EXECUTIVE SUMMARY

The Township of Greater Madawaska is a small, rural municipality located in Eastern Ontario. Approximately, fifty percent of the ratepayers are seasonal residents, which creates some unique challenges and some advantages when creating the Asset Management Plan as well as anticipating the desired levels of service. Some of the challenges that the municipality faces are:

- Large rural road network, with a low population density
- Aging fleet of vehicles and equipment, that will have costly replacements in the future

In order to protect its infrastructure investment, the Township of Greater Madawaska must find creative and cost effective financial solutions. One of the key tools and objectives of the Township of Greater Madawaska is the implementation of a realistic asset management plan to ensure that infrastructure is properly maintained and operational in order to meet the service requirements and to ensure that maintenance/repairs/rehabilitation is completed at the lowest cost and in a timely manner.

It is acknowledged that Asset Management cannot be a "one" time undertaking and that it must continue to be an on-going process. There must be continuous flow of data to ensure that the asset management plan is up to date with the current service level standards. As such, the Township of Greater Madawaska will be updating the Asset Management Plan regularly as conditions change in the field, as improvements are implemented, and as options and costs change with the economy.

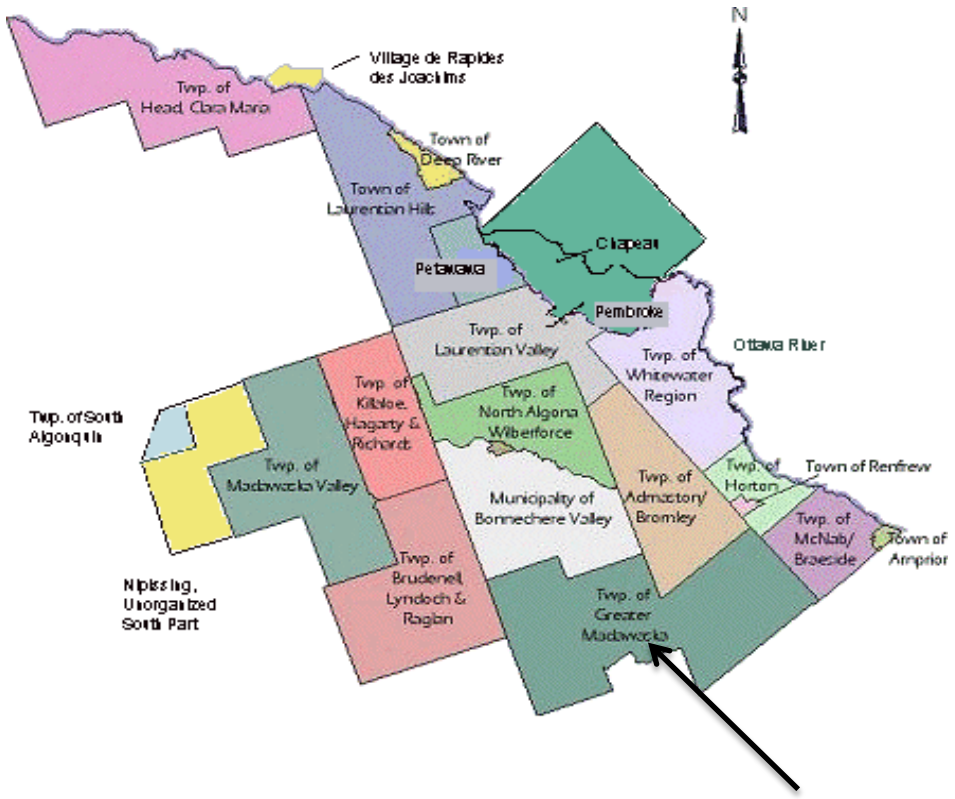
Assets that are in the "Now Need" category have been placed as priority items on the plan as there is a greater risk of health and safety concerns or level of service failure.

As development of the Plan progresses, staff will be providing regular updates to Council.

INTRODUCTION

Our Municipality is located in the southeastern end of The County of Renfrew. The County of Renfrew is the largest geographic county in Ontario with a land mass twice the size of Prince Edward Island. The County of Renfrew was founded in 1861 by European settlers. Wilno, a hamlet nestled near Algonquin Park, is recognized as Canada's First Official Polish settlement.

The County of Renfrew contains over 7,000 square kilometers and Greater Madawaska is over 1,000 square kilometers of rugged and beautiful terrain including lakes, forests and a sparse, spread out population. The Crown holds approximately 160,000 acres or over 60 percent of the land mass in Greater Madawaska. This vast acreage affords visitors and residents employment, excellent fishing, hiking and hunting opportunities.



Greater Madawaska is a multi-dimensional active living community playing host to many great attractions such as, our long time four season resort, Calabogie Peaks. The ski hill has one of eastern Ontario's highest vertical drops. Calabogie Highlands is our 18-hole championship golf course stretching along, and next to the shores of Calabogie Lake. Our community includes Calabogie Lodge, a spectacular and successful time share development. We are home to Calabogie Motorsport Park, described as the newest and most challenging motor course in North America. It has brought visitors from across the United States and all across Canada.

Crown Land and private holdings host, jointly and separately, a significant number of snowmobile and ski trails. Members of our community are also offering exciting whitewater experiences and paddling opportunities on the Madawaska River. There are numerous fishing holes and hunting spots on Crown and private land which are closely guarded multi-generational secrets.

Greater Madawaska is located 45 minutes from the western parts of Ottawa and 65 minutes from the seat of Canada's government. Our total population in 2016 was 2,518 people. We have had consistent growth of approximately 25 new homes a year over the last 10 years with our construction value topping $9,000,000. It is estimated our population swells by between 10,000 and 15,000 over the summer months. The ski hill also has visitors in the range of 180,000 people during the winter.

The Township of Greater Madawaska was formed in 2001 from three former rural municipalities each bringing its own charm to the union and governed by five members of Council each. The Municipality is governed by four Councilors elected in three wards and a Mayor elected at large. Greater Madawaska has three transfer stations, two fire halls, two Public Works garages, a Medical Centre, a Pharmacy, a library and one central municipal administration building. The Municipality employs 18 full time employees and 6 part time employees and approximately 35 volunteer fire staff.

Our community's population is largely over 50 years of age and increasingly made up of recently retired active folks who have an avid interest in their community. We do not have a large commercial sector and are devoid of industrial tax base. Residential assessment is the financial engine funding the Municipality.

Asset Management

The main objectives of the AMP have been structured to promote the following:

- Enhanced decision making, accountability and transparency for Council
- Long term impacts of infrastructure management investment decisions and justification for such decisions
- Improved customer service and improved delivery of services at an approved level of service
- Reduction in life cycle costs while maintaining assets in a safe condition

The development of the AMP was premised on the following:

- Value-Based/Affordability
  The implementation decisions were based on balancing services levels, risks and associated costs.

- Risk-Based
  To ensure the health and safety of the general public, protect the environment and preserve the assets.
- Innovative
  Continually improve how assets are managed by taking advantage or taking into consideration new technology and best practices.

Benefits and Objectives of Asset Management

A well developed and realistic AMP provides a "road map" for Council and staff in terms of identifying current and future needs for the Township. The AMP provides financially sustainable operating/capital expenditure needs over the predetermined time.

In general the AMP:

- Provides a guide for better decision making of the allocation of resources and funding
- Identifies the total investment required to maintain or improve infrastructure to meet or maintain the prescribed levels of service
- Provides a long-term capital program and financial strategy

Infrastructure Included in the AMP

Currently, the Township of Greater Madawaska's tangible capital assets included the following:

- Linear Assets (Roads)
- Land Improvements
- Buildings
- Machinery/Equipment
- Vehicles
- Road Allowances
- Environment sites

Methodology

The four elements of an AMP are presented in the below figure:

The Township's AMP has given consideration to costs associated with:

- Replacement Activities
- Disposal Activities
- Upgrading Activities
- New/Additional Assets

Township Asset Management Initiatives

The Council of the Township of Greater Madawaska has endorsed the following initiatives that have been undertaken:

- Asset inventories have been updated
- Condition assessments completed and the costs associated have been determined for various rehabilitation/replacement strategies
- Asset levels of service have been developed
- Identification of funding "gaps" and development of financial strategies to sustain the AMP.

STATE OF INFRASTRUCTURE

The condition of the Township of Greater Madawaska assets varies and in many instances they are reaching the end of their service lives.

A Road Needs Study was completed in July/August of 2017 by the Township of Greater Madawaska Public Works Department. This study assessed the current state of the roadways in the Township based on the approved condition rating (see ROADS below).

Facilities staff of the Township also visited each building to determine and assess the needs of the buildings, mechanical and electrical systems based on the approved condition rating (see BUILDINGS below)

The Township mechanic assessed the equipment and vehicles based on their current state and estimated the remaining useful life of the equipment and/or vehicle.

ROADS

A Road Needs Study was completed in July/August of 2017 by the Township of Greater Madawaska Public Works Department.

The report contains a list of municipal roads to prepare a plan for improving and maintaining the road system. The chart below displays the types and lengths of roadways that are included in the Asset Management Plan.

Road Type	Total Length in Kilometres (km)
Gravel	132.48
Low Class Bituminous (LCB)	77.67
Hot Mix Paved (HL4)	15.85

The purpose of the Road Needs Study is to inventory and assess the road network within the Municipality to address the Asset Management Plan required by the Province.

Roads that have varying conditions have been segmented to show the condition of each portion of the road. For example: Matawatchan Road may have a portion that is fair and a portion that

is ranked in good condition. This road would then show two different locations, each referring to the road condition rating that applies to that section of road.

Road Classification

Road classification is based on the Minimum Maintenance Standards set out by the Province which the Municipality adopted. **See Table 1**

Condition Ratings

Condition Ratings are calculated for each wear surface type. Newly constructed roads have a condition rating of Good and roads that require reconstruction or have a high level of risk are assigned Now Need. A condition rating of Now Need is considered to be unsatisfactory.

The tangible capital asset policy assumes that asphalt roads (HL4) have a life expectancy of 25 years and surface treated roads have a life expectancy of 15 years. Although, realistically some wear surfaces will exceed the life expectancy and some will fall short of life expectancy, this is dependent on a number of factors.

Each year there is 10, 000 tonnes of granular "M" accounted for in the operations budget that will be needed under loose top maintenance as part of the loose top maintenance program to maintain gravel roads at a 'Fair' condition rating.

Gravel roads are considered to have an ongoing life expectancy as long as the municipality keeps up with maintenance by applying granular to the road as in the past.

The Road conditions were assessed based on the factors in Chart 1 below. But we must keep in mind that some roads may experience faster deterioration than others, which may change capital projects in the future.

Chart 1: Road Rating Description

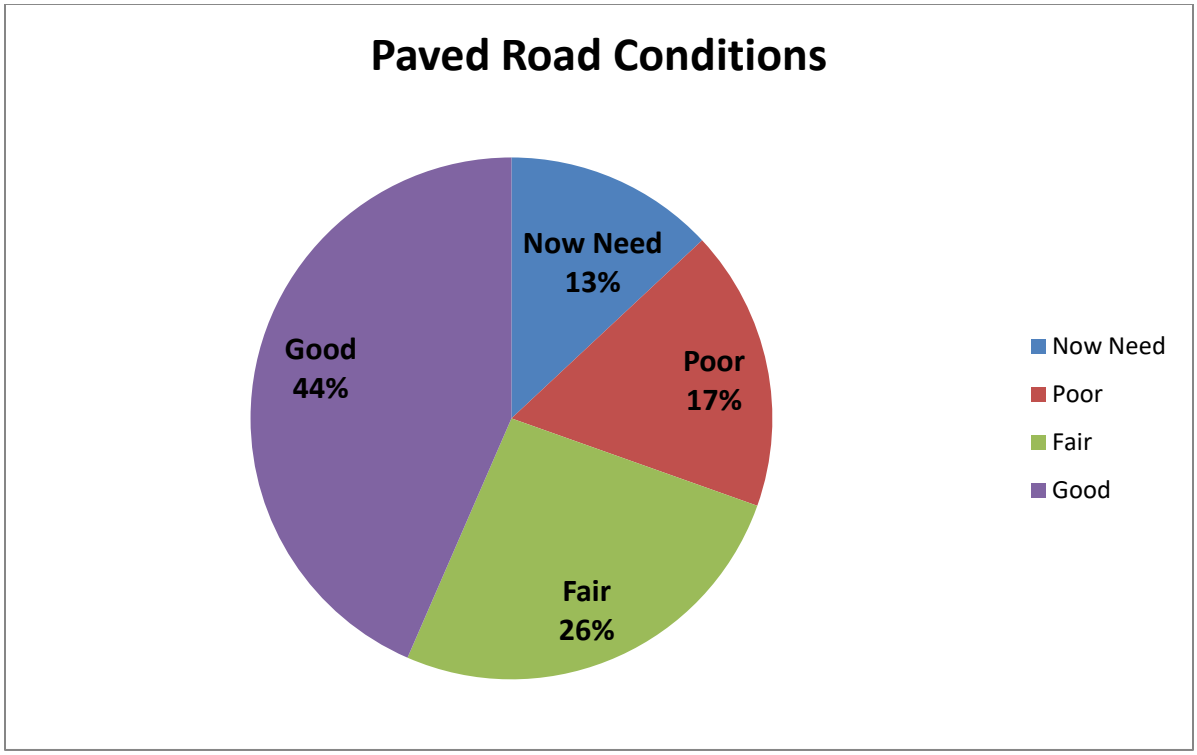
Road Condition Rating (Years Left)	Description
Good High Float – 10 to 15 yrs HL4 – 17 to 25 yrs	Generally approaching mid-stage of expected service life, meets current required level of service. Required maintenance costs are within acceptable standards but are increasing.
Fair High Float – 5 to 10 yrs HL4 – 9 to 17 yrs	Signs of deterioration, some elements exhibit deficiencies. The asset is beginning to perform at a lower level than initially intended. Maintenance costs are beginning to exceed acceptable standards and are increasing. Asset is in the later stage of its expected life.

Poor High Float – 1 to 5 yrs HL4 – 1 to 9 Years	Approaching the latter stage of its expected service life, conditions below standard, large portion of system exhibits significant deterioration. Maintenance costs exceed acceptable standards and are increasing.
Now Need High Float – 0 yrs HL4 – 0 yrs	Now Need – beyond expected service life and/or widespread signs of advanced deterioration. Some assets may be unusable and/or require immediate attention and/or repairs. Maintenance costs exceed acceptable standards.

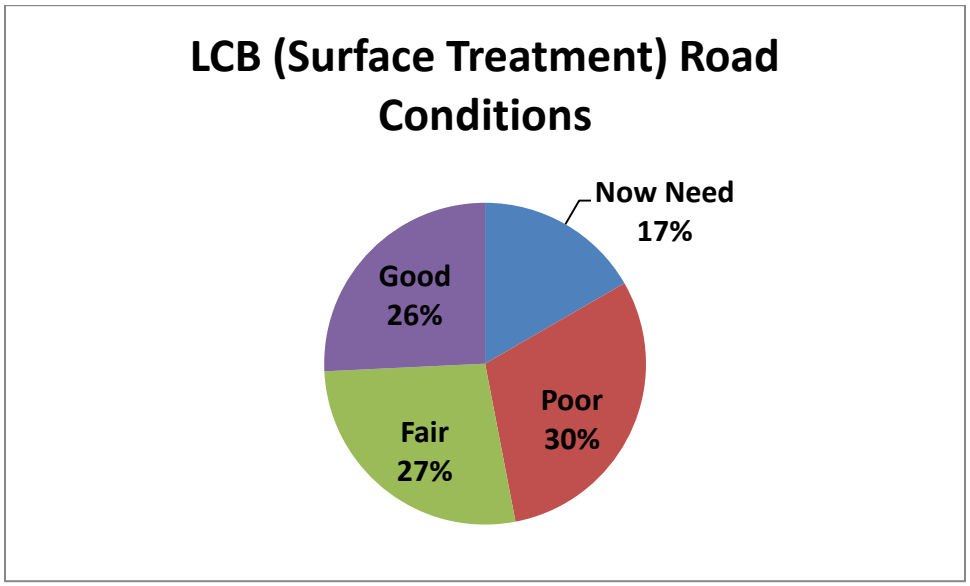
Condition rating with a 'Now Need' will be considered for road improvements over the next 10 years.

Current Condition Ratings of Township Roadways

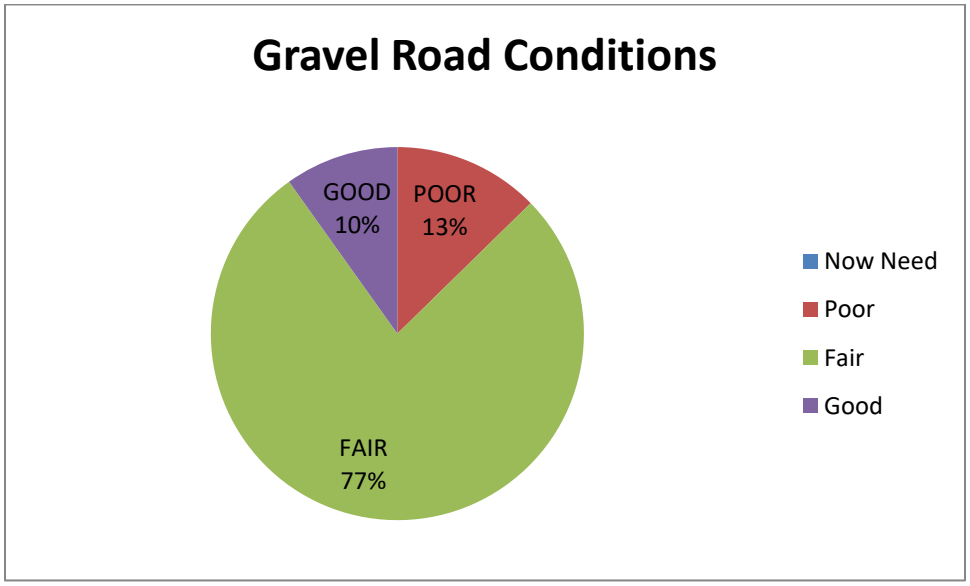
Below you will see a chart that shows the breakdown of the current road conditions for all Asphalt Pavement roadways in the Township. Note: that this would include roadways that have been segmented into various road condition ratings.



Below you will see a chart that shows the breakdown of the current road conditions for all Surface Treatment or LCB roadways in the Township. Note: that this would include roadways that have been segmented into various road condition ratings.



Below you will see a chart that shows the breakdown of the current road conditions for all Gravel roadways in the Township. Note: Gravel roads have not been segmented based on road condition ratings.



Benchmark Costs

To determine the cost of construction, benchmark costs are used and are associated with the capital improvement.

The estimated cost for improvements based on wear surface type. Charts 2, 3 and 4 provide costs in 2017 dollars. The cost for improvement or resurfacing is based on the roadway being 6.5m in surface wear width and applying 150mm granular base along with the new wear surface. Note: some Township roadways are not 6.5m in surface wear width so the estimated cost associated with that road would be to bring the roadway up to a 6.5m surface wear width road.

It must be noted that culvert replacements and drainage issues will be dealt with under the operating expense maintenance program in the Municipality.

Cul-de-sacs on High Float Surface roads should be paved with a 50mm lift of HL4 asphalt due to traffic turning in the cul-de-sac and tearing up the surface.

The average area for a cul-de-sac is 250m².

Chart 2: Unit Prices

Item	Benchmark Costs
Granular "A"	$16.00 per tonne
Double Surface Treatment	$5.50 per square meter
Asphalt	$110.00 per tonne
Pulverizing	$1.35 per square meter

Chart 3: Double Surface Treatment

Partial Depth Reconstruction	Per Square Meter
Pulverize, 150 mm Granular "A" and double surface treatment	$12.13

Chart 4: Asphalt

Partial Depth Reconstruction	Per Square Meter
Pulverize, 150 mm Granular "A" and 50 mm HL4	$20.16

Solid Waste

The Township maintains and operates two waste disposal sites (Black Donald and Mount St. Patrick) and three waste transfer station sites at Griffith, Mount St. Patrick and Norway Lake. Based on the 2016 Annual Reports the Black Donald Waste Disposal Site will have a remaining useful life of 10 years and the Mount St. Patrick will have a remaining useful life of 29 years.

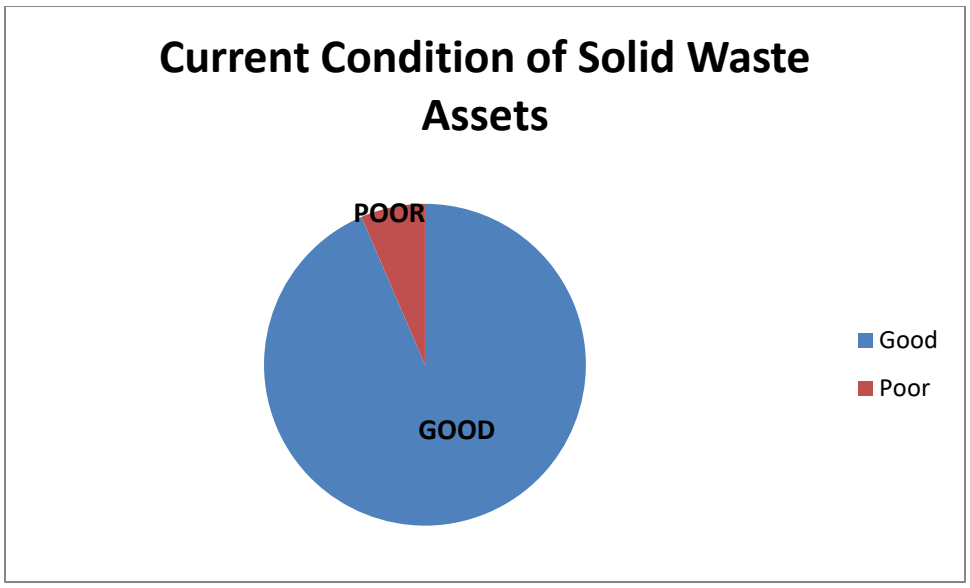
The below chart provides detail of the estimated total closure costs as per Greenview Environment 2016 for each site:

	ESTIMATED CLOSURE COSTS		
SITE	**CLOSURE**	**POST-CLOSURE**	**TOTAL**
Griffith	$0	$202,500	**$202,500**
Matawatchan	$0	$215,500	**$215,500**
Black Donald	$137,500	$477,500	**$615,000**
Mount St. Patrick	$112,500	$415,000	**$527,500**
Norway Lake	$0	$191,000	**$191,000**
TOTALS	**$250,000**	**$1,501,500**	**$1,751,500**

The assets that relate to all Solid Waste have been assessed and rated based on the following criteria:

Solid Waste Rating	Description
Good	Generally approaching mid-stage of expected service life, meets current required level of service. Required maintenance costs are within acceptable standards but are increasing.
Fair	Signs of deterioration, some elements exhibit deficiencies. The asset is beginning to perform at a lower level than initially intended. Maintenance costs are beginning to exceed acceptable standards and are increasing. Asset is in the later stage of its expected life.
Poor	Approaching the latter stage of its expected service life, conditions below standard, large portion of system exhibits significant deterioration. Maintenance costs exceed acceptable standards and are increasing.
Now Need	Now Need – beyond expected service life and/or widespread signs of advanced deterioration. Some assets may be unusable and/or require immediate attention and/or repairs. Maintenance costs exceed acceptable standards.

From the above noted criteria the below graph shows the current condition rating for the Solid Waste Assets:



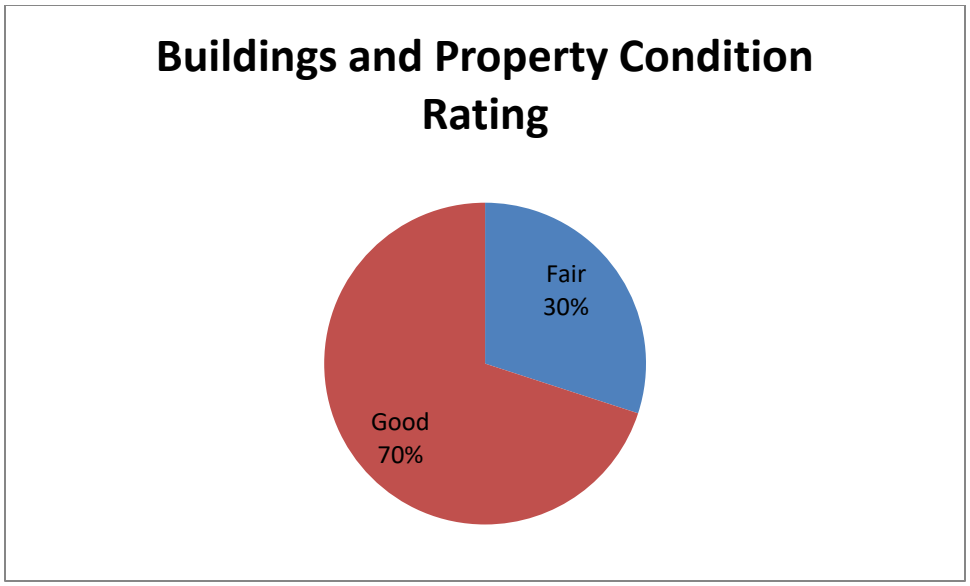
Buildings/Facilities

The Township's asset management program is a tool to ensure the effective maintenance of the Township properties and buildings to meet or exceed legislative requirements. Staff currently monitors and maintains the building components and equipment to ensure that they meet their useful life expectations.

The condition ratings are defined as follows:

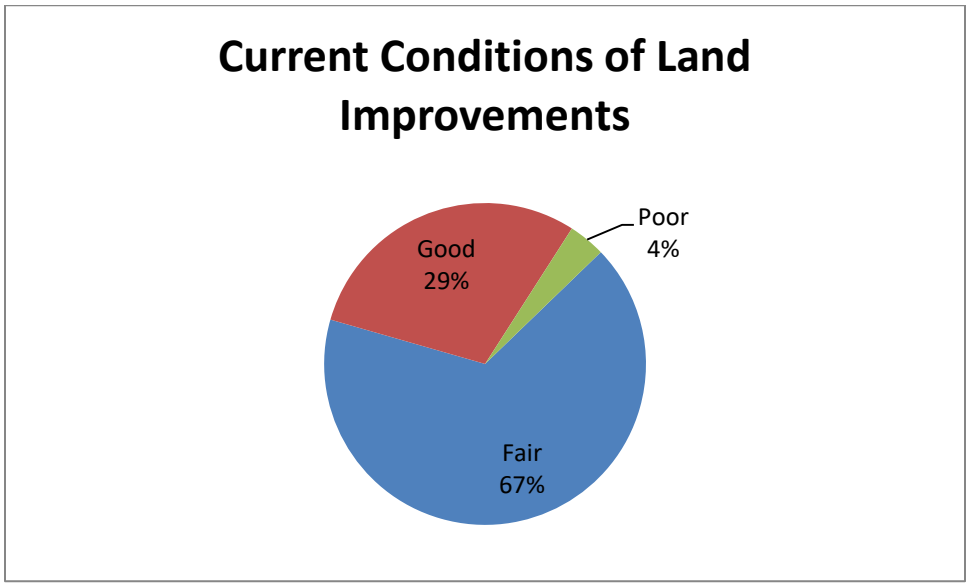
Building Facilities Condition Rating	Description
Good	Generally approaching mid-stage of expected service life, meets current required level of service. Required maintenance costs are within acceptable standards but are increasing.
Fair	Signs of deterioration, some elements exhibit deficiencies. The asset is beginning to perform at a lower level than initially intended. Maintenance costs are beginning to exceed acceptable standards and are increasing. Asset is in the later stage of its expected life.
Poor	Approaching the latter stage of its expected service life, conditions below standard, large portion of system exhibits significant deterioration. Maintenance costs exceed acceptable standards and are increasing.
Now Need	Now Need – beyond expected service life and/or widespread signs of advanced deterioration. Some assets may be unusable and/or require immediate attention and/or repairs. Maintenance costs exceed acceptable standards.

The below figure provides a summary of the overall condition ratings of all Township buildings/facilities.



Land Improvements

The Township currently has 27 assets under land improvements; these assets include but are not limited to parking lots, retaining walls, septic systems, wells, etc. The Land Improvements have been assessed based on the same condition rating as Solid Waste Assets. The below noted figure shows the current condition of all Land Improvement Assets on the AMP:

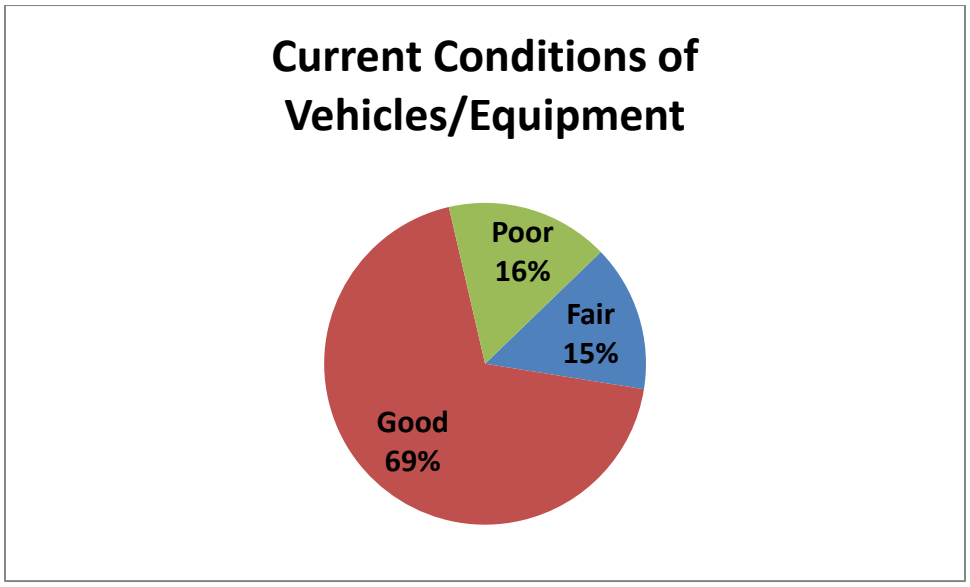


While staff was assessing the conditions of the Land Improvement Assets it was noted that there will be some upgrading of gravel parking lots to paved parking lots for health and safety concerns along with accessibility plans.

Fleet and Equipment

Fleet and equipment assets are an integral component in the Township's ability to respond to the needs of the community and provide the levels of service that are both expected by our ratepayers and mandated by legislation. Generally, vehicles and equipment are replaced as required based on the condition and service life expectancy. Depending on the asset class the current life expectancy of the Township's fleet assets and equipment assets range from eight (8) years to thirty (30) years.

The below figure shows the overall condition ratings for all vehicles/equipment:



ASSET MANAGEMENT STRATEGY AND RISK MANAGEMENT

The AMP has identified sustainable funding strategies over the long-term to ensure that sufficient monies are available to meet expected or targeted levels of service. The funding strategy may be influenced by future federal/provincial funding programs as they become available from time to time. Funding priority will be given to the assets that pose the highest level of service risk. Managing the consequences of failure is our highest priority, keeping in mind that not every asset would present the same risk of failure or would be equally critical to the operations of the Township. The condition and risk of failure of each asset has influenced the implementation of the priority assets.

The AMP utilizes level of service standards as a benchmark for the maintenance, rehabilitation and replacement of the Township's assets. The strategy has also brought forth the requirement to establish a regular and cost effective maintenance program to extend the life of the assets, specifically with the linear assets. These programs may be developed through industry standard, local experience and the desired levels of service.

The strategy utilized for prioritizing the assets was firstly based on the condition of the asset. All "Now Need" assets would be the first priority as they would require the most amount of maintenance and financial needs. From here the "Now Need" was prioritized based on the level of risk of service failure they would impose.

Risk Management

A risk assessment has been undertaken for each asset of the Township and the risk of service level failure has been instrumental in prioritizing the timing and type of capital work interventions required.

For the Linear Assets (Roads) there was a different approach to assessing the risk of service level failure. The below noted matrix was utilized to provide a points value:

	Probability of Service Level Failure		
	Low (0 points)	Medium (1 point)	High (2 points)
Maintenance (50%)			
Steep Embankments (25%)			
Sight Lines (25%)			

For all the other assets the risk of failure was completed in a similar manner but the risk of failure was incorporated into the asset condition. Therefore, if an asset was in Fair condition but posed a medium level of service failure the asset would be moved to Poor for that reason.

It must be noted that risk levels can be reduced or mitigated through planned maintenance, rehabilitation and/or replacement of assets. An objective of this asset management plan is to reduce

the risk levels where they are deemed too high, as well as to ensure that assets are maintained in a manner that maintains risk at an acceptable level.

Some of the noted benefits for an asset upgrade, replacement or rehabilitation are:

- Health and Safety
    - Accident reduction – both pedestrian, cyclists and automobile
    - Safety of employees who work with, in or around the assets
    - Injury reduction – associated with accident reduction
- Environmental Impact
    - Greenhouse gas emissions
    - Groundwater and surface water impacts
    - Climate change
- Efficiencies
    - Labour – new technology provides for a faster service performance, less break downs
    - Electricity – energy upgrades provide for less operating costs
    - Vehicles – produce less emissions, use less fuel
    - Grant application can be “shelf” ready as the capital projects are planned for 10 years in advance

Due to the fact that the Township of Greater Madawaska is a small, rural municipality with limited resources, Council and staff must accept opportunities that coordinate resources with other local municipalities or the County of Renfrew. This may include shared services, contract negotiations, joint service boards, etc.

FINANCING STRATEGY

Township staff identified the capital needs for the organization over the next twenty (20) years. These targets were arrived at after carefully considering current replacement values, asset conditions, year of expected asset replacement, the level of service expected from each asset category and the risk to the organization based on the probability of asset failure to meet service levels. The current replacement cost (2017 values) of this capital needs study totals $29,515,013.

This 20 year plan is based upon the Township's current responsibilities and does not include any unexpected issues that may arise nor any increased program responsibilities that may arise in the future.

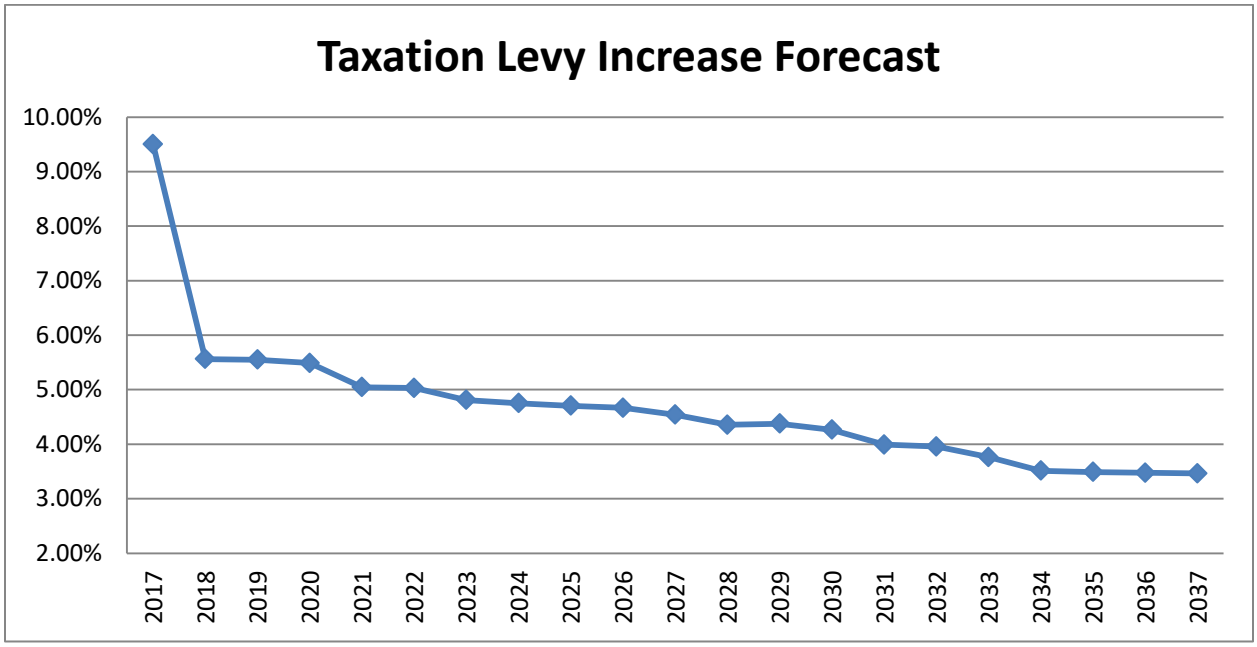
Please refer to Appendix B to review the Capital Schedule which demonstrates the financial strategy as well as the corresponding costs.

Assumptions

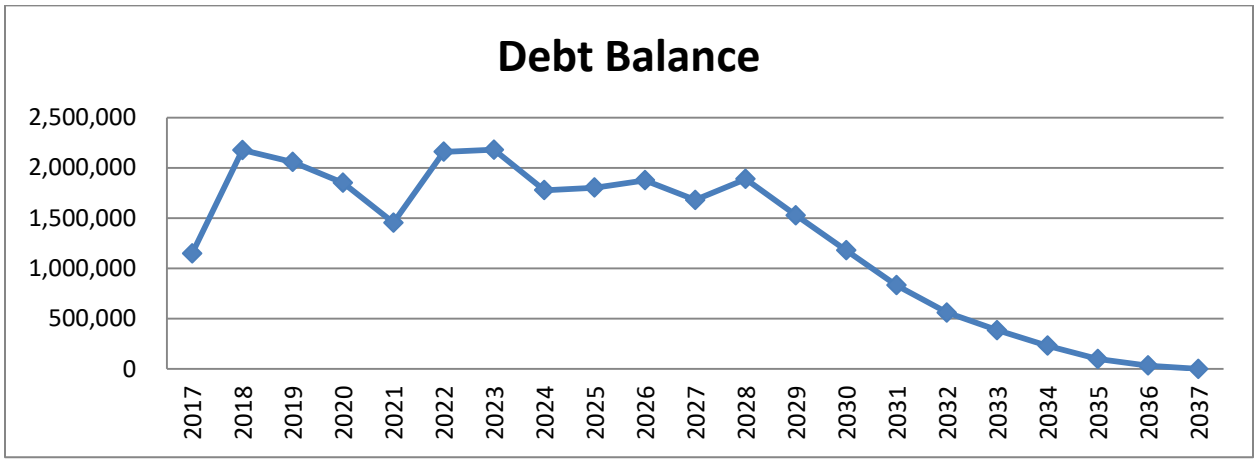
The results of the financing strategy are based on several assumptions:

(1) Capital Investment

The projection of the amount of Capital Investment is based on a continual increase in the amount of taxation that will be utilized for these investments. In 2018 the taxation amount utilized will be $284,530 and in 2037 the amount of taxation utilized will be $875,000. These numbers are for new capital investments and for debt payments on previous capital investments. Debentures will be utilized to finance the capital investments that are required for the 20 year plan that the taxation amount will not cover. The debenture interest rate is based on 2018 rates from the Infrastructure Ontario Lending program.



There are a large number of assets that require replacement or rehabilitation within the first five years of the AMP. Therefore, there will be a substantial amount of monies required from debentures to complete all of the proposed projects. The below graph illustrates the forecasted debt balance for the ten year period.



(2) Provincial/Federal Revenue

The Federal Gas Tax Program, Ontario Community Infrastructure Fund and the OMPF Northern and Rural Funding programs are other sources of revenue that are stable and predictable funding available to assist with capital plans. In 2018, the Federal Gas Tax was $70,000, the OCIF was $50,000 and the OMPF was $126,500.

(3) Reserves and Lot Development Charges

At December 31, 2017 the reserve budget was $1,447,670. The financial strategy plan assumes that reserve balance will not fall below $1,000,000. The assumption is that each year any surplus or lot development charges will be utilized for the next year.

TABLE 1

Municipal Act, 2001
Loi de 2001 sur les municipalités

ONTARIO REGULATION 239/02
MINIMUM MAINTENANCE STANDARDS FOR MUNICIPAL HIGHWAYS

Consolidation Period: From January 25, 2013 to the e-Laws currency date.

Last amendment: O. Reg. 47/13.

This Regulation is made in English only.

Definitions

1. (1) In this Regulation,

"cm" means centimetres;

"day" means a 24-hour period;

"ice" means all kinds of ice, however formed;

"motor vehicle" has the same meaning as in subsection 1 (1) of the *Highway Traffic Act*, except that it does not include a motor assisted bicycle;

"non-paved surface" means a surface that is not a paved surface;

"Ontario Traffic Manual" means the Ontario Traffic Manual published by the Ministry of Transportation, as amended from time to time;

"paved surface" means a surface with a wearing layer or layers of asphalt, concrete or asphalt emulsion;

"roadway" has the same meaning as in subsection 1 (1) of the *Highway Traffic Act*;

"shoulder" means the portion of a highway that provides lateral support to the roadway and that may accommodate stopped motor vehicles and emergency use;

"snow accumulation" means the natural accumulation of any of the following that, alone or together, covers more than half a lane width of a roadway:

1. Newly-fallen snow.
2. Wind-blown snow.
3. Slush;

"substantial probability" means a significant likelihood considerably in excess of 51 per cent;

"surface" means the top of a roadway or shoulder;

"weather" means air temperature, wind and precipitation. O. Reg. 239/02, s. 1 (1); O. Reg. 23/10, s. 1 (1); O. Reg. 47/13, s. 1.

(2) For the purposes of this Regulation, every highway or part of a highway under the jurisdiction of a municipality in Ontario is classified in the Table to this section as a Class 1, Class 2, Class 3, Class 4, Class 5 or Class 6 highway, based on the speed limit applicable to it and the average annual daily traffic on it. O. Reg. 239/02, s. 1 (2).

(3) For the purposes of subsection (2) and the Table to this section, the average annual daily traffic on a highway or part of a highway under municipal jurisdiction shall be determined,

(a) by counting and averaging the daily two-way traffic on the highway or part of the highway; or

(b) by estimating the average daily two-way traffic on the highway or part of the highway. O. Reg. 239/02, s. 1 (3); O. Reg. 23/10, s. 1 (2).

(4) For the purposes of this Regulation, a municipality is deemed to be aware of a fact if, in the absence of actual knowledge of the fact, circumstances are such that the municipality ought reasonably to be aware of the fact. O. Reg. 23/10, s. 1 (3).

TABLE
CLASSIFICATION OF HIGHWAYS

Average Annual Daily Traffic (number of motor vehicles)	Posted or Statutory Speed Limit (kilometres per hour)						
	91 - 100	81 - 90	71 - 80	61 - 70	51 - 60	41 - 50	1 - 40
15,000 or more	1	1	1	2	2	2	2
12,000 - 14,999	1	1	1	2	2	3	3
10,000 - 11,999	1	1	2	2	3	3	3
8,000 - 9,999	1	1	2	3	3	3	3
6,000 - 7,999	1	2	2	3	3	3	3
5,000 - 5,999	1	2	2	3	3	3	3
4,000 - 4,999	1	2	3	3	3	3	4
3,000 - 3,999	1	2	3	3	3	4	4
2,000 - 2,999	1	2	3	3	4	4	4
1,000 - 1,999	1	3	3	3	4	4	5
500 - 999	1	3	4	4	4	4	5
200 - 499	1	3	4	4	5	5	5
50 - 199	1	3	4	5	5	5	5
0 - 49	1	3	6	6	6	6	6

O. Reg. 613/06, s. 1.

Application

2. (1) This Regulation sets out the minimum standards of repair for highways under municipal jurisdiction for the purpose of clause 44 (3) (c) of the Act. O. Reg. 288/03, s. 1.

(2) REVOKED: O. Reg. 23/10, s. 2.

(3) This Regulation does not apply to Class 6 highways. O. Reg. 239/02, s. 2 (3).

MINIMUM STANDARDS

Patrolling

3. (1) The minimum standard for the frequency of patrolling of highways to check for conditions described in this Regulation is set out in the Table to this section. O. Reg. 23/10, s. 3 (1).

(2) If it is determined by the municipality that the weather monitoring referred to in section 3.1 indicates that there is a substantial probability of snow accumulation on roadways, ice formation on roadways or icy roadways, the minimum standard for patrolling highways is, in addition to that set out in subsection (1), to patrol highways that the municipality selects as representative of its highways, at intervals deemed necessary by the municipality, to check for such conditions. O. Reg. 47/13, s. 2.

(3) Patrolling a highway consists of observing the highway, either by driving on or by electronically monitoring the highway, and may be performed by persons responsible for patrolling highways or by persons responsible for or performing highway maintenance activities. O. Reg. 23/10, s. 3 (1).

(4) This section does not apply in respect of the conditions described in section 10, subsections 11 (0.1) and 12 (1) and section 16.1. O. Reg. 23/10, s. 3 (1).

TABLE
PATROLLING FREQUENCY

Class of Highway	Patrolling Frequency
1	3 times every 7 days
2	2 times every 7 days
3	once every 7 days
4	once every 14 days
5	once every 30 days

O. Reg. 239/02, s. 3, Table; O. Reg. 23/10, s. 3 (2).

Weather monitoring

3.1 (1) From October 1 to April 30, the minimum standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once every shift or three times per calendar day, whichever is more frequent, at intervals determined by the municipality. O. Reg. 47/13, s. 3.

(2) From May 1 to September 30, the minimum standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once per calendar day. O. Reg. 47/13, s. 3.

Snow accumulation

4. (1) The minimum standard for addressing snow accumulation is,

(a) after becoming aware of the fact that the snow accumulation on a roadway is greater than the depth set out in the Table to this section, to deploy resources as soon as practicable to address the snow accumulation; and

(b) after the snow accumulation has ended, to address the snow accumulation so as to reduce the snow to a depth less than or equal to the depth set out in the Table within the time set out in the Table,

(i) to provide a minimum lane width of the lesser of three metres for each lane or the actual lane width, or

(ii) on a Class 4 or Class 5 highway with two lanes, to provide a total width of at least five metres. O. Reg. 47/13, s. 4.

(2) If the depth of snow accumulation on a roadway is less than or equal to the depth set out in the Table to this section, the roadway is deemed to be in a state of repair with respect to snow accumulation. O. Reg. 47/13, s. 4.

(3) For the purposes of this section, the depth of snow accumulation on a roadway may be determined in accordance with subsection (4) by a municipal employee, agent or contractor, whose duties or responsibilities include one or more of the following:

1. Patrolling highways.
2. Performing highway maintenance activities.
3. Supervising staff who perform activities described in paragraph 1 or 2. O. Reg. 47/13, s. 4.

(4) The depth of snow accumulation on a roadway may be determined by,

(a) performing an actual measurement;

(b) monitoring the weather; or

(c) performing a visual estimate. O. Reg. 47/13, s. 4.

(5) For the purposes of this section, addressing snow accumulation on a roadway includes, but is not limited to,

(a) plowing the roadway;

(b) salting the roadway;

(c) applying abrasive materials to the roadway; or

(d) any combination of the methods described in clauses (a), (b) and (c). O. Reg. 47/13, s. 4.

(6) This section does not apply to that portion of the roadway designated for parking. O. Reg. 47/13, s. 4.

TABLE
SNOW ACCUMULATION

Class of Highway	Depth	Time
1	2.5 cm	4 hours
2	5 cm	6 hours
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours

O. Reg. 47/13, s. 4.

Ice formation on roadways and icy roadways

5. (1) The minimum standard for the prevention of ice formation on roadways is doing the following in the 24-hour period preceding an alleged formation of ice on a roadway:

1. Monitor the weather in accordance with section 3.1.
2. Patrol in accordance with section 3.
3. If the municipality determines, as a result of its activities under paragraph 1 or 2, that there is a substantial probability of ice forming on a roadway, treat the roadway to prevent ice formation within the time set out in the Table to this section, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose. O. Reg. 47/13, s. 5.

(2) If the municipality meets the minimum standard set out in subsection (1) and, despite such compliance, ice forms on a roadway, the roadway is deemed to be in a state of repair until the earlier of,

(a) the time that the municipality becomes aware of the fact that the roadway is icy; or

(b) the applicable time set out in the Table to this section for treating the roadway to prevent ice formation expires. O. Reg. 47/13, s. 5.

(3) The minimum standard for treating icy roadways after the municipality becomes aware of the fact that a roadway is icy is to treat the icy roadway within the time set out in the Table to this section, and an icy roadway is deemed to be in a state of repair until the applicable time set out in the Table for treating the icy roadway expires. O. Reg. 47/13, s. 5.

(4) For the purposes of this section, treating a roadway means applying material to the roadway, including but not limited to, salt, sand or any combination of salt and sand. O. Reg. 47/13, s. 5.

TABLE
ICE FORMATION PREVENTION AND ICY ROADWAYS

Class of Highway	Time
1	3 hours
2	4 hours
3	8 hours
4	12 hours
5	16 hours

O. Reg. 47/13, s. 5.

Potholes

6. (1) If a pothole exceeds both the surface area and depth set out in Table 1, 2 or 3 to this section, as the case may be, the minimum standard is to repair the pothole within the time set out in Table 1, 2 or 3, as appropriate, after becoming aware of the fact. O. Reg. 239/02, s. 6 (1).

(2) A pothole is deemed to be in a state of repair if its surface area or depth is less than or equal to that set out in Table 1, 2 or 3, as appropriate. O. Reg. 239/02, s. 6 (2); O. Reg. 47/13, s. 6.

TABLE 1
POTHOLES ON PAVED SURFACE OF ROADWAY

Class of Highway	Surface Area	Depth	Time
1	600 cm^2	8 cm	4 days
2	800 cm^2	8 cm	4 days
3	1000 cm^2	8 cm	7 days
4	1000 cm^2	8 cm	14 days
5	1000 cm^2	8 cm	30 days

O. Reg. 239/02, s. 6, Table 1.

TABLE 2
POTHOLES ON NON-PAVED SURFACE OF ROADWAY

Class of Highway	Surface Area	Depth	Time
3	1500 cm²	8 cm	7 days
4	1500 cm²	10 cm	14 days
5	1500 cm²	12 cm	30 days

O. Reg. 239/02, s. 6, Table 2.

TABLE 3
POTHOLES ON PAVED OR NON-PAVED SURFACE OF SHOULDER

Class of Highway	Surface Area	Depth	Time
1	1500 cm²	8 cm	7 days
2	1500 cm²	8 cm	7 days
3	1500 cm²	8 cm	14 days
4	1500 cm²	10 cm	30 days
5	1500 cm²	12 cm	60 days

O. Reg. 239/02, s. 6, Table 3.

Shoulder drop-offs

7. (1) If a shoulder drop-off is deeper, for a continuous distance of 20 metres or more, than the depth set out in the Table to this section, the minimum standard is to repair the shoulder drop-off within the time set out in the Table after becoming aware of the fact. O. Reg. 239/02, s. 7 (1).

(2) A shoulder drop-off is deemed to be in a state of repair if its depth is less than or equal to that set out in the Table. O. Reg. 239/02, s. 7 (2); O. Reg. 47/13, s. 7.

(3) In this section,

"shoulder drop-off" means the vertical differential, where the paved surface of the roadway is higher than the surface of the shoulder, between the paved surface of the roadway and the paved or non-paved surface of the shoulder. O. Reg. 239/02, s. 7 (3).

TABLE
SHOULDER DROP-OFFS

Class of Highway	Depth	Time
1	8 cm	4 days
2	8 cm	4 days
3	8 cm	7 days
4	8 cm	14 days
5	8 cm	30 days

O. Reg. 239/02, s. 7, Table.

Cracks

8. (1) If a crack on the paved surface of a roadway is greater, for a continuous distance of three metres or more, than both the width and depth set out in the Table to this section, the minimum standard is to repair the crack within the time set out in the Table after becoming aware of the fact. O. Reg. 239/02, s. 8 (1).

(2) A crack is deemed to be in a state of repair if its width or depth is less than or equal to that set out in the Table. O. Reg. 239/02, s. 8 (2); O. Reg. 47/13, s. 8.

TABLE
CRACKS

Class of Highway	Width	Depth	Time
1	5 cm	5 cm	30 days
2	5 cm	5 cm	30 days
3	5 cm	5 cm	60 days
4	5 cm	5 cm	180 days
5	5 cm	5 cm	180 days

O. Reg. 239/02, s. 8, Table.

Debris

9. (1) If there is debris on a roadway, the minimum standard is to deploy resources, as soon as practicable after becoming aware of the fact, to remove the debris. O. Reg. 239/02, s. 9 (1).

(2) In this section,

"debris" means any material (except snow, slush or ice) or object on a roadway,

(a) that is not an integral part of the roadway or has not been intentionally placed on the roadway by a municipality, and

(b) that is reasonably likely to cause damage to a motor vehicle or to injure a person in a motor vehicle. O. Reg. 239/02, s. 9 (2); O. Reg. 47/13, s. 9.

Luminaires

10. (0.1) The minimum standard for the frequency of inspecting all luminaires to check to see that they are functioning is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 6; O. Reg. 47/13, s. 10 (1).

(1) For conventional illumination, if three or more consecutive luminaires on a highway are not functioning, the minimum standard is to repair the luminaires within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 239/02, s. 10 (1).

(2) For conventional illumination and high mast illumination, if 30 per cent or more of the luminaires on any kilometre of highway are not functioning, the minimum standard is to repair the luminaires within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 239/02, s. 10 (2).

(3) Despite subsection (2), for high mast illumination, if all of the luminaires on consecutive poles are not functioning, the minimum standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the luminaires. O. Reg. 239/02, s. 10 (3).

(4) Despite subsections (1), (2) and (3), for conventional illumination and high mast illumination, if more than 50 per cent of the luminaires on any kilometre of a Class 1 highway with a speed limit of 90 kilometres per hour or more are not functioning, the minimum standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the luminaires. O. Reg. 239/02, s. 10 (4).

(5) Luminaires are deemed to be in a state of repair,

(a) for the purpose of subsection (1), if the number of non-functioning consecutive luminaires does not exceed two;

(b) for the purpose of subsection (2), if more than 70 per cent of luminaires on any kilometre of highway are functioning;

(c) for the purpose of subsection (3), if one or more of the luminaires on consecutive poles are functioning;

(d) for the purpose of subsection (4), if more than 50 per cent of luminaires on any kilometre of highway are functioning. O. Reg. 239/02, s. 10 (5); O. Reg. 47/13, s. 10 (2).

(6) Subsections (1), (2) and (3) only apply to,

(a) Class 1 and Class 2 highways; and

(b) Class 3, Class 4 and Class 5 highways with a posted speed of 80 kilometres per hour or more. O. Reg. 239/02, s. 10 (6).

(7) In this section,

"conventional illumination" means lighting, other than high mast illumination, where there are one or more luminaires per pole;

"high mast illumination" means lighting where there are three or more luminaires per pole and the height of the pole exceeds 20 metres;

"luminaire" means a complete lighting unit consisting of,

(a) a lamp, and

(b) parts designed to distribute the light, to position or protect the lamp and to connect the lamp to the power supply. O. Reg. 239/02, s. 10 (7).

TABLE
LUMINAIRES

Class of Highway	Time
1	7 days
2	7 days
3	14 days
4	14 days
5	14 days

O. Reg. 239/02, s. 10, Table.

Signs

11. (0.1) The minimum standard for the frequency of inspecting signs of a type listed in subsection (2) to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 7 (1); O. Reg. 47/13, s. 11 (1).

(0.2) A sign that has been inspected in accordance with subsection (0.1) is deemed to be in a state of repair with respect to the retro-reflectivity requirements of the Ontario Traffic Manual until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the sign has ceased to meet these requirements. O. Reg. 47/13, s. 11 (2).

(1) If any sign of a type listed in subsection (2) is illegible, improperly oriented, obscured or missing, the minimum standard is to deploy resources as soon as practicable after becoming aware of the fact to repair or replace the sign. O. Reg. 239/02, s. 11 (1); O. Reg. 23/10, s. 7 (2).

(2) This section applies to the following types of signs:

1. Checkerboard.
2. Curve sign with advisory speed tab.
3. Do not enter.

3.1 Load Restricted Bridge.

3.2 Low Bridge.

3.3 Low Bridge Ahead.

4. One Way.
5. School Zone Speed Limit.
6. Stop.
7. Stop Ahead.
8. Stop Ahead, New.
9. Traffic Signal Ahead, New.

10. Two-Way Traffic Ahead.
11. Wrong Way.
12. Yield.
13. Yield Ahead.
14. Yield Ahead, New. O. Reg. 239/02, s. 11 (2); O. Reg. 23/10, s. 7 (3).

Regulatory or warning signs

12. (1) The minimum standard for the frequency of inspecting regulatory signs or warning signs to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 8; O. Reg. 47/13, s. 12 (1).

(1.1) A regulatory sign or warning sign that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to the retro-reflectivity requirements of the Ontario Traffic Manual until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the sign has ceased to meet these requirements. O. Reg. 47/13, s. 12 (2).

(2) If a regulatory sign or warning sign is illegible, improperly oriented, obscured or missing, the minimum standard is to repair or replace the sign within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 23/10, s. 8.

(3) In this section,

"regulatory sign" and "warning sign" have the same meanings as in the Ontario Traffic Manual, except that they do not include a sign listed in subsection 11 (2) of this Regulation. O. Reg. 23/10, s. 8.

TABLE
REGULATORY AND WARNING SIGNS

Class of Highway	Time
1	7 days
2	14 days
3	21 days
4	30 days
5	30 days

O. Reg. 239/02, s. 12, Table.

Traffic control signal systems

13. (1) If a traffic control signal system is defective in any way described in subsection (2), the minimum standard is to deploy resources as soon as practicable after becoming aware of the defect to repair the defect or replace the defective component of the traffic control signal system. O. Reg. 239/02, s. 13 (1).

(2) This section applies if a traffic control signal system is defective in any of the following ways:

1. One or more displays show conflicting signal indications.
2. The angle of a traffic control signal or pedestrian control indication has been changed in such a way that the traffic or pedestrian facing it does not have clear visibility of the information conveyed or that it conveys confusing information to traffic or pedestrians facing other directions.
3. A phase required to allow a pedestrian or vehicle to safely travel through an intersection fails to occur.
4. There are phase or cycle timing errors interfering with the ability of a pedestrian or vehicle to safely travel through an intersection.
5. There is a power failure in the traffic control signal system.
6. The traffic control signal system cabinet has been displaced from its proper position.
7. There is a failure of any of the traffic control signal support structures.
8. A signal lamp or a pedestrian control indication is not functioning.
9. Signals are flashing when flashing mode is not a part of the normal signal operation. O. Reg. 239/02, s. 13 (2).

(3) Despite subsection (1) and paragraph 8 of subsection (2), if the posted speed of all approaches to the intersection or location of the non-functioning signal lamp or pedestrian control indication is less than 80 kilometres per hour and the signal that is not functioning is a green or a pedestrian "walk" signal, the minimum standard is to repair or replace the defective component by the end of the next business day. O. Reg. 239/02, s. 13 (3).

(4) In this section and section 14,

"cycle" means a complete sequence of traffic control indications at a location;

"display" means the illuminated and non-illuminated signals facing the traffic;

"indication" has the same meaning as in the *Highway Traffic Act*;

"phase" means a part of a cycle from the time where one or more traffic directions receive a green indication to the time where one or more different traffic directions receive a green indication;

"power failure" means a reduction in power or a loss in power preventing the traffic control signal system from operating as intended;

"traffic control signal" has the same meaning as in the *Highway Traffic Act*;

"traffic control signal system" has the same meaning as in the *Highway Traffic Act*. O. Reg. 239/02, s. 13 (4).

Traffic control signal system sub-systems

14. (1) The minimum standard is to inspect, test and maintain the following traffic control signal system sub-systems once per calendar year, with each inspection taking place not more than 16 months from the previous inspection:

1. The display sub-system, consisting of traffic signal and pedestrian crossing heads, physical support structures and support cables.
2. The traffic control sub-system, including the traffic control signal cabinet and internal devices such as timer, detection devices and associated hardware, but excluding conflict monitors.
3. The external detection sub-system, consisting of detection sensors for all vehicles, including emergency and railway vehicles and pedestrian push- buttons. O. Reg. 239/02, s. 14 (1); O. Reg. 47/13, s. 13 (1).

(1.1) A traffic control signal system sub-system that has been inspected, tested and maintained in accordance with subsection (1) is deemed to be in a state of repair until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the traffic control signal system sub-system has ceased to be in a state of repair. O. Reg. 47/13, s. 13 (2).

(2) The minimum standard is to inspect, test and maintain conflict monitors every five to seven months and at least twice per calendar year. O. Reg. 239/02, s. 14 (2); O. Reg. 47/13, s. 13 (3).

(2.1) A conflict monitor that has been inspected, tested and maintained in accordance with subsection (2) is deemed to be in a state of repair until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the conflict monitor has ceased to be in a state of repair. O. Reg. 47/13, s. 13 (4).

(3) In this section,

"conflict monitor" means a device that continually checks for conflicting signal indications and responds to a conflict by emitting a signal. O. Reg. 239/02, s. 14 (3).

Bridge deck spalls

15. (1) If a bridge deck spall exceeds both the surface area and depth set out in the Table to this section, the minimum standard is to repair the bridge deck spall within the time set out in the Table after becoming aware of the fact. O. Reg. 239/02, s. 15 (1).

(2) A bridge deck spall is deemed to be in a state of repair if its surface area or depth is less than or equal to that set out in the Table. O. Reg. 239/02, s. 15 (2); O. Reg. 47/13, s. 14.

(3) In this section,

"bridge deck spall" means a cavity left by one or more fragments detaching from the paved surface of the roadway or shoulder of a bridge. O. Reg. 239/02, s. 15 (3).

TABLE
BRIDGE DECK SPALLS

Class of Highway	Surface Area	Depth	Time
1	600 cm²	8 cm	4 days
2	800 cm²	8 cm	4 days
3	1,000 cm²	8 cm	7 days
4	1,000 cm²	8 cm	7 days
5	1,000 cm²	8 cm	7 days

O. Reg. 239/02, s. 15, Table.

Roadway surface discontinuities

16. (1) If a surface discontinuity on a roadway, other than a surface discontinuity on a bridge deck, exceeds the height set out in the Table to this section, the minimum standard is to repair the surface discontinuity within the time set out in the Table after becoming aware of the fact. O. Reg. 23/10, s. 9.

(1.1) A surface discontinuity on a roadway, other than a surface discontinuity on a bridge deck, is deemed to be in a state of repair if its height is less than or equal to the height set out in the Table to this section. O. Reg. 47/13, s. 15.

(2) If a surface discontinuity on a bridge deck exceeds five centimetres, the minimum standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the surface discontinuity on the bridge deck. O. Reg. 23/10, s. 9.

(2.1) A surface discontinuity on a bridge deck is deemed to be in a state of repair if its height is less than or equal to five centimetres. O. Reg. 47/13, s. 15.

(3) In this section,

"surface discontinuity" means a vertical discontinuity creating a step formation at joints or cracks in the paved surface of the roadway, including bridge deck joints, expansion joints and approach slabs to a bridge. O. Reg. 23/10, s. 9.

TABLE
SURFACE DISCONTINUITIES

Class of Highway	Height	Time
1	5 cm	2 days
2	5 cm	2 days
3	5 cm	7 days
4	5 cm	21 days
5	5 cm	21 days

O. Reg. 239/02, s. 16, Table.

Sidewalk surface discontinuities

16.1 (1) The minimum standard for the frequency of inspecting sidewalks to check for surface discontinuity is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 10; O. Reg. 47/13, s. 16 (1).

(1.1) A sidewalk that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to any surface discontinuity until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge of the presence of a surface discontinuity in excess of two centimetres. O. Reg. 47/13, s. 16 (2).

(2) If a surface discontinuity on a sidewalk exceeds two centimetres, the minimum standard is to treat the surface discontinuity within 14 days after acquiring actual knowledge of the fact. O. Reg. 23/10, s. 10; O. Reg. 47/13, s. 16 (3).

(2.1) A surface discontinuity on a sidewalk is deemed to be in a state of repair if it is less than or equal to two centimetres. O. Reg. 47/13, s. 16 (4).

(3) For the purpose of subsection (2), treating a surface discontinuity on a sidewalk means taking reasonable measures to protect users of the sidewalk from the discontinuity, including making permanent or temporary repairs, alerting users' attention to the discontinuity or preventing access to the area of discontinuity. O. Reg. 23/10, s. 10.

(4) In this section,

"surface discontinuity" means a vertical discontinuity creating a step formation at joints or cracks in the surface of the sidewalk. O. Reg. 23/10, s. 10.

REVIEW OF REGULATION

Review

17. (1) The Minister of Transportation shall conduct a review of this Regulation and Ontario Regulation 612/06 (Minimum Maintenance Standards for Highways in the City of Toronto) made under the *City of Toronto Act, 2006* every five years. O. Reg. 613/06, s. 2.

(2) Despite subsection (1), the first review after the completion of the review started before the end of 2007 shall be started five years after the day Ontario Regulation 23/10 is filed. O. Reg. 23/10, s. 11.

18. OMITTED (PROVIDES FOR COMING INTO FORCE OF PROVISIONS OF THIS REGULATION). O. Reg. 239/02, s. 18.

Asset Management Plan
Overview

	Approved 2017	Proposed 2018	Projection 2019	Projection 2020	Projection 2021	Projection 2022	Projection 2023	Projection 2024	Projection 2025	Projection 2026	Projection 2027	Projection 2028	Projection 2029	Projection 2030	Projection 2031	Projection 2032	Projection 2033	Projection 2034	Projection 2035	Projection 2036	Projection 2037
Total Municipal Taxation	2,833,780	2,991,380	3,157,429	3,330,684	3,498,762	3,674,718	3,851,461	4,034,460	4,224,315	4,421,397	4,622,149	4,823,511	5,034,552	5,249,182	5,458,739	5,674,777	5,888,315	6,095,115	6,307,804	6,526,956	6,753,034
Grants Applied For		1,286,590																			
Other Revenues	1,928,263	2,349,033	1,976,841	1,964,892	1,964,964	1,993,042	1,967,123	1,969,602	1,970,390	1,999,330	1,975,532	1,980,381	1,983,774	2,015,605	1,981,258	1,979,436	1,985,432	2,035,302	2,003,941	2,000,701	1,989,803
Debt	-	1,336,000	270,000	218,000	-	1,018,000	405,000	-	430,000	465,000	255,000	650,000	-	-	-	-	-	-	-	-	-
Unfinanced	100,000	149,017	190,000	-	40,000	-	-	77,000	-	-	42,000	-	195,000	140,000	115,000	10,000	-	-	-	-	-
	4,862,043	8,112,020	5,594,270	5,513,576	5,503,726	6,685,760	6,223,584	6,081,062	6,624,705	6,885,727	6,894,681	7,453,892	7,213,326	7,404,787	7,554,997	7,664,213	7,873,747	8,130,417	8,311,745	8,527,657	8,742,837
Operating	4,145,620	4,273,180	4,339,575	4,469,763	4,603,856	4,771,971	4,884,230	5,030,757	5,181,680	5,367,130	5,497,244	5,662,162	5,832,026	6,036,987	6,187,197	6,372,813	6,563,997	6,790,917	6,963,745	7,172,657	7,387,837
Capital	741,750	3,838,840	1,254,695	1,043,814	899,871	1,913,789	1,339,353	1,050,315	1,443,025	1,518,596	1,397,436	1,791,730	1,381,300	1,367,800	1,367,800	1,291,400	1,309,750	1,339,500	1,348,000	1,355,000	1,355,000
Total Expenses	4,887,370	8,112,020	5,594,270	5,513,576	5,503,726	6,685,760	6,223,584	6,081,072	6,624,705	6,885,727	6,894,681	7,453,892	7,213,326	7,404,787	7,554,997	7,664,213	7,873,747	8,130,417	8,311,745	8,527,657	8,742,837
Overall Taxation increase	9.5%	5.6%	5.6%	5.5%	5.0%	5.0%	4.8%	4.8%	4.7%	4.7%	4.5%	4.4%	4.4%	4.3%	4.0%	4.0%	3.8%	3.5%	3.5%	3.5%	3.5%
Taxation increase Due to Operating	9.3%	4.5%	4.5%	4.5%	4.0%	4.0%	3.8%	3.7%	3.7%	3.7%	3.5%	3.5%	3.5%	3.4%	3.5%	3.4%	3.3%	3.0%	3.4%	3.4%	3.5%
Taxation increase Due to Capital	0.2%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.1%	0.9%	0.9%	0.8%	0.5%	0.5%	0.5%	0.5%	0.1%	0.1%	0.0%
Debt Balance	1,148,798	2,176,128	2,057,158	1,850,888	1,454,303	2,159,503	2,180,553	1,776,353	1,802,453	1,875,053	1,679,653	1,888,053	1,526,753	1,178,953	831,153	559,753	385,003	230,503	97,503	32,503	3
Unfinanced balance	308,185	298,882	488,882	488,882	528,882	528,882	528,882	605,882	588,382	588,382	630,382	630,382	825,382	965,382	1,080,382	1,090,382	975,382	810,382	615,382	345,382	42,882
Total Debt/Unfinanced	1,456,983	2,475,010	2,546,040	2,339,770	1,983,185	2,688,385	2,709,435	2,382,235	2,390,835	2,463,435	2,310,035	2,518,435	2,352,135	2,144,335	1,911,535	1,650,135	1,360,385	1,040,885	712,885	377,885	42,885
PROPOSED as part of 2016 Asset Management Plan																					
Overall Taxation increase	9.5%	8.4%	8.2%	7.0%	6.6%	6.0%	5.7%	5.0%	4.9%	4.2%	4.1%										
Taxation increase Due to Operating	9.3%	7.8%	4.2%	4.0%	3.8%	3.7%	3.6%	3.5%	3.4%	3.4%	3.3%										
Taxation increase Due to Capital	20.0%	60.0%	4.1%	3.1%	2.8%	2.3%	2.1%	1.5%	1.5%	90.0%	80.0%										
Debt Balance	1,148,798	2,061,748	2,182,818	2,053,388	1,766,433	218,933	1,957,173	1,570,413	1,539,903	1,516,593	1,451,533										
Unfinanced balance	259,276	643,972	793,972	659,276	609,276	409,276	349,276	134,276	(40,274)	(440,724)	(850,724)										
Total Debt/Unfinanced	1,408,074	2,705,720	2,976,790	2,712,664	2,375,709	628,209	2,306,449	1,704,689	1,499,629	1,075,869	600,809										

Asset Management Plan
Capital

Capital	Approved 2017 BUDGET	Proposed 2018 Budget	2019 Projection	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection	2025 Projection	2026 Projection	2027 Projection	2028 Projection	2029 Projection	2030 Projection	2031 Projection	2032 Projection	2033 Projection	2034 Projection	2035 Projection	2036 Projection	2037 Projection
TAXATION FOR CAPITAL & Debt	255,290	284,530	314,695	345,814	379,871	415,789	454,353	493,315	533,025	573,596	620,436	661,730	706,300	747,800	772,800	801,400	829,750	859,500	868,000	875,000	875,000
GRANTS - CAPITAL	248,090	333,100	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000
RESERVES AND DEV'P CHGS	138,370	449,603	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
TOTAL CAPITAL INCOME	**641,750**	**1,067,233**	**794,695**	**825,814**	**859,871**	**895,789**	**934,353**	**973,315**	**1,013,025**	**1,053,596**	**1,100,436**	**1,141,730**	**1,186,300**	**1,227,800**	**1,252,800**	**1,281,400**	**1,309,750**	**1,339,500**	**1,348,000**	**1,355,000**	**1,355,000**
GRANTS - CAPITAL Applied For		1,286,590																			
TOTAL EXTRAORDINARY INCOME	**0**	**1,286,590**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Debenture/Grant - Roads	-	635,000											-	-	-	-	-	-	-	-	-
Debenture - Equipment		701,000	270,000	218,000		1,018,000	405,000		430,000	465,000	255,000	650,000					-	-	-	-	-
CAPITAL UNFINANCED/MISC	100,000	149,017	190,000		40,000			77,000			42,000		195,000	140,000	115,000	10,000					
TOTAL DEBT/UNFINANCE	**100,000**	**1,485,017**	**460,000**	**218,000**	**40,000**	**1,018,000**	**405,000**	**77,000**	**430,000**	**465,000**	**297,000**	**650,000**	**195,000**	**140,000**	**115,000**	**10,000**	**0**	**0**	**0**	**0**	**0**
TOTAL DEBT/UNFINANCE	**100,000**	**1,485,017**	**460,000**	**218,000**	**40,000**	**1,018,000**	**405,000**	**77,000**	**430,000**	**465,000**	**297,000**	**650,000**	**195,000**	**140,000**	**115,000**	**10,000**	**0**	**0**	**0**	**0**	**0**
TOTAL CAPITAL REVENUE	**741,750**	**3,838,840**	**1,254,695**	**1,043,814**	**899,871**	**1,913,789**	**1,339,353**	**1,050,315**	**1,443,025**	**1,518,596**	**1,397,436**	**1,791,730**	**1,381,300**	**1,367,800**	**1,367,800**	**1,291,400**	**1,309,750**	**1,339,500**	**1,348,000**	**1,355,000**	**1,355,000**
Roads	284,500	2,280,540	400,725	24,044	383,286	435,989	450,403	461,115	474,125	661,196	505,036	1,315,630	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Solid Waste	-	30,000	-	50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Facilities	91,890	237,310	70,000	182,000	-	-	220,000	-	50,000	115,000	35,000	27,500	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Land Improvements	-	-	-	-	-	-	-	110,000	40,000	-	-	-	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Vehicle and Equipment	64,500	824,000	395,000	363,500	120,000	1,165,000	285,000	75,000	457,500	350,000	407,000	7,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Total	440,890	3,371,850	865,725	619,544	503,286	1,600,989	955,403	646,115	1,021,625	1,126,196	947,036	1,350,130	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000
Debt Payments	241,870	308,670	388,970	424,270	396,585	312,800	383,950	404,200	403,900	392,400	450,400	441,600	361,300	347,800	347,800	271,400	174,750	154,500	133,000	65,000	32,500
Unfinance Payment	58,990	158,320							17,500							-	115,000	165,000	195,000	270,000	302,500
Total Capital Expenditures	**741,750**	**3,838,840**	**1,254,695**	**1,043,814**	**899,871**	**1,913,789**	**1,339,353**	**1,050,315**	**1,443,025**	**1,518,596**	**1,397,436**	**1,791,730**	**1,381,300**	**1,367,800**	**1,367,800**	**1,291,400**	**1,309,750**	**1,339,500**	**1,348,000**	**1,355,000**	**1,355,000**

Roads

Asset ID 1	Asset Name 1, 2	Detailed Asset Description (Gravel/LCB/HL4) 1, 2	Projected Replacement or Upgrade Year	Construction Length (km) 1	Replacement and/or Maintenance Cost 3	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
RD01286b	Wolfe Rapids Rd	LCB	2018	0.04	3,206	5,000	-	-	-	-	-	-	-	-	-	-
RD00253	Barrett Chute Rd	HL4	2018	3.40	1,473,600	1,310,430	-	-	-	-	-	-	-	-	-	-
RD00519	Flying Club Rd	LCB	2018	0.90	72,131	59,580	-	-	-	-	-	-	-	-	-	-
RD00851a	Mary Joanne Dr	HL4	2018	0.40	87,610	87,000	-	-	-	-	-	-	-	-	-	-
RD00851b	Mary Joanne Dr Cul De Sac	HL4	2018	0.04	6,000	6,000	-	-	-	-	-	-	-	-	-	-
RD00316	Barryvale Rd	HL4	2018	4.80	760,000	802,530	-	-	-	-	-	-	-	-	-	-
0	Right of Way	0	2018	0.00	10,000	10,000	-	-	-	-	-	-	-	-	-	-
RD00441b	Ferguson Lake Rd	LCB	2019	1.10	88,160	-	88,160	-	-	-	-	-	-	-	-	-
RD01324	Pine Street	LCB	2019	0.30	24,044	-	24,044	-	-	-	-	-	-	-	-	-
RD01459a	Pucker St	LCB	2019	1.40	112,203	-	112,203	-	-	-	-	-	-	-	-	-
RD01430b	Mt. St. Patrick Rd	LCB	2019	0.10	8,015	-	8,015	-	-	-	-	-	-	-	-	-
RD00217	Airds Lake Rd	LCB	2019	1.20	96,174	-	96,174	-	-	-	-	-	-	-	-	-
RD01430a	Mt. St. Patrick Rd	LCB	2019	0.90	72,131	-	72,131	-	-	-	-	-	-	-	-	-
RD00598	Ginza Rd	LCB	2020	0.30	24,044	-	-	24,044	-	-	-	-	-	-	-	-
RD01063	Pheasant Run	LCB	2021	1.55	124,225	-	-	-	124,225	-	-	-	-	-	-	-
RD01049	Parnell St	HL4	2021	0.12	15,725	-	-	-	15,725	-	-	-	-	-	-	-
R0036	Flat Rd	LCB	2021	1.10	88,160	-	-	-	88,160	-	-	-	-	-	-	-
RD00442a	Ferguson Lake Rd	LCB	2021	0.90	72,131	-	-	-	72,131	-	-	-	-	-	-	-
RD01146	O'Neill Point Rd (Squaw Point Rd)	HL4	2021	0.12	15,725	-	-	-	15,725	-	-	-	-	-	-	-
RD00823	Main Street	LCB	2021	0.20	16,029	-	-	-	16,029	-	-	-	-	-	-	-
RD01063c	Pheasant Cul de Sac	LCB	2021	0.04	3,206	-	-	-	3,206	-	-	-	-	-	-	-
RD01459c	Pucker St	LCB	2021	0.60	48,087	-	-	-	48,087	-	-	-	-	-	-	-
RD00441d	Ferguson Lake Road	LCB	2022	1.85	148,268	-	-	-	-	148,268	-	-	-	-	-	-
RD01150	St. Joseph Blvd	LCB	2022	0.20	16,029	-	-	-	-	16,029	-	-	-	-	-	-
RD00392	Church St	LCB	2022	1.30	104,189	-	-	-	-	104,189	-	-	-	-	-	-
RD00441a	Ferguson Lake Rd	LCB	2022	0.65	52,094	-	-	-	-	52,094	-	-	-	-	-	-
RD00511a	Fleming Lane/Drive	LCB	2022	1.00	80,145	-	-	-	-	80,145	-	-	-	-	-	-
RD01055	Partridge Dr.	LCB	2022	0.40	32,058	-	-	-	-	32,058	-	-	-	-	-	-
R0135	Spindle Drift Court Cul de Sac	LCB	2022	0.04	3,206	-	-	-	-	3,206	-	-	-	-	-	-
RD00928	Mowat St	HL4	2023	0.11	14,414	-	-	-	-	-	14,414	-	-	-	-	-
RD01119b	Roseburgh Rd cul de Sac	LCB	2023	0.04	3,206	-	-	-	-	-	3,206	-	-	-	-	-
RD00671	Hutson Lake Rd	LCB	2023	1.60	128,232	-	-	-	-	-	128,232	-	-	-	-	-
RD00859a	Matawatchan Rd	LCB	2023	3.80	304,551	-	-	-	-	-	304,551	-	-	-	-	-
RD01459e	Pucker St	LCB	2024	1.35	108,196	-	-	-	-	-	-	108,196	-	-	-	-
RD00847	Maple St	LCB	2024	0.10	8,015	-	-	-	-	-	-	8,015	-	-	-	-
RD00346	Blake Street	HL4	2024	0.10	13,104	-	-	-	-	-	-	13,104	-	-	-	-
RD01119a	Roseburgh Rd	LCB	2024	0.75	60,109	-	-	-	-	-	-	60,109	-	-	-	-
RD00414	Cooper Hill Rd	LCB	2024	0.20	16,029	-	-	-	-	-	-	16,029	-	-	-	-
RD00859c	Matawatchan Rd	LCB	2024	0.35	28,051	-	-	-	-	-	-	28,051	-	-	-	-
R0134	Spindle Drift Court	LCB	2024	0.50	40,073	-	-	-	-	-	-	40,073	-	-	-	-
RD00511b	Fleming Lane Cul De Sac	LCB	2024	0.04	3,206	-	-	-	-	-	-	3,206	-	-	-	-
RD00860d	Matawatchan Rd	LCB	2024	2.30	184,334	-	-	-	-	-	-	184,334	-	-	-	-
RD00427	Eastern Ave	LCB	2025	0.40	32,058	-	-	-	-	-	-	-	32,058	-	-	-
RD00378	Centennial Dr	LCB	2025	1.05	84,152	-	-	-	-	-	-	-	84,152	-	-	-
RD00340a	Bluff Point Rd	LCB	2025	1.00	80,145	-	-	-	-	-	-	-	80,145	-	-	-
RD00532	Francis St.	HL4	2025	0.55	72,072	-	-	-	-	-	-	-	72,072	-	-	-

Asset ID 1	Asset Name 1, 2	Detailed Asset Description (Gravel/LCB/HL4) 1, 2	Projected Replacement or Upgrade Year	Construction Length (km) 1	Replacement and/or Maintenance Cost 3	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
RD00602	Gladstone St	HL4	2025	0.08	10,483	-	-	-	-	-	-	-	10,483	-	-	-
RD01179b	Tatty Hill Rd.	LCB	2025	0.20	16,029	-	-	-	-	-	-	-	16,029	-	-	-
RD00479	Flat Rd	LCB	2025	1.50	120,218	-	-	-	-	-	-	-	120,218	-	-	-
RD00819	Madawaska St	HL4	2025	0.45	58,968	-	-	-	-	-	-	-	58,968	-	-	-
RD00752	Kennedy Rd	LCB	2026	1.85	148,268	-	-	-	-	-	-	-	-	148,268	-	-
RD00860c	Matawatchan Rd	LCB	2026	2.20	176,319	-	-	-	-	-	-	-	-	176,319	-	-
RD00545	Fraser Rd	LCB	2026	3.80	304,551	-	-	-	-	-	-	-	-	304,551	-	-
RD01286a	Wolfe Rapids Rd	LCB	2026	0.40	32,058	-	-	-	-	-	-	-	-	32,058	-	-
RD01282a	Winsum Court Rd	LCB	2027	0.15	12,022	-	-	-	-	-	-	-	-	-	12,022	-
RD00695	Hyland Creek Rd	HL4	2027	0.90	117,936	-	-	-	-	-	-	-	-	-	117,936	-
RD01282b	Winsum Court Rd	LCB	2027	0.04	3,206	-	-	-	-	-	-	-	-	-	3,206	-
RD00644	Graphite Bay Rd	LCB	2027	3.45	276,500	-	-	-	-	-	-	-	-	-	276,500	-
RD00724b	Jim Wallace Road Cul de Sac	LCB	2027	0.04	3,206	-	-	-	-	-	-	-	-	-	3,206	-
RD01068a	Pine Hill Rd	LCB	2027	0.15	12,022	-	-	-	-	-	-	-	-	-	12,022	-
RD01179a	Tatty Hill Rd.	LCB	2027	1.00	80,145	-	-	-	-	-	-	-	-	-	80,145	-
RD00961	Mt. St. Patrick Rd	LCB	2028	0.90	72,131	-	-	-	-	-	-	-	-	-	-	72,131
R0003a	Algoma Dr	HL4	2028	0.30	39,312	-	-	-	-	-	-	-	-	-	-	39,312
RD00680	Hydro Dam Rd	HL4	2028	5.70	746,928	-	-	-	-	-	-	-	-	-	-	746,928
RD00441c	Ferguson Lake Road	LCB	2028	0.60	48,087	-	-	-	-	-	-	-	-	-	-	48,087
RD01068b	Pine Hill Road Cul de Sac	LCB	2028	0.04	3,206	-	-	-	-	-	-	-	-	-	-	3,206
RD00442b	Ferguson Lake Rd	LCB	2028	0.25	20,036	-	-	-	-	-	-	-	-	-	-	20,036
RD00724a	Jim Wallace Rd	LCB	2028	0.55	44,080	-	-	-	-	-	-	-	-	-	-	44,080
R0003b	Algoma Dr Cul-de-sac	HL4	2028	0.04	5,242	-	-	-	-	-	-	-	-	-	-	5,242
RD00766	Kennelly Mountain Rd	LCB	2028	0.50	40,073	-	-	-	-	-	-	-	-	-	-	40,073
RD00860a	Matawatchan Rd	LCB	2028	3.00	240,435	-	-	-	-	-	-	-	-	-	-	240,435
RD00860b	Matawatchan Rd	LCB	2028	0.70	56,102	-	-	-	-	-	-	-	-	-	-	56,102
	Total				**10,246,884**	**2,280,540**	**400,725**	**24,044**	**383,286**	**435,989**	**450,403**	**461,115**	**474,125**	**661,196**	**505,036**	**1,315,630**

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Roads
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1, 2]	Location[1]	Detailed Asset Description (Gravel/LCB/HL4) [1, 2]	Construction Length (km) [1]	Year in Service	Asset Life Expectancy (years) [2]	Remaining Useful Life (from 2017) [2]	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost) 2	2017 Accumulated Amortization 2	2017 Netbook Value 2	Replacement and/or Maintenance Cost [3]	Road Condition Rating [1, 5]	Reconstruction Required (explain in comments)	Road Width (M)	Speed Limit (km)	Level of Service (Class of Road) [6]
RD00253	Barrett Chute Rd	00-3+400 (Calabogie	HL4	3.40	2002	16	1	2018	$ 299,854	$ 299,854	$ -	$ 1,473,600	Now Need	YES	5.8	60	5
RD00316	Barryvale Rd	000-4+800 (Lanark Rd	HL4	4.80	2002	16	1	2018	$ 526,401	$ 526,401	$ -	$ 760,000	Now Need		5.8	60	5
RD00519	Flying Club Rd	0+000-0+900	LCB	0.90	2000	18	1	2018	$ 56,117	$ 56,117	$ -	$ 72,131	Now Need		4.0	40	5
RD00851a	Mary Joanne Dr	0-0+400 *(Barrett Chut*	HL4	0.40	1997	21	1	2018	$ 24,140	$ 24,140	$ -	$ 87,610	Poor		6.0	80	5
RD00851b	Mary Joanne Dr Cul De Sac		HL4	0.04	1997	21	1	2018				$ 6,000	Poor		6.0	80	5
	Right of Way							2018				$ 10,000	Fair				
RD01286b	Wolfe Rapids Rd		LCB	0.04	1997	21	1	2018				$ 3,206	Fair		5.8	80	5
RD00217	Airds Lake Rd	0-1+200 *(Matawatcha*	LCB	1.20	2002	17	2	2019	$ 102,807	$ 102,807	$ -	$ 96,174	Now Need		5.8	40	5
RD00441b	Ferguson Lake Rd	4+800-5+900	LCB	1.10	1997	22	2	2019				$ 88,160	Now Need		5.8	80	5
RD01430a	Mt. St. Patrick Rd	0+900-1+800	LCB	0.90	2008	11	2	2019	$ 25,084	$ 15,050	$ 10,034	$ 72,131	Now Need		6.0	80	5
RD01430b	Mt. St. Patrick Rd	1+800-1+900	LCB	0.10	2008	11	2	2019				$ 8,015	Now Need		6.0	80	5
RD01324	Pine Street	0+000-0+300	LCB	0.30	1997	22	2	2019	$ 18,476	$ 18,476	$ -	$ 24,044	Now Need		5.5	50	5
RD01459a	Pucker St	000-1+400 *(Norton R*	LCB	1.40	1998	21	2	2019	$ 424,775	$ 198,228	$ 226,547	$ 112,203	Now Need		6.0	80	5
RD00598	Ginza Rd	0+000-0+300	LCB	0.30	1997	23	3	2020	$ 7,765	$ 7,765	$ -	$ 24,044	Poor		5.8	50	5
RD00442a	Ferguson Lake Rd	0-0+900 (Calabogie F	LCB	0.90	1997	24	4	2021	$ 279,623	$ 279,623	$ -	$ 72,131	Poor		5.5	60	5
R0036	Flat Rd	5+600-6+700	LCB	1.10	2006	15	4	2021	$ 65,000		$ 65,000	$ 88,160	Poor		6.7	80	5
RD00823	Main Street	0+000-0+200	LCB	0.20	1997	24	4	2021	$ 8,575	$ 8,575	$ -	$ 16,029	Poor		5.5	50	5
RD01146	O'Neill Point Rd (Squaw Point Rd)	0+000-0+120 *(Mill St)*	HL4	0.12	1987	34	4	2021	$ 10,317	$ 8,254	$ 2,063	$ 15,725	Now Need		3.7	50	5
RD01049	Parnell St	000-0+120 *(Lanark R*	HL4	0.12	1997	24	4	2021	$ 10,650	$ 8,520	$ 2,130	$ 15,725	Poor		6.0	50	5
RD01063c	Pheasant Cul de Sac		LCB	0.04	1997	24	4	2021				$ 3,206	Poor		6.0	80	5
RD01063	Pheasant Run	000-1+550 *(Barryvale*	LCB	1.55	1997	24	4	2021	$ 124,418	$ 124,418	$ -	$ 124,225	Poor		6.0	80	5
RD01459c	Pucker St	2+000-2+600	LCB	0.60	1998	23	4	2021				$ 48,087	Now Need		6.0	80	5
RD00392	Church St	0+000-1+300	LCB	1.30	2002	20	5	2022	$ 155,985	$ 93,591	$ 62,394	$ 104,189	Poor		5.5	40	5
RD00441a	Ferguson Lake Rd	1+150-1+800	LCB	0.65	2001	21	5	2022	$ 136,033	$ 136,033	$ -	$ 52,094	Poor		6.7	80	5
RD00441d	Ferguson Lake Road	6+500-8+350	LCB	1.85	1997	25	5	2022				$ 148,268	Poor		5.8	80	5
RD00511a	Fleming Lane/Drive	00-1+000 *(Calabogie*	LCB	1.00	1997	25	5	2022	$ 91,501	$ 91,501	$ -	$ 80,145	Fair		6.0	80	5
RD01055	Partridge Dr.	0+000-0+400	LCB	0.40	2006	16	5	2022	$ 43,092	$ 31,601	$ 11,491	$ 32,058	Poor		6.0	50	5
R0135	Spindle Drift Court Cul de Sac		LCB	0.04	1997	25	5	2022				$ 3,206	Poor		6.0	80	5
RD01150	St. Joseph Blvd	0+000-0+200	LCB	0.20	1997	25	5	2022	$ 5,752	$ 5,752	$ -	$ 16,029	Now Need		5.5	50	5

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Roads
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1, 2]	Location[1]	Detailed Asset Description (Gravel/LCB/HL4) [1, 2]	Construction Length (km) [1]	Year in Service	Asset Life Expectancy (years) [2]	Remaining Useful Life (from 2017) [2]	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost) 2	2017 Accumulated Amortization 2	2017 Netbook Value 2	Replacement and/or Maintenance Cost [3]	Road Condition Rating [1, 5]	Reconstruction Required (explain in comments)	Road Width (M)	Speed Limit (km)	Level of Service (Class of Road) [6]
RD00671	Hutson Lake Rd	0-1+600 *(Matawatcha*	LCB	1.60	2004	19	6	2023	$ 143,519	$ 124,383	$ 19,136	$ 128,232	Poor		5.2	80	5
RD00859a	Matawatchan Rd	3+800 *(Centennial La*	LCB	3.80	2006	17	6	2023	$ 448,790	$ 329,113	$ 119,677	$ 304,551	Poor		5.8	80	5
RD00928	Mowat St	00-0+110 *(Madawaska*	HL4	0.11	1997	26	6	2023	$ 10,847	$ 8,678	$ 2,169	$ 14,414	Poor		6.0	50	5
RD01119b	Roseburgh Rd cul de Sac		LCB	0.04	1997	26	6	2023				$ 3,206	Poor		5.2	80	5
RD00346	Blake Street	00-0+100(Madawaska	HL4	0.10	1997	27	7	2024	$ 86,776	$ 69,421	$ 17,355	$ 13,104	Fair		4.9	50	5
RD00414	Cooper Hill Rd	0+200 (Centennial Lak	LCB	0.20	2000	24	7	2024	$ 15,918	$ 15,918	$ -	$ 16,029	Fair		5.2	80	5
RD00511b	Fleming Lane Cul De Sac		LCB	0.04	1997	27	7	2024				$ 3,206	Poor		6.0	80	5
RD00847	Maple St	00-0+100 *(Calabogie*	LCB	0.10	2006	18	7	2024	$ 10,773	$ 7,900	$ 2,873	$ 8,015	Poor		6.0	50	5
RD00859c	Matawatchan Rd	4+500-4+850	LCB	0.35	2006	18	7	2024				$ 28,051	Fair		5.8	80	5
RD00860d	Matawatchan Rd	11+600-13+900	LCB	2.30	1999	25	7	2024				$ 184,334	Poor		5.8	80	5
RD01459e	Pucker St	8+550-9+850	LCB	1.35	2008	16	7	2024				$ 108,196	Poor		6.0	80	5
RD01119a	Roseburgh Rd	-000-0+750 *(Fraser R*	LCB	0.75	1997	27	7	2024	$ 44,858	$ 44,858	$ -	$ 60,109	Poor		5.2	80	5
R0134	Spindle Drift Court	0+000-0+500	LCB	0.50	1997	27	7	2024	$ 35,818	$ 35,818	$ -	$ 40,073	Poor		6.0	80	5
RD00340a	Bluff Point Rd	-000-1+000 (Lanark R	LCB	1.00	1997	28	8	2025	$ 59,839	$ 59,839	$ -	$ 80,145	Fair		6.4	80	5
RD00378	Centennial Dr	1+050 *(Centennial La*	LCB	1.05	1997	28	8	2025	$ 26,644	$ 26,644	$ -	$ 84,152	Fair		4.9	80	5
RD00427	Eastern Ave	0+000-0+400	LCB	0.40	1997	28	8	2025	$ 11,503	$ 11,503	$ -	$ 32,058	Fair		5.5	80	5
RD00479	Flat Rd	6+700-8+200	LCB	1.50	2006	19	8	2025	$ 719,827	$ 719,827	$ -	$ 120,218	Fair		6.7	80	5
RD00532	Francis St.	0+0+600 *(Madawaski*	HL4	0.55	1992	33	8	2025	$ 69,271	$ 69,271	$ -	$ 72,072	Fair		6.4	50	5
RD00602	Gladstone St	00-0+075 *(Madawaska*	HL4	0.08	1997	28	8	2025	$ 6,508	$ 5,206	$ 1,302	$ 10,483	Fair		4.9	50	5
RD00819	Madawaska St	-000-0+450 *(Lanark R*	HL4	0.45	1992	33	8	2025	$ 64,740	$ 64,740	$ -	$ 58,968	Fair		6.7	40	5
RD01179b	Tatty Hill Rd.	1+500-1+700	LCB	0.20	1998	27	8	2025				$ 16,029	Fair		5.2	80	5
RD00545	Fraser Rd	3+800-5+200 5+200-7+300	LCB	3.80	1997	29	9	2026	$ 332,790	$ 332,790	$ -	$ 304,551	Fair		5.5	50	5
RD00752	Kennedy Rd	00-1+850 *(Calabogie*	LCB	1.85	1999	27	9	2026	$ 131,151	$ 131,151	$ -	$ 148,268	Fair		5.5	40	5
RD00860c	Matawatchan Rd	9+200-11+600	LCB	2.20	1999	27	9	2026				$ 176,319	Fair		5.8	80	5
RD01286a	Wolfe Rapids Rd	0+400 *(Centennial La*	LCB	0.40	1997	29	9	2026	$ 24,635	$ 24,635	$ -	$ 32,058	Fair		5.8	80	5
RD00644	Graphite Bay Rd	00-3+450 *(Hydro Dam*	LCB	3.45	1999	28	10	2027	$ 278,565	$ 278,565	$ -	$ 276,500	Fair		5.8	50	5
RD00695	Hyland Creek Rd	000-0+900 *(Highway 4*	HL4	0.90	1997	30	10	2027	$ 88,137	$ 70,510	$ 17,627	$ 117,936	Fair		4.9	80	5
RD00724b	Jim Wallace Road Cul de Sac		LCB	0.04	1997	30	10	2027				$ 3,206	Good		6.4	40	5
RD01068a	Pine Hill Rd	0+000-0+150	LCB	0.15	1997	30	10	2027	$ 10,795	$ 10,795	$ -	$ 12,022	Good		4.9	80	5

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Detailed Summary of Municipal Assets - Roads
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RD01179a	Tatty Hill Rd.	)00-1+000 *(Barryvale*	LCB	1.00	1998	29	10	2027	$ 111,588	$ 111,588	$ -	$ 80,145	Fair		5.2	80	5
RD01282a	Winsum Court Rd	0-0+150 *(Barrett Chut*	LCB	0.15	2004	23	10	2027	$ 15,097	$ 13,084	$ 2,013	$ 12,022	Fair		6.0	80	5
RD01282b	Winsum Court Rd		LCB	0.04	2004	23	10	2027				$ 3,206	Fair		6.0	80	5
R0003a	Algoma Dr	00-0+300 (Bluff Point	HL4	0.30	2012	16	11	2028	$ -	$ -	$ -	$ 39,312	Good		6.0	80	5
R0003b	Algoma Dr Cul-de-sac		HL4	0.04	2012	16	11	2028	$ -	$ -	$ -	$ 5,242	Good		6.0	80	5
RD00442b	Ferguson Lake Rd	0+900-1+150	LCB	0.25	2001	27	11	2028				$ 20,036	Good		6.7	80	5
RD00441c	Ferguson Lake Road	5+900-6+500	LCB	0.60	1997	31	11	2028				$ 48,087	Good		5.8	80	5
RD00680	Hydro Dam Rd	00-5+700 *(Calabogie*	HL4	5.70	1997	31	11	2028	$ 792,828	$ 634,262	$ 158,566	$ 746,928	Fair		6.7	80	5
RD00724a	Jim Wallace Rd	)00-0+550 *(Kennedy F*	LCB	0.55	1997	31	11	2028	$ 37,645	$ 37,645	$ -	$ 44,080	Good		6.4	40	5
RD00766	Kennelly Mountain Rd	)-0+500 *(Mt. St. Patric*	LCB	0.50	2012	16	11	2028	$ 213,669	$ 213,669	$ -	$ 40,073	Good		6.0	80	5
RD00860a	Matawatchan Rd	5+500-8+500	LCB	3.00	1997	31	11	2028	$ 658,900	$ 658,900	$ -	$ 240,435	Fair		6.4	80	5
RD00860b	Matawatchan Rd	8+500-9+200	LCB	0.70	2017	11	11	2028	$ -	$ -	$ -	$ 56,102	Now Need		6.0	80	5
RD00961	Mt. St. Patrick Rd	0+000-0+900	LCB	0.90	2012	16	11	2028	$ 152,323	$ 152,323	$ -	$ 72,131	Good		6.0	80	5
RD01068b	Pine Hill Road Cul de Sac		LCB	0.04	1997	31	11	2028				$ 3,206	Good		4.9	80	5
RD01518	Flat Rd	0-5+600 *Mt. St. Patric*	LCB	5.60	2014	15	12	2029	$ 399,897	$ 26,660	$ 373,237	$ 448,812	Good		6.7	80	5
RD00340b	Campground Sideroad	-0+500 (Ferguson Lal	LCB	0.50	2015	15	13	2030	$ 19,558		$ 19,558	$ 40,073	Good		6.0	80	5
RD00927	Mill St	00-1+400 *(Calabogie*	HL4	1.40	2010	20	13	2030	$ 163,008	$ 163,008	$ (0)	$ 183,456	Good		8.0	40	5
RD01036a	Old Darling Rd	-000-0+250 *(Lanark R*	HL4	0.25	2002	28	13	2030	$ 27,188	$ 16,313	$ 10,875	$ 32,760	Good		4.9	80	5
RD01036b	Old Darling Rd Cul de Sac		HL4	0.04	2002	28	13	2030				$ 5,242	Good		4.9	80	5
RD01142	Spring Town Bridge Rd	00-0+400 *(Calabogie*	HL4	0.40	2005	25	13	2030	$ 42,263	$ 33,810	$ 8,453	$ 52,416	Good		6.0	30	5
RD01211	Thirteenth Fairway	)00-0+120 *(Pheasant I*	LCB	0.12	2002	28	13	2030	$ 8,314	$ 8,314	$ -	$ 9,617	Good		4.9	80	5
RD01242a	Vada Court	0-0+050 *(Jim Wallace*	LCB	0.05	1997	33	13	2030	$ 4,921	$ 4,921	$ -	$ 4,007	Good		6.4	80	5
RD01242b	Vada Court Cul de Sac		LCB	0.04	1997	33	13	2030				$ 3,206	Good		6.4	80	5
RD00859b	Matawatchan Rd	3+800-4+500	LCB	0.70	2006	25	14	2031				$ 56,102	Good		5.8	80	5
RD01459b	Pucker St	1+400-2+000	LCB	0.60	2015	16	14	2031				$ 48,087	Good		6.0	80	5
RD01261a	Wilson Farm Rd	-000-2+300 *(Lanark R*	HL4	2.30	2006	25	14	2031	$ 390,382	$ 171,768	$ 218,614	$ 301,392	Good		6.4	50	5
RD01261b	Wilson Farm Rd Cul de Sac		HL4	0.04	2006	25	14	2031				$ 5,242	Good		6.4	50	5
RD00576	Frontenac Rd	0-4+100 *(Matawatcha*	LCB	1.00	2017	15	15	2032	$ 57,254	$ 57,254	$ -	$ 80,145	Now Need		6.7	80	5
RD01536	Ferguson Lake Rd	1+800-4+800	LCB	3.00	2015	18	16	2033	$ 737,152			$ 240,435	Good		5.8	80	5

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RD01440	Norway Lake Rd	00-2+950 *(Calabogie*	HL4	2.95	2009	25	17	2034	$ 406,104	$ 129,953	$ 276,151	$ 386,568	Good		6.4	50	5
RD01459d	Pucker St	2+600-8+550	HL4	5.90	2008	27	18	2035	$ -	$ -	$ -	$ 773,136	Good		6.0	80	5
RD00859d	Matawatchan Rd	4+850-5+500	LCB	0.65	2016	25	24	2041				$ 52,094	Good		6.4	80	5
RD00215	Airds Lake Rd	1+200-3+400	Gravel	2.20	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.2	80	5
RD00233	Ashdad Rd	-000-3+400 *(Pucker S*	Gravel	3.40	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.8	80	5
RD00248	Aspen Rd	.00 *(Uppper Spruce H*	Gravel	0.10	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.3	80	5
RD00314	Barryvale Rd	4+800-6+000	Gravel	1.20	2012	-	-	-	$ -	$ -	$ -	$ -	Good		5.8	60	5
RD00315	Barryvale Rd Cul de Sac		Gravel	0.04	2012			-					Good		5.8	60	5
RD00349	Black Donald Rd	2+250 *(Centennial La*	Gravel	2.50	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		6.7	80	5
RD00271	Brydges Rd	00-8+100 *(Calabogie*	Gravel	8.10	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.2	80	5
RD00357	Byers Rd	0+000-2-100	Gravel	2.10	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.9	80	5
RD00365	Campground Sideroad	0+500-1+100	Gravel	0.60	2012			-					Fair		5.5	80	5
RD00372	Carnegie Cres.	00-0+ 500 *(Calabogie*	Gravel	0.50	2012	-	-	-	$ -	$ -	$ -	$ -	Poor			80	5
RD00383	Church Farm Rd	000-1+600 *(Tatty Hill F*	Gravel	1.60	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.8	40	5
RD00397	Clark Rd	0-0+700 *(Maloney Mt*	Gravel	0.70	2012	-	-	-	$ -	$ -	$ -	$ -	Poor		3.0	80	5
RD00403	Clyde Lake Rd	0+000-1+400	Gravel	1.40	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.0	80	5
RD00410	Colterman Rd	0+000-1+000 *(Flat Rd)*	Gravel	1.00	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		3.7	80	5
RD00657b	Cul de sac Grassy Bay Rd		Gravel	0.04	2012			-					Good		4.6	80	5
RD00417	Dunavans Rd	000-0+400 *(Highway 4*	Gravel	0.40	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		3.4	80	5
RD00423	Dunns Lake Rd	00-0+500 *(Frontenac*	Gravel	0.50	2012	-	-	-	$ -	$ -	$ -	$ -	Poor		3.0	80	5
RD00430	Elm Rd	000-0+180 *(Kennedy F*	Gravel	0.18	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.8	40	5
RD00433	Emon Lane	-000-0+300 *(Lanark R*	Gravel	0.30	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.6	80	5
RD00475	Finns Rd	000-0+700 *(Highway 4*	Gravel	0.70	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.9	80	5
RD00510	Flying Club Rd	0+900-4+350	Gravel	3.45	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.8	40	5
RD00543	Fraser Rd	00+3+800 *(Calabogie*	Gravel	3.80	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.8	50	5
RD00574	Frontenac Rd	0-3+100 *(Matawatcha*	Gravel	3.10	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.8	80	5
RD00605	Glen Field Rd	0-4+600 *(Matawatcha*	Gravel	4.60	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.6	80	5
RD00622	Grant Rd	+000-5+700 *(Inglis Rd*	Gravel	5.70	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.6	80	5
RD00657a	Grassy Bay Rd	-000-0+600 *(Lanark R*	Gravel	0.60	2012	-	-	-	$ -	$ -	$ -	$ -	Good		4.6	80	5

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RD00660	Halliday Creek Rd	000-0+500 *(Brydges F*	Gravel	0.50	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.3	80	5
RD00666	Holy Well Rd	0-0+850 *(Mt. St. Patric*	Gravel	0.85	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		3.7	80	5
RD00693	Hyland Creek Rd	0+900-5+800	Gravel	4.90	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.9	80	5
RD00715	Inglis Rd	-000-1+200 *(Pucker S*	Gravel	1.20	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		6.0	40	5
RD00730	Juniper	0-1+200 (Matawatcha	Gravel	1.20	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.0	80	5
RD	K&P Trail	000-3+250 *(Barryvale*	Gravel	3.25	2012	-	-	-	$ -	$ -	$ -	$ -	Poor		4.9	30	5
RD00740	Kathleen Rd	0-0+800 *(Black Donal*	Gravel	0.80	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.8	80	5
RD00747	Kellys Rd	-0+200 *(Ferguson Lak*	Gravel	0.20	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.3	80	5
RD00765a	Kennelly Mountain Rd	0+500-3+900	Gravel	3.40	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.5	80	5
RD00765b	Kennelly Mountain Rd	3+900-6+900	Gravel	3.00	2012	-	-	-	$ -	$ -	$ -	$ -	Poor		4.0	80	5
RD00765c	Kennelly Mountain Rd	6+900-8+400	Gravel	1.50	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.9	80	5
RD00791	Kubiseskie Rd	00-0+150 *(Calabogie*	Gravel	0.15	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.0	80	5
RD00796	Lambert Rd.	0+000-0+600	Gravel	0.60	2012	-	-	-	$ -	$ -	$ -	$ -	Fair			80	5
RD00799	Lower Spruce Hedge Rd	0+000-5+000	Gravel	5.00	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.2	40	5
RD00813a	MacNabb Rd	00-0+150 *(Barryvale*	Gravel	0.15	2012	-	-	-	$ -	$ -	$ -	$ -	Good		4.9	50	5
RD00813b	MacNabb Rd Cul de Sac		Gravel	0.04	2012	-	-	-	$ -	$ -	$ -	$ -	Good		4.9	50	5
RD00826	Maloney Mountain Rd	0-5+800 *(Mt. St. Patric*	Gravel	5.80	2012	-	-	-	$ -	$ -	$ -	$ -	Poor		4.3	80	5
RD00918	Marchand/Lacourse	0+000-1+900	Gravel	1.90	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.6	80	5
RD00894	McHugh Rd	200 *(Lower Spruce H*	Gravel	8.20	2012	-	-	-	$ -	$ -	$ -	$ -	Poor		4.0	80	5
RD00913	Merchand Rd	000-0+200 *(Highway 1*	Gravel	0.20	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.0	80	5
RD00951	Milty Lake Rd	0+000-1+900	Gravel	1.90	2012	-	-	-	$ -	$ -	$ -	$ -	Fair			80	5
RD00968	Mulvhill Farm Rd	0-0+600 *(Mt. St. Patric*	Gravel	0.60	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.3	80	5
RD00972	Murphy Rd	00-7+800 *(Calabogie*	Gravel	7.80	2012	-	-	-	$ -	$ -	$ -	$ -	Fair			80	5
RD01015	Newfoundout Rd	0+000-1+300	Gravel	1.30	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		3.7	80	5
	Old Fire Tower Rd	0+000-1+100	Gravel	1.10	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		3.7	80	5
RD01044	Old Matawatchan Rd	00-0+200 *(Calabogie*	Gravel	0.20	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.6	25	5
RD01059	Pennock Lane	0+0+200 *(Matawatcha*	Gravel	0.20	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.3	80	5
RD01074	Popkie Rd	0+650 *(Centennial La*	Gravel	0.70	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.5	80	5
RD01078a	Poplar Way	0+000-0+750 *(Elm St.,*	Gravel	0.75	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		6.7	80	5

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Roads
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1, 2]	Location[1]	Detailed Asset Description (Gravel/LCB/HL4) [1, 2]	Construction Length (km) [1]	Year in Service	Asset Life Expectancy (years) [2]	Remaining Useful Life (from 2017) [2]	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost) 2	2017 Accumulated Amortization 2	2017 Netbook Value 2	Replacement and/or Maintenance Cost [3]	Road Condition Rating [1, 5]	Reconstruction Required (explain in comments)	Road Width (M)	Speed Limit (km)	Level of Service (Class of Road) [6]
RD01078b	Poplar Way Cul de Sac		Gravel	0.04	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		6.7	80	5
RD01114	Riopelle Rd.	00-0+850 *(Calabogie*	Gravel	0.85	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.6	80	5
RD01125	South Side Way	0-1+400 *(Norway Lak*	Gravel	1.40	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.2	40	5
RD01141	Spring Town Bridge Rd	0+400-0+600	Gravel	0.20	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		6.0	30	5
RD01153	Stones Lake Rd	-000-4+700 (Lanark R	Gravel	4.70	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.5	80	5
RD01168	Stoughton SDRD	000-0+800 *(Tatty Hill F*	Gravel	0.80	2012	-	-	-	$ -	$ -	$ -	$ -	Poor		3.0	80	5
RD01173	Sweets Lane	0+300 *(Centennial La*	Gravel	0.40	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.0	80	6
RD0117	Tatty Hill Rd.	1+700-5+150	Gravel	3.45	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.2	80	5
RD01178	Tatty Hill Rd.	1+100-1+500	Gravel	0.40	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		5.2	80	5
RD01195	Teeple Haley Rd	0+000-5+700	Gravel	5.70	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.6	80	5
RD01210	Thirteenth Fairway Cul de Sac		Gravel	0.04	2012	-	-	-	$ -	$ -	$ -	$ -	Good			80	5
RD01214	Tower Hill	00-0+100 (Frontenac	Gravel	0.10	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.3	80	5
RD01218	Upper Spruce Hedge Rd	0+000-4+100	Gravel	4.10	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.9	80	5
RD01245	Vaile Rd	-000-0+750 *(Pucker S*	Gravel	0.75	2012	-	-	-	$ -	$ -	$ -	$ -	Fair		4.6	80	5
RD01253	Wabalac Rd	0+000-1+900	Gravel	1.90	2012	-	-	-	$ -	$ -	$ -	$ -	Fair			80	5
RD01271	Windle Lane	000-1+450 *(Ashdad R*	Gravel	1.45	2012	-	-	-	$ -	$ -	$ -	$ -	Poor		4.6	80	5

Road Type	Total Length in Kilometres (km)	Percentage of Total Road Network (%)
Gravel	132.48	58.79%
Low Class Bituminous (LCB)	75.95	33.70%
Hot Mix Paved (HL4)	16.92	7.51%
TOTAL	***225.35***	***100.00%***

Notes:

1. Township of Greater Madawaska Roads Needs Study (Public Works Department, 2017).
2. Data from Township of Greater Madawaska, Tangible Capital Asset Detail (2017).
3. Replacement Cost Calculated by cost per kilometre multiplied by the length of the road.
4. Based on information supplied by Township of Greater Madawaska.
5. Road Condition Rating are evaluated by 10 to 8 = Good structural condition, minimal maintenance required. 7 to 5 = Fair structural condition, with some maintenance required. Less then 5 = poor structural condition. Ratings under 3 need reconstruction.
6. Road Conditions of 3 or less require reconstruction and an explanation of requirements to be completed.
7.. Level of Service = Township of Greater Madawaska Road Classification.

Vehicle and Equipment

Asset ID 1	Asset Name 1	Operating Department 1	Location 1	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost 3	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
FR00005	98-45 1993 Rescue Van	Fire	12470A Lanark Rd.	2018	122,000	122,000	-	-	-	-	-	-	-	-	-	-
PW00015	Backhoe #2 (1986) - (Case)	Public Works	145 Flat Rd.	2018	114,000	114,000	-	-	-	-	-	-	-	-	-	-
PW00028	V #10 Volvo Excavator	Public Works	12470B Lanark Rd.	2018	200,000	200,000	-	-	-	-	-	-	-	-	-	-
PW01353	2007 Chevy Silverado 3/4 Tonne	Public Works	25991 Hwy 41 Griffith	2018	55,000	55,000	-	-	-	-	-	-	-	-	-	-
0	GPS Units	Public Works	0	2018	28,000	28,000	-	-	-	-	-	-	-	-	-	-
0	Used 4X4 1/2 Ton Truck	Public Works	0	2018	25,000	25,000	-	-	-	-	-	-	-	-	-	-
PR00058	OUTDOOR RINK GRIFFITH (boards)	Parks and Recreation	15 Ginza St.	2019	25,000	-	25,000	-	-	-	-	-	-	-	-	-
PR00125	PLAYSTRUCTURE - GRIFFTH RINK/HALL	Parks and Recreation	15 Ginza St.	2019	30,000	-	30,000	-	-	-	-	-	-	-	-	-
PR01348	PLAYSTRUCTURE (Barnet Park)	Parks and Recreation	5179 Calabogie Rd	2019	30,000	-	30,000	-	-	-	-	-	-	-	-	-
PW00026	V #9 2007 International (Plow Truck)	Public Works	12470B Lanark Rd.	2019	310,000	-	310,000	-	-	-	-	-	-	-	-	-
FR00004	97-24 Volvo Tanker	Fire	12470A Lanark Rd.	2020	300,000	-	-	300,000	-	-	-	-	-	-	-	-
PR00150	Skidoo	Parks and Recreation	-	2020	15,000	-	-	15,000	-	-	-	-	-	-	-	-
PW01300	PORTABLE STEAMER	Public Works	12470B Lanark Rd.	2020	7,500	-	-	7,500	-	-	-	-	-	-	-	-
PW01304	KARCHER PRESSURE WASHER	Public Works	12470B Lanark Rd.	2020	6,000	-	-	6,000	-	-	-	-	-	-	-	-
PW01498	2008 Chevrolet 4x4 1/2 ton	Public Works	12470B Lanark Rd.	2020	35,000	-	-	35,000	-	-	-	-	-	-	-	-
PW00025	Backhoe #3 (2006 Volvo)	Public Works	25991 Hwy 41 Griffith	2021	120,000	-	-	-	120,000	-	-	-	-	-	-	-
EN01476	2010 International Tractor Trailer	Environment	12470B Lanark Rd.	2022	265,000	-	-	-	-	265,000	-	-	-	-	-	-
GG01489	Computer System	General Government	19 Parnell St..	2022	40,000	-	-	-	-	40,000	-	-	-	-	-	-
GG01495	Computer	General Government	19 Parnell St..	2022	5,000	-	-	-	-	5,000	-	-	-	-	-	-
PW00016	Grader #1 (1986) - (Champion)	Public Works	12470B Lanark Rd.	2022	140,000	-	-	-	-	140,000	-	-	-	-	-	-
PW00029	SWEEPER	Public Works	25991 Hwy 41 Griffith	2022	15,000	-	-	-	-	15,000	-	-	-	-	-	-
PW01437	V #8 2010 International 7600SFA (Plow Truck)	Public Works	25991 Hwy 41 Griffith	2022	340,000	-	-	-	-	340,000	-	-	-	-	-	-
PW01500	2010 Tandem Plow Truck	Public Works	12470B Lanark Rd.	2022	310,000	-	-	-	-	310,000	-	-	-	-	-	-
PW01539	V #4 2015Chevy 1 Tonne	Public Works	25992 Hwy 41 Griffith	2022	50,000	-	-	-	-	50,000	-	-	-	-	-	-
PW00017	Grader #2 (1987) - (Champion)	Public Works	25991 Hwy 41 Griffith	2023	140,000	-	-	-	-	-	140,000	-	-	-	-	-
PW00021	V #4 2015Chevy 1 Tonne	Public Works	25992 Hwy 41 Griffith	2023	55,000	-	-	-	-	-	55,000	-	-	-	-	-
PW00146	BRUSH CHIPPER	Public Works	Madawaska Salt Shed	2023	35,000	-	-	-	-	-	35,000	-	-	-	-	-
PW01436	V #7 2015 Chevy 1 Ton	Public Works	12470B Lanark Rd.	2023	55,000	-	-	-	-	-	55,000	-	-	-	-	-
PW01538	V #7 2015 Chevy 1 Ton	Public Works	12470B Lanark Rd.	2024	50,000	-	-	-	-	-	-	50,000	-	-	-	-
FR01469	1/2 Ton Truck Station #1	Fire	12470A Lanark Rd.	2024	25,000	-	-	-	-	-	-	25,000	-	-	-	-
0	Lawn equipment	Public Works	Calabogie	2025	7,500	-	-	-	-	-	-	-	7,500	-	-	-
PW00022	V #5 2005 International (Plow Truck)	Public Works	12470B Lanark Rd.	2018	280,000	280,000	-	-	-	-	-	-	-	-	-	-
FR00003	98-26 2001 Rescue Van	Fire	25991C Hwy 41 Griffith	2025	175,000	-	-	-	-	-	-	-	175,000	-	-	-
FR00009	97-33 Tanker	Fire	25991C Hwy 41 Griffith	2025	200,000	-	-	-	-	-	-	-	200,000	-	-	-
FR00033	Tower and Base	Fire	12470A Lanark Rd	2025	20,000	-	-	-	-	-	-	-	20,000	-	-	-
FR00034	Tower and Base	Fire	25991C Hwy 41 Griffith	2025	20,000	-	-	-	-	-	-	-	20,000	-	-	-
FR01470	1/2 Ton Truck Station #2	Fire	25991C Hwy 41 Griffith	2025	25,000	-	-	-	-	-	-	-	25,000	-	-	-
PR00106	BLEACHERS - CHARBONNEAU BALL DIAMOND	Parks and Recreation	574 Mill St..	2025	10,000	-	-	-	-	-	-	-	10,000	-	-	-
FR01350	Pumper 96-42 Front Line	Fire	12470A Lanark Rd.	2026	350,000	-	-	-	-	-	-	-	-	350,000	-	-
PW00027	Float - 1993 Triaxle	Public Works	12470B Lanark Rd.	2027	42,000	-	-	-	-	-	-	-	-	-	42,000	-
FR01434	Pumper 96-62 Triton LDM 1000 Front Line	Fire	25991C Hwy 41 Griffith	2027	350,000	-	-	-	-	-	-	-	-	-	350,000	-
PR01298	KOHLER GENERATOR	Parks and Recreation	574 Mill St..	2027	15,000	-	-	-	-	-	-	-	-	-	15,000	-
FR00032	PUMP 18 HP	Fire	25991C Hwy 41 Griffith	2028	7,000	-	-	-	-	-	-	-	-	-	-	7,000
			Total		**5,385,500**	**824,000**	**395,000**	**363,500**	**120,000**	**1,165,000**	**285,000**	**75,000**	**457,500**	**350,000**	**407,000**	**7,000**

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Vehicles and Equipment
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Detailed Asset Description (Equipment/ Vehicle) [1]	Operating Department [1]	Location [1]	Year in Service [1]	Asset Life Expectancy (years) [1, 2]	Remaining Useful Life (from 2017) 1	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost Balance) 1	2017 Accumulated Amortization 1	2017 Net Book Value 1	Replacement and/or Upgrade Cost [3]	Condition (good / fair / poor) [3]	Level of Service (1 to 5) [4]
FR00005	98-45 1993 Rescue Van	Vehicle	Fire	12470A Lanark Rd.	2006	12	1	2018	$ 19,916	$ 19,916	$ 0	$ 122,000	***poor***	5
PW00015	Backhoe #2 (1986) - (Case)	Vehicle	Public Works	145 Flat Rd.	1999	19	1	2018	$ 38,350	$ 38,350	$ -	$ 114,000	fair	4
PW00022	V #5 2005 International (Plow Truck)	Vehicle	Public Works	12470B Lanark Rd.	2005	13	1	2018	$ 176,708	$ 153,147	$ 23,561	$ 280,000	fair	5
PW00028	V #10 Volvo Excavator	Vehicle	Public Works	12470B Lanark Rd.	2002	16	1	2018	$ 81,891	$ 81,891	$ -	$ 200,000	fair	4
PW01353	2007 Chevy Silverado 3/4 Tonne	Vehicle	Public Works	25991 Hwy 41 Griffith	2008	10	1	2018	$ 38,582	$ 38,582	$ (0)	$ 55,000	good	5
	GPS Units	Equipment	Public Works		2018	0	1	2018	$ -	$ -	$ -	$ 28,000	***poor***	2
	Used 4X4 1/2 Ton Truck	Vehicle	Public Works		2018	0	1	2018	$ -	$ -	$ -	$ 25,000	***poor***	2
PR00058	OUTDOOR RINK GRIFFITH (boards)	Equipment	Parks and Recreation	15 Ginza St.	2002	17	2	2019	$ 17,529	$ 17,529	$ -	$ 25,000	***poor***	2
PR00125	PLAYSTRUCTURE - GRIFFTH RINK/HALL	Equipment	Parks and Recreation	15 Ginza St.	1997	22	2	2019	$ 5,952	$ 5,952	$ -	$ 30,000	***poor***	2
PR01348	PLAYSTRUCTURE (Barnet Park)	Equipment	Parks and Recreation	5179 Calabogie Rd	2010	9	2	2019	$ 5,053	$ 5,053	$ -	$ 30,000	***poor***	2
PW00026	V #9 2007 International (Plow Truck)	Vehicle	Public Works	12470B Lanark Rd.	2007	12	2	2019	$ 183,004	$ 122,003	$ 61,001	$ 310,000	good	5
FR00004	97-24 Volvo Tanker	Vehicle	Fire	12470A Lanark Rd.	2006	14	3	2020	$ 47,983	$ 47,983	$ -	$ 300,000	good	5
PR00150	Skidoo	Vehicle	Parks and Recreation	-	2005	15	3	2020	$ 12,892	$ 9,454	$ 3,438	$ 15,000	fair	1
PW01300	PORTABLE STEAMER	Equipment	Public Works	12470B Lanark Rd.	1997	23	3	2020	$ 6,075	$ 6,075	$ -	$ 7,500	fair	1
PW01304	KARCHER PRESSURE WASHER	Equipment	Public Works	12470B Lanark Rd.	2005	15	3	2020	$ 5,412	$ 5,412	$ -	$ 6,000	fair	3
PW01498	2008 Chevrolet 4x4 1/2 ton	Vehicle	Public Works	12470B Lanark Rd.	2008	12	3	2020	$ 13,596	$ 9,711	$ 3,885	$ 35,000	fair	
PW00025	Backhoe #3 (2006 Volvo)	Vehicle	Public Works	25991 Hwy 41 Griffith	2006	15	4	2021	$ 79,958	$ 73,295	$ 6,663	$ 120,000	good	4
EN01476	2010 International Tractor Trailer	Vehicle	Environment	12470B Lanark Rd.	2010	12	5	2022	$ 296,117	$ 98,706	$ 197,411	$ 265,000	good	4
GG01489	Computer System	Equipment	General Government	19 Parnell St..	2012	10	5	2022	$ 42,366	$ 42,366	$ -	$ 40,000	good	4
GG01495	Computer	Equipment	General Government	19 Parnell St..	2012	10	5	2022	$ 5,632	$ 4,506	$ 1,126	$ 5,000	good	4
PW00016	Grader #1 (1986) - (Champion)	Vehicle	Public Works	12470B Lanark Rd.	1997	25	5	2022	$ 106,763	$ 106,763	$ -	$ 140,000	***poor***	4
PW00029	SWEEPER	Equipment	Public Works	25991 Hwy 41 Griffith	2007	15	5	2022	$ 14,314	$ 9,543	$ 4,771	$ 15,000	good	2
PW01437	V #8 2010 International 7600SFA (Plow Truck)	Vehicle	Public Works	25991 Hwy 41 Griffith	2009	13	5	2022	$ 182,494	$ 182,494	$ -	$ 340,000	good	5
PW01500	2010 Tandem Plow Truck	Vehicle	Public Works	12470B Lanark Rd.	2010	12	5	2022	$ 207,877	$ 86,615	$ 121,262	$ 310,000	good	5

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Vehicles and Equipment
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Detailed Asset Description (Equipment/ Vehicle) [1]	Operating Department [1]	Location [1]	Year in Service [1]	Asset Life Expectancy (years) [1, 2]	Remaining Useful Life (from 2017) 1	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost Balance) 1	2017 Accumulated Amortization 1	2017 Net Book Value 1	Replacement and/or Upgrade Cost [3]	Condition (good / fair / poor) [3]	Level of Service (1 to 5) [4]
PW01539	V #4 2015Chevy 1 Tonne	Vehicle	Public Works	25992 Hwy 41 Griffith	2015	7	5	2022	$ 43,492	$ -	$ 43,492	$ 50,000	good	5
PW00017	Grader #2 (1987) - (Champion)	Vehicle	Public Works	25991 Hwy 41 Griffith	1997	26	6	2023	$ 89,675	$ 89,675	$ -	$ 140,000	***poor***	4
PW00021	V #4 2015Chevy 1 Tonne	Vehicle	Public Works	25992 Hwy 41 Griffith	2015	8	6	2023	$ 42,831	$ 42,831	$ -	$ 55,000	fair	5
PW00146	BRUSH CHIPPER	Equipment	Public Works	Madawaska Salt Shed	1998	25	6	2023	$ 31,358	$ 31,358	$ (0)	$ 35,000	good	2
PW01436	V #7 2015 Chevy 1 Ton	Vehicle	Public Works	12470B Lanark Rd.	2015	8	6	2023	$ 43,492	$ 43,492.00	$ -	$ 55,000	good	5
PW01538	V #7 2015 Chevy 1 Ton	Vehicle	Public Works	12470B Lanark Rd.	2017	7	7	2024	$ 42,831	$ -	$ 42,831	$ 50,000	good	5
FR01469	1/2 Ton Truck Station #1	Vehicle	Fire	12470A Lanark Rd.	2010	14	7	2024	$ 22,440	$ 22,440	$ -	$ 25,000	good	5
	Lawn equipment	Equipment	Public Works	Calabogie	2017	8	8	2025				$ 7,500	***poor***	5
FR00003	98-26 2001 Rescue Van	Vehicle	Fire	25991C Hwy 41 Griffith	2005	20	8	2025	$ 33,888	$ 33,888	$ (0)	$ 175,000	fair	5
FR00009	97-33 Tanker	Vehicle	Fire	25991C Hwy 41 Griffith	2000	25	8	2025	$ 70,863	$ 70,863	$ -	$ 200,000	good	5
FR00033	Tower and Base	Equipment	Fire	12470A Lanark Rd	2000	25	8	2025	$ 16,817	$ 14,295	$ 2,523	$ 20,000	good	5
FR00034	Tower and Base	Equipment	Fire	25991C Hwy 41 Griffith	2003	22	8	2025	$ 16,332	$ 11,433	$ 4,900	$ 20,000	good	5
FR01470	1/2 Ton Truck Station #2	Vehicle	Fire	25991C Hwy 41 Griffith	2010	15	8	2025	$ 22,440	$ 22,440	$ -	$ 25,000	good	5
PR00106	BLEACHERS - CHARBONNEAU BALL DIAMOND	Equipment	Parks and Recreation	574 Mill St..	1995	30	8	2025	$ 8,341	$	#VALUE!	$ 10,000	***poor***	2
FR01350	Pumper 96-42 Front Line	Vehicle	Fire	12470A Lanark Rd.	2008	18	9	2026	$ 235,100	$ 141,061	$ 94,039	$ 350,000	good	5
PW00027	Float - 1993 Triaxle	Vehicle	Public Works	12470B Lanark Rd.	2017	10	10	2027	$ 12,995	$ 10,829	$ 2,166	$ 42,000	good	2
FR01434	Pumper 96-62 Triton LDM 1000 Front Line	Vehicle	Fire	25991C Hwy 41 Griffith	2009	18	10	2027	$ 250,755	$ 133,736	$ 117,019	$ 350,000	good	5
PR01298	KOHLER GENERATOR	Equipment	Parks and Recreation	574 Mill St..	1997	30	10	2027	$ 10,000	$ 9,500	$ 500	$ 15,000	good	5
FR00032	PUMP 18 HP	Equipment	Fire	25991C Hwy 41 Griffith	2016	12	11	2028	$ 5,362	$ 5,362	$ -	$ 7,000	good	5
FR00011	EXTRICATION SPREADER/CUTTER	Equipment	Fire	25991C Hwy 41 Griffith	2004	25	12	2029	$ 20,975	$ 18,178	$ 2,797	$ 25,000	good	4
FR00012	EXTRICATION SPREADER/CUTTER	Equipment	Fire	12470A Lanark Rd.	2004	25	12	2029	$ 20,975	$ 18,178	$ 2,797	$ 25,000	good	5
FR00031	PUMP 18 HP	Equipment	Fire	12470A Lanark Rd.	2015	14	12	2029	$ 5,176	$ 5,176	$ (0)	$ 7,000	good	5
FR01433	TOWN & BASE STATION #2	Equipment	Fire	19 Parnell St..	2009	20	12	2029	$ 9,548	$ 6,944	$ 2,604	$ 10,000	good	5
PW01301	Fisher Plow	Vehicle	Public Works		2017	12	12	2029	$ 7,344	$ -	$ 7,344	$ 7,000	good	5

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Vehicles and Equipment
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Detailed Asset Description (Equipment/ Vehicle) [1]	Operating Department [1]	Location [1]	Year in Service [1]	Asset Life Expectancy (years) [1, 2]	Remaining Useful Life (from 2017) 1	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost Balance) 1	2017 Accumulated Amortization 1	2017 Net Book Value 1	Replacement and/or Upgrade Cost [3]	Condition (good / fair / poor) [3]	Level of Service (1 to 5) [4]
PW01302	Fisher Plow	Vehicle	Public Works		2017	12	12	2029	$ 6,013	$ -	$ 6,013	$ 7,000	good	5
PW01518	Backhoe #1 - (JCB 3CX Super 2014)	Vehicle	Public Works	12470B Lanark Rd.	2014	15	12	2029	$ 85,458	$ 21,364	$ 64,093	$ 90,000	good	4
PR00167	PLAYSTRUCTURE (Calabogie Community Centre)	Equipment	Parks and Recreation	574 Mill St..	2015	15	13	2030	$ 16,789	$ 1,119.33	$ 15,670	$ 30,000	good	2
PW01458	Chipper Head 2010	Equipment	Public Works	12470B Lanark Rd.	2010	20	13	2030	$ 52,704	$ 24,595	$ 28,109	$ 60,000	good	3
PW01550	2014 New Holland 4x4 Tractor with side mount mower	Equipment	Public Works	12470B Lanark Rd.	2016	15	14	2031	$ 116,497	$ -	$ 116,497	$ 120,000	good	2
FR01505	Generator	Equipment	Fire	Old Fire Tower Road	2013	20	16	2033	$ 5,755	$ 1,151	$ 4,604	$ 6,000	good	5
GG01511	Phone/Data System	Equipment	General Government	19 Parnell St..	2013	20	16	2033	$ 16,716	$ 3,343	$ 13,373	$ 17,000	good	3
FR00006	97-25 2014 Spartan International Tanker/Pumper	Vehicle	Fire	12470A Lanark Rd.	2015	20	18	2035	$ 224,030	$ 22,403	$ 201,627	$ 250,000	good	5
PW01299	Hoist (Calabogie Garbage)	Equipment	Public Works	12470B Lanark Rd.	2006	30	19	2036	$ 5,170	$ 3,791	$ 1,379	$ 7,500	good	2
FR01504	Fire Radio Tower	Equipment	Fire	Old Fire Tower Road	2013	25	21	2038	$ 65,506	$ 13,101	$ 52,405	$ 65,000	good	5
PR00057	OUTDOOR RINK CALABOGIE (boards)	Equipment	Parks and Recreation	574 Mill St..	2013	25	21	2038	$ 15,157	$ 15,157	$ -	$ 25,000	good	2
	MAC-27000 Concrete Water Storage Cistern	Equipment	Fire	25991C Hwy 41 Griffith	2015	25	23	2040	$ 25,695	$ 2,056	$ 23,639	$ 25,000	good	5
PW01551	2015 John Deere Grader	Vehicle	Public Works	12470B Lanark Rd.	2016	25	24	2041	$ 158,964	$ -	$ 158,964	$ 160,000	good	4

Notes:
1. Data from Township of Greater Madawaska, Tangible Capital Asset Detail (2017).
2. Based on information supplied by Township of Greater Madawaska.
3. Level of Service: 1 = very low priority, 5 = very high priority.

Selected Focus Item.

BUILDINGS and FACILITIES

Asset ID 1	Asset Name 1	Detailed Asset Description 1	Operating Department 1	Component	Location 1	Projected Replacement or Upgrade Year	Replacement and/or Upgrade Cost 3	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
EN01443	Attendant/WEEE Buildings	Buildings	Environment	Structural	574 Norway Lake Rd.	2034	5,000	-	-	-	-	-	-	-	-	-	-	-
				Mechanical		2034	2,000	-	-	-	-	-	-	-	-	-	-	-
				Electrical		2034	3,000	-	-	-	-	-	-	-	-	-	-	-
FR00043	Fire Station #1 Calabogie	Buildings	Fire	Structural	12470A Lanark Rd.	2023	50,000	-	-	-	-	-	50,000	-	-	-	-	-
				Mechanical		2026	15,000	-	-	-	-	-	-	-	-	15,000	-	-
				Energy Upgrades		2019	25,000	-	25,000	-	-	-	-	-	-	-	-	-
				Electrical		2023	15,000	-	-	-	-	-	15,000	-	-	-	-	-
FR00054	Fire Station #2 Griffith	Buildings	Fire	Structural	25991C Highway #41	2015	25,000	-	-	-	-	-	-	-	-	-	-	-
				Mechanical		2025	15,000	-	-	-	-	-	-	-	15,000	-	-	-
				Electrical		2023	5,000	-	-	-	-	-	5,000	-	-	-	-	-
GG00098	Municipal Office	Buildings	General Govt	Structural	19 Parnell St.	2020	50,000	53,180	-	50,000	-	-	-	-	-	-	-	-
				Mechanical		2023	50,000	-	-	-	-	-	50,000	-	-	-	-	-
				Electrical		2023	50,000	-	-	-	-	-	50,000	-	-	-	-	-
GG00052	Municipal Office - Griffith	Buildings	General Govt	Structural	25991C Highway #41	2020	35,000	-	-	35,000	-	-	-	-	-	-	-	-
				Mechanical		2020	2,000	-	-	2,000	-	-	-	-	-	-	-	-
				Electrical		2020	5,000	-	-		-	-	-	-	-	-	-	-
PR00048	Barnet Cottage	Buildings	Parks and Recreation	Structural	5179 Calabogie Rd.	2032	50,000	20,000	-	-	-	-	-	-	-	-	-	-
				Mechanical		2035	n/a	-	-	-	-	-	-	-	-	-	-	-
				Electrical		2035	n/a	-	-	-	-	-	-	-	-	-	-	-
PR01455	Barnet Cottage Upgrades	Buildings	Parks and Recreation	Structural	5179 Calabogie Rd.	n/a	n/a	-	-	-	-	-	-	-	-	-	-	-
				Mechanical		n/a	n/a	-	-	-	-	-	-	-	-	-	-	-
				Electrical		n/a	n/a	-	-	-	-	-	-	-	-	-	-	-
PR00039	Calabogie Community Hall	Buildings	Parks and Recreation	Structural	574 Mill St.	2026	75,000	10,000	-	-	-	-	-	-	-	75,000	-	-
				Mechanical		2020	25,000	-	-	25,000	-	-	-	-	-	-	-	-
				Energy Upgrades		2025	25,000	-	-	-	-	-	-	-	25,000	-	-	-
				Electrical		2026	25,000	-	-	-	-	-	-	-	-	25,000	-	-
PR00050	Gazebo - Barnet	Buildings	Parks and Recreation	Structural	5179 Calabogie Rd.	2032	5,000	-	-	-	-	-	-	-	-	-	-	-
				Mechanical		n/a	n/a	-	-	-	-	-	-	-	-	-	-	-
				Electrical		n/a	n/a	-	-	-	-	-	-	-	-	-	-	-
PR00060	Griffith Community Hall	Buildings	Parks and Recreation	Structural	25991B Highway #41	2027	25,000	-	-	-	-	-	-	-	-	-	25,000	-
				Mechanical		2018	25,000	25,000	-	-	-	-	-	-	-	-	-	-
				Energy Upgrades		2030	25,000	-	-	-	-	-	-	-	-	-	-	-
				Electrical		2020	20,000	-	-	20,000	-	-	-	-	-	-	-	-
PR01457 & PR01512	Calabogie Rink & Boards	Buildings	Parks and Recreation	Structural	574 Mill St.	2038	10,000	-	-	-	-	-	-	-	-	-	-	-
				Structural (Roof)		2044	400,000	-	-	-	-	-	-	-	-	-	-	-
				Mechanical		2025	10,000	-	-	-	-	-	-	-	10,000	-	-	-
				Electrical		2020	15,000	-	-	15,000	-	-	-	-	-	-	-	-
	Calabogie Storage Building	Buildings	Parks and Recreation	Structural	574 Mill St.	2041	123,115											-
				Additional Capital		2017	31,890	10,600	-	-	-	-	-	-	-	-	-	-
				Mechanical		2032	-											-
				Electrical		2035	15,000											-
PR00059	Griffith Rink and Hall	Buildings	Parks and Recreation	Structural	15 Ginza St.	2041	18,090	-	-	-	-	-	-	-	-	-	-	-
				Mechanical		2044	44,600	-	-	-	-	-	-	-	-	-	-	-
				Energy Upgrades		2027	10,000	-	-	-	-	-	-	-	-	-	10,000	-
				Electrical		2020	20,000	-	-	20,000	-	-	-	-	-	-	-	-

Asset ID 1	Asset Name 1	Detailed Asset Description 1	Operating Department 1	Component	Location 1	Projected Replacement or Upgrade Year	Replacement and/or Upgrade Cost 3	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PR00046	Heritage Point Tourist Information Booth	Buildings	Parks and Recreation	Structural	12517 Lanark Rd.	2020	15,000	-	-	15,000	-	-	-	-	-	-	-	-
				Mechanical		n/a	n/a	-	-	-	-	-	-	-	-	-	-	-
				Electrical		n/a	n/a	-	-	-	-	-	-	-	-	-	-	-
PR00047	Washroom Facilities (Outhouse)	Buildings	Parks and Recreation	Structural	12517 Lanark Rd.	2041	44,219	-	-	-	-	-	-	-	-	-	-	-
				Mechanical		2041	16,700	-	-	-	-	-	-	-	-	-	-	-
				Electrical		2041	5,900	-	-	-	-	-	-	-	-	-	-	-
PW00045	Garage - Calabogie	Buildings	Public Works	Structural	12470B Lanark Rd.	2019	25,000		25,000	-	-	-	-	-	-	-	-	-
				Mechanical				-	-	-	-	-	-	-	-	-	-	-
				Electrical		2019	31,890		20,000	-	-	-	-	-	-	-	-	-
	NEW: Calabogie Equipment Storage Shed	Buildings	Public Works	Structural	12470B Lanark Rd.	2018	-	21,000	-	-	-	-	-	-	-	-	-	-
				Mechanical		2018	25,000	-	-	-	-	-	-	-	-	-	-	-
				Electrical		2023	25,000	-	-	-	-	-	-	-	-	-	-	-
PW00053	Garage - Griffith	Buildings	Public Works	Structural	25991C Highway #41	2023	20,000	13,000	-	-	-	-	20,000	-	-	-	-	-
				Mechanical		2034	10,000	-	-	-	-	-	-	-	-	-	-	-
				Electrical		2028	10,000	-	-	-	-	-	-	-	-	-	-	10,000
PW01441 & PW00056	Salt Shed - Matawatchan	Buildings	Public Works	Structural	3568 Matawatchan Rd.	2028	5,000	-	-	-	-	-	-	-	-	-	-	5,000
				Mechanical		2033	5,000	-	-	-	-	-	-	-	-	-	-	-
				Electrical		2028	12,500	-	-	-	-	-	-	-	-	-	-	12,500
	Salt Shed - Calabogie	Buildings	Public Works	Structural	12470B Lanark Rd.	2023	10,000	-	-	-	-	-	10,000	-	-	-	-	-
				Mechanical		2018	15,000											-
				Electrical		2020	25,000											-
-	Library	Buildings	Public Works	Structural	4984 Calabogie Rd.	2023	20,000	59,530	-	-	-	-	20,000	-	-	-	-	-
				Mechanical		0	-	-	-	-	-	-	-	-	-	-	-	-
				Electrical		0	-	-	-	-	-	-	-	-	-	-	-	-
-	Medical Centre / Vacant Office	Buildings	Public Works	Structural	1101 Francis St.	0	-	25,000	-	-	-	-	-	-	-	-	-	-
				Mechanical		0	-	-	-	-	-	-	-	-	-	-	-	-
				Electrical		0	-	-	-	-	-	-	-	-	-	-	-	-
Total							1,670,904	237,310	70,000	182,000	-	-	220,000	-	50,000	115,000	35,000	27,500

Table 8

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Buildings and Facilities
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Detailed Asset Description [1]	Operating Department [1]	Component	Location [1]	Year in Service	Asset Life Expectancy (years) [1]	Remaining Useful Life (from 2017) [1]	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost Balance) 1	2017 Accumulated Amortization 1	2015 Net Book Value [1]	Replacement and/or Upgrade Cost [3]	Condition (good / fair / poor) [3]	Level of Service (1 to 5) [4]
EN01443	Attendant/WEEE Buildings (x3)	Buildings	Environment	Structural	574 Norway Lake Rd.	2009	25	17	2034	$ 41,512	$ 16,605	$ 24,907	$ 5,000	good	3
				Mechanical		2009	25	17	2034				$ 2,000		
				Electrical		2009	25	17	2034				$ 3,000		
FR00043	Fire Station #1 Calabogie	Buildings	Fire	Structural	12470A Lanark Rd.	1984	39	6	2023	$ 46,091	$ 30,420	$ 15,671	$ 50,000	fair	5
				Mechanical		1984	42	9	2026				$ 15,000		
				Energy Upgrades		1984	32	-1	2019				$ 25,000		
				Electrical		1984	39	6	2023				$ 15,000		
FR00054	Fire Station #2 Griffith	Buildings	Fire	Structural	25991C Highway #41	1990	25	-2	2015	$ 79,080	$ 44,039	$ 35,041	$ 25,000	fair	5
				Mechanical		2015	10	8	2025				$ 15,000		
				Electrical		1990	33	6	2023				$ 5,000		
GG00098	Municipal Office	Buildings	General Govt	Structural	19 Parnell St.	2013	7	3	2020	$ 948,707	$ 75,897	$ 872,811	$ 50,000	good	4
				Mechanical		2013	10	6	2023				$ 50,000		
				Electrical		2013	10	6	2023				$ 50,000		
GG00052	Municipal Office - Griffith (Nu2You Shop)	Buildings	General Govt	Structural	25991C Highway #41	1984	36	3	2020	$ 76,058	$ 41,593	$ 34,465	$ 35,000	fair	2
				Mechanical		1984	36	3	2020				$ 2,000		
				Electrical		1984	36	3	2020				$ 5,000		

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Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Detailed Asset Description [1]	Operating Department [1]	Component	Location [1]	Year in Service	Asset Life Expectancy (years) [1]	Remaining Useful Life (from 2017) [1]	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost Balance) 1	2017 Accumulated Amortization 1	2015 Net Book Value [1]	Replacement and/or Upgrade Cost [3]	Condition (good / fair / poor) [3]	Level of Service (1 to 5) [4]
PR00048	Barnet Cottage	Buildings	Parks and Recreation	Structural	5179 Calabogie Rd.	1962	70	15	2032	$ 15,830	$ 15,830	$ -	$ 50,000	good	2
				Mechanical		1962	73	18	2035				n/a		
				Electrical		1962	73	18	2035				n/a		
PR01455	Barnet Cottage Upgrades	Buildings	Parks and Recreation	Structural	5179 Calabogie Rd.	2010	n/a	n/a	n/a	$ 19,517	$ 2,732	$ 16,785	n/a	good	2
				Mechanical		2010	n/a	n/a	n/a				n/a		
				Electrical		2010	n/a	n/a	n/a				n/a		
PR00039	Calabogie Community Hall	Buildings	Parks and Recreation	Structural	574 Mill St.	1996	30	9	2026	$ 254,326	$ 106,817	$ 147,509	$ 75,000	good	3
				Energy Upgrades		1996	24	3	2020				$ 25,000		
				Mechanical		1996	29	8	2025				$ 25,000		
				Electrical		1996	30	9	2026				$ 25,000		
PR00050	Gazebo - Barnet	Buildings	Parks and Recreation	Structural	5179 Calabogie Rd.	2007	25	15	2032	$ 6,206	$ 2,482	$ 3,724	$ 5,000	good	2
				Mechanical		2007	n/a	n/a	n/a				n/a		
				Electrical		2007	n/a	n/a	n/a				n/a		
PR00060	Griffith Community Hall	Buildings	Parks and Recreation	Structural	25991B Highway #41	1997	30	10	2027	$ 195,550	$ 78,220	$ 117,330	$ 25,000	good	3
				Energy Upgrades		1997	21	1	2018				$ 25,000		
				Mechanical		1997	33	13	2030				$ 25,000		
				Electrical		1997	23	3	2020				$ 20,000		

Table 8

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Buildings and Facilities
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Detailed Asset Description [1]	Operating Department [1]	Component	Location [1]	Year in Service	Asset Life Expectancy (years) [1]	Remaining Useful Life (from 2017) [1]	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost Balance) 1	2017 Accumulated Amortization 1	2015 Net Book Value [1]	Replacement and/or Upgrade Cost [3]	Condition (good / fair / poor) [3]	Level of Service (1 to 5) [4]
PR01457 & PR01512	Calabogie Rink & Boards	Buildings	Parks and Recreation	Structural	574 Mill St.	2013	25	21	2038	$ 161,769	$ 18,290	$ 143,479	$ 10,000	good	2
				Structural (Roof)		2014	30	27	2044				$ 400,000		
				Mechanical		2013	12	8	2025				$ 10,000		
				Electrical		2013	7	3	2020				$ 15,000		
	Calabogie Storage Building	Buildings	Parks and Recreation	Structural	574 Mill St.	2016	25	24	2041	$ 114,566	$ -	$ 114,566	$ 123,115	good	2
				Additional Capital		2017	30	30	2047				$ 31,890		
				Mechanical		2017	15	15	2032						
				Electrical		2016	19	18	2035				$ 15,000		
PR00059	Griffith Rink and Hall	Buildings	Parks and Recreation	Structural	15 Ginza St.	2016	25	24	2041	$ 79,464	$ 44,500	$ 34,964	$ 18,090	fair	2
				Energy Upgrades		2016	28	27	2044				$ 44,600		
				Mechanical		1989	38	10	2027				$ 10,000		
				Electrical		1989	31	3	2020				$ 20,000		
PR00046	Heritage Point Tourist Information Booth	Buildings	Parks and Recreation	Structural	12517 Lanark Rd.	1985	35	3	2020	$ 5,108	$ 5,108	$ -	$ 15,000	good	2
				Mechanical		1985	n/a	n/a	n/a				n/a		
				Electrical		1985	n/a	n/a	n/a				n/a		
PR00047	Washroom Facilities : Heritage Point	Buildings	Parks and Recreation	Structural	12517 Lanark Rd.	2016	25	24	2041	$ 66,819	$ -	$ 66,819	$ 44,219	good	4
				Mechanical		2016	25	24	2041				$ 16,700		
				Electrical		2016	25	24	2041				$ 5,900		

Table 8

THE TOWNSHIP OF GREATER MADAWASKA

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Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Detailed Asset Description [1]	Operating Department [1]	Component	Location [1]	Year in Service	Asset Life Expectancy (years) [1]	Remaining Useful Life (from 2017) [1]	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost Balance) 1	2017 Accumulated Amortization 1	2015 Net Book Value [1]	Replacement and/or Upgrade Cost [3]	Condition (good / fair / poor) [3]	Level of Service (1 to 5) [4]
PW00045	Garage - Calabogie	Buildings	Public Works	Structural	12470B Lanark Rd.	1991	34	8	2025	$ 270,002	$ 132,464	$ 137,538	$ 25,000	good	2
				Energy Upgrades		2016	25	24	2041				$ 15,264		
				Mechanical		1991	28	2	2019				$ 60,000		
				Electrical		1991	34	8	2025				$ 40,000		
PW00045	NEW SALT SHED - Calabogie	Buildings	Public Works	Structural	12470B Lanark Rd.				2022			$ -	$ 250,000	NEW	2
				Mechanical					n/a						
				Electrical					n/a						
PW00045	NEW Calabogie Equipment Storage Shed	Buildings	Public Works	Structural	12470B Lanark Rd.				2018			$ -	$ 25,000	NEW	2
				Additional Capital					2018				$ 31,890		
				Electrical					2018				$ -		
PW00053	Garage - Griffith	Buildings	Public Works	Structural	25991C Highway #41	1974	44	1	2018	$ 33,127	$ 28,489	$ 4,638	$ 25,000	fair	2
				Mechanical		1974	49	6	2023				$ 25,000		
				Electrical		1974	49	6	2023				$ 20,000		
PW01441 & PW00056	Salt Shed - Matawatchan	Buildings	Public Works	Structural	3568 Matawatchan Rd.	2009	25	17	2034	$ 260,424	$ 118,961	$ 141,463	$ 10,000	good	3
				Mechanical		2009	19	11	2028				$ 10,000		
				Electrical		2009	19	11	2028				$ 5,000		
-	Library	Buildings	Public Works	Structural	4984 Calabogie Rd.	1998	35	16	2033	$ -	$ -	$ -	$ 5,000	fair	3
				Mechanical		1998	30	11	2028				$ 12,500		

Table 8

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Buildings and Facilities
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Detailed Asset Description [1]	Operating Department [1]	Component	Location [1]	Year in Service	Asset Life Expectancy (years) [1]	Remaining Useful Life (from 2017) [1]	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost Balance) 1	2017 Accumulated Amortization 1	2015 Net Book Value [1]	Replacement and/or Upgrade Cost [3]	Condition (good / fair / poor) [3]	Level of Service (1 to 5) [4]
				Electrical		1998	25	6	2023				$ 10,000		
GG00098	Medical Centre / Vacant Office	Buildings	Public Works	Structural	1101 Francis St.	1975	43	1	2018	$ 233,413	$ 196,067	$ 37,346	$ 15,000	good	4
				Mechanical		1975	45	3	2020				$ 25,000		
				Electrical		1975	48	6	2023				$ 20,000		

Notes:

1. Data from Township of Greater Madawaska, Tangible Capital Asset Detail (2017).
2. Based on information supplied by Township of Greater Madawaska.
3. Building Review (Structural/Electrical/Mechanical; Greenview Environmental Limited, 2013).
4. Level of Service: 1 = very low priority, 5 = very high priority.

Selected Focus Item.

Land Improvements

RD00519	Flying Club Rd	Operating Department 1	Location 1	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost 3	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
-	Aggregate Pit Expansion - Black Donald	Public Works	Near Hydro Dam Road	2024	45,000	-	-	-	-	-	-	45,000	-	-	-	-
GG00175	LIBRARY PARKING LOT (Paved)	General Government	4984 Calabogie Rd.	2024	30,000	-	-	-	-	-	-	30,000	-	-	-	-
GG00116	SEPTIC SYSTEM - OLD MUNICIPAL OFFICE CALABOGIE	General Government	1101 Francis St.	2024	15,000	-	-	-	-	-	-	15,000	-	-	-	-
PR00102	SEPTIC TANK - CALABOGIE COMM HALL	Parks and Recreation	574 Mill St.	2024	20,000	-	-	-	-	-	-	20,000	-	-	-	-
PR00124	SEPTIC - GRIFFITH RINK/HALL	Parks and Recreation	15 Ginza St.	2025	15,000	-	-	-	-	-	-	-	15,000	-	-	-
GG00176	OLD MUNICIPAL OFFICE PARKING LOT	General Government	1101 Francis St.	2025	10,000	-	-	-	-	-	-	-	10,000	-	-	-
PR00040	PAVED PARKING CAL COMM HALL	Parks and Recreation	574 Mill St.	2031	20,000	-	-	-	-	-	-	-	-	-	-	-
GG00114	RETAINING WALL OLD CALABOGIE MUNICIPAL OFFICE	General Government	1101 Francis St.	2034	25,000	-	-	-	-	-	-	-	-	-	-	-
FR00044	PAVED PARKING	Fire	12470A Lanark Rd.	2034	5,000	-	-	-	-	-	-	-	-	-	-	-
PW00177	PAVED IN FRONT OF CALABOGIE ROADS GARAGE	Public Works	12470B Lanark Rd.	2035	15,000	-	-	-	-	-	-	-	-	-	-	-
PW00184	GRIFFITH GARAGE PAVED PARKING AREA	Public Works	25991C Hwy 41	2025	15,000	-	-	-	-	-	-	-	15,000	-	-	-
EN01317	Retaining Wall (NL & MSP)	Environment	574 Norway Lake Rd.	2039	10,000	-	-	-	-	-	-	-	-	-	-	-
PR00105	LOUIS CHARBONNEAU MEMORIAL BALL PARK	Parks and Recreation	574 Mill St.	2040	40,000	-	-	-	-	-	-	-	-	-	-	-
PR00103	WELLS (2) CALABOGIE COMMUNITY HALL	Parks and Recreation	574 Mill St.	2045	20,100	-	-	-	-	-	-	-	-	-	-	-
EN01449	ROADWAY - NORWAY LAKE TRANSFER STATION	Environment	574 Norway Lake Rd.	2049	95,000	-	-	-	-	-	-	-	-	-	-	-
EN01323	ROADWAY GRIFFITH WASTE SITE	Environment	6 Finns Rd.	2050	60,000	-	-	-	-	-	-	-	-	-	-	-
EN01321	ROADWAY MT ST PATRICK WASTE SITE	Environment	134 Flat Rd.	2050	50,000	-	-	-	-	-	-	-	-	-	-	-
0	Municipal Office	General Government	19 Parnell St.	2053	35,000	-	-	-	-	-	-	-	-	-	-	-
EN01319	ENTRANCE BLACK DONALD WASTE SITE	Environment	34 Hydro Dam Rd.	-	-	-	-	-	-	-	-	-	-	-	-	-
EN01322	ENTRANCE MATAWATCHAN WASTE SITE	Environment	3508 Matawatchan Rd.	-	-	-	-	-	-	-	-	-	-	-	-	-
PR00179	BARNET ENTRANCE AND PARKING AREA	Parks and Recreation	5179 Calabogie Rd.	-	-	-	-	-	-	-	-	-	-	-	-	-
PR00182	CALABOGIE COMMUNITY HALL PARKING LOT	Parks and Recreation	574 Mill St..	-	-	-	-	-	-	-	-	-	-	-	-	-
PR01296	GRAVEL PARKING LOT GRIFFITH RINK	Parks and Recreation	15 Ginza St.	-	-	-	-	-	-	-	-	-	-	-	-	-
PR00180	TOURIST BOOTH PARKING ENT/LOT	Parks and Recreation	12517 Lanark Rd.	-	-	-	-	-	-	-	-	-	-	-	-	-
-	Eagles Nest Parking Lot	Parks and Recreation	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW00178	GRAVEL ENTRANCE MATAW. SALT SHED	Public Works	3568 Matawatchan Rd.	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total				**525,100**	**-**	**-**	**-**	**-**	**-**	**-**	**110,000**	**40,000**	**-**	**-**	**-**

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Land Improvements
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Detailed Asset Description [1]	Operating Department [1]	Location [1]	Year in Service	Asset Life Expectancy (years) [1]	Remaining Useful Life (from 2016) [1]	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost Balance) 1	2016 Accumulated Amortization [1]	2017 Net Book Value 1	Replacement and/or Upgrade Cost [2]	Condition (good / fair / poor) [2]	Level of Service (1 to 5) [3]
EN01323	ROADWAY GRIFFITH WASTE SITE	Land Improvement	Environment	6 Finns Rd.	2010	40	33	2050	$ 24,119	$ 10,184	$ 13,935	$ 60,000	good	2
EN01321	ROADWAY MT ST PATRICK WASTE SITE	Land Improvement	Environment	134 Flat Rd.	2010	40	33	2050	$ 1,182	$ 499	$ 683	$ 50,000	good	3
EN01449	ROADWAY - NORWAY LAKE TRANSFER STATION	Land Improvement	Environment	574 Norway Lake Rd.	2009	40	32	2049	$ 82,942	$ 26,542	$ 56,401	$ 95,000	good	3
EN01317	Retaining Wall (NL & MSP)	Land Improvement	Environment	574 Norway Lake Rd.	1999	40	22	2039	$ 7,262	$ 3,268	$ 3,994	$ 10,000	good	3
FR00044	PAVED PARKING	Land Improvement	Fire	12470A Lanark Rd.	1993	41	17	2034	$ 2,509	$ 2,409	$ 100	$ 5,000	good	4
GG00175	LIBRARY PARKING LOT (Paved)	Land Improvement	General Government	4984 Calabogie Rd.	1999	25	7	2024	$ 20,742	$ 14,934	$ 5,808	$ 30,000	fair	3
GG00176	OLD MUNICIPAL OFFICE PARKING LOT	Land Improvement	General Government	1101 Francis St.	1987	38	8	2025	$ 7,009	$ 7,009	$ -	$ 10,000	fair	3
	Municipal Office	Land Improvement	General Government	19 Parnell St.	2013	40	36	2053				$ 35,000	Good	4
GG00114	RETAINING WALL OLD CALABOGIE MUNICIPAL OFFICE	Land Improvement	General Government	1101 Francis St.	1999	35	17	2034	$ 5,041	$ 3,630	$ 1,411	$ 25,000	fair	4
GG00116	SEPTIC SYSTEM - OLD MUNICIPAL OFFICE CALABOGIE	Land Improvement	General Government	1101 Francis St.	1999	25	7	2024	$ 10,676	$ 7,687	$ 2,989	$ 15,000	fair	4
PR00040	PAVED PARKING CAL COMM HALL	Land Improvement	Parks and Recreation	574 Mill St.	2006	25	14	2031	$ 12,767	$ 5,617	$ 7,150	$ 20,000	fair	3
PR00105	LOUIS CHARBONNEAU MEMORIAL BALL PARK	Land Improvement	Parks and Recreation	574 Mill St.	1995	45	23	2040	$ 28,180	$ 24,798	$ 3,382	$ 40,000	fair	2
PR00124	SEPTIC - GRIFFITH RINK/HALL	Land Improvement	Parks and Recreation	15 Ginza St.	1989	36	8	2025	$ 9,466	$ 9,466	$ -	$ 15,000	fair	4
PR00102	SEPTIC TANK - CALABOGIE COMM HALL	Land Improvement	Parks and Recreation	574 Mill St.	1999	25	7	2024	$ 5,000	$ 3,600	$ 1,400	$ 20,000	fair	4
PR00103	WELLS (2) CALABOGIE COMMUNITY HALL	Land Improvement	Parks and Recreation	574 Mill St.	1995	50	28	2045	$ 8,387	$ 3,690	$ 4,697	$ 20,100	good	4
PW00184	GRIFFITH GARAGE PAVED PARKING AREA	Land Improvement	Public Works	25991C Hwy 41	2004	21	8	2025	$ 10,647	$ 5,536	$ 5,111	$ 15,000	***poor***	2
PW00177	PAVED IN FRONT OF CALABOGIE ROADS GARAGE	Land Improvement	Public Works	12470B Lanark Rd.	1990	45	18	2035	$ 10,200	$ 6,120	$ 4,080	$ 15,000	fair	2
-	Aggregate Pit Expansion - Black Donald	Land Improvement	Public Works	Near Hydro Dam Road	2009	15	7	2024	$ -	$ -	$ -	$ 45,000	good	4
EN01319	*ENTRANCE BLACK DONALD WASTE SITE*	Land Improvement	Environment	34 Hydro Dam Rd.	1982	-	-	-	$ -	$ -	$ -	$ -	fair	2
EN01322	*ENTRANCE MATAWATCHAN WASTE SITE*	Land Improvement	Environment	3508 Matawatchan Rd.	1978	-	-	-	$ -	$ -	$ -	$ -	fair	2
PR00179	*BARNET ENTRANCE AND PARKING AREA*	Land Improvement	Parks and Recreation	5179 Calabogie Rd.	1967	-	-	-	$ -	$ -	$ -	$ -	fair	3
PR00182	*CALABOGIE COMMUNITY HALL PARKING LOT*	Land Improvement	Parks and Recreation	574 Mill St..	1996	-	-	-	$ -	$ -	$ -	$ -	fair	3
PR01296	*GRAVEL PARKING LOT GRIFFITH RINK*	Land Improvement	Parks and Recreation	15 Ginza St.	1989	-	-	-	$ -	$ -	$ -	$ -	fair	3

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Land Improvements
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Detailed Asset Description [1]	Operating Department [1]	Location [1]	Year in Service	Asset Life Expectancy (years) [1]	Remaining Useful Life (from 2016) [1]	Projected Replacement or Upgrade Year	Current Value (2017 Closing Cost Balance) 1	2016 Accumulated Amortization [1]	2017 Net Book Value 1	Replacement and/or Upgrade Cost [2]	Condition (good / fair / poor) [2]	Level of Service (1 to 5) [3]
PR00180	*TOURIST BOOTH PARKING ENT/LOT*	Land Improvement	Parks and Recreation	12517 Lanark Rd.	1982	-	-	-	$ -	$ -	$ -	$ -	fair	2
-	*Eagles Nest Parking Lot*	Land Improvement	Parks and Recreation	-	2014	-	-	-	$ -	$ -	$ -	$ -	fair	2
PW00178	*GRAVEL ENTRANCE MATAW. SALT SHED*	Land Improvement	Public Works	3568 Matawatchan Rd.	1985	-	-	-	$ -	$ -	$ -	$ -	fair	3
PW00185	*GRIFFITH GARAGE GRAVEL PARKING AREA*	Land Improvement	Public Works	25991C Hwy 41	1983	-	-	-	$ -	$ -	$ -	$ -	fair	2

Notes:
1. Data from Township of Greater Madawaska, Tangible Capital Asset Detail (2017).
2. Based on information supplied by Township of Greater Madawaska.
3. Level of Service: 1 = very low priority, 5 = very high priority.
4. Costs for maintenance of gravel parking lots included in annual Roads budgets.

Selected Focus Item.

Solid Waste

RD00519	Flying Club Rd	Projected Replacement or Upgrade Year 2	Replacement and/or Upgrade Cost 1, 4	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
-	Blue Box Rolloff (Mixed Fibres)	2030	14,000	-	-	-	-	-	-	-	-	-	-	-
-	Organics Rolloff	2033	7,500	-	-	-	-	-	-	-	-	-	-	-
-	Organics Rolloff	2033	7,500	-	-	-	-	-	-	-	-	-	-	-
-	Garbage Compaction Rolloff #2	2029	10,000	-	-	-	-	-	-	-	-	-	-	-
-	Blue Box Compaction Rolloff (OCC)	2029	10,000	-	-	-	-	-	-	-	-	-	-	-
-	Blue Box Rolloff (Mixed Containers)	2029	10,000	-	-	-	-	-	-	-	-	-	-	-
-	Blue Box Rolloff (Mixed Fibres)	2029	10,000	-	-	-	-	-	-	-	-	-	-	-
-	C&D Waste Rolloff #1	2029	10,000	-	-	-	-	-	-	-	-	-	-	-
-	C&D Waste Rolloff #2	2029	10,000	-	-	-	-	-	-	-	-	-	-	-
-	Garbage Rolloff (non-compaction)	2029	10,000	-	-	-	-	-	-	-	-	-	-	-
-	Stationary Compactor (Garbage) - T-250 HD	2030	75,000	-	-	-	-	-	-	-	-	-	-	-
-	Garbage Compaction Rolloff	2030	10,000	-	-	-	-	-	-	-	-	-	-	-
-	Blue Box Rolloff (OCC)	2030	10,000	-	-	-	-	-	-	-	-	-	-	-
-	Blue Box Rolloff (Mixed Containers)	2030	10,000	-	-	-	-	-	-	-	-	-	-	-
-	Blue Box Rolloff	2018	14,000	15,000	-	-	-	-	-	-	-	-	-	-
-	Blue Box Rolloff	2018	14,000	15,000	-	-	-	-	-	-	-	-	-	-
EN00090	LANDFILL SITE - BLACK DONALD	2020	50,000	-	-	50,000	-	-	-	-	-	-	-	-
-	Garbage Compaction Rolloff #1	2029	10,000	-	-	-	-	-	-	-	-	-	-	-
EN01448	Stationary Compactor #1 (Garbage) - T-250 HD	2029	75,000	-	-	-	-	-	-	-	-	-	-	-
EN01447	Stationary Compactor #2 (Garbage) - T-250 HD	2029	75,000	-	-	-	-	-	-	-	-	-	-	-
-	C&D Waste Rolloff	2030	10,000	-	-	-	-	-	-	-	-	-	-	-
-	Stationary Compactor (Garbage) - T-250 HD	2030	75,000	-	-	-	-	-	-	-	-	-	-	-
-	Garbage Compaction Rolloff	2030	14,000	-	-	-	-	-	-	-	-	-	-	-
-	Blue Box Rolloff (OCC)	2030	14,000	-	-	-	-	-	-	-	-	-	-	-
-	Blue Box Rolloff (Mixed Containers)	2030	14,000	-	-	-	-	-	-	-	-	-	-	-
EN01446	Stationary Compactor #3 (OCC) - T-250 HD	2029	75,000	-	-	-	-	-	-	-	-	-	-	-
-	Blue Box Rolloff (Mixed Fibres)	2030	10,000	-	-	-	-	-	-	-	-	-	-	-
EN00096	LANDFILL SITE - MATAWATCHAN	Closed/Rehab	-	-	-	-	-	-	-	-	-	-	-	-
EN00085	LANDFILL SITE - NORWAY LAKE	Closed/Rehab	-	-	-	-	-	-	-	-	-	-	-	-
EN00087	LANDFILL SITE - MT ST PATRICK	2034	125,000	-	-	-	-	-	-	-	-	-	-	-
EN00097	LANDFILL SITE - GRIFFITH	Closed/Rehab	-	-	-	-	-	-	-	-	-	-	-	-
-	ck WDS Closure Costs (Annual Contributions t	n/a	112,500	-	-	-	-	-	-	-	-	-	-	-
-	d WDS Closure Costs (Annual Contributions t	n/a	137,500	-	-	-	-	-	-	-	-	-	-	-
		Total	**1,029,000**	**30,000**	**-**	**50,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Solid Waste
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Volume	Detailed Asset Description[1]	Waste Disposal Site Location	Address [1]	Remaining Capacity [2] (m^3)	Year in Service [1]	Asset Life Expectancy (years) [1]	Remaining Useful Life (from 2017) [1]	Projected Replacement or Upgrade Year [2]	Last Topographic Survey [1, 2]	Current Value (2017 Closing Cost Balance) 1, 3	2017 Accumulated Amortization 1	2017 Net Book Value 1	Replacement and/or Upgrade Cost [1, 4]	Condition (good / fair / poor) [5]	Level of Service (1 to 5) [6]
-	Blue Box Rolloff	40 $yard^3$	Transfer Station Equipment	n/a	134 Flat Rd.	-	1996	22	1	2018	-	-	-	-	$ 14,000	***poor***	1
-	Blue Box Rolloff	40 $yard^3$	Transfer Station Equipment	n/a	Ski Hill	-	1996	22	1	2018	-	-	-	-	$ 14,000	***poor***	1
EN00090	LANDFILL SITE - BLACK DONALD	-	Site	Black Donald WDS	34 Hydro Dam Rd.	9,576	Prior to 1980	6	3	2020	2014	$ 1	$ -	$ 1	$ 50,000	good	4
-	Garbage Compaction Rolloff #1	50 $yard^3$	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	-	-	-	$ 10,000	good	4
EN01448	Stationary Compactor #1 (Garbage) - T-250 HD	-	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	$ 69,773	$ 27,909	$ 41,864	$ 75,000	good	4
EN01447	Stationary Compactor #2 (Garbage) - T-250 HD	-	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	$ 69,773	$ 27,909	$ 41,864	$ 75,000	good	4
EN01446	Stationary Compactor #3 (OCC) - T-250 HD	-	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	$ 69,773	$ 27,909	$ 41,864	$ 75,000	good	4
-	Garbage Compaction Rolloff #2	50 $yard^3$	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	-	-	-	$ 10,000	good	4
-	Blue Box Compaction Rolloff (OCC)	50 $yard^3$	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	-	-	-	$ 10,000	good	4
-	Blue Box Rolloff (Mixed Containers)	50 $yard^3$	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	-	-	-	$ 10,000	good	4
-	Blue Box Rolloff (Mixed Fibres)	50 $yard^3$	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	-	-	-	$ 10,000	good	4
-	C&D Waste Rolloff #1	50 $yard^3$	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	-	-	-	$ 10,000	good	4
-	C&D Waste Rolloff #2	50 $yard^3$	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	-	-	-	$ 10,000	good	4
-	Garbage Rolloff (non-compaction)	40 $yard^3$	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2009	20	12	2029	-	-	-	-	$ 10,000	good	4
-	Stationary Compactor (Garbage) - T-250 HD	-	Transfer Station Equipment	Griffith WDS	6 Finns Rd.	-	2010	20	13	2030	-	-	-	-	$ 75,000	good	4
-	Garbage Compaction Rolloff	50 $yard^3$	Transfer Station Equipment	Griffith WDS	6 Finns Rd.	-	2010	20	13	2030	-	-	-	-	$ 10,000	good	4
-	Blue Box Rolloff (OCC)	50 $yard^3$	Transfer Station Equipment	Griffith WDS	6 Finns Rd.	-	2010	20	13	2030	-	-	-	-	$ 10,000	good	4
-	Blue Box Rolloff (Mixed Containers)	50 $yard^3$	Transfer Station Equipment	Griffith WDS	6 Finns Rd.	-	2010	20	13	2030	-	-	-	-	$ 10,000	good	4
-	Blue Box Rolloff (Mixed Fibres)	50 $yard^3$	Transfer Station Equipment	Griffith WDS	6 Finns Rd.	-	2010	20	13	2030	-	-	-	-	$ 10,000	good	4
-	C&D Waste Rolloff	50 $yard^3$	Transfer Station Equipment	Griffith WDS	6 Finns Rd.	-	2010	20	13	2030	-	-	-	-	$ 10,000	good	4

THE TOWNSHIP OF GREATER MADAWASKA

Detailed Summary of Municipal Assets - Solid Waste
Asset Management Plan (2017)

Asset ID [1]	Asset Name [1]	Volume	Detailed Asset Description[1]	Waste Disposal Site Location	Address [1]	Remaining Capacity [2] (m^3)	Year in Service [1]	Asset Life Expectancy (years) [1]	Remaining Useful Life (from 2017) [1]	Projected Replacement or Upgrade Year [2]	Last Topographic Survey [1, 2]	Current Value (2017 Closing Cost Balance) 1, 3	2017 Accumulated Amortization 1	2017 Net Book Value 1	Replacement and/or Upgrade Cost [1, 4]	Condition (good / fair / poor) [5]	Level of Service (1 to 5) [6]
-	Stationary Compactor (Garbage) - T-250 HD	-	Transfer Station Equipment	Mount St. Patrick WDS	134 Flat Rd.	-	2010	20	13	2030	-	-	-	-	$ 75,000	good	4
-	Garbage Compaction Rolloff	50 $yard^3$	Transfer Station Equipment	Mount St. Patrick WDS	134 Flat Rd.	-	2010	20	13	2030	-	-	-	-	$ 14,000	good	4
-	Blue Box Rolloff (OCC)	50 $yard^3$	Transfer Station Equipment	Mount St. Patrick WDS	134 Flat Rd.	-	2010	20	13	2030	-	-	-	-	$ 14,000	good	4
-	Blue Box Rolloff (Mixed Containers)	50 $yard^3$	Transfer Station Equipment	Mount St. Patrick WDS	134 Flat Rd.	-	2010	20	13	2030	-	-	-	-	$ 14,000	good	4
-	Blue Box Rolloff (Mixed Fibres)	50 $yard^3$	Transfer Station Equipment	Mount St. Patrick WDS	134 Flat Rd.	-	2010	20	13	2030	-	-	-	-	$ 14,000	good	4
-	Organics Rolloff	20 m^3	Transfer Station Equipment	Griffith WDS	6 Finns Rd.		2013	20	16	2033					$ 7,500	good	4
-	Organics Rolloff	20 m^3	Transfer Station Equipment	Norway Lake WDS	574 Norway Lake Rd.	-	2013	20	16	2033	-	-	-	-	$ 7,500	good	4
EN00087	LANDFILL SITE - MT ST PATRICK	-	Site	Mount St. Patrick WDS	134 Flat Rd.	38,898	Prior to 1980	20	17	2034	2014	$ 33,200	$ -	$ 33,200	$ 125,000	good	4
EN00096	LANDFILL SITE - MATAWATCHAN	-	Site	Matawatchan WDS	3508 Matawatchan Rd.	0	Prior to 1980	0	-8	Closed/Rehab	Closed/Rehab	$ 1,375	$ -	$ 1,375	$ -	good	4
EN00097	LANDFILL SITE - GRIFFITH	-	Site	Griffith WDS	6 Finns Rd.	0	Prior to 1980	0	-6	Closed/Rehab	Closed/Rehab	$ 750	$ -	$ 750	$ -	good	4
EN00085	LANDFILL SITE - NORWAY LAKE	-	Site	Norway Lake WDS	574 Norway Lake Rd.	0	Prior to 1980	0	-10	Closed/Rehab	Closed/Rehab	$ 8,750	$ -	$ 8,750	$ -	good	4
-	Mt St Patrick WDS Closure Costs (Annual Contributions to Reserves)	-	Closure Cost	Mount St. Patrick WDS	134 Flat Rd.	-	n/a	20	17	n/a	n/a	$ -	$ -	$ -	$ 112,500	-	-
-	Black Donald WDS Closure Costs (Annual Contributions to Reserves)	-	Closure Cost	Black Donald WDS	34 Hydro Dam Rd.	-	n/a	6	3	n/a	n/a	$ -	$ -	$ -	$ 137,500	-	-

Notes:

1. Data from Township of Greater Madawaska, Tangible Capital Asset Detail (2017).
2. Data from Annual Monitoring Reports (Greenview Environmental Management, 2017).
3. The Township of Greater Madawaska currently has $340,000 in reserves for Closure and Post Closure of municipal landfills and for any site development related to expansion.
4. Replacement Cost assumes $150,000 for site expansion costs (permitting and approvals) and $100,000 for site preparation (i.e. clearing, grubbing, etc.).
5. Based on information supplied by Township of Greater Madawaska.
6. Level of Service: 1 = very low priority, 5 = very high priority.

Selected Focus Item.