begin their expected useful life in very good condition and performance. Throughout the lifecycle of the assets, routine maintenance should be conducted. As required, specific maintenance should be conducted. As an asset ages and approaches the end of its useful life, it is expected that the risk and maintenance costs associated with the asset will increase. There will be a point in the lifecycle where the risk and maintenance costs are such that the replacement of the asset will be the preferred solution. This point will vary depending on the type of asset and the services delivered by each.

Strategy for the fleet and equipment assets related to landfill operations are included within the Fleet and Equipment sections.

5.0 Fleet and Equipment

5.1 State of Local Infrastructure

The Township owns and operates numerous vehicles and equipment used in delivering its services and programs. The largest user of fleet is Public Works (Roads and Transportation Services) followed by Fire Services; and Environmental, Recreational and Cultural.

The vehicles and equipment included in the Townships fleet delivers services in:

- **Public Works:** Snow removal, road repairs as well as Waste Management services;
- **Fire Services:** Vehicles and Equipment required for the Whitney and Madawaska fire stations; and
- **Recreation and Cultural Services:** Vehicles and Equipment used for administration services to support administration, parks and land assets.

The following **Table 5-1** outlines the fleet and equipment assets currently owned and maintained by the Township.

Table 5-1: Summary of Fleet and Equipment

Number of Assets	Public Works	Fire Services	Recreation and Culture
Number of Vehicles	16	13	0
Number of Equipment	22	25	24

5.1.1 Average Age

The average age of Public Works fleet is three years, while the Fire Services fleet has an average age of 22 years.

The average age of equipment is 14 years.

Ages are based on the year of acquisition, and are current as of 2022.

5.1.2 Replacement Costs

The replacement cost of the entire fleet is $2,795,000 from each service area as follows:

- Public Works fleet replacement cost is $1,640,000; and
- The Fire Services fleet replacement cost is $1,155,000.

The replacement cost for all of the equipment is $1,946,200.

The replacement costs shown above were a summation of the initial values as provided by the Township and inflated to current dollar values using the annual inflation rate from the Bank of Canada. As well, for some select (higher valued) equipment and fleet items the Township procured current Tender costs directly from manufactures and retailers.

5.1.3 Expected Useful Life

The expected useful life of fleet and equipment assets ranges from 5 to 25 years and varies by vehicle type. The useful life information was compiled by the Township staff and presented in their **Policy FN-001-02 Accounting for Tangible Capital Assets Policy**, dated October 2022. For some of the Public works fleet asset classes, typical useful life values were summarized in **Table 5-2**.

Table 5-2: Expected Useful Life of Fleet – Public Works

Class Description	Typical Useful Life
Light Trucks	10
Trailers	15
Roadside Equipment	10
Miscellaneous Equipment	10

Across all fleet assets, the average expected useful life is 11.25 years.

5.2 Condition

The information reported in this AMP and the subsequent analysis are based on the current inventory information maintained by the Township.

Condition of the fleet assets was established using the age and useful life of assets, or by odometer readings, both based on information tracked by the Township. The age and expected useful life were used to make an estimation of condition based on percentage of useful life elapsed, while odometer readings were separated into ranges associated with varying condition ratings. Condition ratings were determined on a scale of 1 to 5, where 1 describes an asset in Very Good condition and 5 in Very Poor condition. The condition ratings and corresponding useful life remaining and odometer ranges are shown in **Table 5-3**.

Table 5-3: Fleet Condition Assessment Remaining Useful Life Rating System

Condition Rating	Condition Rating Description	Expected Remaining Useful Life (%)	Odometer Reading Range (km)
1	Very Good	80 to 100	0 to 25,000
2	Good	60 to 80	25,000 to 75,000
3	Fair	40 to 60	750,000 to 125,000
4	Poor	20 to 40	125,000 to 200,000
5	Very Poor	0 to 20	200,000 and over

Condition was estimated using both methods for each asset (where data was available to do so), and the more conservative result was carried through assessment.

A summary of the condition ratings averaged by fleet and equipment asset type are shown in the **Appendix** and **Table 5-4** to illustrate the data as well.

The assets are generally in Good condition, with only one asset being rated as Very Poor. A summary of the overall distribution is shown in **Table 5-4**.

Table 5-4: Summary of Overall Fleet and Equipment Assets Condition

Condition Rating	Very Good	Good	Fair	Poor	Very Poor
No. of Assets	6	40	5	7	1
Percentage of Assets	8.5%	56%	7%	10%	1.5%

Figure 5-1: Asset Value and Condition Summary – Fleet

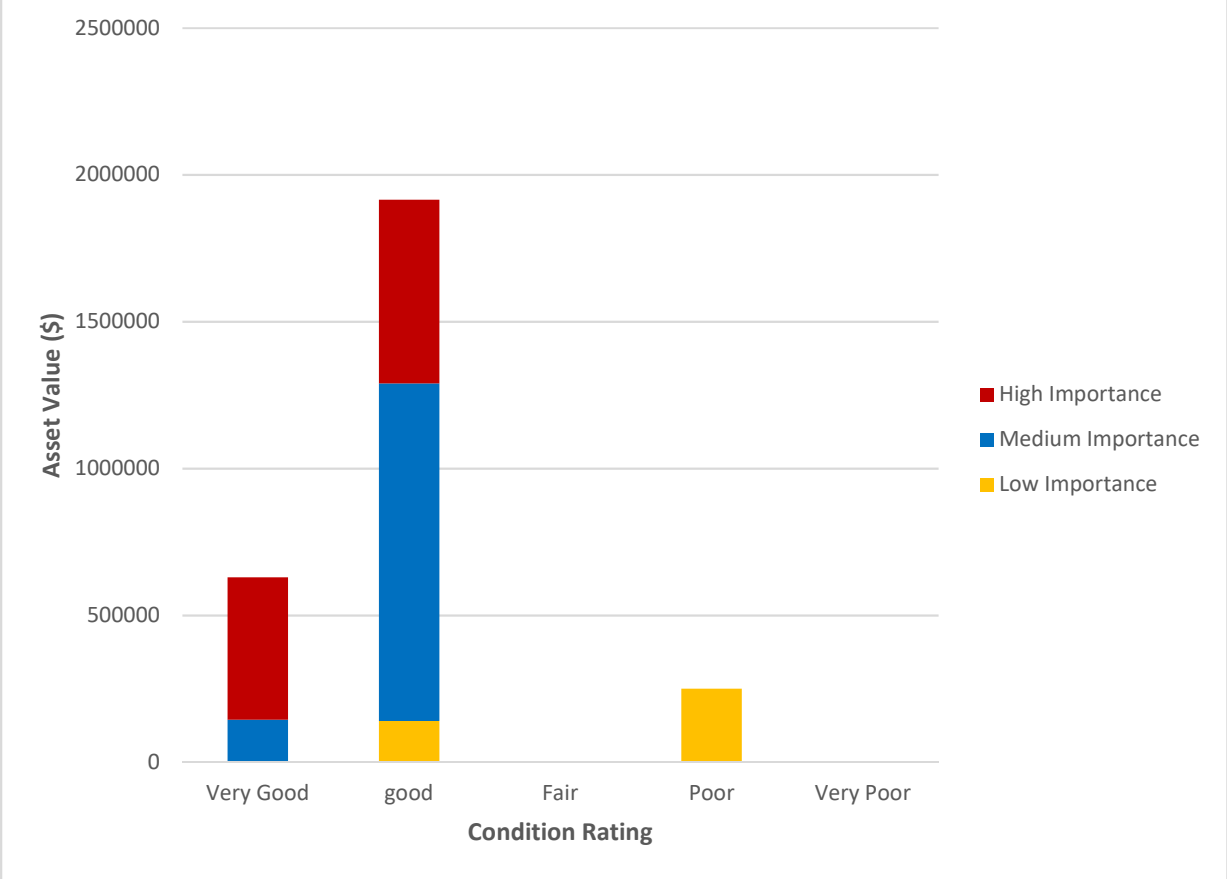
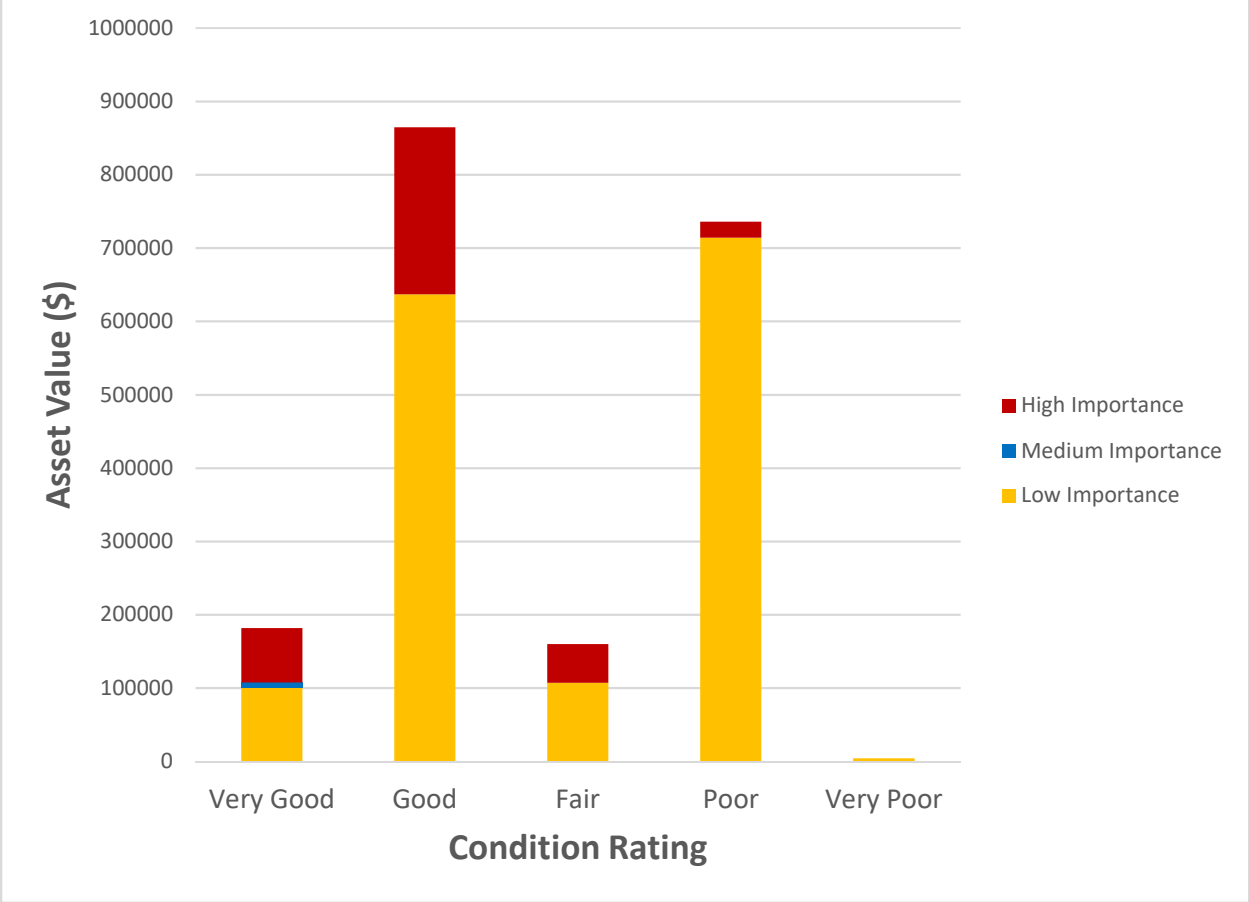


Figure 5-2: Asset Value and Condition Summary – Equipment



Asset number EQP251, a 1,500 gal. tank is not included in **Figure 5-1** as it was given a proxy condition value of Fair, the asset value of this item is $1,650.

5.3 Current LOS

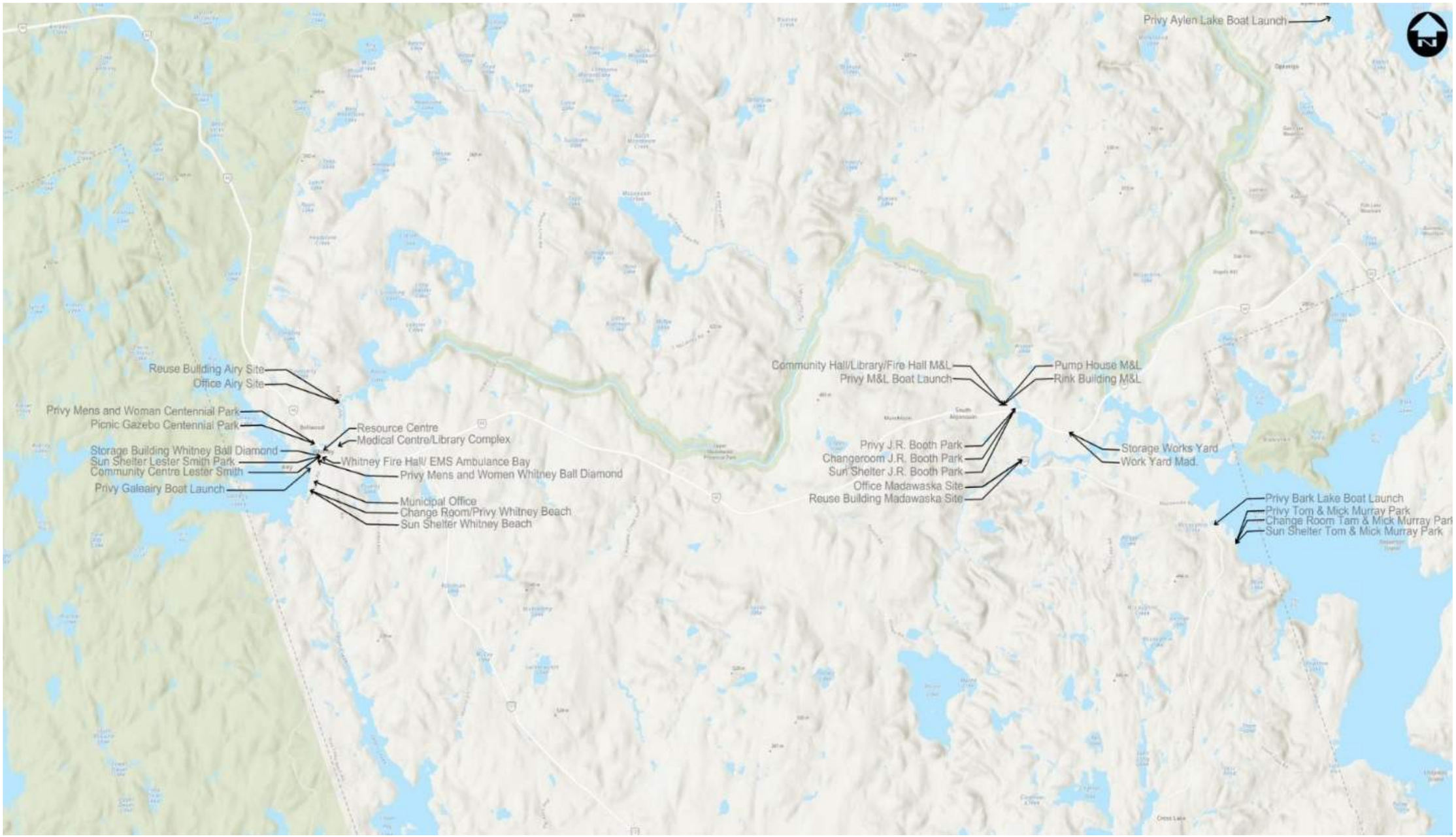
5.3.1 Community LOS – Fleet and Equipment

The vehicles and equipment included in the Township's fleet and equipment asset category delivers services in:

- **Public Works:** Snow removal and road repairs as well as landfill and parks management; and
- **Fire Services:** Fire Emergency Response Vehicles and equipment.

The effectiveness and response time of the fleet is related to where the vehicles are stored. See **Figure 5-3** for a map of Townships facilities including the location of the fire and paramedic station and the Public Works garages.

Figure 5-3: Township Owned Buildings – Location of Garages and EMS Stations



5.3.2 Technical LOSs – Fleet and Equipment

The two distinct services provided by fleet (Fire Services and Public Works) are required to meet different standards for their fleet, so they measure the scope and quality in different ways.

5.3.3 Performance – Fleet and Equipment

The current performance of fleet is determined by the following performance measures established by the Township. It is based on actual performance in the most recent two years.

See **Table 5-5** for the performance measures selected by the Township:

- Public Works: Fleet maintenance expense in 2021 and vehicle recovery.

Table 5-5: Performance 2022 – Fleet and Equipment

Description of Measure	Services Delivered	Performance 2021
Fuel Consumption	Public Works	62,609 litres
Distance Travelled	Public Works	200,793 kilometers
Distance Travelled	Fire Services	52,224 kilometres
Fuel Consumption	Fire Services	16,285 litres

5.4 Risk Assessment – Equipment

The risk assessment for equipment assets was conducted using the following assumptions and criteria:

Condition: Determined based on estimated condition, using percentage of expected useful life remaining in line with the ratings set for vehicle assets.

Performance: Assumed to be always reliable (value of 1).

Climate Change: Assumed a value of 1 (No or limited impact, quick recovery or mitigation in place).

Impact: High impact (value of 2) for Fire Response and Emergency Equipment;

Moderate impact (value of 1) for Sander Plow and associated Equipment; and

Low Impact (value of 0) for all other equipment.

Importance: High importance (value of 3) for Fire Response and Emergency Equipment;

Moderate importance (value of 2) for Sander Plow and associated Equipment; and

Low importance (value of 1) for all other equipment.

5.5 Lifecycle Activities – Equipment

In the lifecycle of an equipment asset, there are multiple activities that can be taken, depending on the asset attributes. The expected lifecycle activities to be used on the equipment assets including acquisition, maintenance, operation and decommissioning/disposal.

5.5.1 Acquisition

Acquisition of a new equipment asset should consider the intended usage of the asset. The acquisition should be undertaken based on an understanding of the requirements of the asset for providing service delivery and should follow the Township procurement procedures. Acquisition of an asset could be as a new purchase or purchase of a used asset. Acquisition of a new asset can provide the Township with an asset in Very Good condition, however, the condition of a used asset could vary.

5.5.2 Maintenance

Maintenance activities will vary across the equipment assets due to the variability in the type and usage of assets. The maintenance activities should be undertaken according to manufacturer specifications and as required to address condition and performance issues that arise through regular usage. Maintenance activities should include regular inspections for condition, and recording of maintenance activities undertaken.

5.5.3 Decommissioning/Disposal

Disposal activities can include the removal from service through disposal, sale of asset or transfer of an asset to a different department. Disposal activities should be conducted such that health and safety protocols are being followed, and out-of-service assets are disposed of at appropriate or approved facilities.

5.6 Asset Management Strategy – Equipment

The asset management strategy for the equipment assets seeks to use the lifecycle activities in a manner that will achieve cost-effective and sustainable management of the assets. Within the Township's equipment assets, there are a variety of asset types, which are involved in multiple aspects of service delivery, such as Public Works (which includes waste management equipment), Fire Services (which include fire response equipment), and Recreational and Cultural Services (which include the support of administration and parks and lands assets).

Generally, if acquired new, the assets will begin their expected useful life in Very Good condition and performance. Throughout the lifecycle of the assets, routine maintenance should be conducted. As required, specific maintenance should be conducted. As an asset ages and approaches the end of its useful life, it is expected that the risk and maintenance costs associated with the asset will increase. There will be a point in the lifecycle where the risk and maintenance costs are such that the replacement of the asset will be the preferred solution. This point will vary depending on the type of asset and the services delivered by each.

The Township should review the usage of equipment assets to confirm if services are being provided adequately. The assets should also be routinely assessed and monitored for condition and performance, to inform any maintenance or replacement works required. The needs and monitoring of asset condition will fall within multiple departments at the Township, due to the varied range of services the assets provide.

5.7 Risk Assessment – Fleet

The risk assessment for the fleet assets was conducted using the following assumptions and criteria:

Condition: Determined based on estimated condition, using percentage of expected useful life remaining. **Table 5-6** below provides details regarding the provided ratings from the Township and the corresponding rating used within the risk calculation.

Table 5-6: Vehicle Condition Rating

% of Useful Life Remaining	Condition Score Used
0 to 19%	5 (Very Poor)
20 to 39%	4 (Poor)
40 to 59%	3 (Fair)
60 to 79%	2 (Good)
80 to 100%	1 (Very Good)

Performance: Assumed to be always reliable (value of 1).

Climate Change: Assumed a value of 1 (No or limited impact, quick recovery or mitigation in place).

Impact: High impact (value of 2) for Fire Response Units,

Moderate impact (value of 1) for Sander Plow Units, and

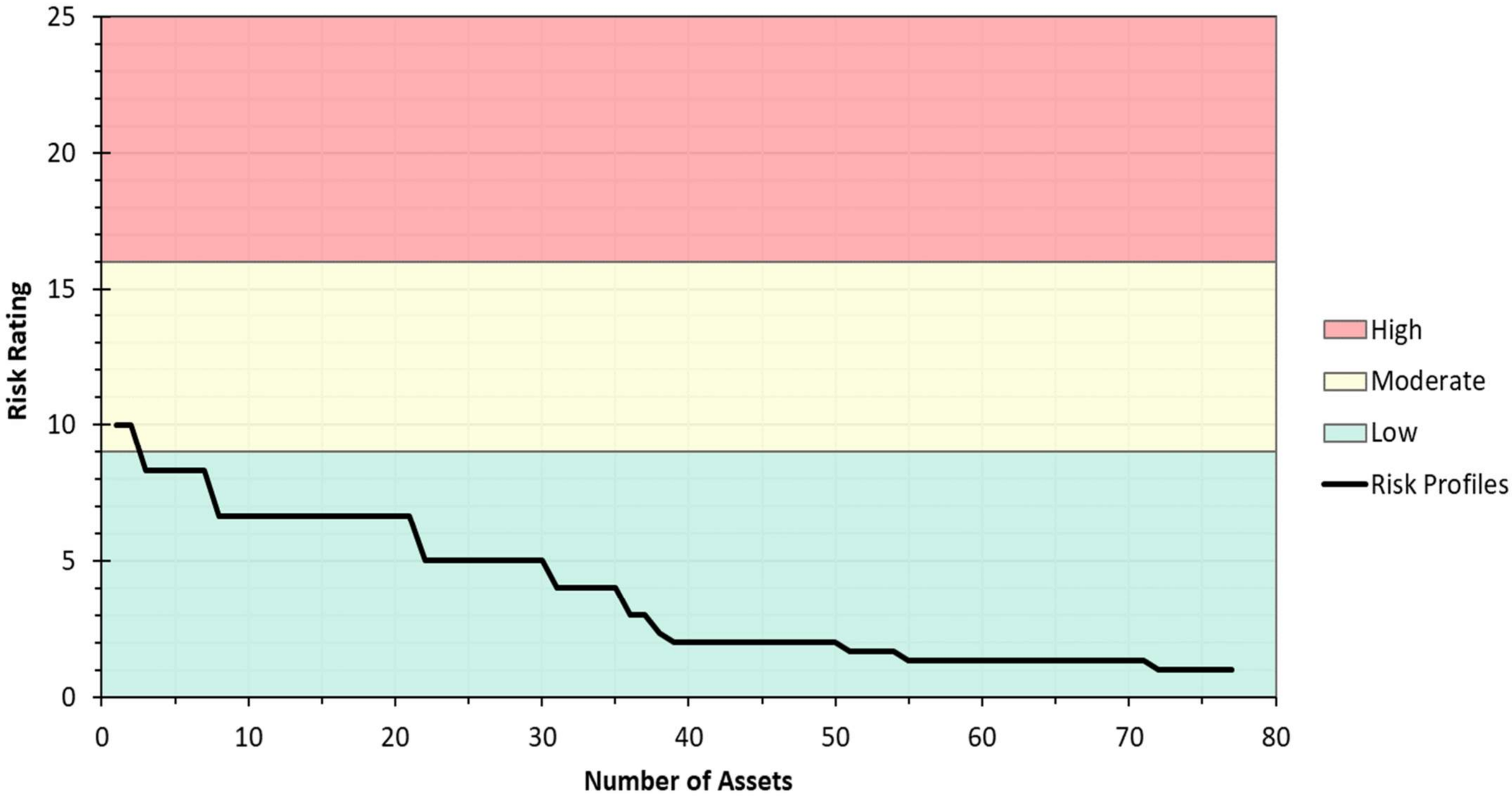
Low Impact (value of 0) for all other assets.

Importance: High importance (value of 3) for Fire Response Units,

Moderate importance (value of 2) for Sander Plow Units, and

Low importance (value of 1) for all other assets.

Figure 5-4: Risk Profile for Fleet and Equipment Assets



As depicted **Figure 5-4** in two Fleet and Equipment Assets were determined to be in the moderate risk zone, the remaining 75 are considered low risk.

5.8 Lifecycle Activities – Fleet

In the lifecycle of a fleet asset, there are multiple activities that can be undertaken, depending on the asset attributes. The expected lifecycle activities to be used on the fleet assets including acquisition, maintenance, operation and decommissioning/disposal.

5.8.1 Acquisition

Acquisition of a vehicle asset should consider the intended usage of the asset. The acquisition should be undertaken based on an understanding of the requirements of the asset for providing service delivery and should follow Township procurement procedures. Acquisition of an asset could be as a new purchase or purchase of a used asset. Acquisition of a new asset can provide the Township with an asset in Very Good condition, however, the condition of a used asset could vary.

Acquisition activities can also include the direct replacement of existing fleet assets. When a fleet asset reaches the end of its useful life, and the asset is found to be adequate for providing the service delivery required, the acquisition activity may be asset replacement.

5.8.2 Maintenance

Maintenance activities will vary across the fleet assets due to the variability in the type and usage of assets. The maintenance activities should be undertaken according to manufacturer specifications and as required to address condition and performance issues that arise through regular usage. Maintenance activities should include regular inspections of the fleet for condition, and recording of maintenance activities undertaken.

5.8.3 Decommissioning/Disposal

Disposal activities can include the removal from service through disposal, sale of asset or transfer of an asset to a different department. Disposal activities should be

conducted such that health and safety protocols are being followed, and out-of-service assets are disposed of at appropriate or approved facilities.

5.9 Asset Management Strategy – Fleet

The asset management strategy for the fleet assets would seek to maximize the useful lifespan of the assets, such that they can continue to be used in service delivery across the various departments within the Township. Within the Township's fleet assets, there are a variety of vehicle types, which are involved in multiple aspects of service delivery, such as Emergency Services (which include both Fire Response and Support vehicles), Public Works Fleet (which include, Grader, Sanders, Trailers, Mowers), and General Work Vehicles.

The Township's current strategy for the other types of vehicles within its fleet is driven by the age and performance of the assets. Fleet assets are generally purchased new, and replaced following the expected useful life, or when it no longer performs satisfactorily. At the end of its lifecycle, the usage is evaluated and if required it is replaced with a new version of the vehicle and disposed of.

The rating system for the performance and condition of the vehicle assets is not formalized and should be documented such that routine inspection and assessment of the fleet assets can be conducted to understand their current state. This can include a visual assessment of the vehicles, tracking of maintenance logs, or logging of odometer readings.

Generally, if acquired new, the assets will begin their expected useful life in very good condition and performance. Throughout the lifecycle of the assets, routine maintenance should be conducted. As required, specific maintenance should be conducted. As an asset ages and approaches the end of its useful life, it is expected that the risk and maintenance costs associated with the asset will increase. There will be a point in the lifecycle where the risk and maintenance costs are such that the replacement of the asset will be the preferred solution. This point will vary depending on the type of asset and can be impacted by factors such as build quality, and utilization. At the end of the lifecycle, the Township should review the requirement for service delivery for the asset to determine if it requires replacement. It is assumed that the assets will be replaced like for like.

The Township should review the usage of fleet assets to confirm if services are being provided adequately. The assets should also be routinely assessed and monitored for condition and performance, to inform any maintenance or replacement works required. The needs and monitoring of asset condition will fall within multiple departments of the Township, due to the varied range of services the assets provide.

6.0 Buildings and Facilities

6.1 State of Local Infrastructure

The Township has buildings and facilities in the following categories:

- Buildings (including Administration, Fire and Paramedic Services, and two Community Centres);
- Public Works Facilities (including Landfill Site Trailers and Reuse Buildings); and
- Parks and Recreation Facilities (includes Change rooms, Privy's, and Recreation storage buildings).

6.1.1 Average Age

The average age of all buildings and facilities in the Townships inventory is 22.9 years.

The average age of the Administration and Fire Services buildings is 16.4 years (below the average).

The average age of Public Works and facilities is 28.75 years (above the average).

The average age of Parks facilities is 23.3 years (marginally above the average).

6.1.2 Replacement Cost

The replacement cost for all buildings owned by the Township is $7,936,400 which is assigned to each of the following service areas:

- The replacement cost for the Administration and Fire Services buildings is $7,289,000.
- The replacement cost for Public Works facilities owned by the Township is $75,200.
- The replacement cost for Parks facilities owned by the Township is $572,200.

The replacement cost for the buildings and facilities is based on the insurance asset registry and recent tenders provided by the Township.

6.2 Condition

The condition information reported in this AMP is based on the Township's staff reviews reported with in the last two calendar years. It is recommended that a Building Condition Assessment (BCA) be done by a third-party consulting firm within the next two to four years to fully assess the current conditions of all the Townships buildings and allow the Township to have access to fully up to date records for the next Asset Management plan update.

The Township utilizes a rating system how below in **Table 6-1** to determine the condition of buildings.

Table 6-1: Township Building Condition Rating System

Rating	Criteria
Very Good (1)	Well maintained, meets all applicable building codes, accessible, new or recently renovated, don't require significant improvements.
Good (2)	Well maintained but requires improvements and/or renovations, often not fully accessible, meets minimum building codes.
Fair (3)	Maintained but needs significant improvements and/or renovations, often not accessible or meeting today's building code levels.
Poor (4)	Needs significant renovations or replacement.
Very Poor (5)	Needs replacement.

The condition, use and age of the Townships buildings and facilities are presented in the **Appendix.**

For this asset management plan, the Township's staff reviewed the facilities, assessed condition, and estimated remaining useful life. The Township may need to provided information from a report by the insurance company as to the replacement cost and undergo a building condition assessment in the near future to confirm or update the condition of some of the buildings.

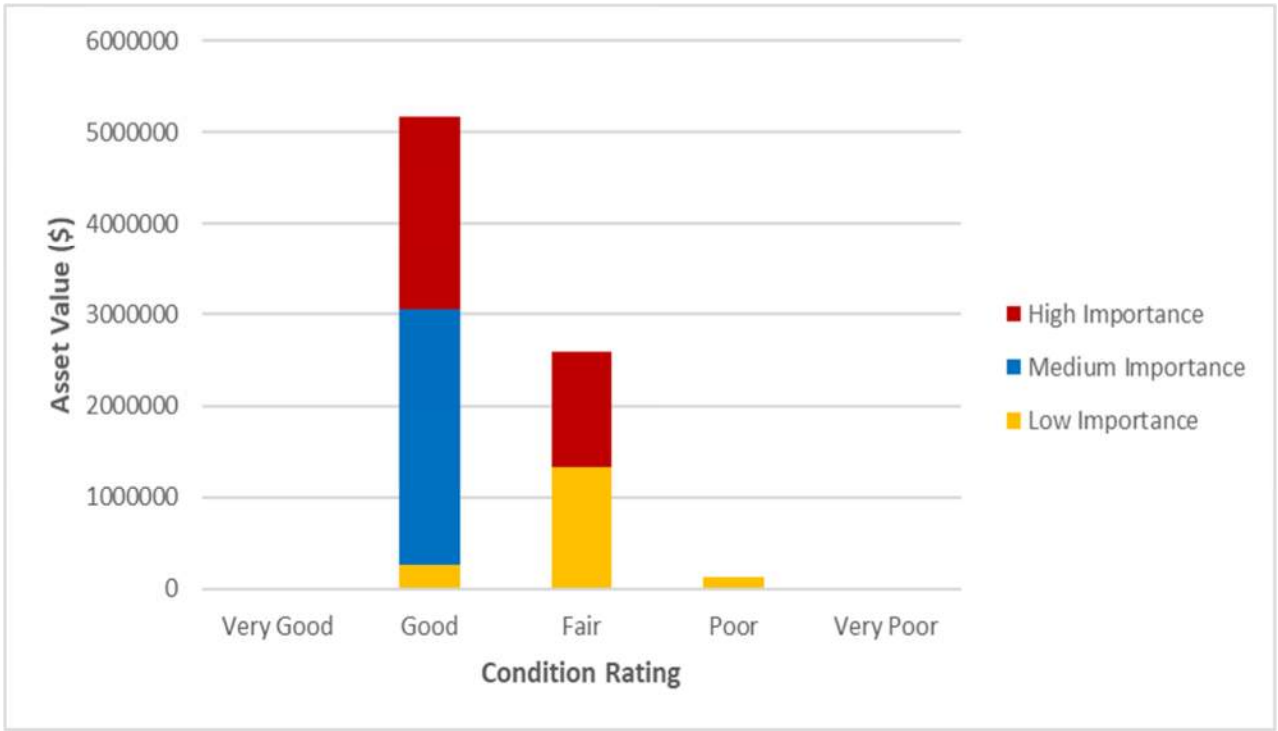
6.2.1 Buildings – Administration, Emergency Services and Community Centres

The category of Buildings includes Administration, Fire and Emergency Services. These buildings include:

- The main administration building which is located at 7 Third Avenue in Whitney. This building houses the majority of the management, administrative and support staff for the Township. This building also houses the Senior Centre which runs programing and activities for Township constituents over the age of 50. The building was constructed in 1999.
- Another administration building is located at 9 Post Street in Whitney. This building houses the Township Resource Centre and offices. The building is approximately 18 years old, built in 2004.

- The Township also has two Library branches, one located at 33 Medical Centre Road in Whitney, which also houses the Medical Centre, as well as one in Madawaska, which also contains a Community Hall. The Whitney site was built in 2004, while the Madawaska site was built in 2009.
- The Township owns the Whitney Fire Hall/EMS Complex located at 31 Hay Creek Road in Whitney and built in 2012. The building contains two ambulance bays and three firetruck bays, well as offices and changerooms for the paramedics and fire fighters.
- The Township has three other Ambulance Bays and Fire Building assets throughout the Township. Two ambulance bays located in Whitney as well as a Multipurposed Building for fire services located at 26C Major Lake Road in Madawaska.

Figure 6-1: Condition and Replacement Costs of All Buildings



6.2.2 Public Works Facilities

Public Works has nine locations with offices, storage buildings and various outbuildings at each.

- The Madawaska Work Yard is located at 24808 Highway 60 and is the main location for maintenance and storage, the site includes a site office and two storage buildings.
- The Airy Landfill located at 462 Nipissing Road has two buildings on site one for Reuse Material and a site office.
- The Lyell (Madawaska) Landfill located at 6319 Highway 523 and has two buildings on site one for Reuse Material and a site office.

See **Appendix** for condition and replacement costs of Public Works facilities.

6.2.3 Parks Facilities

South Algonquin owns and operates several recreational sporting facilities throughout the Township for Baseball and Outdoor Skating. These facilities include men's and women's privy's and storage buildings.

The Township also owns and operates various parks for day use. The parks have picnic areas with sun shades and gazebo areas, as well as, male and female privies/change rooms and a boat launch for temporary use for boaters.

See **Appendix** for condition and replacement costs for Parks and Recreation facilities.

6.3 Current LOS

6.3.1 Community LOS – Buildings and Facilities

Buildings and facilities include administrative offices, Public Works garages and storage Buildings, a fire and paramedic station, and Parks facilities. See **Figure 6-2** for a map of the Township owned buildings.

Figure 6-2: Location of Buildings and Facilities

6.3.2 Technical LOS – Buildings and Facilities

See **Figure 6-2** for map of the location of Buildings and Facilities owned by the Township. The technical metrics related to availability, presented in **Table 6-2**, are described as follows:

- Size of building (square footage);
- Average hours of operation; and
- Number of staffs.

Table 6-2: Availability – Buildings and Facilities

Facilities and Buildings	Total Floor Area (ft^2)	Avg hours per week	Number of Staff
Municipal Offices - Whitney	3,892	35	5
Whitney Public Library	1,462	16	1
Madawaska Public Library	1,441	16	1
Fire Station, Whitney	3,640	10	16
Fire Station, Madawaska	3,497	10	15
Work Yard/Road Garage, Madawaska	4,100	40	7
Lyell (Madawaska) Landfill	32	40	1
Airy (Whitney) Landfill	32	40	1

6.3.3 Performance – Buildings and Facilities

The current performance of Buildings and Facilities is determined by the following performance measures established by the municipality. It is based on actual performance in the most recent two years.

- Energy efficiency for all buildings (energy usage as reported in Energy Consumption and Greenhouse Gas Emissions Reporting for 2020);
  - Propane (Litres) usage: 37,842.1
  - Oil (Litres) usage: 5,115.6
  - Hydro (Kwh) usage: 146,200.7

6.4 Risk Assessment

The risk assessment for building assets was conducted using the following assumptions and criteria:

Condition: Determined based on condition rating provided by the Township.

Performance: Assumed to be always reliable (value of 1).

Climate Change: Assumed a value of 3 (Limited impact with slower recovery; mitigation plan not in place).

Impact: Low impact (value of 0) for Environmental Services and Recreational Services building assets;

Moderate impact (value of 1) for General Government Services building assets; and

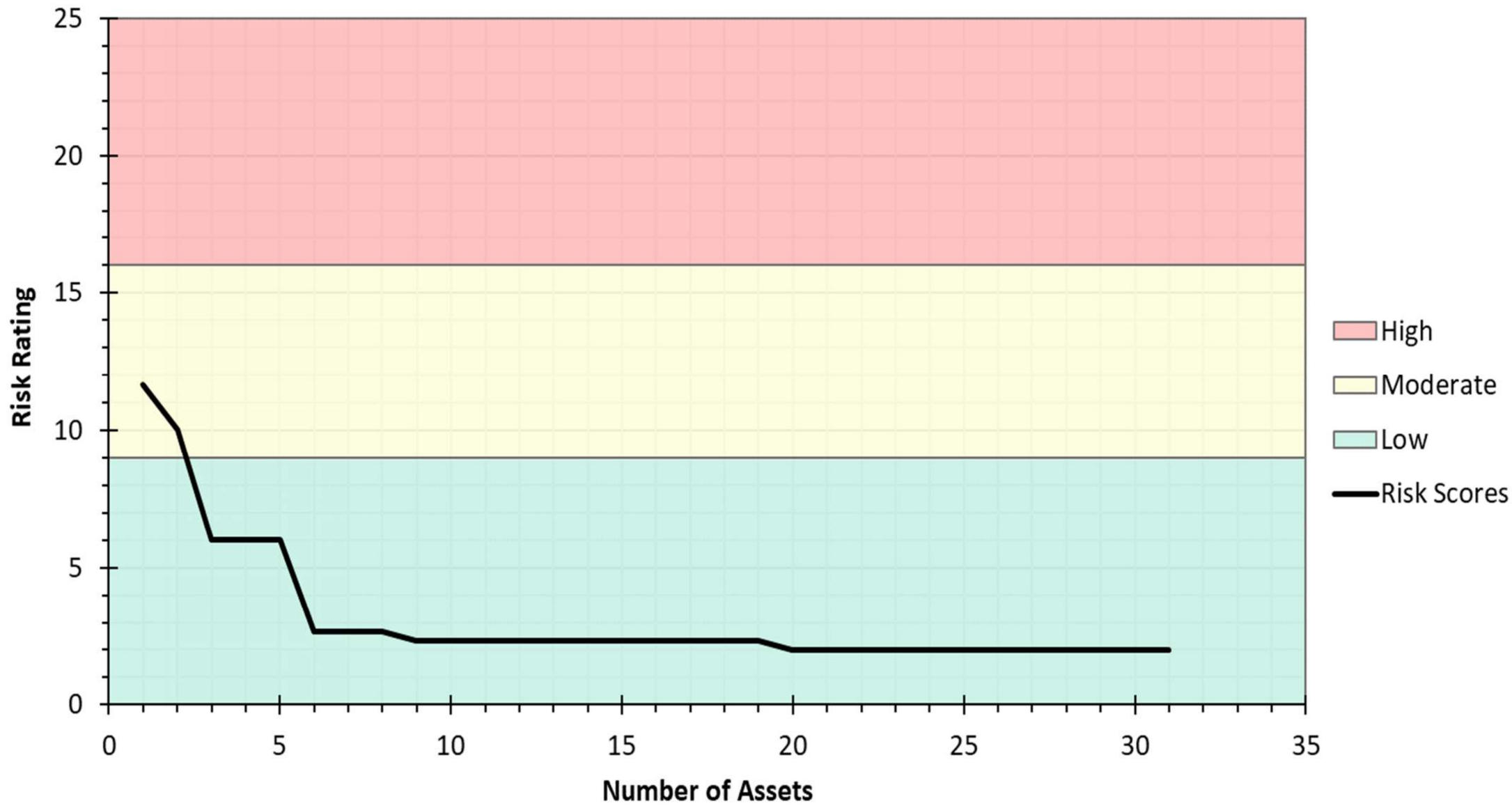
High impact (value of 2) for Emergency and Protective Services building assets.

Importance: Low importance (value of 1) for Environmental Services and Recreational Services building assets;

Moderate importance (value of 2) for General Government Services building assets; and

High importance (value of 3) for Emergency and Protective Services building assets.

Figure 6-3: Risk Profile for Buildings and Facilities Assets



As depicted in **Figure 6-3** two Buildings and Facilities Assets were determined to be in the moderate risk zone and the remaining 31 are considered low risk.

6.5 Lifecycle Activities – Buildings

The following section describes the lifecycle activities that can be implemented within the asset management strategy for building assets. Note that, as previously discussed, building assets refer to the entirety of the asset which is made up of varying component systems depending on the use of the building. The primary lifecycle activities include construction, maintenance, renewal, and decommissioning/disposal.

6.5.1 Construction

The start of a building asset's lifecycle is its construction. The building should be constructed to adhere to the requirements of the Ontario Building code, and any and all other applicable regional codes and requirements for the building and its use. Each building should be designed and constructed to provide the services for which it is intended.

6.5.2 Maintenance

Throughout the full lifecycle of a building, the majority of the expected lifecycle activities to be undertaken will be maintenance works. Maintenance activities can be used to improve the LOS of an asset (or component) or to maintain it. Activities that fall under the maintenance category can be varied by response type and scale of maintenance requirements. Activities can be required through routine maintenance works, response to poor conditions or performance, or on an emergency basis. In general, the expected types of maintenance activities within the lifecycle of a building include:

- **Preventative Maintenance:**
  - This type of maintenance activity is undertaken to prevent failure or poor performance of a building asset component. Preventative maintenance works can be undertaken on an ad-hoc basis based on knowledge of the condition, or be undertaken according to a maintenance schedule. Manufacturer directives and condition assessments should assist in determining the frequency of preventative maintenance activities.

- **Reactive Maintenance:**
  - This type of maintenance activity is undertaken in response to an issue or fault in the building or component systems, on an ad-hoc basis. The scale of reactive maintenance works will be variable depending on the system and type of failure or decrease in the LOS.
- **Major Maintenance (Replacement):**
  - This type of maintenance activity is undertaken in response to a component which is no longer able to provide an adequate LOS. Major maintenance (replacement) will be undertaken for one or more components of a building asset. Major maintenance works can be preventative (in anticipation of the end of the service life of a component), or in response to a system failure.

6.5.3 Renewal

Renewal works can be used to update a building asset for modernization, to achieve compliance with updated codes and requirements, to expand on an existing building, or to renovate to suit changes to services provided. Renovation works can include:

- Addition of new components to an existing building asset:
  - New components can be added to an existing building with the existing building largely unchanged.
- Updating of existing components:
  - Updating existing components can prolong the expected lifespan of a building asset.

6.5.4 Decommissioning/Disposal

Disposal activities can include the removal from service of a building, or a portion of a building and its components. Disposal activities should be conducted such that health and safety and environmental protocols are being followed, and spent materials are disposed of at appropriate or approved facilities.

Disposal activities can also include the removal of the building from the Township buildings portfolio through the sale of property if it is no longer required for service delivery.

6.6 Asset Management Strategy – Buildings

The asset management strategy for buildings assets will maximize the lifecycle of the asset where appropriate, in consideration of the specific needs of the Township and existing infrastructure.

The Township's asset management strategy for buildings relies on building condition assessments to establish the current state of the assets (including information such as age, condition and performance), and to establish recommended works and associated timeframes. Recent building condition assessments were completed in 2022 for a portion of the Township's buildings and facilities by Township staff and have consisted of non-intrusive visual inspection of the buildings and componentry. It is recommended that the Township engage a third-party consultant to provide detailed building condition assessments, alternatively, the Township could pursue training for existing staff to conduct these detailed building condition assessments in the future. The usage of such assessments for complex building assets can provide the Township with reliable and repeatable condition information and projections that can be used for capital planning and asset management.

The Township should continue to procure detailed building condition assessments at a sufficient frequency to have an ongoing understanding of the condition and required works at the buildings and facilities assets, suggested to be every 5 to 10 years. These reports can be used to inform a maintenance schedule and capital works schedule, and to understand the forecasting of asset improvements. If it is not possible to complete an assessment of all buildings on a routine basis, priority buildings for the condition assessment program are suggested to be identified by the presented risk assessment, condition, and performance measures. Buildings with high-risk or poor condition/performance components should be prioritized in the condition assessment program. Where building assessments have not been conducted (on less complex building assets and structures), the Township could consider adding these to the scope of the building condition assessments, or continue to undertake simplified assessments on a regular basis through visual inspection by the Township staff.

The Township strategy should maintain (or improve where appropriate) the condition and performance adequately to provide the intended services. **An industry standard of 2% of the current portfolio replacement value is recommended as a minimum annual**

investment into capital projects for major maintenance (replacement) and renewal activities, however specific works recommendations within building condition reports will provide a more tailored understanding of the Township's recommended annual investment.

Implementation of the lifecycle activities for the buildings and facilities assets will vary across the assets, according to the components, conditions, and services provided.

Routine maintenance schedules are assumed to be in place currently and are recommended to continue assuming that they are currently providing a sufficient level of maintenance. Maintenance works can include preventative maintenance, reactive maintenance (in the event that there is an issue), or major maintenance which can include the replacement of a component.

7.0 Parks and Land

7.1 State of Local Infrastructure

The Parks and Land asset category includes a variety of assets such as boat launches, playgrounds, picnic areas, beaches, as well as Parking Lots (from Municipal buildings) and several unopened road allowances. Many of the assets included in this category are tied to parks related services, hence the parks distinction is added.

The Township has 24 Parks and Land assets, many of which contain additional components. A summary of the asset types, quantity, average condition, age and average expected useful life is included in the **Appendix.**

The Parks and Land assets are used by departments across the Township, with the majority attributed to Recreation and Cultural Services.

7.1.1 Average Age

Average age of the Parks and Land assets is 7.8 years.

7.1.2 Replacement Costs

The individual replacement costs for the Parks and Land varies, depending on the type of equipment or asset. For an estimate of future replacement costs of the Parks and Land assets, we have used data provided by the Township for their insurance assessment.

The replacement cost for all the Parks and Lands asset is $1,066,000.

7.1.3 Expected Useful Life

The expected useful life of the assets was provided by the Township, and is also based on tracking and useful life estimations. The useful life was summarized across all asset types.

7.2 Condition

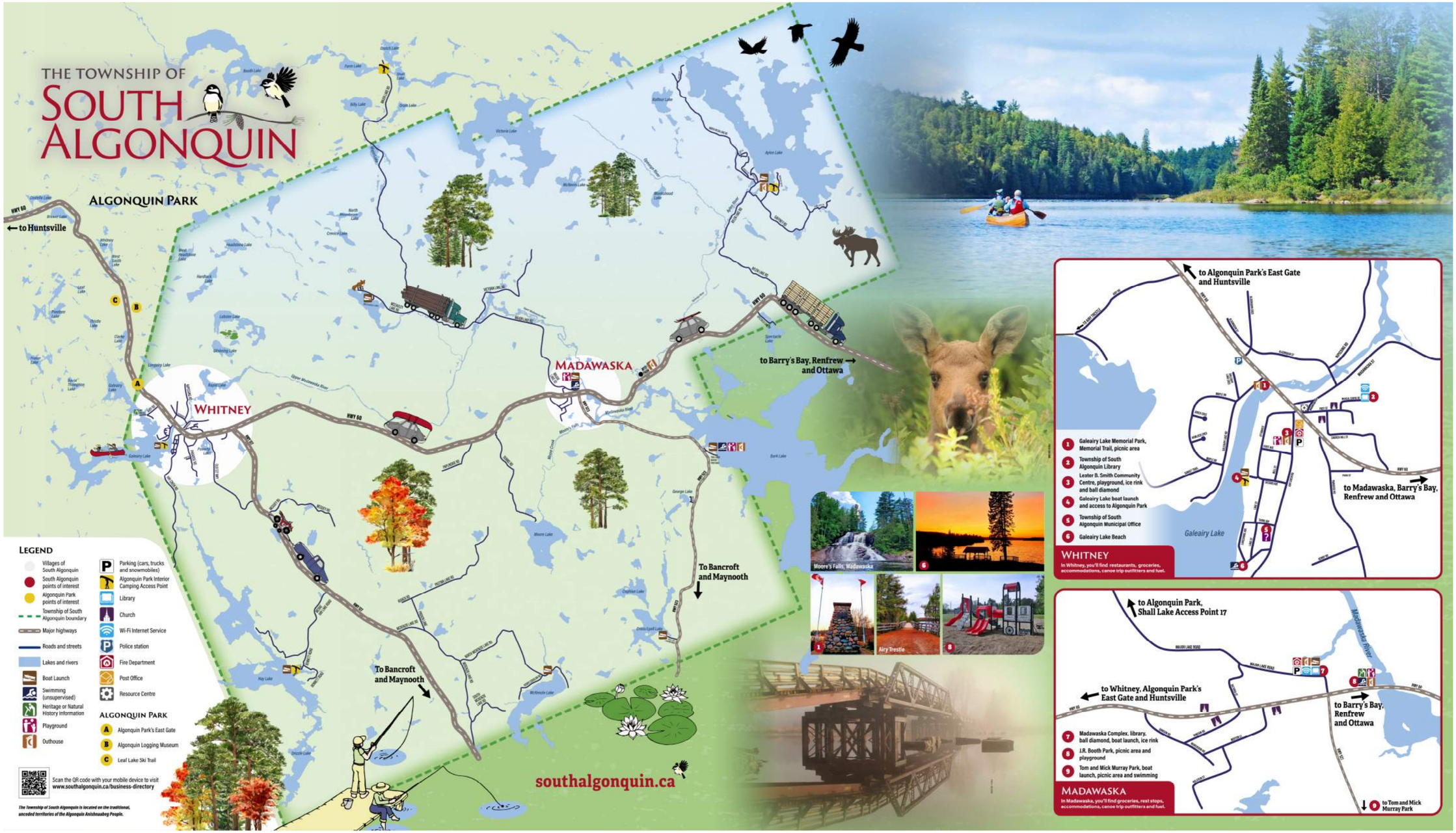
Where available current field condition data was used for this AMP reporting and the subsequent analysis. This field data is based on the current inventory information maintained by the Township.

Where no field condition data was available, the condition of the park and land assets was determined based on the age and useful life used of each asset.

The condition was determined on a scale of 1 to 5, for which a 1 describes an asset in Very Good condition and 5 in Very Poor condition.

The **Appendix** summarizes the distribution of all Parks and Lands assets condition by estimated replacement costs.

Figure 7-1: Location Map – Parks and Lands



7.3 Current LOS

Levels of service for Parks and Lands assets are not defined in the regulation, O. Reg. 588/17. As such, levels of services have been devised based on the content of the regulation, in consultation with the Township. **Table 7-1** and **Table 7-2** outline the Townships current community and technical levels of service for Parks and Lands.

The Levels of Service were determined from a park's perspective, as many of the Parks and Lands assets are part of parks service delivery. LOS descriptions were not determined for the other Parks and Lands assets.

7.3.1 Community LOS – Parks and Lands

Table 7-1: Community Levels of Service – Parks and Lands

LOS Parameter	Qualitative Description	Township of South Algonquin Community LOS
Scope	Description which may include maps of parks locations	The locations of parks facilities throughout the Township are shown in **Figure 7-1**.
Quality	Description of hours of operation and available services	Lights for soccer and baseball – off at 11:00 PM[1]
Quantity	How many parks per square km	24 Parks or Recreational Areas available for a total land area of South Algonquin Township that is 873.43 km^2, gives 36.39 parks or recreational areas per sq. km

[1] Due to seasonal staffing and requirements.

7.3.2 Technical LOS – Parks and Lands

Table 7-2: Technical LOS – Parks and Lands

LOS Parameter	Qualitative Description	Township of South Algonquin Community LOS
Scope	Number of Parks Facilities per Population	There are 49 parks facilities located throughout the Township. Based on a total population of 1,096 people, this equates to one park facility per 23 people.
Quality	Legal/Regulatory/ Local Standards	Legal/regulatory/local standards include: Grass cutting guidelines. Playground equipment annual inspection by a certified safety inspector. Beach grooming (department standards – done before the beach season begins, and at various times throughout the beach season).

7.3.3 Performance – Parks and Lands

Asset performance measures were determined in consultation with the Township, which provided relevant metrics against which the Township can gauge the performance of their assets. The performance measures for Parks and Lands, and their current values are shown in **Table 7-3**.

The current performance measures were determined from a park's perspective, as many of the yard improvements assets are part of parks service delivery. Performance measures were not determined for the other yard improvement assets.

Table 7-3: Current Performance Measures for Parks and Lands

Asset Performances Measure	Current Measure
Usage Rates of Facilities (by number of patrons, hours of operation, etc.)	Not currently available due to staff capacity to provide information.
Customer Feedback (number of complaints and compliments)	Not currently tracked, but it is recommended that that Township track this in the future.

7.4 Risk Assessment

The risk assessment for parks and recreation (land improvements) assets was conducted using the following assumptions and criteria:

Condition: Determined based on condition rating provided by the Township.

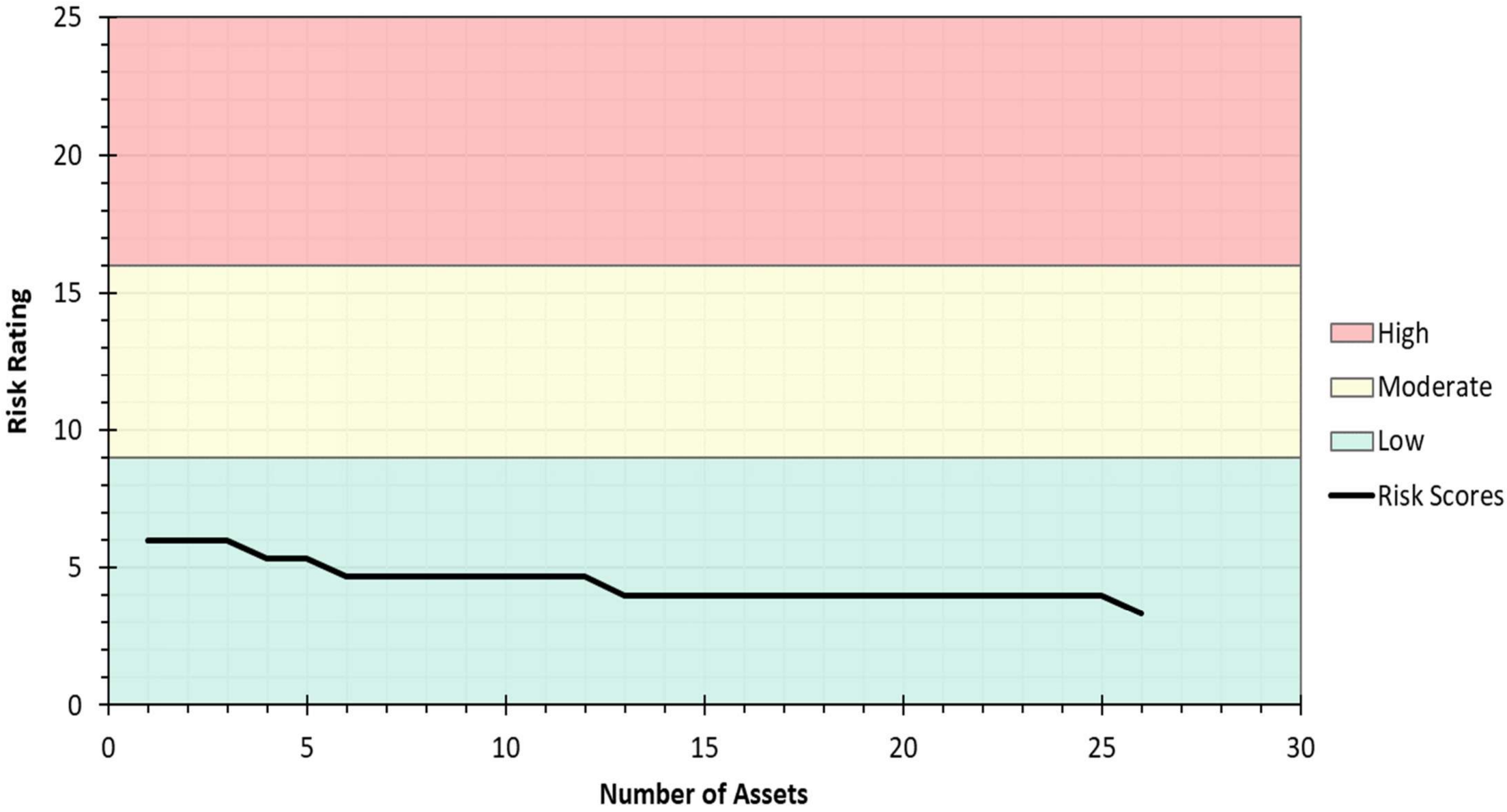
Performance: Assumed to be always reliable (value of 1).

Climate Change: Assumed to be moderate (value of 3; limited impact with slower recovery; mitigation plan not in place).

Impact: Assumed to be moderate impact (value of 1).

Importance: Assumed to all be low importance (value of 1).

Figure 7-2: Risk Profile for Park and lands Assets



As depicted in **Figure 7-2**, 26 Parks and Lands Assets were determined to be in the low risk zone.

7.5 Lifecycle Activities – Parks and Recreation (Land Improvements)

In the lifecycle of a Land Improvement asset, there are multiple activities that can be taken, depending on the asset attributes. The expected lifecycle activities to be used on the Land Improvement assets include acquisition, maintenance, operation and decommissioning.

7.5.1 Acquisition

Acquisition of a new land improvement asset should consider the intended usage of the asset. The acquisition should be undertaken based on an understanding of the requirements of the asset for providing service delivery and should follow Township procurement procedures. Acquisition of an asset could be as a new purchase or purchase of a used asset. Acquisition of a new asset can provide the Township with an asset in Very Good condition, however, the condition of a used asset could vary.

7.5.2 Maintenance

Maintenance activities will vary across the park's assets due to the variability in the type and usage of assets. The maintenance activities should be undertaken according to manufacturer specifications and as required to address condition and performance issues that arise through regular usage. Maintenance activities should include regular inspections for condition, and recording of maintenance activities undertaken.

7.5.3 Disposal

Disposal activities can include the removal from service through disposal, sale of assets or transfer of an asset to different departments. Disposal activities should be conducted such that health and safety protocols are being followed, and out-of-service assets are disposed of at appropriate or approved facilities.

7.6 Asset Management Strategy – Parks and Recreation (Land Improvements)

The asset management strategy for the land improvement assets seeks to use the lifecycle activities in a manner that will achieve cost-effective and sustainable management of the assets.

Generally, if acquired new, the assets will begin their expected useful life in Very Good condition and performance. Throughout the lifecycle of the assets, routine maintenance should be conducted. As required, specific maintenance should be conducted. As an asset ages and approaches the end of its useful life, it is expected that the risk and maintenance costs associated with the asset will increase. There will be a point in the lifecycle where the risk and maintenance costs are such that the replacement of the asset will be the preferred solution. This point will vary depending on the type of asset and the services delivered by each.

The Township should review the usage of parks and land improvement assets to confirm if services are being provided adequately. The assets should also be routinely assessed and monitored for condition and performance, to inform any maintenance or replacement works required. The needs and monitoring of asset condition will fall within multiple departments at the Township, due to the varied range of services the assets provide.

8.0 Financial Strategy

This chapter identifies the funding required to sustainably finance the lifecycle management strategy presented in the previous sections.

O. Reg. 588/17 requires that by July 2025 municipalities have an approved proposed LOS and a ten-year lifecycle management and financial strategy to achieve the proposed LOS. Various financing options, including reserve funds, debt, and grants can be considered during the process of developing the financial strategy.

This financial strategy should be examined and re-evaluated during the annual budgeting processes to ensure the sustainability of the Township of South Algonquin's financial position as it relates to its assets.

8.1 Funding Sources

The Township's current financial strategy is to fund capital expenditures from the following sources: government funding and grants, tax revenues, and capital reserves. The Township intends to continue following this financial strategy for the foreseeable future.

Table 8-1 summarizes the Township's budgeted revenue for 2023, which supports both operating and capital expenditures. This revenue identified is not intended to reflect the Township's maximum available funding; rather, it is intended to represent the standard amount of funding that the Township would have in a typical year if they maintain the status quo. Project- and timing-specific grants, subsidies, and other income are expected to supplement this base revenue where needed.

Table 8-1: Budgeted Revenue for 2023

Revenue Source	Amount
Ontario Community Infrastructure Fund (OCIF)	$138,000
Northern Ontario Resource Development Support (NORDS)	$95,000
Ontario Municipal Partnership Fund (OMPF)	$1,013,000
Gas Tax	$73,000
Other	$277,000
Non-Taxation Revenue	**$1,596,000**
Taxation Revenue	**$2,625,000**
Total Revenue	**$4,221,000**

These revenues have been projected for the next ten years based on the following assumptions:

- The Gas Tax and OMPF have been assumed to continue at the current levels for the next ten years.
- The province increased OCIF allocations substantially in 2022 as part of a five-year initiative. OCIF funding has been assumed to remain at the elevated amount of $138,000 for the ten-year forecast period, understanding that there is a risk that it returns to the pre-2022 amount of $52,000 in 2027 and beyond.
- NORDS funding was assumed to continue at the 2023 levels for the next ten years. However, the province only committed to providing NORDS funding to the Township until 2026, so there is a risk that this funding may need to be supplemented with other revenues in the future.
- Taxation revenue has been projected to increase at two percent per year, in line with the level of inflation assumed for operating expenditures.

8.2 Expenditures

Table 8-2 summarizes the annual capital expenditures recommended to achieve the capital asset lifecycle management strategy identified in the earlier sections of this report. From the Level of Service Survey completed by the Township in July it was noted that the constituents were comfortable with maintaining the current level of service provided by the Township for all asset categories with the exception of Roads. Therefore, this recommendation for the capital expenditures has indicated that the

Township maintain the existing level of service by reinvesting the amount needed for each asset category to replace these assets at the end of their useful life.

An inflation rate of 4% per year has been assumed for capital expenditures, which aligns with recent historical averages (pre-2021) of Statistics Canada's Building Construction Price Index for the Ottawa-Gatineau census metropolitan area. The pre-2021 average is used as inflation is expected to return from recent highs to more typical levels in the coming years.

Table 8-2: Recommended Annual Capital Expenditures

Asset Category	Annual Amount (2023 $)
Roads	$788,000
Bridges and Culverts	$76,000
Solid Waste	$26,000
Buildings and Facilities	$152,000
Lands	$61,000
Fleet and Equipment	$351,000
Total	**$1,454,000**

The Township's budged operating expenditures for 2023 are $4,045,000. An inflation rate of 2.0%, the Bank of Canada's target, has been assumed for these expenditures. While inflation in recent years has been much higher than target, the Bank of Canada's April 2023 Monetary Policy Report projected a return to target some time in 2024.

8.3 Financial Analysis

8.3.1 Forecasted Capital Investment

The Township's forecasted expenditures can be compared to the forecasted revenues over the 10-year period to assess if there are any anticipated funding gaps, and assess if the proposed financial strategy allows the Township to appropriately invest in its capital assets. For the purposes of this analysis, it was assumed that revenues are first used to cover operating expenses, with the remainder going towards capital.

The Township's revenues are not projected to be adequate to finance the recommended capital expenditures over the next 10 years, as shown on **Figure 8-1**. Operating expenses alone may exceed revenues in the later years, as inflation drives

these expenses up while non-taxation revenues (provincial grants and subsidies, in particular) remain fixed.

The 2023 budgeted revenue and operating expenses result in a $1.3 M annual capital funding shortfall relative to the recommended capital investment, with the annual shortfall steadily increasing to $2.2 M in 2032 as a result of inflation. This results in a cumulative shortfall of $17.0 M over ten years. The current total reserve balance of approximately $2.7 M would only be adequate to cover the annual shortfalls for two years.

Table 8-3 summarizes all of the financial projections.

Figure 8-1: Revenue, Operating Expenditures and Recommended Capital Expenditures

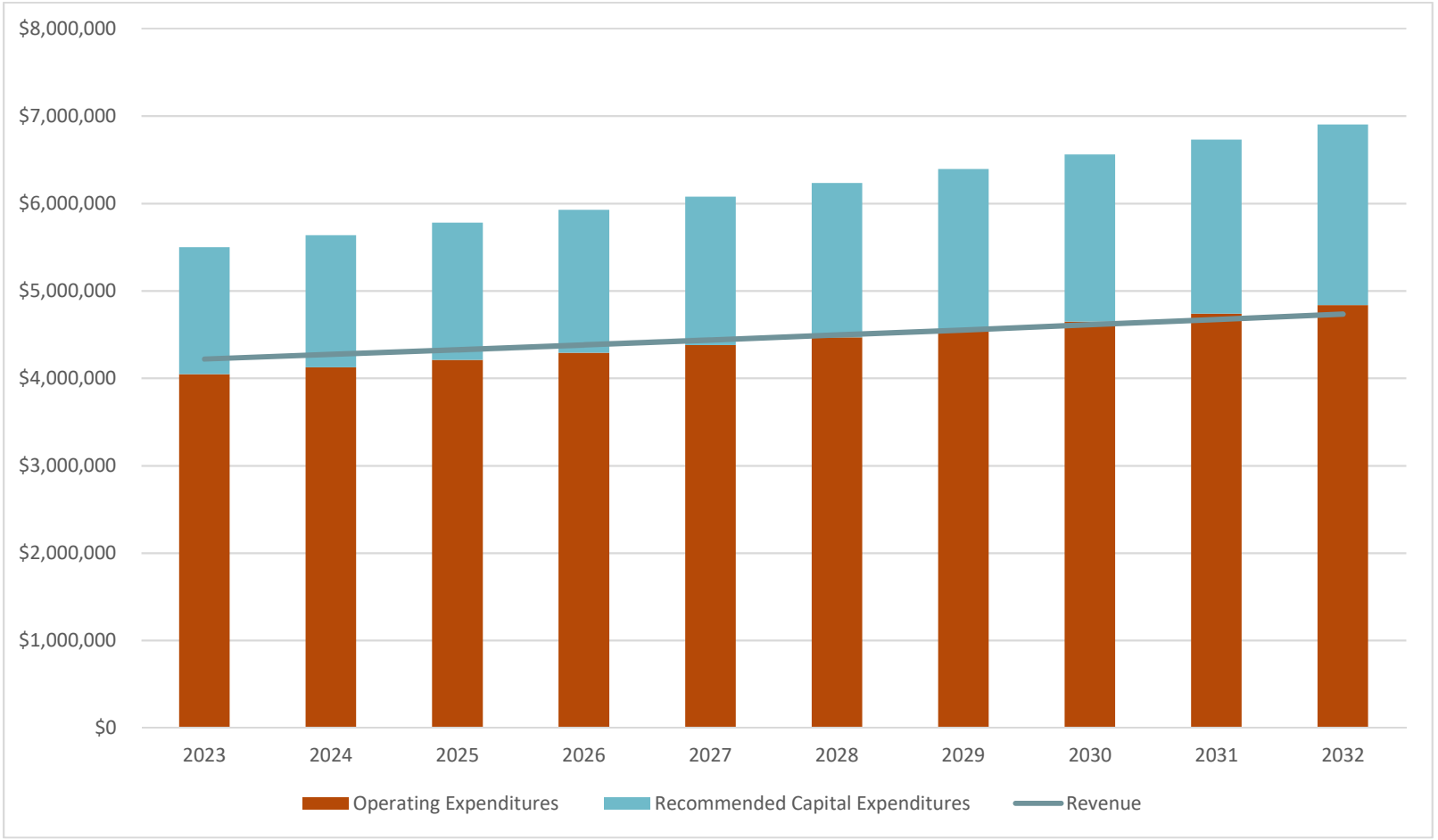


Table 8-3: Summary of Financial Projections (in 000's)

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Non-Taxation Revenue	$1,596	$1,596	$1,596	$1,596	$1,596	$1,596	$1,596	$1,596	$1,596	$1,596
Taxation Revenue	$2,625	$2,678	$2,732	$2,787	$2,843	$2,900	$2,958	$3,017	$3,077	$3,139
Total Revenue	**$4,221**	**$4,274**	**$4,328**	**$4,383**	**$4,439**	**$4,496**	**$4,554**	**$4,613**	**$4,673**	**$4,735**
Operating Expenditures	$4,045	$4,126	$4,209	$4,293	$4,379	$4,467	$4,556	$4,647	$4,740	$4,835
Recommended Capital Expenditures	$1,454	$1,512	$1,572	$1,635	$1,700	$1,768	$1,839	$1,913	$1,990	$2,070
Total Expenditures	**$5,499**	**$5,638**	**$5,781**	**$5,928**	**$6,079**	**$6,235**	**$6,395**	**$6,560**	**$6,730**	**$6,905**
Annual Capital Funding Shortfall	**-$1,278**	**-$1,364**	**-$1,453**	**-$1,545**	**-$1,640**	**-$1,739**	**-$1,841**	**-$1,947**	**-$2,057**	**-$2,170**
Cumulative Capital Funding Shortfall	**-$1,278**	**-$2,642**	**-$4,095**	**-$5,640**	**-$7,280**	**-$9,019**	**-$10,860**	**-$12,807**	**-$14,864**	**-$17,034**

A number of strategies could be implemented by the Township to mitigate the proposed capital funding shortfalls:

- **Debentures:** Debt financing could be used to fund a portion of the capital expenditures recommended in this report. However, due to provincially-mandated annual debt repayment limits of 25% of revenues, debt alone would not be adequate to cover the annual shortfalls in later years.
- **Grants and Subsidies**: Government grants and subsidies should be applied for where possible as a supplemental source of capital funding.
- **Tax Levy Increases**: Increasing the overall tax levy by more than the projected 2.0% per year would reduce, but not eliminate, the capital funding shortfall. Alternatively, a dedicated capital levy could be introduced.
- **Control Operating Expenditures:** Every increase in operating expenditures reduces the Township's ability to invest in capital assets.
- **Decreased LOS:** Targeting a lower LOS than what was specified in this report would allow the Township to reduce capital expenditures.

The Township should continue to contribute to capital reserves, at a minimum as mandated in the Capital Reinvestment Policy, to build up healthy balances that can sustainably fund capital investments, recognizing that capital expenditures will fluctuate from year-to-year.

8.3.2 Reinvestment Rates

Another useful perspective for evaluating the adequacy of an asset management financial strategy is reinvestment rates. The reinvestment rate is the annual capital investment as a percentage of the asset replacement value. While the projections presented earlier in this section have the benefit of highlighting years where there will be peaks in capital expenditure needs, reinvestment rates provide a simple annual target.

The 2016 Canadian Infrastructure Report Card found that rates of reinvestment are lower than targets recommended by asset management practitioners. The rate can vary based on factors such as the age of the infrastructure, the level of service and risk tolerance. The values provided are intended to be informative in nature. **Table 8-4** demonstrates the gap between current and target reinvestment levels, Canada-wide, for the asset categories that the Township owns. Insufficient reinvestment will result in

a gradual decline of physical condition levels that will impact municipal service delivery over time.

Table 8-4: Target Reinvestment Rates vs 2016 Canadian Average Reinvestment Rate

Infrastructure Category	Lower Target Investment Rate	Upper Target Investment Rate	Canadian Average Reinvestment Rate (2016)
Roads and Sidewalks	2.0%	3.0%	1.1%
Bridges	1.0%	1.7%	0.8%
Buildings	1.7%	2.5%	1.7%
Sports and Recreation Facilities	1.7%	2.5%	1.3%

The total replacement cost for the Township's capital assets that were listed in this plan is estimated to be $57 M (in 2023 $). **Table 8-5** summarizes the equivalent reinvestment rate considering the recommended capital expenditures, and considering the average budgeted capital expenditures from 2022 and 2023 for comparison. Reinvestment rates will naturally fluctuate from year to year, so it is best to look at averages. While lower than the recommended level of investment, the Township's budgeted amounts are generally in line with the Canadian average.

Table 8-5: Reinvestment Rates (2023$)

Scenario	Average Annual Capital Expenditures	Reinvestment Rate
Recommended Capital Expenditures	$1,454,000	2.6%
Average of 2022 and 2023 Capital Budget	$607,630	1.1%

Reference Reports

South Algonquin Township Documents

Strategic Asset Management Policy (FIN-003-00)

Accounting for Tangible Capital Assets Policy (FN-001-02) Revised October 2022

Official Plan - Township of South Algonquin, August 2012

2022 Road Inventory and Condition Assessment Report – Jewell Engineering, July 2022

2021 OSIM Inspection Reports – Jewell Engineering, December 2021

Asset Management Plan – Greenview Environmental Management Ltd., December 2013

Madawaska Landfill Site (ECA No. A7091303) 2021 Annual Report – Jp2g Consultants Inc. March 2022

Madawaska Landfill Site (ECA No. A7091303) 2021 Annual Monitoring Report – Jp2g Consultants Inc. March 2022

Airy (Whitney) Waste Disposal Site (ECA No. A530603) 2021 Annual Report – Jp2g Consultants Inc. May 2022

Airy (Whitney) Waste Disposal Site (ECA No. A530603) 2021 Annual Monitoring Report – Jp2g Consultants Inc. May 2022

Appendix

Section Number	Roadway Surface Type	Road Name	From	To	Section Length	Roadside Environment	Platform Width	Surface Width	AADT
RD010	G/S	Airy Road	Highway 60	0.9km west of Highway 60	0.9	R	6.7	5.7	10
RD020	G/S	Airy Road	0.9 km west of Highway 60	1.2 km west of Highway 60	0.3	R	5.7	4.7	10
RD030	HCB	Galeairy Lake Road	Maple Drive (N)	Maple Drive (S)	0.44	S	10	6.3	318
RD040	LCB	Maple Drive	Galeairy Lake Rd. N.	Galeairy Lake Rd. S.	0.85	S	9.2	7.1	300
RD050	G/S	Sunset Trail	Maple Drive	End	0.6	R	6.5	5.5	40
RD060	LCB	Birch Crescent	Maple Drive	End	0.15	S	8.9	7	20
RD070	LCB	Hemlock Crescent	Maple Drive	End	0.13	S	9.5	6.7	20
RD080	G/S	Galeairy Lake Crescent	Galeairy Lake Road	End	0.13	S	4.8	3.8	20
RD090	LCB	Fire Route-Dam	Galeairy Lake Road	End	0.05	S	7.5	5	5
RD100	LCB	Hay Creek Road (PA)	Highway 60	1.25 km South of Highway 60	1.25	S	9	6.5	638
RD110	G/S	Hay Creek Road (UP)	1.25 km South of Ottawa Street	McCrae's Mill	0.75	R	8	7	638
RD120	G/S	Dave Bowers Road	Hay Creek Road	0.1 km west of Hay Creek Road	0.1	R	4.7	3.7	20
RD130	HCB	Ottawa Street	First Avenue	Second Avenue	0.2	U	9.5	6.5	624
RD140	LCB	Lake Street	Third Avenue	Lakeshore Drive	0.25	S	9.8	6.5	156
RD150	HCB	Boat Launch Road	Ottawa Street	0.10 west of Ottawa Street	0.1	S	10	6	10
RD160	G/S	Lakeshore Avenue	Hay Creek Road	Third Street	0.6	R	5.9	4.9	30
RD170	HCB	First Avenue	Hay Creek Road	Ottawa Street	0.2	S	9.3	6	156
RD180	LCB	Second Avenue	Hay Creek Road	Ottawa Street	0.21	S	9	5.8	156
RD190	LCB	Third Avenue	Hay Creek Road	Lakeshore Drive	0.12	S	8.8	6	156
RD200	HCB	Mill Street	First Avenue	Second Avenue	0.2	S	7.6	6.1	156
RD220	HCB	Paradise Road	Highway 60	1.1 km south of Highway 60	1.1	S	10	6.6	195
RD230	G/S	Paradise Road	1.1 km south of Highway 60	End	1.3	R	7.5	6.5	5
RD240	ETH	Hilltop Crescent	Highway 60	End	0.36	R	6.5	5.5	50
RD250	HCB	Church Hill Street	Post Street	0.06 km South of Post Street	0.06	U	6.1	6.1	93
RD258	G/S	Church Hill Street	300m North of Highway 60	Highway 60	0.3	S	8.1	6	93
RD260	HCB	Park Street	Highway 60	Paradise Rd.	0.245	S	8.8	6.5	93
RD280	HCB	Post Street	Highway 60	Medical Centre Road	0.27	U	7.1	7.1	371
RD290	LCB	Post Street	Medical Centre Road	End	0.17	S	7.1	5.7	93
RD300	LCB	Medical Centre Road	Post Street	End	0.17	S	7.8	6.2	186
RD340	LCB	Algonquin Street	Algonquin Cresent	End	0.21	S	6.7	5.2	39
RD350	LCB	Algonquin Crescent	Highway 60	End	0.4	S	8.2	5.7	20
RD360	LCB	Nipissing Road	Algonquin Street	0.6 km East of Algonquin Street	0.6	R	8.6	6.5	300
RD380	G/S	Nipissing Road	0.6 km East of Algonquin Street	2.3 km East of Algonquin Street	1.67	R	6.9	5.9	300
RD390	G/S	Old Highway 127	Highway 60	Highway 127	5.53	R	9	8	38

RD400	HCB	Spectacle Lake Road	Highway 60	Dickens Township Boundary	1.38	R	7.9	6.2	62
RD410	HCB	Aylen Lake Road	Highway 60	End	8.3	R	8.5	6.5	86
RD428	G/S	Gaffney Road	Burnt Depot Road	End	0.62	R	5.7	4.7	21
RD435	G/S	Burnt Depot Road	200m East of Gaffney Road	End	0.3	R	5.5	4.5	5
RD440	G/S	Moonlight Bay Road	Gaffney Road	End	2.2	R	7.5	6.5	5
RD450	G/S	Whites Road	Aylen Lake Road	End	0.7	R	7	6	5
RD466	G/S	North Aylen Lake Road	Ferndale Lane	End	2.31	R	6.5	4.9	43
RD470	ETH	Pringles Road	North Aylen Lake Road	End	0.67	R	7	6	10
RD480	ETH	Shields Road	North Aylen Lake Road	End	0.16	R	9.2	8.2	10
RD490	ETH	Old Farm Road	Aylen Lake North Road	End	0.31	R	5	4	5
RD505	G/S	Paplinskie Road	Civic #221	End	1.1	R	6	5	39
RD510	ETH	Dunnes Road	Highway 60	End	2.1	R	4	3	10
RD520	LCB	Dawson Street	Highway 60 West	Highway 60 East	0.8	S	8.8	6.6	101
RD530	LCB	Merton Street	Murchison Road	Highway 60	0.61	S	8.6	5.9	101
RD540	LCB	Murchison Road	Dawson Street	End	0.24	S	7	5.6	101
RD550	LCB	Holstein Street	Merton Road	End	0.5	S	7.6	5.7	50
RD580	LCB	Victoria Street	Highway 60	Major Lake Road	0.4	R	8	6	79
RD590	LCB	Fire Route - Pump House	Major Lake Road	End	0.15	R	11	9	20
RD635	G/S	Victoria Lake Road	Civic #700	End	2.51	R	6	5	5
RD640	G/S	McCauley Lake Road	Major Lake Road	End	3.15	R	6.2	5.2	11
RD660	G/S	Reids Road	Highway 523	End	0.1	R	6.5	5.5	20
RD670	G/S	Lyell Lake Landing Road	Highway 523	End	0.4	R	6.5	5.5	30
RD685	G/S	McGuey Road	Civic #471	End	1.97	R	6	5	44
RD690	LCB	McRae-Hay Lake Road (PA)	2.4km West of Highway 127 (Civic 510)	McRae-Hay Lake Road (UP)	2	R	7.8	6.1	19
RD700	G/S	McRae-Hay Lake Road (UP)	North Road	End	2.48	R	5	4	19
RD710	G/S	Bennett Road	McRae-Hay Lake Road	End	2.36	R	4.2	3.2	5
RD736	G/S	McKenzie Lake Road	South McKenzie Lake Road	Highway 127	1.56	R	7.5	6.5	45
RD740	G/S	South McKenzie Lake Road	McKenzie Lake Road	End	2.6	R	7	6	5
RD755	G/S	North McKenzie Lake Road	Henry Coglan Drive	End	2.31	R	8	7	36
RD760	G/S	Henry Coglan Drive	North McKenzie Lake Road	End	1.9	R	6.8	5.8	5
RD770	G/S	Proven Line	McKenzie Lake Road	Pastwa Lake Road	1.72	R	6.4	5.4	10
RD780	G/S	Pastwa Lake Road	Proven Line	2.7 km East of Proven Line	2.4	R	7.5	6.5	10
RD785	ETH	Pastwa Lake Road	2.7 km East of Proven Line	End	3.08	R	4	3	5
RD790	G/S	Kuiack Road	Pastwa Lake Road	End	0.5	R	4	3	1
RD035	HCB	Galeairy Lake Road	Highway 60	Maple Drive (N)	0.25	S	10.5	6.5	318
RD135	HCB	Ottawa Street	Highway 60	First Avenue	0.4	U	9.5	6.5	624
RD145	HCB	Lake Street	Second Avenue	Third Avenue	0.3	S	9.6	6	156
RD340	HCB	Algonquin Street	Madawaska Street	Algonquin Cresent	0.7	S	9.2	6.7	39

RD691	LCB	McRae-Hay Lake Road (PA)	Highway 127	2.4km West of Highway 127 (Civic 510)	2.4	R	7.8	6.1	19
RD730	G/S	McKenzie Lake Road	Highway 127	Proven Line	1.58	R	8.3	7.3	45
RD732	G/S	McKenzie Lake Road	Proven Line	North McKenzie Lake Road	2.46	R	8.5	7.5	45
RD752	G/S	North McKenzie Lake Road	Civic #681 (Moosemeat Archery)	Henry Coglan Drive	2.8	R	8	7	36
RD750	G/S	North McKenzie Lake Road	McKenzie Lake Rd.	Civic #681 (Moosemeat Archery)	3.41	R	8	7	36
RD734	G/S	McKenzie Lake Road	North McKenzie Lake Road	South McKenzie Lake Road	3.19	R	7.5	6.5	45
RD680	G/S	McGuey Road	Highway 127	Civic# 471	2.37	R	6	5	44
RD630	G/S	Victoria Lake Road	Major Lake Road	Civic #700	3.44	R	7.2	6.2	5
RD424	G/S	Gaffney Road	Moonlight Bay Road	Burnt Depot Road	3.87	R	8.1	7.1	21
RD420	G/S	Gaffney Road	Aylen Lake Road	Moonlight Road	0.81	R	8	7	21
RD463	G/S	North Aylen Lake Road	Chapel Lane	Ferndale Lane	2.08	R	6.5	4.9	43
RD460	G/S	North Aylen Lake Road	Aylen Lake	Chapel Lane	3.32	R	6.5	4.9	43
RD600	G/S	Tom and Mick Murray Park Road	Highway 523	End	0.67	R	5.2	4.2	5
RD430	G/S	Burnt Depot Road	Gaffney Road	200m East of Gaffney Road	0.2	R	7.5	6.5	5
RD500	G/S	Paplinskie Road	Highway 60	Civic #221	1	R	6	4.9	39
RD254	LCB	Church Hill Street	0.06 South of Post Street	300m North of Highway 60	0.38	S	8.1	6	93
RD791	G/S	Kenny Road	Paradise	End	0.2	S	7	6	25
RD310	HCB	Madawaska Avenue	Post Street	Madawaska Street	0.05	R	8.2	6.8	0
RD320	G/S	Madawaska Street	Algonquin Street	End	1	R	6	5	40
RD330	LCB	Madawaska Street	Highway 60	Madawaska Avenue	0.1	S	6.7	5	25
RD335	HCB	Madawaska Street	Madawaska Avenue	Algonquin Street	0.2	R	8.2	6.8	300
RD610	LCB	Major Lake Road	Highway 60	Victoria Street	0.7	R	8.6	6.2	209
RD612	LCB	Major Lake Road	Victoria Street	4.7km North of Highway 60	4	R	9	6.5	209
RD613	HCB	Major Lake Road	4.7km North of Highway 60	6km North of Highway 60	1.3	R	9	6.5	209
RD614	LCB	Major Lake Road	6km North of Highway 60	Victoria Lake Road	2	R	9	6.5	209
RD615	LCB	Major Lake Road	Victoria Lake Road	McCaulley Lake Road	3.1	R	9	6.7	209

Summary of Replacement Year and Replacement Value - Fleet

Importance	Operating Dept.	Asset ID	Asset Name	Quality	Replacement Year	Replacement Value
High	Pro Services	TF503	2006 Vac. Tanker Tr. W	1	2038	$250,000
		TF505	1996 Spartan Pumper Tr. W	1	2031	$75,000
		TF506	2005 GMC C5500 Truck	1	2037	$50,000
		TF534	1999 Ford F-550 – New – Madawaska Fire Station	1	2014	$350,000
		TF535	2006 Tanker Truck M	1	2026	$150,000
		TF536	2021 Ford F350 Truck M	1	2033	$80,000
		TF537	2003 Fort Garry Truck	1	2037	$155,000
		TB22-01	2022 Ford Escape	1	2022	$45,000
Medium	Trans Services	T-24	Tr. 24-2014 Super Duty 4x4 Single Cab (Incl. Western MV P3 Snow plow	1	2018	$100,000
		T-27	2018 Tandem Plow Truck	1	2033	$350,000
		T-33	2021 Tandem Plow Truck	1	2035	$350,000

Importance	Operating Dept.	Asset ID	Asset Name	Quality	Replacement Year	Replacement Value
		T-34	2021 1 Ton Plow Truck F550	1	2036	$100,000
		T-7	2008 International Yellow Plow/Sander	1	2018	$350,000
Low	Env. Services	T-23	International Work Star Rear Loader Garbage Truck	1	2033	$250,000
		T-29	2020 Super Cab Patrol Truck	1	2031	$70,000
		T-30	2020 Super Cab Patrol Truck	1	2031	$70,000

Summary of Replacement Year and Replacement Value - Equipment

Importance	Operating Dept.	Asset ID	Asset Name	Quantity	Replacement Year	Replacement Value
High	Pro Services	EQP221	Four Air Tanks – Fire Station	1	2009	$19,255
		EQP222	Dry Hydrants	1	2025	$21,588
		EQP223	Pumps/Hoses – Fire Station	1	2009	$9,419
		EQP223-2	Portable Pump	1	2025	$6,552
		EQP224	Fire Sled – MFD	1	2022	$3,703
		EQP224-2	Rescue Spreader	1	2031	$18,536
		EQP224-3	Rescue Cutter	1	2031	$16,851
		EQP225-4,5,7 EQP226	Bunker Gear	4	2022	$25,990
		EQP225-2,3	Bunker Suits	2	2023	$17,936
		EQP225-6	Safe Fill Station	1	2026	$8,471
		EQP234	Defibrillator	1	2009	$17,727
		EQP235	Remote Area Lights	1	2040	$2,319
		EQP241	Securitex Gear (8) – Fire Station	1	2015	$15,220
		EQP242	Fire Communications Repeater	1	2010	$12,162
		EQP251	1,500 gal. tank	1	2033	$1,895
		EQP252	2018 SCBA	1	2028	$111,819
		EQP262	1997 Snowmobile Trailer	1	2037	$1,816
	Gen Gov	EQP104	Generator – Medical Centre	1	2023	$56,122
		EQP229	Electric Carnograph/ Stand – Medical Centre	1	2010	$9,204
Medium	Roads	EQP035	2021 Fisher Sand Spreader	1	2031	$7,536

Importance	Operating Dept.	Asset ID	Asset Name	Quantity	Replacement Year	Replacement Value
Low	Env. Services	EQP06	1990 John Deere Loader – Waste Disposal – EQP	1	2011	$175,000
		EQP022	Beaver Grates (Pooled)	1	2025	$4,406
		EQP237	Garbage Bins (10 units)	10	2028	$6,072
		EQP238	Electronic Containers	1	2030	$5,619
	Gen Gov	EQP220-12	Munisoft Software – Municipal Office	1	2017	$12,902
		EQP220-15	Munisoft License – Municipal Office	1	2020	$1,972
		EQP227	Facil. Furnishings (Pooled)	1	2024	$6,005
		EQP246-2	DRAPE Imagery	1	2029	$4,054
		EQP247	Conference Phone	1	2027	$1,439
		EQP248	Computers (Pooled Asset)	1	2021	$10,177
		EQP249-2	Computer Admin	1	2021	$1,238
		EQP249-3	Cheque Scanner	1	2021	$1,372
		EQP249-4	Computer Admin	1	2021	$2,398
		EQP249-5	Computer Library	1	2026	$6,473
		EQP256	Auto Floor Scrubber	1	2031	$8,254
	Health	EQP230	Streetlight Med. Centre	1	2015	$1,766
		EQP245	Phone System	1	2011	$3,768
	Rec and Cult Services	EQP10	Kubota Riding Lawnmower – Madawaska Yard	1	2021	$22,442
		EQP20	Park Furnishings (Pooled)	1	2025	$20,106
		EQP101, EQP102	2008 Honda Snowblower	2	2023	$11,318
		EQP103	Zamboni – Whitney Rink	1	2011	$100,000

Importance	Operating Dept.	Asset ID	Asset Name	Quantity	Replacement Year	Replacement Value
		EQP105	Lib. Furnishings (Pooled)	1	2025	$23,501
	Roads	EQP021	Rustproofing Gun	1	2028	$1,282
		EQP026	2014 CAT 430 Backhoe	1	2029	$250,000
		EQP026-2	Sweeper, Thumb	1	2025	$17,059
		EQP028	Utility Trailer	1	2030	$7,000
		EQP031	2019 Link Belt Excavator	1	2034	$250,000
		EQP031-1	2019 Promac Brusher	1	2029	$51,800
		EQP032	2020 Triaxle Trailer	1	2032	$42,232
		EQP036	2021 Precision Ind. Slide in Water Tank	1	2036	$31,453
		EQP243	Impact Wrench	1	2017	$3,990
		EQP244	Welder	1	2022	$3,413
		EQP249	Computer Public Works	1	2018	$1,602
		EQP255	Pressure Washer Hotsy	1	2024	$6,000
		EQP13	Thompson Steamer – New – Madawaska Yard	1	2018	$16,000
		EQP16	2001 Volvo Grader – Madawaska Yard	1	2028	$350,000

Summary of Condition and Replacement Value for Buildings

Building Name, Address	Asset ID	Condition	Use	Age (Years)	Replacement Value
Administration Offices – 7 Third Avenue, Whitney	BL010-06	Good	Administration Offices	24	$1,518,600
Administration Offices – 9 Post Street, Whitney	BL010-05	Good	Resource Centre	19	$143,600
Library, 27 and 33 Medical Centre Road, Whitney	BL010-01	Good	FHT/ Medical Centre/ Library Complex, Medical Offices	45	$1,130,200
Community Centre Lester Smith	BL010-03	Fair	Community Centre	22	$922,000
Whitney Fire Hall/ EMS Ambulance Bay, 31 Hay Creek Road, Whitney	BL010-02.0 BL050 BL010-02.1	Fair	Ambulance Bay	45	$1,270,400
Rink Building – 26C Major Lake Road, Madawaska	BL040-06	Fair	Rink and Hall	24	$188,600
Community Hall/Library/Fire Hall – 26 A and C Major Lake Road, Madawaska	BL040-17.1-17.6	Good	Community Hall and Library	14	$2,115,400

Summary of Condition and Replacement Value for Public Works Facilities

Building Name	Asset ID	Condition	Use	Age (Years)	Replacement Value
Storage Works and Yard, Madawaska	BL010-16	Good	Work Purposes Only	5	$14,183
Work Yard Building, Madawaska	BL060	Fair	Work Purposes Only	Unknown	$42,216
Madawaska Landfill Site Office/Trailer	BL010-12	Fair	Work Purposes Only	28	$4,927
Airy Landfill Site Office/Trailer	BL010-11	Fair	Work Purposes Only	22	$4,975
Airy Landfill Reuse Building	BL010-08	Good	Work Purposes Only	7	$4,573
Lyell (Madawaska) Reuse Building	BL010-09	Good	Work Purposes Only	6	$4,421

Summary of Condition and Replacement Value for Parks Facilities

Building	Asset ID	Condition	Use	Age (Years)	Replacement Value
Rec. Storage Building, Ball Diamond	BL010-04	Fair	Public Building	22	$4,278
Ball Diamond Women's Privy	BL010-24	Fair	Public Building	33	$45,000
Ball Diamond Men's Privy	BL010-23	Fair	Public Building	23	$45,000
Lester B Smith Park Sun Shelter	BL010-10	Fair	Public Building	7	$25,000
Centennial Park Picnic Area Gazebo	BL010-14	Fair	Public Building	22	$14,631
Whitney Beach Changeroom/Privy	BL010-22	Poor	Public Building	33	$45,000
Whitney Beach Sun Shelter	BL010-22.2	Good	Public Building	7	$17,900
Galeairy Boat Launch Privy	BL010-19	Fair	Public Building	30	$45,000
Aylen Lake Boat Launch Privy	BL020-04	Poor	Public Building	38	$45,000
Pump House M&L Rink Building	BL040-08	Fair	Public Building	24	$20,600
M&L Boat Launch Privy	BL040-16	Good	Public Building	24	$45,000

Building	Asset ID	Condition	Use	Age (Years)	Replacement Value
Tom/Mick Murry Park Sun Shelter	BL010-15	Good	Public Building	10	$8,751
Tom/Mick Murry Bark Lake Changeroom	BL030-01	Good	Public Building	22	$18,600
Tom/Mick Murry Bark Lake Privy	BL030-05	Good	Public Building	22	$45,000
Tom/Mick Murry Bark Lake Boat Launch Privy	BL030-07	Good	Public Building	22	$45,000
J.R.Booth Park Privy	BL040-18	Good	Public Building	8	$45,000
J.R.Booth Park Changeroom	BL040-18.2	Good	Public Building	7	$5,751
J.R.Booth Park Sun Shelter	BL040-18.3	Good	Public Building	7	$6,801
Galeairy Lake Park Privy	BL050-01	Very Good	Public Building	0	$45,000

Parks and Lands Asset Summary

Asset Type	Asset ID	Quantity	Condition	Age (Years)	Useful Life	Replacement Value
Parking Lots	LA40-05.5 LA40-05.2 LA40-05.3 LA40-05.4 LD010-03 LD010-16 LD010-17	7	2	14	15	$71,494
Municipal Highway Signs	LA70	1	2	7	20	$15,918
Municipal Branding Sign	LA71	1	1	3	20	$30,451
Aggregate Pits	LA90 LA91	2	2	6	20	$6,388
Playground Equipment	LA10-02 LA30-03 LA30-04	3	4	22	15	$161,497
Medical Centre/Library Complex	LA20 LD010-01	2	2	9	15	$17,484
Resource Centre	LD010-04	1	3	9	20	$750
Galeairy Lake Boat Launch Dock Ext.	LA10-16	4	2	9	15	$10,721
Beach and Seniors Area	LA60 LD010-08	2	Unknown	Unknown	Unknown	$15,749

Beach and Gravel Pit	LD010-09	1	2	8	15	$93
Railway Line	LA010-10	1	Unknown	Unknown	Unknown	$200
Park and Cenotaph	LA10-17 LA30 LD010-11 LD010-12	4	2	25	50	$97,943
Road/Road Allowance	LD010-13 LD010-14 LD010-15	3	Unknown	Unknown	20	$1925
Retaining Wall	LA10-15	1	5	37	40	$4,520
Ball Diamond Fencing	LA10-01 LA10-19 LA40-05	3	3	28	32	$97,525
Outdoor Rink	LA10-20 LA40-04 LA40-05.1	3	5	21	20	$378,234
Aylen Lake Boat Launch	LA50	1	2	8	15	$37,771
Lester B Smith Building Lot	LA40-05.6 LD010-02	2	2	13	Unknown	$164,800
Whitney Community Garden	LA10-21	1	Unknown	Unknown	Unknown	$4,598
M&L Community Hall/Fire Hall	LD40-01	2	Unknown	Unknown	Unknown	$34,200
Library/Rink and Building/Boat Launch	LD40-03	1	Unknown	Unknown	Unknown	$8,240
Municipal Office	LD040-03	1	Unknown	Unknown	Unknown	$16,455

From: Bryan Martin
To: Holly Hayes
Cc: Councillor Laurie Siydock; Councillor Joan Kuiack
Subject: RE: Whitney Boat Launch
Date: Monday, May 15, 2023 8:19:00 AM

Holy,

I agree there are challenges at most of our boat launches with respect to access and parking.
As you are aware in most circumstances the Township either has LUP"s or MOUs for the use and as such cannot charge for parking.
In the case of the Whitney launch you are likely aware there are 3 property owners
The Township owns the road allowance. Ontario Parks owns an area near the privy and the actual launch is a water lot owned by DFO.
Staff are working on these challenges with the other partners in this area and you may have noticed may some minor improvements last year.
We are looking at Parking restrictions as a potential option in some off these locations where we cannot charge a fee.

I appreciate your concerns.

Regards,

Bryan Martin,CMMII
CAO
Township of South Algonquin
7 Third Avenue
PO Box 217, Whitney ON, K0J 2M0
Cell: 613-334-5923

From: Holly Hayes [redacted]
Sent: Friday, May 12, 2023 9:59 AM
To: Councillor Laurie Siydock <laurie@southalgonquin.ca>; joan@southalgonquin.ca
Cc: Bryan Martin <clerk@southalgonquin.ca>
Subject: Whitney Boat Launch

Good morning Councilors,
During the last term of council there was significant effort being made by one of the former Airy councillors to improve the Whitney Boat Launch.

I'm sure you are both aware of the issues at this launch but in the interest of clear communication I'm going to reiterate. The community's ability to use this facility that our tax dollars maintain is impeded by it being an access point to Algonquin Park. The free parking and increased popularity of the access point means that there is seldom parking available for locals during summer weekends.

The lack of by-law enforcement on weekends means that we are missing out on being able to collect parking funds from these Park users. When we lived in Oro-Medonte there was a user fee for boat launches and beaches ($20/day), we were given parking passes in our tax bills and those who didn't live in the township paid for parking - it was a huge revenue for the Township and something I think could be considered here.

The lack of clarity on how to use the facility means that there are often small cars parked in ways that impede boat users from accessing the ramp.

As I said above, I understand that Bongo had been raising this issue and staff had been working on a solution. I wanted to raise it to both of you to see if you could check in on our progress and see if we can't get something done soon to ensure that our community has access to our beautiful lake.

I've cc'd Bryan on this email - I think the proper method is for me to go to my members of council - but I know that this issue is already on the books - so It's likely Bryan can provide an update and path forward.

Thanks,
Have a great weekend.

Holly

South Algonquin – Parks and Recreation Plan – Airy Ward

Vison

The Whitney Parks and Recreation Committee, along with members of the Beautification subcommittee, feel Whitney is a vibrant northern community that has maintained the small town feel and its ideals. The community values its timeless, natural wilderness, including the forest, lakes and rivers and shares the vision of growth while maintaining our natural surroundings. We want our visitors to feel welcome and enjoy what our village has to offer.

Purpose of Plan

The purpose of this Plan is to guide planning for parks and recreation assets and services over the next 5 years (to 2028). With stated goals and objectives for recreation, parks and trails, this plan will guide effective planning, implementation, and budgeting. It will also aid the Township in maintaining and future development of parks, recreation assets and services.

Demographics

The South Algonquin Township has seen a gradual decline in population down to 1,055 in 2021, which represents a 3.7% decrease from 2016 (1,096) and 12.9% decrease since 2011 (1,211). This contrasts with growth in the broader District, which saw a 1.9% increase in population from 2016 to 2021. The Township's Official Plan (2012) attributes this population decline largely to the out-migration of youth, who tend to leave South Algonquin after high school graduation. These trends appear to be continuing: the population of seniors aged 65 and older has grown by 12.3% between 2016 and 2021 (+40), and currently makes up 34.6% of the Township's population, while all other age groups saw decline over the same time period. The township also sees a dramatic increase in population during the summer months with cottagers and tourists.

Planning/Methodology

The principal objective of this Plan is to document current Airy Ward recreational assets and develop a series of recommendations and actions to accommodate the current and future recreational needs of the Airy Ward Residents using the areas listed below.

Indoor Facility
Recreation Center
Arena

Outdoor Facilities
Sports Fields
Sport Courts
Playgrounds

Parks and Trails
Galeairy Lake Memorial Park
Galeairy Beach and Park
Community Garden
Trails

Service Delivery
Partnerships
Programming

Guiding principles

Provide a variety of spaces within facilities that are flexible for multi-purpose use for community gathering, and places for residents of all ages and abilities to participate in recreational activities.

Expand the programs offered to residents, with consideration for the changing demographics and community needs through enhanced partnerships.

Upgrade and renew existing facilities to ensure compliance with Accessibility for Ontarians with Disabilities Act (AODA) requirements to enable access by all residents.

Enhance communication between the Committee and its residents to provide key information related to recreation, community events, and other happenings.

Proper planning and projects approved yearly, will allow the committee to act promptly with any grant opportunities that arise.

Assets

Airy Ward

Indoor Facility	Lester Smith Building Rec Center Outdoor rink	Large Community Room Small Meeting Room Kitchen Restrooms x 4 Rink/Ice surface	Building rented for private functions. Rec Committee uses for all Fund raising activities. Ice skating during winter months Rink surface used for outdoor sports during other months.
Outdoor Facilities	Playground Ball Diamond Volleyball Court	Several pieces of equipment Located at the Beach	Gazebo located at playground to provide shade. Some newer equipment Fenced area – bleachers. Restroom facilities Net supplied.
Parks and Trails	Galeairy Lake Memorial Park Galeairy Lake Beach Community Garden	Along the highway – most visible Large beach area Picnic spots Established a few years ago	Cenotaph Gazebo Picnic areas Picturesque Dam area and walk. Grass and sandy areas Two docks Bathrooms and Change rooms Gazebo Several raised beds Large watering container Tools

Recommendations

Over the last several years during other Plan development, the Township engaging many age groups with either on-line surveys or focus groups. These have been reviewed and although dated, many issues or comments have been the same and continue to be valid today.

We also have reviewed and included the presentation done by South Algonquin Business Association 2019 as it was comprised of community input.

February 2023 a meeting was held to brainstorm with community members to assist the Committee in developing this plan.

Airy Ward

Indoor Facility	Lester Smith Building	Kitchen upgrade Open restrooms as comfort stations for easy access year round Public Wi-Fi – Banner or large Sign Relocate old antique hand pump from fire hall. Clean up gardens - Plant large Christmas tree Flag poles Garbage bins recycle bins. Light up new rock garden at rink
	Outdoor Rink	Roof over surface Resurface rink.
Outdoor Facilities	Playground	Requires a safety review of all equipment. New equipment needed. Ensure all new equipment is AODA approved. Splash pad Shade trees See recommendation for sand or gravel around equipment. Should be inspected for any hazards.
	Ball Field	Bleachers and benches should be replaced. Small building should be inspected.
	Volleyball Court	May require more sand. Pickleball court new –

Parks and Trails	Galeairy Lake Memorial Park	Brush and clean up area by cenotaph. Newer picnic areas by riverside need brushing and cleaned up – unsafe trees need to be removed. Area at dam need to be cleaned. Gazebo roof needs to be replaced. Move and place BBQ to a more convenient area. Flowers needed. Flagpole for veterans banners Lighting Dam – Solar lighting in gazebos and trees – fairy lights Lilac Garden – Large Frame – showing off the scenery/view. EV station Super Hydrophobic Art – along road/walkway to dam and around. Pianos in the park Park seating Shade trees Recognition of Ken Greenley plaque at dam or bench For Christmas – large tree in gazebo and fairy lights Maybe move gazebo to be more centralized Large moose
	Galeairy Lake Beach	Whole area needs to be improved – water's edge not accessible for handicapped or seniors. Install BBQ and more picnic tables. Benches along lakefront – beach road park seating Improve bathroom and change room. Splash pad Shade trees Block off beach road – open for walking, wheelchair, bikes

	Community Garden	Large Frame showing of the scenery/view. Medicine wheel garden Promote use of Greenhouse Also, could have a plant trading box. Relocate to rec center. Plant veggies
Other	Downtown General Area	Banners Flowers planters strategically placed and on bridge. Geocaching - Human Sun dial Improve signage – no pets, no smoking etc. Strategically placed benches to rest and view the world going by Murals or painting on buildings and/or bridge Christmas decorations around town Story boards – history Dog Park – in Kidz castle area Lap pool Improve parking at public boat launch. Solar lighting Pick a theme for driveway planters -

Implementation Strategy

Each recommendation is listed below in no order. A brief description is included, along with priority of project based on Committees beliefs.

Actions required to implement recommendations will be further developed and will become part of this plan.

Airy Ward

#	Recommendation	Immediate 2023	Short Term 2024 - 2025	Med. Term 2026 - 2028	Long term 2029 +
1	Banners – explore options – how many, seasonal prints, cost, placement and removal	√			
2	Benches – strategically place benches throughout village – purchase or do fundraising (in memoriam)		√		
3	Clean up gardens around Lester Smith building – relocate old antique hand pump from fire hall	√			
4	Plant Large Christmas tree in front	√			
5	New Flag poles outside Lester Smith Building	√			
6	Light up new rock garden LS		√		
7	Rink - resurface			√	
8	Indigenous Orange Ribbon – is there another way to incorporate this into bridge etc. maybe just better-looking ribbon.	√			
9	Plan playground area using new equipment AODA approved	√			
10	Explore Splash pad requirements		√		
11	Plant shade trees in and around playground	√			
12	New pickleball court – one tennis court = 2 pickleball courts			√	
13	Brushing – Cleanup Galeairy Memorial Park	√			
14	Newer picnic areas by riverside need cleaned up including dead trees	√			
15	Gazebo to be moved to a more central location		√		
16	Gazebo roof needs to be replaced - tin		√		
17	Move and place BBQ to a more convenient area	√			
18	Flowers	√			

19	Flagpole for veteran's banners	√			
20	Dam Lighting		√		
21	Solar lighting for gazebo and trees – fairy lights	√			
22	Lilac Garden			√	
23	Large Picture Frame	√			
24	Super hydrophobic Art – along walkway to dam		√		
25	Piano in the park		√		
26	Park seating – instead of picnic tables		√		
27	Shade Trees	√			
28	For Christmas – large tree in gazebo and fairy lights	√			
29	Medicine Wheel Garden		√		
30	Large moose -		√		
31	Install BBQ and more picnic tables at beach	√			
32	Benches along lakefront/beach road	√			
33	Improve bathroom/change room		√		
34	Shade trees	√			
35	Large picture frame	√			
36	Promote use of Community Garden		√		
37	Greenhouse		√		
38	Have a plant trading box		√		
39	Plant veggies		√		
40	Flower/planters strategically placed in town and along bridge	√			
41	Geocaching		√		

42	Human Sundial		√		
43	Improve signage – review no pets, no smoking etc. all park areas	√			
44	Strategically place benches to rest around town	√			
45	Murals or painting on buildings and or bridges – native influence		√		
46	Christmas decorations	√			
47	History/story boards		√		
48	Dog Park -		√		
49	Lap pool				√
50	Driveway – community flower project – “Flower it up” - theme	√			
51	Develop a calendar of events to increase community involvement and to generate more funds - include a witch canoe ride on the river Develop a fall fundraiser	√			
52	Fundraising ideas – rink board advertising -				
53	Have Outdoor market at Rec center – this would allow for more vendors –		√		

Communicating the Plan

The Airy Ward Parks and Recreation Plan will be presented to the council for approval and become part of the record. It will also be posted on the South Algonquin website.

Review and Updating Plan

Annual progress of this Plan should be reviewed to determine and re-adjust as necessary. The timing of recommendations should align with budgetary asks.

Service Delivery

As in the past, volunteers have organized and delivered all recreational activities for Whitney area and will continue to do so. With the pandemic behind us, we hope to see an uptake in community members to lend a hand.

By creating subgroups within the Parks and Recreation Committee, people may feel more comfortable volunteering knowing exactly what project there are helping with. In turn, may have more volunteers to draw from for other projects.

Promote Partnerships with other community services groups.

Surveys/Meetings

Future Directions Survey – 2016

Youth Workshop Summary Report – 2015

Senior Consultation Summary Report – 2016

Tourism Operators Consultation Summary Report – 2016

South Algonquin Business Association 2019

Beautification Brainstorming meeting - February 16, 2023

THE TOWNSHIP OF
SOUTH ALGONQUIN

Annual Playground Report Summary

Madawaska Complex

Items/Issues	Number of issues of noncompliance from inspection
A hazards	• Compaction & contamination of protective surfacing • Cracked tire swing
B hazards	• Adjust clearance to 600mm from adjacent swings
C hazards	• Emergency information • Provide garbage can

Overall compliance rating : 20 out of 25 or 80%

Recommendations & Conclusion

1. Items marked as A hazards be addressed immediately or that play structure be closed until those items be addressed.

2. Items marked as B hazards be addressed as soon as possible to avoid injury.

3. Items marked as C hazards be addressed as soon as possible to avoid confusion.

4. A maintenance program be established.

Booth Park

Items/issues	Number of issues of noncompliance from inspection
A hazards	• Protective surfacing compacted
B hazards	• Ponding under swings and slide exit • Hood at slide entrance cracking at fastners
C hazards	

Overall compliance rating: 55 out of 59 or 93%

Recommendations and conclusions

1. Items marked as A hazards be addressed immediately or that the play structure be closed untill those items can be addressed.

2. Items marked as B hazards be addressed as soon as possible to avoid injury

3. A maintenance program be established

The protective surfacing used in this playground is prone to compaction, it is recommended to be tilled and tested during the season.

The large red pine trees shading the playground are causing contamination in the protective surfacing and may need constant raking

Millennium Park

Items/issues	Number of issues of noncompliance from inspection
A hazards	• Protective surfacing not to standard • Draw string entanglement slide entrance • Guardrails contain flat surfaces greater than 1.5”
B hazards	• Ponding at the base of slides and swings • Caps on structure posts not secure • Platform boards rotting • Broken and missing bolt coverings • Protruding wood screw • Accessable bolt ends for slide pole
C hazards	• Age appropriate signage • Clean up spring deadfall

Overall compliance rating : 37 out of 52 or 71%

Recommendation and conclusions

1. the items marked as A hazard be addressed immediately or that the play structure be closed until those items can be addressed

2. the items marked as B hazard be addressed as soon as possible

3. the items marked as C hazard be addressed as soon as possible to prevent confusion

4. A maintenance program be established

The wood at this playground is starting to show signs of deterioration and the ptrotective surfacing around the play ground is in need of tilling and replenishment from years of neglect which has led to a large amount of root growth from the surrounding trees.

Whitney Rec Centre

Items/issues	Number of issues of noncompliance from inspection
A hazard	
B hazard	• Holes in rockers, possible insect locations • Rusting, paint chipping and cracking on equipment • Uncapped tubing • Impalement on pony swings • Slides positioned to face the mid day sun • 3 swings in swing bays • Slide exits greater than 14.96”
C hazard	• Owner operator signage • Age appropriate sign • No shock absorber under seesaw

Overall compliance rating: 47 out of 59 or 79%

Recommendations and conclusions

1. Items marked as B hazards be addressed as soon as possible to prevent injuries
2. Items marked as C Hazards be addressed as soon as possible to avoid confusion
3. A maintenance program be developed

Address the B hazards and the composite play structure will continue to perform. The older equipment around the composite structure is likely old enough to be exempt from some of the standard, it does need re surfacing or be removed

CPRA ACPL

Playground Equipment Compliance Inspection Report
Annual Comprehensive Report

GENERAL SITE INFORMATION			
Agency Requesting Inspection:	Township Of South Algonquin	Inspection Date:	May 9 2023
		Time:	9am
Phone:		Weather:	
Location Name:	Whitney Rec Centre	Temperature:	
Inspector:	Adam Ziebarth	Position/Qualifications of Inspector:	CCPI
Purpose:		Standard Used For Evaluation:	CSA Z614:20

GENERAL EQUIPMENT INFORMATION			
Area #/ Part #:		Equipment Present: Composite play structure, rockers, seesaws, swing sets, slides	
Site Location:			

SITE FURNISHINGS
(exempt from CSA under Clause 1.8, 1.9, check for general condition, stability and obvious hazards)

1. **Access to play area, pathways, lighting, benches, tables, fencing, buildings fixtures, garbage cans, shade shelters, etc. (exempt from CSA Z614 under Clause 1.8, 1.9)** Satisfactory / Unsatisfactory / Not applicable

   Approximate budget cost for repair ($):

   Comments:

SURFACING INFORMATION (Clause 10)

2. **Protective surfacing type and manufacturer/supplier name (if known):**

   Sand / Gravel / Wood Chips / Engineered Wood Fibres / Synthetic (PIP or tiles) / Other

   Comments: pea stone

3. **Protective surfacing dimensions:**

4. **Retaining wall or excavated pit (mandatory if loose fill material)** Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
   Comments: **retaining wall**

5. **Compaction and/or contamination of protective surfacing** Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

6. **Maximum CSA fall height of surface system (list equipment type and height):**
   Location:
   Height:

7. **Maximum height of equipment on surface system (list equipment type and height):**
   Location:
   Height:

8. **Check depth of protective surfacing to ensure adequate compared to CSA fall height (check minimum 3 locations) . Use depth chart below to confirm adequacy.**
   Depth location #1: 12” Depth location #2:12” Depth location #3: 12”
   Average depth of protective surfacing: 12”

   Result: Okay / Add material / Till / Re-distribute (circle any that apply)

   Satisfactory / Unsatisfactory / Not applicable

   CSA Clause #: Hazard Class: Approximate budget cost for repair ($):

   Comments:

APPROXIMATE RESULTS AND RECOMMENDATIONS FOR SURFACING DEPTH LISTED BELOW WITH MATERIAL DEPTH OF 300mm (APPROX. 12 in) OR GREATER	
Protective Surfacing Type	**Approximate Critical Height Achieved**
Wood Chip/Bark Mulch:	Up to 3.0m (Up to 10 feet)
Engineered Wood Fibres:	More than 3.0m (More than 10 feet)
“Washed” Round Pea Gravel: *Needs to be appropriately cleaned and washed to avoid compaction	Up to 2.5m (Up to 8.25 feet)

Specified Sand: *Needs to have specific sieve analysis completed to ensure adequate impact attenuation	More than 2.5m (More than 8.25 feet)
Shredded Tire Crumb: *Depth of only 200mm (approx. 8 in)	More than 3.0m (More than 10 feet)

GENERAL EQUIPMENT INFORMATION, SIGNAGE AND RETROFIT INFORMATION (Clause 16)

9. **Check for owner/operators name and contact information in a "readily identifiable" and "clearly visible" location from the play area**
   Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: 11.2.2 Hazard Class: C Approximate budget cost for repair ($):
   Comments (list information provided on signage): **no contact info**

10. **Check for manufacturers name, contact information and date of manufacture present on play equipment**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: 16.1 Hazard Class: C Approximate budget cost for repair ($):
    Comments (list information provided on signage):**no info**

11. **Check for age group indicated (1.5 to 5, 5 to 12, 1.5 to 12)** Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: 16.2 Hazard Class: C Approximate budget cost for repair ($):
    Comments (list age group indicated): **no signage**

EQUIPMENT INSPECTION INFORMATION AND HAZARD IDENTIFICATION

GENERAL INFORMATION REGARDING EQUIPMENT AND PLAY AREA (various clauses and appendix)

12. **Check to ensure all components are tight and secure** Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

13. **Check to ensure no trip hazards exist**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

14. **Check to ensure play components are free of extra holes and gaps that may harbor insects or inappropriate material**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: B Approximate budget cost for repair ($):
    Comments: **rockers and pony swings have openings underneath which would allow insects to occupy**

MATERIALS AND INSTALLATION (Clause 7 and Clause 8)

15. **Check moving suspended elements are connected to a fixed support with bearings or bearing surfaces that serve to reduce friction or wear**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

16. **Check to ensure steel cables are inaccessible or capped to prevent injury from frayed wires** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

17. **Check for drainage/ponding on equipment and/or protective surfacing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

18. **Check to ensure components are not capable of being removed without the use of tools** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

19. **Check for rusting, rotting or significant decay** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 12.3.4 Hazard Class: B Approximate budget cost for repair ($):
Comments: **older swing set showing significant rusting, various play equipment showing rust starting and paint chipping, tubbing cracking photo 1,2,3,4**

PROTECTIVE SURFACING ZONES AND NO-ENCROACHMENT ZONES (Clause 14)

20. **Check for 1.8-m (70.87 in) around all stationary equipment. Note: Overlap is permitted** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

21. **Check all rocking/springing equipment for 1.8m (70.87 in) if intended for sitting and 2.1m (82.68 in) in direction of use if intended for standing. Note: Overlap is permitted** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

22. **Check protective surfacing zones around all rotating equipment. Note: 1.8-m (70.87 in) that cannot overlap in direction of motion for equipment within 45-degrees of horizontal. 2.7-m (106.30 in) with a 1.8-m (70.87 in) clearance zone required at equipment that rotates within 45-degrees of vertical when diameter greater than 1.0-m (39.37 in) or 1.8-m (70.87 in) that can overlap if diameter less than or equal to 1.0-m (39.37 in). Overlap into No-E.Z. can be permitted.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

23. **Check slide protective surfacing zones. Note: Platform height equals P.S.Z. required with a minimum 1.8m (70.87 in) and a maximum 2.4-m (94.49 in) plus a no-encroachment zone required when starting platform is greater than 1.2-m (47.24 in) in elevation above protective surfacing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

24. **Check all swing protective surfacing zones. Note: 2 x Y in each direction plus no-encroachment zone. Also check protective surfacing zone width. Note: 1.8-m (70.87 in) from end of top beam or 1.8m (70.87 in) from centre of outermost swing seat (whichever is greater)** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

PERFORMANCE REQUIREMENTS (Clause 12)

25. **Check for fully bounded opening head and neck entrapment. Note: Check rigid and non-rigid openings**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

26. **Check for partially bounded opening head and neck entrapment. Note: use fish probe with "A" and "B" portions of test gauge**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

27. **Check for sharp edges/sharp points capable of abrading human skin** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 12.3.4 Hazard Class: B Approximate budget cost for repair ($):
Comments: **paint chips on slides, cracks on tubing**

28. **Check for uncapped tubing**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: B Approximate budget cost for repair ($):
Comments: **photo 5**

29. **Check for accessible bolt ends beyond two threads. Note: This can be considered an entanglement hazard or a protrusion/sharp edge hazard.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

30. **Check for minimum radius of curvature of 6.35mm (0.24 in) at all suspended members. Note: Belts, straps, ropes and similar flexible components are exempt. This is most often completed by the manufacturer prior to installation.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

31. **Check for impalement protrusions using the 3 protrusion gauges** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 12.3.3.1 Hazard Class: B Approximate budget cost for repair ($)
: Comments :**older pony swings hand grip and foot rests**

32. **Check for entanglement protrusions using the 4th gauge (i.e. the thin entanglement protrusion gauge). Note: Check for projections upwards of horizontal and projections in any orientation within the slide clearance zone**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

33. **Check for protrusions increasing in size**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

34. **Check for gaps greater than 1-mm (0.04 in) in fastening devices** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

35. **Check any S-hooks for non-compliant configuration. Hint: lower loop cannot extend beyond upper loop, lower loop must be aligned with connector body** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

36. **Check for drawstring entanglement at slides and sliding poles in accordance with Clause 12.4.6.2, 12.4.6.3 and 12.4.7. Note: 12.4.6.2 is a test of the slide starting point and slide bedway, 12.4.6.3 is a test of the slide enclosure device (i.e. hood, canopy, etc.) and 12.4.7 is a test for sliding poles (AKA fireman's pole)**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

37. **Check for crush and shear points. Note: must have movement to be non-compliant and exemptions present for: light-weight moving components, chains and their method of attachment, attachment of heavy duty coil springs, area between swinging element and toprail, track ride assemblies** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

38. **Check for suspended hazards. Note: Rope, cable, etc. must be above 2.1m (82.68 in) or if lower must be > 25mm (0.98 in) and bright colour recommended)**
Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

1. **Check for looping hazards > 125mm (4.92 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

1. **Check for non-compliant DPS elevated surfaces. NOTE: In most cases a Designated Play Surfaces (or DPS is only going to indicate a fall height is present. DPS surfaces are not permitted on the following items:**

guardrails, protective barriers, swing support structures, roofs < 2.1-meters (82.68 in) above an underlying play surfaces, and equipment support posts. Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

ACCESS/EGRESS (Clause 13)

41. **Check all steps, rungs, platforms, landings, walkways, ramps, stairways, etc. for even spacing within a horizontal tolerance of +/- 6mm (0.24 in) and horizontal tolerance of +/- 2 degrees and to ensure they do not trap water or accumulate debris**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

42. **Check all stairways, stepladders and rung ladders for slope, tread width and tread depth as per table #2**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

43. **Ensure stairways have 2 handrails at appropriate reach ranges or protective barriers up to 1.2-m (47.24 in) in step elevation and protective barriers are required above 1.2-m (47.24 in)** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

44. **Check to ensure stepladders have minimum 1 handrail per side at a height less than 725mm (28.54 in) for users < 5 and less than 950mm (37.40 in) for user > 5** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

45. **Check to ensure alternate hand support is available on steps with only one tread** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

46. **Check all handrails and rungs for diameter or maximum cross-section between 24-40mm (0.94 – 1.57 in) and that climbers have a means of hand support while climbing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

47. **Check to ensure arch climbers and flexible components are not used as the sole means of access for users < 5, that flexible components are securely attached at both ends and that anchoring devices are below the full depth of the protective surfacing**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

48. **Check to ensure all rung ladders, flexible components and arch climbers do not have a stepping surface above the platform surface**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

GUARDRAILS AND PROTECTIVE BARRIERS ON ELEVATED SURFACES (Clause 13.4)

49. Check to ensure that guardrails and protective barriers do not contain a designated play surface (D.P.S. – flat surface greater than 50mm x 50mm (1.97 in) with a slope less than 30-degrees). NOTE: Only if not already captured under item #40 earlier in this form. Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

50. Check to ensure guardrails or protective barriers (to an appropriate height) are compliant on platforms above 500mm (19.69in) for users < 5, and on platforms above 750mm (29.53in for users > 5 and all openings are 375-mm (14.76 in) or less (or have a top horizontal rail) Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

51. Check to ensure protective barriers (to an appropriate height) are compliant on platforms above 750mm (29.53 in) for users < 5, and on platforms above 1.2m (47.24 in) for users > 5 and all openings are 375-mm (14.76 in) or less (or have a top horizontal rail) Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

52. Check to ensure access components are present between adjacent platforms greater than 300mm (11.81 in) for users < 5, and 450mm (17.72 in) for users > 5 Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

53. Ensure adjacent platforms that would otherwise be subject to guardrails or protective barriers have some type of protective infill between platforms (i.e. precludes passage of torso probe) Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

REQUIREMENTS FOR SPECIFIC COMPONENTS OF EQUIPMENT (Clause 15)

54. **HIRA: Check to ensure a HIRA (in accordance with Clause 15.1 and Annex J are present for any components not specifically identified in Clause 15.2 through 15.19. NOTE: It is not the field inspectors role to agree/disagree with the HIRA, only to verify that the manufacturer has provided it to the owner/operator.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: **15.1 and Annex J** Hazard Class: Approximate budget cost for repair ($):
Comments:

55. **BALANCE BEAMS:**
    - **Height no greater than 300mm (11.81 in) for users < 5, and no greater than 400mm (15.75 in) for users > 5**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

56. **UPPER BODY EQUIPMENT:**
    - **Centre-to-centre distance between fixed rungs shall be no greater than 375mm (14.76 in)**
    - **Hand-gripping devices shall be between 24-40mm (0.94 to 1.57 in) in diameter**
    - **Rigid hand-grips shall not twist or rotate**
    - **Distance to the first handhold of no greater than 250mm (9.84 in)**
    - **Where access is provided by rungs the distance to the first handhold shall be at least 200mm (7.87 in), but no greater than 250mm (9.84 in)**
    - **Maximum height of the take-off/landing structure shall be no greater than 450mm (17.72 in) for users < 5, and no greater than 900mm (35.43 in) for users > 5**
    - **Maximum height of upper body devices shall be no greater than 1.5m (59.06 in) for users < 5, and no greater than 2.1m (82.68 in) for users > 5** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

57. **SLIDING POLES:**
    - **Clearance distance of 450-500mm (17.72 – 19.68 in) from platform surface to pole**
    - **Accessed from one height only**
    - **Distance from platform surface to top of pole a minimum of 1.5m (59.06 in)**
    - **Sliding pole diameter no greater than 50mm (1.97 in)**
    - **Pole continuous with no abrupt changes in direction**
    - **Opening in guardrail or protective barrier no greater than 375mm (14.76 in) – no toprail option**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

58. SLIDE STARTING PLATFORM:

- **Depth to be a min. dimension of 350mm (13.78 in) on composite structures and min. of 550mm (21.65 in) on independent slides**
- **Starting platform width shall be greater than or equal to the sliding section entrance**
- **1.5m (59.06 in) vertical clearance on slide entry platform**
- **Platform surface subject to guardrail/protective barrier requirements where applicable** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

59. SLIDE SITTING SECTION:

- **Slope shall not exceed 18-degrees from horizontal**
- **Handrails or hand support present to facilitate standing to sitting**
- **Enclosure or hand support present to channel a user into a sitting position**
- **Enclosure must extend within 125mm (4.92 in) of the sliding section to prevent lateral discharge (i.e. hood, canopy, etc.)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

60. SLIDING SECTION:

- **Slide and slide sidewalls smooth, continuous and allow unhampered flow of hand movement**
- **Height/length ratio not to exceed 0.577**
- **No span of sliding surface exceeding 50-degrees**
- **No regions of zero gravity (note: use slide radius of curvature test device)**
- **Slide width a minimum of 300mm (11.81 in) for users < 5, and minimum of 400mm (15.75 in) for users > 5**
- **Minimum sidewall height of 100mm (3.94 in)**
- **Slide is in shade or faces away from sun during peak hours**
- **Slide not constructed of wood or fiberglass** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: B Approximate budget cost for repair ($):
Comments: **slides directly facing sun mid day**

61. SLIDE EXIT SECTION:

- **Rounded to a minimum radius of curvature of 10mm (0.4 in)**
- **Length of exit section a minimum of 275mm (10.83 in)**
- **If maximum slide elevation is 1.2m or lower (47.24 in) then slide exit height shall be between 0 and 275mm (0 and 10.83 in)**
- **If maximum slide elevation is > 1.2m (47.24 in) then slide exit height shall be between 175 – 380mm (6.9 – 14.96 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 15.6.6.4 Hazard Class: Approximate budget cost for repair ($):
Comments: **slide exit greater than 14.96”**

62. SLIDE CLEARANCE ZONE:

- **525mm (20.67 in) clearance measured from inside of slide bedwall** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

63. TUBE SLIDES:

- **Internal diameter of 575mm (22.64 in) or greater** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

64. SWINGS (TO-FRO AND ROTATING):

- **Not attached to a composite playstructure and located in a low circulation area**
- **Support structure discourages climbing and contains no D.P.S.**
- **Swings are made of impact absorbing material and have rounded edges**
- **Bearing hangers have a means of reducing friction and wear**
- **Ensure swings are not hung with rope**
- **Swing seats are not cracked or damaged, especially where connectors are present**
- **Vertical distance between swing seat and protective surfacing shall not be less than 300mm (11.81 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

65. TO-FRO SINGLE USER SWINGS:

- **No more than 2 swings within each bay**
- **Swings to accommodate no more than 1 user**
- **Seat weight of less than 1.4 kg (12pprox.. 3 lbs.)**
- **Seating surface has minimum length of 300mm (11.81 in) and minimum width of 100mm (3.94 in)**
- **Ensure all baby seats have support on all sides and between the legs and no movable or adjustable elements are present (accessible swing seats are exempted from this requirement)**
- **Horizontal clearance of 600mm (23.62 in) to adjacent swing and 750mm (29.53 in) to swing supports (measured at 1.5m above the protective surfacing)**
- **Horizontal distance between bearing hangers of 500mm (19.69 in) and that chains create "V" shape**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 15.7.4.4 Hazard Class: B Approximate budget cost for repair ($):
Comments: **3 swings per bay photo 6**

66. TO-FRO MULTI-USER SWINGS:

- **No more than 1 swing within each swing bay**
- **Seat weight no greater than 20 kg (44 lbs.)**
- **Seating surface has a minimum diameter of 600mm (23.62 in)**
- **Minimum 2 suspension members per side (4 total)**
- **Manufacturer shall design to reduce tipping during use** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

67. ROTATING SWINGS:

- **No more than 1 swing within each swing bay**
- **Seat weight no greater than 20 kg (44 lbs.)**
- **Distance from top of swing seat to support structure of 750mm (29.53 in) or greater** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

68. ROTATING EQUIPMENT:

- **Platform is generally circular with speed limiting device and no oscillation**
- **Equipment located in a low traffic area**
- **No components protrude beyond perimeter of platform**
- **Underside clearance for head probe**
- **Secure hand-grips are provided**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

69. SEESAWS:

- **Fulcrum seesaws to have shock absorbing mechanism present under seats**
- **Distance between seesaws of at least 1.2m (47.24 in) when attached to one support structure**
- **Hand-grips at least 75mm (13pprox.. 3 in) in length (or 150mm/ 6-in if intended for 2 hands)**
- **Hand-grips do not turn, twist or rotate or protrude beyond the sides of the seat**
- **Footrests are present on seesaws with spring centering mechanism**
- **Maximum slope of seesaw to be no greater than 25-degrees**
- **Maximum seat height no greater than 1.5m (59.06 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: 15.10.2 Hazard Class: C Approximate budget cost for repair ($):
Comments: **no shock absorbers**

70. SPRINGING/ROCKING EQUIPMENT:

- **Seats designed to minimize the likelihood of use by more than the intended # of users**
- **Hand-grips at least 75mm (13pprox.. 3 in) in length (or 150mm/ 6-in if intended for 2 hands)**
- **Footrests present with a minimum width of 90mm (3.54 in)**
- **Seat height is between 350 – 700 mm (13.78 – 27.56 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

71. LOG ROLLS:

- **Rigid hand-grips must be provided (and within 24-40mm requirement)**
- **Highest point of roller must be no greater than 450mm (17.78 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

72. TRACK RIDES:

- **Landing platforms to have minimum depth of 900mm (35.43 in)**
- **Riding zone clearance a minimum of 900mm (35.43 in)**
- **Structural elements not to pose a hazard during use**
- **Distance between adjacent track rides is at least 1.2m (47.24 in) when attached to one support structure**

- **Hand-gripping component height between 1.6 – 1.95m (63 and 76.77 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

73. CLIMBING NET STRUCTURES:

- **Hand-gripping components between 16 – 40 mm (0.625 – 1.57 in)**
- **Connections are secure**
- **Foundation connections do not pose a hazard and located below the full depth of the protective surfacing**
- **No fall permitted within the net structure, OR, from within net structure to ground in excess of 1.8-meters (70.87 in) as per figure 48 and 54** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

74. EQUIPMENT SUPPORT POSTS:

- **Check equipment support posts where a user is no longer in contact with the ground during play to ensure no DPS surfaces are present (unless already noted in item #40 or #49 above)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

AGE APPROPRIATE DESIGN AND OTHER DESIGN REQUIREMENTS (various clauses and figures)

75. Equipment not recommended for users under age 5:

- **Sliding poles**
- **Track rides**
- **Log rolls**
- **Fulcrum seesaws**
- **Pulley/cable rides**
- **Freestanding arched climbers**

Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

76. Swinging exercise rings, animal swings, trapeze bars and swinging gates and doors are not recommended. Note: This does not apply to these components on upper body devices Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

77. CRAWL TUNNELS:

- **Clear and safe entry/exit points**
- **Adequate supervision and visibility** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

78. SAND PLAY AREAS:

- **Located in a low circulation route**
- **Adequate shade present**

- **Depth of 200mm (15pprox.. 8 in) present with a recommended depth of 450mm (15pprox.. 18 in)**
- **Free of litter, debris and/or other hazardous material**
- **No standing water**

Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):

Comments:

79. SMALL CHILDREN'S FENCED PLAYSPACES:

To qualify the play area must be:

- **Supervised use**
- **For users 18 months to 5 years**
- **Surrounded by fencing with a minimum height of 1.2m (47.24 in)**
- **At least one lockable entrance gate** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):

Comments:

80. EQUIPMENT WITH NO INFORATION PROVIDED DUE TO INFREQUENCY OF INSTALLATION:

- **Pulley/cable ride (see figure #35)**
- **Embankment slides**
- **Enclosed structures (i.e. tower structures)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):

Comments:

SUMMARY		
Items/Issues	Number of issues of noncompliance from inspection	
A hazards		
B hazards	• **Holes in rockers, possible insect locations** • **Rusting, paint chipping and cracking on equipment** • **Uncapped tubbing** • **Impalements on pony swings** • **Slides positioned to face sun mid day** • **3 swings in swing bays** • **Slide exits greater than 14.96"**	
C hazards	• **Owner operator signage** • **Age appropriate sign** • **No shock absorber under seesaw**	

OVERALL COMPLIANCE RATING: 47 out of 59 or 79%

RECOMMENDATIONS & CONCLUSION

1. Items marked as B hazards be addressed as soon as possible to prevent any injuries
2. Items marked C be addressed as soon as possible to avoid confusion
3. A maintenance program be developed

Notes.

Address the B hazards and the composite play structure will continue to perform

The old pony swings and support beams need refinished or removal

Photo 1,2,3,4

Photo 5

Photo 6

CPRA ACPL

Playground Equipment Compliance Inspection Report
Annual Comprehensive Report

GENERAL SITE INFORMATION			
Agency Requesting Inspection:	TWP OF South Algonquin	Inspection Date:	May 8 2023
		Time:	1pm
Phone:		Weather:	
Location Name:	Madawaska Complex	Temperature:	
Inspector:	Adam Ziebarth	Position/Qualifications of Inspector:	CCPI
Purpose:		Standard Used For Evaluation:	CSA Z7614:20

GENERAL EQUIPMENT INFORMATION			
Area #/ Part #:		Equipment Present: Swings	
Site Location:			

SITE FURNISHINGS
(exempt from CSA under Clause 1.8, 1.9, check for general condition, stability and obvious hazards)

1. **Access to play area, pathways, lighting, benches, tables, fencing, buildings fixtures, garbage cans, shade shelters, etc. (exempt from CSA Z614 under Clause 1.8, 1.9)** Satisfactory / Unsatisfactory / Not applicable

   Approximate budget cost for repair ($):

   Comments: No garbage cans photo 1, glass, garbage and debris under sun shelter

SURFACING INFORMATION (Clause 10)

2. **Protective surfacing type and manufacturer/supplier name (if known):**

   Sand / Gravel / Wood Chips / Engineered Wood Fibres / Synthetic (PIP or tiles) / Other

   Comments: local sand

3. **Protective surfacing dimensions:**

4. **Retaining wall or excavated pit (mandatory if loose fill material)** Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
   Comments:

5. **Compaction and/or contamination of protective surfacing** Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: 10.4 Hazard Class: A Approximate budget cost for repair ($):
   Comments: contamination photo 2

6. **Maximum CSA fall height of surface system (list equipment type and height):**
   Location:
   Height:

7. **Maximum height of equipment on surface system (list equipment type and height):**
   Location:
   Height:

8. **Check depth of protective surfacing to ensure adequate compared to CSA fall height (check minimum 3 locations) . Use depth chart below to confirm adequacy.**
   Depth location #1: 12” Depth location #2: 12” Depth location #3: 12”
   Average depth of protective surfacing: 12”

   Result: Okay / Add material / Till / Re-distribute (circle any that apply)

   Satisfactory / Unsatisfactory / Not applicable

   CSA Clause #: Hazard Class: Approximate budget cost for repair ($):

   Comments:

APPROXIMATE RESULTS AND RECOMMENDATIONS FOR SURFACING DEPTH LISTED BELOW WITH MATERIAL DEPTH OF 300mm (APPROX. 12 in) OR GREATER	
Protective Surfacing Type	**Approximate Critical Height Achieved**
Wood Chip/Bark Mulch:	Up to 3.0m (Up to 10 feet)
Engineered Wood Fibres:	More than 3.0m (More than 10 feet)
“Washed” Round Pea Gravel: *Needs to be appropriately cleaned and washed to avoid compaction	Up to 2.5m (Up to 8.25 feet)

Specified Sand: *Needs to have specific sieve analysis completed to ensure adequate impact attenuation	More than 2.5m (More than 8.25 feet)
Shredded Tire Crumb: *Depth of only 200mm (approx. 8 in)	More than 3.0m (More than 10 feet)

GENERAL EQUIPMENT INFORMATION, SIGNAGE AND RETROFIT INFORMATION (Clause 16)

9. **Check for owner/operators name and contact information in a "readily identifiable" and "clearly visible" location from the play area**
   Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: 11.2.2 Hazard Class: C Approximate budget cost for repair ($):
   Comments (list information provided on signage): no visible signs

10. **Check for manufacturers name, contact information and date of manufacture present on play equipment**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
    Comments (list information provided on signage):

11. **Check for age group indicated (1.5 to 5, 5 to 12, 1.5 to 12)** Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
    Comments (list age group indicated):

EQUIPMENT INSPECTION INFORMATION AND HAZARD IDENTIFICATION

GENERAL INFORMATION REGARDING EQUIPMENT AND PLAY AREA (various clauses and appendix)

12. **Check to ensure all components are tight and secure** Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

13. **Check to ensure no trip hazards exist**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

14. **Check to ensure play components are free of extra holes and gaps that may harbor insects or inappropriate material**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

MATERIALS AND INSTALLATION (Clause 7 and Clause 8)

15. **Check moving suspended elements are connected to a fixed support with bearings or bearing surfaces that serve to reduce friction or wear**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

16. **Check to ensure steel cables are inaccessible or capped to prevent injury from frayed wires** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

17. **Check for drainage/ponding on equipment and/or protective surfacing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

18. **Check to ensure components are not capable of being removed without the use of tools** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

19. **Check for rusting, rotting or significant decay** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

PROTECTIVE SURFACING ZONES AND NO-ENCROACHMENT ZONES (Clause 14)

20. **Check for 1.8-m (70.87 in) around all stationary equipment. Note: Overlap is permitted** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

21. **Check all rocking/springing equipment for 1.8m (70.87 in) if intended for sitting and 2.1m (82.68 in) in direction of use if intended for standing. Note: Overlap is permitted** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

22. **Check protective surfacing zones around all rotating equipment. Note: 1.8-m (70.87 in) that cannot overlap in direction of motion for equipment within 45-degrees of horizontal. 2.7-m (106.30 in) with a 1.8-m (70.87 in) clearance zone required at equipment that rotates within 45-degrees of vertical when diameter greater than 1.0-m (39.37 in) or 1.8-m (70.87 in) that can overlap if diameter less than or equal to 1.0-m (39.37 in). Overlap into No-E.Z. can be permitted.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

23. **Check slide protective surfacing zones. Note: Platform height equals P.S.Z. required with a minimum 1.8m (70.87 in) and a maximum 2.4-m (94.49 in) plus a no-encroachment zone required when starting platform is greater than 1.2-m (47.24 in) in elevation above protective surfacing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

24. **Check all swing protective surfacing zones. Note: 2 x Y in each direction plus no-encroachment zone. Also check protective surfacing zone width. Note: 1.8-m (70.87 in) from end of top beam or 1.8m (70.87 in) from centre of outermost swing seat (whichever is greater)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

PERFORMANCE REQUIREMENTS (Clause 12)

25. **Check for fully bounded opening head and neck entrapment. Note: Check rigid and non-rigid openings**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

26. **Check for partially bounded opening head and neck entrapment. Note: use fish probe with "A" and "B" portions of test gauge**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

27. **Check for sharp edges/sharp points capable of abrading human skin** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

28. **Check for uncapped tubing**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

29. **Check for accessible bolt ends beyond two threads. Note: This can be considered an entanglement hazard or a protrusion/sharp edge hazard.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

30. **Check for minimum radius of curvature of 6.35mm (0.24 in) at all suspended members. Note: Belts, straps, ropes and similar flexible components are exempt. This is most often completed by the manufacturer prior to installation.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

31. **Check for impalement protrusions using the 3 protrusion gauges** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

32. **Check for entanglement protrusions using the 4th gauge (i.e. the thin entanglement protrusion gauge). Note: Check for projections upwards of horizontal and projections in any orientation within the slide clearance zone**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

33. **Check for protrusions increasing in size**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

34. **Check for gaps greater than 1-mm (0.04 in) in fastening devices** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

35. **Check any S-hooks for non-compliant configuration. Hint: lower loop cannot extend beyond upper loop, lower loop must be aligned with connector body** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

36. **Check for drawstring entanglement at slides and sliding poles in accordance with Clause 12.4.6.2, 12.4.6.3 and 12.4.7. Note: 12.4.6.2 is a test of the slide starting point and slide bedway, 12.4.6.3 is a test of the slide enclosure device (i.e. hood, canopy, etc.) and 12.4.7 is a test for sliding poles (AKA fireman's pole)**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

37. **Check for crush and shear points. Note: must have movement to be non-compliant and exemptions present for: light-weight moving components, chains and their method of attachment, attachment of heavy duty coil springs, area between swinging element and toprail, track ride assemblies** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

38. **Check for suspended hazards. Note: Rope, cable, etc. must be above 2.1m (82.68 in) or if lower must be > 25mm (0.98 in) and bright colour recommended)**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

39. **Check for looping hazards > 125mm (4.92 in)**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

40. **Check for non-compliant DPS elevated surfaces. NOTE: In most cases a Designated Play Surfaces (or DPS is only going to indicate a fall height is present. DPS surfaces are not permitted on the following items: guardrails, protective barriers, swing support structures, roofs < 2.1-meters (82.68 in) above an underlying play surfaces, and equipment support posts.** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

ACCESS/EGRESS (Clause 13)

41. **Check all steps, rungs, platforms, landings, walkways, ramps, stairways, etc. for even spacing within a horizontal tolerance of +/- 6mm (0.24 in) and horizontal tolerance of +/- 2 degrees and to ensure they do not trap water or accumulate debris**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

42. **Check all stairways, stepladders and rung ladders for slope, tread width and tread depth as per table #2**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

43. **Ensure stairways have 2 handrails at appropriate reach ranges or protective barriers up to 1.2-m (47.24 in) in step elevation and protective barriers are required above 1.2-m (47.24 in)** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

44. **Check to ensure stepladders have minimum 1 handrail per side at a height less than 725mm (28.54 in) for users < 5 and less than 950mm (37.40 in) for user > 5** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

45. **Check to ensure alternate hand support is available on steps with only one tread** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

46. **Check all handrails and rungs for diameter or maximum cross-section between 24-40mm (0.94 – 1.57 in) and that climbers have a means of hand support while climbing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

47. **Check to ensure arch climbers and flexible components are not used as the sole means of access for users < 5, that flexible components are securely attached at both ends and that anchoring devices are below the full depth of the protective surfacing**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

48. **Check to ensure all rung ladders, flexible components and arch climbers do not have a stepping surface above the platform surface**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

GUARDRAILS AND PROTECTIVE BARRIERS ON ELEVATED SURFACES (Clause 13.4)

49. Check to ensure that guardrails and protective barriers do not contain a designated play surface (D.P.S. – flat surface greater than 50mm x 50mm (1.97 in) with a slope less than 30-degrees). NOTE: Only if not already captured under item #40 earlier in this form. Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

50. Check to ensure guardrails or protective barriers (to an appropriate height) are compliant on platforms above 500mm (19.69in) for users < 5, and on platforms above 750mm (29.53in for users > 5 and all openings are 375-mm (14.76 in) or less (or have a top horizontal rail) Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

51. Check to ensure protective barriers (to an appropriate height) are compliant on platforms above 750mm (29.53 in) for users < 5, and on platforms above 1.2m (47.24 in) for users > 5 and all openings are 375-mm (14.76 in) or less (or have a top horizontal rail) Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

52. Check to ensure access components are present between adjacent platforms greater than 300mm (11.81 in) for users < 5, and 450mm (17.72 in) for users > 5 Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

53. Ensure adjacent platforms that would otherwise be subject to guardrails or protective barriers have some type of protective infill between platforms (i.e. precludes passage of torso probe) Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

REQUIREMENTS FOR SPECIFIC COMPONENTS OF EQUIPMENT (Clause 15)

54. **HIRA: Check to ensure a HIRA (in accordance with Clause 15.1 and Annex J are present for any components not specifically identified in Clause 15.2 through 15.19. NOTE: It is not the field inspectors role to agree/disagree with the HIRA, only to verify that the manufacturer has provided it to the owner/operator.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: **15.1 and Annex J** Hazard Class: Approximate budget cost for repair ($):
Comments:

55. **BALANCE BEAMS:**
    - **Height no greater than 300mm (11.81 in) for users < 5, and no greater than 400mm (15.75 in) for users > 5**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

56. **UPPER BODY EQUIPMENT:**
    - **Centre-to-centre distance between fixed rungs shall be no greater than 375mm (14.76 in)**
    - **Hand-gripping devices shall be between 24-40mm (0.94 to 1.57 in) in diameter**
    - **Rigid hand-grips shall not twist or rotate**
    - **Distance to the first handhold of no greater than 250mm (9.84 in)**
    - **Where access is provided by rungs the distance to the first handhold shall be at least 200mm (7.87 in), but no greater than 250mm (9.84 in)**
    - **Maximum height of the take-off/landing structure shall be no greater than 450mm (17.72 in) for users < 5, and no greater than 900mm (35.43 in) for users > 5**
    - **Maximum height of upper body devices shall be no greater than 1.5m (59.06 in) for users < 5, and no greater than 2.1m (82.68 in) for users > 5** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

57. **SLIDING POLES:**
    - **Clearance distance of 450-500mm (17.72 – 19.68 in) from platform surface to pole**
    - **Accessed from one height only**
    - **Distance from platform surface to top of pole a minimum of 1.5m (59.06 in)**
    - **Sliding pole diameter no greater than 50mm (1.97 in)**
    - **Pole continuous with no abrupt changes in direction**
    - **Opening in guardrail or protective barrier no greater than 375mm (14.76 in) – no toprail option**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

58. SLIDE STARTING PLATFORM:

- **Depth to be a min. dimension of 350mm (13.78 in) on composite structures and min. of 550mm (21.65 in) on independent slides**
- **Starting platform width shall be greater than or equal to the sliding section entrance**
- **1.5m (59.06 in) vertical clearance on slide entry platform**
- **Platform surface subject to guardrail/protective barrier requirements where applicable** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

59. SLIDE SITTING SECTION:

- **Slope shall not exceed 18-degrees from horizontal**
- **Handrails or hand support present to facilitate standing to sitting**
- **Enclosure or hand support present to channel a user into a sitting position**
- **Enclosure must extend within 125mm (4.92 in) of the sliding section to prevent lateral discharge (i.e. hood, canopy, etc.)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

60. SLIDING SECTION:

- **Slide and slide sidewalls smooth, continuous and allow unhampered flow of hand movement**
- **Height/length ratio not to exceed 0.577**
- **No span of sliding surface exceeding 50-degrees**
- **No regions of zero gravity (note: use slide radius of curvature test device)**
- **Slide width a minimum of 300mm (11.81 in) for users < 5, and minimum of 400mm (15.75 in) for users > 5**
- **Minimum sidewall height of 100mm (3.94 in)**
- **Slide is in shade or faces away from sun during peak hours**
- **Slide not constructed of wood or fiberglass** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

61. SLIDE EXIT SECTION:

- **Rounded to a minimum radius of curvature of 10mm (0.4 in)**
- **Length of exit section a minimum of 275mm (10.83 in)**
- **If maximum slide elevation is 1.2m or lower (47.24 in) then slide exit height shall be between 0 and 275mm (0 and 10.83 in)**
- **If maximum slide elevation is > 1.2m (47.24 in) then slide exit height shall be between 175 – 380mm (6.9 – 14.96 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

62. SLIDE CLEARANCE ZONE:

- **525mm (20.67 in) clearance measured from inside of slide bedwall** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

63. TUBE SLIDES:

- **Internal diameter of 575mm (22.64 in) or greater** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

64. SWINGS (TO-FRO AND ROTATING):

- **Not attached to a composite playstructure and located in a low circulation area**
- **Support structure discourages climbing and contains no D.P.S.**
- **Swings are made of impact absorbing material and have rounded edges**
- **Bearing hangers have a means of reducing friction and wear**
- **Ensure swings are not hung with rope**
- **Swing seats are not cracked or damaged, especially where connectors are present**
- **Vertical distance between swing seat and protective surfacing shall not be less than 300mm (11.81 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 11.3.1 Hazard Class: A Approximate budget cost for repair ($):
Comments: tire swing cracked photo 3

65. TO-FRO SINGLE USER SWINGS:

- **No more than 2 swings within each bay**
- **Swings to accommodate no more than 1 user**
- **Seat weight of less than 1.4 kg (approx. 3 lbs.)**
- **Seating surface has minimum length of 300mm (11.81 in) and minimum width of 100mm (3.94 in)**
- **Ensure all baby seats have support on all sides and between the legs and no movable or adjustable elements are present (accessible swing seats are exempted from this requirement)**
- **Horizontal clearance of 600mm (23.62 in) to adjacent swing and 750mm (29.53 in) to swing supports (measured at 1.5m above the protective surfacing)**
- **Horizontal distance between bearing hangers of 500mm (19.69 in) and that chains create "V" shape**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 15.7.5.1 Hazard Class: B Approximate budget cost for repair ($):
Comments: swings less than 600mm apart

66. TO-FRO MULTI-USER SWINGS:

- **No more than 1 swing within each swing bay**
- **Seat weight no greater than 20 kg (44 lbs.)**
- **Seating surface has a minimum diameter of 600mm (23.62 in)**
- **Minimum 2 suspension members per side (4 total)**
- **Manufacturer shall design to reduce tipping during use** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

67. ROTATING SWINGS:

- **No more than 1 swing within each swing bay**
- **Seat weight no greater than 20 kg (44 lbs.)**
- **Distance from top of swing seat to support structure of 750mm (29.53 in) or greater** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

68. ROTATING EQUIPMENT:

- **Platform is generally circular with speed limiting device and no oscillation**
- **Equipment located in a low traffic area**
- **No components protrude beyond perimeter of platform**
- **Underside clearance for head probe**
- **Secure hand-grips are provided**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

69. SEESAWS:

- **Fulcrum seesaws to have shock absorbing mechanism present under seats**
- **Distance between seesaws of at least 1.2m (47.24 in) when attached to one support structure**
- **Hand-grips at least 75mm (approx. 3 in) in length (or 150mm/ 6-in if intended for 2 hands)**
- **Hand-grips do not turn, twist or rotate or protrude beyond the sides of the seat**
- **Footrests are present on seesaws with spring centering mechanism**
- **Maximum slope of seesaw to be no greater than 25-degrees**
- **Maximum seat height no greater than 1.5m (59.06 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

70. SPRINGING/ROCKING EQUIPMENT:

- **Seats designed to minimize the likelihood of use by more than the intended # of users**
- **Hand-grips at least 75mm (approx. 3 in) in length (or 150mm/ 6-in if intended for 2 hands)**
- **Footrests present with a minimum width of 90mm (3.54 in)**
- **Seat height is between 350 – 700 mm (13.78 – 27.56 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

71. LOG ROLLS:

- **Rigid hand-grips must be provided (and within 24-40mm requirement)**
- **Highest point of roller must be no greater than 450mm (17.78 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

72. TRACK RIDES:

- **Landing platforms to have minimum depth of 900mm (35.43 in)**
- **Riding zone clearance a minimum of 900mm (35.43 in)**
- **Structural elements not to pose a hazard during use**
- **Distance between adjacent track rides is at least 1.2m (47.24 in) when attached to one support structure**

- **Hand-gripping component height between 1.6 – 1.95m (63 and 76.77 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

73. CLIMBING NET STRUCTURES:

- **Hand-gripping components between 16 – 40 mm (0.625 – 1.57 in)**
- **Connections are secure**
- **Foundation connections do not pose a hazard and located below the full depth of the protective surfacing**
- **No fall permitted within the net structure, OR, from within net structure to ground in excess of 1.8-meters (70.87 in) as per figure 48 and 54** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

74. EQUIPMENT SUPPORT POSTS:

- **Check equipment support posts where a user is no longer in contact with the ground during play to ensure no DPS surfaces are present (unless already noted in item #40 or #49 above)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

AGE APPROPRIATE DESIGN AND OTHER DESIGN REQUIREMENTS (various clauses and figures)

75. Equipment not recommended for users under age 5:

- **Sliding poles**
- **Track rides**
- **Log rolls**
- **Fulcrum seesaws**
- **Pulley/cable rides**
- **Freestanding arched climbers**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

76. Swinging exercise rings, animal swings, trapeze bars and swinging gates and doors are not recommended. Note: This does not apply to these components on upper body devices Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

77. CRAWL TUNNELS:

- **Clear and safe entry/exit points**
- **Adequate supervision and visibility** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

78. SAND PLAY AREAS:

- **Located in a low circulation route**
- **Adequate shade present**

- **Depth of 200mm (approx. 8 in) present with a recommended depth of 450mm (approx. 18 in)**
- **Free of litter, debris and/or other hazardous material**
- **No standing water**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

79. SMALL CHILDREN'S FENCED PLAYSPACES:
To qualify the play area must be:

- **Supervised use**
- **For users 18 months to 5 years**
- **Surrounded by fencing with a minimum height of 1.2m (47.24 in)**
- **At least one lockable entrance gate** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

80. EQUIPMENT WITH NO INFORATION PROVIDED DUE TO INFREQUENCY OF INSTALLATION:

- **Pulley/cable ride (see figure #35)**
- **Embankment slides**
- **Enclosed structures (i.e. tower structures)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

SUMMARY		
Items/Issues	Number of issues of noncompliance from inspection	
A hazards	• compaction & contamination of protective surfacing • cracked tire swing	
B hazards	• adjust clearance to 600mm from adjacent swings	
C hazards	• emergency information • provide garbage can	

OVERALL COMPLIANCE RATING: 20 out of 25 or 80%

RECOMMENDATIONS & CONCLUSION

1. Items marked as A hazards be addressed immediately or that play structure be **closed** until those items can be addressed.

2. Items marked as B hazards be addressed as soon as possible to avoid injury

3. Items marked as C hazards be addressed as soon as possible to avoid confusion

4. A maintenance program be established

Photo 1

Photo 2

Photo 3

CPRA ACPL

Playground Equipment Compliance Inspection Report
Annual Comprehensive Report

GENERAL SITE INFORMATION			
Agency Requesting Inspection:	Township Of South Algonquin	Inspection Date:	May 10 2023
		Time:	10am
Phone:		Weather:	
Location Name:	Booth Park	Temperature:	
Inspector:	Adam Ziebarth	Position/Qualifications of Inspector:	CCPI
Purpose:		Standard Used For Evaluation:	CSA Z614:20

GENERAL EQUIPMENT INFORMATION			
Area #/ Part #:		Equipment Present: composite structure, swings, rockers	
Site Location:			

SITE FURNISHINGS
(exempt from CSA under Clause 1.8, 1.9, check for general condition, stability and obvious hazards)

1. **Access to play area, pathways, lighting, benches, tables, fencing, buildings fixtures, garbage cans, shade shelters, etc. (exempt from CSA Z614 under Clause 1.8, 1.9)** Satisfactory / Unsatisfactory / Not applicable

   Approximate budget cost for repair ($):

   Comments:

SURFACING INFORMATION (Clause 10)

2. **Protective surfacing type and manufacturer/supplier name (if known):**

   Sand / Gravel / Wood Chips / Engineered Wood Fibres / Synthetic (PIP or tiles) / Other

   Comments: local sand

3. **Protective surfacing dimensions:**

4. **Retaining wall or excavated pit (mandatory if loose fill material)** Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
   Comments: **excavated pit**

5. **Compaction and/or contamination of protective surfacing** Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: section 10 Hazard Class: A

6. **Maximum CSA fall height of surface system (list equipment type and height):**
   Location:
   Height:

7. **Maximum height of equipment on surface system (list equipment type and height):**
   Location:
   Height:

8. **Check depth of protective surfacing to ensure adequate compared to CSA fall height (check minimum 3 locations) . Use depth chart below to confirm adequacy.**
   Depth location #1: 14” Depth location #2: 14” Depth location #3: 14”
   Average depth of protective surfacing:

   Result: Okay / Add material / Till / Re-distribute (circle any that apply)

   Satisfactory / Unsatisfactory / Not applicable

   CSA Clause #: Hazard Class: Approximate budget cost for repair ($):

   Comments:

APPROXIMATE RESULTS AND RECOMMENDATIONS FOR SURFACING DEPTH LISTED BELOW WITH MATERIAL DEPTH OF 300mm (APPROX. 12 in) OR GREATER	
Protective Surfacing Type	**Approximate Critical Height Achieved**
Wood Chip/Bark Mulch:	Up to 3.0m (Up to 10 feet)
Engineered Wood Fibres:	More than 3.0m (More than 10 feet)
“Washed” Round Pea Gravel: *Needs to be appropriately cleaned and washed to avoid compaction	Up to 2.5m (Up to 8.25 feet)

Specified Sand: *Needs to have specific sieve analysis completed to ensure adequate impact attenuation	More than 2.5m (More than 8.25 feet)
Shredded Tire Crumb: *Depth of only 200mm (3pprox.. 8 in)	More than 3.0m (More than 10 feet)

GENERAL EQUIPMENT INFORMATION, SIGNAGE AND RETROFIT INFORMATION (Clause 16)

9. **Check for owner/operators name and contact information in a "readily identifiable" and "clearly visible" location from the play area**
   Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
   Comments (list information provided on signage):

10. **Check for manufacturers name, contact information and date of manufacture present on play equipment**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
    Comments (list information provided on signage):

11. **Check for age group indicated (1.5 to 5, 5 to 12, 1.5 to 12)** Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
    Comments (list age group indicated): **1.5-12**

EQUIPMENT INSPECTION INFORMATION AND HAZARD IDENTIFICATION

GENERAL INFORMATION REGARDING EQUIPMENT AND PLAY AREA (various clauses and appendix)

12. **Check to ensure all components are tight and secure** Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

13. **Check to ensure no trip hazards exist**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

14. **Check to ensure play components are free of extra holes and gaps that may harbor insects or inappropriate material**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

MATERIALS AND INSTALLATION (Clause 7 and Clause 8)

15. **Check moving suspended elements are connected to a fixed support with bearings or bearing surfaces that serve to reduce friction or wear**
    Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

16. **Check to ensure steel cables are inaccessible or capped to prevent injury from frayed wires** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

17. **Check for drainage/ponding on equipment and/or protective surfacing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 10.4.4 Hazard Class: Approximate budget cost for repair ($):
Comments: **ponding under swings and slide exits photo 1**

18. **Check to ensure components are not capable of being removed without the use of tools** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

19. **Check for rusting, rotting or significant decay** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #:11.4.1 Hazard Class: Approximate budget cost for repair ($):
Comments: **slide hood cracked at fastners, platform covering peeling photo 2,3**

PROTECTIVE SURFACING ZONES AND NO-ENCROACHMENT ZONES (Clause 14)

20. **Check for 1.8-m (70.87 in) around all stationary equipment. Note: Overlap is permitted** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

21. **Check all rocking/springing equipment for 1.8m (70.87 in) if intended for sitting and 2.1m (82.68 in) in direction of use if intended for standing. Note: Overlap is permitted** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

22. **Check protective surfacing zones around all rotating equipment. Note: 1.8-m (70.87 in) that cannot overlap in direction of motion for equipment within 45-degrees of horizontal. 2.7-m (106.30 in) with a 1.8-m (70.87 in) clearance zone required at equipment that rotates within 45-degrees of vertical when diameter greater than 1.0-m (39.37 in) or 1.8-m (70.87 in) that can overlap if diameter less than or equal to 1.0-m (39.37 in). Overlap into No-E.Z. can be permitted.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

23. **Check slide protective surfacing zones. Note: Platform height equals P.S.Z. required with a minimum 1.8m (70.87 in) and a maximum 2.4-m (94.49 in) plus a no-encroachment zone required when starting platform is greater than 1.2-m (47.24 in) in elevation above protective surfacing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

24. **Check all swing protective surfacing zones. Note: 2 x Y in each direction plus no-encroachment zone. Also check protective surfacing zone width. Note: 1.8-m (70.87 in) from end of top beam or 1.8m (70.87 in) from centre of outermost swing seat (whichever is greater)** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

PERFORMANCE REQUIREMENTS (Clause 12)

25. **Check for fully bounded opening head and neck entrapment. Note: Check rigid and non-rigid openings**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

26. **Check for partially bounded opening head and neck entrapment. Note: use fish probe with "A" and "B" portions of test gauge**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

27. **Check for sharp edges/sharp points capable of abrading human skin** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

28. **Check for uncapped tubing**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

29. **Check for accessible bolt ends beyond two threads. Note: This can be considered an entanglement hazard or a protrusion/sharp edge hazard.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

30. **Check for minimum radius of curvature of 6.35mm (0.24 in) at all suspended members. Note: Belts, straps, ropes and similar flexible components are exempt. This is most often completed by the manufacturer prior to installation.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

31. **Check for impalement protrusions using the 3 protrusion gauges** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

32. **Check for entanglement protrusions using the 4th gauge (i.e. the thin entanglement protrusion gauge). Note: Check for projections upwards of horizontal and projections in any orientation within the slide clearance zone**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

33. **Check for protrusions increasing in size**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

34. **Check for gaps greater than 1-mm (0.04 in) in fastening devices** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

35. **Check any S-hooks for non-compliant configuration. Hint: lower loop cannot extend beyond upper loop, lower loop must be aligned with connector body** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

36. **Check for drawstring entanglement at slides and sliding poles in accordance with Clause 12.4.6.2, 12.4.6.3 and 12.4.7. Note: 12.4.6.2 is a test of the slide starting point and slide bedway, 12.4.6.3 is a test of the slide enclosure device (i.e. hood, canopy, etc.) and 12.4.7 is a test for sliding poles (AKA fireman's pole)**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

37. **Check for crush and shear points. Note: must have movement to be non-compliant and exemptions present for: light-weight moving components, chains and their method of attachment, attachment of heavy duty coil springs, area between swinging element and toprail, track ride assemblies** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

38. **Check for suspended hazards. Note: Rope, cable, etc. must be above 2.1m (82.68 in) or if lower must be > 25mm (0.98 in) and bright colour recommended)**
Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

1. **Check for looping hazards > 125mm (4.92 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

1. **Check for non-compliant DPS elevated surfaces. NOTE: In most cases a Designated Play Surfaces (or DPS is only going to indicate a fall height is present. DPS surfaces are not permitted on the following items:**

guardrails, protective barriers, swing support structures, roofs < 2.1-meters (82.68 in) above an underlying play surfaces, and equipment support posts. Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

ACCESS/EGRESS (Clause 13)

41. **Check all steps, rungs, platforms, landings, walkways, ramps, stairways, etc. for even spacing within a horizontal tolerance of +/- 6mm (0.24 in) and horizontal tolerance of +/- 2 degrees and to ensure they do not trap water or accumulate debris**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

42. **Check all stairways, stepladders and rung ladders for slope, tread width and tread depth as per table #2**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
    Comments:

43. **Ensure stairways have 2 handrails at appropriate reach ranges or protective barriers up to 1.2-m (47.24 in) in step elevation and protective barriers are required above 1.2-m (47.24 in)** Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

44. **Check to ensure stepladders have minimum 1 handrail per side at a height less than 725mm (28.54 in) for users < 5 and less than 950mm (37.40 in) for user > 5** Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

45. **Check to ensure alternate hand support is available on steps with only one tread** Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

46. **Check all handrails and rungs for diameter or maximum cross-section between 24-40mm (0.94 – 1.57 in) and that climbers have a means of hand support while climbing** Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

47. **Check to ensure arch climbers and flexible components are not used as the sole means of access for users < 5, that flexible components are securely attached at both ends and that anchoring devices are below the full depth of the protective surfacing**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

48. **Check to ensure all rung ladders, flexible components and arch climbers do not have a stepping surface above the platform surface**
    Satisfactory / Unsatisfactory / Not applicable
    CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

GUARDRAILS AND PROTECTIVE BARRIERS ON ELEVATED SURFACES (Clause 13.4)

49. Check to ensure that guardrails and protective barriers do not contain a designated play surface (D.P.S. – flat surface greater than 50mm x 50mm (1.97 in) with a slope less than 30-degrees). NOTE: Only if not already captured under item #40 earlier in this form. Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

50. Check to ensure guardrails or protective barriers (to an appropriate height) are compliant on platforms above 500mm (19.69in) for users < 5, and on platforms above 750mm (29.53in for users > 5 and all openings are 375-mm (14.76 in) or less (or have a top horizontal rail) Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

51. Check to ensure protective barriers (to an appropriate height) are compliant on platforms above 750mm (29.53 in) for users < 5, and on platforms above 1.2m (47.24 in) for users > 5 and all openings are 375-mm (14.76 in) or less (or have a top horizontal rail) Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

52. Check to ensure access components are present between adjacent platforms greater than 300mm (11.81 in) for users < 5, and 450mm (17.72 in) for users > 5 Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

53. Ensure adjacent platforms that would otherwise be subject to guardrails or protective barriers have some type of protective infill between platforms (i.e. precludes passage of torso probe) Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

REQUIREMENTS FOR SPECIFIC COMPONENTS OF EQUIPMENT (Clause 15)

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54. HIRA: Check to ensure a HIRA (in accordance with Clause 15.1 and Annex J are present for any components not specifically identified in Clause 15.2 through 15.19. NOTE: It is not the field inspectors role to agree/disagree with the HIRA, only to verify that the manufacturer has provided it to the owner/operator.

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: **15.1 and Annex J** Hazard Class: Approximate budget cost for repair ($):
Comments:

55. BALANCE BEAMS:

- **Height no greater than 300mm (11.81 in) for users < 5, and no greater than 400mm (15.75 in) for users > 5**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

56. UPPER BODY EQUIPMENT:

- **Centre-to-centre distance between fixed rungs shall be no greater than 375mm (14.76 in)**
- **Hand-gripping devices shall be between 24-40mm (0.94 to 1.57 in) in diameter**
- **Rigid hand-grips shall not twist or rotate**
- **Distance to the first handhold of no greater than 250mm (9.84 in)**
- **Where access is provided by rungs the distance to the first handhold shall be at least 200mm (7.87 in), but no greater than 250mm (9.84 in)**
- **Maximum height of the take-off/landing structure shall be no greater than 450mm (17.72 in) for users < 5, and no greater than 900mm (35.43 in) for users > 5**
- **Maximum height of upper body devices shall be no greater than 1.5m (59.06 in) for users < 5, and no greater than 2.1m (82.68 in) for users > 5** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

57. SLIDING POLES:

- **Clearance distance of 450-500mm (17.72 – 19.68 in) from platform surface to pole**
- **Accessed from one height only**
- **Distance from platform surface to top of pole a minimum of 1.5m (59.06 in)**
- **Sliding pole diameter no greater than 50mm (1.97 in)**
- **Pole continuous with no abrupt changes in direction**
- **Opening in guardrail or protective barrier no greater than 375mm (14.76 in) – no toprail option**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

58. SLIDE STARTING PLATFORM:

- **Depth to be a min. dimension of 350mm (13.78 in) on composite structures and min. of 550mm (21.65 in) on independent slides**
- **Starting platform width shall be greater than or equal to the sliding section entrance**
- **1.5m (59.06 in) vertical clearance on slide entry platform**
- **Platform surface subject to guardrail/protective barrier requirements where applicable** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

59. SLIDE SITTING SECTION:

- **Slope shall not exceed 18-degrees from horizontal**
- **Handrails or hand support present to facilitate standing to sitting**
- **Enclosure or hand support present to channel a user into a sitting position**
- **Enclosure must extend within 125mm (4.92 in) of the sliding section to prevent lateral discharge (i.e. hood, canopy, etc.)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

60. SLIDING SECTION:

- **Slide and slide sidewalls smooth, continuous and allow unhampered flow of hand movement**
- **Height/length ratio not to exceed 0.577**
- **No span of sliding surface exceeding 50-degrees**
- **No regions of zero gravity (note: use slide radius of curvature test device)**
- **Slide width a minimum of 300mm (11.81 in) for users < 5, and minimum of 400mm (15.75 in) for users > 5**
- **Minimum sidewall height of 100mm (3.94 in)**
- **Slide is in shade or faces away from sun during peak hours**
- **Slide not constructed of wood or fiberglass** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

61. SLIDE EXIT SECTION:

- **Rounded to a minimum radius of curvature of 10mm (0.4 in)**
- **Length of exit section a minimum of 275mm (10.83 in)**
- **If maximum slide elevation is 1.2m or lower (47.24 in) then slide exit height shall be between 0 and 275mm (0 and 10.83 in)**
- **If maximum slide elevation is > 1.2m (47.24 in) then slide exit height shall be between 175 – 380mm (6.9 – 14.96 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

62. SLIDE CLEARANCE ZONE:

- **525mm (20.67 in) clearance measured from inside of slide bedwall** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

63. TUBE SLIDES:

- **Internal diameter of 575mm (22.64 in) or greater** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

64. SWINGS (TO-FRO AND ROTATING):

- **Not attached to a composite playstructure and located in a low circulation area**
- **Support structure discourages climbing and contains no D.P.S.**
- **Swings are made of impact absorbing material and have rounded edges**
- **Bearing hangers have a means of reducing friction and wear**
- **Ensure swings are not hung with rope**
- **Swing seats are not cracked or damaged, especially where connectors are present**
- **Vertical distance between swing seat and protective surfacing shall not be less than 300mm (11.81 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

65. TO-FRO SINGLE USER SWINGS:

- **No more than 2 swings within each bay**
- **Swings to accommodate no more than 1 user**
- **Seat weight of less than 1.4 kg (12pprox.. 3 lbs.)**
- **Seating surface has minimum length of 300mm (11.81 in) and minimum width of 100mm (3.94 in)**
- **Ensure all baby seats have support on all sides and between the legs and no movable or adjustable elements are present (accessible swing seats are exempted from this requirement)**
- **Horizontal clearance of 600mm (23.62 in) to adjacent swing and 750mm (29.53 in) to swing supports (measured at 1.5m above the protective surfacing)**
- **Horizontal distance between bearing hangers of 500mm (19.69 in) and that chains create "V" shape**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

66. TO-FRO MULTI-USER SWINGS:

- **No more than 1 swing within each swing bay**
- **Seat weight no greater than 20 kg (44 lbs.)**
- **Seating surface has a minimum diameter of 600mm (23.62 in)**
- **Minimum 2 suspension members per side (4 total)**
- **Manufacturer shall design to reduce tipping during use** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

67. ROTATING SWINGS:

- **No more than 1 swing within each swing bay**
- **Seat weight no greater than 20 kg (44 lbs.)**
- **Distance from top of swing seat to support structure of 750mm (29.53 in) or greater** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

68. ROTATING EQUIPMENT:

- **Platform is generally circular with speed limiting device and no oscillation**
- **Equipment located in a low traffic area**
- **No components protrude beyond perimeter of platform**
- **Underside clearance for head probe**
- **Secure hand-grips are provided**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

69. SEESAWS:

- **Fulcrum seesaws to have shock absorbing mechanism present under seats**
- **Distance between seesaws of at least 1.2m (47.24 in) when attached to one support structure**
- **Hand-grips at least 75mm (13pprox.. 3 in) in length (or 150mm/ 6-in if intended for 2 hands)**
- **Hand-grips do not turn, twist or rotate or protrude beyond the sides of the seat**
- **Footrests are present on seesaws with spring centering mechanism**
- **Maximum slope of seesaw to be no greater than 25-degrees**
- **Maximum seat height no greater than 1.5m (59.06 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

70. SPRINGING/ROCKING EQUIPMENT:

- **Seats designed to minimize the likelihood of use by more than the intended # of users**
- **Hand-grips at least 75mm (13pprox.. 3 in) in length (or 150mm/ 6-in if intended for 2 hands)**
- **Footrests present with a minimum width of 90mm (3.54 in)**
- **Seat height is between 350 – 700 mm (13.78 – 27.56 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

71. LOG ROLLS:

- **Rigid hand-grips must be provided (and within 24-40mm requirement)**
- **Highest point of roller must be no greater than 450mm (17.78 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

72. TRACK RIDES:

- **Landing platforms to have minimum depth of 900mm (35.43 in)**
- **Riding zone clearance a minimum of 900mm (35.43 in)**
- **Structural elements not to pose a hazard during use**
- **Distance between adjacent track rides is at least 1.2m (47.24 in) when attached to one support structure**

- **Hand-gripping component height between 1.6 – 1.95m (63 and 76.77 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

73. CLIMBING NET STRUCTURES:

- **Hand-gripping components between 16 – 40 mm (0.625 – 1.57 in)**
- **Connections are secure**
- **Foundation connections do not pose a hazard and located below the full depth of the protective surfacing**
- **No fall permitted within the net structure, OR, from within net structure to ground in excess of 1.8-meters (70.87 in) as per figure 48 and 54** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

74. EQUIPMENT SUPPORT POSTS:

- **Check equipment support posts where a user is no longer in contact with the ground during play to ensure no DPS surfaces are present (unless already noted in item #40 or #49 above)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

AGE APPROPRIATE DESIGN AND OTHER DESIGN REQUIREMENTS (various clauses and figures)

75. Equipment not recommended for users under age 5:

- **Sliding poles**
- **Track rides**
- **Log rolls**
- **Fulcrum seesaws**
- **Pulley/cable rides**
- **Freestanding arched climbers**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

76. Swinging exercise rings, animal swings, trapeze bars and swinging gates and doors are not recommended. Note: This does not apply to these components on upper body devices Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

77. CRAWL TUNNELS:

- **Clear and safe entry/exit points**
- **Adequate supervision and visibility** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

78. SAND PLAY AREAS:

- **Located in a low circulation route**
- **Adequate shade present**

- **Depth of 200mm (15pprox.. 8 in) present with a recommended depth of 450mm (15pprox.. 18 in)**
- **Free of litter, debris and/or other hazardous material**
- **No standing water**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

79. SMALL CHILDREN'S FENCED PLAYSPACES:
To qualify the play area must be:

- **Supervised use**
- **For users 18 months to 5 years**
- **Surrounded by fencing with a minimum height of 1.2m (47.24 in)**
- **At least one lockable entrance gate** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

80. EQUIPMENT WITH NO INFORATION PROVIDED DUE TO INFREQUENCY OF INSTALLATION:

- **Pulley/cable ride (see figure #35)**
- **Embankment slides**
- **Enclosed structures (i.e. tower structures)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

SUMMARY		
Items/Issues	Number of issues of noncompliance from inspection	
A hazards	• **Protective surfacing compacted**	
B hazards	• **Ponding under swings and slide exit** • **Hood at slide entrance cracking at fasteners**	
C hazards		

OVERALL COMPLIANCE RATING: 55 out of 59 or 93%

RECOMMENDATIONS & CONCLUSION

1. **Items marked A hazards be addressed immediately or that the play structure be closed until those items can be addressed**

2. **Items marked B hazard be addressed as soon as possible to avoid injury**

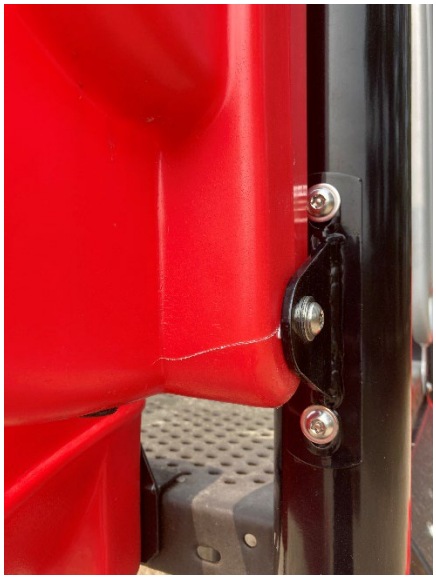
Notes:

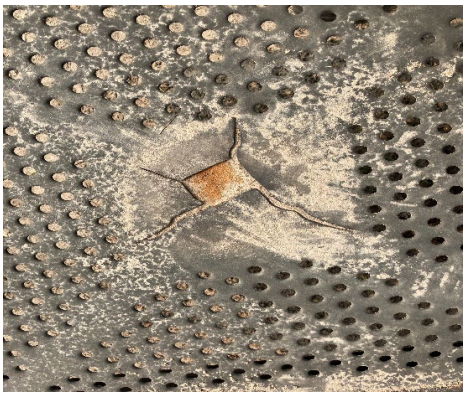
The protective surfacing used in this playground is prone to compaction, it is recommended to be tilled and tested periodically during the season.

The large red pine trees shading the playground are causing contamination in the protective surfacing.

Photo 1

Photo2 , 3





CPRA ACPL

Playground Equipment Compliance Inspection Report
Annual Comprehensive Report

GENERAL SITE INFORMATION			
Agency Requesting Inspection:	TWP Of South Algonquin	Inspection Date:	May 8 2023
		Time:	2:30 pm
Phone:		Weather:	
Location Name:	Millennium Park	Temperature:	
Inspector:	Adam Ziebarth	Position/Qualifications of Inspector:	CCPI
Purpose:		Standard Used For Evaluation:	CSA Z614:20

GENERAL EQUIPMENT INFORMATION			
Area #/ Part #:		Equipment Present: wooden play structure, 2 bay swing set	
Site Location:			

SITE FURNISHINGS
(exempt from CSA under Clause 1.8, 1.9, check for general condition, stability and obvious hazards)

1. **Access to play area, pathways, lighting, benches, tables, fencing, buildings fixtures, garbage cans, shade shelters, etc. (exempt from CSA Z614 under Clause 1.8, 1.9)** Satisfactory / Unsatisfactory / Not applicable

   Approximate budget cost for repair ($):

   Comments:

SURFACING INFORMATION (Clause 10)

2. **Protective surfacing type and manufacturer/supplier name (if known):**

   Sand / Gravel / Wood Chips / Engineered Wood Fibres / Synthetic (PIP or tiles) / Other

   Comments: natural area cover, no PSZ

3. **Protective surfacing dimensions:**

4. **Retaining wall or excavated pit (mandatory if loose fill material)** Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: 10.4.2 Hazard Class: A Approximate budget cost for repair ($):
   Comments: **no PSZ**

5. **Compaction and/or contamination of protective surfacing** Satisfactory / Unsatisfactory / Not applicable
   CSA Clause #: 10.4.1 Hazard Class: A Approximate budget cost for repair ($):
   Comments: **no PSZ photo 1**

6. **Maximum CSA fall height of surface system (list equipment type and height):**
   Location:
   Height:

7. **Maximum height of equipment on surface system (list equipment type and height):**
   Location:
   Height:

8. **Check depth of protective surfacing to ensure adequate compared to CSA fall height (check minimum 3 locations) . Use depth chart below to confirm adequacy.**
   Depth location #1: Depth location #2: Depth location #3:
   Average depth of protective surfacing: natural

   Result: Okay / Add material / Till / Re-distribute (circle any that apply)

   Satisfactory / Unsatisfactory / Not applicable

   CSA Clause #: 10.4 Hazard Class: A Approximate budget cost for repair ($):

   Comments: No protective surfacing other than natural cover

APPROXIMATE RESULTS AND RECOMMENDATIONS FOR SURFACING DEPTH LISTED BELOW WITH MATERIAL DEPTH OF 300mm (APPROX. 12 in) OR GREATER	
Protective Surfacing Type	**Approximate Critical Height Achieved**
Wood Chip/Bark Mulch:	Up to 3.0m (Up to 10 feet)
Engineered Wood Fibres:	More than 3.0m (More than 10 feet)
"Washed" Round Pea Gravel: *Needs to be appropriately cleaned and washed to avoid compaction	Up to 2.5m (Up to 8.25 feet)

Specified Sand: *Needs to have specific sieve analysis completed to ensure adequate impact attenuation	More than 2.5m (More than 8.25 feet)
Shredded Tire Crumb: *Depth of only 200mm (approx. 8 in)	More than 3.0m (More than 10 feet)

GENERAL EQUIPMENT INFORMATION, SIGNAGE AND RETROFIT INFORMATION (Clause 16)

9. Check for owner/operators name and contact information in a "readily identifiable" and "clearly visible" location from the play area
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments (list information provided on signage):

10. Check for manufacturers name, contact information and date of manufacture present on play equipment
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments (list information provided on signage):

11. Check for age group indicated (1.5 to 5, 5 to 12, 1.5 to 12) Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 4.1 Hazard Class: C Approximate budget cost for repair ($):
Comments (list age group indicated):

EQUIPMENT INSPECTION INFORMATION AND HAZARD IDENTIFICATION

GENERAL INFORMATION REGARDING EQUIPMENT AND PLAY AREA (various clauses and appendix)

12. Check to ensure all components are tight and secure Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

13. Check to ensure no trip hazards exist
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

14. Check to ensure play components are free of extra holes and gaps that may harbor insects or inappropriate material
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

MATERIALS AND INSTALLATION (Clause 7 and Clause 8)

15. Check moving suspended elements are connected to a fixed support with bearings or bearing surfaces that serve to reduce friction or wear
Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

16. **Check to ensure steel cables are inaccessible or capped to prevent injury from frayed wires** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

17. **Check for drainage/ponding on equipment and/or protective surfacing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 10.4.8 Hazard Class: B Approximate budget cost for repair ($):
Comments: **ponding at the base of slide and swings**

18. **Check to ensure components are not capable of being removed without the use of tools** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 11.3.1 Hazard Class: B Approximate budget cost for repair ($):
Comments: **caps on posts removable photo 2**

19. **Check for rusting, rotting or significant decay** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 11.3.1 Hazard Class: B Approximate budget cost for repair ($):
Comments: **boards on platform rotting photo 3**

PROTECTIVE SURFACING ZONES AND NO-ENCROACHMENT ZONES (Clause 14)

20. **Check for 1.8-m (70.87 in) around all stationary equipment. Note: Overlap is permitted** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

21. **Check all rocking/springing equipment for 1.8m (70.87 in) if intended for sitting and 2.1m (82.68 in) in direction of use if intended for standing. Note: Overlap is permitted** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

22. **Check protective surfacing zones around all rotating equipment. Note: 1.8-m (70.87 in) that cannot overlap in direction of motion for equipment within 45-degrees of horizontal. 2.7-m (106.30 in) with a 1.8-m (70.87 in) clearance zone required at equipment that rotates within 45-degrees of vertical when diameter greater than 1.0-m (39.37 in) or 1.8-m (70.87 in) that can overlap if diameter less than or equal to 1.0-m (39.37 in). Overlap into No-E.Z. can be permitted.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

23. **Check slide protective surfacing zones. Note: Platform height equals P.S.Z. required with a minimum 1.8m (70.87 in) and a maximum 2.4-m (94.49 in) plus a no-encroachment zone required when starting platform is greater than 1.2-m (47.24 in) in elevation above protective surfacing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 10.4 Hazard Class: Approximate budget cost for repair ($):
Comments: **no protective surfacing**

24. **Check all swing protective surfacing zones. Note: 2 x Y in each direction plus no-encroachment zone. Also check protective surfacing zone width. Note: 1.8-m (70.87 in) from end of top beam or 1.8m (70.87 in) from centre of outermost swing seat (whichever is greater)** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 10.4 Hazard Class: Approximate budget cost for repair ($):
Comments: **no protective surfacing**

PERFORMANCE REQUIREMENTS (Clause 12)

25. **Check for fully bounded opening head and neck entrapment. Note: Check rigid and non-rigid openings**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

26. **Check for partially bounded opening head and neck entrapment. Note: use fish probe with "A" and "B" portions of test gauge**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

27. **Check for sharp edges/sharp points capable of abrading human skin** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 11.2.6 Hazard Class: B Approximate budget cost for repair ($):
Comments: **broken bolt coverings, at climber wood screw on post photo 4, 5**

28. **Check for uncapped tubing**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

29. **Check for accessible bolt ends beyond two threads. Note: This can be considered an entanglement hazard or a protrusion/sharp edge hazard.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 12.4.3 Hazard Class: B Approximate budget cost for repair ($):
Comments: **bolt ends at top of slide pole extend past 2 threads photo 8**

30. **Check for minimum radius of curvature of 6.35mm (0.24 in) at all suspended members. Note: Belts, straps, ropes and similar flexible components are exempt. This is most often completed by the manufacturer prior to installation.**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

31. **Check for impalement protrusions using the 3 protrusion gauges** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 12.3.3.1 Hazard Class: A Approximate budget cost for repair ($):
Comments: **missing bolt covers at climber end**

32. **Check for entanglement protrusions using the 4th gauge (i.e. the thin entanglement protrusion gauge). Note: Check for projections upwards of horizontal and projections in any orientation within the slide clearance zone**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

33. **Check for protrusions increasing in size**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

34. **Check for gaps greater than 1-mm (0.04 in) in fastening devices** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

35. **Check any S-hooks for non-compliant configuration. Hint: lower loop cannot extend beyond upper loop, lower loop must be aligned with connector body** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

36. **Check for drawstring entanglement at slides and sliding poles in accordance with Clause 12.4.6.2, 12.4.6.3 and 12.4.7. Note: 12.4.6.2 is a test of the slide starting point and slide bedway, 12.4.6.3 is a test of the slide enclosure device (i.e. hood, canopy, etc.) and 12.4.7 is a test for sliding poles (AKA fireman's pole)**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 12.4.6.3 Hazard Class: A Approximate budget cost for repair ($):
Comments: **entanglement at slide starting point photo 6**

37. **Check for crush and shear points. Note: must have movement to be non-compliant and exemptions present for: light-weight moving components, chains and their method of attachment, attachment of heavy duty coil springs, area between swinging element and toprail, track ride assemblies** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

38. **Check for suspended hazards. Note: Rope, cable, etc. must be above 2.1m (82.68 in) or if lower must be > 25mm (0.98 in) and bright colour recommended)**
Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

1. **Check for looping hazards > 125mm (4.92 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

1. **Check for non-compliant DPS elevated surfaces. NOTE: In most cases a Designated Play Surfaces (or DPS is only going to indicate a fall height is present. DPS surfaces are not permitted on the following items:**

guardrails, protective barriers, swing support structures, roofs < 2.1-meters (82.68 in) above an underlying play surfaces, and equipment support posts. Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: 12.7 Hazard Class: A Approximate budget cost for repair ($):
Comments: **DPS on top of protective barriers photo 7**

ACCESS/EGRESS (Clause 13)

41. **Check all steps, rungs, platforms, landings, walkways, ramps, stairways, etc. for even spacing within a horizontal tolerance of +/- 6mm (0.24 in) and horizontal tolerance of +/- 2 degrees and to ensure they do not trap water or accumulate debris**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

42. **Check all stairways, stepladders and rung ladders for slope, tread width and tread depth as per table #2**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

43. **Ensure stairways have 2 handrails at appropriate reach ranges or protective barriers up to 1.2-m (47.24 in) in step elevation and protective barriers are required above 1.2-m (47.24 in)** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

44. **Check to ensure stepladders have minimum 1 handrail per side at a height less than 725mm (28.54 in) for users < 5 and less than 950mm (37.40 in) for user > 5** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

45. **Check to ensure alternate hand support is available on steps with only one tread** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

46. **Check all handrails and rungs for diameter or maximum cross-section between 24-40mm (0.94 – 1.57 in) and that climbers have a means of hand support while climbing** Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

47. **Check to ensure arch climbers and flexible components are not used as the sole means of access for users < 5, that flexible components are securely attached at both ends and that anchoring devices are below the full depth of the protective surfacing**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

48. **Check to ensure all rung ladders, flexible components and arch climbers do not have a stepping surface above the platform surface**
Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($): Comments:

GUARDRAILS AND PROTECTIVE BARRIERS ON ELEVATED SURFACES (Clause 13.4)

49. Check to ensure that guardrails and protective barriers do not contain a designated play surface (D.P.S. – flat surface greater than 50mm x 50mm (1.97 in) with a slope less than 30-degrees). NOTE: Only if not already captured under item #40 earlier in this form. Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

50. Check to ensure guardrails or protective barriers (to an appropriate height) are compliant on platforms above 500mm (19.69in) for users < 5, and on platforms above 750mm (29.53in for users > 5 and all openings are 375-mm (14.76 in) or less (or have a top horizontal rail) Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

51. Check to ensure protective barriers (to an appropriate height) are compliant on platforms above 750mm (29.53 in) for users < 5, and on platforms above 1.2m (47.24 in) for users > 5 and all openings are 375-mm (14.76 in) or less (or have a top horizontal rail) Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

52. Check to ensure access components are present between adjacent platforms greater than 300mm (11.81 in) for users < 5, and 450mm (17.72 in) for users > 5 Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

53. Ensure adjacent platforms that would otherwise be subject to guardrails or protective barriers have some type of protective infill between platforms (i.e. precludes passage of torso probe) Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

REQUIREMENTS FOR SPECIFIC COMPONENTS OF EQUIPMENT (Clause 15)

54. HIRA: Check to ensure a HIRA (in accordance with Clause 15.1 and Annex J are present for any components not specifically identified in Clause 15.2 through 15.19. NOTE: It is not the field inspectors role to agree/disagree with the HIRA, only to verify that the manufacturer has provided it to the owner/operator.

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: **15.1 and Annex J** Hazard Class: Approximate budget cost for repair ($):
Comments:

55. BALANCE BEAMS:

- **Height no greater than 300mm (11.81 in) for users < 5, and no greater than 400mm (15.75 in) for users > 5**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

56. UPPER BODY EQUIPMENT:

- **Centre-to-centre distance between fixed rungs shall be no greater than 375mm (14.76 in)**
- **Hand-gripping devices shall be between 24-40mm (0.94 to 1.57 in) in diameter**
- **Rigid hand-grips shall not twist or rotate**
- **Distance to the first handhold of no greater than 250mm (9.84 in)**
- **Where access is provided by rungs the distance to the first handhold shall be at least 200mm (7.87 in), but no greater than 250mm (9.84 in)**
- **Maximum height of the take-off/landing structure shall be no greater than 450mm (17.72 in) for users < 5, and no greater than 900mm (35.43 in) for users > 5**
- **Maximum height of upper body devices shall be no greater than 1.5m (59.06 in) for users < 5, and no greater than 2.1m (82.68 in) for users > 5** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

57. SLIDING POLES:

- **Clearance distance of 450-500mm (17.72 – 19.68 in) from platform surface to pole**
- **Accessed from one height only**
- **Distance from platform surface to top of pole a minimum of 1.5m (59.06 in)**
- **Sliding pole diameter no greater than 50mm (1.97 in)**
- **Pole continuous with no abrupt changes in direction**
- **Opening in guardrail or protective barrier no greater than 375mm (14.76 in) – no toprail option**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

58. SLIDE STARTING PLATFORM:

- **Depth to be a min. dimension of 350mm (13.78 in) on composite structures and min. of 550mm (21.65 in) on independent slides**
- **Starting platform width shall be greater than or equal to the sliding section entrance**
- **1.5m (59.06 in) vertical clearance on slide entry platform**
- **Platform surface subject to guardrail/protective barrier requirements where applicable** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

59. SLIDE SITTING SECTION:

- **Slope shall not exceed 18-degrees from horizontal**
- **Handrails or hand support present to facilitate standing to sitting**
- **Enclosure or hand support present to channel a user into a sitting position**
- **Enclosure must extend within 125mm (4.92 in) of the sliding section to prevent lateral discharge (i.e. hood, canopy, etc.)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

60. SLIDING SECTION:

- **Slide and slide sidewalls smooth, continuous and allow unhampered flow of hand movement**
- **Height/length ratio not to exceed 0.577**
- **No span of sliding surface exceeding 50-degrees**
- **No regions of zero gravity (note: use slide radius of curvature test device)**
- **Slide width a minimum of 300mm (11.81 in) for users < 5, and minimum of 400mm (15.75 in) for users > 5**
- **Minimum sidewall height of 100mm (3.94 in)**
- **Slide is in shade or faces away from sun during peak hours**
- **Slide not constructed of wood or fiberglass** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

61. SLIDE EXIT SECTION:

- **Rounded to a minimum radius of curvature of 10mm (0.4 in)**
- **Length of exit section a minimum of 275mm (10.83 in)**
- **If maximum slide elevation is 1.2m or lower (47.24 in) then slide exit height shall be between 0 and 275mm (0 and 10.83 in)**
- **If maximum slide elevation is > 1.2m (47.24 in) then slide exit height shall be between 175 – 380mm (6.9 – 14.96 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

62.

SLIDE CLEARANCE ZONE:

- **525mm (20.67 in) clearance measured from inside of slide bedwall** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

63. TUBE SLIDES:

- **Internal diameter of 575mm (22.64 in) or greater** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

64. SWINGS (TO-FRO AND ROTATING):

- **Not attached to a composite playstructure and located in a low circulation area**
- **Support structure discourages climbing and contains no D.P.S.**
- **Swings are made of impact absorbing material and have rounded edges**
- **Bearing hangers have a means of reducing friction and wear**
- **Ensure swings are not hung with rope**
- **Swing seats are not cracked or damaged, especially where connectors are present**
- **Vertical distance between swing seat and protective surfacing shall not be less than 300mm (11.81 in)**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

65. TO-FRO SINGLE USER SWINGS:

- **No more than 2 swings within each bay**
- **Swings to accommodate no more than 1 user**
- **Seat weight of less than 1.4 kg (12pprox.. 3 lbs.)**
- **Seating surface has minimum length of 300mm (11.81 in) and minimum width of 100mm (3.94 in)**
- **Ensure all baby seats have support on all sides and between the legs and no movable or adjustable elements are present (accessible swing seats are exempted from this requirement)**
- **Horizontal clearance of 600mm (23.62 in) to adjacent swing and 750mm (29.53 in) to swing supports (measured at 1.5m above the protective surfacing)**
- **Horizontal distance between bearing hangers of 500mm (19.69 in) and that chains create "V" shape**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

66. TO-FRO MULTI-USER SWINGS:

- **No more than 1 swing within each swing bay**
- **Seat weight no greater than 20 kg (44 lbs.)**
- **Seating surface has a minimum diameter of 600mm (23.62 in)**
- **Minimum 2 suspension members per side (4 total)**
- **Manufacturer shall design to reduce tipping during use** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

67. ROTATING SWINGS:

- **No more than 1 swing within each swing bay**
- **Seat weight no greater than 20 kg (44 lbs.)**
- **Distance from top of swing seat to support structure of 750mm (29.53 in) or greater** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

68. ROTATING EQUIPMENT:

- **Platform is generally circular with speed limiting device and no oscillation**
- **Equipment located in a low traffic area**
- **No components protrude beyond perimeter of platform**
- **Underside clearance for head probe**
- **Secure hand-grips are provided**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

69. SEESAWS:

- **Fulcrum seesaws to have shock absorbing mechanism present under seats**
- **Distance between seesaws of at least 1.2m (47.24 in) when attached to one support structure**
- **Hand-grips at least 75mm (13pprox.. 3 in) in length (or 150mm/ 6-in if intended for 2 hands)**
- **Hand-grips do not turn, twist or rotate or protrude beyond the sides of the seat**
- **Footrests are present on seesaws with spring centering mechanism**
- **Maximum slope of seesaw to be no greater than 25-degrees**
- **Maximum seat height no greater than 1.5m (59.06 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

70. SPRINGING/ROCKING EQUIPMENT:

- **Seats designed to minimize the likelihood of use by more than the intended # of users**
- **Hand-grips at least 75mm (13pprox.. 3 in) in length (or 150mm/ 6-in if intended for 2 hands)**
- **Footrests present with a minimum width of 90mm (3.54 in)**
- **Seat height is between 350 – 700 mm (13.78 – 27.56 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

71. LOG ROLLS:

- **Rigid hand-grips must be provided (and within 24-40mm requirement)**
- **Highest point of roller must be no greater than 450mm (17.78 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

72. TRACK RIDES:

- **Landing platforms to have minimum depth of 900mm (35.43 in)**
- **Riding zone clearance a minimum of 900mm (35.43 in)**
- **Structural elements not to pose a hazard during use**
- **Distance between adjacent track rides is at least 1.2m (47.24 in) when attached to one support structure**

- **Hand-gripping component height between 1.6 – 1.95m (63 and 76.77 in)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

73. CLIMBING NET STRUCTURES:

- **Hand-gripping components between 16 – 40 mm (0.625 – 1.57 in)**
- **Connections are secure**
- **Foundation connections do not pose a hazard and located below the full depth of the protective surfacing**
- **No fall permitted within the net structure, OR, from within net structure to ground in excess of 1.8-meters (70.87 in) as per figure 48 and 54** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

74. EQUIPMENT SUPPORT POSTS:

- **Check equipment support posts where a user is no longer in contact with the ground during play to ensure no DPS surfaces are present (unless already noted in item #40 or #49 above)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

AGE APPROPRIATE DESIGN AND OTHER DESIGN REQUIREMENTS (various clauses and figures)

75. Equipment not recommended for users under age 5:

- **Sliding poles**
- **Track rides**
- **Log rolls**
- **Fulcrum seesaws**
- **Pulley/cable rides**
- **Freestanding arched climbers**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

76. Swinging exercise rings, animal swings, trapeze bars and swinging gates and doors are not recommended. Note: This does not apply to these components on upper body devices Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

77. CRAWL TUNNELS:

- **Clear and safe entry/exit points**
- **Adequate supervision and visibility** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

78. SAND PLAY AREAS:

- **Located in a low circulation route**
- **Adequate shade present**

- **Depth of 200mm (15pprox.. 8 in) present with a recommended depth of 450mm (15pprox.. 18 in)**
- **Free of litter, debris and/or other hazardous material**
- **No standing water**

Satisfactory / Unsatisfactory / Not applicable
CSA Clause #: Hazard Class: C Approximate budget cost for repair ($):
Comments: **areas covered in debris photo 10,11**

79. SMALL CHILDREN'S FENCED PLAYSPACES:
To qualify the play area must be:

- **Supervised use**
- **For users 18 months to 5 years**
- **Surrounded by fencing with a minimum height of 1.2m (47.24 in)**
- **At least one lockable entrance gate** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

80. EQUIPMENT WITH NO INFORATION PROVIDED DUE TO INFREQUENCY OF INSTALLATION:

- **Pulley/cable ride (see figure #35)**
- **Embankment slides**
- **Enclosed structures (i.e. tower structures)** Satisfactory / Unsatisfactory / Not applicable

CSA Clause #: Hazard Class: Approximate budget cost for repair ($):
Comments:

SUMMARY		
Items/Issues	Number of issues of noncompliance from inspection	
A hazards	• Protective surfacing not to standard • Draw string entanglement slide entrance • Guardrails contain flat surface greater than 1.5"	
B hazards	• Ponding at the base of slides and swings • Caps on structure posts not secure • Platform boards rotting • Broken and missing bolt coverings • Protruding wood screw • Accessible bolt ends for slide pole	
C hazards	• Age appropriate signage • Clean up spring deadfall	

OVERALL COMPLIANCE RATING: 37 out of 52 or 71%

RECOMMENDATIONS & CONCLUSION

1. The items marked as A hazard be addressed immediately or that the play structure be closed until those items can be addressed
2. The items marked as B hazards be addressed as soon as possible to avoid injury
3. The items marked as C be addressed as soon as possible to prevent confusion
4. The protective surfacing be replaced
5. A maintenance program be established

Photo 1

Photo2

Photo 3

Photo 4,5

Photo 6

Photo 7

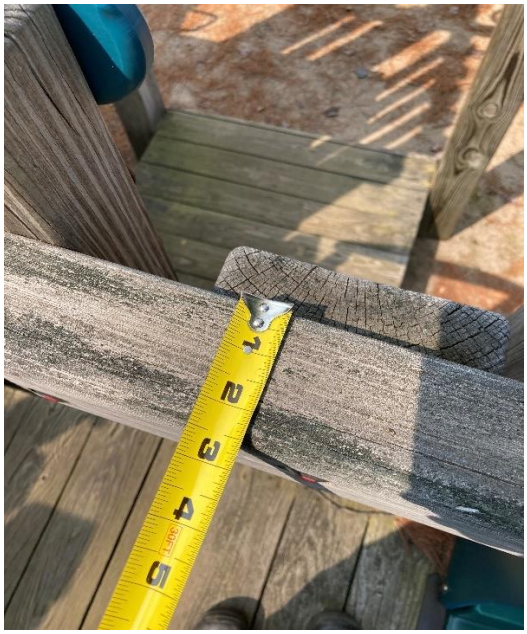


Photo 8,9

Photo 10,11

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Township of South Algonquin Corporate Policy			
DEPARTMENT: Corporate Services			**POLICY #:** INSERT
POLICY: Level of Service for Road Maintenance			
DATE: June /23	**REV. DATE:**	**COVERAGE:** Public Works Department	**PAGE #:** 1 of 16

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PURPOSE:

It is the objective of the Township of South Algonquin to provide sufficient resources to meet the level of service set out in this policy for a low volume predominantly rural road system. The goal will be to provide a level of service that meets the requirements of Ontario Regulation 239/02 Minimum Maintenance Standards (MMS) for Municipal Highways as amended from time to time.

POLICY STATEMENT:

The Township of South Algonquin promotes safety on all roads assumed and designated by the Township of South Algonquin. This policy was developed to help mitigate road related service, along with supporting the requirements of Ontario Regulation 239/02, as amended by 366/18 and other associated legislation and regulations.

SCOPE:

This policy shall apply to all roads assumed and designated by the Township of South Algonquin as roads receiving maintenance. Notwithstanding the foregoing, neither the Township of South Algonquin nor its officials or employees shall make any promise, assurance or guarantee that the services provided by the Township of South Algonquin will be more than the MMS.

TITLE:

This Policy shall be called the 'Level of Service for Road Maintenance Policy'.

1.0- Routine and Winter Patrolling

1.1 Introduction

The Township of South Algonquin Roads Department will provide a level of service for routine patrolling that meets the Minimum Maintenance Standards O. Reg. 366/18 Section 3, under the Municipal Act 2001. Road classifications are in accordance with O. Reg. 366/18. Please refer to the table below for a description of the Classification of Highways.

TABLE: CLASSIFICATION OF HIGHWAYS

Average Annual Daily Traffic
Traffic Posted or Statutory Speed Limit

(# of motor vehicles) (Kilometers per hour)

Column 1 Average Daily Traffic (number of motor vehicles)	Column 2 91 - 100 km/h speed limit	Column 3 81 - 90 km/h speed limit	Column 4 71 - 80 km/h speed limit	Column 5 61 - 70 km/h speed limit	Column 6 51 - 60 km/h speed limit	Column 7 41 - 50 km/h speed limit	Column 8 1 - 40 km/h speed limit
53,000 or more	1	1	1	1	1	1	1
23,000 - 52,999	1	1	1	2	2	2	2
15,000 - 22,999	1	1	2	2	2	3	3
12,000 - 14,999	1	1	2	2	2	3	3
10,000 - 11,999	1	1	2	2	3	3	3
8,000 - 9,999	1	1	2	3	3	3	3
6,000 - 7,999	1	2	2	3	3	4	4
5,000 - 5,999	1	2	2	3	3	4	4
4,000 - 4,999	1	2	3	3	3	4	4
3,000 - 3,999	1	2	3	3	3	4	4
2,000 - 2,999	1	2	3	3	4	5	5
1,000 - 1,999	1	3	3	3	4	5	5
500 - 999	1	3	4	4	4	5	5
200 - 499	1	3	4	4	5	5	6
50 - 199	1	3	4	5	5	6	6
0 - 49	1	3	6	6	6	6	6

There are currently no Class 1, Class 2 or Class 3 highways within the Township of South Algonquin.

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

1.2 Definitions

- "**day**" means a 24-hour period.
- **As soon as practicable** - shall mean without undue delay, having regard to prevailing circumstances.
- **Bicycle Lane** - shall mean:
  - a portion of a roadway that has been designated by pavement markings or signage for the preferential or exclusive use of cyclists, or
  - a portion of a roadway that has been designated for the exclusive use of cyclists by signage and a physical or marked buffer.
- **Class** - shall mean the class of highway as determined in the Classification of Highways Table of the MMS.
- **GPS/AVL-** shall mean global positioning system, automated vehicle locating.
- **Highway** - shall include a common and public highway, street, avenue, parkway, driveway, square, place, bridge, viaduct or trestle, any part of which is intended for or used by the public for the passage of vehicles and includes the

area between the lateral property lines thereof.

- **Ice** - shall mean all kinds of ice however formed.
- **Maintenance Class** - shall mean a Class 1, 2, 3, 4, 5 or 6 road designated as such by posted speed and traffic volume in accordance with Classification of Highways Table of the MMS.
- **MMS** - shall mean Ontario Regulation 239/02, Minimum Maintenance Standards for Municipal Highways as amended from time to time.
- **Operations** - shall mean those activities the Public Works Department performs to improve a condition or sustain a roadway standard. Public Works are normally defined by guidelines (not policy), with discretion of the Public Works Superintendent to choose various methods to achieve results cost-effectively.
- **Public Works Superintendent**- shall refer to a person, in the employ of, contracted by or appointed by the Township, who is accountable for the deployment of operations that impact on the condition or roadway services.
- **Patrol person** - shall mean a person who is either a dedicated winter patroller or a person whose duties include winter patrolling.
- **Roadway** - shall mean the part of the highway that is improved, designed, or ordinarily used for vehicular traffic, but does not include the shoulder, and, where a highway includes two or more separate roadways, the term "roadway" refers to any one roadway separately and not to all the roadways collectively.
- **Sidewalk** - shall mean the part of the highway specifically set aside or commonly understood to be for pedestrian use, typically consisting of a paved surface but does not include crosswalks, medians, boulevards, shoulders, or any part of the sidewalk where cleared snow has been deposited.
- **Significant Weather Event** - shall mean an approaching or occurring weather hazard with the potential to pose a significant danger to users of the highways within a Township.
- **Snow Accumulation** - shall mean the natural accumulation of any of the following that, alone or together, covers more than half a lane width of roadway: 1) new fallen snow 2) windblown snow 3) slush.
- **Weather Hazard** - shall mean the weather hazards determined by Environment Canada as meeting the criteria for the issuance of an alert under its Public Weather Alerting Program.
- **Winter Event** - shall mean a weather condition affecting roads such as snowfall, wind- blown snow, sleet, freezing rain, frost, or ice, to which a winter event response is required.
- **Winter Event Response** - shall mean a series of winter control activities performed in response to a winter event.
- **Winter Patrol** - shall mean the field observation of weather and road conditions.
- **Winter Season** - shall mean that season when the Township normally performs winter highway maintenance as identified in this policy.

1.3 Operations Description

The Township of South Algonquin will routinely patrol highways at a frequency set out in Table 1A below.

Table 1A: Routine Patrolling Frequency

Class of Highway	Patrolling Frequency
3	Once every 7 days
4	Once every 14 days
5	Once every 30 days

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

a) Routine Patrolling will be carried out by driving on the highway or by electronically monitoring the highway to check for conditions described in O. Reg. *239/02 as amended by 366/18* and this level of service policy.

b) Routine Patrolling is not required between sunset and sunrise.
c) Winter patrol operations will replace routine patrols during the season when the Township performs winter highway maintenance.
d) Winter patrol routes will not operate when conditions have been identified throughout the Township that will require commencement of snowplowing or sanding operations. The patroller will then be reassigned to snowplowing roads. The winter patrol and winter maintenance activity are an interchangeable function.

2.0- Plowing and Sanding

2.1 Introduction

The Township of South Algonquin Roads Department will provide a level of service for Road Conditions that meets the Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18, under The Municipal Act 2001. Road classifications are in accordance with O. Reg. 239/02 as amended by 366/18. There are currently no Class 1,Class 2 or Class 3 highways within the jurisdiction of the Township of South Algonquin. The Township of South Algonquin recognizes that severe weather conditions may occur that could prevent the attainment of the Level of Service specified in this policy. The Roads Department must work within the available resources and in such a manner to protect the safety of employees and the public.

2.2 Definitions

- "Season when the Township performs winter highway maintenance" means that period from October 1 to April 30 of the following year in accordance with O. Reg. 239/02 as amended by 366/18. The Township of South Algonquin may extend the season to May 10 when weather conditions create a demand for additional winter maintenance.
- "highway" means a common and public highway maintained by the Township of South Algonquin and includes any bridge, trestle, viaduct or other structure forming part of the highway.
- "roadway" means the part of the highway that is improved, designed or ordinarily used for vehicular traffic, but does not include the shoulder.
- "Snow accumulation" means the natural accumulation of new fallen snow or windblown snow that covers more than half a lane width of a roadway.
- From May 1 to September 30, the standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once per calendar day. O. Reg. 47/13, s. 3; O. Reg. 239/02 as amended by 366/18.

2.3 Operations Description

2.3.1 Snow Plowing

Table 2A: Snow Accumulation shown below contains the minimum maintenance standards specified in O. Reg. 239/02 as amended by 366/18 under the Municipal Act.

Table 2A: Snow Accumulation

SNOW		
Class of Highway	**Depth**	**Time for Removal**
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

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Table 2B: Icy Roadways

ICY ROADWAYS	
Class of Highway	**Time for Treatment**
3	8 hours
4	12 hours
5	16 hours

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

The Township treats icy roadways in accordance with Table 2B for vehicular traffic. Maintenance for pedestrian purposes is not performed on roadways. These requirements only apply to a Township during the season when the Township performs winter highway maintenance.

2.2.1 Sidewalk Maintenance

2.3.2.1 The sidewalks will be cleared within 24 hours of when the snow accumulations reach a depth of 7.5 centimeters (3 inches).
2.2.1.2 Surfaces will be maintained in a snow packed condition during a storm.
2.2.1.3 Sidewalks will only be sanded when icy conditions create a hazard to pedestrians.
2.2.1.4 Sidewalks will generally be cleared and sanded in priority order. Priority will be given to school zones and then to commercial areas.

3.0 Road Surface Conditions

3.1 Introduction

The Township of South Algonquin Roads Department will provide a level of service for Road Surface Conditions that meets the Minimum Maintenance Standards O. Reg. 239/02 Section 6, 7, 8, 9 and 16(1) as amended by 366/18, under The Municipal Act 2001. Road classifications are in accordance with O. Reg.239/02 as amended by 366/18. There are currently no Class 1,Class 2 or Class 3 roads within the jurisdiction of the Township of South Algonquin.

3.2 Definitions

- “day” means a 24-hour period.
- “debris” means any material or object on a roadway, that is not an integral part of the roadway or has not been intentionally placed on the roadway by a Township, and that is reasonably likely to cause damage to a motor vehicle or to injure a person in a motor vehicle.
- “highway” means a common and public highway maintained by the Township of South Algonquin and includes any bridge, trestle, viaduct or other structure forming part of the highway.
- “roadway” means the part of the highway that is improved, designed or ordinarily used for vehicular traffic, but does not include the shoulder.
- “shoulder drop-off” means the vertical differential, where the paved surface of the roadway is higher than the surface of the shoulder, between the paved surface of the roadway and the paved or non paved surface of the shoulder.
- “surface discontinuity” means a vertical discontinuity creating a step formation at joints or cracks in the
- paved surface of the roadway, including bridge deck joints, expansion joints and approach slabs to bridge.

3.3 Operations Description

3.3.1 Potholes

a) Most pothole formations occur during the freeze/thaw cycles in spring and fall. Regular maintenance including patching and grading, is performed immediately following these cycles to prevent the formation of potholes.
b) Potholes that are identified during routine patrols will be scheduled for repair as soon as practicable to prevent further degradation of the road surface structure and within the minimum maintenance standards detailed in sections c) and d) below.
c) If a pothole exceeds both the surface area and depth set out in Table 3A, 3B, and 3C the Township of South Algonquin will repair the pothole within the time set out in Table 3A, 3B, or 3C as appropriate, after becoming aware of the condition.

d) A pothole shall be deemed to be repaired if its surface area or depth is less than or equal to that set out in Table 3A, 3B, or 3C as appropriate.

Table 3A: Potholes on Paved Surface of Roadway

Class of Highway	Surface Area	Depth	Time for Completion of Repair
3	1000cm²	8cm	7 days
4	1000cm²	8cm	14 days
5	1000cm²	8cm	30 days

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

Table 3B: Potholes on Non-Paved Surface of Roadway

Class of Highway	Surface Area	Depth	Time for Completion of Repair
3	1500cm²	8cm	7 days
4	1500cm²	10cm	14 days
5	1500cm²	12cm	30 days

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

Table 3C: Potholes on Paved or Non-Paved Surface of Shoulder

Class of Highway	Surface Area	Depth	Time for Completion of Repair
3	1500cm²	8cm	14 days
4	1500cm²	10cm	30 days
5	1500cm²	12cm	60 days

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

3.3.2 Shoulder Drop-off

a) Regular shoulder grading is performed during spring and fall, when time and resources permit, to prevent the formation of shoulder drop-off.
b) Problem areas are identified through routine patrolling and historical data. Shoulder grading is performed in these areas at an increased frequency appropriate to the requirements of each area.
c) A shoulder drop-off condition that is identified during routine patrols will be scheduled for grading as soon as practicable to prevent further degradation of the road surface structure and within the minimum maintenance standards detailed in sections d) and e) below.
d) If a shoulder drop-off is deeper, for a continuous distance of 20 meters or more, than the depth set out in the table 3D, the Township of South Algonquin will repair the shoulder drop-off within the time set out in the Table after becoming aware of the condition.
e) A shoulder drop-off shall be deemed to be repaired if its depth is less than or equal to that set out in Table 3D.

Table 3D: Shoulder Drop-offs

Class of Highway	Depth	Time for Completion of Repair
3	**8cm**	**7 days**
4	**8cm**	**14 days**
5	**8cm**	**30 days**

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

3.3.3 Cracks

a) Most cracks occur during the freeze/thaw cycles in spring and fall. Regular maintenance including patching is performed immediately following these cycles to prevent the formation of cracks.
b) Cracks that are identified during routine patrols will be scheduled for repair as soon as practicable to prevent further degradation of the road surface structure and within the minimum maintenance standards detailed in sections c) and d) below.
c) If a crack on the paved surface of a roadway is greater, for a continuous distance of three meters or more, than both the width and depth set out in Table 3E the Township of South Algonquin will repair the crack within the time set out in the Table after becoming aware of the condition.
d) A crack shall be deemed to be repaired if its width or depth is less than or equal to that set out in the Table.

Table 3E: Cracks

Class of Highway	Width	Depth	Time for Completion of Repair
3	**5cm**	**5cm**	**60 days**
4	**5cm**	**5cm**	**180 days**
5	**5cm**	**5cm**	**180 days**

3.3.4 Debris

a) If there is debris on a roadway, the Township of South Algonquin will remove the debris as soon as practicable after becoming aware of the condition. Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.
b) "Debris" means any material (except snow, slush or ice) or object on roadway.

- That is not integral part of the roadway or has not been intentionally placed on the roadway by a Township, and
- That is reasonably likely to cause damage to a motor vehicle or to injure a person in a motor vehicle. O. Reg. 239/02, s. 9(2); O. Reg. 47/18, s.9 as amended by 366/18.

3.4.5 Road Discontinuities

a) Most road discontinuities occur during the freeze/thaw cycles in spring and fall. Most road discontinuities are temporary conditions, caused by frost heave. Road discontinuities found during the freeze/thaw cycle will be identified with a warning sign and monitored for potential repairs.
b) Regular maintenance including patching and grading, is performed immediately following these cycles to repair and permanent surface discontinuities.
c) Surface discontinuities that are identified during routine patrols will be scheduled for repair as soon as practicable to prevent further degradation of the road surface structure and within the minimum maintenance standards detailed in sections c) below.
d) If a surface discontinuity, (other than a surface discontinuity on a bridge deck) exceeds the height set out in Table 3F, the Township of South Algonquin will repair the surface discontinuity within the time set out in the Table after becoming aware of the condition.

Table 3F: Surface Discontinuities

Class of Highway	Height	Time for Completion of Repair
3	**5cm**	**7 days**
4	**5cm**	**21 days**
5	**5cm**	**21 days**

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

3.4.6 Line Painting

a) The line painting maintenance is completed in summer to replace existing lines worn away during the winter months.
b) Line painting is completed on roads, sharp curves and steep that the Township deems necessary.

3.4.7 Dust Control

a) Dust control is a regular treatment program applied annually to gravel and dirt roads.
b) Due to the high cost of dust suppressants, the treatment is not repeated during the year so the application must be timed to provide optimum coverage for the season. The dust suppressants are generally applied in early summer.

4.0- Street Lights (Luminaires)

4.1 Introduction

The Township of South Algonquin Roads Department will provide a level of service for streetlights that meets the Minimum Maintenance Standards O. Reg. 239/02 Section 10 as amended by 366/18 under the Municipal Act 2001.
Road classifications are in accordance with O. Reg. 239/02 as amended by 366/18. There are currently no Class 1,Class 2 or Class 3 roads within the jurisdiction of the Township of South Algonquin. The standard for the frequency of inspecting all luminaires to check to see that they are functioning is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 366/18, s.12

4.2 Definitions

- "day" means a 24-hour period.
- "highway" means a common and public highway maintained by the Township of South Algonquin and includes any bridge, trestle, viaduct or other structure forming part of the highway.
- "streetlight" means the complete lighting unit consisting of a lamp and the parts designed to distribute the light, to position or protect the lamp and to connect the lamp to the power supply. (Regulation 239/02 as amended by 366/18 uses the term Luminaires.)

4.3 Operations Description

a) Streetlights will be scheduled for repair when the Township becomes aware that it is not functioning.
b) Streetlights located in a high traffic area may be immediately scheduled for repair at the discretion of the Public Work Superintendent.
c) In addition, the level of service specified in sections a) and b), streetlights will be repaired to the Minimum Maintenance Standards O. Reg 239/02 as amended by 366/18.

Table 4F: Luminaires

Class of Highway	Time for Completion of Repair
3	**7 days**
4	**21 days**
5	**21 days**

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

5.0- Signs and Traffic Signal Systems

5.1 Introduction

The Township of South Algonquin Roads Department will provide a level of service for Signs that meets the Minimum Maintenance Standards O. Reg. 239/02 Sections 11 and 12 as amended by 366/18 under the Municipal Act 2001.
Road classifications are in accordance with O. Reg. 239/02 as amended by 366/18. There are currently no Class 1, Class 2 or Class 3 roads within the jurisdiction of the Township of South Algonquin. The Standard for the frequency of inspecting regulatory signs or warning signs to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 8; O. Reg. 47/13, s. 12(1); O. Reg. 239/02, s. 13 as amended by 366/18.

5.2 Definitions

- "day" means a 24-hour period.
- "highway" means a common and public highway maintained by the Township of South Algonquin and includes any bridge, trestle, viaduct or other structure forming part of the highway.
- "Regulatory sign" means a traffic sign advising drivers of action they should or must do (or not do), under a given set of circumstances.
- "Warning sign" means a sign which indicates conditions on or adjacent to a highway or street that is actually or potentially hazardous to traffic operations.

5.3 Operations Description

a) If any of the sign types listed below is illegible, improperly oriented or missing, the sign will be repaired or replaced as soon as practicable after becoming aware of the condition.

- Checkerboard
- Curve sign with advisory speed tab
- Do not enter.
- 1 Load Restricted Bridge
- One Way
- School Zone Speed Limit
- Stop, Stop Ahead, Stop Ahead New
- Traffic Signal Ahead, New
- Two Way Traffic Ahead
- Wrong Way
- Yield, Yield Ahead, Yield Ahead New
- Dead End Road
- No Exit
- Maintained Portion of Road Ends

b) Any sign that is found by the routine patrol to be illegible, improperly oriented or missing will be scheduled for repair or replacement as soon as practicable and within the minimum maintenance standards detailed in section c) below.

c) Any illegible, improperly oriented or missing regulatory/warning signs not found on the list above will be repaired or replaced within the time period set out in Table 5A.

Table 5A: Regulatory and Warning Signs

Class of Highway	Time for Completion of Repair
3	**21 days**
4	**30 days**
5	**30 days**

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

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6.0- Bridges

6.1 Introduction

The Township of South Algonquin Roads Department will provide a level of service for Bridges that meets the Minimum Maintenance Standards O. Reg. 239/02 Sections 15 and 16 as amended by 366/18 under the Municipal Act 2001. Road classifications are in accordance with O. Reg. 239/02 as amended by 366/18. There are currently no Class 1, Class 2 or Class 3 roads within the jurisdiction of the Township of South Algonquin.

6.2 Definitions

- "Bridge deck spall" means a cavity left by one or more fragments detaching from the paved surface of the roadway or shoulder of a bridge.
- "day" means a 24-hour period.
- "highway" means a common and public highway maintained by the Township of South Algonquin and includes any bridge, trestle, viaduct or other structure forming part of the highway.
- "Surface discontinuity" means a vertical discontinuity creating a step formation at joints or cracks in the paved surface of the roadway, including bridge deck joints, expansion joints and approach slabs to bridge.

6.3 Operations Description

a) Most bridge deck spalls occur during the freeze/thaw cycles in spring and fall. Regular maintenance including patching is performed immediately following these cycles to prevent the formation of spalls.
b) Bridge deck spalls that are identified during routine patrols will be scheduled for repair as soon as practicable to prevent further degradation of the bridge surface structure and within the minimum maintenance standards detailed in sections c) below.
c) If a bridge deck spall exceeds both the surface area and depth set out in Table 6A below, the spall will be repaired, within the time specified in Table A after becoming aware of the condition.

Table 6A: Bridge Deck Spalls

Class of Highway	Surface Area	Depth	Time for Completion of Repair
3	**1,000 cm^2**	**8 cm**	**7 days**
4	**1,000 cm^2**	**8 cm**	**7 days**
5	**1,000 cm^2**	**8 cm**	**7 days**

Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18.

d) The bridge deck spall will be considered repaired if its surface area or depth is less than or equal to that set out in Table 6A.
e) If the surface discontinuity on a bridge deck exceeds 5 cm, the condition will be repaired as soon as practicable after becoming aware of the condition.

7.0- Drainage systems

7.1 Introduction

The Township of South Algonquin Roads Department will provide a level of service for Drainage Systems that protects the road infrastructure from damage due to water saturation and prevents flooding of the roadway and adjacent properties. Drainage systems are not included in the Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18 under the Municipal Act 2001.

7.2 Operations Description

a) Collapsed or excessively corroded culverts will be replaced.
b) Culverts that have shifted in position and are no longer set to the proper grade due to frost heave or wear will be reset or replaced depending on the condition of the culvert.
c) Culvert thawing will be performed seasonally, in accordance with the demand caused by weather conditions.
d) Regular spring run-off maintenance will include the removal of snow from high volume ditching, and the clearing of each end of the culvert. The maintenance program is completed in order of priority, when time and weather conditions permit. A sudden onset of the spring melt may prevent the maintenance program from proceeding.
e) Curb and gutter sections that have settled or heaved will be scheduled for repair.
f) In specific areas of historical concern, catch basins are to be cleaned when required.
g) Ditches in areas where problems are repetitive will be inspected annually and cleared as required.
h) Catch basin tops and inlets will be cleaned when required.
i) Ditches will be scheduled for clearing when problems are identified.
j) Catch basin and ditch inlet frames and grates within a highway shall be inspected for road surface continuity. Adjustments of the frames and grates will be made as required in Table 3F Surface Discontinuities.

8.0- Trees and Brush

8.1 Introduction

The Township of South Algonquin Roads Department will provide a level of service for Trees and Brush that protects the health and safety of the public and maintains the natural surroundings.
Trees and brush are not included in the Minimum Maintenance Standards O. Reg. 239/02 as amended by 366/18 under the Municipal Act 2001. The Township follows the Municipal Act Section 62 (1) and 62 (2) which states:
62 (1) Entry on land, tree trimming- A Township may, at any reasonable time, enter upon land lying along any of its highways.
a) To inspect trees and conduct tests on trees; and
b) To remove decayed, damaged or dangerous trees or branches of trees if, in the opinion of the Township, the trees or branches pose a danger to the health or safety of any person using the highway.

62 (2) Immediate Danger- An employee or agent of the Township may remove a decayed, damaged or dangerous tree or branch of a tree immediately and without notice to the owner of the land upon which the tree is located if, in the opinion of the employee or agent, the tree or branch poses and immediate danger to the health or safety of any person using the highway.
The Township will also adhere to Section 62.1 (1) of the Municipal Act which states that a Township may apply to a judge of the Superior Court of Justice for an order requiring the owner of the land lying along the highway to remove or alter any vegetation, building or object on the land that may obstruct the vision of pedestrians or drivers of vehicles on the highway, cause the drifting or accumulation of snow or harm the highway if the Township is unable to enter into an agreement with the owner of the land to alter or remove the vegetation, building or object from the land.

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9.0 Sidewalk surface discontinuities

The Standard for the frequency of inspecting sidewalks to check for surface discontinuity is once per calendar year, with each inspection taking place not more than16 months from the previous inspection. O.Reg.23/10, s.10; O.Reg.47/13, s16(1),O .Reg 239/02, s.13 as amended by 366/18.
A sidewalk that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to any surface discontinuity until the next inspection in accordance with that subsection, provided that the Township does not acquire actual knowledge of the presence of a surface discontinuity in excess of two centimeters. O. Reg. 47/13, s. 16 (2).

1. If a surface discontinuity on or within a sidewalk exceeds two centimeters, the standard is to treat the surface discontinuity within 14 days after acquiring actual knowledge of the fact. O. Reg. 239/02, s. 14 as amended by 366/18.
2. A surface discontinuity on or within a sidewalk is deemed to be in a state of repair if it is less than or equal to two centimeters. O. Reg. 239/02, s. 14 as amended by 366/18.
3. For the purpose of subsection (2), treating a surface discontinuity on or within a sidewalk means taking reasonable measures to protect users of the sidewalk from the discontinuity, including making permanent or temporary repairs, alerting users' attention to the discontinuity or preventing access to the area of discontinuity.
O. Reg. 239/02, s.14 as amended by 366/18.

9.1 Encroachments, area adjacent to sidewalk

1. The standard for the frequency of inspecting an area adjacent to a sidewalk to check for encroachments is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 239/02, s. 15 as amended by 366/18.
2. For greater certainty, the area adjacent to a sidewalk begins at the outer edges of a sidewalk and ends at the lesser of the limit of the highway, the back edge of a curb if there is a curb and a maximum of 45cm. O. Reg. 239/02, s. 15 as amended by 366/18.
3. The area adjacent to a sidewalk is deemed to be in a state of repair in respect of any encroachment present unless the encroachment is determined by a Township to be highly unusual given its character and location or to constitute a significant hazard to pedestrians. O. Reg. 239/02, s. 15 as amended by 366/18.
4. For the purpose of subsection (4), treating an encroachment means taking reasonable measures to protect users, including making permanent or temporary repairs, alerting users' attention to the encroachment or preventing access to the area of the encroachment. O. Reg. 239/02, s. 15 as amended by 366/18.

9.2 Snow accumulation on sidewalks

a) To reduce the snow to a depth less than or equal to 8 centimeters within 48 hours; and
b) To provide a minimum sidewalk width of 1 meter. O. Reg. 239/02, s. 15 as amended by 366/18.

9.3 Ice formation on sidewalks and icy sidewalks

a) If ice forms on a sidewalk even though the Township meets the standard set out, the sidewalk is deemed to be in a state of repair in respect of ice until 48 hours after the Township first becomes aware of the fact that the sidewalk is icy. O. Reg. 239/02, s.15 as amended by 366/18.
b) The standard for treating icy sidewalks after the Township becomes aware of the fact that a sidewalk is icy is to treat the icy sidewalk within 48 hours, and an icy sidewalk is deemed to be in a state of repair for 48 hours after it has been treated.
O. Reg. 239/02, s. 15 as amended by 366/18.
c) For the purposes of this section, treating a sidewalk means applying materials including salt, sand or any combination of salt and sand to the sidewalk. O. Reg. 239/02, s. 15 as amended by 366/18.

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9.4 Icy sidewalks, significant weather event

1) If a Township declares a significant weather event relating to ice, the standard for addressing ice formation or ice on sidewalks until the declaration of the end of the significant weather event is,
a) To monitor the weather is accordance with section 3.1; and
b) If deemed practicable by the Township, to deploy resources to treat the sidewalks to prevent ice formation or improve traction, or treat the icy sidewalks, starting from the time that the Township deems appropriate to do so. O. Reg. 239/02, s. 15 as amended by 366/18.

9.5 Winter sidewalk patrol

1) If it is determined by the Township that the weather monitoring referred to in section 3.1 indicates that there is a substantial probability of snow accumulation on sidewalks in excess of 8 cm, ice formation on sidewalks or icy sidewalks, the standard for patrolling sidewalks is to patrol sidewalks that the Township selects as representative of its sidewalks at intervals deemed necessary by the Township. O. Reg. 239/02, s. 15 as amended by 366/18.
2) Patrolling a sidewalk consists of visually observing the sidewalk, either by driving by the sidewalk on the adjacent roadway or by driving or walking on the sidewalk or by electronically monitoring the sidewalk and may be performed by persons responsible for patrolling roadways or sidewalks or by persons responsible for or performing roadway or sidewalk maintenance activities. O. Reg. 239/02, s. 15 as amended by 366/18.

MMS Classification Schedule A

Sec. #	Name	From	To	Length	MMS Class	AADT	AADT Year	Speed Limit
RD010	Airy Road	Highway 60	0.9km west of Highway 60	0.900	**6**	**10**	**2021**	**50**
RD020	Airy Road	0.9 km west of Highway 60	1.2 km west of Highway 60	0.300	**6**	**10**	**2021**	**50**
RD030	Galeairy Lake Road	Maple Drive (N)	Maple Drive (S)	0.440	**6**	**318**	**2021**	**40**
RD035	Galeairy Lake Road	Highway 60	Maple Drive (N)	0.250	**6**	**318**	**2021**	**40**
RD040	Maple Drive	Galeairy Lake Rd. N.	Galeairy Lake Rd. S.	0.850	**5**	**300**		**50**
RD050	Sunset Trail	Maple Drive	End	0.600	**6**	**40**		**50**
RD060	Birch Crescent	Maple Drive	End	0.150	**6**	**20**		**50**
RD070	Hemlock Crescent	Maple Drive	End	0.130	**6**	**20**		**50**
RD080	Galeairy Lake Crescent	Galeairy Lake Road	End	0.130	**6**	**20**		**40**
RD090	Fire Route-Dam	Galeairy Lake Road	End	0.050	**6**	**5**		**50**
RD100	Hay Creek Road (PA)	Highway 60	1.25 km South of Highway 60	1.250	**5**	**638**	**2021**	**40**
RD110	Hay Creek Road (UP)	1.25 km South of Ottawa Street	McCrae's Mill	0.750	**5**	**638**	**2021**	**40**
RD120	Dave Bowers Road	Hay Creek Road	0.1 km west of Hay Creek Road	0.100	**6**	**20**		**50**
RD130	Ottawa Street	First Avenue	Second Avenue	0.200	**5**	**624**	**2021**	**50**
RD135	Ottawa Street	Highway 60	First Avenue	0.400	**5**	**624**	**2021**	**50**
RD140	Lake Street	Third Avenue	Lakeshore Drive	0.250	**6**	**156**		**50**
RD145	Lake Street	Second Avenue	Third Avenue	0.300	**6**	**156**		**50**
RD150	Boat Launch Road	Ottawa Street	0.10 west of Ottawa Street	0.100	**6**	**10**		**50**
RD160	Lakeshore Avenue	Hay Creek Road	Third Street	0.600	**6**	**30**		**50**

Sec. #	Name	From	To	Length	MMS Class	AADT	AADT Year	Speed Limit
RD170	First Avenue	Hay Creek Road	Ottawa Street	0.200	**6**	**156**		**50**
RD180	Second Avenue	Hay Creek Road	Ottawa Street	0.210	**6**	**156**		**50**
RD190	Third Avenue	Hay Creek Road	Lakeshore Drive	0.120	**6**	**156**		**50**
RD200	Mill Street	First Avenue	Second Avenue	0.200	**6**	**156**		**50**
RD220	Paradise Road	Highway 60	1.1 km south of Highway 60	1.100	**6**	**195**	**2021**	**50**
RD230	Paradise Road	1.1 km south of Highway 60	End	1.300	**6**	**5**	**2021**	**50**
RD240	Hilltop Crescent	Highway 60	End	0.360	**6**	**50**		**50**
RD250	Church Hill Street	Post Street	0.06 km South of Post Street	0.060	**6**	**93**		**50**
RD254	Church Hill Street	0.06 South of Post Street	300m North of Highway 60	0.380	**6**	**93**		**50**
RD258	Church Hill Street	300m North of Highway 60	Highway 60	0.300	**6**	**93**		**50**
RD260	Park Street	Highway 60	Paradise Rd.	0.245	**6**	**93**		**50**
RD280	Post Street	Highway 60	Medical Centre Road	0.270	**5**	**371**	**2021**	**50**
RD290	Post Street	Medical Centre Road	End	0.170	**6**	**93**		**50**
RD300	Medical Centre Road	Post Street	End	0.170	**6**	**186**		**50**
RD310	Madawaska Avenue	Post Street	Madawaska Street	0.050	**6**	**0**		**50**
RD320	Madawaska Street	Algonquin Street	End	1.000	**6**	**40**		**50**
RD330	Madawaska Street	Highway 60	Madawaska Avenue	0.100	**6**	**25**	**2021**	**50**
RD335	Madawaska Street	Madawaska Avenue	Algonquin Street	0.200	**5**	**300**		**50**
RD340	Algonquin Street	Madawaska Street	Algonquin Cresent	0.700	**6**	**39**	**2021**	**50**
RD340	Algonquin Street	Algonquin Cresent	End	0.210	**6**	**39**	**2021**	**50**
RD350	Algonquin Crescent	Highway 60	End	0.400	**6**	**20**		**50**

Sec. #	Name	From	To	Length	MMS Class	AADT	AADT Year	Speed Limit
RD360	Nipissing Road	Algonquin Street	0.6 km East of Algonquin Street	0.600	**5**	**300**		**50**
RD380	Nipissing Road	0.6 km East of Algonquin Street	2.3 km East of Algonquin Street	1.670	**5**	**300**		**50**
RD390	Old Highway 127	Highway 60	Highway 127	5.530	**6**	**38**	**2021**	**80**
RD400	Spectacle Lake Road	Highway 60	Dickens Township Boundary	1.380	**6**	**62**	**2021**	**50**
RD410	Aylen Lake Road	Highway 60	End	8.300	**5**	**86**	**2021**	**60**
RD420	Gaffney Road	Aylen Lake Road	Moonlight Road	0.810	**6**	**21**		**80**
RD424	Gaffney Road	Moonlight Bay Road	Burnt Depot Road	3.870	**6**	**21**		**80**
RD428	Gaffney Road	Burnt Depot Road	End	0.620	**6**	**21**		**80**
RD435	Burnt Depot Road	200m East of Gaffney Road	End	0.300	**6**	**5**		**80**
RD430	Burnt Depot Road	Gaffney Road	200m East of Gaffney Road	0.200	**6**	**5**		**80**
RD440	Moonlight Bay Road	Gaffney Road	End	2.200	**6**	**5**		**80**
RD450	Whites Road	Aylen Lake Road	End	0.700	**6**	**5**		**80**
RD460	North Aylen Lake Road	Aylen Lake	Chapel Lane	3.320	**6**	**43**		**80**
RD463	North Aylen Lake Road	Chapel Lane	Ferndale Lane	2.080	**6**	**43**		**80**
RD466	North Aylen Lake Road	Ferndale Lane	End	2.310	**6**	**43**		**80**
RD470	Pringles Road	North Aylen Lake Road	End	0.670	**6**	**10**		**80**
RD480	Shields Road	North Aylen Lake Road	End	0.160	**6**	**10**		**80**
RD490	Old Farm Road	Aylen Lake North Road	End	0.310	**6**	**5**		**80**
RD505	Paplinskie Road	Civic #221	End	1.100	**6**	**39**	**2021**	**80**
RD500	Paplinskie Road	Highway 60	Civic #221	1.000	**6**	**39**		**80**
RD510	Dunnes Road	Highway 60	End	2.100	**6**	**10**		**80**

Sec. #	Name	From	To	Length	MMS Class	AADT	AADT Year	Speed Limit
RD520	Dawson Street	Highway 60 West	Highway 60 East	0.800	**6**	**101**		**50**
RD530	Merton Street	Murchison Road	Highway 60	0.610	**6**	**101**		**50**
RD540	Murchison Road	Dawson Street	End	0.240	**6**	**101**		**50**
RD550	Holstein Street	Merton Road	End	0.500	**6**	**50**		**50**
RD580	Victoria Street	Highway 60	Major Lake Road	0.400	**6**	**79**	**2021**	**50**
RD590	Fire Route - Pump House	Major Lake Road	End	0.150	**6**	**20**		**50**
RD600	Tom and Mick Murray Park Road	Highway 523	End	0.670	**6**	**5**		**80**
RD610	Major Lake Road	Highway 60	Victoria Street	0.700	**5**	**209**	**2021**	**50**
RD612	Major Lake Road	Victoria Street	4.7km North of Highway 60	4.000	**4**	**209**	**2021**	**80**
RD613	Major Lake Road	4.7km North of Highway 60	6km North of Highway 60	1.300	**4**	**209**	**2021**	**80**
RD614	Major Lake Road	6km North of Highway 60	Victoria Lake Road	2.000	**4**	**209**	**2021**	**80**
RD615	Major Lake Road	Victoria Lake Road	McCaulley Lake Road	3.100	**4**	**209**	**2021**	**80**
RD630	Victoria Lake Road	Major Lake Road	Civic #700	3.440	**6**	**5**		**80**
RD635	Victoria Lake Road	Civic #700	End	2.510	**6**	**5**		**80**
RD640	McCauley Lake Road	Major Lake Road	End	3.150	**6**	**11**	**2021**	**80**
RD660	Reids Road	Highway 523	End	0.100	**6**	**20**		**80**
RD670	Lyell Lake Landing Road	Highway 523	End	0.400	**6**	**30**		**80**
RD680	McGuey Road	Highway 127	Civic# 471	2.370	**6**	**44**	**2021**	**80**
RD685	McGuey Road	Civic #471	End	1.970	**6**	**44**	**2021**	**80**
RD690	McRae-Hay Lake Road (PA)	2.4km West of Highway 127 (Civic 510)	McRae-Hay Lake Road (UP)	2.000	**6**	**19**	**2021**	**80**

Sec. #	Name	From	To	Length	MMS Class	AADT	AADT Year	Speed Limit
RD691	McRae-Hay Lake Road (PA)	Highway 127	2.4km West of Highway 127 (Civic 510)	2.400	**6**	**19**	**2021**	**80**
RD700	McRae-Hay Lake Road (UP)	North Road	End	2.480	**6**	**19**		**80**
RD710	Bennett Road	McRae-Hay Lake Road	End	2.360	**6**	**5**		**80**
RD736	McKenzie Lake Road	South McKenzie Lake Road	Highway 127	1.560	**6**	**45**	**2021**	**80**
RD730	McKenzie Lake Road	Highway 127	Proven Line	1.580	**6**	**45**	**2021**	**80**
RD732	McKenzie Lake Road	Proven Line	North McKenzie Lake Road	2.460	**6**	**45**	**2021**	**80**
RD734	McKenzie Lake Road	North McKenzie Lake Road	South McKenzie Lake Road	3.190	**6**	**45**	**2021**	**80**
RD740	South McKenzie Lake Road	McKenzie Lake Road	End	2.600	**6**	**5**		**80**
RD750	North McKenzie Lake Road	McKenzie Lake Rd.	Civic #681 (Moosemeat Archery)	3.410	**6**	**36**		**80**
RD752	North McKenzie Lake Road	Civic #681 (Moosemeat Archery)	Henry Coglan Drive	2.800	**6**	**36**		**80**
RD755	North McKenzie Lake Road	Henry Coglan Drive	End	2.310	**6**	**36**		**80**
RD760	Henry Coglan Drive	North McKenzie Lake Road	End	1.900	**6**	**5**		**80**
RD770	Proven Line	McKenzie Lake Road	Pastwa Lake Road	1.720	**6**	**10**		**80**
RD780	Pastwa Lake Road	Proven Line	2.7 km East of Proven Line	2.400	**6**	**10**		**80**
RD785	Pastwa Lake Road	2.7 km East of Proven Line	End	3.080	**6**	**5**		**80**
RD790	Kuiack Road	Pastwa Lake Road	End	0.500	**6**	**1**		**80**
RD791	Kenny Road	Paradise	End	0.200	**6**	**25**		**50**
				122.085				

THE CORPORATION OF
THE TOWNSHIP OF SOUTH ALGONQUIN

BY-LAW NO.

BEING A BY-LAW TO REGULATE THE OPERATION OF ALL-TERRAIN VEHICLES ON MUNICIPAL HIGHWAYS WITHIN THE TOWNSHIP OF SOUTH ALGONQUIN

WHEREAS the Highway Traffic Act, Section 191.8, subsection (3), as amended, provides that the Council of a Municipality may pass by-laws permitting the operation of All Terrain Vehicles on any highway within the Municipality that are under the jurisdiction of the Municipality or any part or parts of such highways;

And whereas as of July 1st, 2020 extreme terrain vehicles and off-road motorcycles can also be specifically permitted by the municipality on any highway within the Municipality that is under the jurisdiction of the Municipality or any par or parts of such highways;

AND WHEREAS the Council of the Municipal Corporation of the Township of South Algonquin deems it in the best public interest to regulate the operation of All Terrain Vehicles including extreme terrain and off-road motorcycles within the Municipality.

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF SOUTH ALGONQUIN ENACTS AS FOLLOWS:

1. Notwithstanding any other by-law to the contrary, the operation of All Terrain Vehicles including extreme terrain and off-road motorcycles shall be permitted on all highways under the jurisdiction of the Corporation of the Township of South Algonquin.

2. All of the provisions of Ontario Regulation 316/03, Operation of Off-Road Vehicles on Highways, as amended, shall apply to this by-law.

3. Any person who contravenes any section of this by-law is guilty of an offence and upon conviction is liable to a fine as provided for in The Provincial Offences Act.

4. This By-Law shall come into force and take effect on the day of its passing and shall remain in effect until otherwise amended or repealed.

READ A FIRST & SECOND TIME THIS DAY OF READ A THIRD TIME AND

PASSED THIS DAY OF SEPTEMBER

_____ _____

Ethel Lavalley, Mayor Bryan Martin, CAO/Clerk-Treasurer