2025 Level of Service Asset Management Plan

The Township of Stirling-Rawdon

Introduction

The Township of Stirling-Rawdon is committed to maintaining a comprehensive Asset Management Plan (AMP) that ensures the long-term sustainability, safety, and efficiency of municipal infrastructure. This AMP is developed in accordance with Ontario Regulation 588/17 and reflects best practices in asset management, lifecycle planning, and risk management.

Objectives of the Asset Management Plan

The AMP is designed to provide Council and staff with a data-driven framework to:

1. Inventory and Assess Assets
    - Identify all municipal assets by category.
    - Summarize the number, age, replacement cost, and condition of assets.
    - Describe the Township's approach to assessing asset condition using recognized engineering practices.
2. Establish Current Levels of Service (LOS)
    - Document the current levels of service for each asset category.
    - Use qualitative descriptions and technical metrics based on data from the previous two calendar years.
3. Plan for Future Lifecycle Activities
    - Outline all activities required to maintain LOS for the next 10 years, including:
        - Routine operations and maintenance
        - Preventive and predictive maintenance
        - Rehabilitation and replacement
    - Evaluate costs, risks, and alternatives associated with lifecycle activities.
4. Propose Future Levels of Service
    - Establish proposed LOS for each asset category for the 10-year planning horizon.
    - Include core infrastructure assets and non-core municipal assets.
    - Provide rationale for the proposed LOS, considering:
        - Risk to long-term sustainability
        - Differences from current LOS
        - Achievability
        - Affordability
5. Develop Lifecycle Management and Financial Strategy

    - Identify lifecycle activities needed to achieve proposed LOS at the lowest cost.
    - Estimate annual costs over the 10-year period, separated into capital and significant operating costs.
    - Compare projected annual funding with lifecycle costs and identify potential funding shortfalls.
    - Propose mitigation strategies for managing risks if lifecycle activities cannot be fully funded.
6. Consider Social, Technological, and Environmental Trends
    - Factor in evolving government regulations, societal changes, technology advancements, and sustainability considerations that may impact asset management decisions.

Phase-in Schedule

- By July 1, 2025, the AMP will include:
    1. Proposed LOS for each asset category over the next 10 years.
    2. Performance measures for each year, including efficiency and energy usage.
    3. Lifecycle activities and associated costs to achieve the proposed LOS.
    4. Funding projections and shortfall mitigation strategies.
    5. Assessment of options and risks associated with lifecycle decisions.

Key Considerations

- Data Accuracy: Levels of service and lifecycle planning rely on accurate, up-to-date inventories, condition ratings, and replacement cost information.
- Risk-Based Decision Making: LOS and lifecycle activities are linked to risk assessments, ensuring that critical assets are prioritized.
- Financial Sustainability: The AMP balances user expectations, regulatory obligations, and fiscal realities to ensure long-term affordability.

This framework ensures that all municipal assets are managed efficiently, public safety is maintained, and the Township can plan for future infrastructure investment in a structured and sustainable manner

2025 Budget Overview – Departmental Changes and Tax Impact

Protective Services – Emergency Department

Capital costs for the Emergency Department have increased by $20,500 in 2025.
Key drivers include:

- Replacement of the drone by the Joint Fire Services Board
- Replacement of radios for the Fire Department
- Quarry gate upgrades under "Other Protection"

Transportation Services

Operating costs have increased due to the leasing of large trucks.

Capital costs have also risen, primarily because the Township has budgeted for the purchase of three prefabricated bridge structures for installation in future years.

Additional 2025 capital projects include:

- Springbrook Stormwater upgrades on Stirling–Marmora Road
- Third lift of tar & chip on Springbrook East
- Purchase of a small trailer
- Purchase of a lawn mower
- Purchase of a larger trailer
- Engineering design work to prepare Roscoe/St. James Street and James Street for tender

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Environmental Services

This department includes both source water protection and landfill services.

Capital investments for 2025—funded by water/sewer users—include:

- UV light replacements
- Well decommissioning
- Backflow valve replacement
- Initiating the process to bring a new well online
- Water valve replacements
- Cleaning and video inspection of wastewater mains
- Truck replacement (good-used vehicle from Building Inspection Services Board)
- Installation of an online turbidimeter

Recreation and Cultural Services

The **Stirling-Rawdon and District Recreation Centre**, shared with Quinte West, Belleville, and Centre Hastings, has increased capital needs for 2025.

Planned projects include:

- A major stormwater project at the Theatre
- Upgrades to the ball diamonds

As a result, the Health Services/Recreation & Cultural portion of the Township levy has increased for 2025.

2025 Tax Levy Impact

To collect an additional $695,114.45 in 2025 compared to 2024, the Township requires a 7.87% tax rate increase.

With an average 2025 residential assessment of $266,972:

- The annual municipal tax increase is $334.80
- Equivalent to $27.90 per month

The 2026 Budget will be presented to Council in January 2026.

Municipal plans

Establishing a Level of Service strategy began with a collection and review of municipal documents and Bylaws.

Documents	***Descriptions***
Operation budget	Ongoing operational budget
Capital budget	Capital expenditures
Financial plans	Public Sector Accounting Board policies, Tangible Capital Assets
Development charges	2024 Development Charge study
Asset Retirement Obligation (ARO)	Policy Bylaw
Corporate strategic plan	2024-34
Asset management policy plan	
Energy conservation	Climate change / net zero
Recreation plan	Recreation Master Plan
Official zoning plan	Zoning and Bylaw Land use planning
Purchase policies	Include lifecycle expenses and Asset Retirement Obligation as part of the financial submission
Environmental compliance	Environmental compliance approvals
Fire service review	Review of the fire department level of service
Emergency plan	Emergency readiness response plan

Legislative Requirements

As part of the Level of Service strategy, a review of provincial legislative requirements was undertaken.

Asset category	Legislative requirements
All	-O.Reg. 588/17 -Jobs and prosperity Act of 2015 -Asset Retirement Obligation (ARO)
Water	Safe Drinking Water Act of 2002
Waste water	-Ontario Water Resources Act -Environmental Protection Act
Storm water	-Consolidated Linear Environmental Compliance Approval
Roads	-Minimum Maintenance Standard O. Reg. 239/02 -Highway Traffic Act, R.S.O. 1990
Buildings	-Building Code Regulation O.Reg. 163/24 -Accessibility for Ontarians with Disabilities Act (AODA)
Landfill sites	-Environmental Compliance Approval (ECA) -O. Reg. 232/98, O Reg. 347 guidelines B-7
Fleet	-Regular and routine maintenance as defined by MTO
Emergency	-Fire protection and prevention act O.Reg. 378/18
Land	-Parks, open spaces, trails Cemetery O.Reg. 130/92
Washroom Inspections	O.Reg. 480/24

Citizen Level of Service

As part of the asset management initiative, Township staff reviewed processes and strategies that affected the citizen level of service.

Asset	Description
Service delivery plan	Township plan outlining the delivery objectives of the Strategic Plan
Injury and hazards reports	Incident reporting capabilities
Bylaw infractions	Bylaw infraction monitoring
Citizen service request	Online ability to request services
Patron feedback	Provide online feedback when attending Township facilities.
Electronic inspections	Manage inspections through electronic means.
Culvert management	Installation, repair, and maintenance of culverts
Road cuts permit	Process to track road cuts agreements
Road entrance permits	Process to track road entrances agreements

Community Overview

Township of Stirling-Rawdon

Stirling-Rawdon is a rural Township located in Hastings County, in the Canadian province of Ontario. The municipality was established on January 1, 1998, through the amalgamation of the former Village of Stirling and Rawdon Township.

The community gained national recognition in 2012, when Stirling was named the Kraft Hockeyville winner after earning more than 3.9 million votes, highlighting the area's strong community spirit and passion for local sport.

Geography and Landscape

The Township is characterized by:

- Expansive farmland, with pockets of forested areas
- Gently rolling hills that shape the rural landscape
- Several waterways, including Rawdon Creek near the centre of Stirling, Marsh Creek to the west, and the Trent River and Trent Canal in the southwest

The local economy is rooted primarily in agriculture, supported by a variety of small businesses and service industries.

Communities Within the Township

In addition to the main population centre of Stirling, the Township includes a number of villages and hamlets:

Anson, Bonarlaw, Harold, Minto, Mount Pleasant, Sine, Springbrook, Wellman; Brinkworth, Madoc Junction, Peterson, Rylstone, Sarginson, and Wellman Station.

These communities contribute to the Township's rural charm and diverse heritage.

Demographics

According to the 2021 Census of Population (Statistics Canada):

- Population (2021): 5,015
- Population change (2016–2021): +2.7% (up from 4,882)
- Private dwellings: 2,074 total, with 1,971 occupied
- Land area: 282.48 km² (109.07 sq mi)
- **Population density:** 17.8 persons/km² (46.0 persons/sq mi)

These figures reflect modest growth and a stable rural population.

Accessibility for Ontarians with Disabilities Act compliance

The Township of Stirling-Rawdon strives at all times to provide its goods and services in a way that respects the dignity and independence of all people. The Township of Stirling-Rawdon is also committed to providing people with disabilities the same opportunities to access municipal services, allowing them to benefit from the same services, in the same place and in a similar manner as other customers.

The Township of Stirling-Rawdon is committed to serving people with disabilities who use assistive devices to obtain, use, or benefit from municipal services. Staff will be trained and familiar with various assistive devices that customers with disabilities may use when accessing our goods or services. The Township of Stirling-Rawdon will also ensure that staff are aware of how to use the assistive devices available on our premises, including electronic door openers and elevators.

Future growth

Stirling-Rawdon experienced a modest population increase of 2.7% between 2016 and 2021, with its population reaching 5,015. This growth rate is slightly below the provincial average of 5.8% and the national average of 5.2%. The Township also saw a 4% increase in occupied private dwellings during the same period.

The growth forecast on which the Development Cost is based projects the following population, housing, and non-residential floor area for the 10-year (2024 to 2034) period and an urban buildout period (2024 to urban buildout).

Summary of Growth Forecast by Planning Period

Measure	**10 Years 2024 to 2034**	**Urban Buildout**
(Net) Population Increase	994	4,202
Residential Unit Increase	486	1,857
Non-Residential – Gross Floor Area Increase (sq.m.)	101,000	250,600

Source: Watson & Associates Economists Ltd. forecast 2024.

Population in the Township of Stirling-Rawdon (excluding census undercount) is anticipated to reach approximately 6,350 by mid-2034 and 9,650 by buildout, increasing by approximately 1,100 and 4,410 persons, respectively.

Geographic Location of Residential Development

Development Location	**Amount of Housing Growth, 2024 to 2034**	**Percentage of Housing Growth, 2024 to 2034**
Urban	400	82%
Rural	90	18%
Township of Stirling-Rawdon	490	100%

Note: Figures may not sum precisely due to rounding.

Human Resources Requirements for Effective Asset Management Implementation

The successful implementation of a functional Asset Management (AM) strategy will require a significant shift in the Township's human resources approach. Provincial regulation mandates regular and ongoing updates, meaning that Asset Management cannot be treated as a one-time project but must instead become a continuous operational practice.

Benefits of Proper Asset Management

When implemented effectively, Asset Management will provide the Township with measurable benefits, including:

- Reduced unexpected downtime
- Extended useful life of Township assets
- Improved service planning and more predictable budgeting

As data collection processes and Levels of Service are formalized, the Township will be able to assess whether current human resources are sufficient to maintain the required level of accuracy and oversight.

Ongoing Data Management Needs

The Township has already invested significant resources in creating an asset inventory repository. However, this inventory requires regular updates, verification, and validation. Although software systems and standards have been selected and partially implemented, continuous staff involvement is necessary to keep information current and reliable.

Township asset data consists of three categories:

1. Tabular data (spreadsheets, asset lists, specifications)
2. Graphical data (GIS mapping, drawings, plans)
3. Financial data (replacement values, lifecycle costs, depreciation)

Because these datasets must work together, staff must have access to a resource with expertise in integrating all three components.

Managing Inquiries and Data Workflow

Inquiries from both Township staff and residents must be electronically collected and efficiently managed. Whether this information is stored in Excel files or through a web-based service request platform, a dedicated resource is required to collect, update, monitor, and manage this data.

Lifecycle Management Requirements

As Township assets age, the need for tailored lifecycle strategies becomes increasingly important. Staff will require the expertise to:

- Apply appropriate lifecycle event recommendations
- Maintain accurate runtime and capacity information
- Ensure that financial reports are strengthened through up-to-date operational data

Inspection Tracking and Qualified Resources

Properly tracking and managing all required inspections will also require dedicated resources. While some inspections can be completed internally, others must be conducted by qualified or certified inspectors. Coordinating, scheduling, and documenting these inspections is an ongoing responsibility that must be resourced appropriately.

Asset Labelling and Technology Implementation

To improve data accuracy and efficiency, Township staff will need to implement modern identification tools—such as QR code labels—physically attached to Township assets. These tools will:

- Reduce errors
- Improve access to asset data
- Streamline inspections and updates
- Enhance the overall functionality of the Asset Management system

Level of Service delivery review

The Township is developing a formal asset management governance policy that consolidates and formalizes the Township's obligations. Over the past three years, the Township has diligently worked on collecting and maintaining an accurate asset inventory and governance, which outlines the current reliability and completeness of the Township's asset management strategy.

Service Review

- Outline the human resource capacity required to achieve the objectives
- Identify common gaps and deficiencies in data sets and data management
- Review and document current processes, workflow, and data collection
- Review regulatory compliance associated with the assets and levels of service

Strategy and Planning

- Track current levels of service
- Identify resources to manage and document lifecycle activities
- Track the costs of repairs, inspections, and replacements of individual assets.

Components to Monitor

- Operational condition
- Responsiveness to service requests
- Adaptability to climate change
- Energy saving, CO2 reduction
- Infrastructure resilience
- Emergency responsiveness

Technology Adoption and Modernization Benefits

The adoption of modern technology is essential to increasing municipal efficiency, reducing operating expenses, and maximizing the life expectancy of Township assets. Electronic record keeping and digital processes form a key component of ongoing municipal modernization and innovation, enabling municipalities to improve service delivery and meet the evolving needs of their communities.

Electronic Records and Information Management

Townships across Ontario are increasingly adopting electronic records management systems to streamline operations, improve information access, and enhance transparency. These systems offer several advantages:

- Faster and more efficient access to information for staff and the public
- Improved transparency by simplifying responses to information requests
- Enhanced regulatory compliance, including privacy requirements and provincial reporting standards

By centralizing information in a secure, electronic format, municipalities can reduce time spent on locating and managing documents while ensuring data integrity and consistency.

Technology to Extend Asset Life and Reduce Errors

A variety of technological tools support longer asset lifecycles and reduce costly errors. These range from advanced equipment automation to simpler tools such as QR code labelling of inventory and infrastructure components. QR codes enable operators and service providers to quickly access accurate asset information, minimizing mistakes and streamlining maintenance activities.

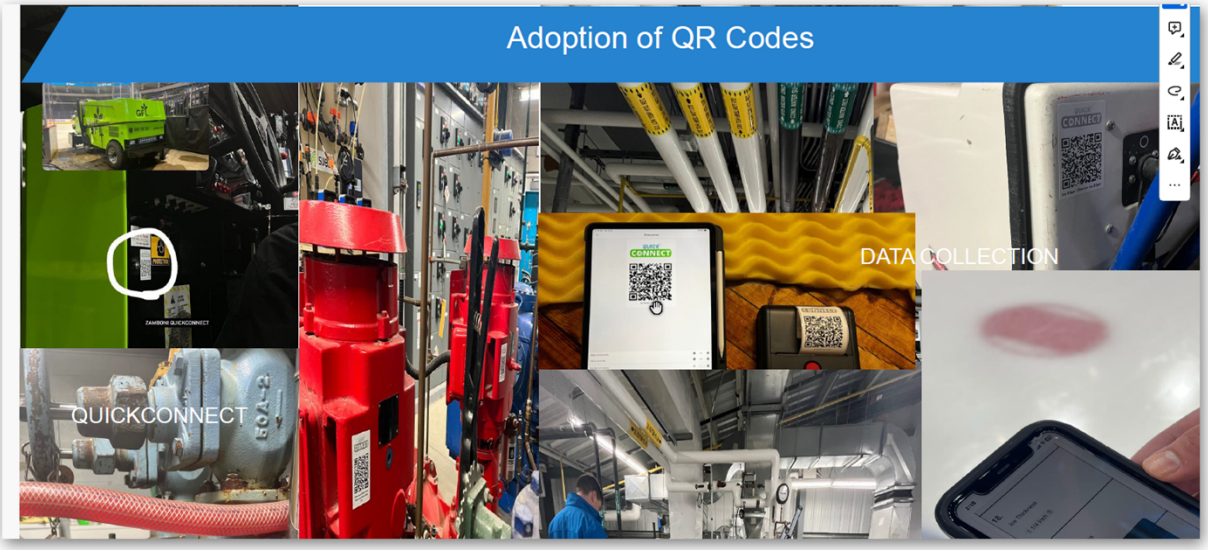
Intelligent Building and Facility Management

Building management technologies offer centralized control, real-time monitoring, and automated reporting capabilities for key building systems. Through integrated dashboards, managers and operators can remotely monitor the health and performance of electrical, mechanical, and plumbing components.

Real-time monitoring of energy consumption allows managers to optimize building performance by:

- Identifying inefficiencies
- Eliminating unnecessary energy usage
- Reducing operating costs

These tools support proactive maintenance and improved facility oversight, ultimately contributing to longer asset life and better resource management.



Asset Management Pillars

Asset Management Policy

Estimated useful life versus remaining service life

Useful life- A policy that evokes the operation and financial capability of a Township to replace assets at the end of their useful life regardless of their functional conditions.

Service life- The ongoing service and maintenance beyond the useful life and until an asset has reached the end of service

Procurement policy

Capital equipment purchases will include all life-cycle events, including servicing and asset retirement obligations.

Staff retention/training

An asset management plan should facilitate the transition of knowledge from staff. Will provide historical information regarding past maintenance of assets

Asset Classification

Core assets	include linear assets such as roads, sewer, storm water mains, along with their linked components, such as valves, hydrants and manhole
Non-core assets	includes buildings, fleet, and machinery
Natural assets	includes trees, water courses, parks, trails, and open spaces
Rolling inventory	includes consumable items such as filters, sand, and salt

Inspections

Core assets, Roads, water, storm, sewer, bridges with linked

components such signs and poles, hydrants, valves …

Non-core assets	Buildings, open spaces, fleet and, machinery
Natural assets	Trees, water course, parks, trails open spaces

Citizen Engagement

Township residents are encouraged to provide on-line service requests related to services or deficiencies. The portal allows for input of the service request and provide follow up comments.

Asset Replacement Policy

A Fixed Asset Replacement Policy outlines the procedures and criteria for deciding when and how to replace long-term assets with new ones. The policy distinguishes between whether the asset is replaced at the end of useful life or at the end of its service life. This policy must include:

Asset Condition and Performance:	Regularly assess the condition, performance, and remaining useful life of existing assets to determine if they are still meeting operational needs.
Cost Analysis:	Compare the cost of maintaining or repairing an existing asset versus the cost of replacing it with a new one.
Technological Advancements:	Consider whether new technologies or equipment can improve efficiency, productivity, or reduce costs.
Depreciation and Obsolescence:	Factor in the depreciation of existing assets and the potential for them to become obsolete.
Budgetary Constraints:	Ensure that any replacement decisions are aligned with the organization's budget and financial goals.
Maintenance and Repair Costs:	Track maintenance and repair costs to determine if they are becoming excessive and warrant replacement.
Operational Impacts:	Evaluate the potential impact of asset replacement on daily operations and ensure a smooth transition.
Legal / Regulatory Requirements:	Adhere to any legal or regulatory requirements related to asset disposal or replacement.

Asset repository

To accurately generate conditions, inspections and forecasts, the following inventory fields are mandatory: Purchase price, Replacement price, Installation date, Replacement date, and Useful life.

Where appropriate, asset inventories have been broken into subcategories utilizing the Uniformat level 3 standard. This approach ensures that the asset subcomponent is collected and structured to include the necessary fields: site work, substructure, shell and interior.

Within the building, the inventory is based on subcategories such as HVAC, Mechanical, Electrical, and auxiliary assets that are required to provide the service.

The Township is collecting useful life values consistent with the ASHREA life expectancy guideline. This ensures consistency in like-type asset inventories such as pumps, compressors, and others.

Current replacement prices are validated through tenders, Insurance policies, and calculated inflation rates assigned to purchase prices

Asset Information (data governance)

1. A Road Needs Study that assesses the condition, design class, and road attributes.
2. The Ontario Structural Inspection Manuals (OSIMs) biannual inspections
3. A Building Condition Assessment (BCA) is used to assess the condition, remaining life, and applicable lifecycle activities of various components within buildings and facilities.
4. Update Replacement costs using inflationary consumer price index measures, and recent tenders.
5. Validate Estimated Useful Life and asset capital financial thresholds.
6. Document daily / regular activities conducted by Township staff.

Asset Tagging

The “QR Barcode” fixed asset identification number tags should be physically attached to the physical assets in a visible location whenever possible. Once the asset is tagged, the staff can enhance and facilitate the collection of additional fields such as serial number, make, and model. The asset description should be completed so that the user can easily identify the asset in various reports.

The reason to tag is to identify inventory assets as belonging to the Township. All assets listed on the Tangible Capital Asset ledger, as well as equipment with a replacement value above $5,000 including assets that are sensitive, portable, or prone to theft, should be tagged.

Asset Condition Index

Facility condition index

Facility Condition Index (FCI) and Extended Facility condition index (EFCI) scores are a valuable way of visualizing and generating a provincial 10-year financial report and comparing the condition status of multiple distinct facilities.

The Facility Condition Index is a ratio that measures the condition of a building by comparing the estimated cost of repairs and replacements to the replacement value of the Facility, expressed as a percentage. A lower Facility Condition Index generally indicates better condition, while a higher Facility Condition Index suggests greater need for repairs and upgrades.

The Facility Condition Index quantifies the ratio between the cost of deferred maintenance and repairs and the total replacement value of a facility. It serves as a benchmark for comparing the condition of different facilities, both within and across organizations, regardless of their size or composition. The Facility Condition Index helps identify facilities with significant deficiencies that require immediate attention.

Adoption of Facility Condition Index can facilitate the management of renewal backlog which, includes the cost of all necessary repairs, renewals, and upgrades to address existing and projected maintenance needs. The replacement value is the estimated cost of replacing the entire Facility, considering current market prices and construction costs.

Adopting the Facility Condition Index helps:

- Prioritizing maintenance and repair projects based on the condition of different facilities.
- Informs budgeting decisions for capital projects and maintenance activities.
- Supports overall asset management by tracking and monitoring the condition of facilities over time.
- Provides a quantifiable measure for making informed decisions about facility replacement, renovation, or other actions.

The Facility Condition Index approach ensures that the asset sub-component is collected and structured to include the necessary fields, site work, substructure, shell and interior. Within the building the inventory based on subcategories such as HVAC, Mechanical, electrical, and auxiliary assets that are required to provide the service.

The Formula for calculating a Facility Condition Index score is:

FCI = (Estimated Cost of Repairs and Renewals / Current Replacement Value) * 100

1. Determine the total estimated replacement cost for the life of the
2. Determine the current replacement value of the Facility required to date
3. Divide the total estimated cost of repairs and renewals by the current replacement value and multiply by 100 to express the result as a percentage.

Road Pavement condition index

Pavement Condition Index from a road needs study or through routine inspection performed by qualified municipal staff

Bridge condition index

The Bridge condition index is a component of the bi-annual OSIM inspections performed by qualified professionals.

Sewer condition index

The Sewer condition rating will be calculated based on: age of pipe, # of breaks, future development, source water protection, redundancy and severity of failure.

Stormwater condition index

The Storm condition rating will be calculated based on: age of pipe, # of breaks, future development, source water protection, redundancy and severity of failure.

Water condition index

The Water condition rating will be calculated based on: age of pipe, # of breaks, future development, redundancy and severity of failure.

Fleet condition index

Continue to monitor repairs and maintenance associated to the fleet and equipment.

Asset Category

According to the O. Reg. 588/17, Municipal assets are divided into Core and Non-Core categories.

Core assets include all linear assets, such as roads, water, sewer, storm, and bridges, while Non-Core assets include facilities, open spaces fleet and equipment.

Core assets

Hierarchy	Category	Subtype
Transportation	Roads	HCB, LCB, Gravel, sidewalks…
Transportation	Bridges	
Storm		Storm mains, Culverts<3 m, ….
Sewer		Sewer mains, manhole …
Water		Water mains, hydrants, valves …

Non-core assets

Hierarchy	Category	Subtype
Land (roll number)	administration public works Recreation Emergency	• Easements, right-of-way, • Parking lots • Vacant properties • Cemeteries • Community hall; ice rink • fire, ambulance • Library, medical, municipal • Salt / Storm shed. • Pavilions • Lagoons/ponds • Pumping stations
Building Super Structure	Building structure/Outer shell	• Interior/exterior • Roof/shell structure/walls • Foundations/footings/slabs
Building Inventory	Capital assets within the building	• Electrical/ • Mechanical/ • Structural • Electronic

		• Emergency
Fleet/Equipment	• Recreational • Emergency • Public works • Environmental	• Heavy duty • Medium duty • Light duty • General equipment

Natural Assets, Conservation Partnerships, and Tree Canopy Management

The Township of Stirling-Rawdon contributes requisition payments to three Conservation Authorities:

- **Lower Trent Conservation**
- **Quinte Conservation**
- **Crowe Valley Conservation**

These organizations provide essential environmental stewardship, watershed protection, and conservation services that support the Township's long-term resilience and sustainability goals.

Natural Assets and Green Infrastructure

In addition to built infrastructure, the Township benefits from valuable natural assets, often referred to as "green infrastructure." These include forests, wetlands, rivers, and other natural systems that deliver important services such as:

- Clean air and water
- Flood and stormwater management
- Habitat and biodiversity support
- Recreational opportunities
- Climate mitigation through carbon sequestration

Natural assets frequently offer these services at a lower cost than engineered or man-made alternatives, and they will form a key component of the Township's climate action planning.

Tree Canopy Enhancement and Policy Direction

The Council of the Township of Stirling-Rawdon recognizes the importance of strengthening tree canopy coverage and protecting natural areas across the municipality. Through the adoption of the Tree Canopy Policy, Council has affirmed its commitment to:

- Maintaining and increasing tree canopy in the settlements of Stirling and Springbrook
- Preserving the environmental benefits trees provide—including shade, shelter, habitat, and carbon storage in both wood and soil
- Enhancing the visual appeal and livability of local communities
- Supporting climate change mitigation and adaptation efforts

Balancing Environmental Goals with Public Safety

Council acknowledges that protecting and expanding the tree canopy must be balanced with the Township's responsibility to ensure:

- Public safety
- Protection of municipal infrastructure, including stormwater systems, water mains, and sewer lines
- Compliance with all provincial Minimum Maintenance Standards for roads and sidewalks

Achieving this balance requires thoughtful planning, ongoing monitoring, and responsible management to ensure that both environmental and municipal service objectives are met.

Non-core data collection structure

Land Related Assets

Implementation of a Geographic Information System will facilitate the visualization and collection of land-related parcel information including:

- Total number of parcels
- Parcels connected to municipal infrastructure
- Parcels with emergency access within the specified timeframe
- Parcels within approved hydrant distance
- Parcels on maintained roads
- Parcels with waste collection

Data collection structure

Non-core — Facility data is being collected through the adoption of the ASTM UNIFORMAT II level 3 Standard E1557 classification standard for the collection of building data. In the province of Ontario, municipalities that are members of the Ontario Recreation Facilities Association (ORFA) have access to the RFAM inventory module at no cost as part of their member services.

Asset breakdown

Non-Core

Asset category	**Asset Categories**	**Asset Attributes**
Land	Administration, Green space, Public Works	Roll Number
Buildings	Envelope Foundations Roof	Uniformat II
Building Inventory	Plumbing HVAC Electrical	Make, model, SN, dates
Fleet	Heavy duty Medium duty Light duty	Make, model, Vin, dates
Equipment	Recreation, Emergency, Public Works	Make, model, dates

Bridges/culverts

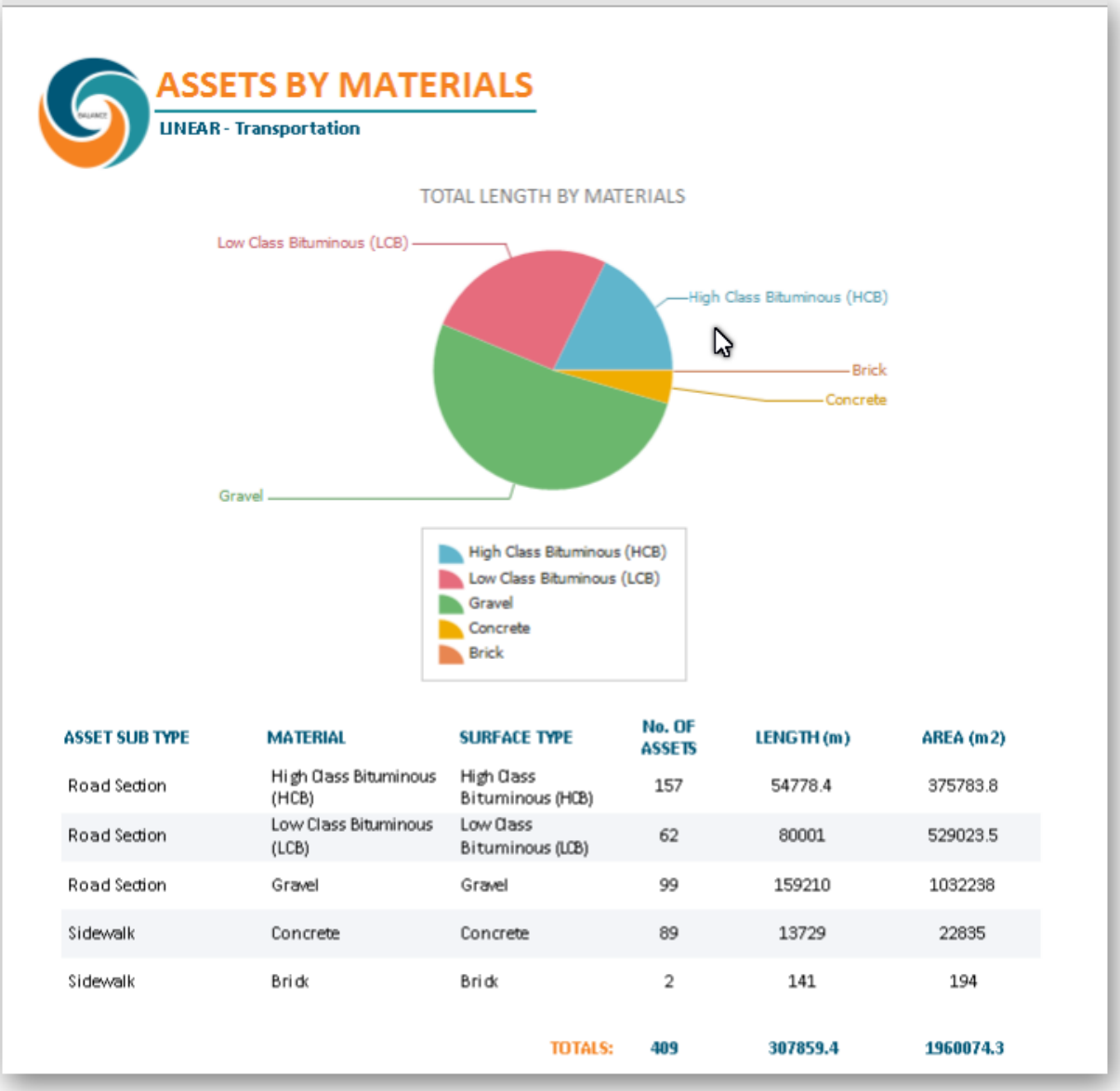
Quantity of bridge structures based on the 2023 OSIM report.

ASSET SUB TYPE	ASSET CODE	ASSET NAME	CONDITION RATING	AREA(m2)	LIFECYCLE COST	REPLACEMENT COST
Bridge	BR_030	St. Marks Culvert	26	21.6		$670,000.00
Bridge	BR_019	Highway 14 North and South	67	270.84	$222,000.00	$5,130,000.00
Bridge	BR_022	Dunnan's Bridge	73	111.6		$2,400,000.00
Bridge	BR_003	Rawdon Creek Bridge	44	82.96		$1,790,000.00
Bridge	BR_023	Green Road Bridge	38	25.9		$810,000.00
Bridge	BR_017	Henry Street Bridge	33	228	$1,470,000.00	$3,850,000.00
Bridge	BR_021	Bedford Road Bridge	32	30.24		$940,000.00
Bridge	BR_010	Bronson's Bridge North	57	6009.5		$1,590,000.00
Bridge	BR_007	Sine Bridge	58	41.76	$420,000.00	$1,300,000.00
Bridge	BR_020	Frankford Road Bridge	57	159.16	$630,000.00	$3,060,000.00
Bridge	BR_018	James Street Bridge	74	201.6		$3,530,000.00
Bridge	BR_004	McGee Bridge	97	86.7		$1,860,000.00
Bridge	BR_029	Springbrook Road Bridge	66	132	$1,350,000.00	$2,830,000.00
Bridge	BR_027	Wellmans Road North Bridge	25	24	$5,000.00	$740,000.00
Bridge	BR_032	Wellmans Road East Bridge	74	106.08		$2,280,000.00
Bridge	BR_026	King's Mill Bridge	68	252	$305,000.00	$4,410,000.00
Bridge	BR_009	Spry's Bridge	44	134.96		$2,900,000.00
Bridge	BR_016	Gurnsey Bridge	65	132.72	$1,050,000.00	$2,850,000.00
Bridge	BR_008	Harold Cheese Factory Road Bridge	33	38.5		$1,190,000.00
Bridge	BR_012	Stirling-Marmora Road	100	74.62		
Bridge	BR_025	Sine Road Bridge	40	22.5		$690,000.00
Bridge	BR_015	Ridge Road Bridge	68	189.08		$3,310,000.00
Bridge	BR_028	Wellmans Road West Bridge	73	75.26		$1,830,000.00
Bridge	BR_005	Cain's Bridge	52	38.5		$1,190,000.00
Bridge	BR_014	Anson Road Bridge	99	100.24		$1,360,000.00
Bridge	BR_006	Hagerman Bridge	90	54.32		$1,320,000.00
Bridge	BR_001	Seely's Bridge	74	135		$2,900,000.00
Bridge	BR_013	Squire's Creek Bridge	75	252.84	$194,000.00	$4,430,000.00
Bridge	BR_002	Goods Road Bridge	51	135		$1,310,000.00
Bridge	BR_011	Bronson"s Bridge South	41	119.9		$2,280,000.00
					Sum=$5,646,000.00	Sum=$64,750,000.00

Replacement value

Asset Category	Current Replacement Value	Lifecycle cost	Average Condition Index
Bridges	$64,750,000	$5,646,000	59 Poor Conditions

Roads



ASSET SUB TYPE	MATERIAL	SURFACE TYPE	No. OF ASSETS	LENGTH (m)	AREA (m2)
Road Section	High Class Bituminous (HCB)	High Class Bituminous (HCB)	157	54778.4	375783.8
Road Section	Low Class Bituminous (LCB)	Low Class Bituminous (LCB)	62	80001	529023.5
Road Section	Gravel	Gravel	99	159210	1032238
Sidewalk	Concrete	Concrete	89	13729	22835
Sidewalk	Brick	Brick	2	141	194
		TOTALS:	409	307859.4	1960074.3

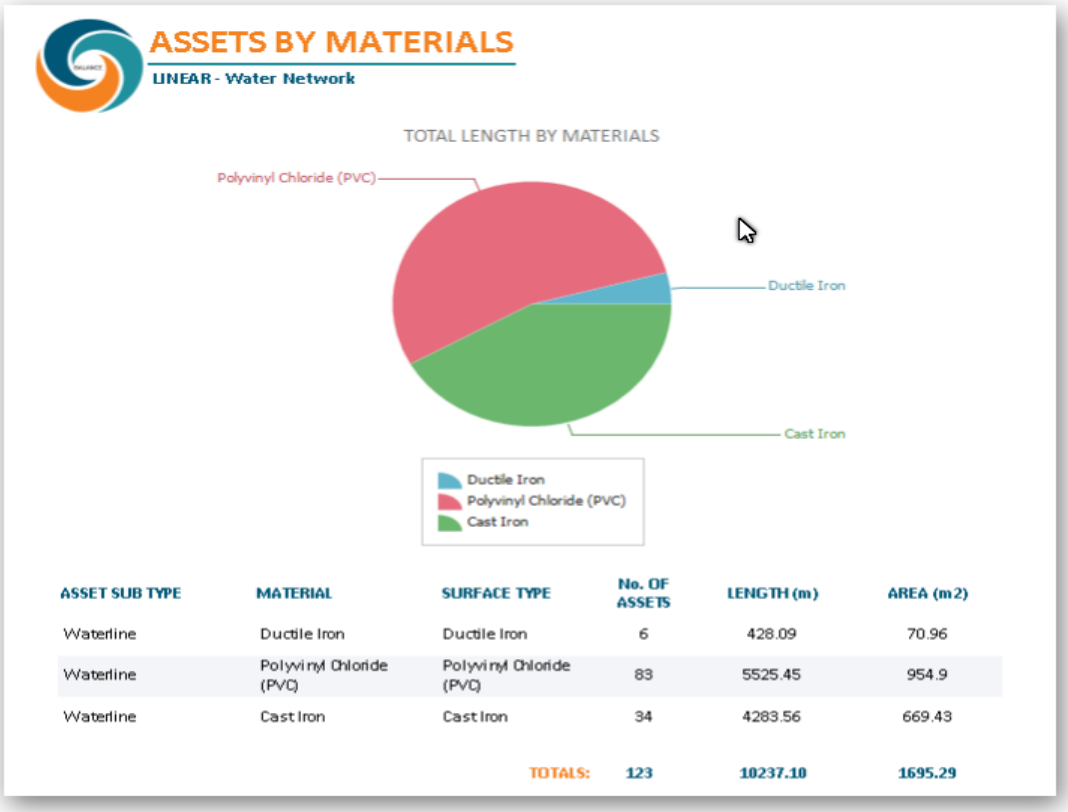
Replacement value

Asset Category	Cost	Quantity	Replacement Value	Lifecycle Cost	Average PCI
Gravel	$ 57.00 m2	1,032,238 m2	$28,493,492	$46,450,697	78 Good
HCB	$ 200.00 m2	375,783 m2	$75,156,760	$14,735,273	57 Poor
LCB	$ 65.00 m2	529,023 m2	$39,676,753	$ 3,446,458	67 Fair
Street	$2,300	288	$662,400		Good

light					
Sidewalk	$ 150.00	13,870 m	$2,080,500		Good

Water

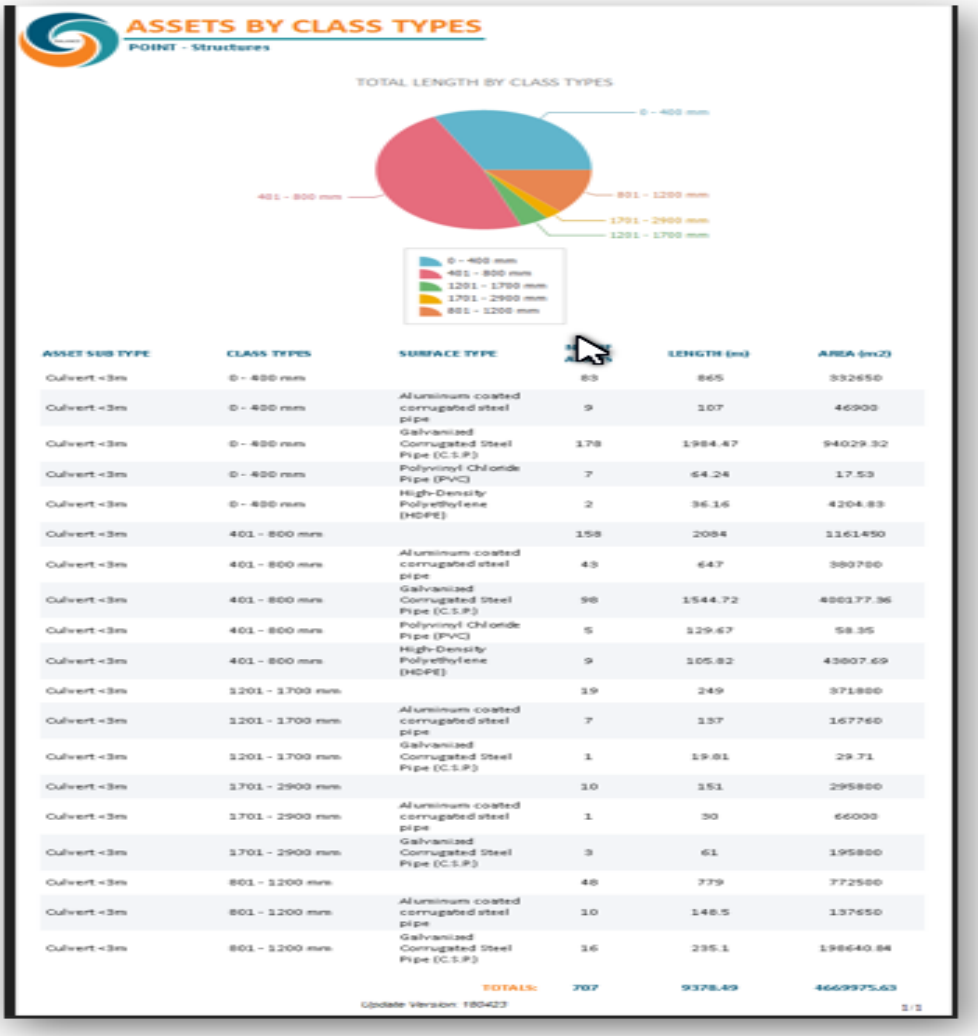
The Township has 435 individual sections of watermain, of which, 71 watermain are in severe condition, 72 watermain are in poor condition and 35 are in fair condition.



ASSET SUB TYPE	MATERIAL	SURFACE TYPE	No. OF ASSETS	LENGTH (m)	AREA (m2)
Waterline	Ductile Iron	Ductile Iron	6	428.09	70.96
Waterline	Polyvinyl Chloride (PVC)	Polyvinyl Chloride (PVC)	83	5525.45	954.9
Waterline	Cast Iron	Cast Iron	34	4283.56	669.43
		TOTALS:	123	10237.10	1695.29

Asset Category	Cost	Quantity	Replacement Value	Lifecycle Cost	Average Condition Index
Waterline	$600 - $1,000/m	19178 m	$10,079,000	Replace	Fair
Water valve	$2,500 each	250	$ 630,000	Replace	Good
Hydrants	$10,000 each	115	$ 1,150,000	Replace	Good
Water Junctions		113		Replace	Unknown

Culverts <3 m



ASSETS BY CLASS TYPES

POINT - Structures

TOTAL LENGTH BY CLASS TYPES

ASSET SUB TYPE	CLASS TYPES	SURFACE TYPE	[illegible]	LENGTH (m)	AREA (m2)
Culvert <3m	0 - 400 mm		83	865	332650
Culvert <3m	0 - 400 mm	Aluminum coated corrugated steel pipe	9	107	46900
Culvert <3m	0 - 400 mm	Galvanized Corrugated Steel Pipe (C.S.P.)	178	1984.47	94029.32
Culvert <3m	0 - 400 mm	Polyvinyl Chloride Pipe (PVC)	7	64.24	17.53
Culvert <3m	0 - 400 mm	High-Density Polyethylene (HDPE)	2	36.16	4204.83
Culvert <3m	401 - 800 mm		158	2084	1161450
Culvert <3m	401 - 800 mm	Aluminum coated corrugated steel pipe	43	647	380700
Culvert <3m	401 - 800 mm	Galvanized Corrugated Steel Pipe (C.S.P.)	98	1544.72	400177.36
Culvert <3m	401 - 800 mm	Polyvinyl Chloride Pipe (PVC)	5	129.67	58.35
Culvert <3m	401 - 800 mm	High-Density Polyethylene (HDPE)	9	105.82	43607.69
Culvert <3m	1201 - 1700 mm		19	249	371800
Culvert <3m	1201 - 1700 mm	Aluminum coated corrugated steel pipe	7	137	167760
Culvert <3m	1201 - 1700 mm	Galvanized Corrugated Steel Pipe (C.S.P.)	1	19.01	29.71
Culvert <3m	1701 - 2900 mm		10	151	295800
Culvert <3m	1701 - 2900 mm	Aluminum coated corrugated steel pipe	1	50	66000
Culvert <3m	1701 - 2900 mm	Galvanized Corrugated Steel Pipe (C.S.P.)	3	61	195800
Culvert <3m	801 - 1200 mm		48	779	772580
Culvert <3m	801 - 1200 mm	Aluminum coated corrugated steel pipe	10	148.5	137650
Culvert <3m	801 - 1200 mm	Galvanized Corrugated Steel Pipe (C.S.P.)	16	235.1	198640.84
		TOTALS:	707	9378.49	4669975.63

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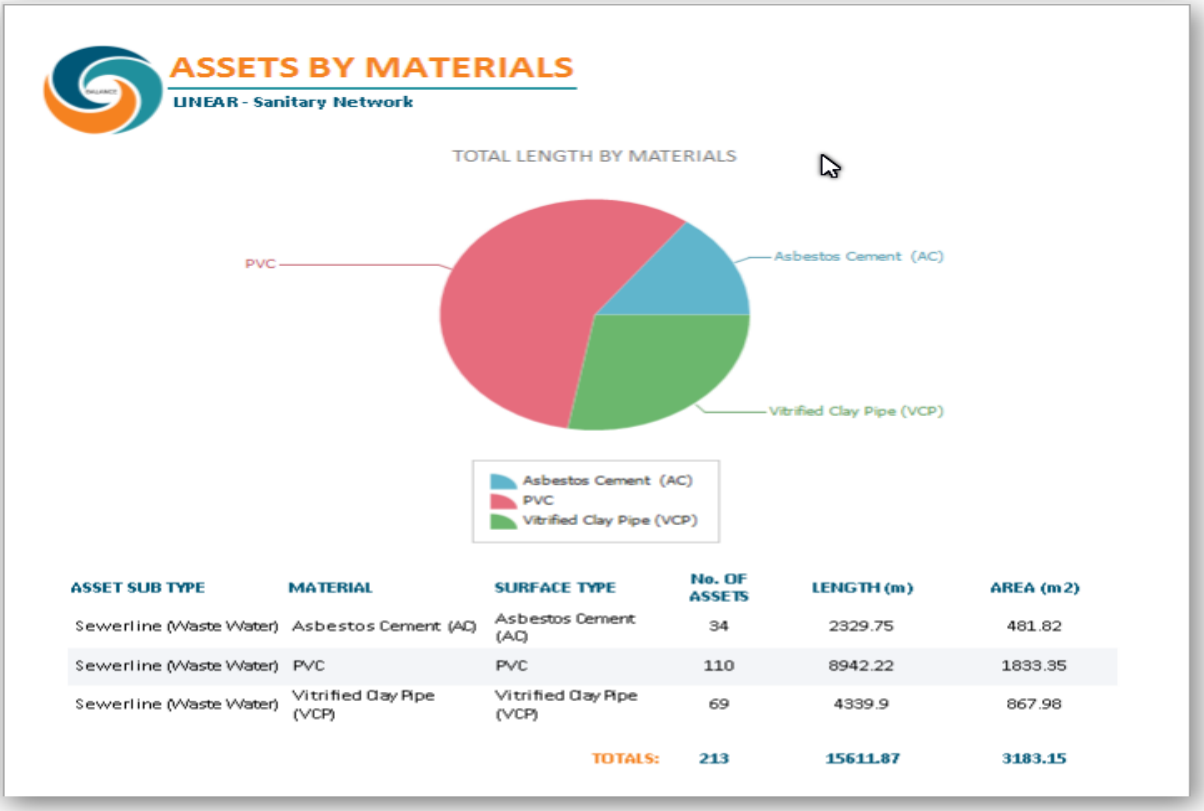
Replacement value

Asset Category	Cost	Quantity	Area m2	Replacement Value	Average Condition Index
Culvert < 3m	$ 300 – $1,500 /m2	707	9379 m2	$4,717,294	Fair

Sanitary

Some of the sanitary lines do not have a condition rating

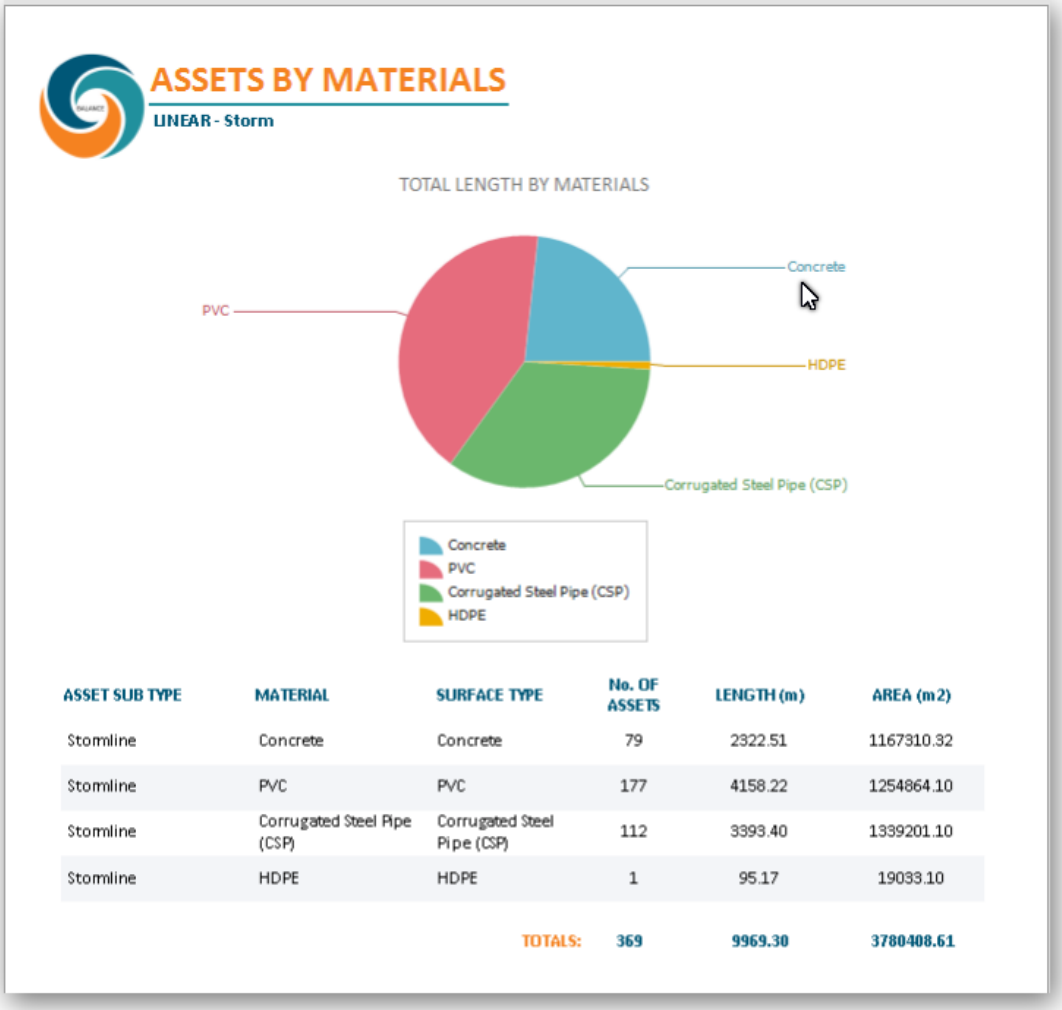


ASSET SUB TYPE	MATERIAL	SURFACE TYPE	No. OF ASSETS	LENGTH (m)	AREA (m2)
Sewerline (Waste Water)	Asbestos Cement (AC)	Asbestos Cement (AC)	34	2329.75	481.82
Sewerline (Waste Water)	PVC	PVC	110	8942.22	1833.35
Sewerline (Waste Water)	Vitrified Clay Pipe (VCP)	Vitrified Clay Pipe (VCP)	69	4339.9	867.98
		TOTALS:	213	15611.87	3183.15

Replacement value

Asset Category	Cost	Quantity	Total	Condition Rating	Remaining Useful Life
Sanitary lines	$ 1,000 - $2,800 m2	3381 m	$17,512,938	58 Fair	28 years
Manhole	$ 8,614 each	219 units	$1,017,500	unknown	

Storm



ASSET SUB TYPE	MATERIAL	SURFACE TYPE	No. OF ASSETS	LENGTH (m)	AREA (m2)
Stormline	Concrete	Concrete	79	2322.51	1167310.32
Stormline	PVC	PVC	177	4158.22	1254864.10
Stormline	Corrugated Steel Pipe (CSP)	Corrugated Steel Pipe (CSP)	112	3393.40	1339201.10
Stormline	HDPE	HDPE	1	95.17	19033.10
		TOTALS:	369	9969.30	3780408.61

Replacement value

Asset Category	Cost	Quantity	Total	Condition Rating	Remaining Useful Life
Storm main	$ 57.00 m2	9,969 m2	$4,659,200	65 Fair	unknown
manhole	$ 5,500 each	32 units	$ 176,000	unknown	unknown
Catchbasin	$ 3,773 each	368	$1,388,464	unknown	unknown

Fleet / Equipment

The Township fleet comprises of 37 vehicles, and 14 pieces of equipment with an approximate replacement value of **$7,931,157.98**

Department	Asset Category	Quantity	Approximate
Emergency	Heavy duty	10	$3,333,440.00
Public Works	Light/heavy duty	18	$3,524,136.00
Operations	Light duty	9	$ 553,532.00
	Equipment	14	$ 520,050.00
		Total	**$7,931,158.00**

Corporate

ASSET SUB TYP	ASSET NAME	CLASSIFICATIO	DEPARTME	DESCRIPTION
Light Duty Vehicle	2024 FORD BISB Truck	Pickup	Corporate	2024 BISB Truck - White
Light Duty Vehicle	2021 Dodge Ram - Water Truck	Pickup	Corporate	2021 Dodge Ram - Water Truck
Light Duty Vehicle	2021 By-Law Truck	Pickup	Corporate	2021 By-Law Truck
Light Duty Vehicle	2024 DODGE BISB Truck	Pickup	Corporate	2024 BISB - Truck White
Light Duty Vehicle	2024 FORD BISB TRUCK	Pickup	Corporate	2024 BISB TRUCK - WHITE
Light Duty Vehicle	2023 BISB - FORD ESCAPE	Utility Vehicle	Corporate	2023 - BISB - FORD ESCAPE

Emergency

ASSET SUB TYP	ASSET NAME	CLASSIFICATIO	DEPARTME	DESCRIPTION
Miscellaneous	Grass Fire Trailer 5 x 10	Trailers	Emergency	2011 - 5' x 10' Trailer
Medium Duty Vehicle	404 Quick Response Vehicle - 2023	Medium-Duty Vehicle	Emergency	Fire Truck - #404 Quick Response Vehicle 3500 4x4
Medium Duty Vehicle	Rugby	Medium-Duty Vehicle	Emergency	1931 Rugby Fire Truck
Miscellaneous	Stealth Trailer	Trailers	Emergency	2015 Stealth Trailer - Air Trailer
Medium Duty Vehicle	402 Pumper Tanker - 2007	Medium-Duty Vehicle	Emergency	Fire Truck #402 Pumper Tanker
Miscellaneous	Stealth Trailer - Water Source Trailer	Trailers	Emergency	2023 Stealth Trailer
Medium Duty Vehicle	Rescue Van # 303 - 2010	Medium-Duty Vehicle	Emergency	Fire Truck #303 Rescue Van
Light Duty Vehicle	2022 Ford F150 - Chief's Truck	Pickup	Emergency	2022 Ford F150 - Chief's Truck
Medium Duty Vehicle	304 Pumper - 2017	Medium-Duty Vehicle	Emergency	Fire Truck - 304 Pumper - Grass fire off road unit
Medium Duty Vehicle	401 Pumper - 2013	Medium-Duty Vehicle	Emergency	Fire Truck - 401 Pumper Tanker2000 Gallon
Medium Duty Vehicle	403 Rescue - 2005	Medium-Duty Vehicle	Emergency	Fire Truck #403 Rescue Cube Van
Light Duty Vehicle	2021 Dodge Ram - FPO Truck	Pickup	Emergency	2021 Dodge Ram 1500 4 x 4
Medium Duty Vehicle	301 Pumper -2022	Medium-Duty Vehicle	Emergency	Fire Truck # 301 Pumper

Environmental

Light Duty Vehicle	2023 GMC Sierra - Environmental Dept.	Pickup	Environmental	Regular Cab
Heavy Duty Vehicle	Dozer-2011	Excavators	Environmental	Dozer
Light Duty Vehicle	2023 Chev Extended Cab - Environmental Dept.	Pickup	Environmental	Crew Cab
Light Duty Vehicle	2012 CHEV SILVERADO	Pickup	Environmental	

Parks

ASSET SUB TYP	ASSET NAME	CLASSIFICATIO	DEPARTME	DESCRIPTION
Garden Equipment	2020 Massey Ferguson	Mowers	Parks	2020 Massey Ferguson

Public Works

ASSET SUB TYP	ASSET NAME	CLASSIFICATIO	DEPARTME	DESCRIPTION
Miscellaneous	Culvert Steamer	Attachments	Public Works	1990 Culvert Steamer
Heavy Duty Vehicle	1992 John Deere Loader	Loaders / Backhoes	Public Works	
Light Duty Vehicle	2016 Public Works Manager (Patrol)	Utility Vehicle	Public Works	SUV
Miscellaneous	Hotbox	Trailers	Public Works	Hotbox
Miscellaneous	Loadstar 20 Ton Trailer - 2025	Trailers	Public Works	Loadstar 20 Ton Trailer Red
Heavy Duty Vehicle	2024 Excavator/Brusher	Excavators	Public Works	
Garden Equipment	Kubota Roadside Mower	Mowers	Public Works	2022 Kubota Roadside Mower
Heavy Duty Vehicle	2010 Massey Ferguson	Tractors	Public Works	
Heavy Duty Vehicle	2020 International Single Axle	Heavy-Duty Vehicle	Public Works	Plow Truck
Heavy Duty Vehicle	2018 John Deere Backhoe 310sk	Loaders / Backhoes	Public Works	
Light Duty Vehicle	2021 Dodge 1/2 ton	Pickup	Public Works	Regular Cab
Medium Duty Vehicle	2024-03 FORD SUPER DUTY	Medium-Duty Vehicle	Public Works	2024-3 FORD SUPER DUTY
Heavy Duty Vehicle	2024-01 VOLVO VHD TRUCK	Heavy-Duty Vehicle	Public Works	2024-01 VOLVO VHD TRUCK
Garden Equipment	KUBOTA LAWN MOWER	Mowers	Public Works	2025- KUBOTA LAWN MOWER
Miscellaneous	Tandem Utility Trailer - Enbeck	Trailers	Public Works	
Miscellaneous	North - Trailer	Trailers	Public Works	Public Works/Fire North Trailer
Miscellaneous	Vermeer Chipper	Attachments	Public Works	Vermeer Chipper
Miscellaneous	Water Tank & Flusher Nozzle	Attachments	Public Works	
Heavy Duty Vehicle	2025-01 VOLVO VHD TRUCK	Heavy-Duty Vehicle	Public Works	2025-01 VOLVO VHD TRUCK
Garden Equipment	Cub Cadet Lawn Mower		Public Works	
Heavy Duty Vehicle	427 Loader - JCB - North Shop	Loaders / Backhoes	Public Works	
Heavy Duty Vehicle	2018 International	Heavy-Duty Vehicle	Public Works	Plow Truck
Heavy Duty Vehicle	Mahindra	Tractors	Public Works	2022 Mahindra Lawn Tractor with a broom/snow blower/ blade, salt and sander.
Heavy Duty Vehicle	Sidewalk MT7	Tractors	Public Works	Trackless Sidewalk machine
Heavy Duty Vehicle	2022 John Deere Grader	Graders	Public Works	Grader
Light Duty Vehicle	2020 3/4 Ton Chev	Pickup	Public Works	
Heavy Duty Vehicle	2024 JOHN DEERE GRADER	Graders	Public Works	2024 - John Deere Grader
Light Duty Vehicle	2014 Dodge	Pickup	Public Works	
Light Duty Vehicle	2021 MANAGER - CREW CAB	Pickup	Public Works	Crew cab 1500
Heavy Duty Vehicle	2013 INTERNATIONAL	Heavy-Duty Vehicle	Public Works	Plow Truck

Facilities

The Township manages 42 non-core assets which include a variety of facilities, and open spaces including parks and cemeteries. These 42 assets contain 324 individual pieces of inventory with a total replacement value of $48,398,199.88.

Environment	Recreation	Administration	Emergency	Public works
2 sanitary sewage lagoons with constructed wetlands for tertiary treatment	10 parks	1 community hall	2 fire stations	2 PW garages
5 pump stations		1 community centre	1 fire hall	2 sand dome
5 water wells		1 theatre		
1 water treatment facility		1 library		
		1 administration building		

Environmental

Asset Class	Asset Type	Asset Name	Asset Purpose	Asset Status
Facility	Environmental	Constructed Wetland Cell		Active
Facility	Environmental	Final Effluent		Active
Facility	Environmental	Lagoon Blower Building	2025 as per insurance	Active
Facility	Environmental	Lagoon Chemical Building	2025 as per insurance	Active
Facility	Environmental	Main Well House Building	2025 as per insurance	Active
Facility	Environmental	North Lagoon Wastewater		Active
Facility	Environmental	Public Works Stirling Landfill Site		Active
Facility	Environmental	Pump Station - Frankford Road	2025 as per insurance	Active
Facility	Environmental	Pump Station - George Street (1)	insurance included in buildi	Active
Facility	Environmental	Pump Station - George Street/ HENF	2025 as per insurance/ Alum	Active
Facility	Environmental	Pump Station - Henry Street	2025 as per insurance	Active
Facility	Environmental	Pump Station - Rodgers Drive	2025 as per insurance	Active
Facility	Environmental	Pump Station -Annis Street		Active
Facility	Environmental	South Lagoon Wastewater		Active
Facility	Environmental	Springbrook Landfill Site		Active
Facility	Environmental	Stand Pipe		Decommissi
Facility	Environmental	Stirling Wastewater Facility		Active
Facility	Environmental	Stirling Water Treatment Plant		Active
Facility	Environmental	Water Standpipe	2025 as per insurance	Active
Facility	Environmental	Water Well #001	Dug Well	Active
Facility	Environmental	Water Well #003	Drilled Well	Active
Facility	Environmental	Water Well #004		Active
Facility	Environmental	Water Well #005		Active
Facility	Environmental	Water Well #006		Active

Open spaces

Asset Class	Asset Type	Asset Name	Asset Purpose	Asset Status
Parks	Open Spaces / Parks	Cenotaph	2025 as per insurance	Active
Parks	Open Spaces / Parks	Covered Bridge	2025 as per insurance Cover	Active
Parks	Open Spaces / Parks	Edward Street Park	PARK	Active
Parks	Open Spaces / Parks	Henry Street Ball Diamond Park	Park	Active
Parks	Open Spaces / Parks	Quarry	2025 as per insurance	Active
Parks	Open Spaces / Parks	Rodgers Drive Park	PARK	Active
Parks	Open Spaces / Parks	Springbrook Ball Diamond Park	Park	Active
Parks	Open Spaces / Parks	Station Park - Fitness Park	Fitness Equipment	Active
Parks	Open Spaces / Parks	Tanner Street Park	PARK	Active
Parks	Open Spaces / Parks	Woods Drive Park	Park	Active

Recreation

Asset Class	Asset Type	Asset Name	Asset Purpose	Asset Status
Facility	Recreation	Former CN Train Station	Community Hall	Active
Facility	Recreation	Stirling-Rawdon & District Recreatic	2025 as per insuranceArena/	Active
Facility	Recreation	Theatre	2025 as per insurance Theatr	Active

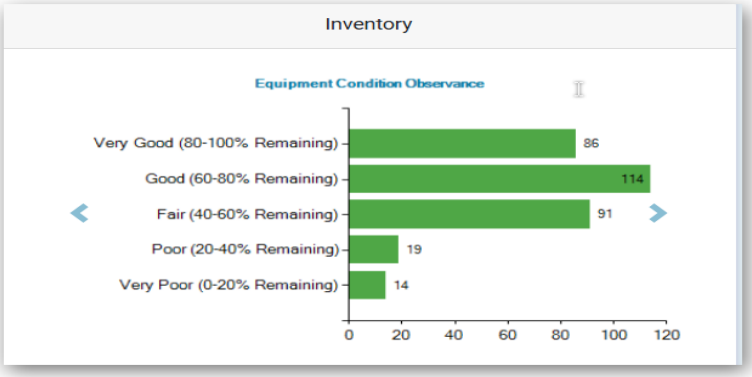
Uniformat

Asset Class	Asset Type	Asset Name	Asset Purpose	Asset Status
Facility	UNIFORMAT II (English)	Fire Hall Station #1	Fire Hall	Active
Facility	UNIFORMAT II (English)	Fire Hall Station #2	Fire Hall	Active
Facility	UNIFORMAT II (English)	Harold Hall - Vacant Land	Cenotaph Hall demolished 2	Active
Facility	UNIFORMAT II (English)	Library		Active
Facility	UNIFORMAT II (English)	Municipal Building	Municipal Government	Active
Facility	UNIFORMAT II (English)	Public Works Garage - Springbrook	Garage	Active
Facility	UNIFORMAT II (English)	Public Works Garage - Stirling	Garage	Active
Facility	UNIFORMAT II (English)	Public Works Sand Dome - Springbr	Sand Dome	Active
Facility	UNIFORMAT II (English)	Public Works Sand Dome - Stirling		Active
Facility	UNIFORMAT II (English)	Stirling Fire Hall	Community Hall	Active

Equipment Condition Analysis

Total Assets: 404

Condition Distribution:
- Good: 139 (34.4%)
- Fair: 121 (30%)
- Very Good: 112 (27.7%)
- Poor: 19 (4.7%)
- Very Poor: 13 (3.2%)



Data Quality Note
Recommend data cleanup initiative. Assets missing critical metadata
- 348 records for Inventory ID, 72 records for Make

Priority Assets

Condition	Inventory_Item	ASSET_NAME	MAKE	Status	ConditionPriori
Very Poor (0-20% Remaining)	Sewage wet well	Pump Station - Henry Street		Active	1
Very Poor (0-20% Remaining)	UV Reactor #002	Stirling Water Treatment Plant	Trojan	Active	1
Very Poor (0-20% Remaining)	Well #001 Flow Meter	Stirling Water Treatment Plant	Sensus	Active	1
Very Poor (0-20% Remaining)	UV Reactor #001	Stirling Water Treatment Plant	Trojan	Active	1
Very Poor (0-20% Remaining)	Well Pump #004	Stirling Water Treatment Plant	Franklin	Active	1
Very Poor (0-20% Remaining)	SCADA Computer	Stirling Water Treatment Plant		Active	1
Very Poor (0-20% Remaining)	Hot Water Heater	Stirling Water Treatment Plant	Giant	Active	1
Very Poor (0-20% Remaining)	Well # 001	Water Well #001		Active	1
Very Poor (0-20% Remaining)	BLEACHER HEATERS	Stirling-Rawdon & District Recreation Centre	Alumatube	Active	1
Very Poor (0-20% Remaining)	THERMAL CAMERA	Fire Hall Station #1	BULLARD	Capital	1

Facility-Specific Observations

Water Treatment

The Water Treatment portfolio shows a strong condition profile, with 24 assets rated Good or Very Good, reflecting well-maintained and reliable infrastructure.
Notable Assets:

- Treated Flow Meter
- Wells
- Water standpipe

Fleet Vehicles

Fleet assets also demonstrate a strong condition profile, with 24 assets in Good or Very Good condition. This indicates effective maintenance practices and timely equipment replacement.
Notable Assets:

- Tandem utility trailer (Enbeck)
- Mahindra lawn tractor

Parks & Recreation

The Parks & Recreation portfolio contains one asset currently rated Good or Very Good, reflecting a generally positive condition despite limited asset quantity in this category.
Notable Asset:

- Playground equipment

Recreational Facilities

Recreational Facilities show a mixed condition profile, with assets distributed across multiple condition levels. This suggests varied maintenance needs and emerging priorities.
Notable Assets:

- Ice rink boards and fencing
- Refrigeration system
- Control computer
- Arena chiller (decommissioned)

Recommendations for Efficiency and Awareness

1. Strategic Asset Management

- Automate alerts for assets nearing end-of-life to support timely inspections and replacements.
- Develop and implement standardized condition assessment protocols across all departments to ensure consistency.

2. Maintenance Planning

- Establish a preventative maintenance program guided by condition trends, usage patterns, and risk profiles.

3. Staff Training and Engagement

- Provide ongoing training in asset management best practices and emerging technologies.
- Create cross-departmental asset management committees to coordinate planning and improve communication.

4. Budget Allocation and Financial Planning

- Use asset condition data to guide capital budgeting and support grant applications with evidence-based justification.

5. Technology and Innovation

- Implement IoT sensors for real-time monitoring of high-risk or critical assets.
- Apply predictive analytics to anticipate maintenance needs and optimize resource allocation.
- Adopt mobile inspection tools to increase efficiency and improve the accuracy of field assessments.

6. Sustainability and Resilience

- Integrate climate resilience considerations into long-term asset planning and design.
- Prioritize replacement with energy-efficient equipment to reduce operating costs.
- Evaluate lifecycle environmental impacts in procurement to support sustainable asset management.

Overall Observation

The Township of Stirling-Rawdon demonstrates strong infrastructure management, with only 7.9% of assets requiring urgent attention. A continued focus on preventative maintenance, long-range planning, and data-driven decision making will support the Township's ongoing

positive trajectory.

Risk Condition Summary

Risk Level Distribution

- Low: 26 occurrences (47.3%)
- Moderate: 16 occurrences (29.1%)
- High: 6 occurrences (10.9%)
- Very High: 4 occurrences (7.3%)
- Very Low: 3 occurrences (5.5%)

Yearly Trend

- 2023: 1 risk recorded
- 2024: 54 risks recorded

The sharp increase in 2024 suggests improved reporting, expanded assessment coverage, or deteriorating asset conditions requiring closer attention.

Data Quality Note

Two records are missing critical risk details.
Recommendation: Initiate a data validation and cleanup effort to ensure complete, accurate, and reliable risk information.

Total Recorded Risk Occurrences: 55

Risk Assessment Summary

High and Very High Risks

- Total: 10 occurrences (18.2%)
- Critical Asset Identified: *Stirling-Rawdon & District Recreation Centre*
    - 4 Very High risks
    - 6 High risks

Critical Risk Items

- Arena pad lights (High)
- Condensing water heater (High)
- Curling Club brine pump (High)

- Floor scrubber (High)
- Ice resurfacer (High)

Risk Category Analysis

High-Risk Assets

These assets require immediate attention due to their elevated risk levels, particularly those associated with public safety and service continuity.

Stirling-Rawdon & District Recreation Centre

- 4 Very High risks
- 6 High risks
  Key components of concern include:
- Arena pad lights
- Condensing water heater
  (Additional high-risk items listed in the summary above)

Moderate-Risk Assets

Moderate-risk assets support core infrastructure services and show early signs of vulnerability.

- Primarily associated with the Stirling-Rawdon & District Recreation Centre
- 55 moderate risk occurrences (general infrastructure components)

These assets support critical operations such as emergency services, power continuity, and system controls. Their condition suggests early degradation or aging components.

Low-Risk Assets

- The majority of assessed items fall under this category.
- Includes general infrastructure components: 1 asset with 55 individual risk occurrences.

While low risk overall, the large volume warrants routine monitoring to prevent escalation and ensure long-term reliability.

Recommendations for Efficiency and Awareness

1. Risk-Based Maintenance Strategy

- Prioritize inspections, repairs, and preventive maintenance for High and Moderate risk assets.
- Establish a tiered maintenance schedule that aligns intervention frequency with risk level and asset criticality.

2. Staff Training and Operational Protocols

- Train operations and maintenance staff to identify early warning signs of equipment failure.
- Standardize reporting procedures for risk-related events to ensure consistent and reliable documentation.

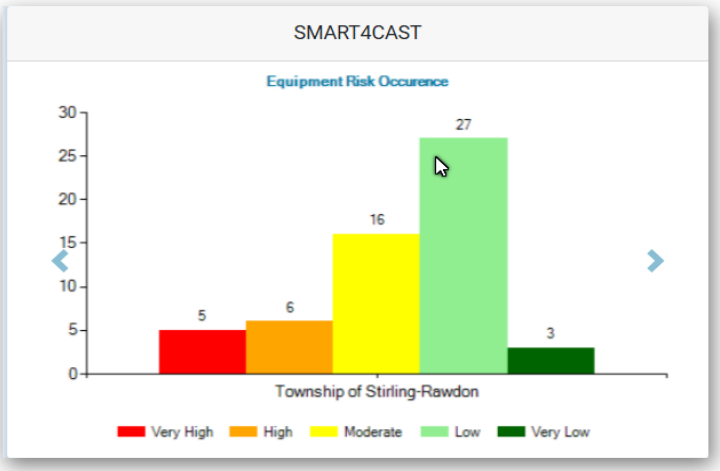
Equipment Risk Analysis – Township of Stirling-Rawdon

The overall equipment risk profile reveals a system that is functioning but requires proactive risk management.
Key observations include:

- High-risk equipment, particularly within the Stirling-Rawdon & District Recreation Centre, poses potential service disruption and public safety risks if not addressed promptly.
- Moderate-risk assets require scheduled maintenance to maintain operational continuity and prevent progression into higher-risk categories.
- Low-risk assets, although less urgent individually, make up a significant portion of Township infrastructure and must be monitored consistently to maintain long-term performance.

Risk Condition Summary

AREA_NAM
Township of Stirlin
Township of Stirlin

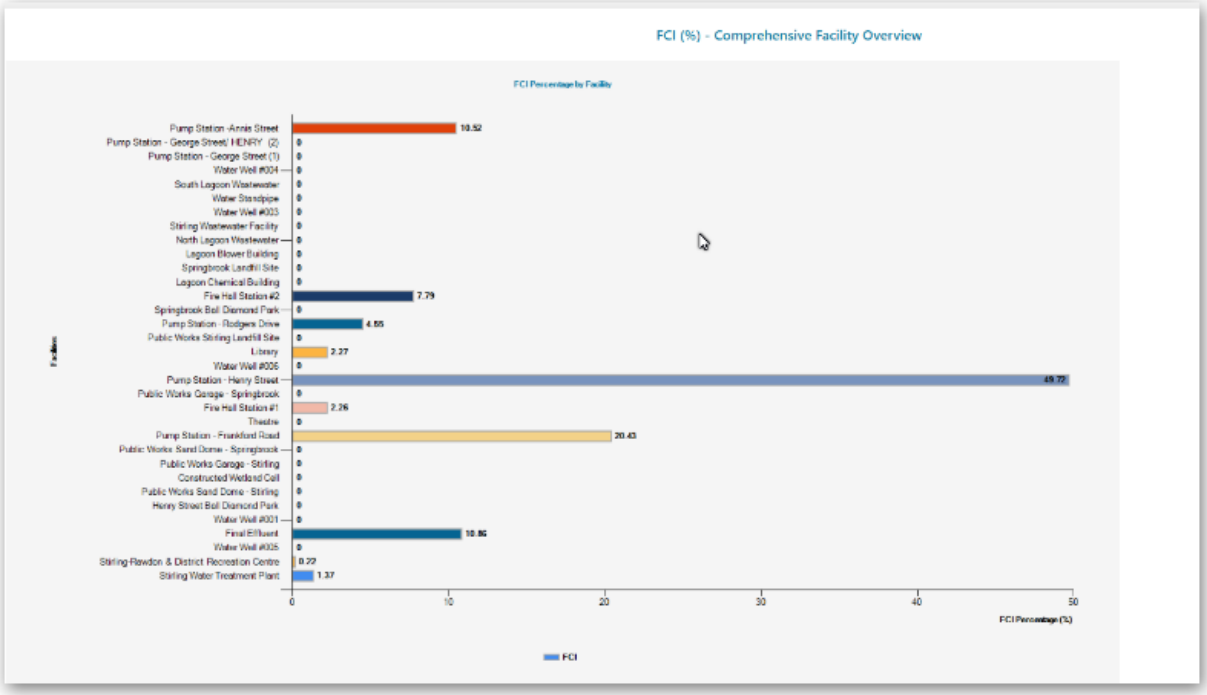


High

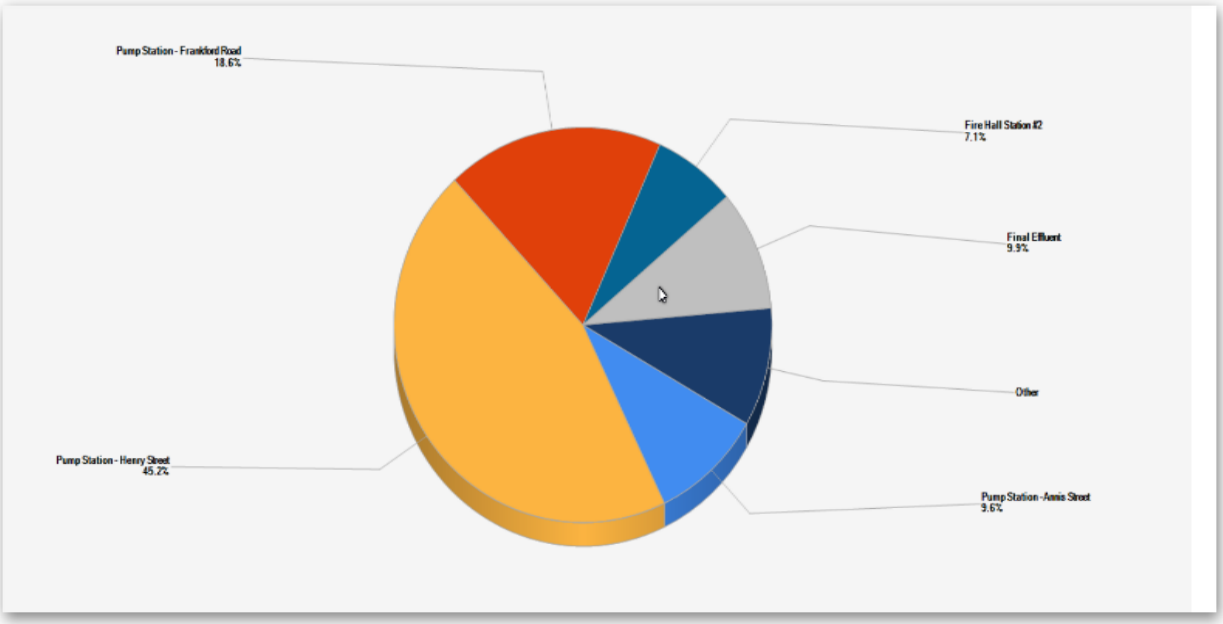
AREA_NAM
Township of Stirlin
Township of Stirlin
Township of Stirlin
Township of Stirlin
Township of Stirlin

Facility Condition

The Township is using the Facility Condition Index as a way of measuring immediate replacement costs and establishing a comparative methodology for all facilities.



Facilities with a "0" score indicates that the facility requires no replacement inventory during the current year, or that insufficient



data has been gathered.

Extended Facility Condition Index

Capital Forecast and Investment Summary

The Township is actively tracking required capital investment based on asset end-of-life expectations. Over the next five years, the Township will require an estimated $1,248,954.00 in replacement costs.

Disclaimer:
The information provided serves as an indicator of trends and anticipated capital needs. It should not be interpreted as exact financial facts or definitive financial advice.

Data Quality Note

Several data gaps impact the precision of the cost analysis.
A data cleanup initiative is recommended to improve the accuracy of future forecasts.

- Assets missing Warranty information: 29
- Assets missing Useful Life data: 26
- Assets missing Replacement Price: 6
- Assets missing Purchase Price: 8
- Assets missing Risk information: 22

Financial Summary

- Total Equipment Count: 36
- Total Replacement Cost: $1,259,454.00
- Total Original Purchase Cost: $821,478.45

Equipment Condition Analysis

Condition Category	Remaining Life	Count	% of Assets	Replacement Value
Very Good	80–100%	3	8.3%	$130,100.00
Good	60–80%	12	33.3%	$68,000.00
Fair	40–60%	13	36.1%	$489,900.00
Poor	20–40%	5	13.9%	$203,390.00
Very Poor	0–20%	3	8.3%	$368,064.00

Key Insight:
A significant proportion of assets—58.3%—fall within *Fair* or *Poor* condition ranges.

Age and Efficiency Assessment

- Average Equipment Age: 18 years
- Average Remaining Life: -10.4 years (indicating many assets have exceeded their useful life)

Projection and Trend Analysis

Aging Infrastructure

- 58.3% of equipment is in Fair or Poor condition
- Highest-impact facilities include:
  - Stirling-Rawdon & District Recreation Centre
  - Pump Station – Frankford Road
  - Lagoon Chemical Building
  - Lagoon Blower Building
  - Stirling Water Treatment Plant
- 18 assets (50%) were installed 15+ years ago
- Significant replacements expected within the next 5–10 years

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Decommissioned Assets

A total of 4 assets have already been decommissioned, including:

- Curling Club condenser
- Floor scrubber
- Curling Club condenser fan motor
- Old water storage tank #1

This indicates ongoing asset turnover and reinforces the need for continued capital investment.

Risk and Condition Trends

- Items in Good/Very Good condition: 15

- Items in Fair/Poor condition: 21
- Trend indicates gradual decline in reliability for aging assets, emphasizing the need for structured lifecycle replacement planning.

Strategic Recommendations

1. Urgent Attention Required

- With 58.3% of assets in Fair or Poor condition, immediate capital planning is essential.
- Priority should be given to assets with high operational risk or significant impact on service levels.

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2. Prioritize Critical Replacements

Focus on high-risk and poor-condition assets, especially in critical facilities:

- Stirling-Rawdon & District Recreation Centre
- Pump Station – Frankford Road
- Lagoon Chemical Building
- Lagoon Blower Building
- Stirling Water Treatment Plant

Key equipment types to prioritize:

- Header crossover
- Ice resurfacer
- Transformer
- UV Reactor #001
- SCADA computer

Also prioritize replacement of equipment impacting:

- Wastewater treatment
- Fleet operations
- Public-facing facilities

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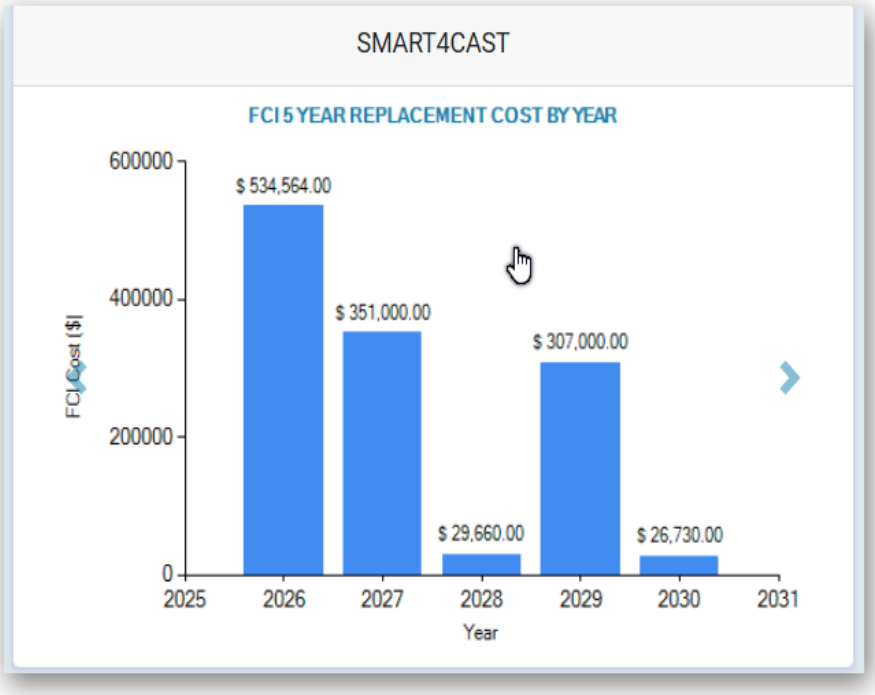
3. Enhance Preventive Maintenance

- Implement targeted maintenance for Fair-condition assets to delay major capital expenditures.
- Routine inspections should be increased for aging electrical, mechanical, and water treatment assets.

Overall Observation

The Township of Stirling-Rawdon is facing a critical infrastructure management challenge. While the analysis provides a strong overview of current conditions, proactive planning, prioritization, and strategic investment will be essential to maintaining service levels, ensuring public safety, and optimizing long-term costs.



Extended Facility Condition Index Continued

2026 Replacement cost

Facility Replacement Cost Report

Facility	Equipment	Condition	Risk	Purchase Pr	Replacement Pric	Replacement Cost Da	Installation Ye
Fire Hall Station #1	FORESTRY SKID	Good (60-80% Remaining)		$5,500.00	$11,000.00	1/1/2026	1/1/2005 0:00
Fire Hall Station #1	ELECTRIC POSITIVE PRES FAN	Good (60-80% Remaining)		$3,200.00	$7,500.00	1/1/2026	1/1/2008 0:00
Stirling Water Treatment Plant	UV Reactor #001	Very Poor (0-20% Remaining)		$100,000.00	$150,000.00	1/1/2026	1/1/2001 0:00
Stirling Water Treatment Plant	SCADA Computer	Very Poor (0-20% Remaining)		$53,175.00	$68,064.00	1/1/2026	1/1/2016 0:00
Stirling Water Treatment Plant	UV Reactor #002	Very Poor (0-20% Remaining)		$100,000.00	$150,000.00	1/1/2026	1/1/2001 0:00
Stirling-Rawdon & District Recreation Centre	CHEMICAL CONTROLLER	Good (60-80% Remaining)	Low	$0.00	$3,000.00	10/1/2026	10/1/2016 0:00
Stirling-Rawdon & District Recreation Centre	CURLING CLUB CONDENSER	Fair (40-60% Remaining)	Very High	$17,608.00	$120,000.00	1/1/2026	1/1/2001 0:00
Stirling-Rawdon & District Recreation Centre	ARENA BRINE PUMP	Fair (40-60% Remaining)	Moderate		$5,000.00	5/1/2026	1/1/1977 0:00
Stirling-Rawdon & District Recreation Centre	CURLING CLUB CONDENSER FAN MOTOR	Good (60-80% Remaining)	Moderate		$0.00	7/1/2026	7/1/2015 0:00
Stirling-Rawdon & District Recreation Centre	Arena Compressor Overhaul	Fair (40-60% Remaining)			$20,000.00	6/1/2026	

2027 Replacement cost

Facility Replacement Cost Report

Facility	Equipment	Condition	Risk	Purchase Pr	Replacement Pric	Replacement Cost Da	Installation Ye
Pump Station -Annis Street	Kohler Power System	Very Good (80-100% Remaining)		$65,000.00	$125,000.00	1/1/2027	1/1/1992 0:00
Stirling-Rawdon & District Recreation Centre	HEADER CROSSOVER	Poor (20-40% Remaining)	Very High		$50,000.00	1/1/2027	1/1/1977 0:00
Stirling-Rawdon & District Recreation Centre	ICE RESURFACER	Poor (20-40% Remaining)	High	$80,000.00	$130,000.00	8/1/2027	8/1/2012 0:00
Stirling-Rawdon & District Recreation Centre	ARENA PLATE & FRAME HEAT EXCHANGER	Fair (40-60% Remaining)	Low	$103,000.00	$35,000.00	7/1/2027	7/1/2020 0:00
Stirling-Rawdon & District Recreation Centre	FLOOR SCRUBBER	Fair (40-60% Remaining)	High		$11,000.00	9/1/2027	9/1/2013 0:00

2028 Replacement cost

Facility Replacement Cost Report

Facility	Equipment	Condition	Risk	Purchase Pr	Replacement Pric	Replacement Cost Da	Installation Ye
Fire Hall Station #1	35' FOOT LADDER	Good (60-80% Remaining)		$1,800.00	$2,500.00	1/1/2028	1/1/2002 0:00
Pump Station - George Street/ HENRY (2)	GEORGE ST PUMPING STATION BUILDING	Good (60-80% Remaining)		$63,179.00		1/1/2028	1/1/1978 5:00
Stirling Water Treatment Plant	Historian Computer	Poor (20-40% Remaining)		$13,000.00	$17,160.00	1/1/2028	1/1/2018 0:00
Stirling-Rawdon & District Recreation Centre	CONDENSING WATER HEATER	Fair (40-60% Remaining)	High	$1,932.45	$10,000.00	12/11/2028	12/11/2008 0:00
Stirling-Rawdon & District Recreation Centre	OLD WATER STORAGE TANK #1 (Decommissioned)	Good (60-80% Remaining)		$4,925.00		4/3/2028	1/24/2008 0:00

2029 Replacement cost

Facility Replacement Cost Report

Facility	Equipment	Condition	Risk	Purchase Pr	Replacement Pric	Replacement Cost Da	Installation Ye
Fire Hall Station #1	Portable Pump	Good (60-80% Remaining)		$5,500.00	$9,000.00	1/1/2029	1/1/2013 0:00
Fire Hall Station #2	THERMAL CAMERA	Good (60-80% Remaining)		$9,500.00	$9,500.00	1/1/2029	1/1/2013 0:00
Library	various furniture	Fair (40-60% Remaining)		$107,118.00		1/1/2029	1/1/1989 0:00
Stirling-Rawdon & District Recreation Centre	CURLING CLUB 40HP COMPRESSOR MOTOR	Fair (40-60% Remaining)	Moderate	$3,000.00	$9,000.00	5/1/2029	5/1/2004 0:00
Stirling-Rawdon & District Recreation Centre	SEWER CONTROLLER/PUMPS	Fair (40-60% Remaining)	Low	$3,761.00	$6,000.00	7/1/2029	7/1/1999 0:00
Stirling-Rawdon & District Recreation Centre	REFRIGERATION CONTROL COMPUTER	Good (60-80% Remaining)	Low	$4,600.00	$5,000.00	1/1/2029	1/1/2021 0:00
Stirling-Rawdon & District Recreation Centre	DESICANT DEHUMIDIFIER	Fair (40-60% Remaining)	Low	$35,000.00	$268,500.00	1/1/2029	8/1/2009 0:00

2030 Replacement cost

Facility Replacement Cost Report

Facility	Equipment	Condition	Risk	Purchase Pr	Replacement Pric	Replacement Cost Da	Installation Ye
Fire Hall Station #1	GENERATOR	Very Good (80-100% Remaining)		$2,800.00	$4,500.00	1/1/2030	1/1/2009 0:00
Fire Hall Station #1	GAS POSITIVE PRES FAN	Good (60-80% Remaining)		$4,500.00	$10,000.00	1/1/2030	1/1/2012 0:00
Lagoon Blower Building	Oxygen Probe	Fair (40-60% Remaining)		$4,680.00	$5,400.00	1/1/2030	1/1/2015 0:00
Lagoon Chemical Building	Pressure Tank	Poor (20-40% Remaining)		$200.00	$230.00	10/10/2030	10/10/2015 0:00
Lagoon Chemical Building	Potable Water Pump	Very Good (80-100% Remaining)		$500.00	$600.00	10/10/2030	10/10/2015 0:00
Library	technology assets	Fair (40-60% Remaining)		$23,000.00		1/1/2030	1/1/2020 0:00
Pump Station - Frankford Road	Transformer	Poor (20-40% Remaining)		$5,000.00	$6,000.00	1/1/2030	1/1/2010 0:00
Stirling-Rawdon & District Recreation Centre	Spare 20 HP Brine Pump Motor	Fair (40-60% Remaining)	Low			1/1/2030	
Stirling-Rawdon & District Recreation Centre	Photocopier	Good (60-80% Remaining)		$0.00	$10,500.00	10/21/2030	10/21/2025 0:00

Fire Department

Legislative Framework

The Stirling-Rawdon Fire Department operates in accordance with:

- Municipal By-Law 06-23 – Adoption of the Emergency Management Program
- Municipal By-Law 601-07 – Fire Protection Services

These by-laws establish the authority, responsibilities, and operational expectations of the Fire Service.

Mission Statement

The Stirling-Rawdon Volunteer Fire Service is committed to maintaining a high quality of life within the community by preventing or minimizing injury, loss of life, and property damage due to fire or other emergencies. This commitment is fulfilled through Education, Prevention, Suppression, and other limited lifesaving services.

Primary Goal

The primary goal of the Stirling-Rawdon Volunteer Fire Service is to deliver fire protection and rescue services through a comprehensive range of programs designed to safeguard the lives and property of residents. This includes response to fires, sudden medical emergencies, and dangerous conditions caused by human action or natural events.

Primary Objectives

To achieve its mission and goals, the Fire Service requires adequate funding and the successful implementation of the following objectives:

1. Fire Prevention Program

a) Conduct plan reviews and building inspections to ensure required fire protection systems and planning measures are in place and properly maintained.
b) Perform ongoing inspections to reduce and eliminate fire hazards.
c) Ensure compliance with applicable Municipal, Provincial, and Federal fire prevention legislation, statutes, codes, and regulations.

2. Training and Professional Development

Provide high-quality, standards-based training to ensure all personnel remain current in the latest techniques of fire prevention, firefighting, rescue operations, and emergency management. Training will emphasize the safety of department members and the public.

3. Equipment Readiness and Maintenance

Maintain a robust maintenance program to ensure all fire protection apparatus, vehicles, and equipment remain in a state of readiness for emergency response.

4. Public Education and Information

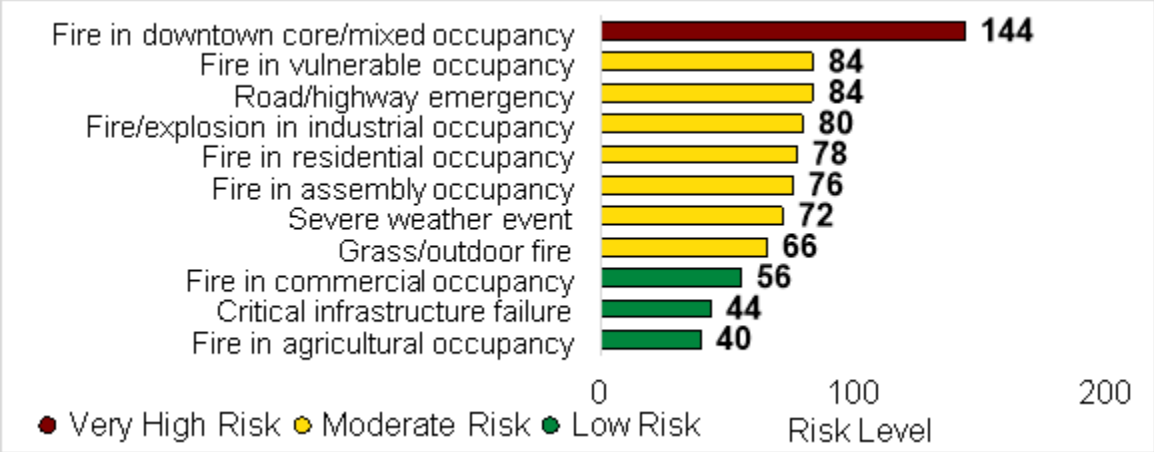
Develop and maintain an effective public information and fire safety education program, with special focus on:

- School fire safety programs
- Training for commercial, industrial, and institutional staff
- General community awareness and prevention campaigns

Fire Department Risk

Risk analysis based on the 2024 Community Risk Assessment conducted by the township which is available for review in its complete form.

Public safety risk identified.



Geographic profile risk summary.

Risk	Likelihood	Consequence	Risk Level
Road/highway emergency	Almost certain	Minor	**Moderate**
Grass/outdoor fire	Almost certain	Minor	**Moderate**

Building stock profile risk summary.

Risk	Likelihood	Consequence	Risk Level
Fire in downtown core/mixed occupancy	Almost certain	Major	**High**
Fire in vulnerable occupancy	Unlikely	Major	**Moderate**
Fire/explosion in industrial occupancy	Likely	Moderate	**Moderate**
Fire in residential occupancy	Almost certain	Minor	**Moderate**
Fire in assembly occupancy	Unlikely	Moderate	**Moderate**
Fire in commercial occupancy	Unlikely	Moderate	**Moderate**

Risk	Likelihood	Consequence	Risk Level
Fire in agricultural occupancy	Possible	Insignificant	**Low**

Lifecycle components

Asset Lifecycle Activities

Asset lifecycle management ensures the optimal performance, longevity, and replacement planning of municipal assets. Lifecycle activities can be categorized into rehabilitation, replacement, disposal, and operational maintenance, with each category contributing to an effective Asset Management (AM) plan.

Lifecycle Components

Activity	Description
Rehab	Lifecycle events or interventions that may extend the useful life of an asset.
Replace	Activities undertaken once an asset reaches its end-of-life, ensuring continuity of service.
Disposal	Accounting, engineering, or environmental activities associated with retired assets, including removal or recycling.

Operational Maintenance Activities

Activity	Description
Routine Inspection	Measures or observes the condition of the asset to detect potential issues.
Preventive Maintenance	Planned activities to ensure the asset meets or exceeds its expected life.
Reactive Maintenance	Repairs performed after the asset has failed or ceased functioning.
Operational Maintenance	Routine corrective actions required to keep the asset functional.
Replacement	End-of-life replacement to maintain service levels and operational efficiency.

Note: Accurate lifecycle definitions for each asset category are fundamental to an effective AM plan. Lifecycle planning relies on proper inventory data collection, asset usage, and condition assessment. Each building or facility contains multiple asset categories, and usage intensity directly affects life expectancy and efficiency.

Asset Categories, Useful Life, and Usage Metrics

Category	Life Expectancy / Useful Life (Years)	Usage / Consumption Metric
Land Assets		
Parks	50	Remaining useful life
Parking lots	25	Remaining useful life
Cemeteries	50	Remaining useful life
Lagoons	100	Remaining useful life
Building Assets		
Structural	50	Remaining useful life
Shell	40	Remaining useful life
Electrical	15	Condition rating / Run hours
Mechanical	20	Condition rating / Run hours
Inventory	10–20	Condition rating / Run hours
Fleet / Equipment		
Emergency Services	20	Condition rating / Run hours / Km
Public Works	20	Condition rating / Run hours / Km
Recreation	20	Condition rating / Run hours / Km
Ice Resurfacer	10	Condition rating / Run hours

Key Considerations

1. Usage-Dependent Lifespan: The amount of usage directly impacts the efficiency and remaining life of assets.
2. Data Integration: Lifecycle planning must integrate condition assessments, operational hours, run kilometers, and inspection data.
3. Proactive Maintenance: Timely rehab and preventive maintenance activities extend asset life and reduce long-term capital costs.
4. Strategic Replacement: Replacement decisions are guided by end-of-life analysis, risk assessment, and operational priorities.

Ice Plant Components and Lifecycle Management

The Ice Plant is a critical facility for the Township's recreational and operational needs. Proper maintenance and lifecycle planning of ice plant components are essential to ensure reliability, efficiency, and long-term cost management.

Key Component Overview

1. Compressors
    - Require routine maintenance to ensure longevity.
    - Life expectancy: 20–25 years, based on ~3,000 hours of operation per year (~60,000 hours total).
    - Overall runtime tracking is essential to anticipate maintenance and replacement needs.
2. Ammonia Refrigeration System
    - Uses evaporative condensers, where running water dissipates heat.
    - Poor maintenance of condensers can result in high discharge temperatures, reducing the life of all system components and increasing energy consumption.
3. Cold and Warm Floor Pumps
    - Similar life expectancy to standard water pumps (~18 years).
    - Regular maintenance, including alignment checks, prolongs service life.
4. Other Building Inventory Components

Component	Replacement Period (Years)	Approximate Replacement Cost
Compressor	20–25	$75,000

Component	Replacement Period (Years)	Approximate Replacement Cost
Plate & Frame Chiller	25	$100,000
Condenser	15	$125,000
Pumps	18	$6,000
Electrical Control Panel	20	$75,000
Hot Water Tank	10	$5,000
Emergency Generator	50	$100,000
Boiler	15	$7,000
HVAC Unit	10	$5,000

Ice Plant Renewal and Rehabilitation Maintenance Schedule

Lifecycle Stage	Operational Hours	Recommended Maintenance
Early Life	0–3,000	Oil change and basic inspections
Mid-Life	6,000	Top-end inspection and component checks
Later Life	9,000	Oil change and performance assessment
End of Life	12,000	Major overhauls or refurbishment
Replacement	End-of-life	Full asset replacement and Asset Retirement Obligation (ARO) execution

Notes:

- Following this maintenance schedule helps extend component lifespan and reduce unexpected downtime.
- Lifecycle planning should include budgeting for major overhauls and eventual replacements.
- Accurate recording of run hours, inspections, and maintenance events is critical for asset management and operational planning.

Asset Condition Considerations

- Monitoring asset condition through routine inspections, runtime tracking, and maintenance history allows for proactive intervention.
- Prioritizing high-risk or high-value components (e.g., compressors, condensers, control panels) ensures operational continuity and cost efficiency.
- Integration of this data into the Township's Asset Management system enables strategic replacement planning and budgeting.

Non-Core assets

Category	***Life Expectancy /useful life (years)***	***Usage /Consumption***
Land	Estimated remaining useful life	Estimated remaining useful life
Buildings	Estimated remaining useful life	BCI
Inventory	Estimated remaining useful life	Condition rating
Fleet /Equipment	Estimated remaining useful life	inspections

Core assets

Category	***Life Expectancy /useful life (years)***	***Usage /Consumption***
Roads	Estimated remaining useful life	Pavement Condition Index (PCI)
Bridges	Estimated remaining useful life	Bridge Condition Index (BCI)
Culverts<3 m	Estimated remaining useful life	Condition rating

Lifecycle events and costs

asset	***Lifecycle event***	***Cost /unit***
roads	reconstruction	$ 190/m
	resurface	$ 85/m
	double surface	$ 13/m
	maintenance	$ 3/m
signs	replace	$ 200 each
streetlights	replace	$ 2,000 each
storm Culvert < 3 m	replace	$ 700 – $2,400 /m
sewer Culvert < 3 m	replace	$ 700 – $2,400 /m
water Culvert < 3 m	replace	$ 700 – $2,400 /m

Inspections

Effective inspections are a cornerstone of proactive asset management. They provide analytical data that informs Levels of Service (LoS) and associated financial planning, supporting both operational efficiency and long-term sustainability.

Routine Inspections

Routine inspections are integral to maintaining assets, monitoring condition, and informing lifecycle planning. The Township has begun electronically collecting and managing inspections for facilities and individual assets, allowing gradual customization to reflect desired LoS and associated financial requirements.

Benefits of routine inspections include:

- Early identification of potential hazards or equipment failures
- Improved ability to schedule maintenance and reduce unplanned downtime
- Data-driven decisions for budget allocation and Level of Service planning

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Workplace Inspections

Workplace inspections are a critical part of preventive maintenance programs. They involve systematic examination of assets to:

- Identify and record actual and potential hazards related to buildings, equipment, environment, processes, and practices
- Document hazards requiring immediate attention
- Assess adequacy and functionality of existing hazard controls
- Recommend corrective actions as appropriate

Procedural standards include:

- Specifying the frequency of inspections
- Identifying workplaces and assets requiring inspection
- Assigning responsibility for conducting inspections, reviewing results, and implementing corrective actions
- Defining the qualifications of personnel performing inspections

---

Example – Compressor Inspections

Number of Run Hours	Inspection Type	Cost
4,000	Oil Change	$2,000
8,000	Top-End Inspection –	
12,000	Oil Change	$2,000
16,000	Major Overhaul	$10,000

Non-Core Inspections

The Township is digitizing inspections historically recorded on paper, making the data accessible to staff and management. This proactive approach includes using ORFA and RFAM solutions to track inventory and inspections.

Inspection types:

- Predictive – Identifies early warning signs of asset failure
- Preventive – Scheduled to reduce likelihood of failure
- Reactive – Conducted after issues arise

Typical non-core inspections include:

Asset Category	Inspection Examples
Fleet	MTO inspections, fire truck inspections
Building	Internal building inspections
Land	CSA compliance, playground inspections
Inventory	Regulatory and safety inspections
Emergency Equipment	Manufacturer inspections for PPE
Fire Suppression	Extinguishers inspected by 3rd party

Core Inspections

Core infrastructure inspections follow regulatory and best practice standards:

Asset Category	Inspection Standard
Roads	MMS regulation
Bridges	OSIM regulation
Sanitary	Engineering/best practice standards
Stormwater	Engineering/best practice standards
Water	Engineering/best practice standards

Stormwater Inspections (As per ECA Requirements)

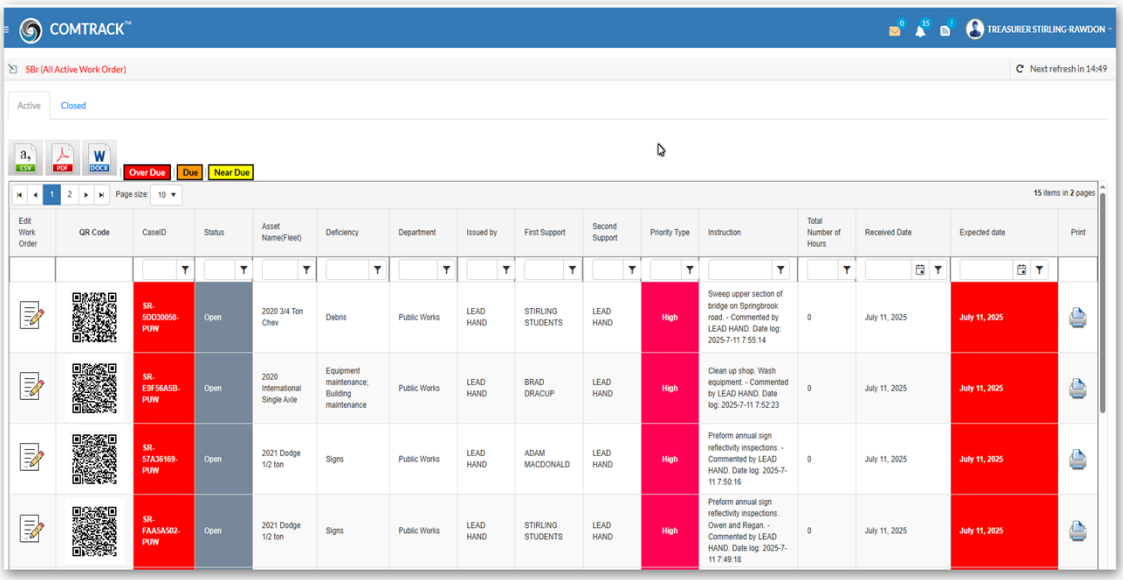
The Township maintains detailed inspection records for stormwater systems to comply with the Environmental Compliance Approval (ECA). Records include:

- Asset ID and name of the sewage work
- Date and results of inspections, maintenance, or cleaning
- Name of the person performing the inspection or maintenance
- Observations including:
    - Hydraulic operation of works
    - Condition of surrounding vegetation
    - Occurrence of obstructions at inlets/outlets
    - Evidence of spills, oil/grease contamination, and trash build-up
    - Measurements required by the monitoring plan

Purpose: Ensures compliance, protects public safety, and supports proactive asset management.

Electronic Service Request / Work Orders

The Township has adopted an electronic work order system. This system is used to track progress, increase efficiency, reduce costs, enhance communication and retain better data for decision making.



Sample of services that the Township offers through the Public Works Department from October 2024 to May 2025

Action	**# of requests**	**time consumption/ hours**	**Approximate cost at $100.00 / hr**
Winter maintenance	355	1406	$140,600
Brushing	97	619	$61,900
Patching	201	997	$99,700
Pickup road debris	82	249	$24,900
Building maintenance	45	123	$12,300
Road maintenance	33	93	$ 9,300
Curbside leaf collection	12	51	$5,100

Level of Service (LoS) Overview

The Level of Service (LoS) represents the balance between user expectations for quality, performance, availability, and safety, and the affordability of delivering those services. LoS is a key driver in asset management, guiding operational, maintenance, rehabilitation, and renewal decisions.

LoS integrates both customer expectations and technical requirements, providing a practical component of the Asset Management Plan that informs the Township's financial strategy.

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1. Purpose of Level of Service

The Township's core purpose is to provide reliable, safe, and affordable services to residents and stakeholders. Physical assets support these services, but do not, by themselves, determine service delivery.

Objectives of LoS analysis:

- Balance expected service levels with the cost of providing them
- Establish baselines for acceptable and affordable service levels
- Translate technical and operational data into actionable decisions
- Support evidence-based financial planning and capital budgeting

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2. Components of Level of Service

A comprehensive LoS framework considers multiple categories:

- Service Identification: Which services and assets are included
- Financial: Costs associated with delivering the service
- Municipal Risk: Potential consequences of failure or reduced service
- Community Expectations: Resident and stakeholder requirements
- Technical Component: Condition, performance, and maintenance needs of assets
- Strategic Component: Alignment with long-term municipal goals

---

3. LoS Policy and Development

Policy Principles

- Infrastructure must perform to meet service goals at an affordable and sustainable cost
- LoS must balance technical performance and user expectations
- Performance indicators must be measurable, monitored, and linked to asset condition, age, and replacement value

Steps to Establish LoS

1. Inventory and Data Collection: Maintain an accurate, up-to-date asset inventory with condition ratings, remaining useful life, and risk information
2. Design LoS Relevant to the Township: Ensure alignment with citizen expectations and operational realities
3. Define Measurable Performance Indicators: Metrics should cover both customer-facing and technical requirements
4. Evidence-Based Analysis: Predict asset performance, condition, and replacement needs over a 10-year horizon
5. Integrate Financial Planning: Validate LoS targets against budget constraints and financial capacity

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4. LoS Process

4.1 Development

- Compare current vs. expected service levels
- Define customer vs. technical LoS
- Apply performance measures and financial validation
- Align targets with operational and budget realities

4.2 Communication

- Solicit input from staff and citizens
- Communicate LoS strategies to stakeholders
- Obtain Council approval for LoS targets and policies

4.3 Review and Update

- Update LoS annually based on operational data, financial capacity, and community expectations

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5. Technical vs. Customer LoS

Type	Focus	Examples
Customer LoS	User experience, satisfaction, and service expectations	Road smoothness, park cleanliness, water availability
Technical LoS	Operational and asset management standards	Maintenance schedules, inspections, lifecycle renewals, risk mitigation

Notes:

- Technical LoS ensures services are operable, safe, and compliant
- Customer LoS reflects community priorities and satisfaction
- Targets must consider risk, cost, and frequency of use

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6. Level of Service Matrix

Each asset category should include:

- Key performance indicators (KPIs)
- Current measurement
- Target measurement
- Achievement date
- Approximate cost
- Priority based on Council and staff input

Integration with Asset Management:

- Technical LoS drives maintenance, rehabilitation, renewal, and upgrade strategies
- Customer LoS informs community satisfaction and service expectations
- Annual reporting tracks achievement vs. target, guiding strategic decision-making

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7. Public Works Department LoS

The Township adopts the Minimum Maintenance Standard (MMS) for transportation assets, including:

- Roads

- Streetlights and signage
- Trees and other vegetation
- Stormwater, water, and sewer assets

The MMS provides a baseline service level, ensuring compliance with provincial standards while supporting financial and operational planning.

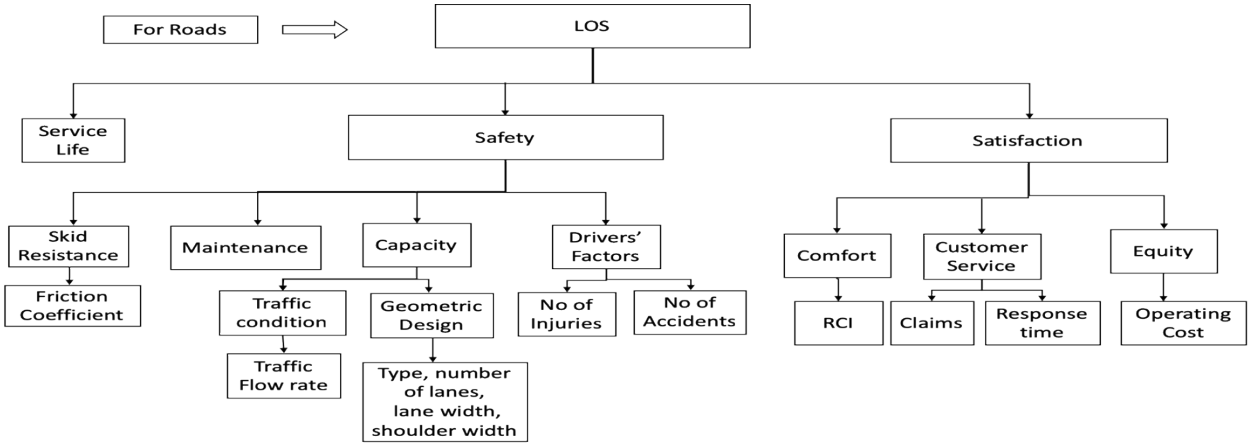
Summary

Level of Service provides a structured, evidence-based framework to guide municipal decision-making, balancing asset condition, financial capacity, and community expectations. By integrating LoS into the Asset Management Plan, the Township ensures:

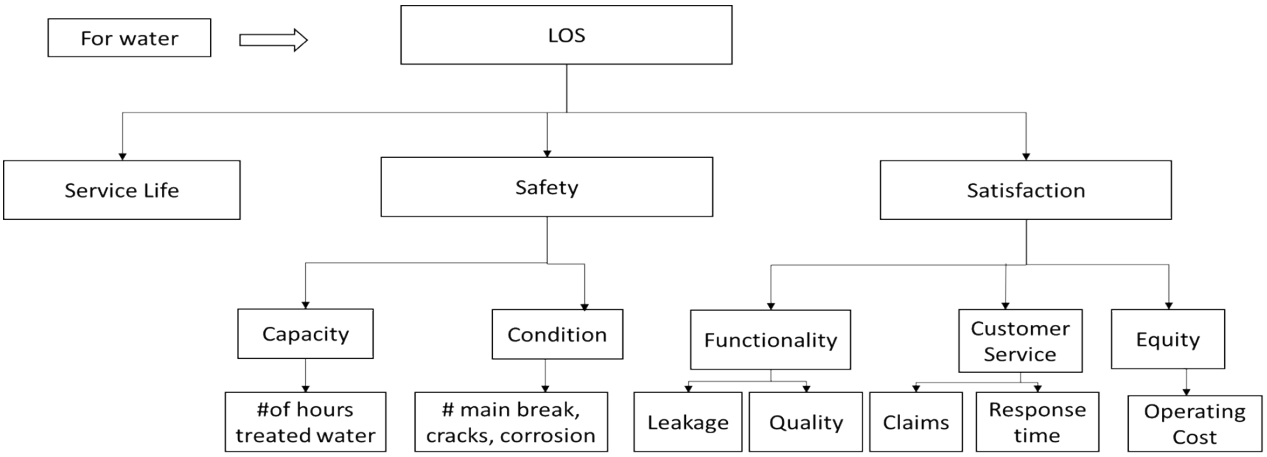
- Sustainable and affordable service delivery
- Risk-informed maintenance and renewal decisions
- Transparent communication with residents and stakeholders

Core assets Level of Service hierarchy samples

Roads Samples of Level of Service ***Breakdown Structure***



Sanitary/ Storm/ Water sample of Level of Service ***Breakdown Structure***



Level of Service

Land							
ASSET SUB TYPE	PERFORMANCE MEASUREMENT	TARGET MEASUREMENT	CURRENT MEASUREMENT	ACHIEVEMENT DATE	APPROXIMATE ANNUAL COST	PRIORITY	LEGISLATIVE REQUIREMENT / COMMENTS
Buildings and Facilities	AODA Compliancy	all buildings to be AODA compliant	Annual	In Progress	Unknown	High	O.Reg 191/11
Buildings and Facilities	Building Condition Index	roofs -25 years, air handling units 15-25 years, Ice plants 25 years, windows 30 years, flooring 25 years					
Buildings and Facilities	Capacity/ availability (# of accessible hours/ handicap accessible)	Library,Theatre, Municipal, Water/Public Works Building, 2 Canteens, Small building at Cemetery, Springbrook Shop & Springbrook Post Office. All accessible/handicap accessible when open for business					
Buildings and Facilities	energy efficiencies	achieving federal net zero emmissions - Updated LED lighting, updated some heating equipment				High	
Buildings and Facilities	establish and manage custodial services	Only some buildings have contracted cleaning services weekly. Internal staff clean remainder of buildings	weekly		$20,000.00		
Buildings and Facilities	Number of Citizens complains (% of population)		0%				
Buildings and Facilities	Regulatory (Building code compliancy)	All buildings are building code compliant when constructed					
Buildings and Facilities	Regulatory (inspect and comply with provincial regulations)	yes all our buildings comply with provincial regulations and we inspect buildings monthly	Monthly				
Buildings and Facilities	Safety (incident reporting)	as of the present date there are no incident reports					building code
Buildings and Facilities	Safety /Regulatory (Health and Safety Inspections)	To meet Occupational Health and Safety Act	Monthly				Occupational Health and Safety Act
Buildings and Facilities	inspections Policy	Buildings inspected for construction as per Ontario Building Code, Certified Fire suppression sytem checks,					
Buildings and Facilities	SANITARY PONDS remove sediment, grass cutting, weed control, vegetation, shoreline	To maintain grass and vegetation for proper observation for inspections	Grass cutting monthly or as needed				
Buildings and Facilities	STORM PONDS inspect remove sediment, grass cutting, weed control, vegetation, shoreline	To maintain grass and vegetation for proper observation for inspections	grass cutting as needed, sediment as needed				
Buildings and Facilities	WATER TOWER inspection	Monthly for external and 10 Years for internal CCTV inspection			$5,000.00		o.Reg 170/03
Buildings and Facilities	WATER WELL inspection	Inspect based on operational issues or by schedule	Above ground monthly. Below ground 6-8 years				o.Reg 170/03/ O.Reg 903/ MECP BMP Water well supply Chapter # 11
Buildings and Facilities	WATER BOOSTER STATION inspections	N/A					
Buildings and Facilities	WATER LIFT STATION inspections	N/A					

Arena

PERFORMANCE MEASUREMENT	TARGET MEASUREMENT	CURRENT MEASUREMENT	ACHIEVEMENT DATE	APPROXIMATE ANNUAL COST	PRIORITY	LEGISLATIVE REQUIREMENT / COMMENTS
ICE ARENA Compressor Inspections	Annual oil change and inspection, top-end rebuild 600 hrs, complete overhaul 12000 hrs.	Annual, rebuild based on hours, average ~3000 hrs/year	projected Aug. 2025	$7,000.00	Very High	Based on manufacturer recommendations
ICE ARENA Condenser Inspections	yearly	Annual before startup	projected Aug. 2025	$1,000.00	Very High	Based on manufacturer recommendations
ICE ARENA ICE DEPTH CECK Inspections	yearly	2 times per week	Beginning in Sept.	$1,100.00	Moderate	Industry best practice, minimum one time per week
ICE ARENA WATER QAULITY Inspections	Not required, possibly in the future for ice-making water	None	n/a	$0.00		Currently not required, Arena on municipal water. Planning for ice-making water quality control in the future.
ICE ARENA PUMP Inspections	Annual brine pump and condenser water pump inspections, rebuilt every 5-10 years, or as required	Annual before startup	projected Aug. 2025	$15,000.00	High	Based on recommendatuion of refrig. Contractor
ICE ARENA ELECTRIC CONTROL Inspections	yearly	Annual before startup	projected Aug. 2025	$500.00	Moderate	Based on refrig. Contractor recommendations
GAS BACKUP ELECTRIC GENERATOR Inspections	yearly					
Sustainabiliity (Utilization / Efficiency)						

Buildings and Facilities

PERFORMANCE MEASUREMENT	TARGET MEASUREMENT	CURRENT MEASUREMENT	ACHIEVEMENT DATE	APPROXIMATE ANNUAL COST	PRIORITY	LEGISLATIVE REQUIREMENT /
PUMP STATION inspection Special Periodic Surveys (SPS) Strcutral integrity inspections, Variable Frequenct Drives (VFD) inspections electrical motors and drives	**monthly P.M Checks and Annual third party inspections on generators and electrical connections**	**Annual, Weekly, Monthly**		**$10,000.00**		**annualy per station**
LANDFILL inspections Tonnes / capita of refuse entering landfill	**Annual Inspections and reporting. No scale to measure tonnage(survey used to calculated volumes)**	**Annual**		**$40,000.00**		**Landfill Certificate of Approval**
LANDFILL inspect sites	**Monthly Inspections**	**Monthly**		**$300.00**		**Landfill Certificate of Approval**
SALT DOME inspections	**Annual inspections**	**Annual**		**$100.00**		
SAND DOME inspections	**Annual inspections**	**Annual**		**$100.00**		
Town hall inspections	**Health and safety inspection/ Back Flow Prevention Inspection annually/ Fire Supression System Inspection**	**Monthly/ Annually**		**$4,000.00**		
Community Hall inspections	**Health and safety inspection**	**Monthly**		**$100.00**		
PARK EDIFICE inspections	**Park inspections conducted by licenced park inspector**	**Weekly /Monthly**		**$200.00**		
PUBLIC WORKS GARAGE inspections	**Health and safety inspection**	**Monthly**		**$100.00**		
cemetery inspections	**cemetry inspections conducted**	**Weekly /Monthly**				**by-law No. 1386-20**

Sanitary Network

ASSET SUB TYPE	PERFORMANCE MEASUREMENT	TARGET MEASUREMENT	CURRENT MEASUREMENT	ACHIEVEMENT DATE	APPROXIMATE ANNUAL COST	PRIORITY	LEGISLATIVE REQUIREMENT /
Sewerline (Waste Water)	# of annual days backup	0					
Sewerline (Waste Water)	% of linear pipes in fair of better conditions						
Sewerline (Waste Water)	CCTV INSPECTIONS	every 5-10 year cycle			$10,000.00		
Sewerline (Waste Water)	citizen complaints	Annual Reporting listing complaints	7 complains received		$2,500.00		for annual report time
Sewerline (Waste Water)	flushing	yearly	A total of 7 customer complaints were received in the reporting period. The complaints were minor in concern and typically dealt with a service request for a catch basin grate cleaning after a storm. Additional complaints were raised regarding the lack of grass in recently ditched areas that had not yet grown but had seed applied.		$10,000.00		
Sewer Lateral (Waste Water)		Not owned by Municipality					
Sewerline (Waste Water)	number of properties connected to municipal sanitary lines	Approximate 951 hook ups					
Manhole (Waste Water)		Inspections every 2 years when flushing	every other year		$10,000.00		CLI ECA
Pumpstation (Waste Water)	maintenance and inspections	Daily and Monthly Inspections	Daily and Monthly Inspections		$15,000.00		
Lagoon	visual inspections	Daily/ annual slude volume index	Daily and Monthly Inspections		$15,000.00		
Septic Tanks	visual inspections	Once every 5 years in Source Water Protection Areas			$5,000.00		

Storm Network

ASSET SUB TYPE	PERFORMANCE MEASUREMENT	TARGET MEASUREMENT	CURRENT MEASUREMENT	ACHIEVEMENT DATE	APPROXIMATE ANNUAL COST	PRIORITY	LEGISLATIVE REQUIREMENT /
Stormline							climate change 100 year storm resiliance
Stormline	# of annual flooding	None					
Stormline	% of test	annual budget	annual budget	2025-01-03		Medium	588
stormline	capacity study	Revised every 10 years			$15,000.00		
Stormline	% of yearly CCTV inspections	No annual commitment for annual storm CCTV					$10.00 / METER
Stormline	citizen inquiry	Listed in annual report for CLI ECA's					
Catchbasin	annual cleaning / inspections	Annual portion of CB cleaning			$16,800.00		Consolidated Linear ECA
Sewerline (Waste Water)	Clean out catchbasin	yearly			$10,700.00		
Storm Manhole	clean and inspection	Every other year					listed above
Storm Manhole	yearly inspections	every other year			$10,700.00		
Culvert <3m	visual inspection	every 5 years			$5,000.00		

Structures Bridges/Culverts

ASSET TYPE	ASSET SUB	PERFORMANCE MEASUREMENT	TARGET MEASUREMENT	CURRENT MEASUREM	ACHIEVEMENT DATE	APPROXIMATE ANNUAL COST	PRIORITY	LEGISLATIVE REQUIREMEN
Structures	Bridge	# of bridges with Load Restrictions	30 bridges (24 with load restrictions)			$12,000.00		OSIM
Structures	Bridge	OSIM Reports every two years	3 bridges expected to be replaced in 2026					OSIM
Structures	Bridge	collect and maintain Bridge Condition Index above 70 BCI	every 2 years			$12,000.00		OSIM

Water Network

ASSET SUB TYPE	PERFORMANCE MEASUREMENT	TARGET MEASUREMENT	CURRENT MEASUREME	ACHIEVEME NT DATE	APPROXIMA TE ANNUAL	PRIORITY	LEGISLATIVE REQUIREMENT / COMMENTS
Waterline	# of annual waterline inspections	inspections are based on statistics of age and breaks.					Safe Water Drinking Act 2002
Waterline	# of citizens connect to municipal water	921 connections					Adherence to Clean Water Act Ontario Regulation 287/07
Waterline	# of water boil advisory	0					am O Reg. 588/17
Waterline	# of water main breaks per year	1-3 avgerage	Water main break forms		$20,000.00		O Reg. 588/17
Waterline	% of citizens serviced by hydrants	Approximately 40% of Municipality 2000 residents of 5000					NFPA
Waterline	% of water sampling that meets the Drinking Water regulation	99%					drinking water act
Waterline	CCTV INSPECTION	water lines not CCTV inspected					
Waterline	citizen inquiry	Highlighted in Water Annual Report					
Waterline	water testing and monthly reporting	Weekly/monthly/quarterly/ bi annual and annual samples to meet compliance			$20,000.00		Safe Water Drinking Act 2002 O.Reg 170/03
Waterline	Average operating Pressure (peak hour demand minimum operating pressure of 49 PSI)						
Water Hydrant	Annual Flushing inspection	Annual flushing (5 Year Fire flow rating)	Annual Inspection		$10,000.00	Very High	Safe Water Drinking Act 2002 O.Reg 170/03
Water Valve	annual valve exercise inspections	Annualy	Annual Inspection		$5,000.00		
Water Meter	replace water meters	As needed. Anticipated lifecycle of 20 years					
standpipe	inspection	Monthly exterior inspection and interior CCTV inspection every 10 years	Yearly/ 10 year inspection		$1,200.00		Safe Water Drinking Act 2002 O.Reg 170/03 /10 years cycle

Transportation

ASSET SUB TYPE	PERFORMANCE MEASUREMENT	TARGET MEASUREMENT	CURRENT MEASUREMEN	ACHIEVEMENT DATE	APPROXIMATE ANNUAL COST	PRIORITY	LEGISLATIVE REQUIREMENT /
Road Section	% of fully accessible roads	all roads are accessible					
Road Section	adoption of MMS (Road patrol)	as required per MMS					Reg. 239/02 amended by 366/18
Road Section	collect / maintain traffic count	Blackcat traffic counting system - monitor a road 1 week at a time 2 persons	2 hours		$120.00/hour		
Road Section	Roads needs study	every 5 years			$10,000.00		
Road Section	Safe Transportation Netwrok	PCI > 60	PCI . 50	2022-02-01	$50,000.00	Medium	ontario regulation 239/02 minimum maintenance standard (MMS) SP-021 MANUAL , SP-022 MANUAL , SP-024 MANUAL, SP025 MANUAL
Road Section	brushing	when required in fall/spring - 400 hour	165.00/hour		$66,000.00		
Road Section	ditching	when required - 200 m/15.00			$3,000.00		
Road Section	Dust control on gravel roads	3 ton to the mile - 9km/27,500 L tank			$12,000.00		
Road Section	gravelling	Gravel tender	16km/18996 Tons		13.50/tonne		
Road Section	Number of citizen requests	20 requests per year approximately	TBD	2023-02-01			
Road Section	resurfacing	7 km approximate single lift tar & chip 54,750 m²	$4.10		$224,475.00		
Road Section	sweeping	2 times a year as required	130.00 hr/70hrs		$9,100.00		
Road Section	winter maintenance	winter maintenance 300 kms(both directions) - cost per plow	22.44 per km		$13,464.00		ontario regulation 239/02 minimum maintenance standard (MMS)
Road Section	road cuts						
Road Section	collect / maintain sign inventory	yes as required - cost may vary due to required amount of signs to be replaced due to weather, car accidents or failure of reflectivity (or others)					
Signs	reflectivity	annually					MMS
Signs	replace broken signs as per MMS	as per MMS	$250.00 per sign				MMS
Signalized Intersection	TESTS	bi-annually			$1,200.00	High	Test /bi-annually
Sidewalk	annual inspection	replace as required					
streetlights	percentage of streetlights with LED fixtures	100%					

Vehicles / Equipment

ASSET SUB TYPE	PERFORMANCE MEASUREMENT	TARGET MEASUREMENT	CURRENT MEASUREMENT	ACHIEVEMENT DATE	APPROXIMATE	PRIORITY	LEGISLATIVE REQUIREMENT / COMMENTS
Garden Equipment		lawn mowers and roto tillers					
Ice Resurfacer	circle checks, maintenance	Circle check daily prior to first use of equipemt. Annual preventative maintenance completed prior to next ice season by Canadian Ice Training.	Daily circle checks, annual PM	projected Aug. 2025	$10,000.00	Very High	Based on manufacturer recommendations and industry best practices
Medium Duty Vehicle	Daily Check all levels coolant/oil, Circle check, / Every 200 hours Manufactures recommendations	2020 3/4 Ton & 2024 2 Ton Ford 5500 - yes daily checkes are completed and serviced as required by manufacturers recommendations					
Light Duty Vehicle	Daily Check all levels coolant/oil, Circle check, / Every 200 hours Manufactures recommendations	5 light duty vehicles - yes daily checkes are completed and serviced as required by manufacturers recommendations					
Heavy Duty Vehicle	deliver all planned and preventative maintenance as outlined by manufacturer	4 Tandem trucks & 1 single axle truck					
Generator	Weekly/Monthly and annual generator checks	Annual service is contracted service	weekly/monthly/annually		$25,000.00	Very High	CSA Standards
ice edger	pre-use inspection, annual maintenance	Inspected befor each use, full cutting tip replacement and greasing once per year.	inspected prior to each use, full service annually	projected Aug. 2025	$500.00	Moderate	none
lift equipment	Annualy lifting device inspections	conducted by third party inspector	Annual Inspection		$1,100.00		
snow blower/ lawn mower		Mahindra and MT7(Trackless)					

Risk

Risk Prioritization Matrix

Risk prioritization enables the Township to assign value to each municipal asset category, allowing comparison and ranking of assets based on likelihood and consequence of failure. This ensures that maintenance, renewal, and replacement efforts focus on the highest-risk assets first.

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1. Probability of Failure (PoF)

Not all assets deteriorate at the same rate. Probability of Failure considers:

- Baseline weight of the asset category
- Material type and classification
- Condition rating
- Remaining useful life

Values are normalized on a scale of 1–5, where 5 indicates the highest probability of failure.

PoF Rating	Condition	Remaining Useful Life (UL)	Condition Index (CI)
5	Very Poor	0–10% UL	0–39
4	Poor	11–50% UL	40–50
3	Fair	51–70% UL	51–70
2	Good	71–85% UL	71–85
1	Very Good	86–100% UL	86–100

Note: PoF increases as assets age and condition declines, reflecting a growing risk of failure over time.

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2. Consequence of Failure (CoF)

The impact of failure differs across asset categories. CoF assesses the severity of failure in five domains:

Domain	Description
Environmental	Impacts on ecosystems, water, air, and public space
Financial	Replacement or repair costs and potential budget

Domain	Description
	impacts
Health & Safety	Risk of injury or harm to the public and staff
Legal	Regulatory or compliance consequences
Operational	Disruption to essential services or municipal operations

CoF is normalized similarly, with higher scores indicating greater consequences.

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3. Risk Calculation

Overall Risk = Probability of Failure (PoF) × Consequence of Failure (CoF)

This produces a numeric equivalent that can be used to prioritize maintenance, inspection, and capital investment.

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4. Non-Core Asset Risk

Asset	Category	PoF	CoF	Numeric Equivalent	Risk Description
Land	Municipal owned land	Good	1	1	Low
Buildings	Envelopes, roofs, foundations	Good	2	3	Medium
Inventory	Capitalized inventory	Good	2	2	Medium
Fleet	Vehicles	Good	2	3	Medium
Equipment	Various machinery	Good	2	2	Medium

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5. Core Asset Risk

Asset	Category	PoF	CoF	Numeric Equivalent	Risk Description
Roads	Municipal owned roads	Good	1	1	Low
Bridges	Bridges	TBD	TBD	TBD	TBD
Sewer	Collection & treatment	Good	2	3	Medium

Asset	Category	PoF	CoF	Numeric Equivalent	Risk Description
	infrastructure				
Water	Distribution & treatment infrastructure	Good	2	2	Medium
Storm	Stormwater infrastructure	Good	2	3	Medium

Note: TBD indicates assets requiring additional inspection or data validation to determine PoF/CoF.

Key Takeaways

1. Prioritization enables proactive asset management: Focus on high-risk assets first to prevent failures.
2. Data-driven approach: PoF and CoF calculations are based on condition, remaining life, and functional importance.
3. Core vs. Non-Core Assets: Core infrastructure (roads, bridges, water, sewer, storm) has greater operational impact and may require more urgent attention.
4. Continuous review: Risk scores should be updated annually or when asset conditions change.

Climate change

The AM policy applies to all assets owned by the Township that requires deliberate management in service delivery. The Township will use a service-based (qualitative) perspective when applying this policy to municipal assets, rather than a monetary value (quantitative). The service-focused intent of this policy differentiates its requirements for identifying assets from the capitalization thresholds developed for financial reporting purposes. For this reason, the capitalization threshold developed for financial reporting will not be the guide in selecting the assets covered by the asset management planning process.

Climate change is monitored in two ways. First, the resilience to a 100-year storm, and secondly the consumption of energy. The threat of a 100-year storm to the environment can be mitigated through proper utilization of natural resources, as well as the proper management of storm assets, including culverts. To this end, the Township is proactive in managing its storm network, including ponds and lagoons, while inspecting all culverts and bridges. The Township

continues to invest in energy management and efficiency solutions. Within the Township, one of the largest consumers of energy is the Arena. The Township has begun the electronic management of ice depth, which will correlate to energy consumption

- Energy efficiency
- Climate change adaption
- Climate change mitigation

Energy Demands

The Township should begin collecting energy consumption as part of future AM requirements.

- Meter each individual building
- Identify inventory assets that consume energy
- Collect water usage by building and associated various assets

O.Reg. 507/18 broader public Sector energy reporting and conservation and demand management plans include the summary for a year must include the following information for each of the public agency prescribed operations:

1. The name of the building or facility.
2. The address of the building or facility.
3. The total floor area of the indoor space of the building or facility.
4. The type of the building or facility
5. A description of the days and hours in the year during which the building or facility is operated.
6. The total amount of each type of energy that was consumed in the year to operate the building or facility and that was purchased by the public agency.

Energy consumption

2024 gas usage

Asset	Location	Gas consumption m3	Cost
Fire Hall/Office, etc.	2529 Stirling-Marmora Rd.	14990	$11,362.84
Fire Hall/Office, etc.	2529 Stirling-Marmora Rd	5875	$3,134.55
Generator	191 Henry St.	791	$927.59
Springbrook Fire - Office		2400.2	$1,924.36
Springbrook Fire Hall		4071.6	$3,288.80
Roads dept. - Springbrook		4829.3	$3,924.22
Library		4521	$2,933.48
Arena		17495	$10,204.34

Electricity Usage

Facility	Location	KWh's	Cost 2024	2014 KWh's
Frankford Rd Pumping Station	134A Frankford Road	10,843	$2,353.09	14504
George St. Sewer Pump Station	0 George Street	52,078	$10,039.35	60391
Annis St Pumping Station	0 Annis Street	22,550	$4,485.03	32493
Water Treatment Plant	93 Elizabeth Street	157,809	$29,083.78	210204
Water Tower Transmitter	221 Baker Street - Tower	1,445	$624.42	8924
Water Tower Transmitter	221 Baker Street - Water	9,468	$2,107.11	
Fire Hall	2508 Springbrook Road Garage	13,566	$2,666.52	25400

Fire Hall	2508 Springbrook Road - Fire Office	17,433	$3,411.06	25400
Fire Hall/Office, etc.	2529 Stirling-Marmora Road - Police/Fire	75,045	$13,876.37	10083
Fire Hall/Office, etc.	2529 Stirling-Marmora Road	21,738	$4,386.35	
Stirling Ball Park	85 Henry Street - Stirling Ball Park	3,866	$998.74	4808
Sewer Pump Station	28 Rodgers Drive	3,205	$939.62	2130
Henry Street Pumping Station	197 Henry Street	3,420	$982.43	972
Stirling Street Lights	Stirling Street Lights	79,095	$16,088.60	
Traffic Lights	Traffic Lights	4,205	$952.23	
Springbrook Street Lights	Springbrook Street Lights	3,915	$921.45	
Lagoon	350 River Valley Road	12,786	$2,776.78	
Lagoon	River Valley Road	172,130	$25,785.69	
	4895 Stirling-Marmora Road	8,836	$1,948.37	4759
Library		23,441	$5,235.08	
Arena		587,858.70	$121,084.95	

Financial

The Township replacement costs total $1,968,M. A number of factors are used to determine these replacement costs and the annual amount required to update the assets fluctuates each year. Estimated replacement costs for currently owned assets is estimated at $8.9 million over the next five years.

Financial Overview

ASSET CATEGORY	ASSET TYPE	REPLACEMENT COST	LIFECYCLE COST
FLEET	Vehicle		
LAND	Land		
LINEAR	Sanitary Network	$17,512,938.00	
LINEAR	Storm	$4,659,200.00	
LINEAR	Transportation	$161,977,710.00	$18,181,732.00
LINEAR	Water Network	$11,242,546.00	
POINT	Sewer Network	$1,017,500.00	
POINT	Storm Network	$1,261,403.00	
POINT	Structures	$69,353,004.00	$5,646,000.00
POINT	Water Network	$1,512,500.00	

No. of Records per page 15

Tax rate effect

To collect an additional $695,114.45 in 2025 over 2024 represents a tax rate increase of 7.87%. Based on an average assessment in 2025 of $266,972.00 and a tax rate increase of 7.87% represents an annual increase in property taxes for municipal purposes only of $334.80 or $27.90 per month.

Non-core Financial

Non-core financial requirements based on an extended 5 year plan. These numbers are based on the information collected. The Township is working on validating inventory and replacement values.

Replacement Construction pricing

Square footage construction pricing

- Fire Stations $546.00 sq. ft.
- Maintenance facilities $450.00 sq. ft.
- Municipal offices $400.00 sq. ft.
- Ice arenas $320.00 sq. ft.
- Museum $500.00 sq. ft.
- Library $380.00 sq. ft.
- Salt dome $130.00 sq. ft
- Sand domes $ 43.00 sq. ft.

Replacement Values for core assets

asset	Lifecycle event	Cost /unit
roads	LCB reconstruction	$190.00/m
	HCB reconstruction	$190.00/m
	Gravel reconstruction	$190.00/m
	signs	$ 200.00 each
	streetlights	$2,000.00 each
water		
	Hydrants	$10,000.00 each
	valves	$ 2,000.00 each
	waterline	$ 500 – $2,000 /m
storm	Culvert <3m	$ 700 – $2,400 /m
	Catch basin	$ 3,000.00 each
	manhole	$ 5,000.00 each
	stormline	$ 500 – $2,000 /m
sewer	manhole	$ 5,000.00 each
	sewer line	$ 500 – $2,000 /m

Land Betterment

The Township will begin to update the land data inventory to define which individual inventory has had betterments to it.

10-year capital plan

It begins with an itemized inventory at the component level, which is classified based on the data subcategory. The 10-year report includes purchase price, replacement price, betterments to the asset, and a yearly forecast indicating any financial shortfalls or unfunded liabilities.

Equipment utilization

An equipment utilization report enhances decision making-capabilities by identifying the usage and consumption of each inventory piece. This is achieved by collecting the amount of capacity and current

consumption of each inventory piece. This report will combine remaining useful life with equipment utilization defining what additional steps the Township can take to extend the life of the asset.

Inflation report

Having collected the purchase price and the installation date, the Township can forecast the replacement cost based on life expectancy and the proposed inflation rate.

Energy Consumption

Calculating the various energy consumption of facilities and fleet is a valuable component of any AM plan. A typical Ice rink utilizes large quantities of water, propane, electricity and gas.

Optimized Asset replacement

The Township will begin to collect the financial investment for each asset and establish a policy to determine cost remediation versus cost replacement.

Budget forecasting

Through the collection of proper inventory and appropriate data fields the Township will begin the process of creating 10-year dynamic capital plan.

Equipment Utilization

The Township has adopted an equipment utilization index strategy to define assets which require immediate attention more accurately. This approach will identify which similar assets have a shorter lifespan due to their daily usage, thereby providing a more accurate replacement and lifecycle dates.

Cost recovery

True replacement cost is best achieved through user-defined accurate invoices and industry best practices. Costs derived by inflation calculation have not been found to be reliable. Costs include both hard and soft costs. The overall cost of the physical assets and the hourly wages. The Township will review Funding opportunities including:

- Identify provincial or federal funding
- Raise taxes

- Reserves
- Establish user fees
- Debt

Asset Retirement Obligation

The Township has a Bylaw No. 31-24

At the end of their natural life, assets will need to be disposed. Certain assets such as, old buildings, cemeteries, landfill sites, treatment lagoons, water wells, ice rinks, and ice resurfaces may require engineering decomissioning. At this point assets become liabilities with expenses associated to its decommissioninig.

Further, over time, the cost of components needed to run facilities may become unmanageable. In some case, due to federal laws become phased-out. Such is the case with regard to refrigerants.

ARO calculations are validated by the audited 2023 financial statement.

Facilities	Financial obligations
LANDFILL	$3,321,651
ARENA	$ 5,218
REC	$ 10,035
LIBRARY	$ 2,809
SEWER	$ 32,113

Citizen engagement

The Township has made citizen engagement a priority. It has adopted innovative technologies to collect and analyze citizen satisfaction.

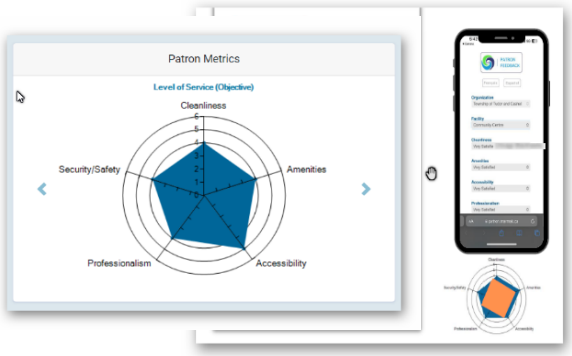
The Township is measuring 5 five key indicators, including, operational, security, amenities, professionalism, and accessibility.

Occupiers' liability Act

The Township will review its property assets to ensure that premises are reasonably free of hazards. That entrants are reasonably safe, and establish and maintain a "standard of care"

Patron feedback

The same QR code technologies used for inventory have been implemented within the municipal facilities to gather pertinent user satisfaction. The QR codes are both affixed to public places as well as on the municipal website, enabling the users to quickly scan a QR code and provide feedback on 4 key performance indicators including:



- Cleanliness
- Amenities
- Security
- Professionalism
- Accessibility

These surveys details are available to municipal management team while the results are graphically reviewed.

Incident reporting

From both a liability and level of service perspective, the Township has begun to electronically collect and manage incident occurrences involving municipal owned properties.

Appendix

Appendix A	2025 budget
Appendix B	Community Safety and Well-being Plan
Appendix C	Energy Plan
Appendix D	2024 Complaint Tracking.xls
Appendix E	Strategic Plan 2024-2034
Appendix F	Stormwater Annual Report - 2024
Appendix G	CLI-ECA
Appendix H	MMS by-lay No. 1278-19
Appendix I	2023 Accessibility Compliance Report
Appendix J	2024 development charges study