STEFANIZZI
PROFESSIONAL CORPORATION
CHARTERED PROFESSIONAL ACCOUNTANT

TOWNSHIP OF JOHNSON

Asset Management Plan

August 30, 2023

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August 30, 2023

Township Of Johnson
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To the Staff, Management, and Council of the Township of Johnson

On behalf of Stefanizzi Professional Corporation, I would like to thank you for the opportunity to work with the Township on a Comprehensive Asset Management Plan Project as approved by your Township council.

This project has resulted in the development of a comprehensive Asset Management Plan in accordance with the requirements of Ontario Regulation 588/17 for the Township of Johnson.

To accomplish this objective, we have split the project into three main deliverables:

1. Asset Management Processes and Staff Training
2. Asset Register and Level of Service Framework Workbooks
3. Final Asset Management Plan Report

As we have embarked on this journey together, the final stop is preparing the Asset Management Plan document enclosed within. This will help the Township move forward in an evolving, data-centric world to assist with budget and other decision-making.

Sincerely,

Jerry Stefanizzi, B.Comm., CA, CPA
Stefanizzi Professional Corporation
Chartered Professional Accountant

INTRODUCTION

OVERVIEW OF ONTARIO REGULATION 588/17

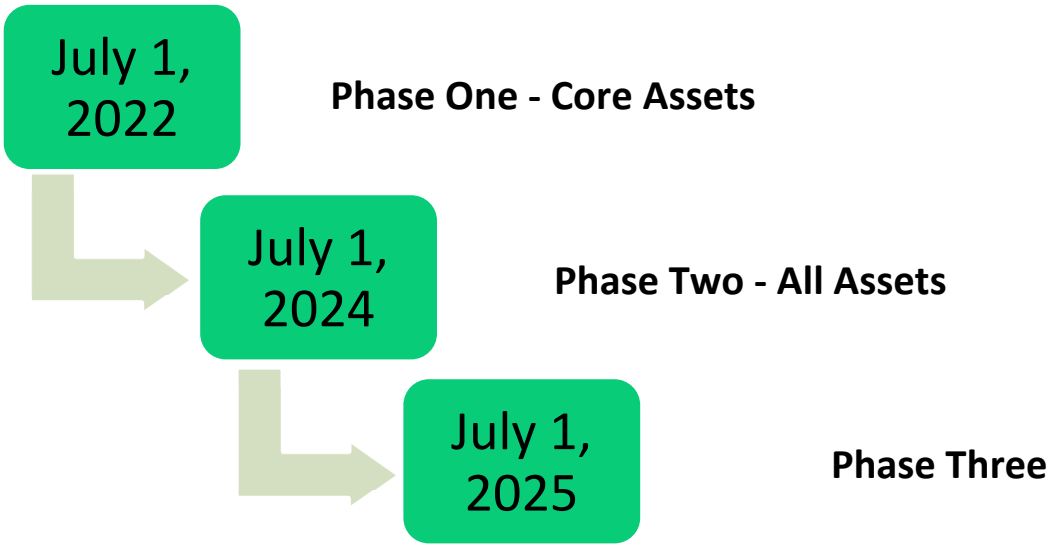
In December 2017, the Province of Ontario had approved Regulation 588/17 ("the Regulation") to update the guidelines of the province related to Municipal Asset Management Planning. This Regulation serves as an update to the 2012 – Building Together: Guide for Municipal Asset Management Plans. It is the province's goal to help each Municipality develop a modernized, data-based approach to their Asset Management Plans.

From the presentation prepared by the Ministry of Infrastructure on the new Regulation dated September 19, 2018, the following guidance was provided in relation to the **goals for data collection:**

1. One of the primary goals of the regulation is to gain a better understanding of the infrastructure challenges municipalities face.
2. Improving the standardization and consistency of asset management planning information will help the province and municipalities achieve this objective.
3. The province is considering the possibility of leveraging the Financial Information Return process to collect asset management planning information to gather a more complete picture of municipal infrastructure needs.
4. The Ministry of Municipal Affairs and Housing is currently in the process of conducting a pilot project to test the collection of municipal asset management planning information.
5. The purpose of this pilot is to seek input from local governments on how to collect key information on municipal asset management and to foster discussions around long term financial sustainability.

REGULATION TIMELINE

The new Regulation has been subject to a highly regimented approval process spanning all the way back to the early 2016. The Province of Ontario has required any municipality seeking provincial capital funding to prepare an asset management plan under this framework, in order to demonstrate how the funding would fit into its current and future spending. It has several upcoming deadlines required by each Municipality divided into three phases. A high-level summary of the Regulation requirements are as follows:

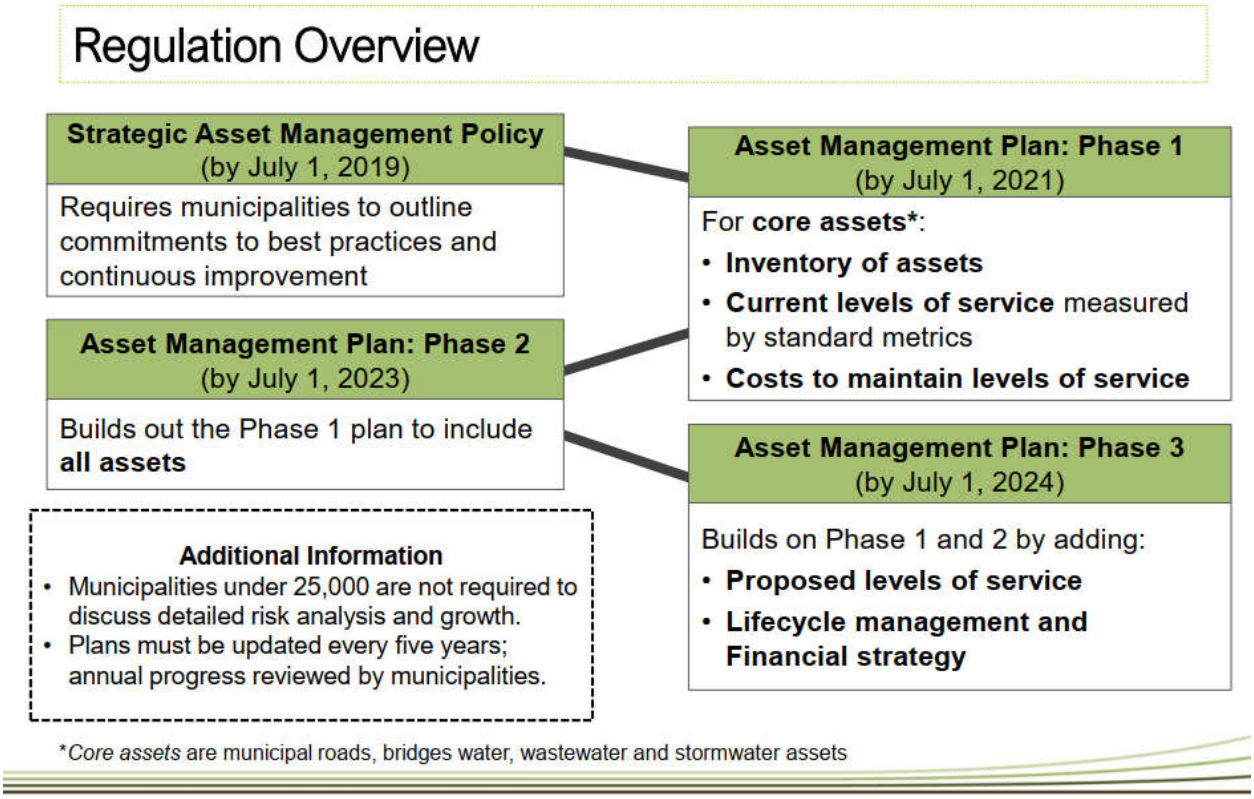


Phase One: will document the state of local infrastructure for all core assets, their current level of service, as well as expected costs to maintain these service levels. Core assets include roads, bridges, as well as sewer and water infrastructure.

Phase Two: will expand on Phase One to include all assets (i.e., buildings and other equipment).

Phase Three: is the final stage, done to incorporate a future-oriented strategy to help budget and fund necessary expenditures to provide the desired level of service for all infrastructure systems in the Town.

The following is taken from the Ministry of Infrastructure Municipal Asset Management Planning Regulation (O. Reg. 588/17) presentation dated September 19, 2018. The deadline for each phase has been extended one year since the original presentation.

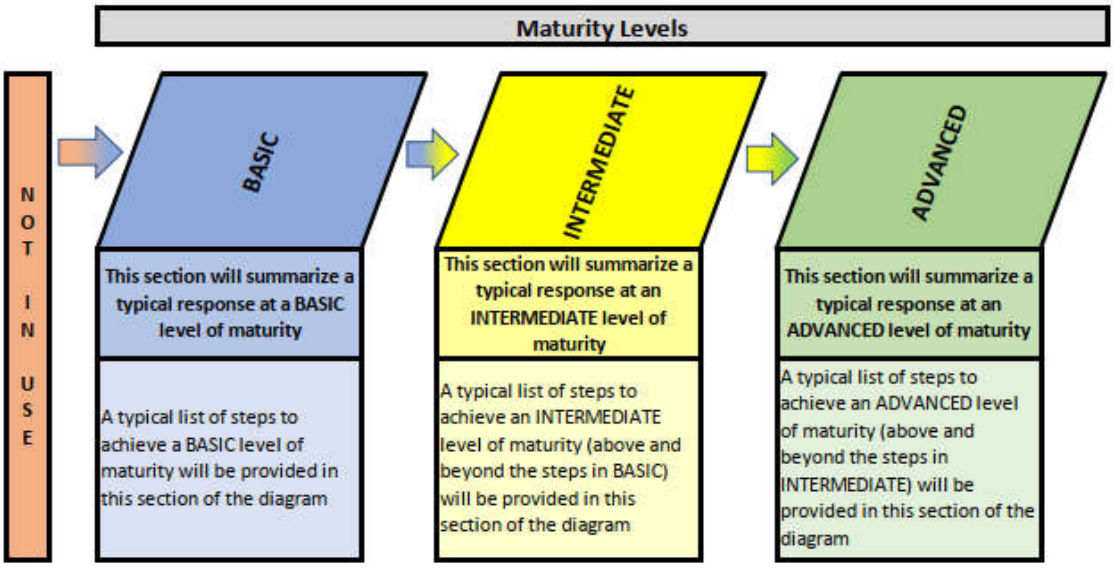


PROJECT APPROACH

As stated above, the overall approach to the municipal development of asset management practices has been a detail-oriented, modular approach. In 2018, the Municipal Finance Officers' Association of Ontario (MFOA) published an Asset Management Framework (AMF) to assist Ontario municipalities assess and improve their "maturity level" in all aspects of asset management planning. We will continue to refer to this framework throughout the plan as we cover the various sections of Municipal Asset Management.

The foundation of this document is to inform all municipal stakeholders on these results, for how staff and management have evolved their asset management practices. This is not only in accordance with the new regulation but based on the original Asset Management Framework described herein. The goal is to help provide a true cultural overhaul and improved process at the highest level of decision-making, given the new tools available such as the Comprehensive Asset Register.

A sample maturity diagram from the framework is provided below:



ASSET MANAGEMENT POLICY

On September 20, 2023, the Township of Johnson passed Bylaw 2023-1080. Schedule "A" to the Bylaw details the Strategic Asset Management Policy of the Municipality. The Policy itself provides guidance as to how staff and Council will interact with the Asset Management Plan, the Asset Register, and the Level of Service Framework, in accordance with the new Regulation.

STRATEGIC ASSET MANAGEMENT POLICY – O. REG. 588/17

3. (1) Every municipality shall prepare a strategic asset management policy that includes the following:

1. Any of the municipality's goals, policies or plans that are supported by its asset management plan.
2. The process by which the asset management plan is to be considered in the development of the municipality's budget or of any long-term financial plans of the municipality that consider municipal infrastructure assets.
3. The municipality's approach to continuous improvement and adoption of appropriate practices regarding asset management planning.
4. The principles to be followed by the municipality in its asset management planning, which must include the principles set out in section 3 of the Act.
5. The municipality's commitment to consider, as part of its asset management planning,
    i. the actions that may be required to address the vulnerabilities that may be caused by climate change to the municipality's infrastructure assets, in respect of such matters as,
        A. operations, such as increased maintenance schedules,
        B. levels of service, and
        C. lifecycle management,
    ii. the anticipated costs that could arise from the vulnerabilities described in subparagraph i,
    iii. adaptation opportunities that may be undertaken to manage the vulnerabilities described in subparagraph i,
    iv. mitigation approaches to climate change, such as greenhouse gas emission reduction goals and targets, and

v. disaster planning and contingency funding.

6. A process to ensure that the municipality's asset management planning is aligned with any of the following financial plans:
   i. financial plans related to the municipality's water assets including any financial plans prepared under the *Safe Drinking Water Act, 2002*.
   ii. financial plans related to the municipality's wastewater assets.
7. A process to ensure that the municipality's asset management planning is aligned with Ontario's land-use planning framework, including any relevant policy statements issued under subsection 3 (1) of the *Planning Act*, any provincial plans as defined in the *Planning Act* and the municipality's official plan.
8. An explanation of the capitalization thresholds used to determine which assets are to be included in the municipality's asset management plan and how the thresholds compare to those in the municipality's tangible capital asset policy if it has one.
9. The municipality's commitment to coordinate planning for asset management, where municipal infrastructure assets connect or are interrelated with those of its upper-tier municipality, neighbouring municipalities or jointly owned municipal bodies.
10. The persons responsible for the municipality's asset management planning, including the executive lead.
11. An explanation of the municipal council's involvement in the municipality's asset management planning.
12. The municipality's commitment to provide opportunities for municipal residents and other interested parties to provide input into the municipality's asset management planning.

ABOUT THE TOWNSHIP OF JOHNSON

OVERVIEW

Township Population

YEAR		POPULATION
1991		**685**
1996		**729**
2001		**658**
2006		**701**
2011		**750**
2016		**751**
2021		**749**

From 1991-2011, the Township experienced a slight increase in population from 658 citizens of the community to 750 citizens as of 2011 (see the available Statistics Canada census). However, this figure has been relatively stable since 2011, without any major expectation of change in population moving forward.

STATE OF LOCAL INFRASTRUCTURE

REQUIREMENTS UNDER ONTARIO REGULATION 588/17

The new regulation stipulates the following requirements with respect to asset inventories to be included in a municipalities' asset management plan:

1. A summary of assets in each category
2. The replacement cost of the assets in each category
3. The average age of the assets in each category, determined by assessing the average age of the components of the assets.
4. The information available on the condition of the assets in each category
5. A description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and general engineering principles.

GENERAL ASSET MANAGEMENT INFORMATION

Each municipality manages their capital assets to provide services to their local community. The key questions with each municipality are about how well current services are performing, how to efficiently spend capital funding to maintain these current levels of service, and whether these services can be improved.

The new asset management regulation is all about data, as detailed in the five components above about what is required to be compiled in a municipality's asset inventory (otherwise known as the asset register).

PREPARING THE ASSET REGISTER – KEY FINDING

Given the size of the Township of Johnson, what becomes readily available is the ability to store all data requirements in one comprehensive asset register. A comprehensive asset register is made of up all the integrated data sources to be analyzed and compiled by Township staff. Having

multiple asset registers would create significant challenges, with the potential for inconsistencies in the data between each of the registers used.

SECTIONS OF DATA COMPILED IN THE ASSET REGISTER

Physical Data – These components include all the data required to maintain the levels of services that each asset provides. This includes attributes such as general description, location, size, material type, and condition rating.

Financial Data – These components include all the asset financial details such as historical cost and replacement value. In part, the financial asset register forms part of the system that meets the Public Sector Accounting Board 3150 standards for tangible capital assets.

As a result of the comprehensive asset management plan project, the physical and financial asset registers exist in one data warehouse with the use of Microsoft Excel. This will allow the Town to easily navigate all historical physical and financial data for the Town.

CLASSIFICATION OF DATA COMPILED IN THE ASSET REGISTER

To appropriately lineup the reporting requirements of the municipality, the asset data is classified and analyzed in two separate categories. This includes the physical asset type or how it serves its community.

Asset Data by Asset Type – typical asset types for any municipality include Land, Building, Equipment, Furniture, Roads, Bridges, as well as Water & Sewer Infrastructure. Each asset type is depreciated by their individual useful life, as some assets will depreciate quicker than others simply because of its type. Per the capital asset policy of the Town,

Asset Data by Municipal Service – for management reporting purposes, municipal operations and activities are organized by segment funds standardized across the province of Ontario. Funds were created for the purpose of recording specific activities to attain certain objectives in accordance with special regulations, restrictions, or limitations.

Municipal services are provided by departments and their activities are reported in these funds with descriptions as follows:

General government

The administration department oversees the delivery of all government services. The department is responsible for ensuring that there are adequate policies and procedures in place to safeguard assets and to properly report financial activities. In addition, this department includes the governance activities of council.

Protection services

Protection is comprised of the police, fire/emergency, by-law enforcement and building inspection departments. The mandate of the police is to ensure the safety of the lives and property of citizens; preserve peace and good order; prevent crimes from occurring; detect offenders; and enforce the law. The fire/emergency department is responsible to provide fire suppression service; fire prevention programs; training and education related to prevention, detection, or extinguishments of fires. The by-law enforcement and building inspection department ensures properties are following applicable legislation, by-laws, building standards and construction codes.

Transportation services

The transportation department is responsible for the delivery of municipal public works services related to the planning, development and maintenance of roadway systems, winter control and street lighting.

Environmental services

The environmental department provides garbage collection and waste minimization programs and facilities for solid waste disposal.

Health services

Through the Algoma Health Unit, the municipality contributes to public health services and education and through the Algoma District Services Administration Board, to ambulance services. In addition, this department oversees the care and maintenance of municipal cemeteries.

Social and family services

Through the Algoma District Services Administration Board, the municipality contributes to social assistance payments, childcare services, and social housing.

Recreation and cultural services

The recreation and cultural department provide public services that contribute to neighbourhood development and sustainability through the provision of recreation and leisure services such as parks, arena, fitness, and sports programs. It provides public services that contribute to healthy communities through partnerships, promotion, prevention, protection, and enforcement. The department also contributes towards the information needs of the municipality's citizens through the provision of library services.

Planning services

The planning department provides a diverse bundle of services. It manages development for business interests, environmental concerns, heritage matters and neighbourhoods through planning and community development activities. It facilitates economic development by providing services for the approval of all land development plans.

OTHER NOTES ON DATA COMPILATION & ASSET REGISTER

Linear vs. Non-Linear Assets

- Data regarding non-linear assets is much easier to keep track of, as each asset exists on its own (i.e., equipment, automotive)
- Data regarding linear assets will have slightly different financial data columns. Year of original purchase to become year of replacement as they are location based and must always exist.

Capitalized Repair vs. Linear Asset Replacement

- For capitalized repairs of linear assets, simply add the amount capitalized to the total cost based of the asset. Amortization will also proportionally increase as well, based on remaining useful life as a percentage of total useful life.
- For replacements of linear assets, the book value of the existing asset will need to be written off in the year of replacement. The replacement will require three rows in the register only for the year it occurred. The first line to contain the original asset information (for the asset being disposed), the second line for the disposal (a subtraction of the first line) and another third line for the new replacement. The year of replacement will then be updated to the current year on the third line. The first two rows can then be removed after the fiscal year.

Linear Asset Financial Data Allocation

- As part of this project, all cost and amortization amounts are to be re-allocated for linear assets based on segmented locations (i.e., FROM – TO). This allocation will be based on the square meters of each asset as a % of total square meters of each section.
- Useful lives of individual assets will then be manually modified in the current year only (by adjusting the year of replacement) based on their condition rating. However, the ending accumulated amortization amount will be kept in mind to not stray too far from the 2021 ending amount per the financial statements.

DEFINITIONS OF LIFECYCLE ACTIVITIES & OPTIONS AVAILABLE

The Ontario "Building Together Guide for Municipal Asset Management Plans" defines an asset management strategy as the set of planned that will enable the assets to provide the desired levels of service in a sustainable way, while managing the risk, at the lowest lifecycle cost. Each municipality will need to develop their own unique asset management strategy, based on their individual asset lifecycles, to obtain maximum output out of minimum costs. The actions defined and identified within lifecycle activities detail how assets, should be maintained, renewed, rehabilitated, and disposed or expanded upon. Activities are defined as follows:

Non-Infrastructure Solutions – include policies, processes, or strategies that reduce asset related costs and improve asset performance resulting in better service life. Examples include integrated infrastructure planning, land use planning, demand management, insurance, process optimization, managing failures, and the development of procurement policies.

Maintenance Activities – include the regularly scheduled costs to inspect or maintain assets. In some cases, this can include one-time repair costs that aren't considered capital expenditures. (i.e., see Section 3150 of the PSAB financial reporting framework for the definition of a "betterment").

Rehabilitation Activities – include significant repairs that in many cases extend asset life and improve service levels. These activities would me the direct definition of a betterment as described by PSAB Section 3150.

Replacement Activities – includes the identification of assets that no longer meet or are worth extending their service life. Involves the disposal of an asset currently in use for the replacement of a newly acquired asset. Assets that are linear in nature are typically not "replaced" since there are classified by the FROM-TO location.

PORTFOLIO OVERVIEW

ASSET CATEGORIES INCLUDED IN THIS PLAN.

This asset management plan summarizes the state of the infrastructure for the Towns asset portfolio and establishes current levels of service of the associated technical and customer oriented key performance indicators (KPIs) for the asset categories listed below:

Buildings

Roads

Bridges & Culverts

Machinery & equipment

Water & sewer

Land

ASSET CONDITION RATINGS

A condition assessment rating system provides a standardized descriptive framework that allows comparative benchmarking across the Town's asset portfolio. Asset conditions are determined based on visual inspections performed by management & following the criteria indicated below based on number and severity of deficiencies found.

Condition	Rating	Criteria	Risk of failure
Very good	9 - 10	Asset shows little or no signs of deterioration and should only require basic maintenance and upkeep.	Very low
Good	7 - 8		Low
Average	5 - 6	The asset is showing some signs of deterioration and may require some attention.	Moderate
Poor	3 - 4	The asset exhibits obvious signs or deterioration and should be monitored more closely or some form of intervention undertaken to improve the condition.	High
Very poor	1 - 2		Very high

CALCULATING THE REINVESTMENT RATE

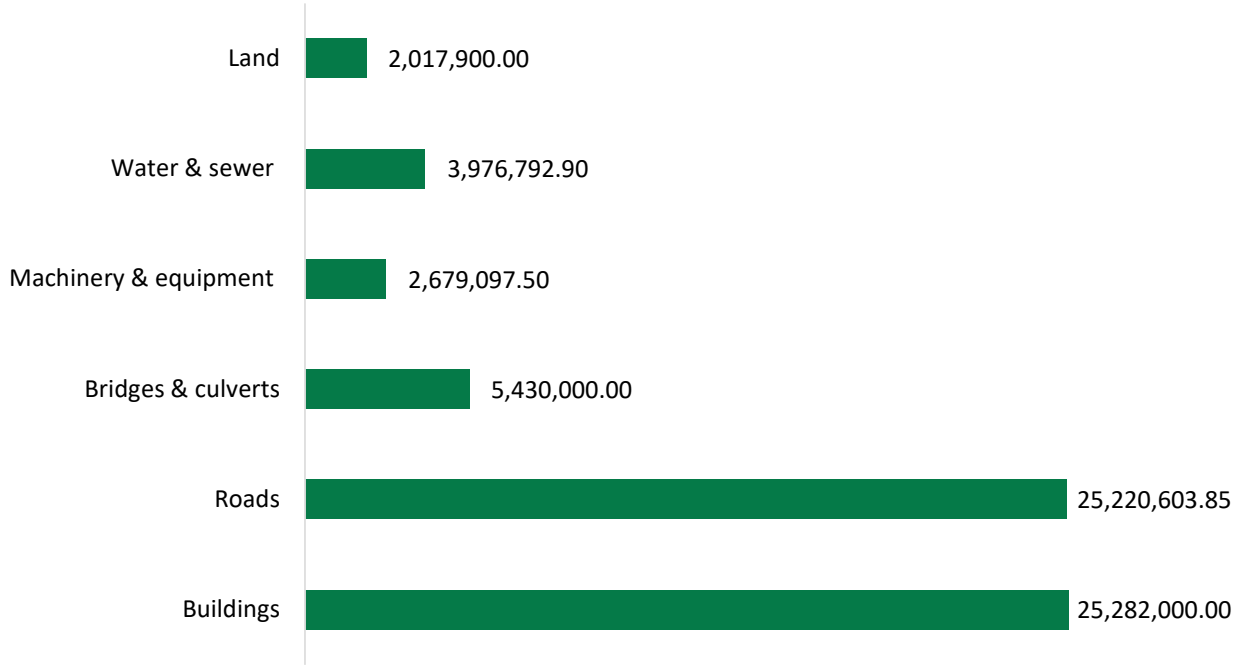
The reinvestment rate is a measurement of available or required funding relative to the total replacement costs. This is used to determine the town's ability to maintain good asset conditions and maintain the desired level of service.

By comparing the actual vs. target reinvestment rate, the town can determine the extent of any existing funding gap. The reinvestment rate is calculated as follows:

$$\textbf{Target Reinvestment Rate} = \frac{\textit{Annual capital requirement}}{\textit{Total replacement costs}}$$

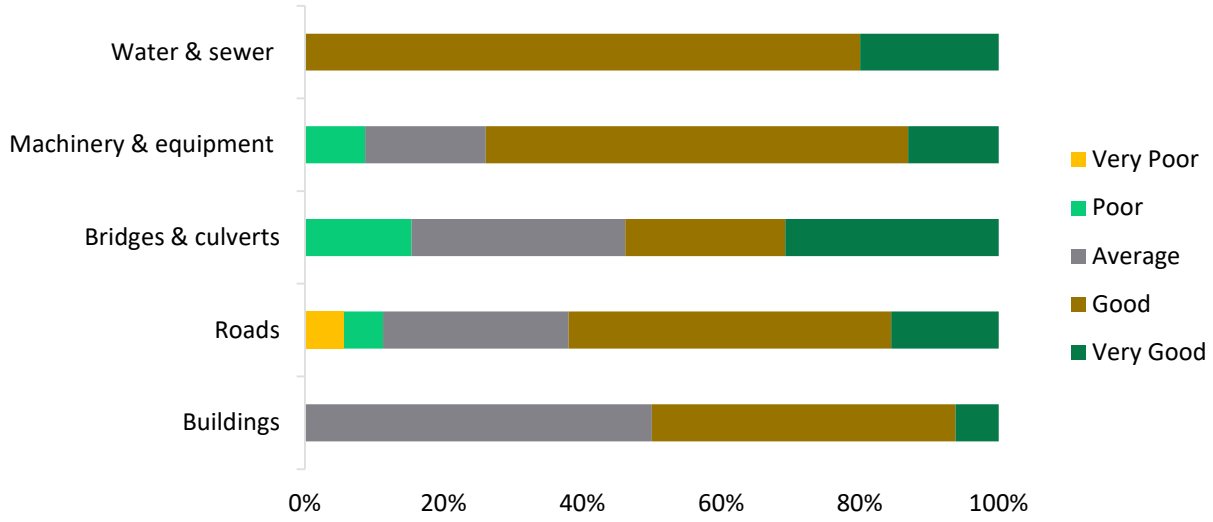
$$\textbf{Actual Reinvestment Rate} = \frac{\textit{Annual capital Funding}}{\textit{Total replacement costs}}$$

TOTAL REPLACEMENT COSTS OF ASSET PORTFOLIO



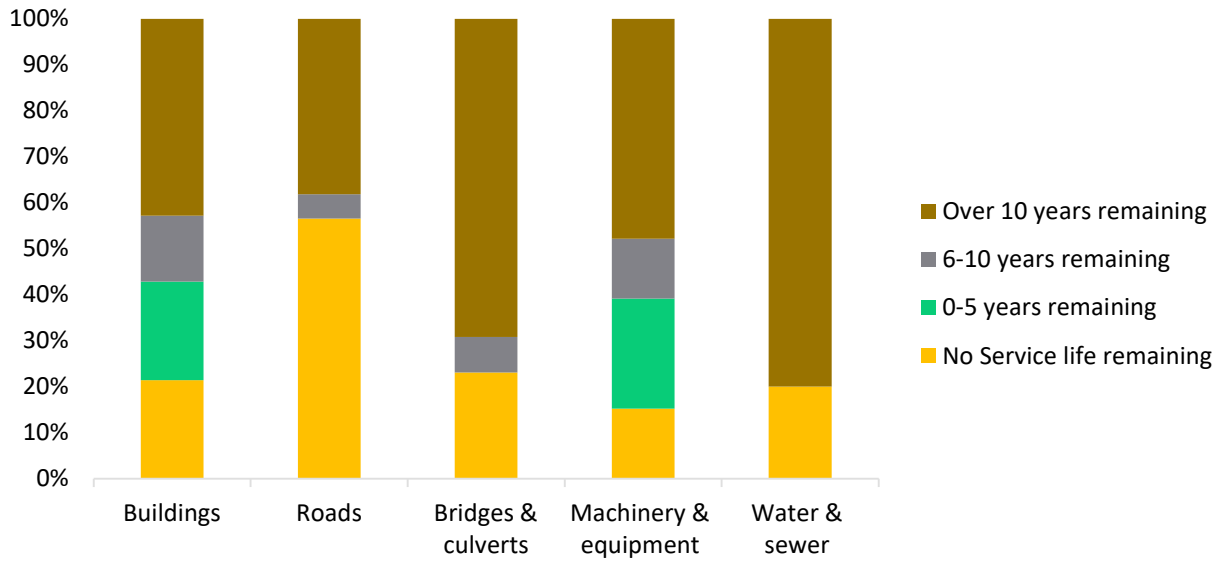
Total replacement costs for the asset portfolio amount to $64.6 million and are predominately attributable to the Townships roads and buildings. These amounts are calculated by user-defined cost allocations set in each individual asset category.

TOTAL CONDITION RATINGS OF ASSET PORTFOLIO



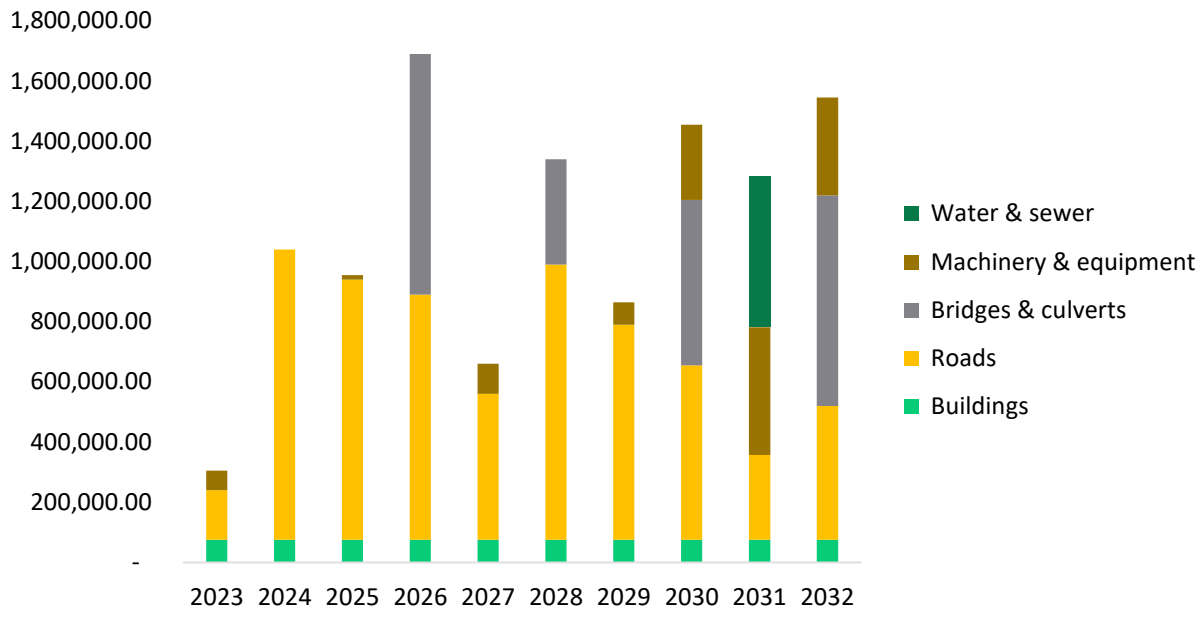
Asset conditions are measured by routine visual assessments performed by management. Collectively, 90% of the Townships assets are in average or above average condition, and the remining 10% are in poor or very poor conditions.

ESTIMATED SERVICE LIFE REMAINING OF ASSET PORTFOLIO



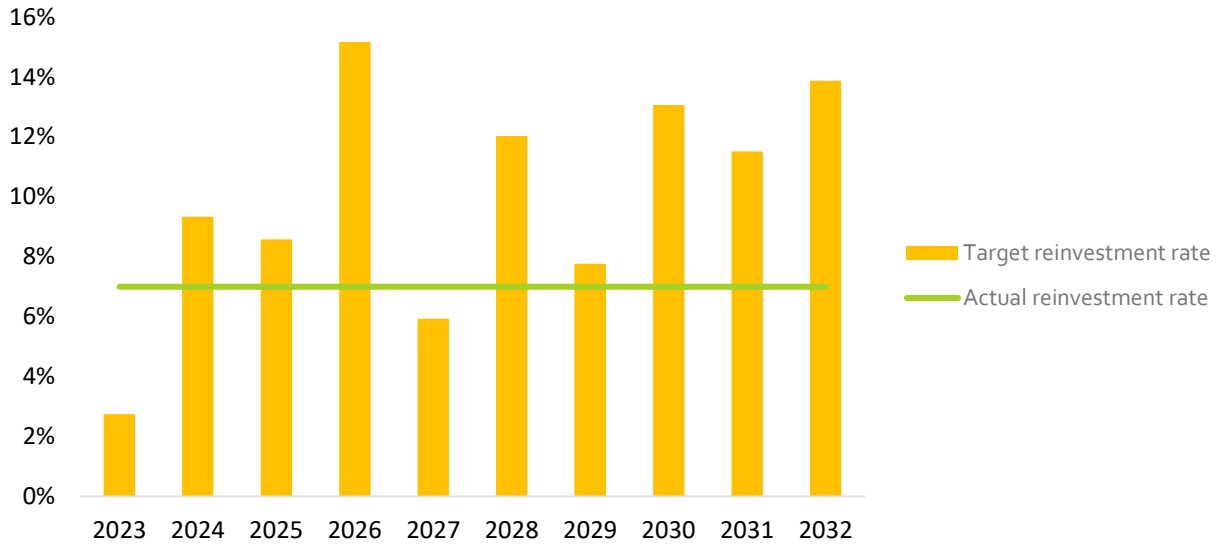
This information is based solely on the estimated useful service life of the Towns assets, determined by assessing historical data industry standards. To date, 37% of assets have outlived their estimated useful lives, whereas only 10% have previously been determined to be in poor condition. The remaining outlived assets should continue to be monitored for any signs of deterioration. 18% of assets will outlive their useful life within the next 10 years, and the remaining 45% have over 10 years remaining.

FORECASTED CAPITAL REQUIREMENTS



Projected capital requirements for asset maintenance, replacement, or rehabilitation amount to approximatley $11 million over the next 10 years. This is determined by assessing historical data with industry standards while factoring in current asset conditions. The majority of projected costs stem from Roads (56%) and bridges & culverts (22%).

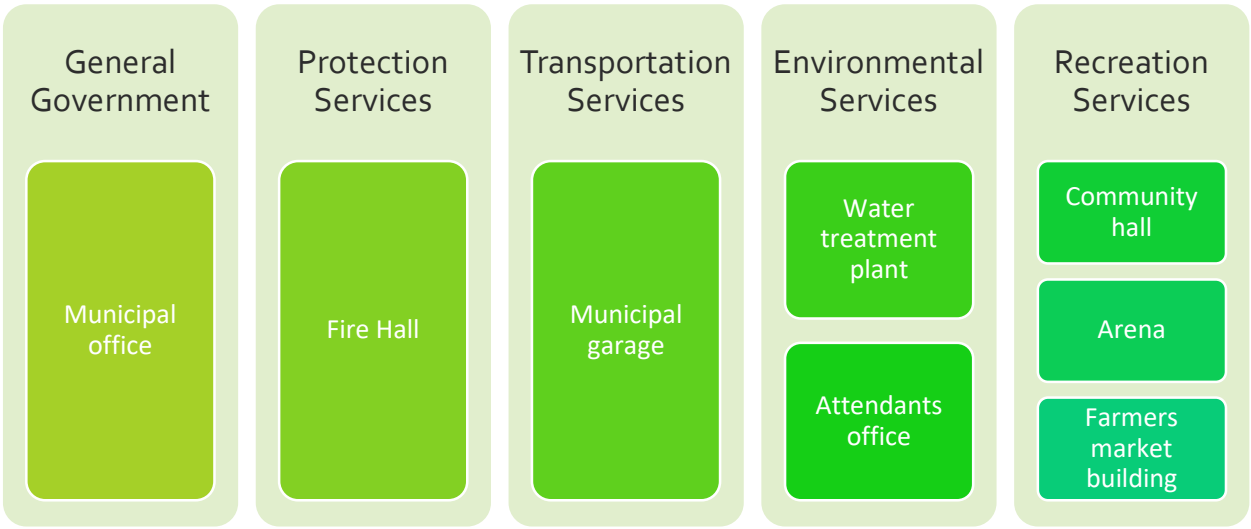
TARGET VS ACTUAL REINVESTMENT RATE



The graph portrays the funding gaps by comparing target vs actual reinvestment rates. That is, the target annual funding that should be allocated to replacement costs based on forecasted capital requirements versus actual annual spending on infrastructure using the available annual funding.

BUILDINGS

The Township operates and maintains several facilities under various service segments such as general government, protection, transportation, environmental, & recreational services.



Lifecycle activities specific to building assets are detailed on the next page, provided from a past version of the municipal asset management plan.

BUILDINGS: LIFECYCLE ACTIVITIES

Asset Lifestyle

- Typically, 40 - 50 years of useful life

Minimum standards

- All buildings to adhere to the current requirements of the Ontario Building Code.

Management solutions

- Operational Manuals for buildings to outline requirements for their use and maintenance

Maintenance activities

- Regular maintenance and inspection activities to keep the structure in an appropriate level of service before the cost of rehabilitation becomes suboptimal.

Rehabilitation activities

- Complete rehabilitation of building components negatively impact facility use. Consideration given to energy saving and control systems.

Replacement activities

- Procurement regarding the facility replacement to be conducted through an open tender to receive the best value.

Disposal activities

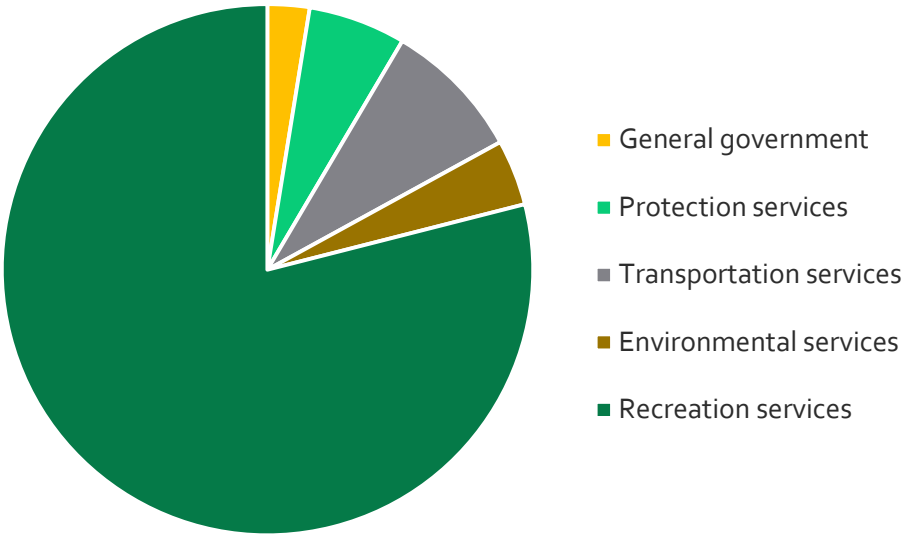
- Sale of asset components to the highest bidder.

Expansion activities

- Purchase of additional facilities to elimated any contracted services.

BUILDINGS: REPLACEMENT COSTS

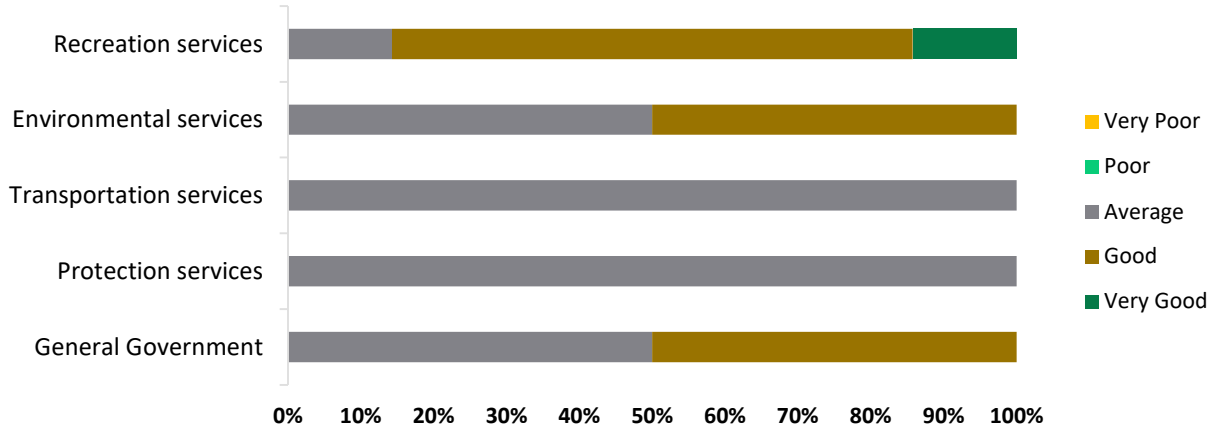
Building replacement costs have been estimated at a cost per square foot basis, based on a detailed assessment completed by the Township's management. Recreation services, particularly the townships community center and arena, have the highest overall square footage and thus have the highest anticipated future replacement costs.



Service Segment	Size (Sqft)	Replacement Cost
General Government	1,956.00	465,800.00
Protection services	3,000.00	1,050,000.00
Transportation services	4,320.00	1,512,000.00
Environmental services	2,026.00	709,100.00
Recreation services	39,921.00	13,976,850.00
Grand Total	**51,223.00**	**17,713,750.00**

BUILDINGS: CONDITION RATINGS

Asset condition ratings are used to determine asset lifecycle strategies and forecasted future cash flows. Ratings are allocated based on periodic visual assessments by management.

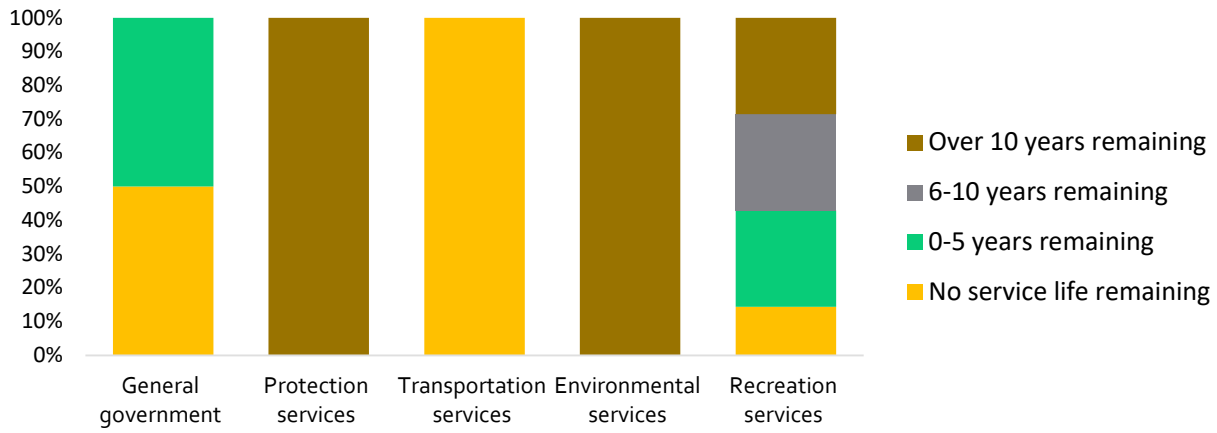


The average condition of the town's facilities is good (7/10). Transportation services (municipal garage) and protection services (Fire Hall) have average condition ratings and should be most closely monitored in the future for potential condition deterioration. Overall, there are no immediate concerns with building conditions.

Service Segment	Average Rating	Condition
General Government	7	Good
Protection services	6	Average
Transportation services	6	Average
Environmental services	7	Good
Recreation services	7	Good
Average	***7***	***Good***

BUILDINGS: AVERAGE AGE AND ESTIMATED SERVICE LIFE

The estimated useful life is determined by analyzing both industry standards and assessments done by management. This information assists in planning for future maintenance. Asset conditions will gradually decay as the average age increases.

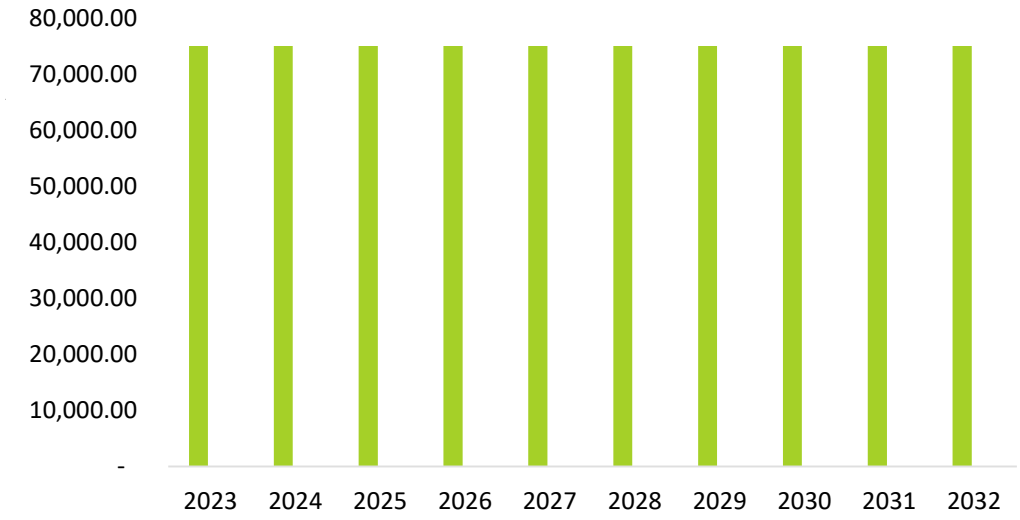


The municipal garage, has exceeded or nearly exceeded its estimated useful life. The municipal office and community hall have recently received major rehabilitations (both built from the studs in) to significantly extend their useful life. Therefore, based on the previously discussed condition ratings, there is no immediate concerns with the building conditions and therefore no significant replacement costs required at this time.

	Average age (years)	Estimated useful life	Average service life remaining
General government	28	30	2
Protection services	19	35	16
Transportation services	50	50	0
Environmental services	25	50	25
Recreation services	26	36	10

BUILDINGS: FORECASTED CAPITAL REQUIREMENTS

The below forecast is estimated based on historical data, while factoring in current asset conditions and estimated remaining useful service lives. An average of $75,000 per year is needed to maintain building's service expectations.



Average annual capital requirements: $75,000

ROADS

As a core asset, the municipalities road structures are a critical component of providing safe and efficient transportation services. Lifecycle activities specific to road assets are detailed below, provided from a past version of the municipal asset management plan.

GRAVEL ROADS: LIFECYCLE ACTIVITIES

Asset Lifecycle

- 50 years of useful life based on PSAB 3150

Minimum Standards

- Consideration to design speed, minimum right of way, road width, subbase, base, and horizontal radius

Management Solutions

- Load limits at critical times and preventing heavy traffic. Amalgamated tenders for asset supply.

Activities

- Regular maintenance and inspection activities, including brushing, ditching, and shoulder stripping. Complete new ditching to provide proper road base drainage, culvert replacement, and frost treatments. Repair of cracks and other potholes with rout & seal. Additional spot treatments.

Replacement Activities

- Processing of existing asphalt and underlying granular. This can include a complete restoration of the asphalt surface with new asphalt.

Expansion Activities

- Providing proper connect with other roads or extending road service.

ASPHALT ROADS: LIFECYCLE ACTIVITIES

Asset Lifecycle

- 20 years of useful life based on PSAB 3150

Minimum Standards

- Consideration to design speed, minimum right of way, road width, subbase, base, and horizontal radius. Also, a review of asphalt surface volume

Management Solutions

- Load limits at critical times and preventing heavy traffic. Amalgamated tenders for asset supply. Integrating road work with other infrastructure investments

Maintenance Activities

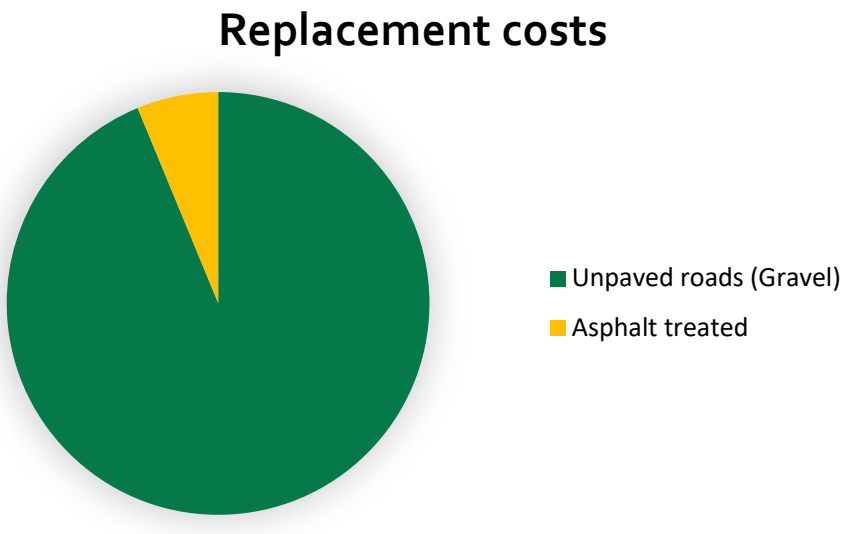
- Regular maintenance and inspection activities, including brushing, ditching, and shoulder stripping. Repair of cracks and other potholes with rout & seal. Patching of potholes and cracks with cold mix to prevent additional breakup.

Rehabilitation Activities

- Complete new ditching to provide proper road base drainage, culvert replacement, and frost treatments. Repair of cracks and other potholes with rout & seal. Additional spot treatments.

ROADS: INVENTORY AND REPLACEMENT COSTS

Replacement costs are estimated based on an allocated cost per meter for gravel and for asphalt treated linear data. These cost allocations are based off historical data & a cost assessment completed by management. Based on a higher surface area, asphalt treated roads are projected to have higher replacement costs in the future.



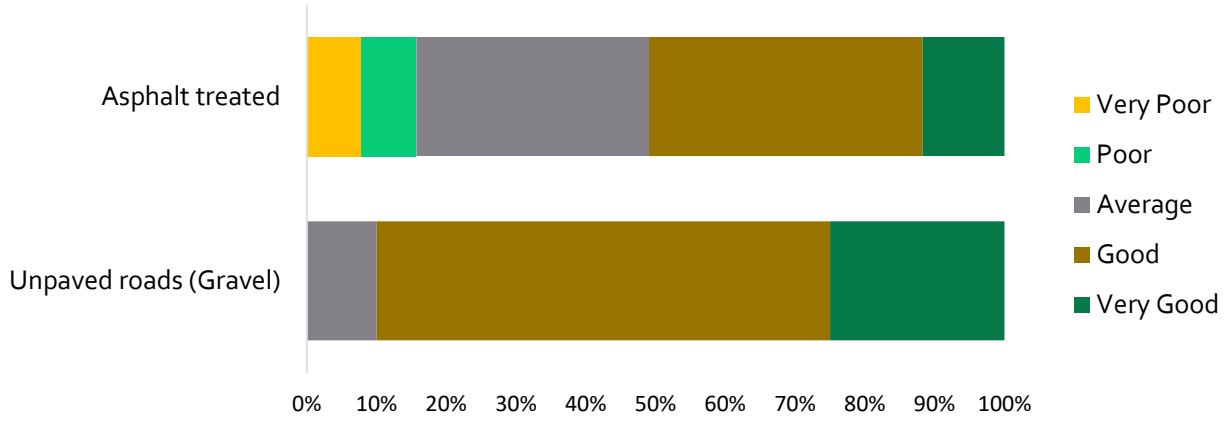
	Length	Surface area (m)	Replacement cost
Asphalt treated	24,185	462,425	23,648,415
Unpaved roads	65,765	170,075	1,572,189
Total	**89,950**	**632,500**	**25,220,604**

ROADS: CONDITION RATINGS

Condition ratings are determined by township management based on periodic visual assessments. Roads are routinely checked to plan maintenance activities & note any significant deficiencies.

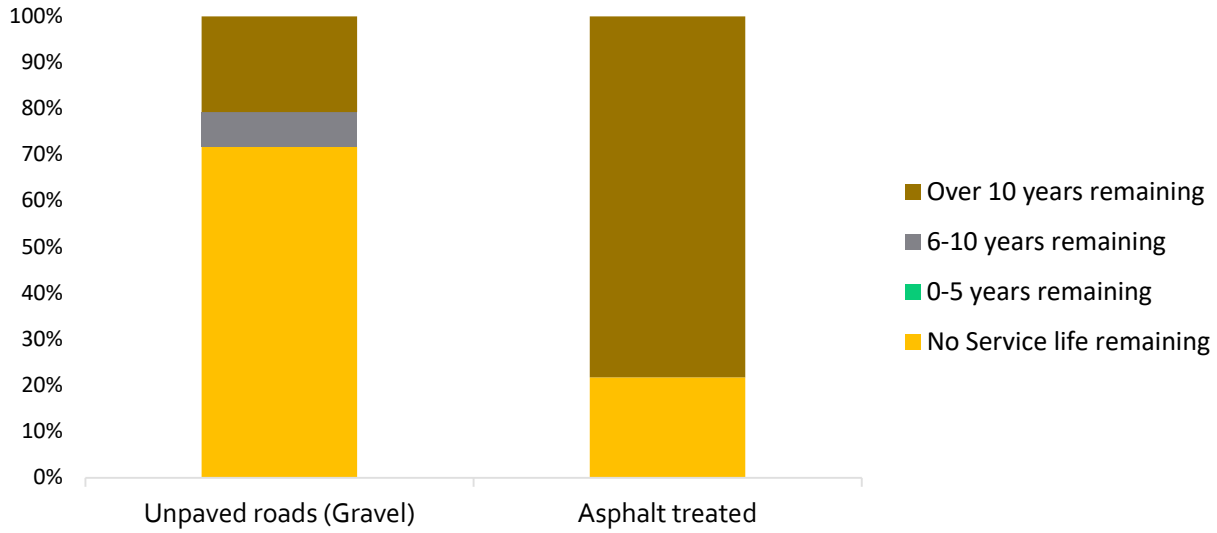
Asset	Average rating	Condition
Unpaved roads (Gravel)	6	Average
Asphalt treated roads	8	Good
Average	***7***	***Good***

The average road's condition is good (7/10). Most of the maintenance is attributable to asphalt treated roads, where 90% of the surfaces are in either good or very good condition. For unpaved (gravel) roads, 50% are in good or very good condition, and the remaining are average or below average. The roads in below average condition likely require immediate upgrading and should be reflected in the townships financial forecast.



ROADS: AGE AND ESTIMATED SERVICE LIFE

The estimated useful life is determined by analyzing both industry standards and assessments done by management. This information assists in planning for future maintenance. Asset conditions will gradually decay as the average age increases.

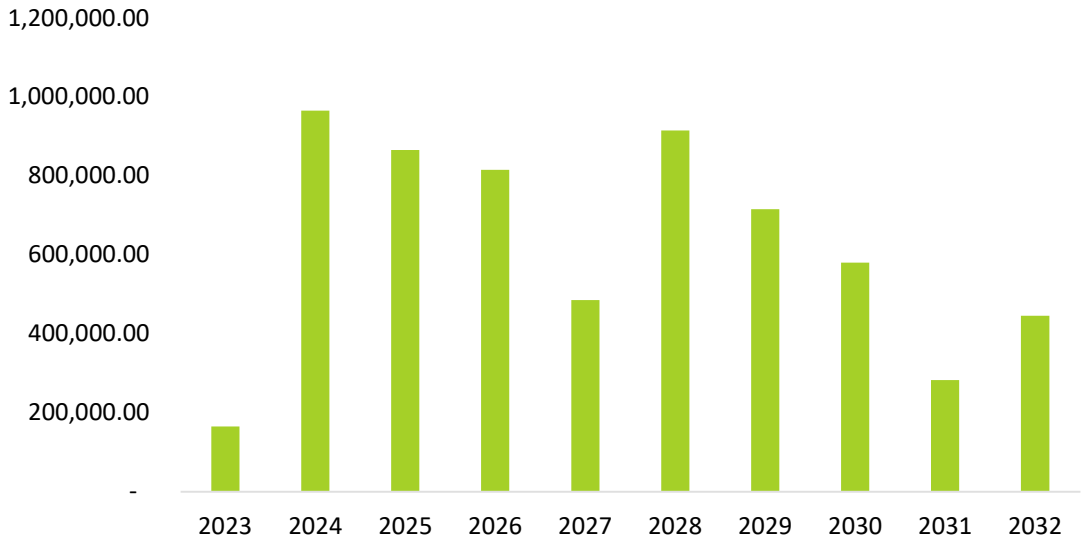


Asphalt treated roads are newer in comparison to gravel and have a remaining estimated useful life of 10 years. Unpaved roads have on average, extended beyond their estimated useful lives. Although most appear to be in at least average condition, there is a small percentage that is poor and likely require maintenance or replacement.

	Average age (years)	Estimated useful life	Average service life remaining
Unpaved roads (Gravel)	57	50	0
Asphalt treated	18	28	10

ROADS: FORECASTED CAPITAL REQUIREMENTS

The below forecast is estimated based on historical cost data, while factoring in current asset conditions and estimated remaining useful service lives. An average of $623,200 per year is needed to maintain the roads conditions.



Average annual capital requirements: 623,200.00

ROADS: LEVEL OF SERVICE ANALYSIS

Community Levels of Service – Quality

Example One - Asphalt Treated Road (Lake Huron Drive)

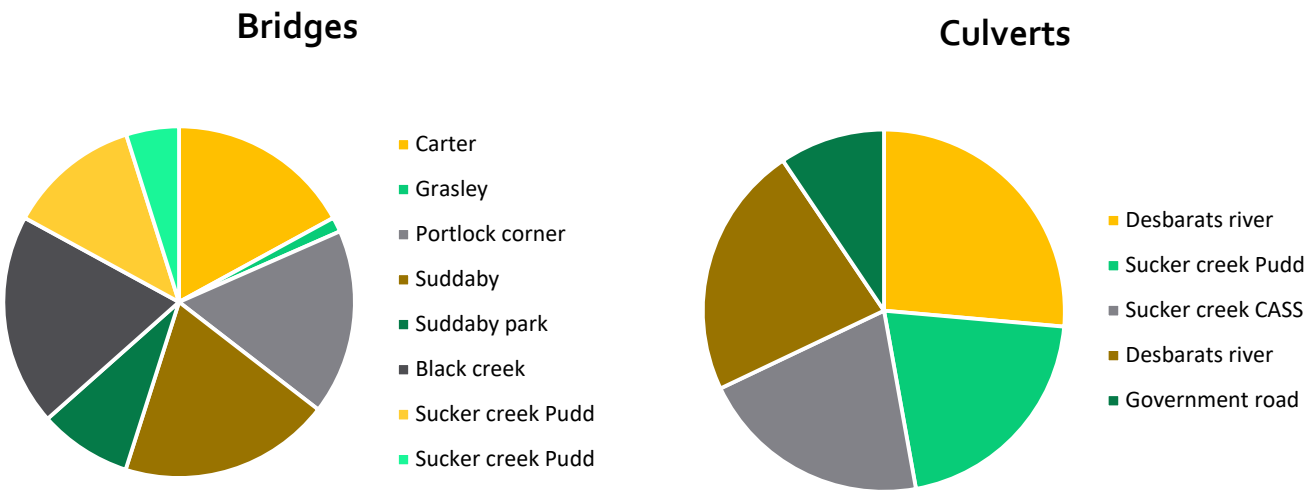
Example Two – Gravel Treated Road (Johnson Drive – Township Office)

Technical Service Level - On average, the condition of the Township's roads is good. 50% of asphalt roads and 90% of gravel roads are in good or very good condition. The Township has land area of 120.27 million meters squared (or 120.27 km squared) with road platform area of 632,500 meters squared (see above). This results in 0.005% of all municipal land area covered by a roads surface.

BRIDGES & CULVERTS

BRIDGES & CULVERTS: REPLACEMENT COSTS

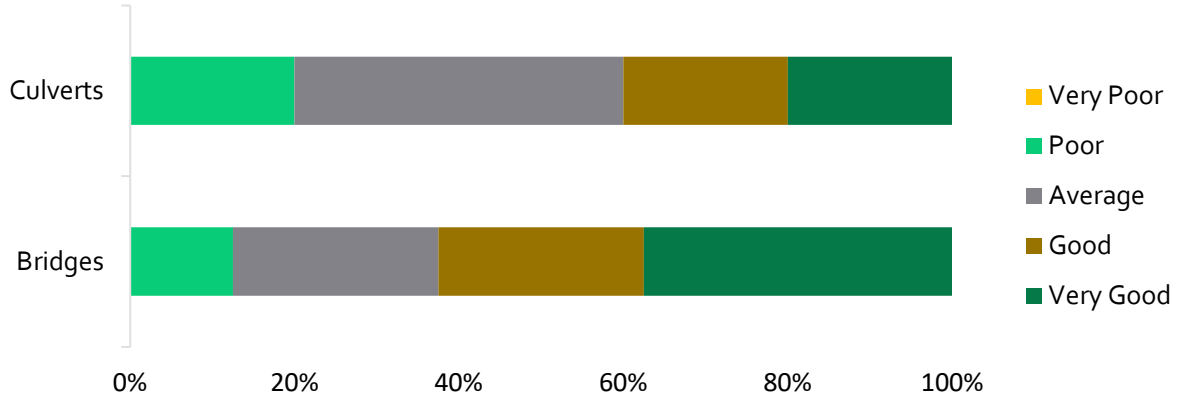
Maintenance of bridges & culverts is another required component of services being provided. There are eight bridges & five culverts in located in the Township. Replacement costs are determined by individual assessments of the specifically identified assets.



Location	Replacement cost
[BR1] - Carter	$700,000
[BR2] - Grasley	$55,000
[BR3] - Portlock corner	$700,000
[BR4] - Suddaby	$800,000
[BR5] - Suddaby park	$350,000
[BR6] - Black creek	$800,000
[BR7] - Sucker creek pudd	$500,000
[BR8] - Sucker creek pudd	$200,000
[CVT1] - Desbarats river	$350,000
[CVT2] - Sucker creek pudd	$275,000
[CVT3] - Sucker creek CASS	$275,000
[CVT4] - Desbarats river	$300,000
[CVT5] - Government Road	$125,000
Total	***5,430,000***

BRIDGES & CULVERTS: CONDITION RATINGS

Condition ratings are determined by town management based on periodic visual assessments. Management routinely checks these asset categories to plan maintenance activities & note any significant deficiencies.

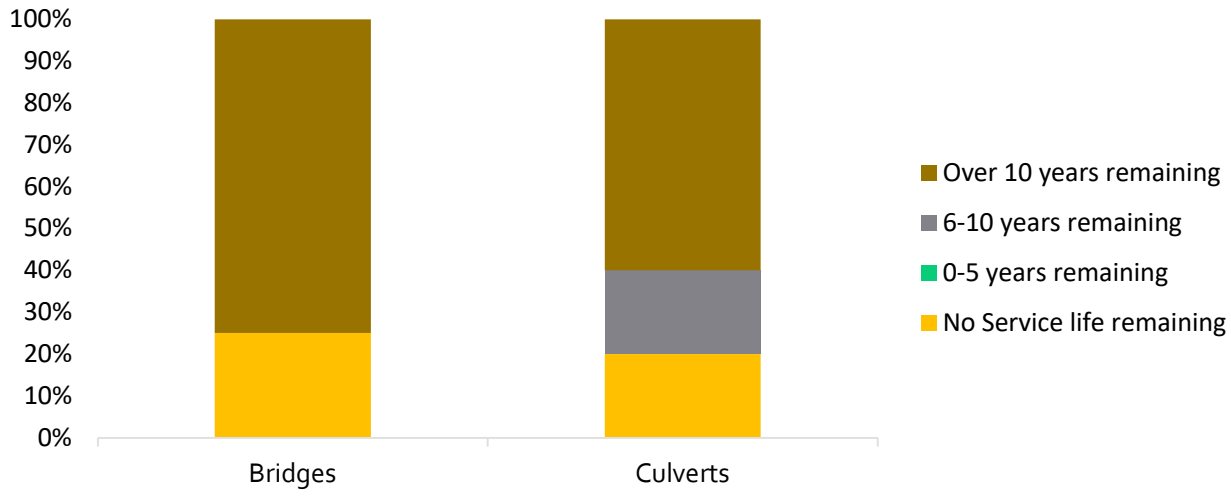


The average condition rating for bridges and culverts is good (7/10), with 40% of culverts and 60% of bridges in good or very good position. Suddaby bridge and Desbarats river culvert are in poor condition and may require renovations or replacements as soon as possible.

Location	Average rating	Condition
[BR1] - Carter	9	Very good
[BR2] - Grasley	10	Very good
[BR3] - Portlock corner	6	Average
[BR4] - Suddaby	4	Poor
[BR5] - Suddaby park	9	Very good
[BR6] - Black creek	6	Average
[BR7] - Sucker creek pudd	7.5	Good
[BR8] - Sucker creek pudd	7.5	Good
[CVT1] - Desbarats river	4	Poor
[CVT2] - Sucker creek pudd	6	Average
[CVT3] - Sucker creek CASS	6	Average
[CVT4] - Desbarats river	9	Very good
[CVT5] - Government Road	7.5	Good
Average	***7***	***Good***

BRIDGES & CULVERTS: AVG. AGE AND ESTIMATED SERVICE LIFE

The estimated useful life is determined by analyzing both industry standards and assessments done by management. This information assists in planning for future maintenance. Asset conditions will gradually decay as the average age increases.

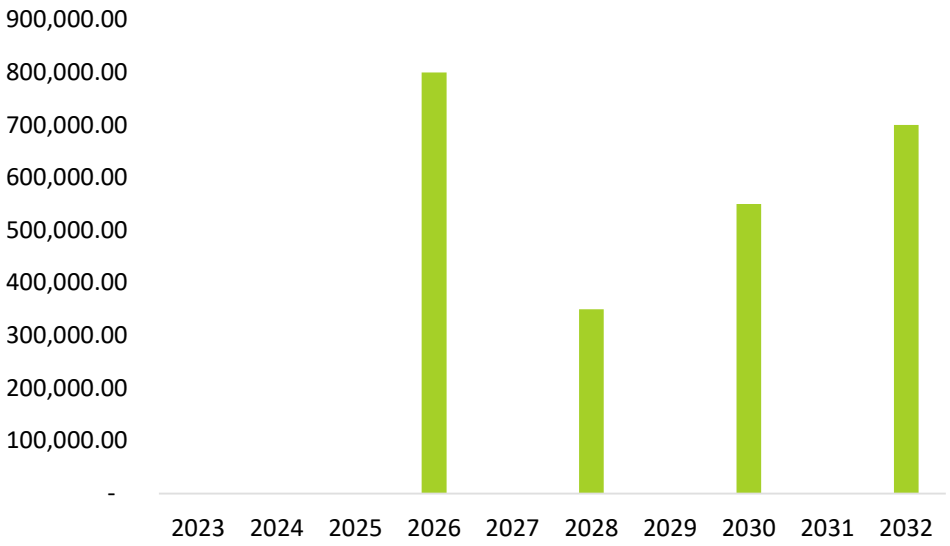


Although most bridges and culverts have over 10 years remaining of their estimated useful lives, Portluck Corner bridge, Suddaby bridge, and Governmend Road have extended beyond their 50 year estimation. As stated above, Suddaby bridge is also in poor condition.

	Age (years)	Estimated useful life	Average service life remaining
[BR1] - Carter	10	50	40
[BR2] - Grasley	1	50	49
[BR3] - Portlock corner	86	50	0
[BR4] - Suddaby	110	50	0
[BR5] - Suddaby park	14	50	36
[BR6] - Black creek	6	50	44
[BR7] - Sucker creek pudd	21	50	29
[BR8] - Sucker creek pudd	23	50	27
[CVT1] - Desbarats river	22	50	28
[CVT2] - Sucker creek pudd	30	50	20
[CVT3] - Sucker creek CASS	35	50	15
[CVT4] - Desbarats river	41	50	9
[CVT5] - Government Road	31	20	0

BRIDGES & CULVERTS: FORECASTED CAPITAL REQUIREMENTS

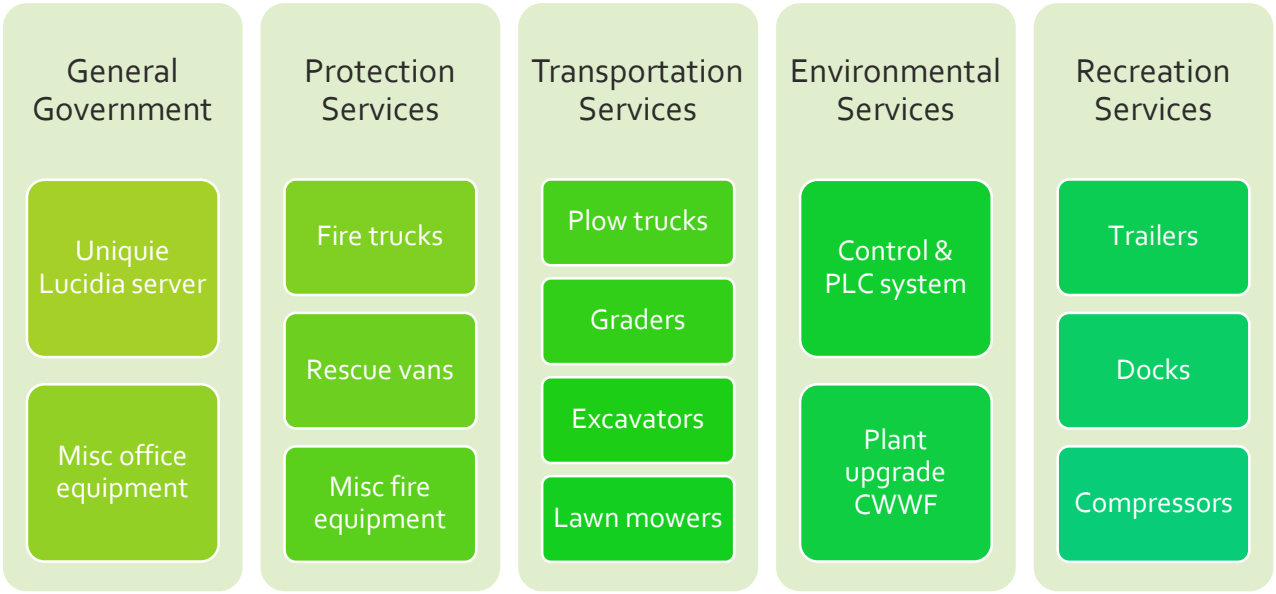
The below forecast is estimated based on historical cost data, while factoring in current asset conditions and estimated remaining useful service lives. An average of $342,857 per year is needed to maintain the bridges & culvert conditions.



Average annual capital requirements: 342,857.14

MACHINERY & EQUIPMENT

Various vehicles are needed to either maintain conditions for asset categories (such as transportation) or provide additional services (such as rescue).



MACHINERY & EQUIPMENT: LIFECYCLE ACTIVITIES

Asset Lifecycle

- Typically, 10 - 30 years of useful life

Minimum Standards

- Consideration given to hybrid use in winter climate (i.e., snowplows and grader attachments)

Management Solutions

- Leasing vs. purchasing equipment. Determining lease terms given interest rate environment

Maintenance Activities

- Maintenance activities based on manufacturer guidelines.

Rehabilitation Activities

- Individual component replacements such as suspension, tires, or individual brakes

Replacement Activities

- Purchase of new vehicles and equipment through the request for quotation (RFQ) process.

Disposal Activities

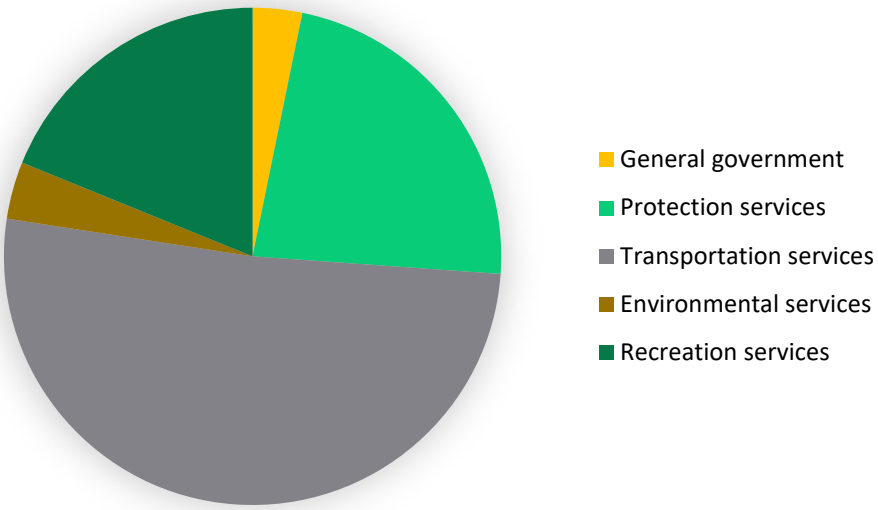
- Sale of an individual asset to the highest bidder (i.e., closed auction). Consider sale partway through life expectancy to maximize the value of the asset.

Expansion Activities

- The purchase of additional equipment to meet expected levels of service or to provide cost benefits by eliminating other contracted service requirements.

MACHINERY & EQUIPMENT: REPLACEMENT COSTS

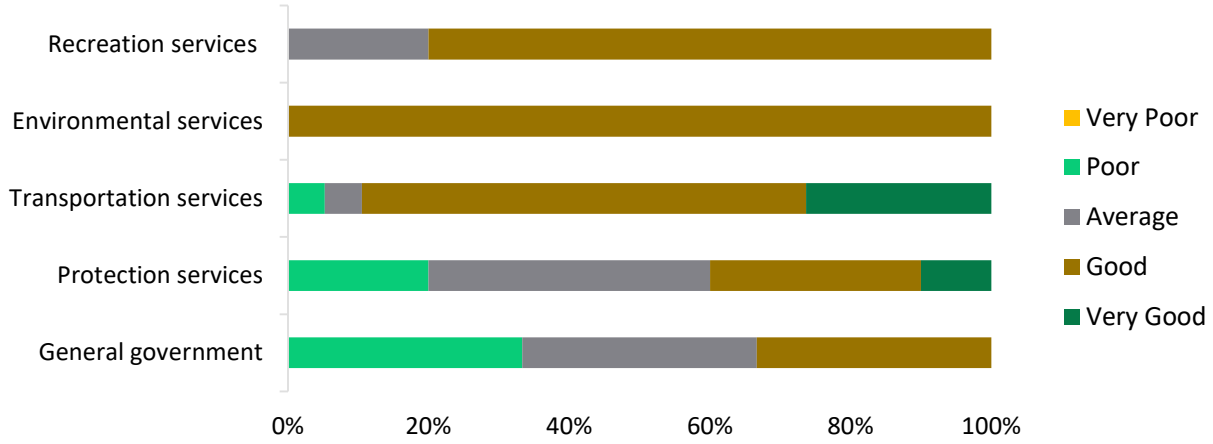
Replacement costs are determined based on the market value of the specific assets identified. A breakdown based on municipal service is provided below. Transportation services have the highest projected replacement costs, mainly attributable to the graders, plow trucks, and excavators.



Service segment	Replacement Cost
General government	$86,000
Protection services	$614,000
Transportation services	$1,374,000
Environmental services	$100,000
Recreation services	$505,000

MACHINERY & EQUIPMENT: CONDITION RATINGS

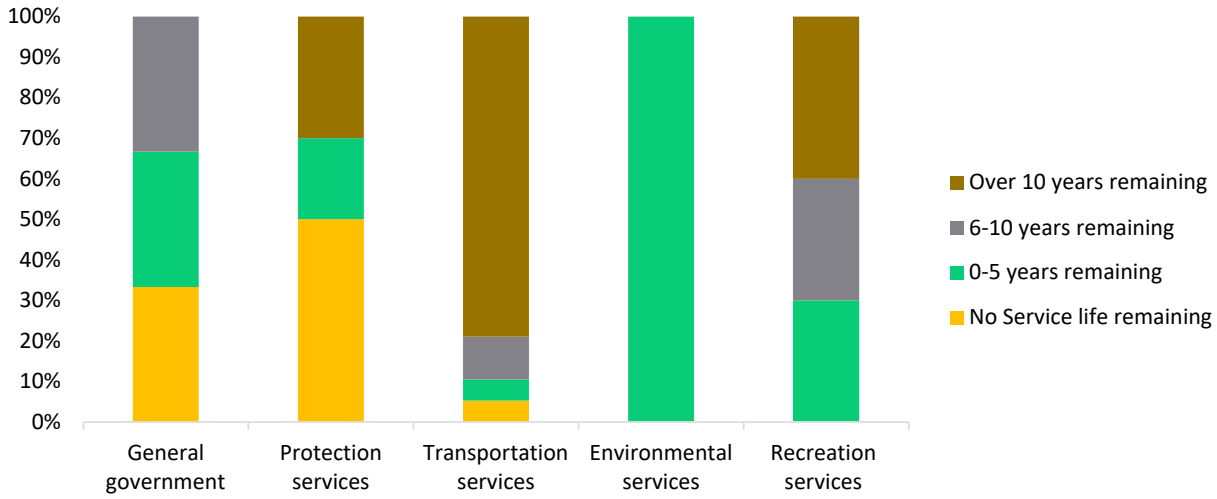
Condition ratings are determined by town management based on periodic visual assessments. Machinery & equipment are routinely checked to plan maintenance activities & note any significant deficiencies. The average condition rating is good (7/10). Assets that are in below average condition include miscellaneous office equipment and fire rescue equipment. These should be closely monitored for further deterioration.



Asset	Average Rating	Condition
General government	6	Average
Protection services	6	Average
Transportation services	7	Good
Environmental services	8	Good
Recreation services	7	Good
Average	***7***	***Good***

MACHINERY & EQUIPMENT: AVG. AGE AND EST. SERVICE LIFE

The estimated useful life is determined by analyzing both industry standards and assessments done by management. This information assists in planning for future maintenance. Asset conditions will gradually decay as the average age increases.

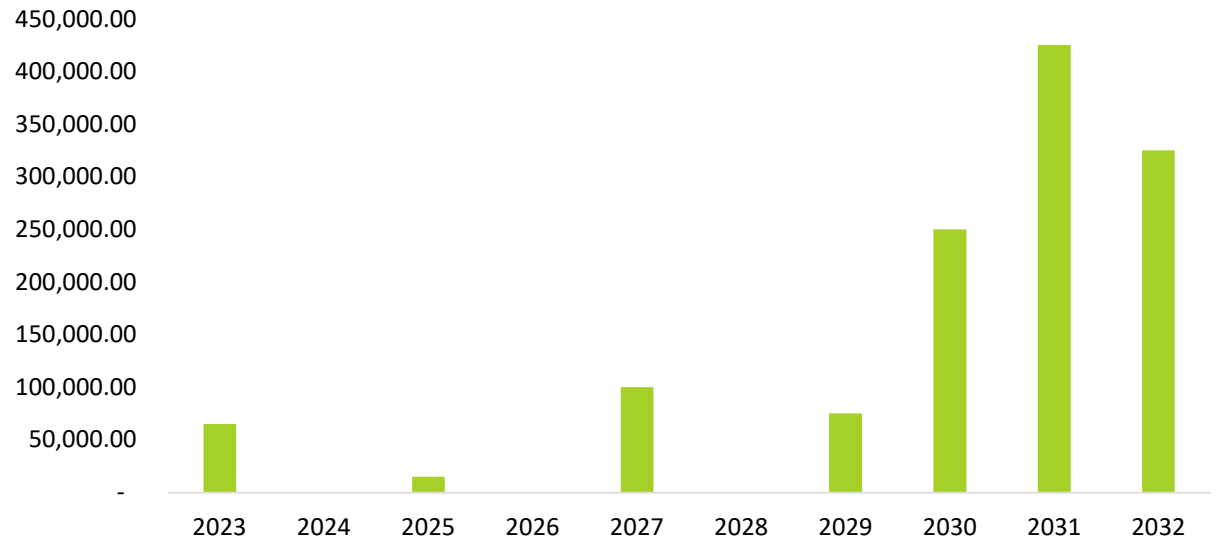


Machinery & equipment placed in the protection and general government service segment have begun to outlive their estimated useful lives. These include the miscellaneous office equipment & fire protection equipment indicated to be in poor shape in the condition rating analysis. Other than these assets there are no concerns identified.

	Average age (years)	Estimated useful life	Average service life remaining
General Government	6	9	3
Protection Services	10	15	5
Transportation Services	6	19	13
Environmental Services	5	8	3
Recreation Services	3	13	10

MACHINERY & EQUIP.: FORECASTED CAPITAL REQUIREMENTS

The below forecast is estimated based on historical cost data, while factoring in current asset conditions and estimated remaining useful service lives. An average of $351,000 per year is needed to maintain the conditions of vehicles.

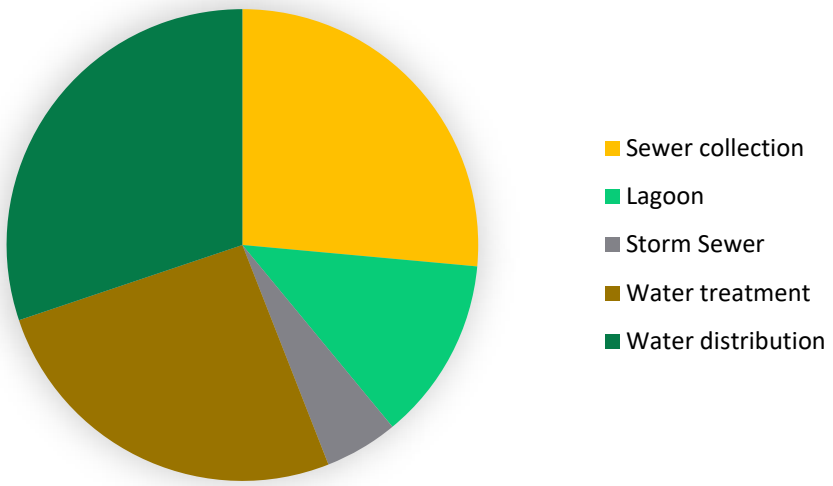


Average annual capital requirements: 125,500.00

WATER & SEWER

WATER & SEWER: REPLACEMENT COSTS

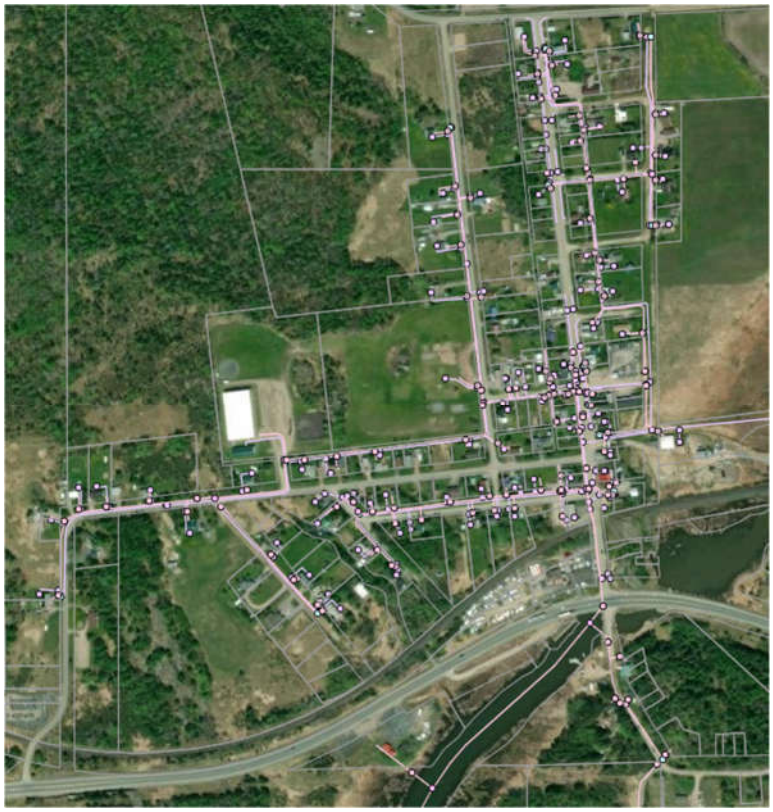
Water & sewer distribution replacement costs have been estimated at a cost per meter basis. Other items are assessed based on a specific asset identification assessment completed by the Township's management. Sewer collection, water treatment, and water distribution costs have the highest anticipated replacement costs overall.



Asset	Replacement Cost
Sewer Collection	1,051,800.00
Lagoon	500,000.00
Storm Sewer	200,000.00
Water treatment	1,025,000.00
Water distribution	1,200,000.00
Grand Total	**3,976,793**

WATER & SEWER: LEVELS OF SERVICE

Areas of municipality connected to the municipal water system:



Water assets

Community Levels of Service (Qualitative Descriptions)	
Description, which may include maps, of the user groups or areas of the municipality that have fire flow.	None
Description of boil water advisories and service interruptions.	Notifications are posted all over interrupted area, including local stores & post offices. In addition, there is an advisory posted on special media and the township website. In the case that only a small area is affected, residents will be notified in person.

Technical levels of service	
Percentage of properties connected to the municipal water system	20.5%
Percentage of properties where fire flow is available.	None
Number of connection days per year where a boil water advisory notice is in place compared to the total number of properties connected to the municipal water system	5 days
Number of connection days per year due to water main breaks compared to total number of properties connected to the municipal water system	None

Wastewater assets

Community levels of service (Qualitative descriptions	
Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place which allow overflow during storm events to prevent backups into homes.	N/A
Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches.	N/A
Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes.	N/A
Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to avoid events described in paragraph 3.	N/A
Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system.	Treated to abide by environmental regulations & discharged into river after testing.

Technical levels of service	
Percentage of properties connected to the municipal wastewater system	18%
1. The number of events per year where combined sewer flow in the municipal wastewater system exceeds system capacity compared to the total number of properties connected to the municipal wastewater system.	None
2. The number of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal wastewater system.	None
3. The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system.	None

Stormwater management assets

Technical levels of service	
Percentage of properties in municipality resilient to a 100-year storm.	100%
Percentage of the municipal stormwater management system resilient to a 5-year storm.	100%

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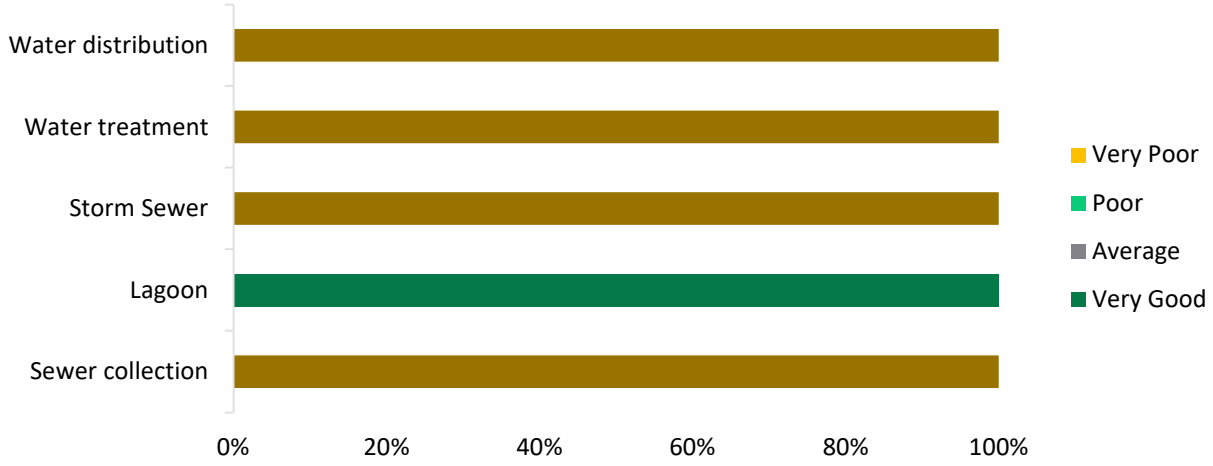
WATER & SEWER: CONDITION RATINGS

Asset condition ratings are used to determine asset lifecycle strategies and forecasted future cash flows. Ratings are allocated based on periodic visual assessments by management.

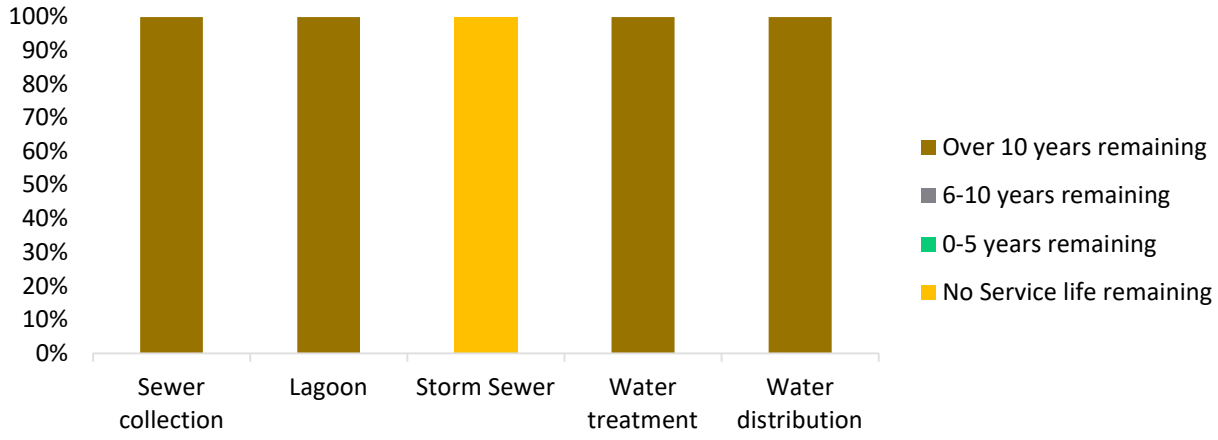


The average condition of the town's water & sewer assets is average (6/10). All assets are in average condition, except for the lagoon which has received a recent upgrade. The water treatment plant is in good condition, and included within the buildings section of this plan. Where there are no immediate concerns, both water and sewer distribution lines are on the back end of their useful life. Some issues with irregular piping ranging from 2 to 4 inches have been noted. Assets should continue to be monitored in future periods for any potential signs of deterioration.

Service Segment	Average Rating	Condition
Sewer Collection	6	Average
Lagoon	8	Very good
Storm Sewer	7	Average
Water treatment	6	Average
Water distribution	6	Average
Average	***6***	***Average***

WATER & SEWER: AVERAGE AGE AND ESTIMATED SERVICE LIFE

The estimated useful life is determined by analyzing both industry standards and assessments done by management. This information assists in planning for future maintenance. Asset conditions will gradually decay as the average age increases.

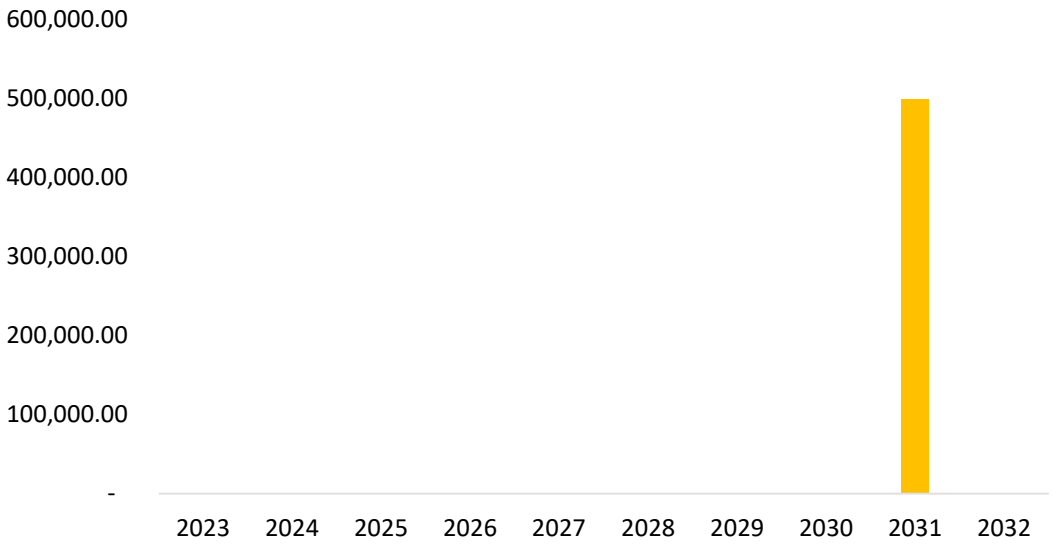


All assets have over 10 years remaining in their estimated useful life, except storm sewers which have exceeded their estimated useful life by 3 years. Since storm sewers have a good condition rating of 7/10, there is no immediate need for repairs or replacement.

	Average age (years)	Estimated useful life	Average service life remaining
Sewer collection	33	50	17
Lagoon	2	50	48
Storm sewer	53	50	0
Water treatment	35	50	15
Water distribution	33	50	17

WATER & SEWER: FORECASTED CAPITAL REQUIREMENTS

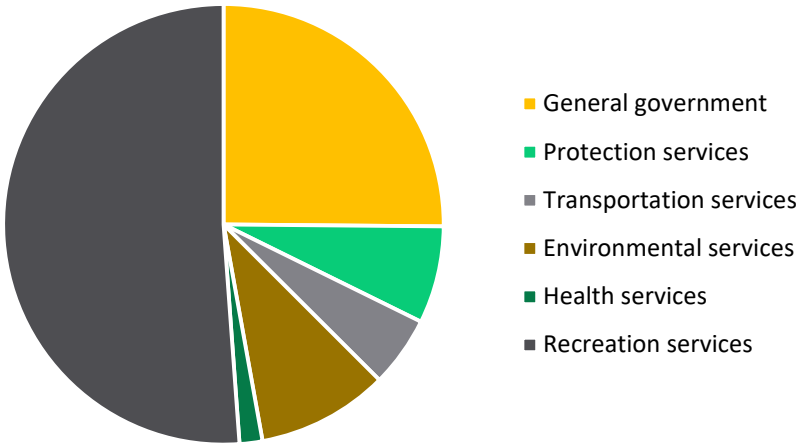
The below forecast is estimated based on historical data, while factoring in current asset conditions and estimated remaining useful service lives. An average of $50,000 per year is needed to maintain water & sewer service expectations.



Average annual capital requirements: 50,000.00

LAND

Various properties owned by Johnson township, totalling 417 acres overall. Replacement costs are based off each property's individual assessments values. Properties owned for recreational services have the highest assessment value of $1,032,100, which is 50% of the value of the properties overall.



Service Segment	Acreage	Assessment value
General government	20.65	507,600.00
Protection services	0.12	144,000.00
Transportation services	25.79	104,800.00
Environmental services	252.62	195,500.00
Health services	7.43	33,900.00
Recreation services	110.03	1,032,100.00
Total	**416.64**	**2,017,900.00**

FINANCING STRATEGY

OVERVIEW

An asset management financing strategy outlines the suggested approach to funding the lifecycle management strategy (i.e. – the long-term forecast) that is proposed to be adopted by the municipality. The financing strategy forms an integral framework for ensuring the municipality makes optimal use of the various funding sources that it has at its disposal. It will provide a foundation for preparing other long-term financial plans including operating and capital budgets.

The financial strategy will have a derivative impact on the following:

- Taxation levies to the taxpayer
- Use of available grant and related opportunities
- Asset Management policies
- Pricing of user fees and charges
- Use of reserve and reserve funds where available
- Analyzing debt levels and the impact of rate sensitivity
- Calculation of the infrastructure funding gap

THE TOWNSHIP'S BOTTOM-UP APPROACH

The Township's plan for capital expenditure spending at a very detailed level (i.e., spending on roads based on the specific road location). It is evident based on prior asset management plans.

This is inherently aided by the size of the Township, as all condition data can be reviewed with significant precision during an asset inspection by a third party. This is known as a bottom-up approach.

This practice will continue with regards to future asset management planning.

THE FORECASTING PROCESS

Developing a Forecast by Individual Asset

- Based on the completed asset register, the Township has approximately 400-500 individual assets to be managed and accounted for.
- Because of the smaller size of the community, there are less assets to manage. Town staff and council have a better ability to manage each asset individually relative to larger cities.
- The forecast infrastructure surplus or deficit calculation will derive from the summary results of the individual forecast.

Consideration #1 - Results of the Completed Condition Assessments

- Based on the completed assessment of individual asset conditions, most assets have a rating of fair or higher
- This is because the Township can visually identify and inspect conditions of individual assets on a regular basis.
- The Township uses a mostly focuses on a maintenance and rehabilitation approach to maximize the lifecycle of each asset based on completed visual inspections.
- This keeps most of the Township's assets in good working condition on an annual basis, except for environmental infrastructure since these assets are less readily available for inspection.

Consideration #2 – The Lifecycle Management Approach

- The lifecycle management approach not only includes estimating future lifecycle costs, but also an overview of how the asset performs over its life while providing affordable services. This allows for a more holistic perspective instead of considering cost projections alone in a vacuum.
- Lifecycle costing is comprised of acquisition and construction, operating, maintaining, rehabilitating, replacing, disposal, expansion, as well as non-infrastructure solutions over the useful life of an asset. Asset managers typically strive to achieve the lowest lifecycle cost for all assets. Definition for each individual lifecycle activity can be found in Section Two of this report above.

PREPARING THE FORECAST INPUTS

As a result of the completed condition assessments, along with the individual cost elements of various lifecycle activities over the useful life of an asset, the following process will be performed to prepare the Asset Management Forecast

(a) Non-Environmental Inputs:

For the 2023 Town Asset Management Plan, inputs will be prepared by Stefanizzi Professional Corporation based on the ten most recent fiscal years of capital expenditures, with consideration given to current condition ratings and lifecycles of each asset group.

From this completed project, the Township will begin to use the forecast tool, along with the asset register, to provide better data-based decision making for their community. The Township will begin to take a more granular approach to preparing this forecast every five years. This will also allow major capital expenditures to be planned for well in advance (especially when then using the AMP to apply for Government Grants in the appropriate year).

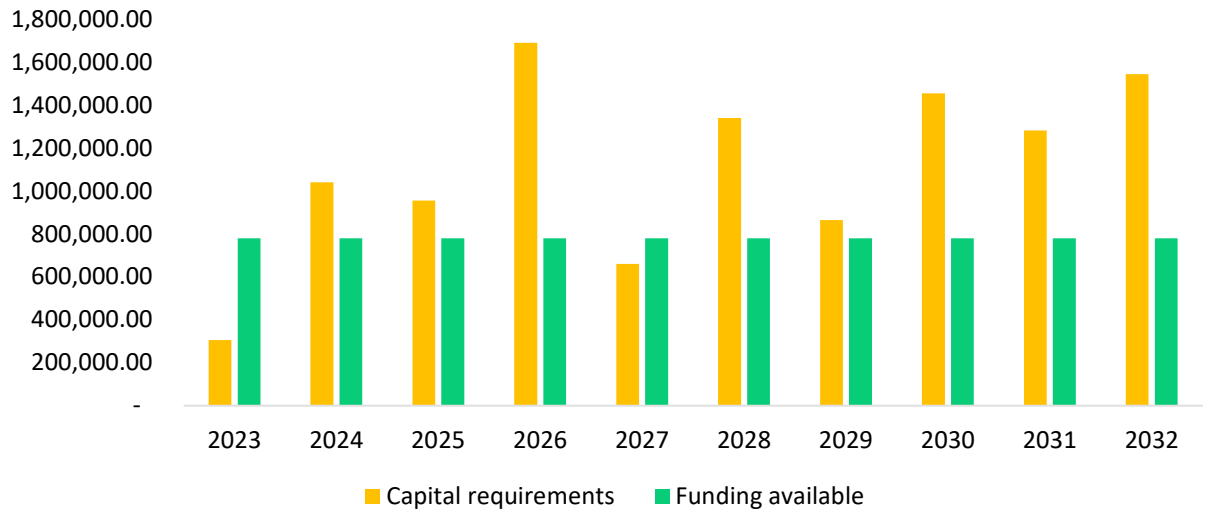
(b) Environmental Inputs:

The Township subcontracts most environmental decision making and asset investments to the PUC. This includes condition assessments, rate studies, and other infrastructure decisions. As part of this project, The Township is working with the PUC to provide an updated ten year forecast on Environmental expenditures based on their assessment of the current state of local infrastructure.

The environmental portion of their forecast took a detail approach consistent with the input process for non-environmental assets at the individual asset level.

ANNUAL FUNDING AVAILABLE

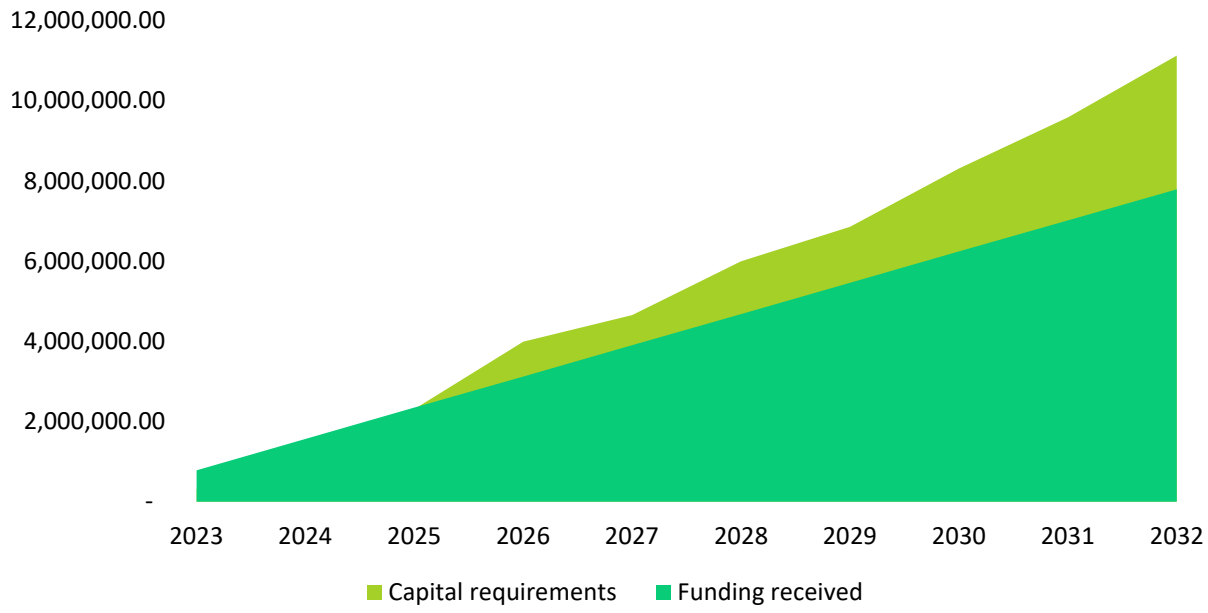
The Township receives approximately $779,800 in annual funding. With an average annual spending requirement of $1,113,700, the township has a projected average annual deficit of $333,900 per year. This equates to a total deficit of $3,339,000 after a 10-year period.



INFRASTRUCTURE FUNDING GAP

What is the infrastructure funding gap?

As part of the long-term funding strategy, municipalities will need to calculate the level of annual investment in capital assets that is required per this asset management plan and compare it to the current level of funding available for capital investments. The difference between these amounts is the infrastructure funding gap, one of the most important metrics of asset management planning.

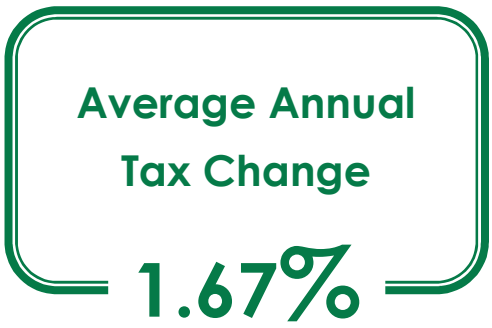


Total 10 year deficit: $3,339,000

CONCLUSION: AVERAGE ANNUAL TAX CHANGE

This is only the beginning of the next step in continuing to build a data-based and comprehensive asset management practice. With the completion of this asset management project, new infrastructure has now been setup to really detail information right to the individual asset level and allow for more informed plans on capital asset spending.

The accumulated total funding gap over the next 10 years is $3.3 million. As a financing strategy, the Town has calculated that a 1.67% annual increase in taxation revenue is required to eliminate this funding gap.



APPENDIX A – CAPITAL FORECAST SUMMARY AND SCHEDULES

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Financing Used										
Ontario Core Infrastructure Fund	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00
Ontario Municipal Partnership Fund	529,800.00	529,800.00	529,800.00	529,800.00	529,800.00	529,800.00	529,800.00	529,800.00	529,800.00	529,800.00
Canada Community Building Fund	60,000.00	60,000.00	60,000.00	60,000.00	60,000.00	60,000.00	60,000.00	60,000.00	60,000.00	60,000.00
Interest and Other Income (return on invested portfolio)	90,000.00	90,000.00	90,000.00	90,000.00	90,000.00	90,000.00	90,000.00	90,000.00	90,000.00	90,000.00
Total Expected Revenue	779,800.00	779,800.00	779,800.00	779,800.00	779,800.00	779,800.00	779,800.00	779,800.00	779,800.00	779,800.00
Forecast Cost by Asset Type										
Land	-	-	-	-	-	-	-	-	-	-
Buildings	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00
Equipment & Machinery	65,000.00	-	15,000.00	-	100,000.00	-	75,000.00	250,000.00	425,000.00	325,000.00
Roads	165,000.00	965,000.00	865,000.00	815,000.00	485,000.00	915,000.00	715,000.00	580,000.00	282,000.00	445,000.00
Bridges	-	-	-	800,000.00	-	350,000.00	-	550,000.00	-	700,000.00
Water & Sewer	-	-	-	-	-	-	-	-	500,000.00	-
Total Forecast Cost by Asset Type	305,000.00	1,040,000.00	955,000.00	1,690,000.00	660,000.00	1,340,000.00	865,000.00	1,455,000.00	1,282,000.00	1,545,000.00
Forecast Cost by Type of Service										
General Government	75,000.00	-	-	-	-	75,000.00	-	-	-	-
Protection Services	65,000.00	75,000.00	-	-	-	-	150,000.00	-	65,000.00	325,000.00
Transportation Services	165,000.00	965,000.00	955,000.00	1,615,000.00	485,000.00	1,265,000.00	715,000.00	1,205,000.00	642,000.00	1,145,000.00
Environmental Services	-	-	-	75,000.00	100,000.00	-	-	-	575,000.00	-
Health Services	-	-	-	-	-	-	-	-	-	-
Recreation Services	-	-	-	-	75,000.00	-	-	250,000.00	-	75,000.00
Planning & Development	-	-	-	-	-	-	-	-	-	-
Total Forecast Cost by Type of Service	305,000.00	1,040,000.00	955,000.00	1,690,000.00	660,000.00	1,340,000.00	865,000.00	1,455,000.00	1,282,000.00	1,545,000.00
INFRASTRUCTURE SURPLUS OR DEFICIT	474,800.00	- 260,200.00	- 175,200.00	- 910,200.00	119,800.00	- 560,200.00	- 85,200.00	- 675,200.00	- 502,200.00	- 765,200.00

TOWNSHIP OF JOHNSON
FINANCING STRATEGY

SUMMARY OF ACTUAL EXPENDITURES	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL	AVERAGE
Buildings		-	-	-	-	-	18,166.18	20,153.87	-	-	-	614,532.17	652,852.22	59,350.20
Equipment and Machinery		212,513.56	22,418.72	379,666.99	567,687.26	14,274.89	9,976.50	253,789.24	95,242.89	211,738.56	333,870.01	182,157.25	2,283,335.87	207,575.99
Roads - Unpaved		-	5,947.44	22,443.01	-	69,862.47	66,470.44	114,233.96	-	-	50,103.00	31,685.79	360,746.11	32,795.10
Roads Ashphalt		-					120,484.73	62,941.30	78,724.34	45,688.38	101,140.73	418,756.86	827,736.34	118,248.05
ENV - Sewer											182,890.93	4,249.97	187,140.90	93,570.45
ENV - Water												4,245.00	4,245.00	4,245.00
Bridges			7,123.20				684,303.94					53,865.93	745,293.07	248,431.02
TOTAL	-	212,513.56	35,489.36	402,110.00	567,687.26	84,137.36	899,401.79	451,118.37	173,967.23	257,426.94	668,004.67	1,309,492.97	3,751,856.54	341,077.87

INFLATED TO TODAYS DOLLARS	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL	AVERAGE
Inflation Rate (Macrotrends)	2.91%	1.52%	0.94%	1.91%	1.13%	1.43%	1.60%	2.27%	1.95%	0.72%	3.40%	6.30%		
CPI Compounded Annually	1.29	1.26	1.24	1.23	1.20	1.19	1.17	1.15	1.13	1.11	1.10	1.06		
Buildings	-	-	-	-	-	-	21,304.06	23,262.88	-	-	-	653,247.70	697,814.63	58,151.22
Equipment and Machinery	-	266,970.64	27,741.89	465,441.16	682,895.57	16,980.01	11,699.76	292,939.69	107,495.26	234,406.41	366,970.55	193,633.16	- 2,667,174.09	222,264.51
Roads - Unpaved	-	-	7,359.62	27,513.32	-	83,101.54	77,952.00	131,856.10	-	-	55,070.31	33,681.99	- 416,534.89	34,711.24
Roads Ashphalt	-	-	-	-	-	-	141,296.28	72,650.85	88,851.71	50,579.59	111,168.02	445,138.54	- 909,684.99	75,807.08
ENV - Sewer	-	-	-	-	-	-	-	-	-	-	201,023.10	4,517.72	- 205,540.82	17,128.40
ENV - Water	-	-	-	-	-	-	-	-	-	-	-	4,512.44	- 4,512.44	376.04
Bridges	-	-	8,814.55	-	-	-	802,505.01	-	-	-	-	57,259.48	- 868,579.05	72,381.59
TOTAL	-	266,970.64	43,916.06	492,954.49	682,895.57	100,081.55	1,054,757.11	520,709.52	196,346.97	284,985.99	734,231.99		4,377,849.89	397,986.35

Appendix B – Map of the Township