

ASSET MANAGEMENT PLAN



Table of Contents

List of Tables	7
List of Figures	9
Executive Summary	12
Introduction	13
Background	14
Scope and Compliance	14
Glossary	15
Definitions	15
List of Acronyms	16
Key Concepts in Asset Management	17
Lifecycle Management Strategies	17
Risk and Criticality	18
Probability of Failure (PoF)	18
Consequence of Failure (CoF)	18
Levels of Service	18
Community Levels of Service	19
Technical Levels of Service	19
Current and Proposed Levels of Service	19
Asset Condition	19
State of Infrastructure	21
Asset Hierarchy and Asset Inventory Overview	21
Condition Data	23
Condition Overview	24
Risk and Criticality Overview	25
Road Network	27
Asset Inventory and Valuation	27
Age and Condition	29
Age	29
Condition	30
Roads	31
Sidewalks	32
Paths & Trails	34
Levels of Service	36

Current Levels of Service	36
Proposed Level of Service	
Lifecycle Management Activities	
High-Class Bitumen (HCB – known as Asphalt) Roads	
Low-Class Bitumen (LCB – known as Surface Treated, Tar and Chip) Roads	
Gravel Roads	
Earth Roads	
Sidewalks	
Trails	45
Streetlights	45
Risk and Criticality Analysis	45
Financial Strategy	47
Cost Efficiency	47
Financial Forecast	47
Bridges and Structural Culverts	49
Asset Inventory and Valuation	49
Age and Condition	50
Age	50
Condition	50
Bridges and Footbridges	52
Structural Culverts	53
Level of Service	55
Current Level of Service	55
Proposed Level of Service	59
Lifecycle Management Activities	59
Risk and Criticality Analysis	59
Financial Strategy	60
Cost Efficiency	60
Financial Forecast	60
Stormwater Management	61
Asset Valuation and Inventory	61
Age and Condition	63
Age	63
Condition	64
Notes and Assumptions	65
Township of Ramara	

Stormwater Management Ponds	65
Level of Service	65
Current Level of Service	65
Proposed Level of Service	66
Lifecycle Management Activities	70
Lake Outlets	70
Stormceptor	70
Stormwater Management Ponds	70
Maintenance Holes, Catch Basins, Linear Storm Sewers and Ditch Inlets	70
Risk and Criticality Analysis	70
Financial Strategy	71
Cost Efficiency	71
Financial Forecast	71
Fleet	72
Asset Inventory and Valuation	72
Age and Condition	
Age	73
Condition	
Licensed Vehicles	75
Unlicensed Equipment	76
Level of Service	
Current Level of Service	77
Proposed Level of Service	77
Lifecycle Management Activities	
Risk and Criticality Analysis	
Financial Strategy	
Cost Efficiency	
Financial Forecast	
Buildings and Structures	81
Asset Inventory and Valuation	
Age and Condition	
Age	
Condition	
Level of Service	
Current Level of Service	
Township of Ramara	

Proposed Level of Service	84
Lifecycle Management Activities	84
Risk and Criticality Analysis	85
Financial Strategy	86
Cost Efficiency	86
Financial Forecast	87
Information Technology	88
Asset Inventory and Valuation	88
Age and Condition	89
Age	89
Condition	90
Level of Service	91
Current Level of Service	91
Proposed Level of Service	92
Lifecycle Management Activities	92
Risk and Criticality Analysis	92
Financial Strategy	94
Cost Efficiency	94
Financial Forecast	94
Other Assets	95
Asset Inventory and Valuation	95
Financial Strategy	95
Cost Efficiency	95
Machinery and Equipment	96
Asset Inventory and Valuation	96
Age and Condition	97
Age	97
Condition	98
Fire Services Equipment	99
Maintenance and Other Machinery and Equipment	99
Level of Service	100
Current Level of Service	100
Fire Service Equipment	101
Maintenance and Other Machinery Equipment	101
Proposed Level of Service	101

Lifecycle Management Activities	101
Risk and Criticality Analysis	102
Financial Strategy	103
Cost Efficiency	103
Financial Forecast	103
Land and Land Improvements	105
Asset Inventory and Valuation	105
Age and Condition	106
Age	106
Condition	107
Level of Service	108
Current Level of Service	108
Proposed Level of Service	109
Lifecycle Management Activities	109
Risk and Criticality Analysis	109
Financial Strategy	110
Cost Efficiency	110
Financial Forecast	110
Financial Strategies and Frameworks	112
Annual Capital Requirements and Reinvestment	113
Infrastructure Funding Framework	114
Current and Proposed Infrastructure Funding Framework	114
Population and Growth	115
Background Information and Report	117
Annual Review and Updates	117
Recommendations	117

List of Tables

Table 1: Ontario Regulation 588/17 Requirements and Reporting Deadlines	14
Table 2: Lifecycle Management Activities	17
Table 3: Asset Condition Index Overview	20
Table 4: Asset Summary	21
Table 5: An Overview of Condition Data vs. Age Based Data	23
Table 6: Asset Inventory and Valuation of Road Network	27
Table 7: Community Levels of Service Metrics	36
Table 8: Technical Levels of Service Metrics	36
Table 9: Levels of Road Class for the Pavement Condition Index	37
Table 10: Classification of Highways as per O.Reg. 239/02: MMS	41
Table 11: Current Lifecycle Activities for HCB Asset Class	42
Table 12: Current Lifecycle Activities for LCB Asset Class	43
Table 13: Current Lifecycle Activities for Gravel Road Asset Class	44
Table 14: Cost Efficiency Table of Road Network Assets	
Table 15: Asset Inventory and Valuation of Bridge and Structural Culvert Network	49
Table 16: Bridge Condition Index as Outlined by the Ministry of Transportation (MTO)	50
Table 17: Community Levels of Service Metrics	55
Table 18: Technical Levels of Service Metrics	55
Table 19: Description and Images of Bridge Conditions	56
Table 20: Description and Images of Structural Culvert Conditions	57
Table 21: Cost Efficiency Table of Bridge and Structural Culvert Network	
Table 22: Asset Inventory and Valuation of the Stormwater Management Network	62
Table 23: Stormwater Pond Condition Criteria	
Table 24: Community Levels of Service Metrics	65
Table 25: Technical Levels of Service Metrics	66
Table 26: Cost Efficiency Table of Stormwater Management Network	71
Table 27: Asset Inventory and Valuation of the Fleet Network	
Table 28: Community Levels of Service Metrics	77
Table 29: Technical Level of Service Metrics	77
Table 32: Current Lifecycle Activities	78
Table 33: Cost Efficiency Table of the Fleet Network	79
Table 34: Asset Inventory and Valuation of Buildings and Structures	81
Table 35: Community Levels of Service Metrics	
Table 36: Technical Levels of Service Metrics	84
Table 39: Current Lifecycle Activities	84
Table 40: Cost Efficiency Table of Buildings and Structures	87
Table 41: Asset Inventory and Valuation of Information Technology	
Table 42: Community Levels of Service Metrics	
Table 43: Technical Levels of Service Metrics	
Table 46: Lifecycle Activities for Information Technology	92
Table 47: Cost Efficiency Table for Information Technology	
Table 48: Asset Inventory and Valuation of the Undefined Assets	
Table 50: Asset Inventory and Valuation for Machinery and Equipment	
Table 51: Community Levels of Service Metrics	

Table 52: Technical Levels of Service Metrics	101
Table 53: Community Levels of Service Metrics	101
Table 54: Technical Levels of Service	101
Table 55: Lifecycle Activities for Machinery and Equipment	101
Table 56: Cost Efficiency Table for Machinery and Equipment	103
Table 57: Asset Inventory and Valuation of Land and Land Improvements	105
Table 58: Community Levels of Service	108
Table 59: Technical Levels of Service Metrics	108
Table 60: Lifecycle Activities for Land and Land Improvement Assets	109
Table 61: Cost Efficiency Table for Land and Land Improvements	110
Table 62: 2025-2034 Average Annual Capital Summary in Millions of Dollars	113
Table 63: Cost Efficiency Table of All Assets	114
Table 64: Total Growth Replated Projects vs. Development Charge Reserves	116

List of Figures

Figure 1: Asset Management Framework	13
Figure 2: Replacement Cost per Asset Category	22
Figure 3: Replacement Cost per Asset Category (percentage)	23
Figure 4: Asset Condition for Assessed Assets	24
Figure 5: Replacement Cost Distribution based on Condition	25
Figure 6: Asset Risk Distribution	
Figure 7: Asset Risk Distribution by Replacement Cost	26
Figure 8: Replacement Cost for Road Network Assets	28
Figure 9: Replacement Cost for Road Network (Percentage)	29
Figure 10: Asset Age Summary of Road Network Assets	29
Figure 11: Road Network Asset Condition Summary	30
Figure 12: Road Network Condition by Replacement Cost	30
Figure 13: Road Asset Condition Distribution	
Figure 14: Road Asset Condition Distribution by Replacement Cost	32
Figure 15: Sidewalk Asset Condition Distribution	
Figure 16: Sidewalk Asset Condition Distribution by Replacement Cost	33
Figure 17: Path & Trail Asset Condition Distribution	
Figure 18: Path & Trail Asset Condition Distribution by Replacement Cost	
Figure 19: Streetlight Condition Distribution	
Figure 20: Streetlight Condition Distribution by Replacement Cost	
Figure 21: Map of the Road Surface Type	
Figure 22: Map of the Road Conditions	
Figure 23: Deterioration Curve with Maintenance Events of an HCB Road	
Figure 24: Deterioration Curve with Maintenance Events of an LCB Road	
Figure 25: Deterioration Curve with Maintenance Events of a Gravel Road	44
Figure 26: Road Network Asset Risk Distribution	
Figure 27: Road Network Asset Risk Distribution by Replacement Cost	
Figure 28: Road Network Funding vs. Average Annual Funding	
Figure 29: Bar Chart of Replacement Costs for Bridge Network Assets	
Figure 30: Age Summary of Bridge Network Assets	50
Figure 31: Bridge Network Asset Condition Summary	
Figure 32: Bridge Network Condition by Replacement Cost	51
Figure 33: Bridge Asset Condition Distribution	
Figure 34: Bridge and Footbridge Asset Condition Distribution by Replacement Cost	53
Figure 35: Structural Culvert Asset Condition Distribution	
Figure 36: Structural Culvert Asset Condition Distribution by Replacement Cost	
Figure 37: Map of Locations and Condition of Bridge Assets	
Figure 38: Bridge Network Asset Risk Distribution	
Figure 39: Asset Risk Distribution by Replacement Cost	
Figure 40: Road Network Funding vs. Average Annual Funding	
Figure 41: Replacement Costs for Stormwater Network Assets	
Figure 42: Replacement Costs for Stormwater Network Assets as a Percentage	
Figure 43: Asset Age Summery of Stormwater Network Assets	
Figure 44: Stormwater Network Condition by Asset Class	

Figure 45: Stormwater Network Condition by Repalcement Cost	64
Figure 46: Map of Stormwater Asset Locations	
Figure 47: Lake Simcoe Flood Plain and Shoreline Flood Hazard Mapping	68
Figure 48:Flood Plain Mapping for Black River Watershed	69
Figure 49: Stormwater Network Risk Distribution	71
Figure 50: Replacement Costs for Fleet Assets	72
Figure 51: Replacement Cost for Fleet Assets as a Percentage	73
Figure 52: Asset Age Summary for Fleet Assets	73
Figure 53: Fleet Assets Condition Distribution	74
Figure 54: Fleet Assets Condition Distribution by Replacement Cost	
Figure 55: Licensed Vehicles Condition Distribution	
Figure 56: Licensed Vehicle Condition by Replacement Cost	75
Figure 57: Unlicensed Equipment Condition Distribution	
Figure 58: Unlicensed Equipment Condition by Replacement Cost	
Figure 59: Fleet Risk Distribution	
Figure 60: Fleet Asset Risk Distribution by Replacement Cost	
Figure 61: Fleet Funding vs. Average Annual Funding	
Figure 62: Replacement Costs for Building and Structure Assets	
Figure 63: Replacement Costs for Building and Structures by Percentage	
Figure 64: Average Age Summary of Building and Structure Assets	
Figure 65: Building and Structure Condition Summary	
Figure 66: Building and Structure Assets by Replacement Cost	
Figure 67: Building and Structure Risk Distribution	
Figure 68: Building and Structure Risk Distribution by Replacement Cost	
Figure 69: Building and Structures Funding vs. Average Annual Funding	
Figure 70: Replacement Cost for Information Technology Assets	
Figure 71: Replacement Cost for Information Technology Assets by Percentage	
Figure 72: Average Age Summary of IT Assets	
Figure 73: IT Condition Distribution	
Figure 74: Information Technology Asset Condition by Replacement Cost	
Figure 75: Asset Risk Distribution.	
Figure 76: Risk Distribution by Replacement Cost	
Figure 77: Information Technology Funding vs. Average Annual Funding	94
Figure 78: Replacement Cost for Machinery and Equipment Assets	
Figure 79: Replacement Cost Percentage for Machinery and Equipment	
Figure 80: Average Age Summary for Machinery and Equipment	
Figure 81: Asset Condition Distribution	
Figure 82: Asset Condition by Replacement Cost	
Figure 83: Fire Service Equipment Condition Distribution	
Figure 84: Fire Service Equipment Condition Distribution by Replacement Cost	
Figure 85: Maintenance and Other Machinery Asset Condition Distribution	
Figure 86: Asset Condition Distribution by Replacement Cost	
Figure 87: Asset Risk Distribution.	
Figure 88: Asset Risk Distribution by Replacement Cost	
Figure 89: Machinery and Equipment Funding vs. Average Annual Funding	
Figure 90: Replacement Cost for Land Assets	
Figure 91: Average Age Summary of Land Assets	

Figure 92: Land Asset Condition Distribution	107
Figure 93: Asset Condition Distribution by Replacement Cost	108
Figure 94: Asset Risk Distribution	110
Figure 95: Land Asset Funding vs. Average Annual Funding	111
Figure 96: Forecasted 10-year Average Capital Requirements including Backlog	112
Figure 97: Forecasted 10-year Average Capital Requirements excluding Backlog	113
Figure 98: All Assets Annual and Average Capital Requirement – 10-Year Forecast	115
Figure 99: All Assets Annual and Average Capital Requirement – 10-Year Forecast Include	ding
Growth	116

Executive Summary

In response to the Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure under the *Infrastructure for Jobs and Prosperity Act*, staff of the Township of Ramara have been working diligently to ensure alignment with the 2025 Regulatory Requirements. This Asset Management Plan (AMP) will outline and expand on requirements for meeting the July 1, 2025, deadline. Staff have gathered asset information for Core and Non-Core assets which include the road network, bridges, structural culverts, stormwater management networks, vehicles and equipment, major and minor buildings, parklands and outdoor recreation.

This AMP analyzes the Township's assets and classifies them into nine (9) different asset categories. The total replacement cost has been calculated by using historical costs which have been inflated to represent present day cost.

There are two methods utilized for the determination of the condition of assets: physical/technical inspection or age-based estimate. In this plan, 69% of condition data has been compiled by in-person inspection. Future improvements to the plan include aiming to collect as much in-person inspection for condition rating. In this AMP, it will be identified if the condition is assessed or age-based data.

Overall, the Township's AMP highlights:

- The Township owns and maintains 2,118 assets.
- The estimated replacement cost of all assets is approximately \$185 million.
- The road network accounts for the most significant investment, over \$118 million.
- This AMP provides insight into the existing \$90.6M backlog of asset replacement.
- An average of \$7.7million in annual capital funding is projected and has been distributed across asset categories according to replacement costs forecasted over the next 10 years, including existing backlog.
- Condition of the assessed assets (69%) indicate that more than half of the assets are in Fair, Good, or Very Good state of repair.

Recommendations to improve the AMP in the next review period include investing in data governance to develop the asset inventory, including processes to manage the inspection, lifecycle operations, and leveraging tools such as the Township's asset management software system to provide more robust and accurate data to be utilized in long term financial planning.

Introduction

Asset management is an integrated, lifecycle approach to allow the effective stewardship of infrastructure assets within the Township to maximize benefits, manage risk and provide satisfactory levels of service to the public in a sustainable manner.

The purpose of this AMP is to expand the previous plans as a requirement of the Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure under the Infrastructure for Jobs and Prosperity Act.

The Township of Ramara's Asset Management Plan is a working document, which is continuously being refined as better and more concrete information becomes available and will be updated every five years, at the least. Figure 1 shows how the wheel of asset management is a never-ending cycle which evolves and moves forward on a continuous basis.



Figure 1: Asset Management Framework

Capital assets are classified using the Tangible Capital Asset Policy (TCA), with some exceptions. Any asset that does not meet the threshold outlined in the TCA, but falls into a pooled asset category, should still be captured and managed separately to ensure asset management activities are carried out in the required manner. For example, individual laptops

used for corporate business are not tracked; however, they are managed as a pooled asset of all laptops combined.

It is important to note that the AMP's inventory includes some assets that are not financially owned by the Township, but are financially vested in. These assets usually do not fall under the TCA, however, are included in the capital and asset management planning process.

Background

In 2015, the Province of Ontario passed the *Infrastructure for Jobs and Prosperity Act*, which affirmed the role that municipal infrastructure systems plan in supporting the vitality of local economies. Once reviewed, the province created the *Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure under the Infrastructure for Jobs and <i>Prosperity Act*.

This regulation further expands on the Building Together guide, mandating specific requires for municipal Asset Management Policies and Asset Management Plans phased in over a five-year period. This regulation is a key, mandated driver of asset management planning and reporting and places substantial emphasis on current and proposed levels of service and the lifecycle costs incurred in delivering them.

Table 1: Ontario Regulation 588/17 Requirements and Reporting Deadlines

Requirement	2019	2022	2024	2025
Asset Management Policy	•	•		
Asset Management Plans		•	•	•
State of infrastructure for core assets		•		
State of infrastructure for all assets			•	•
Current levels of service for core assets		•		
Current levels of service for all assets			•	
Proposed levels of service for all assets				•
Lifecycle costs associated with current levels of service		•	•	
Lifecycle costs associated with proposed levels of service				•
Growth impacts		•	•	•
Financial strategy				•

Scope and Compliance

The scope of this AMP includes all the requirements of the 2025 deadline to ensure compliance and includes all core and non-core assets. The Township's operating authority for drinking water and wastewater services, the Ontario Clean Water Agency (OCWA), provides the AMP for the water and wastewater network separately. This was endorsed by Council on October 16, 2023.

Glossary

Definitions

Arterial Road: A Class 1 or Class 2 highway as determined in the Table 10 which is identified under Ontario Regulation 239/02 – Minimum Maintenance Standards for Municipal Highways, made under the Municipal Act, 2001.

Asset: Anything that has value to an organization. An asset extends beyond physical goods or hardware, and includes software, information, people, and reputation.

Asset Management: An integrated, lifecycle approach to allow the effective stewardship of infrastructure assets within the Township to maximize benefits, manage risk and provide satisfactory levels of service to the public in a sustainable manner.

Asset Management Policy: A plan to manage identified assets to meet corporate goals and objectives to best serve constituents.

Collector Road: A Class 3 or Class 4 highway as determined in Table 10 which is identified under Ontario Regulation 239/02 – Minimum Maintenance Standards for Municipal Highways, made under the Municipal Act, 2001.

Consequence of Failure (CoF): The result of an asset reaching functional failure, which is measured as the impact or significance of the corporation or its stakeholders.

Core Infrastructure Asset: Any municipal infrastructure asset that is part of the:

- a. Road Network,
- b. Bridges, or
- c. Stormwater Management Network.

Estimated Useful Life (EUL): An estimate of the average number of years an asset is considered useable before its value is fully depreciated.

Lane Kilometre: A kilometre long segment of roadway that is a single lane in width.

Local Road: A Class 5 or Class 6 highway as determined in Table 10 which is identified under Ontario Regulation 239/02 – Minimum Maintenance Standards for Municipal Highways, made under the Municipal Act, 2001.

Municipal Finance Officers' Association of Ontario (MFOA): The professional association of municipal finance officers.

Municipal Infrastructure Asset: An infrastructure asset, including green infrastructure assets, directly owned by the Township or included on the consolidated financial statements of the Township, but does not include an infrastructure asset that is managed by a join municipal water board.

Non-Core Infrastructure Asset: Any municipal infrastructure asset that is part of the:

- a. Fleet Inventory,
- b. Facilities Inventory,

- c. Land Inventory, or
- d. Outdoor Recreation.

Probability of Failure (PoF): The likelihood of an asset reaching functional failure based on realistic forecasts.

Replacement Value: An estimate of the amount the Township would have to pay to replace an asset at the present time.

Structural Culvert: A culvert which has a span that is greater than or equal to 3 m.

Tangible Capital Asset (TCA): A financial policy approved by the Township describing the method of financially recording assets.

Township: The Corporation of the Township of Ramara.

List of Acronyms

AADT - Average Daily Traffic

AMP - Asset Management Plan

AM – Asset management

AODA - Accessibility for Ontarians with Disabilities Act

BCI – Bridge Condition Index

CoF - Consequence of Failure

EAMS - Enterprise Asset Management System

HCB – High-Class Bitumen (Asphalt)

HVAC - Heating, Ventilation, and Air Conditioning

IT – Information Technology

KPI – Key Performance Indicator

LCB – Low-Class Bitumen (Tar and Chip or Surface Treatment)

LOS - Levels of Service

LSRCA – Lake Simcoe Region Conservation Authority

NFPA - National Fire Prevention Association

MFIPPA – Municipal Freedom of Information and Protection of Privacy Act

MFOA – Municipal Finance Officers' Association of Ontario

MNRF - Ministry of Natural Resources and Forestry

MTO – Ministry of Transportation of the province of Ontario

OSIM - Ontario Structure Inspection Manual

PCI – Pavement Condition Index

PoF – Probability of Failure

PSAB PS 3150 – Public Sector Accounting Board, Public Sector Sections 3150

TCA - Tangible Capital Asset

Key Concepts in Asset Management

Effective asset management planning includes many key concepts and components which assists in optimizing the performance, costs, and associated risks throughout their lifecycle. This AMP will take a high-level look at identified asset categories to provide information regarding lifecycle management, risk management, levels of service, current asset conditions and capital forecasting to help the Township ensure sustainable service delivery and financial planning.

Lifecycle Management Strategies

Asset deterioration has a negative impact on the assets ability to fulfill its intended function and could lead to increased cost, risk or a delay in service delivery. By creating lifecycle management strategies, the Township can monitor the assets condition and performance to ensure the Corporation remains proactive with maintenance, repair, rehabilitation and replacement activities.

By creating effective lifecycle management strategies, which will change depending on the asset type, staff will be able to determine which activities to perform and when they should be performed to maximize the useful life of the asset at the lowest cost possible.

Table 2 provides a description of each type of the generalized lifecycle management activity and provide an idea in the difference of cost and typical risks associated with each.

Table 2: Lifecycle Management Activities

Lifecycle Activity	Description	Cost	Typical Risk Associated
Maintenance/ Repair	Activities to prevent defects from occurring or worsening	\$	 Choosing between planned maintenance and reactive or emergency repairs. Action may not extend the useful life of the asset and may not be optimal.
Rehabilitation/ Renewal	Activities that remediate defects that are present	\$\$\$	May have increased cost in the long term.Potential loss or disruption of a service.
Replacement/ Reconstruction	End-of-life activities that replaces the asset	\$\$\$\$	 Costs associated with asset disposal. Potential loss or disruption of service. Unable to replace asset likefor-like.

Risk and Criticality

Risk and criticality are an integral component when prioritizing projecting and distributing funds where they are needed most. Assets that fail to perform to intended function could pose catastrophic risk to stakeholders, the environment, and to the Township potentially leading to unexpected expenditures that could place the Township in legal jeopardy. There are also assets within the asset inventory that deliver essential services to community members and failure of these assets could impact public health and safety.

One main goal of this AMP is to determine an optimal balance between managing costs of service delivery, the risk of the service delivery to the asset, and to reduce risk levels where they are deemed too high.

To successfully determine risk and criticality of assets, staff has used the following formula:



Probability of Failure (PoF)

There are many factors that can contribute to the probability of failure of assets and can differentiate between asset classes. The PoF assessment can include the condition of the asset, its age, performance history, and weather exposure.

Consequence of Failure (CoF)

Consequence of failure uses factors that harbour consequences to the organization and community because of asset failure, which helps to determine the magnitude of those consequences. CoF will vary depending on the asset class as hazards may differentiate between financial value, loss of service delivery, public health or safety hazard, or a consequence impacting the environment.

Each asset included in this AMP will have its own probability of failure rating well as the consequence of failure rating which will help identify the current risk ratings of that asset. It is important to note that risk ratings rely on many factors and an asset that may be listed as having a poor condition rating may still have a fairly low risk rating.

Levels of Service

Level of Service (LOS) is the expected performance of an asset and can help inform the financial and lifecycle management strategies. LOS is usually directly linked with any strategic master plans and usually maintains technical and operational requirements of the infrastructure.

When determining both community and technical levels of service, staff have ensured follow the 'SMARTER' principles, supported by the Municipal Finance Officers Association of Ontario (MFOA), where possible.

Specific: the measure should define results to be accomplished for a specific aspect of the service objective.

Measurable: the measure should define a quantity, quality, or cost.

Achievable: the target should be realistic, not a sketch target or an easy target.

Relevant: the measure supports an organizational goal and provides a clear picture of whether the service is being provided.

Timebound: the measure specifies the frequency of actions or due date.

Evaluation: the Township should do ongoing evaluation of the appropriateness of the measure.

Re-Assess: the Township should review and update their levels of service to reflect new knowledge or the changing business context.

Community Levels of Service

Community level of service usually describes what the community should expect to receive and is generally expressed in terms that make sense to them and are qualitative in nature.

For example:

 All bridges within the Township will be designed to carry transport trucks, motor vehicles, emergency vehicles, pedestrians, and cyclists and in accordance with the requirements of the Bridge Design Code at the time of construction.

Technical Levels of Service

Technical levels of services are measures that usually describe the performance and the condition of the asset and are quantitative in nature.

For example:

- The percentage of bridges within the Township that have a load or dimensional restriction.
- The average Bridge Condition Index (BCI) value.

Current and Proposed Levels of Service

This AMP will present both current and proposed level of service for each asset class, in accordance with Ontario Regulation 588/17.

When determining proposed level of service, staff has considered several factors that include community expectations, available funding, any required regulatory requirements, corporate strategic goals, and sustainability of the Township. This AMP will also include lifecycle management and financial strategies which will allow the proposed level of service to be achieved.

Asset Condition

The condition of an asset provides information regarding where an asset is currently in its lifecycle. It is an integral piece of information when identifying future capital spending to ensure minimal impact to service delivery while minimizing risk as much as possible. Condition of

Township of Ramara

Asset Management Plan 2025 www.ramara.ca

assets has been acquired either by a consultant or the appropriate staff within the Township. Condition rating scales can look very different, depending on the asset class.

For example, for a road, staff has utilized the Pavement Condition Index, which is the industry standard. For bridges, staff has utilized the Bridge Condition Index which has been provided by consultants hired by the Township. The table below provides a detailed explanation regarding how condition data is identified.

Table 3: Asset Condition Index Overview

Condition	PCI	Sidewalk Condition Scale	BCI	Stormwater Management Condition Index	Age-based (% of Service Life Remaining)	Description
Very Good	80-100	80-100	90-100	80-100	80-100 (80%-100% service life remaining)	New acquired or constructed asset and has no defects.
Good	70-79	60-79	75-89	60-80	60-80 (60%-79% service life remaining)	Some superficial deterioration evident and defects minimal.
Fair	60-69	40-59	70-74	40-60	40-60 (40%-59% service life remaining)	Obvious asset deterioration evident. Asset in good working condition but requiring maintenance and maintenance costs beginning to rise.
Poor	50-59	20-39	40-69	20-40	20-40 (20%-39% service life remaining)	Severe asset deterioration which will begin to impact service delivery. Maintenance costs are high.
Very Poor	0-49	0-19	0-39	0-20	0-20 (0%-29% service life remaining	Asset is beginning to or has failed. Asset requires replacement or full rehabilitation.

Asset condition identified by age-based data is used when evaluated condition data is not available. This information does not reflect an accurate representation of the asset, and it is recommended that staff work towards closing this data gap for future asset management plans to increase data confidence and accuracy.

State of Infrastructure

This section provides a high-level overview of the current condition of the infrastructure included in this AMP, offering insight into the present state of the assets. Each asset class is discussed in detail in a later part of this document.

Asset Hierarchy and Asset Inventory Overview

The following table outlines the current asset hierarchy which is used in the Township's asset inventory. By creating this hierarchy, it helps provide classifications and structure to municipal assets across all service areas.

Table 4: Asset Summary

Asset	Asset Class	Replacement	Average	Average
Category	1105 5 1 (4 1 1)	Cost	Condition	Age
	HCB Roads (Asphalt)	\$68,417,384	Good	44 Years
	LCB Roads (Tar/Chip or	\$27,583,299	Good	47 Years
	Surface Treatment)			
Road Network	Gravel Roads	\$20,162,173	Fair	98 Years
Road Network	Earth Roads	\$576,609	Very Poor	111 Years
	Sidewalks	\$417,841	Fair	24 Years
	Paths and Trails	\$687,235	Very Good	6 Years
	Streetlights	\$478,209	Good	11 Years
	Bridges	\$6,807,094	Poor	45 Years
Bridges	Footbridges	\$1,113,164	Good	7 Years
	Structural Culverts	\$3,794,904	Poor	51 Years
	Stormwater Ponds	\$86,611	Good	20 Years
Ctowns, water	Stormwater Linear	\$237,982	Very Good	14 Years
Stormwater	Lake Outlets	\$0	Good	5 Years
Management Network	Catch Basins,	\$85,058	Very Good	9 Years
Network	Maintenance Holes, Inlets			
	& Stormceptors			
Fleet	Licensed Vehicles	\$11,012,565	Fair	10 Years
rieet	Unlicensed Equipment	\$2,499.888	Fair	11 Years
	Major Buildings	\$21,769,317	Fair	30 Years
Buildings and	Minor Buildings	\$5,113,582	Good	21 Years
Structures	Office Equipment	\$443,188	Very Poor ¹	15 Years
	Office Furnishings	\$538,626	Very Poor ¹	20 Years
Information	Workstations	\$65,074	Very Poor ¹	9 Years
Information	Software	\$277,766	Very Poor ¹	10 Years
Technology	Printers	\$6,209	Very Poor ¹	10 Years
Machinery and	Fire Services Equipment	\$1,913,693	Poor ¹	12 Years
	Maintenance Equipment	\$401,369	Very Poor ¹	17 Years
	Other Machinery and	\$5,843,759	Poor ¹	12 Years
Equipment	Equipment			
Land and	Improved	\$0	Fair	34 Years
Land	Improved/Parkland	\$0	Unevaluated	70 Years
Improvements	Road Allowance	\$0	Unevaluated	69 Years

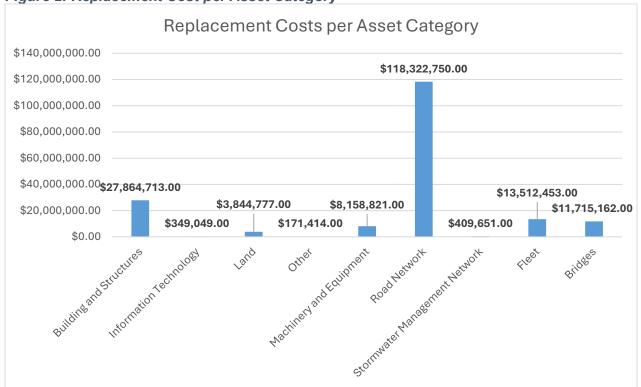
	Vacant	\$104,379	Unevaluated	34 Years
	Parkland	\$0	Unevaluated	52 Years
	Fencing	\$164,138	Fair	20 Years
	Landscaping	\$275,557	Very Poor ¹	30 Years
	Lighting	\$89,307	Poor ¹	17 Years
Paved Areas		\$505,206	Poor ¹	20 Years
	Recreation Assets	\$580,896	Fair	17 Years
	Marine Infrastructure	\$719,464	Very Poor ¹	45 Years
	Other	\$1,405,830	Very Poor ¹	25 Years
Other	Undefined Assets	\$171,414	Poor ¹	6 Years
Average Totals		Good	31 Years	

¹ Age-based data utilized for condition assessment.

The estimated replacement cost for all assets included in this plan is \$184,348,790.

As of April 7, 2025, the Township has nine (9) asset categories that have been broken into 38 asset classes and consist of a total of 2,118 assets. The replacement cost was calculated using inflated historical data to help show costs in current day value. Figure 2 and Figure 3 show an overview of replacement cost per category, indicating that the Roads Network has the highest replacement cost. Replacement cost for all categories has been updated to reflect 2025 pricing and show inventory refinement.

Figure 2: Replacement Cost per Asset Category



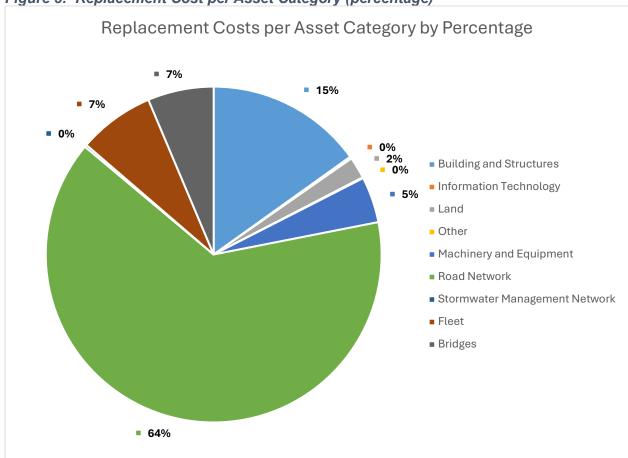


Figure 3: Replacement Cost per Asset Category (percentage)

Condition Data

Condition data has been gathered either by an outside consultant or by internal resources of the Township. This practice is usually the most credible data when looking at the true and current state of an asset and its ability to deliver its service or function as intended. If a condition assessment is not available, age-based data is used, which can help approximate the current condition of the asset.

The following table shows how the data has been captured for each asset category. Whether it is condition data, age-based data, and the percentage of each.

Table 5: An Overview of Condition Data vs. Age Based Data

Asset Category	Assessed Condition (%)	Age-Based Condition (%)	
Road Network	95%	5%	
Bridges	90%	10%	
Stormwater Management	99%	1%	
Network			
Fleet	70%	30%	
Buildings and Structures	46%	54%	
Information Technology	0%	100%	
Machinery and Equipment	7%	93%	

Township of Ramara Asset Management Plan 2025 www.ramara.ca

Land and Land	13%	87%
Improvements		
Other	0%	100%

Condition Overview

Based on condition and age-based data available, 54% of the Townships infrastructure assets are in fair, or better, condition. Figure 4 provides an overview of the current condition of all infrastructure assets within this AMP. The figure below also shows that 15% of assets are in poor or very poor condition and 31% remain unevaluated.

It is important to recognize that a well-developed AMP will always include some assets in poor or very poor condition. This indicates that those assets are being used for their full intended lifespan, rather than being replaced prematurely.

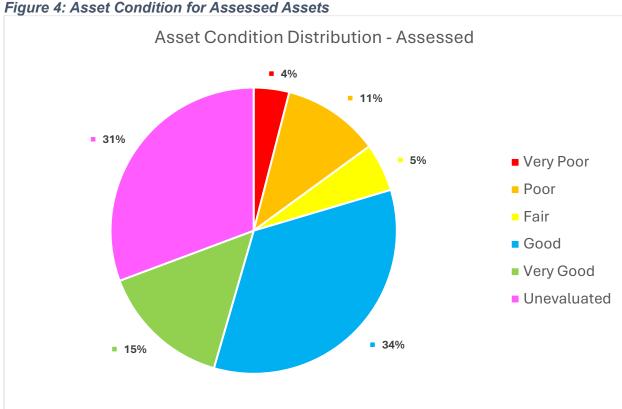


Figure 5 shows the replacement cost for each condition category for all assets accounted for in this AMP with the most expensive category being 'Very Good' at \$57,893,958.00.

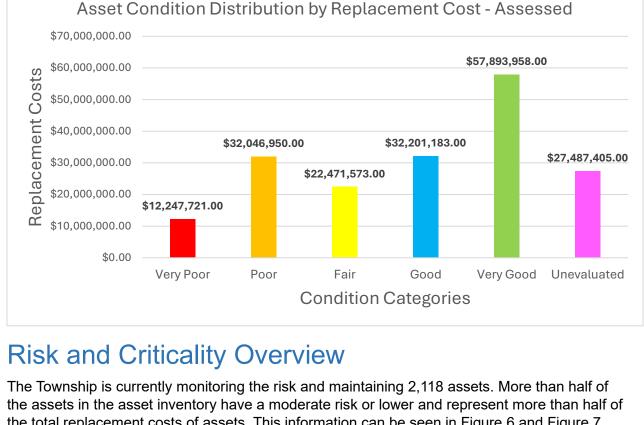


Figure 5: Replacement Cost Distribution based on Condition

the total replacement costs of assets. This information can be seen in Figure 6 and Figure 7.



Figure 6: Asset Risk Distribution



Figure 7: Asset Risk Distribution by Replacement Cost

Road Network

The Township's road network includes 353 kilometres of road which consists of earth, gravel, High Class Bitumen (HCB, also known as asphalt) and Low Class Bitumen (LCB, also known as surface treatment) surface types. The road network also includes 5 kilometres of sidewalk, approximately 10 kilometres of trails, 24 railway crossings, and 528 streetlights.

The current replacement value of the road network is \$118,322,750 and accounts for 64% of the overall replacement costs of the asset inventory included in this AMP, as highlighted in Figure 2.

Asset Inventory and Valuation

The following table provides a summary of assets in the Road Network category and its current valuation.

Table 6: Asset Inventory and Valuation of Road Network

Road Network Inventory					
Asset Category	Asset Class	Number of Assets	Replacement Value		
	HCB Roads	328	\$68,417,384.00		
	LCB Roads	159	\$27,583,299.00		
	Gravel Roads	181	\$20,162,173.00		
Road Network	Earth Roads*	24	\$576,609.00		
	Sidewalks	9	\$417,841.00		
	Paths & Trails	15	\$687,235.00		
	Streetlights	526	\$478,209.00		
Totals		1,242	\$118,322,750.00		

^{*}An earth road would not be rebuilt as an earth road. The road would be upgraded to a gravel road; however, most earth roads are not planned for replacement.

Figure 8 shows a further breakdown of this category valuation and highlights that HCB Roads have the highest replacement cost valuation within this asset category and roads, are the largest valuation of this category totalling \$116,739,465.

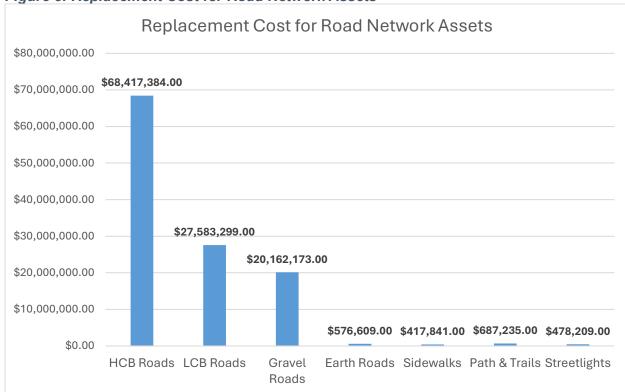


Figure 8: Replacement Cost for Road Network Assets

The replacement cost of HCB and LCB roads includes both the surface and the base of the asset. Condition assessments for the purpose of this AMP includes staff knowledge of the base of the roads. A road base tends to have a longer useful life than its surface however, many of the bases within the Township are in poor condition or past the useful life and should be considered for replacement when the road surface is replaced, if funding is available. As continual improvement, it is recommended the Township undertake a roads need study to improve the available data and to remove any bias, which is being completed in 2025.

Figure 9 breaks down the total replacement cost value for this category into percentages to offer a better visualization.

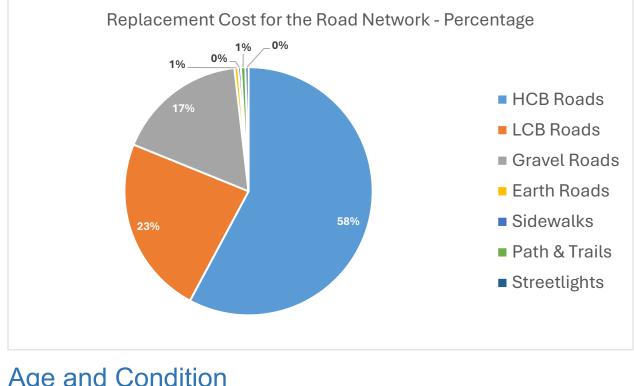
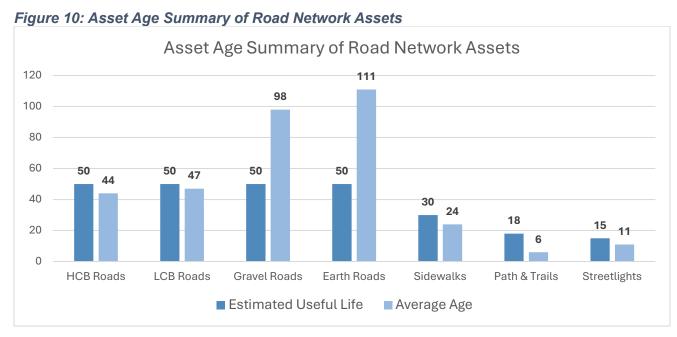


Figure 9: Replacement Cost for Road Network (Percentage)

Age and Condition

Age

A summary of the asset age for the road network assets is shown below in Figure 10. Most of the assets are nearing their estimated useful life, if not surpassed already.



Condition

A summary of the overall condition of road network assets can be seen in Figure 11. This chart highlights the most used assets, roads, within this category occupy the assets that are in fair or worse condition.

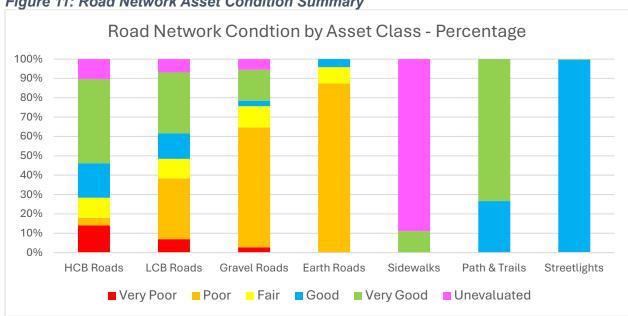
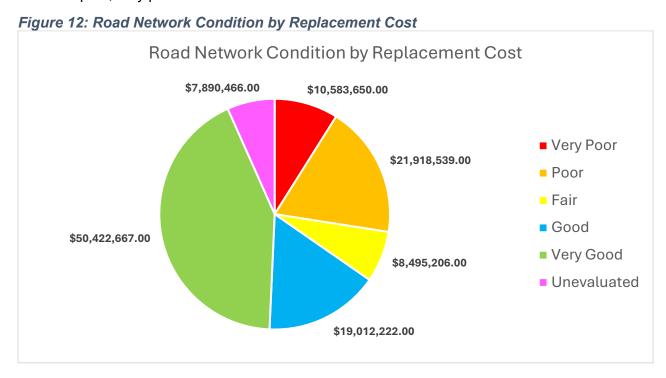


Figure 11: Road Network Asset Condition Summary

Figure 12 provides a visualization of the current condition of road network assets and the corresponding replacement cost where less than half of the total replacement cost is due to assets in poor, very poor or unevaluated condition.



Roads

The current road conditions were updated in 2021 using visual evaluations and a scale of 0-100. Roads were visually inspected for crocodile cracking, rutting, segregation, as well as drainage and ditching. It is recommended that the Township have a Road Condition update every five years. The goal is to achieve a consistent rating for the hard surface roads within the Township that can be used as a guide for maintenance and improvement planning to help achieve the desired level of service delivery.

Figure 13, highlights that out of the total number of road assets and Figure 14 emphasizes that 66% of road assets are in fair or better condition and represent \$79,719,542 of the total replacement cost of Roads asset categories.

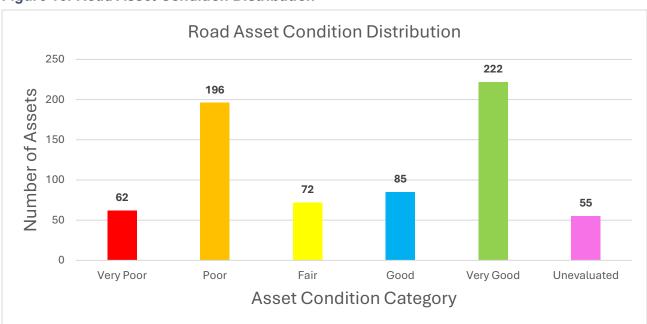


Figure 13: Road Asset Condition Distribution

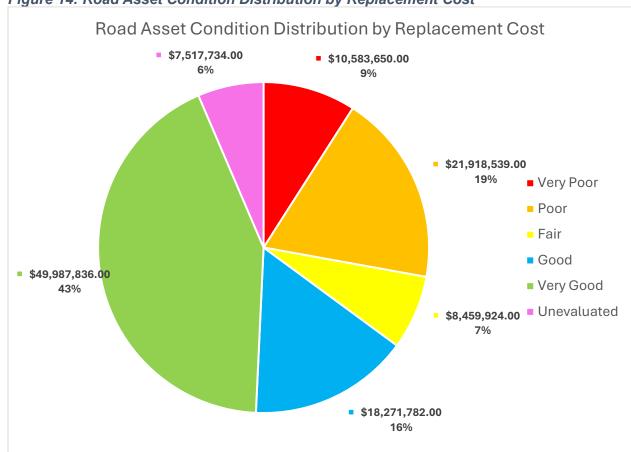


Figure 14: Road Asset Condition Distribution by Replacement Cost

Sidewalks

Sidewalks should be inspected annually using Citywide Maintenance Manager. During yearly inspections, the inspector would note any deficiencies as per Minimum Maintenance Standards and cracks across panels. Sidewalk sections are broken into 50 metre segments and given a condition rating based on incidence of cracks or deficiencies.

As per the most recent inspection, 5 sidewalk assets within the Township are in very good condition with the other 4 in good condition and is shown in Figure 15.



Figure 15: Sidewalk Asset Condition Distribution

Township of Ramara Asset Management Plan 2025 www.ramara.ca In the following chart, you will see that Figure 16 displays replacement costs for this asset class is split with \$207,054 of the costings for assets in good condition and \$210,787 of the costings for assets in very good condition.

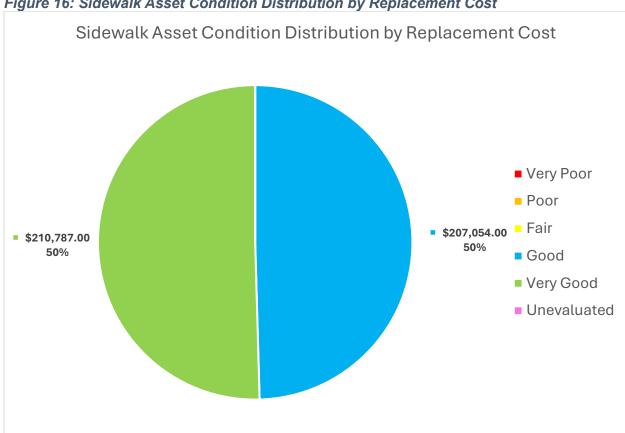


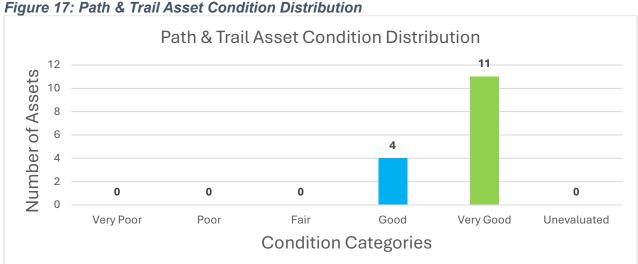
Figure 16: Sidewalk Asset Condition Distribution by Replacement Cost

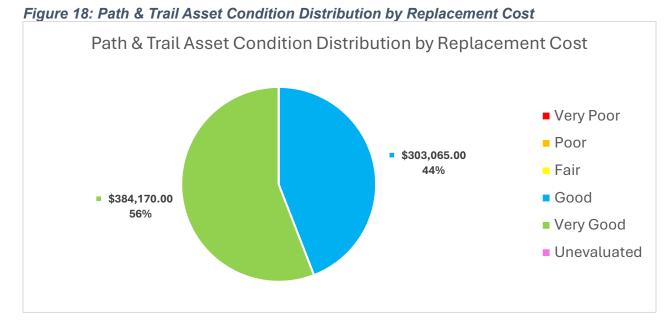
Paths & Trails

Trails are recommended to be inspected annually. Inspections are based mostly on the surface of the trail, ensuring inspectors note any disruptions in the surface. Trails within the Township are not hard surfaced and are comprised of either earth or gravel. The trail systems are improved by adding gravel or other surface materials when necessary. The Township's Trails Committee assist staff with new trail construction projects within the Township. Expansion projects are primarily funded by grants when the opportunities arise, with some municipal funding towards maintenance each year.

Figure 17 shows the majority of path and trail assets within the Township are in very good condition.

The assets that are in very good condition account for 56% of the total replacement cost of this asset class, as seen in Figure 18.





Township of Ramara Asset Management Plan 2025 www.ramara.ca

Streetlights

The Township of Ramara currently inspects streetlights as required by the Minimum Maintenance Standards and are repaired as reported to Township staff. It's important to note that all bulbs in municipal streetlights were replaced in 2012 with LED fixtures. Most streetlights within the Township are installed on hydro poles, which are not owned by the Township. The Township currently owns 32 concrete light poles which are in the Crossings and Margaret Orr Subdivisions. The 32 concrete poles have been rated in a fair condition due to being halfway through their estimated useful life.

Figure 19 and Figure 20 reveals that the majority streetlight assets within the Township are in good condition which represents 92% of the replacement cost of this asset class, which is \$437,375.

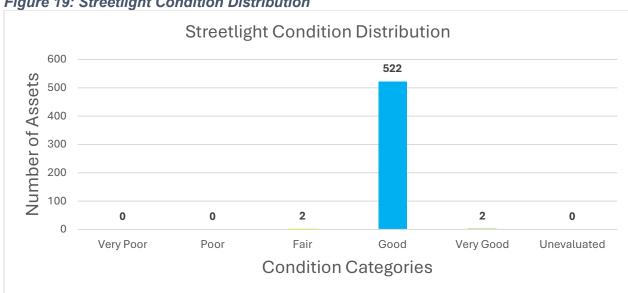
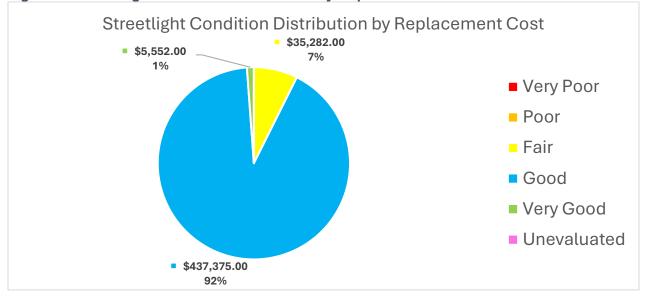


Figure 19: Streetlight Condition Distribution





Township of Ramara Asset Management Plan 2025 www.ramara.ca

Levels of Service

Current Levels of Service

The following table provides a summary of the current level of service with Key Performance Indicators (KPIs) prescribed, that are both qualitative and quantitative, under *Ontario Regulation* 588/17: Management Planning for Municipal Infrastructure under the Infrastructure for Jobs and Prosperity Act.

Table 7: Community Levels of Service Metrics

Service Attribute	Level of Service Measure	Performance	
Scope	Description, which may include maps, of the road network in the Township and its level of connectivity.	Please see Figure 21, a map that illustrates roads within the Township of Ramara. The road network is comprised of roads that range from MMS Class 3 through to and including Class 6.	
Quality	Description or images that illustrate the different levels of road class pavement condition.	To demonstrate the scale in which the hard surface roads were reviewed, please see Table 9.	

Table 8: Technical Levels of Service Metrics

Service Attribute	Level of Service Measure			Performance
Scope	Number of lane-kilometers of each arterial, collector and local roads as a proportion of square kilometers of lane area in the Township.	Road Classification Collector Local	Lane- Kilometer 164.4 558.16	Township Lane Area (km²) 418.82 The Township does not own or maintain any arterial roads.
Quality	For paved roads, the average pavement condition index value. For unpaved roads, the average surface condition (e.g. very good, good, fair, poor, very poor) To offer a better visualization, please see Figure of each road.			The average PCI condition for paved roads in the municipality is 73.32. The average condition for unpaved roads in the Township is Poor. e 22, which offers condition

Table 9: Levels of Road Class for the Pavement Condition Index

Condition	Is of Road Class for the Pavement Condition Description	Photo Example
Very Good	Smooth surface with appropriate crowning and stormwater management. No signs of surface wear or cracking.	
Good	Slight wear of the surface and some minor cracking.	
Fair	Cracks and stress evident on the road. Some crocodile cracking beginning to form.	
Poor	Crocodile cracking is established and beginning to spread.	
Very Poor	Crocodile cracking covers most of the surface. Hard surface is starting to break of resulting in numerous potholes.	

Figure 21: Map of the Road Surface Type

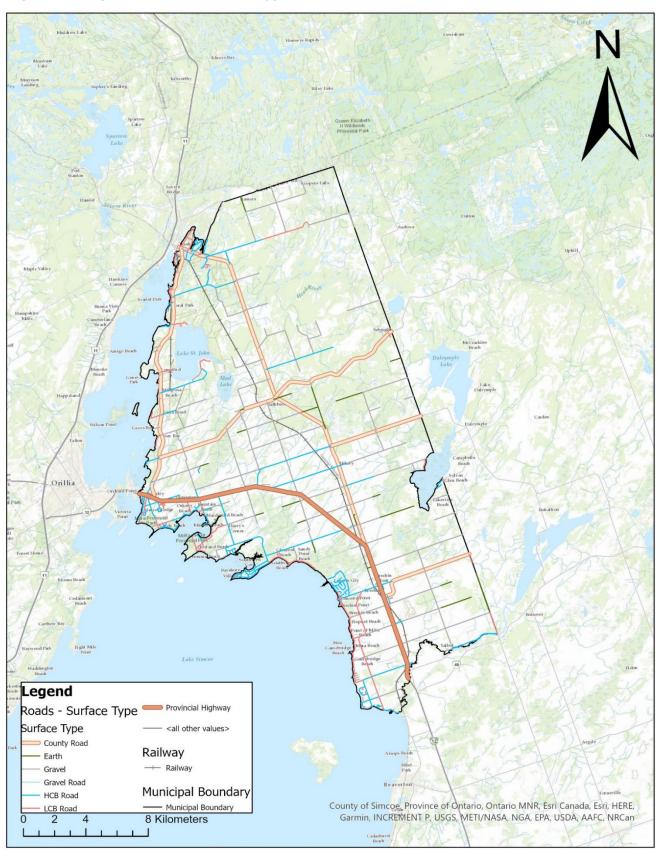
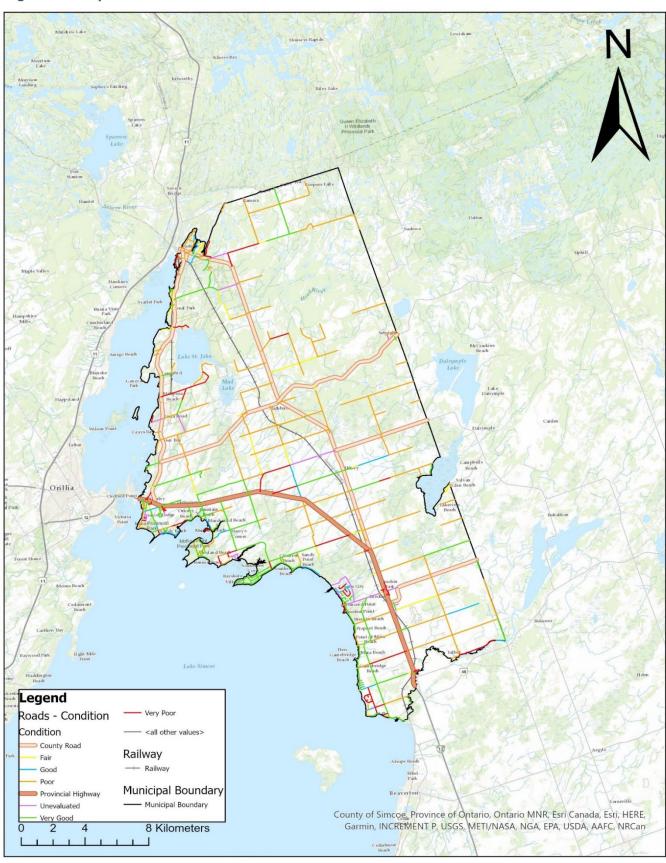


Figure 22: Map of the Road Conditions



Proposed Level of Service

The Township is committed to maintain the current level of service for assets included in this category, ensuring that infrastructure remains safe, reliable, and cost-effective for users. This commitment reflects both community expectations and the Township's strategic priorities, while also considering evolving demands, available resources, and long-term sustainability.

Lifecycle Management Activities

Lifecycle management activities are a set of planned actions that enable the assets to provide the levels of service in a sustainable way, while managing risks, at the lowest lifecycle cost through preventative maintenance actions.

When roads are replaced within the Township, staff investigate ways to incorporate active recreation trails where possible to expand the trail system while increasing road and pedestrian safety.

During road replacement projects, culverts are rehabilitated and reused when the condition allows to reduce cost and increase environmental responsibility. The Township also evaluates the stormwater management systems around the project and will increase or install new stormwater infrastructure, if required.

The lifecycle activities that are laid in this AMP can be deferred if the condition permits to allow for better prioritization. Staff endeavour to balance all the assessment factors including economic, environmental, social, climate change adaptation and mitigation, resource allocation, and growth to provide the best value for the Township.

High-Class Bitumen (HCB – known as Asphalt) Roads

The HCB asset class contains 333 assets and range from Class 3, through to and including Class 6, as identified in the previous roads need study conducted in 2013.

Road class identification is regulated by *Ontario Regulation 239/09: Minimum Maintenance Standards for Municipal Highways* and classed by using a table that considers the road's Average Daily Traffic (AADT) and the speed limit. The following table will show you how roads receive their classification.

Table 10: Classification of Highways as per O.Reg. 239/02: MMS

Average Daily Traffic	91- 100km/h Speed Limit	81- 90km/h Speed Limit	71- 80km/h Speed Limit	61- 70km/h Speed Limit	51- 60km/h Speed Limit	41- 50km/hr Speed Limit	1- 40km/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

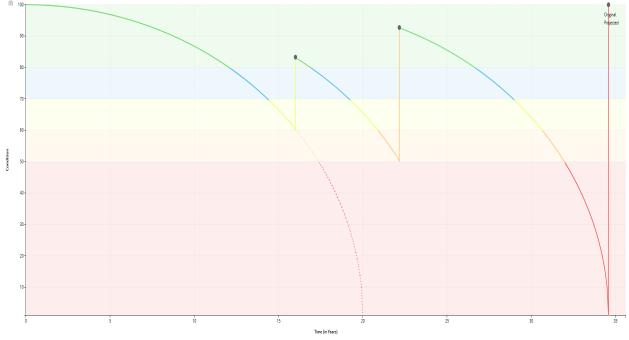
Table 11 highlights current lifecycle management activities take place with the assets included in the HCB asset class:

Table 11: Current Lifecycle Activities for HCB Asset Class

Event Name	Event Type	Event Trigger	Impact on Estimated Useful Life
Crack Seal, Cold	Maintenance	As needed	Does not add but it
Patch, Spray Patch			will preserve EUL.
Route and Seal	Preventative	PCI is between 60 -	Extends life by 5
	Maintenance	69	years.
Slurry Seal	Renewal and	PCI is between 50 –	Extends life by 10
	Rehabilitation	59	years.
Replace Surface	Asset Disposal and Replacement	PCI is between 0 – 49	Resets EUL.

Without maintaining the current lifecycle strategy, the estimated useful life for an HCB road is 20 years. The following figure will show how the Township can extend the useful life of assets within this class by performing regular maintenance action items to approximately 34 years and 9 months.





Low-Class Bitumen (LCB – known as Surface Treated, Tar and Chip) Roads

The LCB asset class contains 164 assets and range from Class 4 through to and including Class 6 as identified in the previous roads need study conducted in 2013.

Road class identification is regulated by *Ontario Regulation 239/09: Minimum Maintenance Standards for Municipal Highways* and classed by using a table that considers the road's Average Daily Traffic (AADT) and the speed limit. The table for road classification can be found at Table 7.

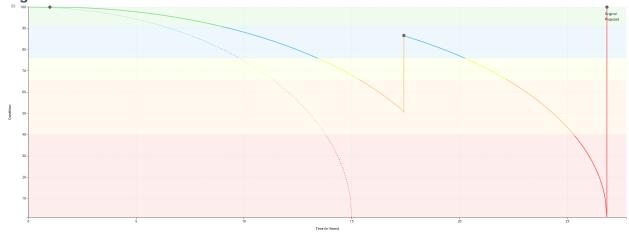
Table 12 highlights current lifecycle management activities take place with the assets included in the LCB asset class:

Table 12: Current Lifecycle Activities for LCB Asset Class

Event Name	Event Type	Event Trigger	Impact on Estimated Useful Life
Crack Seal, Cold	Maintenance	As needed	Does not add but it
Patch, Spray Patch			will preserve EUL.
Slurry Seal	Renewal and	Asset is 1 year old	Extends life by 5
	Rehabilitation		years.
Slurry Seal	Renewal and	PCI is between 50 -	Extends life by 7
	Rehabilitation	39	years.
Pulverize and	Asset Disposal and	PCI is between 38 -	Resets EUL.
Surface	Replacement	0	

Without maintaining the current lifecycle strategy, the estimated useful life for an LCB road is 15 years. The following figure shows how the Township can extend the useful life of assets within this class by performing regular maintenance action items to approximately 26 years and 11months.

Figure 24: Deterioration Curve with Maintenance Events of an LCB Road



Gravel Roads

The Gravel Road asset class contains 179 assets and range from Class 4 through to and including Class 6 roads as identified in the previous roads need study conducted in 2013.

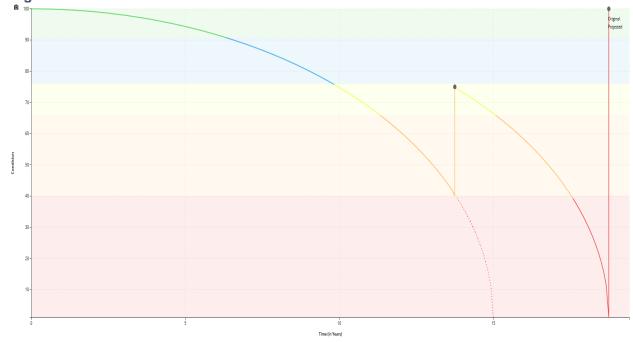
Road class identification is regulated by *Ontario Regulation 239/09: Minimum Maintenance Standards for Municipal Highways* and classed by using a table that considers the road's Average Daily Traffic (AADT) and the speed limit. The table for road classification can be found at Table 10.

Table 13: Current Lifecycle Activities for Gravel Road Asset Class

Event Name	Event Class	Event Trigger	Impact on Condition
Grading	Maintenance	As needed	Does not add but it will preserve EUL.
Re-gravel	Renewal or Rehabilitation	Condition between 40 - 66	Condition goes to 75
Reconstruction	Asset Disposal and Replacement	Condition between 0 - 39	Condition goes to 100

Without maintaining the current lifecycle strategy, the estimated useful life for a gravel road is 15 years. The following figure shows how the Township can extend the useful life of assets within this class by performing regular maintenance action items to approximately 18 years and 9 months.

Figure 25: Deterioration Curve with Maintenance Events of a Gravel Road



Earth Roads

The Township currently does not maintain earth roads within the road network, therefore does not have a lifecycle management strategy. If work were ever to be required, the Township would investigate upgrading the road to a gravel road. Most earth roads are currently not planned for replacement.

Sidewalks

Sidewalks are inspected annually and repaired accordingly and in compliance with Ontario Regulation 239/09: Minimum Maintenance Standards for Municipal Highways.

Trails

Gravel is added to trails on an as needed basis to fill potholes and low spots. Staff endeavour to cut the grass once per month, and tree brushing is done every 3-5 years. When the Township undergoes a trail new or rehabilitation project, staff investigate utilizing materials that would increase environmental responsibility.

Streetlights

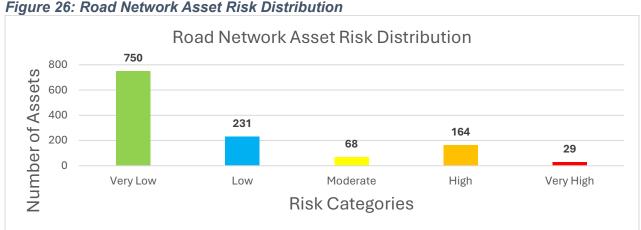
Streetlights within the Township are considered a 'run to failure' asset and are cleaned, repaired, and replaced when required or as identified under Ontario Regulation 239/09: Minimum Maintenance Standards for Municipal Highways. In accordance with O. Reg 239/09, streetlights are inspected twice, annually.

Risk and Criticality Analysis

A weighted risk matrix for the road network asset category has been established to help support replacement and rehabilitation projects and its prioritization. Assets with a higher risk should be prioritized in capital planning.

When calculating risk, staff has considered the PoF and CoF and contemplates available asset data, including asset condition, age, service life remaining replacement cost, traffic data, and the road classification.

The figures below provides insight for the risk rating for assets within the road network asset category.



Approximately 85% of the road network assets, representing around \$68,036,903 in replacement cost, are considered to be at moderate to very low risk.

The remaining assets are considered high or very high-risk assets, which will require more attention to ensure no loss of service to the community or potential damages to the Township. The high and very-high risk categories combine for a replacement cost of \$50,285,847.

Figure 27 will show, in more detail, the percentages of each risk category and the associated replacement cost for each risk level.

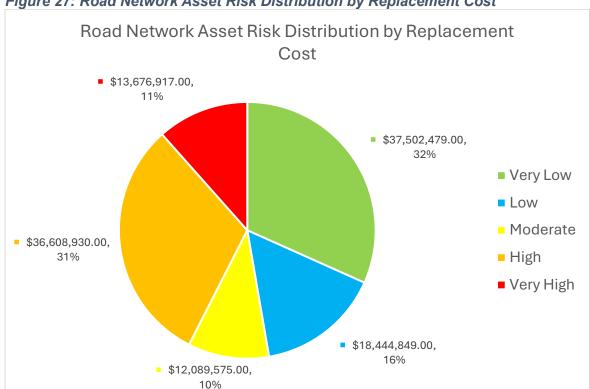


Figure 27: Road Network Asset Risk Distribution by Replacement Cost

Financial Strategy

Cost Efficiency

The AMP tracks the estimated operating cost per property. The operating cost is based on the average operating costs over the most recent two years, divided by the number of properties. As of April 2025, there are 7,835 properties within the Township. Properties that are owned by both the lower and upper tier governments have been removed from this number.

Table 14: Cost Efficiency Table of Road Network Assets

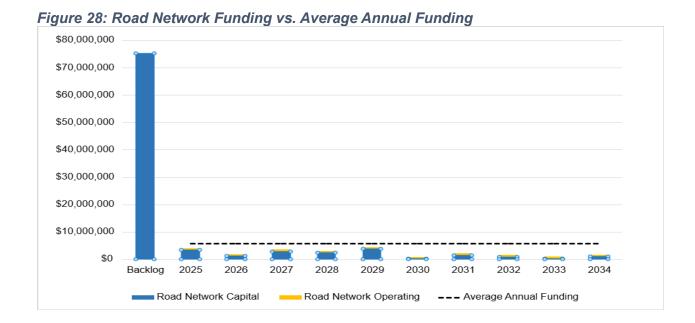
Average Operating Costs 2023 & 2024	Properties	Cost Per Property
\$685,249	7,835	\$87.46

Financial Forecast

The Township's total average annual capital funding is projected to be \$7.7M, which has been allocated to asset categories based on asset replacement cost over the next 10 years and includes the backlog. The road network represents approximately 74.9% of the total asset replacement cost. Therefore, approximately \$5.8M in funding has been allocated to the roads network annually.

The road network has a backlog of \$75.2M, approximately 83.1% of the total backlog in this report. This asset category is projected to have average annual capital expenditures over the 10-year period, 2025 to 2034, of approximately \$1.7M. This average annual surplus of \$4.1M should be used to clear the road network backlog annually. Any additional funding received beyond what is projected in this report would allow the Township to clear more of the backlog annually. This can be seen in greater detail in Figure 28: Road Network Funding vs. Average Annual Funding

Based on the Township maintaining current levels of service, while clearing the backlog with any annual surplus available, the projected backlog for road network assets after 2034 will be \$34.2M.



Bridges and Structural Culverts

The Township of Ramara's Bridge Network includes 12 road bridges, 13 structural culverts and 2 footbridges.

The current replacement value of this asset category is \$11,715,162, and 15% of the overall replacement costs of the asset inventory included in this AMP.

Asset Inventory and Valuation

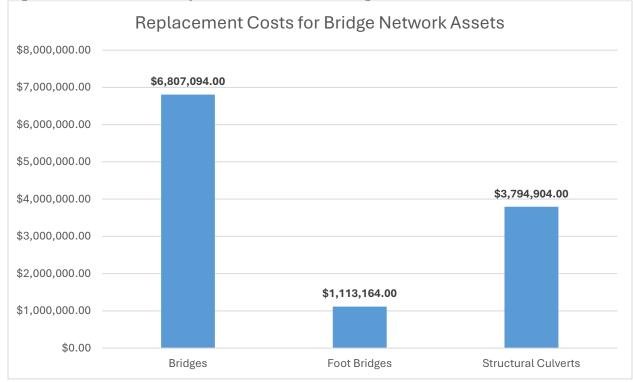
The following table will provide a summary of assets in the Bridge and Structural Culvert category and its current valuation.

Table 15: Asset Inventory and Valuation of Bridge and Structural Culvert Network

Bridge and Structural Culvert Inventory				
Asset Category				
Bridge and	Bridges	12	\$6,807,094	
Structural Culvert	Footbridges	2	\$1,113,164	
Network Structural Culverts		13	\$3,794,904	
Totals 30 \$11,715,162				

Figure 29 shows an overview of this category valuation and highlights that bridges have the highest replacement cost value within this category.





Age and Condition

Age

A summary of the asset age for the bridge and structural culvert network assets is shown below in Figure 28. The footbridges, which are both located in Lagoon City, are fairly new with a considerable amount of remaining EUL, while both bridges and structural culverts have exceeded their EUL.

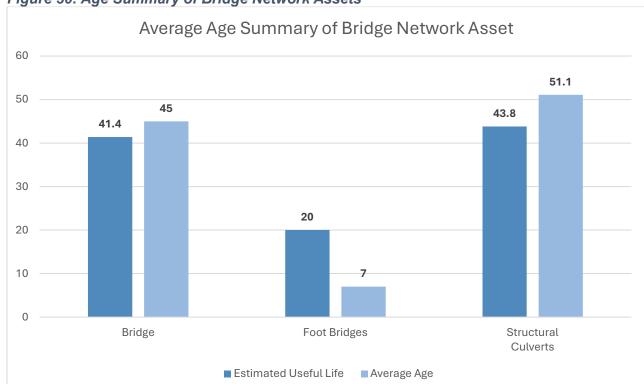


Figure 30: Age Summary of Bridge Network Assets

Condition

A summary of the overall condition of bridge and structural culvert network assets can be seen in Figure 29. The most recent biannual Ontario Structure Inspection Manual (OSIM) inspection was completed in 2023 by Tatham Engineering. The study informed the Township that 63% of assets within this category are in fair or better condition and 37% in poor to very poor condition.

To calculate the condition of these assets, the consultant utilized the Bridge Condition Index (BCI), which is based on MTO guidelines and can be seen in the table below.

Table 16: Bridge Condition Index as Outlined by the Ministry of Transportation (MTO)

Rating	Maintenance Schedule
BCI Range: 70 -	Maintenance is not usually required within the next five years.
100	
BCI Range: 60 -	Maintenance work is usually scheduled within the next five years. This
70	is the ideal time to schedule major bridge repairs to get the most out of
	bridge spending.

The municipality further breaks this down which is outlined in Table 3: Asset Condition Index Overview.

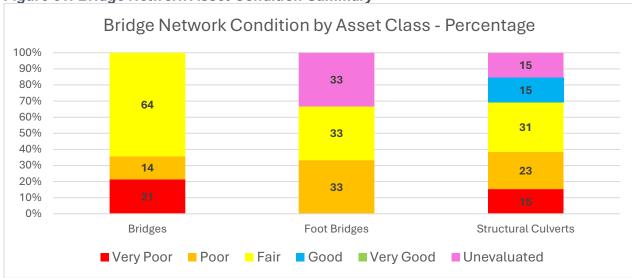
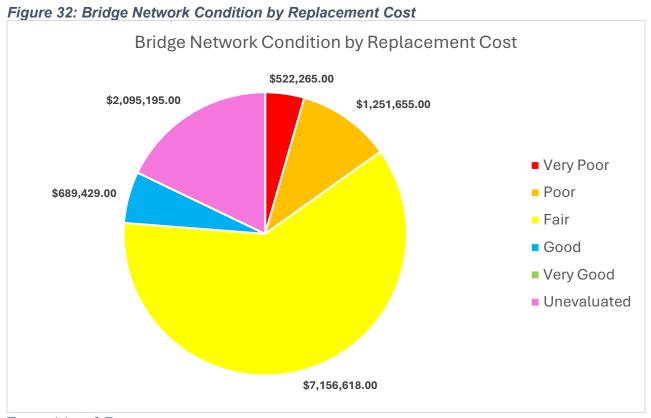


Figure 31: Bridge Network Asset Condition Summary

Figure 32 shows in better detail the replacement costs for each condition category and advises that assets in poor, or lower condition, has a total replacement cost of \$1,773,920 and equals to 15% of the total replacement cost.



Bridges and Footbridges

The current bridge conditions were updated in 2023 through OSIM inspections conducted by Tatham Engineering and are regulated to be completed biannually. As per the most recent inspection, it has been found that 59% of bridge assets are in fair condition, whereas 35% are in poor or very poor condition.

Figure 33 identifies how many bridge assets are in each condition category. The Very Poor category includes one bridge identified, Bridge 14, which is a log constructed bridge and located in an unopened road allowance and not planned for replacement.

Staff will review the consultant's reports and consider recommendations as part of budget deliberations. Any unsafe conditions will be addressed immediately.

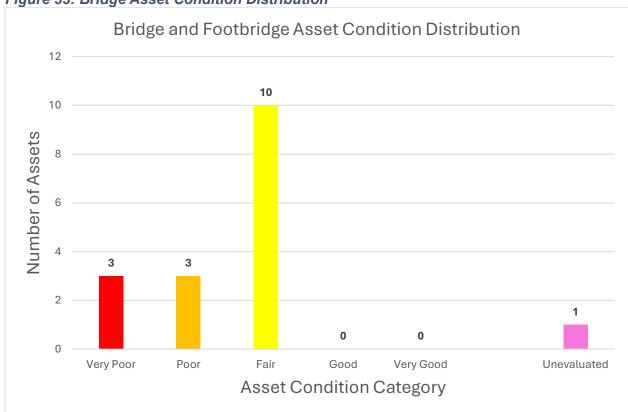


Figure 33: Bridge Asset Condition Distribution

Figure 34 further breaks down this asset class condition by its associated replacement cost. Assets within the fair condition category have the highest replacement cost, at \$6,504,454, which is also 62% of the total replacement cost.

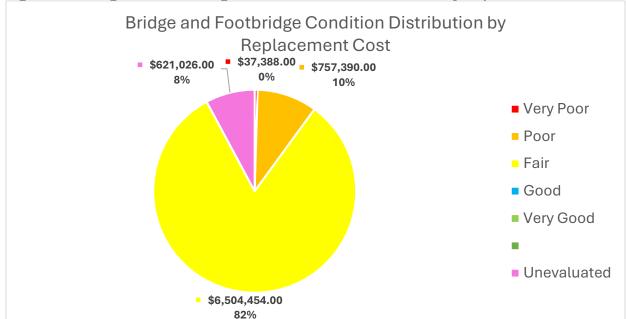


Figure 34: Bridge and Footbridge Asset Condition Distribution by Replacement Cost

Structural Culverts

The current structural culvert conditions were updated in 2023 through OSIM inspections conducted by Tatham Engineering and are regulated to be completed biannually. As per the most recent inspection, it has been found that 46% of structural culvert assets are in fair or better condition, whereas 39% are in poor or very poor condition, as seen in Figure 35.

The three structural culverts that were identified in poor condition are:

- Bridge 12, which is located on Concession Road 9, 3.55km west of County Road 169, which has been replaced in 2024.
- Bridge 13 is a concrete box culvert located in an unopened road allowance and not planned for replacement.
- Bridge 201, which is located on Poplar Crescent, is currently planned for replacement in 2025.

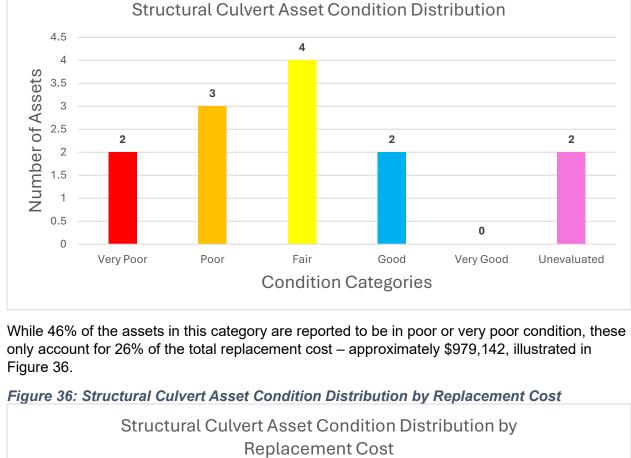
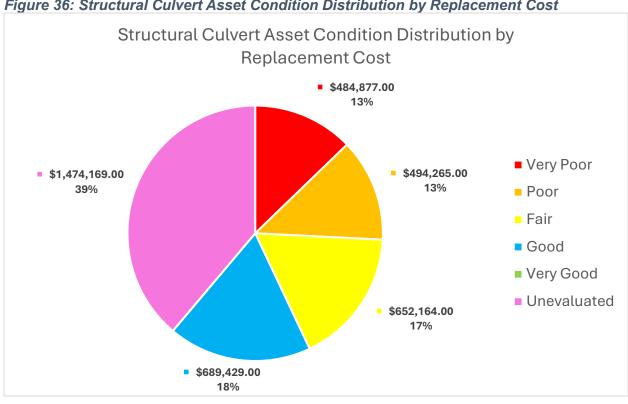


Figure 35: Structural Culvert Asset Condition Distribution



Level of Service

Current Level of Service

The following table provides a summary of the current level of service with KPI's prescribed, that are both qualitative and quantitative, under Ontario Regulation 588/17: Management Planning for Municipal Infrastructure under the *Infrastructure for Jobs and Prosperity Act*.

Table 17: Community Levels of Service Metrics

	Parties Level of Carries Double Programme Dou		
Service	Level of Service	Performance	
Attribute	Measure		
Scope	Description of the	The Township's bridge and	structural culvert
	traffic that is supported	network support traffic type	es ranging from MMS
	by the municipal	Road Class 3 through to a	nd including MMS
	bridges (e.g. heavy	Road Class 6.	J
	transport vehicles,		
	motor vehicles,	All bridges have been desi	gned in accordance
	emergency vehicles,	with the requirements of th	_
	pedestrians, cyclists).	Code at the time of constru	0
	pedestriaris, cyonsts).	have been designed to car	
		motor vehicles, emergency	
		pedestrians and cyclists.	verlicies,
0	December on income		To effect a botton
Quality	Description or images	Please see Table 19.	To offer a better
	of the condition of		visualization, please
	bridges and how this		see Figure 37 which
	would affect bridge		offers location and
	use.		condition of each
	Description or images	Please see Table 20.	bridge and structural
	of the condition of the		culvert.
	culverts and how this		
	would affect use of		
	service.		

Table 18: Technical Levels of Service Metrics

Service Attribute	Level of Service Measure	Performance
Scope	Percentage of bridges in the Township with loading or dimensional restrictions.	33.33% of bridges within the Township have lane restrictions. 8.33% of bridges within the Township have load restrictions. •Bridge 201, currently planned for replacement.
Quality	For bridges in the Township, the average bridge condition index value.	The average BCI for bridges within the municipality is 62.55.
	For structural culverts in the Township, the average bridge condition index value.	The average BCI for structural culverts within the Township is 62.81.

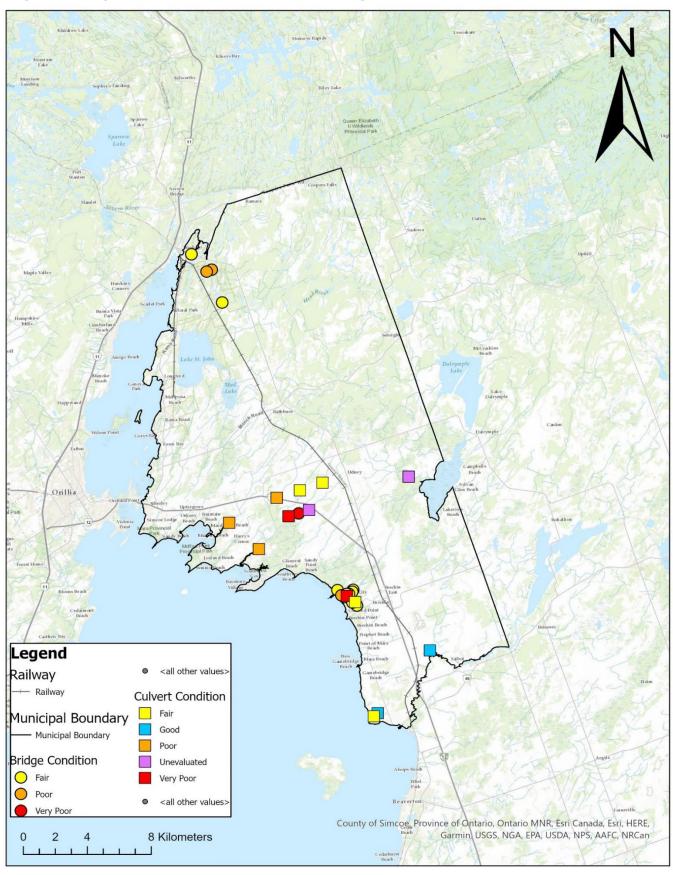
Table 19: Description and Images of Bridge Conditions

Condition		Photo Example
Very Good	No repairs needed.	
Good	Minor rehabilitation within 1-5 years.	
Fair	Rehabilitation or replacement required within 6-10 years.	
Poor	Rehabilitation or replacement required within 1-5 years.	
Very Poor	Rehabilitation or replacement required immediately.	

Table 20: Description and Images of Structural Culvert Conditions

Condition	scription and Images of Structural Culvert Cond Description	Photo Example
Very Good	No repairs needed.	Prioto Example
Good	Minor repairs or service needed.	
Fair	Minor rehabilitation may be required in 6-10 years.	
Poor	Rehabilitation or replacement required in 1-5 years.	And size
Very Poor	Structural integrity compromised and immediate rehabilitation or replacement required.	

Figure 37: Map of Locations and Condition of Bridge Assets



Proposed Level of Service

The Township is committed to maintain the current level of service for assets included in this category, ensuring that infrastructure remains safe, reliable, and cost-effective for users. This commitment reflects both community expectations and the Township's strategic priorities, while also considering evolving demands, available resources, and long-term sustainability.

Lifecycle Management Activities

The Township of Ramara partakes in and completes biannual bridges inspections on bridges and structural culvert assets. This report provides an up-to-date condition assessment of the assets using the Bridge Condition Index (BCI) and this report provides recommendations of maintenance, rehabilitation or replacement action items. It is recommended that the Township continue this process which will allow appropriate planning and prioritization of capital investment as well as any recommended lifecycle activities as directed in the study.

By maintaining this process, the Township will ensure compliance with the Ontario Structure Inspection Manual.

Risk and Criticality Analysis

A weighted risk matrix for the bridge network asset category has been established to help support replacement and rehabilitation projects and its prioritization. Assets with a higher risk should be prioritized in capital planning.

When calculating risk, staff has considered the PoF and CoF and contemplates available asset data, including asset condition, age, service life remaining replacement costs, traffic data from the previous roads need study and the road classification.

The figures below provides a look into the risk rating for assets within the bridge network category.



Figure 38: Bridge Network Asset Risk Distribution

Most assets are considered moderate risk, which also maintains the highest replacement cost of this category at \$4,410,379 or 38% of the total replacement cost. This information is further highlighted below, in Figure 39.

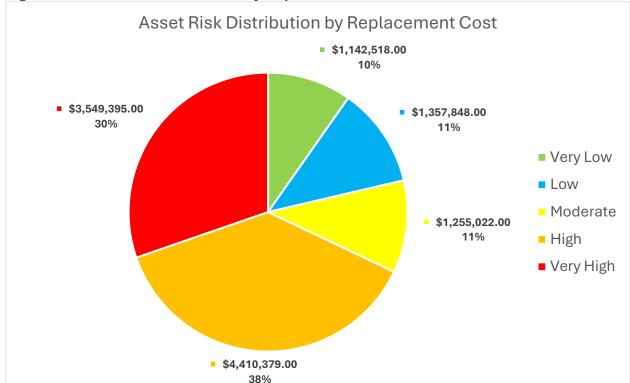


Figure 39: Asset Risk Distribution by Replacement Cost

Financial Strategy

Cost Efficiency

The AMP tracks the estimated operating cost per property. The operating cost is based on the average operating costs over the most recent two years, divided by the number of properties. As of April 2025, there are 7,835 properties within the Township. Properties that are owned by both the lower and upper tier governments have been removed from this number.

Table 21: Cost Efficiency Table of Bridge and Structural Culvert Network

Average Operating Costs 2023 & 2024	Properties	Cost Per Property
\$45,944	7,835	\$5.86

Financial Forecast

The Township's total average annual capital funding is projected to be \$7.7M, which has been allocated to asset categories based on asset replacement cost over the next 10 years and includes the backlog. The Bridge Network represents approximately 4% of the total asset replacement cost. Therefore, approximately \$308K in funding has been allocated to this category, annually.

The Bridges Network category has a backlog of \$4.7M, approximately 5.2% of the total backlog in this report. This category is projected to have an average annual capital expenditure over the 10-year period, 2025 to 2034, of approximately \$19K. This average annual surplus should be used to clear the Bridge Network category backlog annually. Any additional funding received beyond what is projected in this report would allow the Township to clear more of the backlog annually.

Based on the Township maintaining current levels of service, while clearing the backlog with any annual surplus available, the projected backlog for this asset category after 2034 will be \$1.8M.

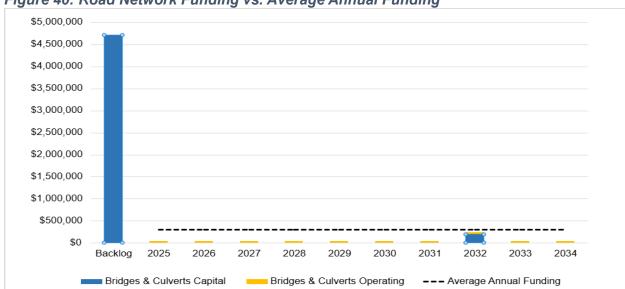


Figure 40: Road Network Funding vs. Average Annual Funding

Stormwater Management

The Township of Ramara's Stormwater Management Network includes storm sewers, catch basins, maintenance holes, ditch inlets, stormceptors, storm water ponds, and lake outlets. These assets play a vital role in mitigating the impacts of climate change and managing the increased frequency and intensity of storm events by helping to control run off, prevent flooding, and protect water quality.

The infrastructure assets that make up the stormwater management network do require regular clean out and inspection, and normally require very little repair, rehabilitation or replacement action items.

The current replacement value of this asset category is \$409,651.00 and 0.22% of the overall replacement costs of the asset inventory included in this AMP.

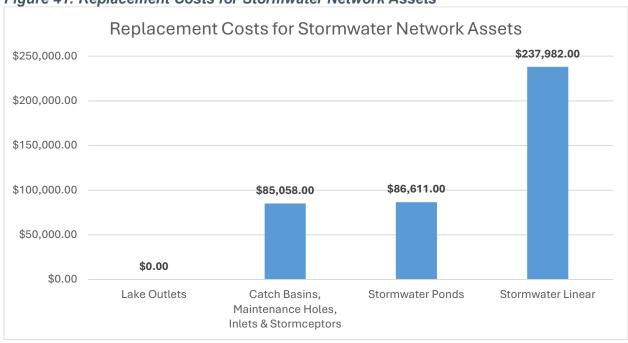
Asset Valuation and Inventory

The following table will provide a summary of assets in the Stormwater Management Network category and its current valuation.

Table 22: Asset Inventory and Valuation of the Stormwater Management Network

Stormwater Management Network Inventory			
Asset Category	Asset Class	Quantity/Units	Replacement Value
Stormwater Management Network	Lake Outlets	41	\$0
	Catch Basins,	25	\$85,058
	Maintenance Holes, Inlets & Stormceptors		
	Stormwater Ponds	5	\$86,611
	Stormwater Linear	10	\$237,982
Total		81	\$409,651





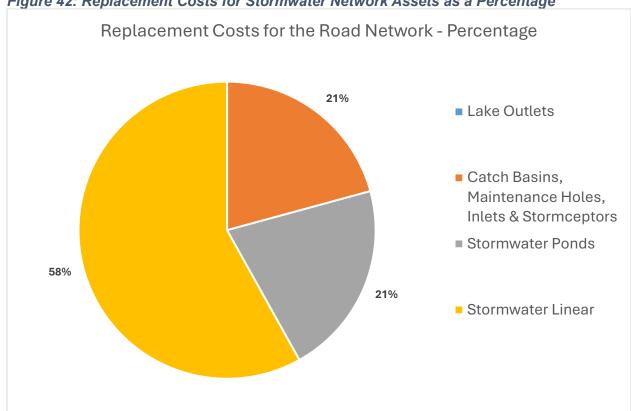


Figure 42: Replacement Costs for Stormwater Network Assets as a Percentage

Age and Condition

Age

A summary of the asset age for the stormwater management network assets is shown below in Figure 43. Most of the stormwater management assets have considerable time remaining until the EUL. The average stormwater management pond is 20 years old, and most maintenance holes, catch basins and ditch inlets have been installed within the last 12 years.

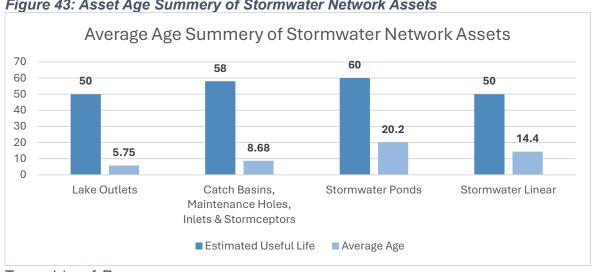


Figure 43: Asset Age Summery of Stormwater Network Assets

Condition

A summary of the overall condition of stormwater management network assets can be seen in Figure 44. The condition assessments are based on annual or biannual inspections during maintenance and clean out procedures.

Most of the Township's stormwater management infrastructure is still young and in very good condition.

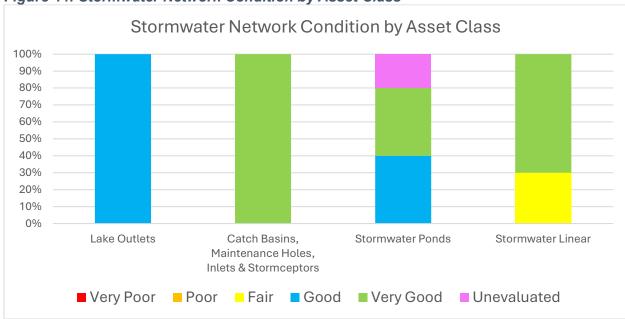
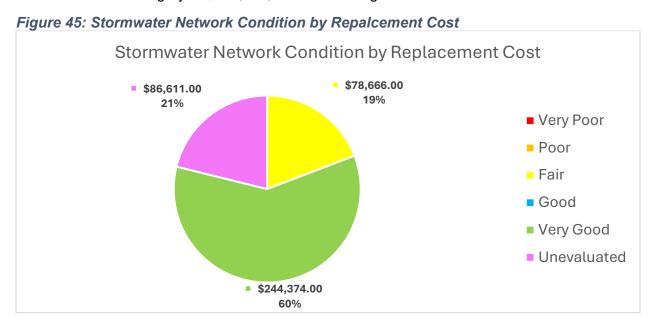


Figure 44: Stormwater Network Condition by Asset Class

Assets that are considered in very good condition carry more than 50% of the total replacement cost of this asset category at \$244,374, illustrated in Figure 45.



Notes and Assumptions

Some stormwater management assets are missing data regarding age, size, material and specifications in the Township's asset management software. It is recommended that this information be captured and recorded, when possible.

New capital stormwater management undertakings are included in road rehabilitation or reconstruction projects where possible, also considering climate change for any required upgrading.

New developments are required to follow stormwater management plans where applicable, including but not limited to municipal drains and open ditches, including any requirements from master planning activities.

Stormwater Management Ponds

Inspections of the stormwater management ponds occur annually, and the inspection consists of 8 components. The overall condition rating of the pond is based on the following criteria:

Table 23: Stormwater Pond Condition Criteria

Scale	Condition	Justification	
80 – 100	Very Good	No more than 2 components of the asset require monitoring.	
60 – 79	Good	No immediate servicing of the asset required.	
40 – 59	Fair	50% of asset requires routine maintenance.	
20 – 39	Poor	Up to 50% of asset requires immediate repair.	
0 – 19	Very Poor	More than 50% of asset requires immediate repair.	

The Township further breaks this down which is outlined in Table 3: Asset Condition Index Overview.

Level of Service

Current Level of Service

The following table provides a summary of the current level of service with KPI's prescribed, that are both qualitative and quantitative, under Ontario Regulation 588/17: Management Planning for Municipal Infrastructure under the *Infrastructure for Jobs and Prosperity Act*.

Table 24: Community Levels of Service Metrics

Service	Level of Service Measure	Performance
Attribute		
Scope	Description, which may include maps, of the user groups or areas of the Township that are protected from flooding, including the extent of the protection provided by the municipal stormwater management system.	As shown in Figure 46, small areas in each Brechin and Atherley, are currently protected with a Township owned linear stormwater management system. There are also stormwater management ponds in the Crossings Subdivision (2), the Margaret Orr Subdivision,

	and then McNabb
	Drain/Industrial Park area (2).

Table 25: Technical Levels of Service Metrics

Service Attribute	Love of Service Measure	Performance
Scope	Percentage of properties that are resilient to a 100-year storm.	53% of properties within the Township are resilient to a 100-year storm. The Township includes 2 major watersheds – Lake Simcoe and the Black River Watershed. Figure 47 shows the flood mapping and shoreline hazard mapping for Lake Simcoe and Figure 48 shows the floodplain mapping for the Black River Watershed.
	Percentage of the Township stormwater management system resilient to a 5-year storm.	100% of the Townships stormwater management systems are resilient to a 5-year storm.

Proposed Level of Service

The Township is committed to maintain the current level of service for assets included in this category, ensuring that infrastructure remains safe, reliable, and cost-effective for users. This commitment reflects both community expectations and the Township's strategic priorities, while also considering evolving demands, available resources, and long-term sustainability.

Brechin City of Kawartha Lakes County of Simcoe, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, AAFC, NRCan County of Simcoe, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, AAFC, NRCan Legend Stormwater Management Ponds Catch Basins, Inlets & Ditch Inlet Maintenance Holes Double Catch Basin Lake Outlet Double Catch Basin & Maintenance Hole Туре StormwaterLinear O Catch Basin Maintenance Hole - Municipal Boundary O Catch Basin & Maintenance Hole <all other values> Exempt Lands County of Simcoe, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA, AAFC, NRCan North P5nt 6 Kilometers

Figure 46: Map of Stormwater Asset Locations

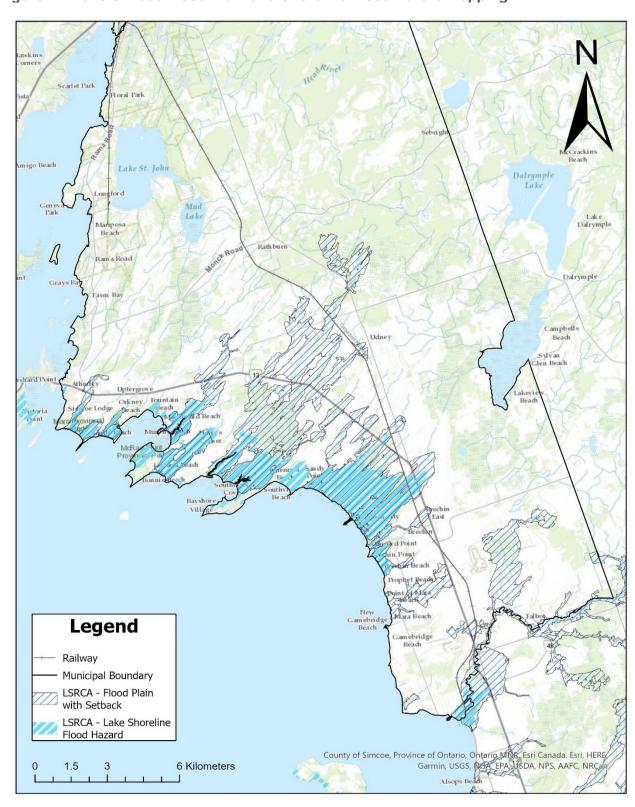
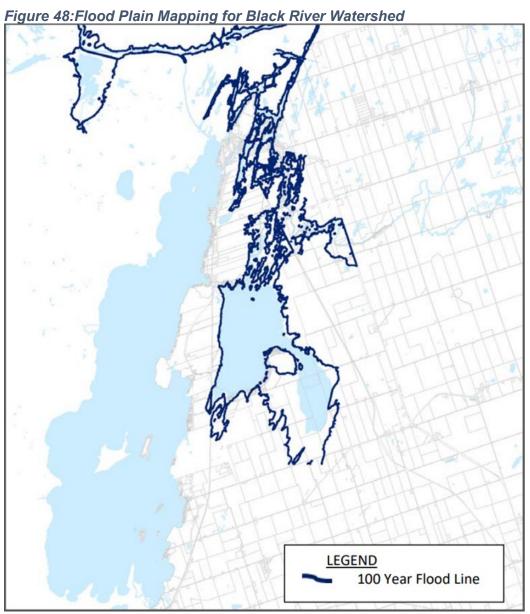


Figure 47: Lake Simcoe Flood Plain and Shoreline Flood Hazard Mapping

© LAKE SIMCOE REGION CONSERVATION AUTHORITY, 2021. ALL RIGHTS RESERVED

A review of the MNR 100-year flood line and LSRCA floodplain and shoreline hazard mapping indicates that 53% of properties within the Township are resilient to a 100-year flood event. However, an estimated 804 properties along the Black River Flood Plain and 2,739 properties within the Lake Simco Watershed remain susceptible to flooding and currently do not benefit from municipal stormwater management infrastructure.

Construction or renovation within the LSRCA designated floodplain requires a permit and may necessitate the integration of flood mitigation measures. Similarly, properties in the Black River floodplain may be subject to site plan approval, which could include requirements for flood prevention strategies during development.



© MNRF 100-Year Flood Line Mapping for the Black River Watershed, 2008

Lifecycle Management Activities

The Township's stormwater management assets are inspected on an annual or biannual basis and complete regular preventive maintenance actions such as cleaning of catch basins and lake outlets, as required.

Through consistent monitoring of stormwater flows, staff take a proactive approach that helps the Township resolve potential issues early – minimizing back ups and reducing the need for reactive responses.

Lake Outlets

Lake outlets are cleaned and inspected twice annually, as permitted by the LSRCA. Any repairs or service requirements are noted during the clean out and scheduled accordingly.

Stormceptor

The Township has 2 stormceptors, which are underground systems that use a flow separation technology to capture and retain pollutants, are located at the main Administration Building at 2297 Highway 12 and Fire Station One, at 2115 Highway 12. They are cleaned out and inspected annually to ensure proper functionality.

Stormwater Management Ponds

The stormwater management ponds are inspected annually by staff in accordance with the requirements of the Ministry of Environment, Conservation, and Parks following their Environmental Compliance Approval requirements. Maintenance and rehabilitation requirements are scheduled accordingly to ensure ponds are operating as intended in their Certificate of Approval.

Maintenance Holes, Catch Basins, Linear Storm Sewers and Ditch Inlets

Maintenance Holes, Catch Basins, Linear Storm Sewers and Ditch Inlets are cleaned out on an as needed basis. Maintenance, repair and inspections are done biannually or more if required. If these assets begin to underperform, they are inspected, and repair or rehabilitation activities are scheduled accordingly.

If these assets are included or associated with a stormwater management pond, they are inspected annually alongside the stormwater pond.

Risk and Criticality Analysis

If failure occurs in with assets included in the Stormwater Management Network, there is an increased risk of damage to public and private property, as well as a potential for a negative environmental impact.

Regular inspections and evaluation of the efficacy of these assets need to continue to identify any potential and impending failures.

The risk rating for assets withing the stormwater management network category, which are all categorised in as low risk and sustainable, as seen in Figure 49.



Figure 49: Stormwater Network Risk Distribution

Financial Strategy

Cost Efficiency

The AMP tracks the estimated operating cost per property. The operating cost is based on the average operating costs over the most recent two years, divided by the number of properties. As of April 2025, there are 7,835 properties within the Township. Properties that are owned by both the lower and upper tier governments have been removed from this number.

Table 26: Cost Efficiency Table of Stormwater Management Network

Average Operating Costs 2023 & 2024	Properties	Cost Per Property
\$49,004	7,835	\$6.25

Financial Forecast

The stormwater management network does not have any assets needing replacement over the next 10-years, and no backlog to be cleared.

Fleet

Fleet assets are crucial in helping staff deliver services effectively to Township residents. The Fleet network is comprised of light and heavy-duty vehicles which maintain critical infrastructure, address customer service requests, emergency service vehicles that respond to and support first responders, and other vehicles which are dedicated to supporting recreation, bylaw enforcement, building inspectors, park services and general administrative functions.

The current replacement value of this asset category is \$13,512,453 and approximately 7% of the overall replacement costs of the asset inventory included in this AMP.

Asset Inventory and Valuation

The following table will provide a summary of assets in the Fleet Network category and its current valuation. The fleet is divided into Licensed Vehicles, and Unlicensed Equipment. Licensed Vehicles include fleet that require plating under the Ministry of Transportation, such as snowplows, fire response vehicles, and pick up trucks. Unlicensed equipment includes items such as backhoes, loaders, and graders.

Table 27: Asset Inventory and Valuation of the Fleet Network

Fleet Network Inventory			
Asset Category	Asset Class	Quantity/Units	Replacement Value
Fleet Network	Licensed Vehicles	63	\$11,012,565
	Unlicensed Equipment	23	\$2,499,888
Totals:		86	\$13,512,453

Figure 50 and Figure 51 show an overview of category valuation and highlight licensed vehicles having the highest replacement costs of this category at \$11,012,565 which equals to 81% of the total costs.

Figure 50: Replacement Costs for Fleet Assets



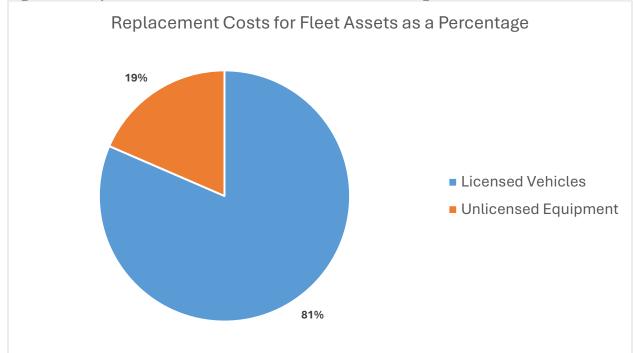


Figure 51: Replacement Cost for Fleet Assets as a Percentage

Age and Condition

Age

A summary of the current asset age for vehicles and equipment owned by the Township can be found in Figure 52. The average useful life for licensed vehicles within the Township is 12.6 years with the shortest being a regular use automobile at 7 years to the longest being a fire truck at 20 years.

The average useful life for unlicensed equipment is 14.6 years with 10 years being the shortest for a culvert steamer and the longest being 15 years which encompasses graders, loaders, etc.

EUL has been identified as per the Township's Tangible Capital Asset Policy, which ensures compliance with PSAB PS 3150-standards that govern how municipalities account for and report tangible capital assets such as infrastructure, buildings, and equipment.

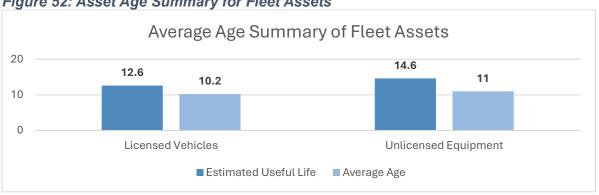


Figure 52: Asset Age Summary for Fleet Assets

Township of Ramara Asset Management Plan 2025 www.ramara.ca

Condition

A summary of the overall condition of the fleet network assets can be seen in Figure 53. Fleet evaluations are completed yearly with condition assessments being completed every 3 years, unless a vehicle is involved in an incident that results in \$10,000 in damages or more.

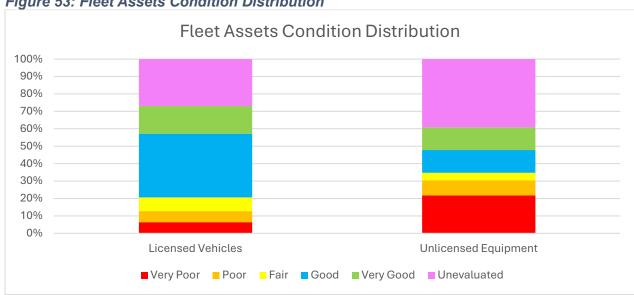


Figure 53: Fleet Assets Condition Distribution

Figure 54 shows in greater detail that most assets in this category are in good condition, which is also the costliest condition category, at \$4,931,032 and is 37% of the total replacement cost of fleet assets.

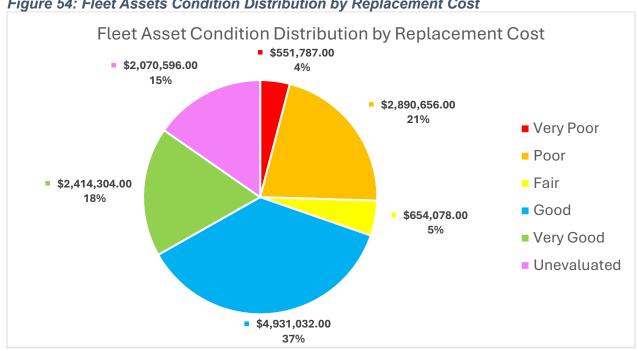


Figure 54: Fleet Assets Condition Distribution by Replacement Cost

Licensed Vehicles

The most recent condition assessments for licensed vehicles were completed in 2024 in preparation for the asset management update. As of these inspections, it has been found that 52% of included assets are in good condition, whereas 13% are in poor or worse condition.

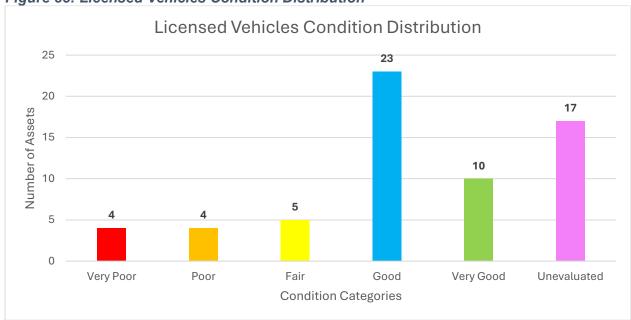


Figure 55: Licensed Vehicles Condition Distribution

There are 8 licensed vehicles that are in poor or worse condition and these assets account for approximately 24% of the total replacement of this class at \$2,666,811.

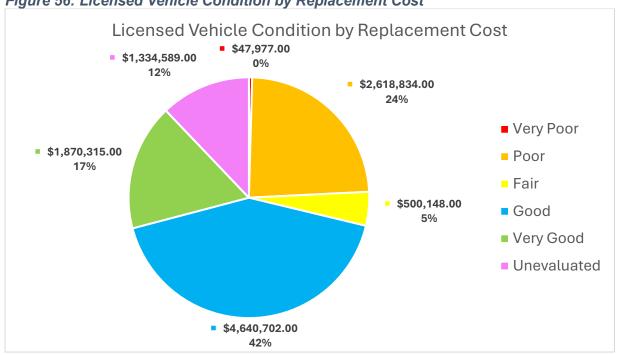


Figure 56: Licensed Vehicle Condition by Replacement Cost

Township of Ramara Asset Management Plan 2025 www.ramara.ca

Unlicensed Equipment

The most recent condition assessments for licensed vehicles were completed in 2024 in preparation for the asset management update. As a result of these inspections, it has been found that 26% included assets are in good or better condition, whereas 30% are in poor or worse condition.

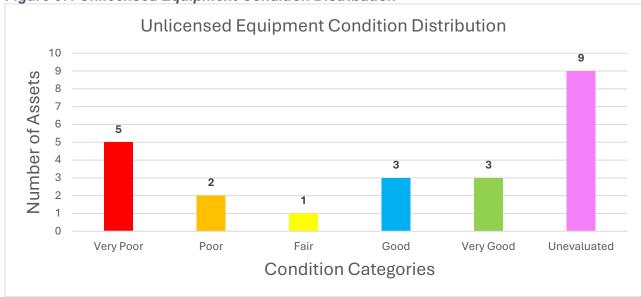
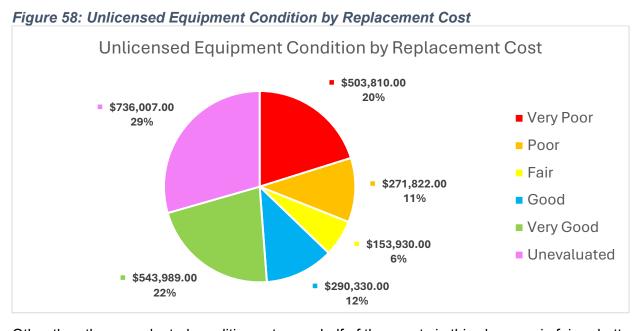


Figure 57: Unlicensed Equipment Condition Distribution

Although 39% of assets in this class are unevaluated, 50% are newer and in good or very good condition based on their age.



Other than the unevaluated condition category, half of the assets in this class are in fair or better condition and is 40% of the total replacement cost of this class at \$988,249.

Level of Service

Current Level of Service

The following table provides a summary of the current level of service with KPIs, that are both qualitative and quantitative.

Table 28: Community Levels of Service Metrics

Service Attribute	Level of Service Measure	Performance
Scope	The Township supplies and maintains a fleet inventory that allows staff to perform their duties.	100% of the time, the fleet was available for staff to perform duties as required. EXPLAIN ON THE 100%.

Table 29: Technical Level of Service Metrics

Service Attribute	Level of Service Measure	Performance
Scope	The Township maintains fleet inventory	17% of Fleet is in Poor or
	that is not in disrepair or requires	worse condition.
	immediate replacement.	
	The Township maintains a fleet inventory	The current average rating
	that is in at least fair condition, on	for Fleet assets is 53.28, Fair
	average.	condition.

Proposed Level of Service

The Township is committed to maintain the current level of service for assets included in this category, ensuring that infrastructure remains safe, reliable, and cost-effective for users. This commitment reflects both community expectations and the Township's strategic priorities, while also considering evolving demands, available resources, and long-term sustainability.

Lifecycle Management Activities

As part of inspections programs that are specified by manufacturers and regulatory requirements, fleet assets are inspected at regular intervals. By adhering to mandated inspection requirements, the Township can ensure compliance as well as identify any changes of condition to an asset that could potentially impact the useful life.

Most fleet maintenance actions are completed by certified technicians (mechanics) employed by the Township, who perform necessary work to ensure assets can operate to their intended potential.

Staff follow best practices while maintaining assets while always considering the lowest lifecycle costs. Those best practices may include, but are not limited to:

- Inspection protocols.
- Document and address any issues that are identified by users.
- Adhere to scheduled maintenance requirements.
- Continuous monitoring of the condition of the asset.

Table 30: Current Lifecycle Activities

Lifecycle Activity	Description	Examples of Associated Activities
Operate	Regular activities to provide services.	Inspections and cleaning.
Maintain	Activities to retain asset condition to enable it to provide service for its planned use and its estimated useful life.	Planned maintenance, minor repairs and component replacement within the asset.
Renew	Activities that return the asset to the original state.	Minor or major asset rehabilitation.
Disposal and replace	The asset has reached its useful life and is no longer operable.	Asset is disposed of and replace, if required.

Risk and Criticality Analysis

A weighted risk matrix for the fleet network asset category has been established to help support replacement and rehabilitation of assets and its prioritization. Assets with a higher risk should be prioritized in capital planning.

When calculating risk, staff has considered the PoF and CoF and contemplates available asset data, including asset condition, age, service life remaining, replacement costs, and the overall use of the asset.

It is important to note that all assets used for emergency services have the highest PoF and CoF scores due to the nature of use.

The figures below provide a look into the risk rating for assets within the fleet network category.

Figure 59: Fleet Risk Distribution Asset Risk Distribution 35 29 Number of Assets 30 27 25 20 14 15 8 8 5 0 Very Low Moderate High Very High Low Risk Categories

Although most assets within this category are mostly moderate to very low risk, more than half of the replacement costs lie within both high and very high-risk categories, totalling \$6,871,187.

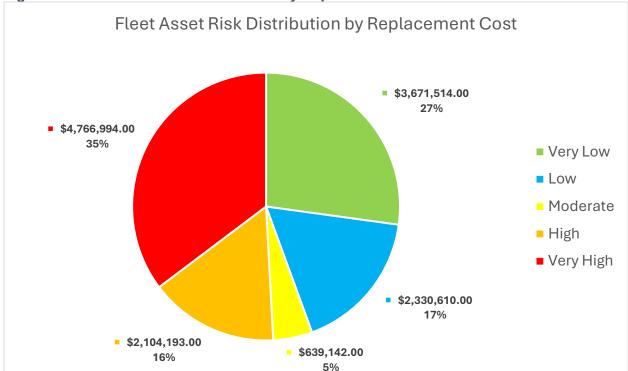


Figure 60: Fleet Asset Risk Distribution by Replacement Cost

Financial Strategy

Cost Efficiency

The AMP tracks the estimated operating cost per property. The operating cost is based on the average operating costs over the most recent two years, divided by the number of properties. As of April 2025, there are 7,835 properties within the Township. Properties that are owned by both the lower and upper tier governments have been removed from this number.

Table 31: Cost Efficiency Table of the Fleet Network

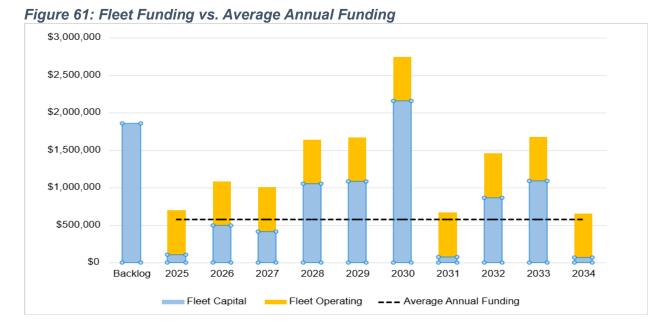
Average Operating Costs 2023 & 2024	Properties	Cost Per Property
\$740,319	7,835	\$94.49

Financial Forecast

The Township's total average annual capital funding is projected to be \$7.7M, which has been allocated to asset categories based on asset replacement cost over the next 10 years and includes the backlog. The Fleet Network represents approximately 7.6% of the total asset replacement cost. Therefore, approximately \$583K in funding has been allocated to this category, annually.

The Fleet Network has a backlog of \$1.9M, approximately 2.1% of the total backlog included in this report. It is projected to have annual capital expenditures over the 10-year period, 2025 to 2034, of approximately \$741K. This average annual deficit of \$159K will increase the backlog annually. Any additional funding received beyond what is projected in this report will allow the Township to reduce this deficit and meet current replacement needs.

Based on the Township maintaining current levels of service, the projected backlog for this category, after 2034, will be \$3.4M.



Buildings and Structures

Building and structures within the Township play a vital role in supporting successful functioning and effective service delivery to the community. The facilities within this umbrella encompass an array of spaces such as offices for Township staff, and facilities that house critical operations such as environmental services, emergency services, recreation services, building and planning services, financial and corporate services, as well as infrastructure operations.

The current replacement value of this asset category is \$27,864,713 and 5% of the overall replacement costs of the asset inventory included in this AMP.

All assets within the buildings and structures, such as furniture and appliances, have been included in this category.

Asset Inventory and Valuation

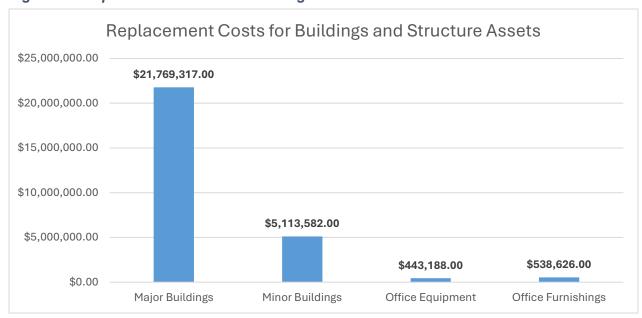
Table 34 will provide a summary of assets in the Building and Structures category and its current valuation.

Table 32: Asset Inventory and Valuation of Buildings and Structures

Building and Structures Inventory				
Asset Category				
	Major Buildings	52	\$21,769,317	
Buildings and Structures	Minor Buildings	59	\$5,113,582	
	Office Equipment	26	\$443,188	
	Office Furnishings	23	\$538,626	
Totals: 160 \$27,864,713			\$27,864,713	

Figure 62 provides a brief overview of category valuation.

Figure 62: Replacement Costs for Building and Structure Assets



Major Buildings, which includes structures such as the Administration Office and the Ramara Centre, has the highest replacement cost within this category at \$21,769,317 and is approximately 78% of the total.

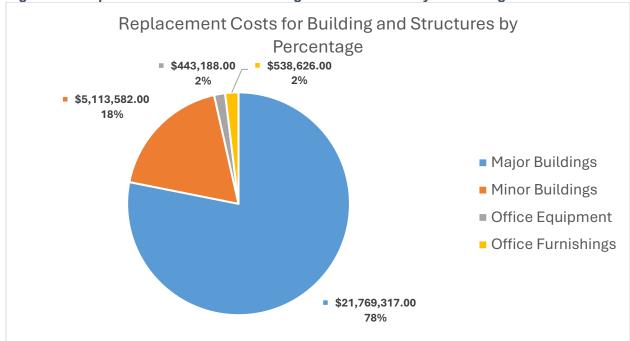


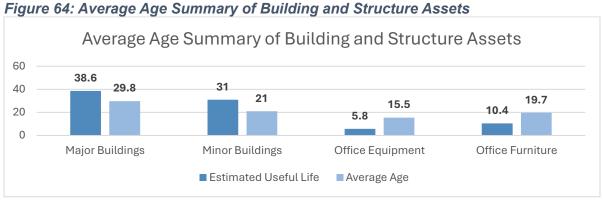
Figure 63: Replacement Costs for Building and Structures by Percentage

Age and Condition

Age

A summary of the current asset age for building and structures owned by the Township can be found in Figure 64. The average useful life for all building and structure assets within the Township is 21.45 years and the average age for these assets is 21.5 years. This signifies that most assets within this category have either reached or exceeded their EUL.

EUL has been identified as per the Township's Tangible Capital Asset Policy which ensures compliances with PSAB PS 3150.



Condition

A summary of the overall condition of the buildings and structure assets can be seen in Figure 65 and Figure 66.

Condition assessments for this AMP include observed condition data, and age.

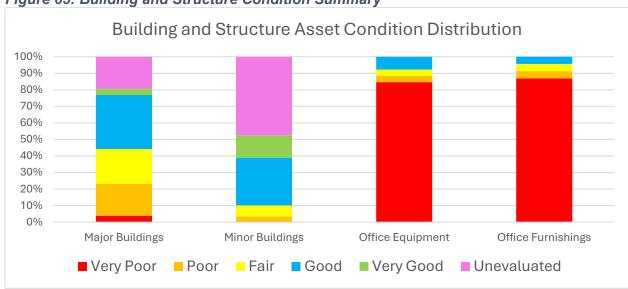
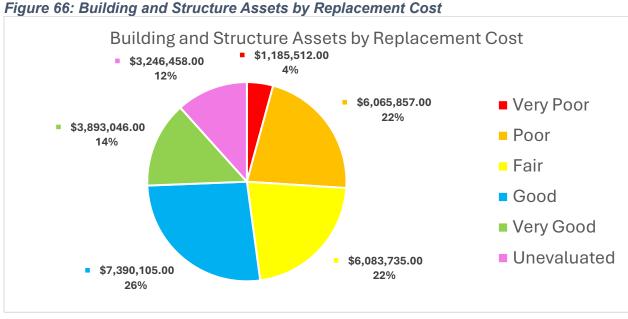


Figure 65: Building and Structure Condition Summary

As mentioned previously, office equipment and furnishings have not been physically assessed, and this data is reporting on age-based data only.

61% of assets in this category are in either poor, very poor or unevaluated conditions and account for \$10,497,827 of the total replacement cost of Building and Structure assets replacement cost.



Level of Service

Current Level of Service

The following tables provides a summary of the current level of service with KPIs, that are both qualitative and quantitative.

Table 33: Community Levels of Service Metrics

Service	Level of Service Measure	Performance
Attribute		
Scope	The Township maintains all buildings and	40% of assets are in fair or
	structures at fair or better condition.	better condition.
	That all buildings and structures are	100% of the buildings and
	accessible.	structures are to be
		accessible.

Table 34: Technical Levels of Service Metrics

Service Attribute	Level of Service Measure	Performance
Scope	Buildings and structures will be available, and unplanned closures are kept minimal.	From July 1, 2024, to April 1, 2025, the Township had 3 days of unplanned closures, all due to significant weather. = 1.09%

Proposed Level of Service

The Township is committed to maintain the current level of service for assets included in this category, ensuring that infrastructure remains safe, reliable, and cost-effective for users. This commitment reflects both community expectations and the Township's strategic priorities, while also considering evolving demands, available resources, and long-term sustainability.

Lifecycle Management Activities

Lifecycle management activities of buildings and structures vary greatly depending on composition and use of the building. For example, a shingled roof has a shorter estimated useful life than a steel roof. Table 37 outlines a summary of lifecycle strategies which help maximize and expand the useful life of buildings and structures.

Staff follow best practices while maintaining assets while always considering the lowest lifecycle costs. Those best practices may include, but are not limited to:

- Inspection protocols.
- Document and address any issues that are identified by users.
- Adhere to scheduled maintenance requirements.
- Continuous monitoring of the condition of the asset.

Table 35: Current Lifecycle Activities

Lifecycle	Description	Example of Associated
Activity		Activities

Operate	Regular activities that help provide existing	Inspections, cleaning.
	services.	
Maintain	Activities to maintain asset which enables	Planned maintenance, minor
	the asset to provide service as intended.	repairs, asset component replacement.
Upgrade	Activities to provide a higher level of service from an existing asset to achieve a better fit for purpose or upgrade is required to meet regulatory requirements.	Upgrades for heating, ventilation, and air conditioning (HVAC) systems to improve energy efficiency, along with modifications to meet Accessibility for Ontarians with Disabilities Act (AODA) requirements.
Renew	Activities that return the asset to the original state.	Minor or major asset rehabilitation or asset replacement.
Expand/Grow	Activities that provide a new asset that did not exist previously, or an expansion of an	New construction to expand an asset and its intended
	existing asset.	service.

All buildings and structures are maintained by qualified building maintenance personnel, including a combination of staff and contractors, based on the technical requirements of the work.

The Township plans for all major upgrades, rehabilitation projects, or renewal options within capital planning to ensure proper funding and to allow for opportunities to bundle work that may be required over several facilities. For example, if several buildings or structures require a new roof, the Township will attempt to have all work completed under one contract to provide financial savings and administrative efficiency.

Risk and Criticality Analysis

A weighted risk matrix for the building and structures asset category has been established to help support replacement and rehabilitation of assets and its prioritization. Assets with a higher risk should be prioritized in capital planning.

When calculating risk, staff has considered the PoF and CoF and contemplates available asset data, including asset condition, age, service life remaining, replacement costs, and the overall use of the asset.

It's important to note that all assets that provide an essential service have a higher PoF and CoF scores due to the nature of use and the potential loss of service and impact to the community.

The figures below will provide a look into the risk rating for assets within the fleet network category.



Figure 67: Building and Structure Risk Distribution

Out of the 160 assets included in this category, 45% are considered either high or very high risk and these assets equal to approximately \$19,901,615, which is also approximately 71% of the total replacement costs of Building and Structures.

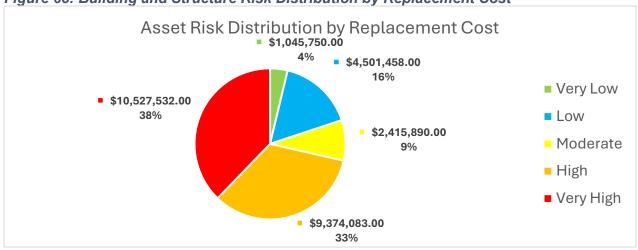


Figure 68: Building and Structure Risk Distribution by Replacement Cost

Financial Strategy

Cost Efficiency

The AMP tracks the estimated operating cost per property. The operating cost is based on the average operating costs over the most recent two years, divided by the number of properties. As of April 2025, there are 7,835 properties within the Township. Properties that are owned by both the lower and upper tier governments have been removed from this number.

Table 36: Cost Efficiency Table of Buildings and Structures

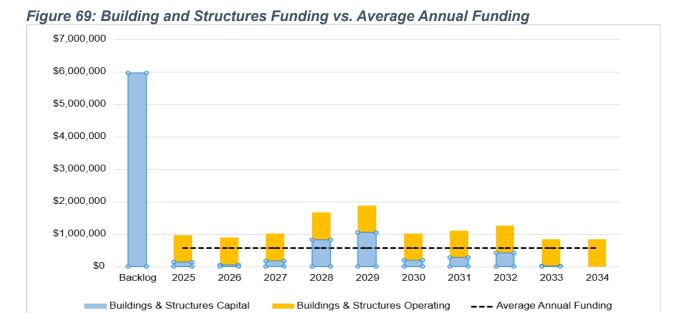
Average Operating Costs 2023 & 2024	Properties	Cost Per Property
\$833,198	7,835	\$106.34

Financial Forecast

The Township's total average annual capital funding is projected to be \$7.7M, which has been allocated to asset categories based on asset replacement cost over the next 10 years and includes the backlog. The Building and Structures network represents approximately 7.4% of the total asset replacement cost. Therefore, approximately \$571K in funding has been allocated to the Building and Structures network, annually.

This asset category has a backlog of \$6.0M, approximately 6.6% of the total backlog in this report. It is projected that this category is to have an average annual capital expenditure over the 10-year period, 2025 to 2034, of approximately \$313K. The average annual surplus of \$257K should be used to clear this backlog, annually. Any additional funding received beyond what is projected in this report would allow the Township to clear more of the backlog annually.

Based on the Township maintaining current levels of service, while clearing the backlog with any annual surplus available, the projected backlog for Buildings and Structure assets after 2034 will be \$3.4M.



Information Technology

Information Technology (IT) assets have become a crucial component when it comes to delivery services to municipal residents and the public, and have become an integral part of Township operations in all areas.

Included in this category are workstations, software and printers, all of which allow staff to conduct job requirements and obligations successfully and with confidence.

The Township is currently contracts the County of Simcoe (County) to provide network, security, technical support and any several larger and complex assets such as servers, are not included in this AMP as they are owned or maintained by the County.

The current replacement value of this asset category is \$349,049 and 0.19% of the overall replacement costs of the asset inventory included in this AMP.

Most of these assets are 'pooled' assets. For example, under workstations, one asset may in fact contain 9 laptops as these are normally ordered in bulk. They are pooled based on purchasing date as the EUL will be the same for all the units.

Asset Inventory and Valuation

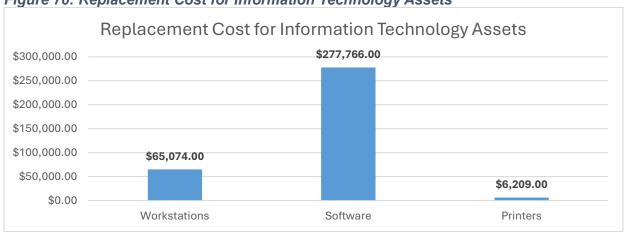
Table 39 will provide a summary of assets in the Information Technology category and its current valuation.

Table 37: Asset Inventory and Valuation of Information Technology

Information Technology Inventory				
Asset Category Asset Class Quantity/Units Replacement Cost				
Information	Workstations	12	\$65,074	
Information	Software	10	\$277,766	
Technology	Printers	2	\$6,209	
Totals: 24 \$349,049				

Figure 70 and Figure 71 will show a brief overview of category valuation.

Figure 70: Replacement Cost for Information Technology Assets



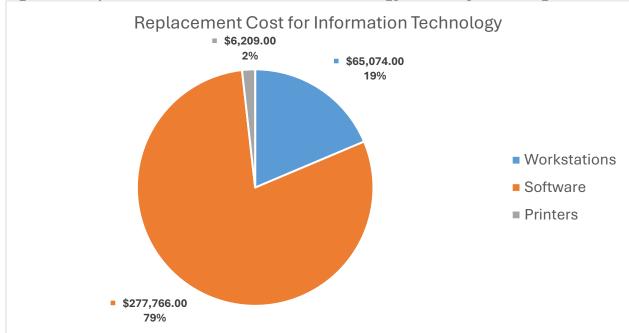


Figure 71: Replacement Cost for Information Technology Assets by Percentage

Age and Condition

The information presented reflects the current state of the asset data available within the Township's systems. While it is acknowledged that the data may not yet meet the desired standards of accuracy and completeness, it is being included as a significant portion of the Township's assets. The Township is committed to ongoing improvements in data governance, system capabilities, and process enhancements to ensure greater reliability and confidence in future reporting.

Age

A summary of the current asset age for information technology assets owned by the Township can be found in Figure 72. It is highlighted that all assets within this asset category are far past the estimated useful life, on average.

Estimated useful life has been identified as per the Townships Tangible Capital Asset Policy which ensures compliances with PSAB PS 3150.

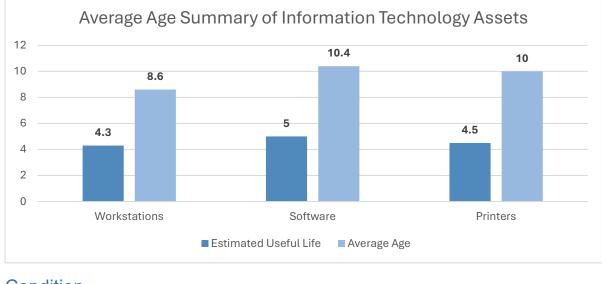
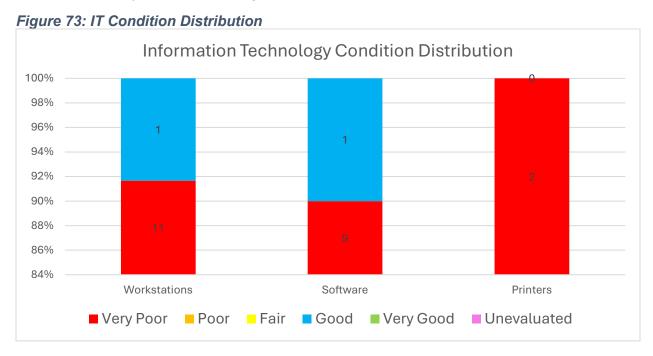


Figure 72: Average Age Summary of IT Assets

Condition

A summary of the overall condition of the information technology assets can be seen in Figure 73. Please note that age-based data has been used for reporting of this asset category. Again, although the condition appears to be alarming, the assets in this category are functioning at appropriate levels. It is anticipated that enhancements to data governance will support improved accuracy in future reporting.



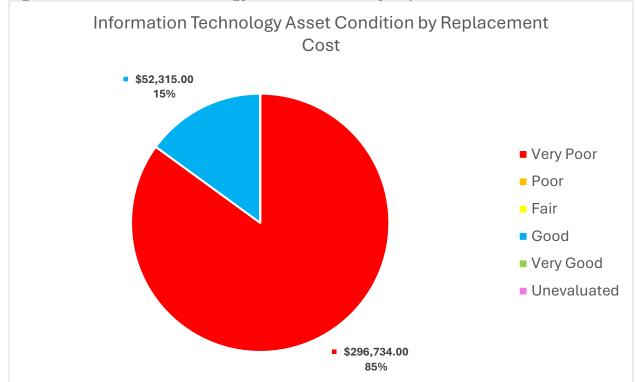


Figure 74: Information Technology Asset Condition by Replacement Cost

Level of Service

Current Level of Service

The following table provides a summary of the current level of service with KPIs, that are both qualitative and quantitative.

Table 38: Community Levels of Service Metrics

Service Attribute	Level of Service Measure	Performance
Scope	The municipality maintains the IT	All inventory functions as
	inventory to operate as intended.	intended the majority of the
		time, as reported by staff.

Table 39: Technical Levels of Service Metrics

Service Attribute	Level of Service Measure	Performance
Scope	The municipality will maintain assets inventory to be in fair or better condition, on average.	91.7% of assets are in very poor condition.
		*This performance is likely due to inconsistent data and not completely accurate.

Proposed Level of Service

The Township is committed to maintain the current level of service for assets included in this category, ensuring that infrastructure remains safe, reliable, and cost-effective for users. This commitment reflects both community expectations and the Township's strategic priorities, while also considering evolving demands, available resources, and long-term sustainability.

Lifecycle Management Activities

The Township strives to proactively maintain information technology assets through their deterioration that balances cost and risk of the assets.

Table 40: Lifecycle Activities for Information Technology

Lifecycle Activity	Description	Example of Associated Activities
New	New equipment or software.	New laptop, printer or software is purchased.
Operate & Maintain	Use, operate and updated equipment or software as intended.	Updating software when required.
Replace	Replace equipment when no longer can be used as intended or follow and replace on a pre-determined schedule to prevent risk of failure.	Dispose of old asset and replace with new.
Expand/Grow	Add new assets if needed when new position is created or modified.	Purchase new asset.

Risk and Criticality Analysis

A weighted risk matrix for the information technology asset category has been established to help support replacement and rehabilitation of assets and its prioritization. Assets with a higher risk should be prioritized in capital planning.

When calculating risk, staff has considered the PoF and CoF and contemplates available asset data, including asset age, service life remaining, replacement costs, and the overall use of the asset.

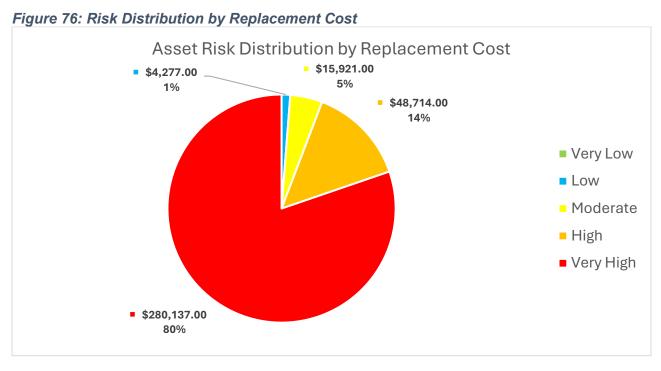
The figures below will provide a look into the risk rating for assets within the IT network category.



Figure 75: Asset Risk Distribution

Risk is a little bit different when it comes to technology as it needs to consider physical risk and also the risk to the safety of sensitive data due to online threats.

It is recommended that a security assessment be completed to gather the appropriate data.



High risk assets do carry most of the replacement cost in this asset category, at 80% and costing approximately \$280,137.

Township of Ramara Asset Management Plan 2025 www.ramara.ca

Financial Strategy

Cost Efficiency

The AMP tracks the estimated operating cost per property. The operating cost is based on the average operating costs over the most recent two years, divided by the number of properties. As of April 2025, there are 7,835 properties within the Township. Properties that are owned by both the lower and upper tier governments have been removed from this number.

Table 41: Cost Efficiency Table for Information Technology

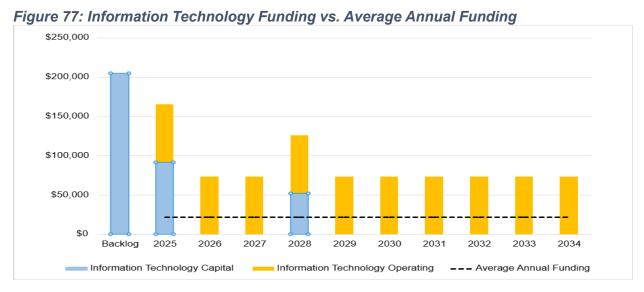
Average Operating Costs 2023 & 2024	Properties	Cost Per Property
\$73,500	7,835	\$9.38

Financial Forecast

The Township's total average annual capital funding is projected to be \$7.7M, which has been allocated to asset categories based on asset replacement cost over the next 10 years and includes the backlog. The IT Network represents approximately 0.3% of the total asset replacement cost. Therefore, approximately \$22K in funding has been allocated to the IT Network annually.

The IT Network has a backlog of \$204K, approximately 0.2% of the total backlog in this report. The IT Network is projected to have average annual capital expenditures over the 10-year period 2025 to 2034 of approximately \$14K. This average annual surplus of \$8K will be used to clear the IT Network backlog annually. Any additional funding received beyond what is projected in this report would allow the Township to clear more of the backlog annually.

Based on the Township maintaining current levels of service while clearing the backlog with any annual surplus available, the projected backlog for IT Network assets after 2034 will be \$129K.



Asset Management Plan 2025

www.ramara.ca

Other Assets

Physical assets within this category are undefined and the Township is actively working on gathering relevant information regarding condition, age, etc. It has been included for replacement cost purposes.

The current replacement value of this asset category is \$171,414, and 0.09% of the overall replacement costs of the asset inventory included in this AMP.

Asset Inventory and Valuation

Table 48 will provide a summary of assets in the Other Assets category and its current valuation.

Table 42: Asset Inventory and Valuation of the Undefined Assets

Inventory			
Asset Category Asset Class Quantity/Units Replacement Cost			
Other	Undefined Assets	9	\$171,414
Total:		9	\$171,414

Financial Strategy

Cost Efficiency

As these assets are currently undefined, further investigation and data will be required in future reporting.

Machinery and Equipment

Machinery and equipment within the Township encompass many different assets, that serve many different purposes. This category is broken down into three (3) asset classes to better organize data that is currently available.

The current replacement value of this asset category is \$8,158,821 and 4.43% of the overall replacement costs of the asset inventory included in this AMP.

Asset Inventory and Valuation

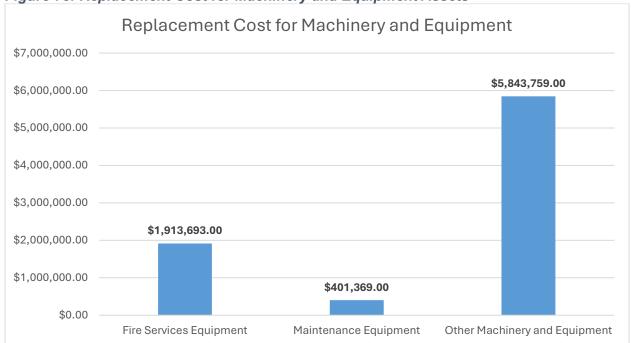
Table 50 will provide a summary of assets in the Machinery and Equipment category and its current valuation. The assets in this category include items such as pumps, mowers, generators, etc., that support Township service delivery.

Table 43: Asset Inventory and Valuation for Machinery and Equipment

Machinery and Equipment Inventory			
Asset Category	Asset Class	Quantity/Units	Replacement Cost
	Fire Services Equipment	99	\$1,913,693
Machinery and Equipment	Maintenance Equipment	25	\$401,369
	Other Machinery and Equipment	144	\$5,843,759
Totals:		268	\$8,158,821

Figure 78 and Figure 79 will show an overview of category valuation.

Figure 78: Replacement Cost for Machinery and Equipment Assets



As illustrated in the figures, Other Machinery and Equipment consists of 72% of the replacement cost of this asset category at \$5,843,759.

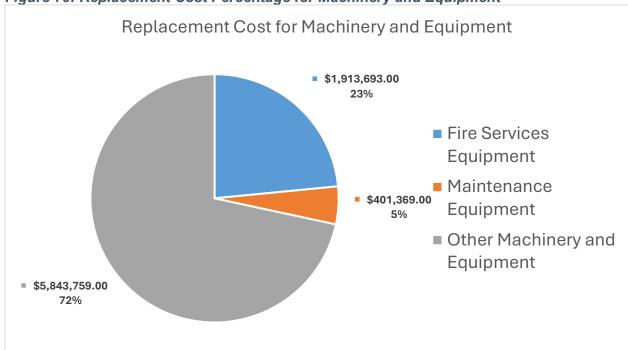


Figure 79: Replacement Cost Percentage for Machinery and Equipment

Age and Condition

Age

A summary of the current asset age for machinery and equipment assets owned by the Township can be found in Figure 83. The average useful life for machinery and equipment assets within the Township is 13.6 years.

EUL has been identified as per the Townships Tangible Capital Asset Policy which ensures compliances with PSAB PS 3150.

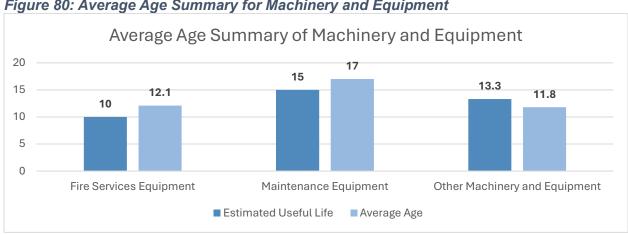


Figure 80: Average Age Summary for Machinery and Equipment

Condition

A summary of the overall condition of the machinery equipment assets can be seen in Figure 81. Condition assessments for this AMP include observed condition data and age.

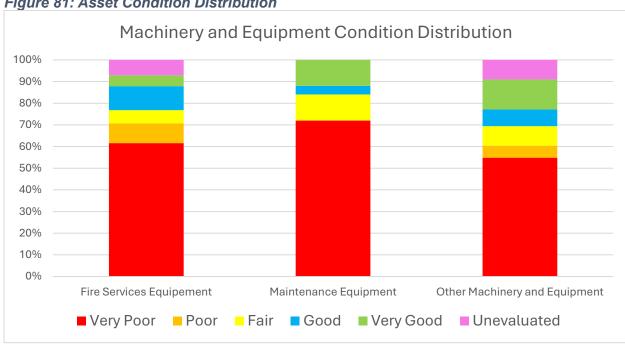


Figure 81: Asset Condition Distribution

Although 59% of machinery and equipment assets are in very poor condition, this condition category only represents approximately 33% of the replacement cost.



Figure 82: Asset Condition by Replacement Cost

Fire Services Equipment

The Township purchases and maintains fire service equipment which aid in fire suppression, medical response, automobile extrication, search and rescue, and other emergency situations.

Of these assets, over 70% are in poor or worse condition.

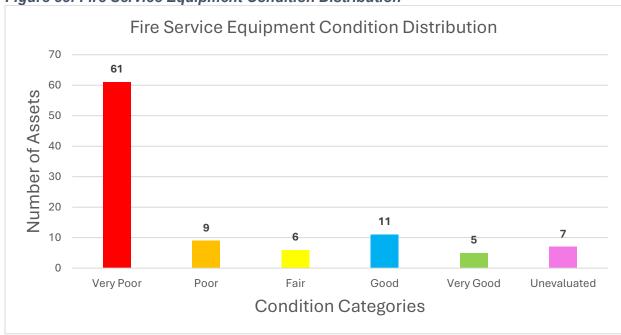


Figure 83: Fire Service Equipment Condition Distribution

Although the majority of assets may be in poor or very poor condition, 49% of the replacement cost lie with assets that are in fair or better condition, as illustrated in Figure 84.

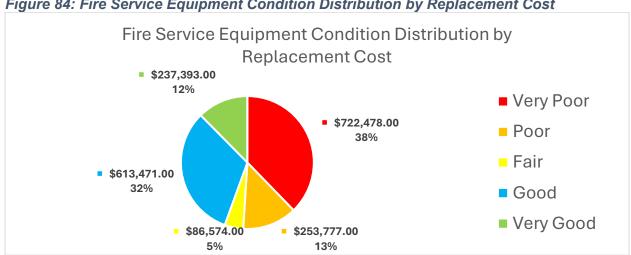


Figure 84: Fire Service Equipment Condition Distribution by Replacement Cost

Maintenance and Other Machinery and Equipment

The Township purchases and maintains many maintenances equipment which supports service delivery, including items such as fuel storage and pumps.

It has been found that 30.18% of included assets are in fair or better condition, whereas 62.13% are in poor or worse condition.

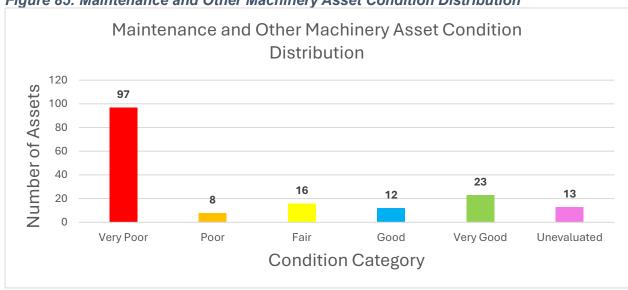


Figure 85: Maintenance and Other Machinery Asset Condition Distribution

Similar to Fire Services Equipment, the majority of assets in this class are reported to be in poor or very poor condition, however, 58% of the replacement cost of these assets are attributed to assets that are in fair or better condition, as shown in Figure 86.

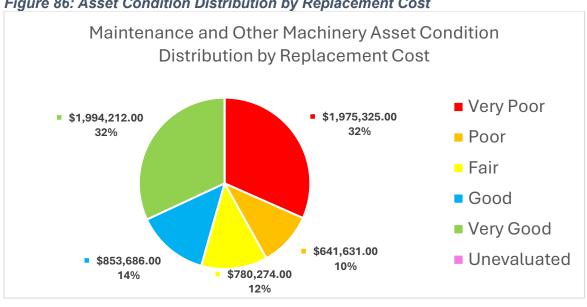


Figure 86: Asset Condition Distribution by Replacement Cost

Level of Service

Current Level of Service

The following tables provides a summary of the current level of service with KPIs, that are both qualitative and quantitative.

Fire Service Equipment

Table 44: Community Levels of Service Metrics

Service Attribute	Level of Service Measure	Performance
Scope	The Township maintains fire equipment	All inventory works as
	to ensure that it functions as intended.	intended the majority of the
		time, as reported by staff.

Table 45: Technical Levels of Service Metrics

Service Attribute	Level of Service Measure	Performance
Scope	The Township maintains fire services	The current average
	equipment in a condition of good or	condition is 20.74, poor
	better.	condition.

Maintenance and Other Machinery Equipment

Table 46: Community Levels of Service Metrics

Service Attribute	Level of Service Measure	Performance
Scope	The Township maintains equipment that	All inventory works as
	can be used as intended.	intended the majority of the
		time, as reported by staff.

Table 47: Technical Levels of Service

Service Attribute	Level of Service Measure	Performance
Scope	The Township maintains equipment that is in fair or better condition.	The current average condition is 25.88, poor condition.

Proposed Level of Service

The Township is committed to maintain the current level of service for assets included in this category, ensuring that infrastructure remains safe, reliable, and cost-effective for users. This commitment reflects both community expectations and the Township's strategic priorities, while also considering evolving demands, available resources, and long-term sustainability.

Lifecycle Management Activities

Although the Township does not have a set system regarding lifecycle activities, the Township strives to proactively maintain machinery and equipment assets through their deterioration that balances cost and risk of the assets. In general, lifecycle activities that take place can be seen in Table 55.

Table 48: Lifecycle Activities for Machinery and Equipment

Lifecycle Activity	Description	Example of Associated Activities
Operate	Regular activities that help provide existing services.	Inspections, cleaning.

Maintain	Activities to retain asset condition to	Planned maintenance, minor
	ensure asset performs as intended.	repairs.
Renew/Replace	Activities that return the asset to the	Minor or major asset
	original state or replace the asset.	rehabilitations or asset
		replacement.

Risk and Criticality Analysis

A weighted risk matrix for the machinery and equipment asset category has been established to help support replacement and rehabilitation of assets and its prioritization. Assets with a higher risk should be prioritized in capital planning.

When calculating risk, staff has considered the PoF and CoF, which contemplates available asset data, including asset condition, age, service life remaining, replacement costs, and the overall use of the asset.

It is important to note that all assets used for emergency services have the highest PoF and CoF scores due to the nature of use.

The figures below provide a look into the risk rating for assets within the Machinery and Equipment network category.



Figure 87: Asset Risk Distribution

Figure 87 and Figure 88 advise that less than half, 36.57%, of assets in this asset category are considered high or very high-risk assets and generally consists of fire service equipment or equipment that assists the Township in providing an essential service.

Assets classified as high or very high-risk assets account for 38% of this category's total replacement cost at \$3,109,617.

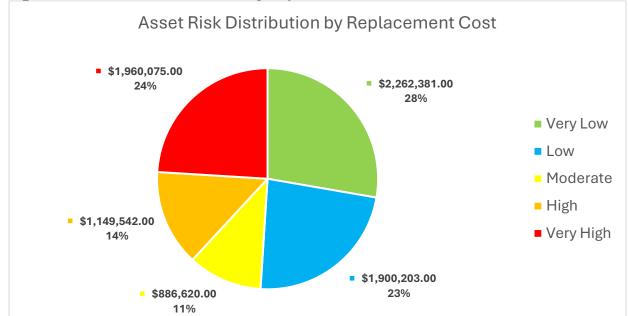


Figure 88: Asset Risk Distribution by Replacement Cost

Financial Strategy

Cost Efficiency

The AMP tracks the estimated operating cost per property. The operating cost is based on the average operating costs over the most recent two years, divided by the number of properties. As of April 2025, there are 7,835 properties within the Township. Properties that are owned by both the lower and upper tier governments have been removed from this number.

Table 49: Cost Efficiency Table for Machinery and Equipment

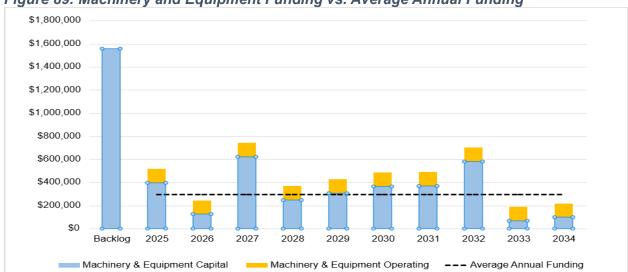
Average Operating Costs 2023 & 2024	Properties	Cost Per Property
\$120,588	7,835	\$15.39

Financial Forecast

The Township's total average annual capital funding is projected to be \$7.7M, which has been allocated to asset categories based on asset replacement cost over the next 10 years and includes the backlog. The Machinery and Equipment Network represents approximately 3.9% of the total asset replacement cost. Therefore, approximately \$298K in funding has been allocated to the Machinery and Equipment Network annually.

The Machinery and Equipment Network has a backlog of \$1.6M, approximately 1.7% of the total backlog in this report. The Machinery and Equipment network is projected to have average annual capital expenditures over the 10-year period 2025 to 2034 of approximately \$318K. This average annual deficit of \$20K will increase the Machinery and Equipment Network backlog annually. Any additional funding received beyond what is projected in this report would allow the Township to reduce this deficit and meet current replacement needs.

Based on the Township maintaining current levels of service, the projected backlog for Machinery and Equipment Network assets after 2034 will be \$1.8M.



Land and Land Improvements

Assets within the land network are quite extensive and range from vacant land and road allowance to parks, recreation assets, playgrounds, parkland and improved lands.

The current replacement value of this asset category is \$3,844,777 and accounts for 2.09% of the overall replacement costs of the asset inventory included in this AMP, as highlighted in Figure 2: Replacement Cost per Asset Category.

Asset Inventory and Valuation

Table 57 will provide a summary of assets in the Land and Land Improvement category and its current valuation.

Land related assets have been included in this report for valuation purposes only as they have no estimated useful life or replacement cost.

Table 50: Asset Inventory and Valuation of Land and Land Improvements

Land and Land Improvements Inventory					
Asset Category	Asset Class	Quantity/Units	Replacement Cost		
	Improved	14	\$0		
	Improved/Parkland	1	\$0		
	Parkland	49	\$0		
	Road Allowance	10	\$0		
	Vacant	48	\$104,379		
Land and Land	Fencing	10	\$161,138		
Improvements	Landscaping	16	\$275,557		
improvements	Lighting	5	\$89,307		
	Paved Areas	16	\$505,206		
	Recreation Assets	16	\$580,896		
	Marine	12	\$719,464		
	Infrastructure				
	Other	21	\$1,405,830		
Totals:		218	\$3,844,777		

Figure 90 shows a brief overview of category valuation.

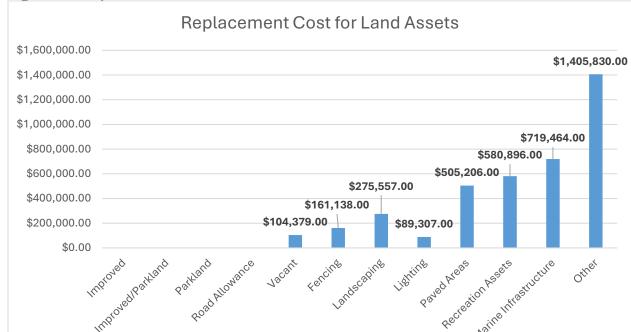


Figure 90: Replacement Cost for Land Assets

Age and Condition

Age

A summary of the current asset age for land and land improvement assets owned by the Township can be found in Figure 95. The average useful life for land assets within the Township is 36 years.

It is important to note that any land does not have an EUL and only has average age included in this section of the report for inclusion purposes.

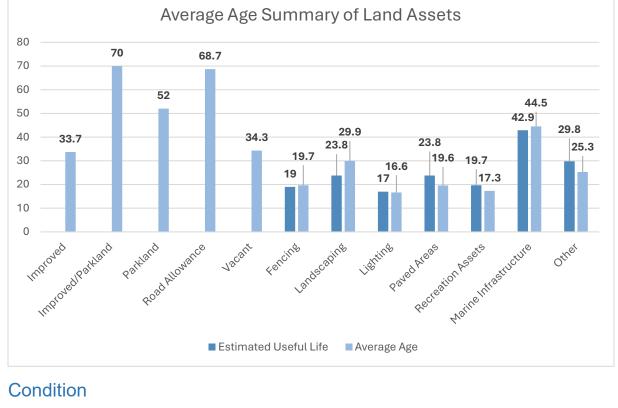


Figure 91: Average Age Summary of Land Assets

A summary of the overall condition of land network assets can be seen in Figure 92. Condition assessments for this AMP include observed condition data, and age.

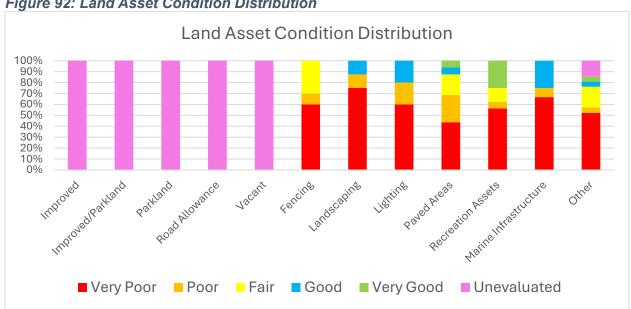


Figure 92: Land Asset Condition Distribution

Although approximately 57% of assets included in the Land Inventory are in an unevaluated condition, approximately 56.3% of the replacement cost for this asset category is associated with assets that are in either poor or very poor condition, totalling \$2,163,467.

Township of Ramara Asset Management Plan 2025 www.ramara.ca

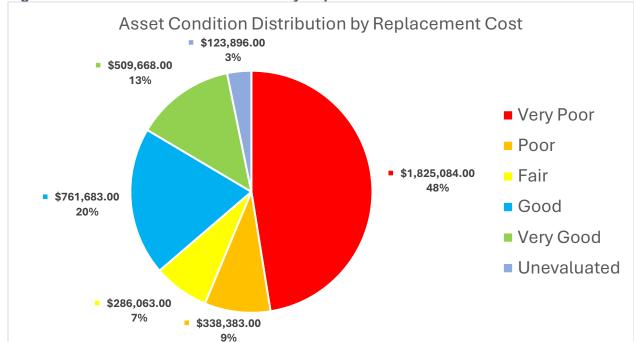


Figure 93: Asset Condition Distribution by Replacement Cost

Level of Service

Current Level of Service

The following table provides a summary of the current level of service with KPIs, that are both qualitative and quantitative.

Table 51: Community Levels of Service

Service Attribute	Level of Service Measure	Performance
Scope	Recreation Assets, including	Current average condition
	playgrounds, are maintained in a fair or	rating is 40.35, fair condition.
	better condition.	

Table 52: Technical Levels of Service Metrics

Service Attribute	Level of Service Measure	Performance
Scope	The number of hectares of parkland per 1,000 residents.	2.747ha per 1,000 residents.
	100% of playground inspections completed on-time.	Between July 1, 2024, and April 1, 2025, there have been 36 required playground inspections, of which, 24 (67%) have been completed on-time.

Proposed Level of Service

The Township is committed to maintain the current level of service for assets included in this category, ensuring that infrastructure remains safe, reliable, and cost-effective for users. This commitment reflects both community expectations and the Township's strategic priorities, while also considering evolving demands, available resources, and long-term sustainability.

Lifecycle Management Activities

As part of inspection programs that are specified by manufactures and regulatory requirements, land improvements are inspected regularly. By adhering to these inspections, the Township can ensure that compliance is maintained as well as identify any changes in the asset condition which could impact the useful life of the asset as well as identify any deficiencies or repair requirements.

Land improvement assets are maintained by qualified staff within the Township. If work is outside of their skills or abilities, the Township will procure an external contractor to perform any work necessary.

Table 53: Lifecycle Activities for Land and Land Improvement Assets

Lifecycle Activity	Description	Example of Associated Activities
Operate	Regular activities that help provide existing services.	Inspections, cleaning.
Maintain	Activities to maintain asset which enables the asset to provide service as intended.	Planned maintenance, minor repairs, asset component replacement.
Upgrade	Activities to provide a higher level of service from an existing asset to achieve a better fit for purpose or upgrade is required to meet regulatory requirements.	Upgrades to a park, upgrades to meet AODA requirements.
Renew	Activities that return the asset to the original state.	Minor or major asset rehabilitation or asset replacement.
Expand/Grow	Activities that provide a new asset that did not exist previously, or an expansion of an existing asset.	New construction to expand an asset and its intended service.

Risk and Criticality Analysis

A weighted risk matrix for land and land improvement asset category has been established to help support replacement and rehabilitation of assets and its prioritization. Assets with a higher risk should be prioritized in capital planning.

When calculating risk, staff has considered the PoF and CoF, which contemplates available asset data, including asset condition, age, replacement costs, and the overall use of the asset.

Most assets are considered low to very low risk assets. High and very high-risk assets include assets with the highest replacement cost or are frequently used by the public.



Figure 94: Asset Risk Distribution

Financial Strategy

Cost Efficiency

The AMP tracks the estimated operating cost per property. The operating cost is based on the average operating costs over the most recent two years, divided by the number of properties. As of April 2025, there are 7,835 properties within the Township. Properties that are owned by both the lower and upper tier governments have been removed from this number.

Table 54: Cost Efficiency Table for Land and Land Improvements

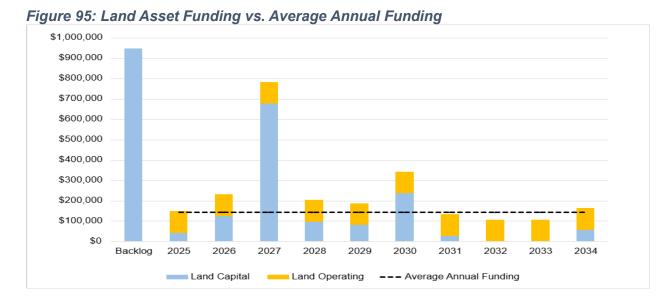
Average Operating Costs 2023 & 2024	Properties	Cost Per Property
\$106,358	7,835	\$13.57

Financial Forecast

The Township's total average annual capital funding is projected to be \$7.7M, which has been allocated to asset categories based on asset replacement cost over the next 10 years and includes the backlog. The Land Network represents approximately 1.9% of the total asset replacement cost. Therefore, approximately \$144K in funding has been allocated to the Land Network annually.

The Land Network has a backlog of \$949K, approximately 1.0% of the total backlog in this report. The Land network is projected to have average annual capital expenditures over the 10-year period 2025 to 2034 of approximately \$134K. This average annual surplus of \$10K should be used to clear the Land Network backlog annually. Any additional funding received beyond what is projected in this report would allow the Township to clear more of the backlog annually.

Based on the Township maintaining current levels of service while clearing the backlog with any annual surplus available, the projected backlog for Land Network assets after 2034 will be \$850K.



Financial Strategies and Frameworks

The development of a 10-year capital forecast should include asset renewal and rehabilitation requirements in addition to asset replacements. With the development of asset-specific lifecycle strategies that include the timing and anticipated cost of future capital events, the Township can produce a capital forecast that considers the entire estimated useful life of assets.

The following figures identifies the forecasted capital requirements over the 2025-2034 period for all assets, with inclusion of the backlog and exclusion of the backlog. The backlog is primarily composed of Roads Network assets beyond their EUL. This backlog represents the assets that are past due for renewal or replacement based on the best available information. Calculating the backlog is useful to understand the short-term needs of assets. Many assets can remain in service beyond their EUL or preferred condition; however, it increases the risk of failure. Including the backlog, the forecasted 10-year average sustainable capital requirement for all assets over the 2025-2034 period is approximately \$12.3 million per year in 2025 dollars.

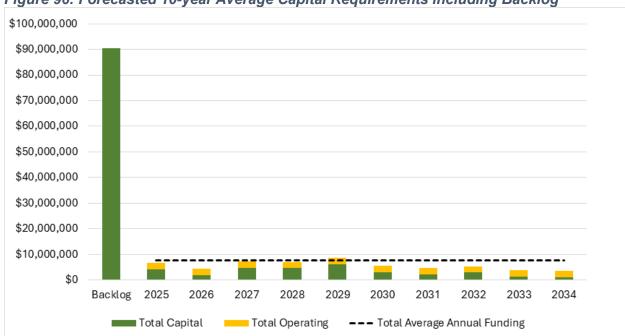


Figure 96: Forecasted 10-year Average Capital Requirements including Backlog

Excluding the backlog, the forecasted 10-year average sustainable capital requirement for all assets over the 2025-2034 period is approximately \$3.8 million per year in 2025 dollars.

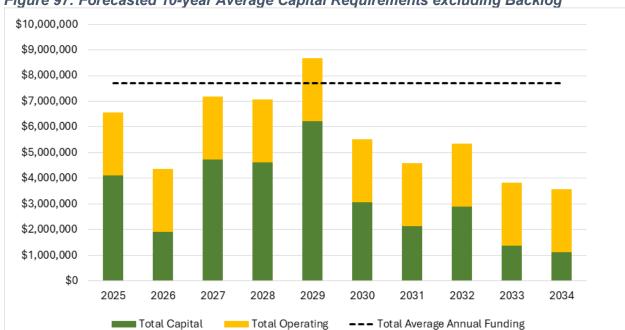


Figure 97: Forecasted 10-year Average Capital Requirements excluding Backlog

Annual Capital Requirements and Reinvestment

The following table illustrates the annual capital replacement cost for all assets in the 10-year period of 2025-2034. The average annual capital requirement is \$12.3M, and the average annual funding is \$7.7M, shows that there is an average annual capital funding deficit of \$4.6M. It is important to note that any adjustments to the 10-Year Capital Plan will impact the level of this deficit.

Table 55: 2025-2034 Average Annual Capital Summary in Millions of Dollars

	Backlog	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Funding	\$ -	\$7.8	\$7.7	\$7.9	\$7.8	\$7.7	\$7.7	\$7.7	\$7.7	\$7.7	\$7.7	\$77.1
Annual	\$90.6	\$4.1	\$1.9	\$4.7	\$4.6	\$6.2	\$3.1	\$2.1	\$2.9	\$1.4	\$1.1	\$122.8
Capital												
Replacement												
Cost												
Surplus/	\$(90.6)	\$3.6	\$5.8	\$3.1	\$3.1	\$1.5	\$4.6	\$5.5	\$4.8	\$6.3	\$6.5	\$(45.6)
(Deficit)	, ,											, ,

Although staff project average annual operating costs related to capital of approximately \$2.5M, these costs are funded from the Operating Budget, therefore they are not included in the table calculating the Annual Capital Surplus/Deficit.

Eliminating annual infrastructure funding shortfalls is a difficult and long-term endeavour common to many municipalities within Ontario. Considering the Township's current infrastructure deficit position, it will require many years to close the infrastructure gap and fully fund asset replacements and improvements.

By enhancing asset management processes to better balance operational capacity beyond estimated useful life with an understanding of failure likelihood, consequences, and financial investment, the overall risk associated with life extension strategies can be effectively reduced.

Township of Ramara Asset Management Plan 2025 www.ramara.ca

Infrastructure Funding Framework

The Township will track the estimated operating cost per property in each AMP update. The operating cost will be based on the average operating costs over the most recent two years, divided by the number of properties. As of April 2025, there are 7,835 properties within the Township. Properties that are owned by both the lower and upper tier governments have been removed from this number.

Table 56: Cost Efficiency Table of All Assets

Average Operating Costs 2023 & 2024	Properties	Cost Per Property
\$2,453,367	7,835	\$313.13

Current and Proposed Infrastructure Funding Framework

The financial strategy is based solely on like-for-like replacement of existing assets and does not include inflation currently.

To maintain the current level of service, clear existing backlogs, prevent further infrastructure backlogs, and achieve long-term sustainability, the Township's average annual capital funding requirement for the period 2025-2034 is \$12.3M. Based on the 2025-2034 10-Year Capital Forecast the Township is allocating an average of \$7.7M towards capital projects related to the assets covered in this plan.

The Township has a backlog of approximately \$90.6M for assets in this report. The Township is projected to have average annual capital expenditures over the 10-year period 2025 to 2034 of approximately \$3.2M. This average annual surplus of \$4.5M will be used to clear the Township's backlog annually. Any additional funding received beyond what is projected in this report will allow the Township to clear more of the backlog annually.

Based on the Township maintaining current levels of service while clearing the backlog with any annual surplus available, the projected backlog for assets after 2034 will be \$46M.

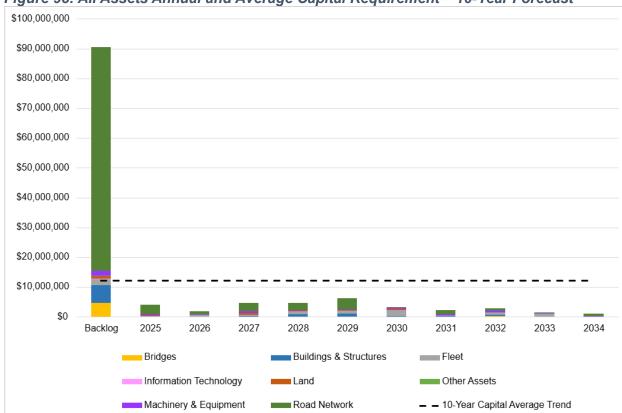


Figure 98: All Assets Annual and Average Capital Requirement – 10-Year Forecast

Population and Growth

The demand for infrastructure and services will change over time based on internal and external factors. Understanding the key drivers of growth and demand will allow the Township to plan for new infrastructure more effectively. Increases or decreases in demand can affect what assets are needed and what level of service meets the needs of the Township.

Based on Census 2022 data, the Township of Ramara's current population is 10,377 permanent residents, which shows 9% growth from the 2016 Census of 9,488 permanent residents. Hemson Consulting completed a Development Charges Background Study for the Township in 2022. Based on their forecasts, the Township is expected to grow to 12,608 permanent residents by 2031. The expected growth will increase the Townships overall assessment base and increase user fees and charges revenue which will offset the costs of life cycle management and capital asset cost provisions as required.

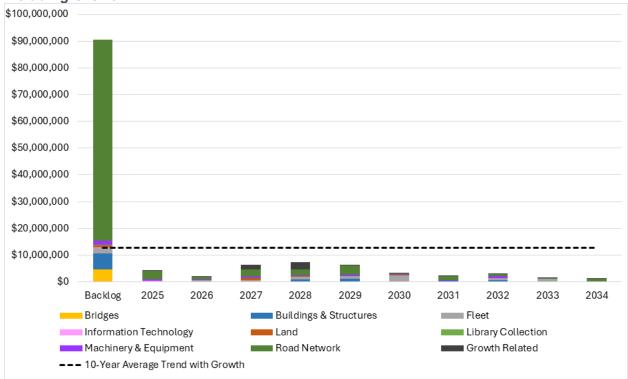
However, additional services and infrastructure is also required with growth. The growth needs over the 2025-2034 period are taken from the Development Charges Background Study. The Township will work to fund infrastructure capital related to growth by development charges when reserves are sufficient. Total Growth-Related Projects for assets in this Report include:

Table 57: Total Growth Replated Projects vs. Development Charge Reserves

Timing	Gross Project Cost	Available Development Charge Reserves
2025	\$114,960	\$25,572
2026	\$144,960	\$25,572
2027	\$1,706,460	\$198,453
2028	\$2,857,300	\$98,756
2029	\$114,960	\$25,572
2030	\$114,960	\$25,572
2031	\$114,960	\$25,572
2032	\$64,690	\$5,572
2033	\$64,690	\$5,572
2034	\$64,690	\$5,572
Total:	\$5,363,440	\$441,785

The Total Growth-related projects in the 10-year period 2025 to 2034 is approximately \$5.4M. If the Growth-related projects are completed as projected by Hemson, this would increase the Township's average annual capital funding requirement for the period 2025-2034 from \$12.3M to \$12.8M, straining already existing funding limitations. Therefore, the Township needs to consider how to close these funding gaps, and update future financial growth projections to include increased user fees and charges revenue anticipated.

Figure 99: All Assets Annual and Average Capital Requirement – 10-Year Forecast Including Growth



Background Information and Report

All background information and reports will be available to the public by request, in accordance with the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA), which governs access to municipal records while protecting personal privacy.

Annual Review and Updates

In accordance with legislation, the Council of the Township of Ramara will conduct an annual review of its asset management progress on or before July 1 of each year.

Replacement costs, estimated useful life, condition assessments, and other relevant data will be updated as appropriate or available.

Recommendations

The following recommendations are providing for the management of the assets within this plan.

- 1. It is recommended to develop a data governance structure for asset management, including adding, updating, disposing of assets, categorization, condition assessments, frequencies, and general processes within the asset management system.
- 2. The Township should further develop the asset inventory for all assets in this plan and close any highlighted knowledge/data gaps, as highlighted in the Information Technology Network.
- 3. Asset replacement plans should be developed to enable the proactive and efficient replacement of aging assets.
- 4. Funding should be allocated to reserve funds to aid in closing the infrastructure gap.
- 5. A roads need study should be performed every five years to ensure an accurate assessment of road assets.
- Complete building condition assessments to increase accuracy of future capital planning of buildings and structures. These should be completed every five years to ensure a current assessment and inventory.
- 7. It is recommended to investigate the utilization of CityWide to capture more useful data to complete the full picture of 'Level of Service' for asset categories. For example, tracking planned preventative maintenance versus reactive unplanned maintenance which would play into decision making.



2297 Highway 12 Brechin, ON LOK 1B0

www.ramara.ca T. 705-484-5374