

**Development Charges Background Study
(Final Report)**

Township of Greater Madawaska

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**THE TOWNSHIP OF GREATER MADAWASKA
DEVELOPMENT CHARGE BACKGROUND STUDY – APRIL, 2017
FINAL REPORT**

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1.0 INTRODUCTION

The Township of Greater Madawaska retained Jp2g Consultants Inc. to undertake a new development charges study, and to prepare a new development charges by-law for the municipality, in order to recover the growth-related net capital costs of certain services provided in the Township over the next five years. Development Charges By-law No. 21-2012 of the Corporation of the Township of Greater Madawaska will expire on May 4, 2017. The following report has been prepared in accordance with the requirements of the Development Charges Act, 1997, S.O. 1997.C.27 and its Regulations, and presents information and background data collected to provide a basis in support of the proposed new Development Charges By-law for the Township of Greater Madawaska.

2.0 BACKGROUND

The Province of Ontario adopted the current Development Charges Act on December 8, 1997. The Act, together with subsequent Regulations to the Act, both came into force and effect on March 1, 1998. Amendments to the Act (Bill 73) and Regulations came into effect on December 3, 2015. A development charge under the Development Charges Act, 1997 is a fee charged to pay for increased capital costs, required because of increased need for services arising from development. Development charges can be collected for each new dwelling unit, new commercial building/structure or addition, or new industrial building/structure or industrial addition greater than 50% of the existing gross floor area (GFA).

The study is aimed at determining a development charge rate structure which will not require existing taxpayers to contribute to the capital cost of new growth. Similarly, new taxpayers should not have to contribute more than their fair share of the net capital cost of providing the current level of municipal services for new growth. This approach is guided by provisions in the Development Charges Act, 1997, and its regulations.

The Development Charges Act includes a requirement for municipalities to undertake a supporting Background Study, if they wish to pass a by-law to collect development charges. The purpose of the Study is to identify: the services to which the development charges relate; the increase in the need for a service that is due to growth; the net growth-related capital costs of services for which a development charge will be collected; and the capital costs of the service that will be incurred during the five year term of implementing the Development Charges By-law. The following Study will determine the development charges that are to be collected in order to recover the growth-related net capital costs of certain eligible services over a ten (10) year planning period.

The recommendations put forth in this Study are in accordance with the requirements of the Development Charges Act, 1997 and Ontario Regulation 82/98, as amended by Ontario Regulation 428/15.

3.0 METHODOLOGY

The process followed in order to calculate an eligible development charge for the Township of Greater Madawaska can be summarized as follows. The first step in the study is to review demographic and development trends in the Township to determine population counts and household counts over the past ten years. An inventory of services provided over the past ten years, within specified eligible service categories is then undertaken and combined with the results of the population and household counts to calculate the average level of service provided over the past ten years. This exercise provides an indication of which municipal facilities and equipment will not have sufficient capacity over the next ten years to accommodate, at historical service levels, the needs of future growth.

Any services with excess capacity are identified, as the excess capacity must be used up prior to an additional unit of the service being purchased or constructed. One of the changes from the previous Development Charges Act is that municipalities can no longer collect a Development Charge for the excess capacity in existing capital facilities or equipment. Essentially, the new approach to excess capacity says that what is paid for is paid for, unless Council specifically identified that the excess capacity would be paid for through development charges. In the case of the Township of Greater Madawaska, most of the services which have been included in the development charges calculations were assumed to be operating at capacity at the time of the study. For capital items with excess capacity from the previous development charges study and by-law, this excess capacity is being carried forward in this study in order to recover the remaining portion of the capital costs related to growth.

This information is then used as the basis for preparing a capital expenditure forecast and population projections for the ten year period of the study. The ten year Capital Expenditure Forecast is prepared on the basis of generally continuing to provide the average level of service from the past ten years over the next ten year period, for certain specified services. The forecast ensures that the average level of service is not exceeded and that new development only pays its fair share of the costs.

The ten-year Capital Expenditure Forecast and the population projections are then used as the basis to calculate the eligible development charges that can be collected by the Township.

4.0 GROWTH FORECASTS AND AVERAGE LEVEL OF SERVICE

4.1 Introduction

The analysis of population trends is an essential element in determining the Municipality's future services, policies and programs. The demand for services in a municipality is considered to be directly related to growth.

The general principle for establishing a development charge rate is that the existing population should not have to pay for the capital costs of growth related development through general taxation. The capital cost of growth related development should be reduced by contributions from those creating a requirement for additional municipal services. New taxpayers, however, should only have to pay their fair share of the net capital cost of providing the current level of municipal services for new growth.

A review of population trends and growth projections is very important in order to establish an appropriate growth rate so that:

1. The timing and sizing of construction for new municipal services and facilities can be scheduled.
2. The amount of residential and commercial/industrial development sharing the cost of new facilities and services can be estimated.
3. The average level of service provided in the Township over the 10-year period immediately preceding the preparation of this Study can be established.

4.2 Review of Past Population and Development Trends

In order to calculate population and development projections for the Township of Greater Madawaska, it is necessary to establish what the past demographic, population and development trends have been. In this regard, a review of Census data was undertaken, and building permit information was obtained with the assistance of Township staff in order to establish what the annual population in the municipality was over the preceding ten year period. An estimate of the total population for The Township of Greater Madawaska from 2006 to 2016 is based upon the following assumptions:

1. The 2006 base-year population is based on 2006 Census Canada statistics for average household size (Private dwellings occupied by usual residents divided by total population) multiplied by total private dwellings.
2. The 2007-2016 populations are based upon the total number of building permits for new dwellings multiplied by the estimated average household size.

The resulting estimate of the total population for the Township of Greater Madawaska is shown in Table A as follows:

Table A Township of Greater Madawaska Permanent and Seasonal Population 2006-2016	
Year	Township of Greater Madawaska Population
2006	5539
2007	5586
2008	5627
2009	5679
2010	5723
2011	5759
2012	5801
2013	5824
2014	5852
2015	5880
2016	5896

* Sources: Census Canada data and Township of Greater Madawaska building permit data.

4.3 Average Level of Service over the Past Ten Years

The above population table was applied to the inventory of the capital assets held by the Township, in order to determine the average level of service provided over the past ten (10) years for each proposed service category. The inventory of equipment and facilities from 2007-2016 was prepared based on discussions with Township staff, the inventory is shown in Appendix A. The results of these calculations are presented in Table 1A, which shows the average level of service for capital facilities and equipment in eligible service categories. The average level of service for Fire Protection and Transportation service categories is calculated on the basis of total replacement value per person of the capital items being considered for development charges.

**TABLE 1A
10 YEAR AVERAGE LEVEL OF SERVICE
Township of Greater Madawaska 2007-2016**

	Average Level of Service Per Capita (\$000's)
FIRE PROTECTION	
Fire Station #1	\$0.125
Fire Station #2	\$0.125
Tower and Base	\$0.003
Tower and Base	\$0.003
Town & Base Station #2	\$0.002
Extrication Spreader/Cutter	\$0.005
Extrication Spreader/Cutter	\$0.005
Pump 18 HP	\$0.002
Pump 18 HP	\$0.002
Fire Radio Tower	\$0.005
Phone/Data System	\$0.001
Generator	\$0.001
1/2 Ton Truck Station #1	\$0.006
1/2 Ton Truck Station #2	\$0.006
97-24 Volvo Tanker	\$0.035
97-25 International Tanker	\$0.028
Pumper Tanker	\$0.008
97-33 Tanker	\$0.035
98-26 Rescue Van	\$0.006
98-45 Rescue Van	\$0.004
Pumper 96-42	\$0.043
Pumper 96-62 Triton LDM 1000	\$0.045
Radios (20)	\$0.001
Radios (6)	\$0.000
Radios (6)	\$0.000
Radios (2)	\$0.000
Pagers (32)	\$0.003
Pagers (1)	\$0.000
Pagers (6)	\$0.000
PPE (30)	\$0.012
PPE (5)	\$0.000
PPE (1)	\$0.000
Category Total	\$0.511

	Average Level of Service Per Capita (\$000's)
TRANSPORTATION	
Garage - Calabogie (4 Bays)	\$0.174
Garage-Griffith (3 Bays)	\$0.130
Salt Shed - Matawatchan	\$0.045
HL4 Roads	\$2.501
HL4 Roads (Pucker St.)	\$0.054
LCB Roads (Pucker St.)	\$0.146
LCB Roads	\$4.705
LCB Roads (Ferguson Lake, Campground Side Rd.)	\$0.050
Gravel Roads (Ferguson Lake, Campground Side Rd.)	\$0.147
Gravel Roads	\$7.965
Hoist (Calabogie Garage)	\$0.001
Chipper Head	\$0.010
Brush Chipper	\$0.006
Pressure Washer	\$0.001
Portable Steamer	\$0.001
Sweeper	\$0.003
Backhoe #1	\$0.005
Backhoe #2	\$0.016
Grader #1	\$0.025
Grader #2	\$0.025
Volvo Extractor	\$0.036
Plow Truck	\$0.041
Plow Truck	\$0.032
Plow Truck	\$0.041
3/4 Ton Truck	\$0.009
Chevy 1 Ton Truck	\$0.010
Sierra 1 Ton Truck	\$0.008
Backhoe #3	\$0.016
Float	\$0.048
Tandem Plow Truck	\$0.028
Chevrolet 1/2 Ton Truck	\$0.008
Category Total	\$16.290

	Average Level of Service Per Capita (quantity of each)
RECREATION	
Barnet Cottage	\$0.035
Barnet Cottage Upgrades	\$0.004
Calabogie Community Hall	\$0.046
Gazebo - Barnet	\$0.001
Griffith Community Hall	\$0.035
Calabogie Rink Facilities	\$0.024
Play Structure Areas	\$0.014
Heritage Point Tourist Information Booth	\$0.001
Washroom Facilities (Outhouse)	\$0.001
Matawatchan Community Hall	\$0.000
Kohler Generator	\$0.002
Playstructure (Barnet Park)	\$0.001
Bleachers - Charbonneau Ball Diamond	\$0.001
Outdoor Rink Calabogie (boards)	\$0.003
Outdoor Rink Griffith (boards)	\$0.003
Playstructure (Calabogie Community Centre)	\$0.002
Playstructure - Griffith Rink/hall	\$0.001
Calabogie Community Centre Facilities	\$0.046
Barnet Park Facilities	\$0.039
Denbigh-Griffiths Lions Club Hall Facilities	\$0.035
Ginza Rink Facilities	\$0.014
Category Total	\$0.150

	Average Level of Service Per Capita (\$000's)
LIBRARY	
Library	\$0.042
Library	\$0.036
Communication Equipment	\$0.000
Computer Stations	\$0.001
Computer Stations	\$0.000
Shelving	\$0.002
Circulation Desk	\$0.001
Tables	\$0.000
Tables	\$0.000
Chairs	\$0.000
Chairs	\$0.000
Desk	\$0.000
Cabinets	\$0.000
Cabinets	\$0.000
Books	\$0.062
Category Total	\$0.21

4.4 Demographic and Growth Projections

A growth forecast was prepared for residential and commercial/industrial growth over a 10 year period: under the Act charges may relate to an increase in the need for service in regard to the 10 year period immediately following the preparation of this study, for particular services specified in the Act.

The growth forecast has several purposes:

1. It establishes the level of growth for which the municipality will be required to provide services over the forecast period.
2. It provides a basis for identifying the level of growth that will be sharing the cost of new capital facilities over the planning period of the Study.
3. It provides a basis for determining municipal service standards and ensuring that the level of service that the Development Charge is collected for does not exceed the average level of service provided in the municipality over the ten year period immediately preceding the Study.
4. It forms a basis of information from which the actual development charges are determined: per person, per residential unit, and per square metre of non-residential building area.

Based on the analysis of demographic, development and growth trends, population and household projections by dwelling type were prepared for The Township of Greater Madawaska. Table B shows population and household projections by dwelling type for the Township for the time period between 2016 and 2026. The following population and household projections are presented:

Ten Year Projection

*	2016 Population (base year)	5,896	
			10 year growth = 563 = +9.5%
*	2026 Population	6,459	

	<u>New Housing Mix</u>	Total No. of Units By 2026
	<u>Percent</u>	<u>No. of Units</u>
Single Detached Dwelling Units	98.60%	2,836
Attached Dwelling Units	0.35%	10
Apartment Dwelling Units	0.35%	10
Mobile Homes	0.70%	20
Total	100.0%	2,876

Residential growth rates for the Township are based on a review of development proposals, historical building permit activity, and an estimate of average household size. Based on this review, the projections appear to be reasonable for the planning period of the study.

Non Residential Growth (2017 – 2026)

* Commercial/Industrial 541 m² per year

Commercial/Industrial building growth rates are based on building permit activity over the time period between 2011 and 2016 (inclusive). Building permits were issued for a total of 3,246.5m² of commercial/industrial floor area over the six year time period between 2011 and 2016 for an annual average floor area of 541m² per year. Therefore, a growth rate of 541m² (5,823f²) per year is proposed for the 10 year time period between 2017 and 2026.

A review of building permit activity indicates an average of approximately 19 dwellings per year over the last five years. With the recent final approval of the Barrett Chute Subdivision and the extension of Highway 417 close to the intersection of County Road 508 (Calabogie Road), it is anticipated that future growth will be greater than historical trends. Other than the Barrett Chute Subdivision, it is anticipated that growth over the period of the Study will be distributed geographically throughout the Township for the majority of services and will not be isolated to a specific area.

Given these factors, it is reasonable to expect that the Township will experience annual growth of approximately 25 dwelling units per year over the 2017 to 2026 study period. Table B illustrates the projected residential development activity in the Township over this period.

4.5 Assessment Analysis

The following table calculates how the eligible development charge is allocated between residential and commercial/industrial land uses.

Table C
Township of Greater Madawaska
Assessment Analysis – 2016
(Excludes Business Assessment)

	<u>Realty Assessment</u>	<u>Ratio</u>
Residential	\$ 762,970,100	0.986
Commercial/ Industrial	\$ 10,567,100	0.014
TOTAL	<u>\$773,537,200</u>	<u>1.000</u>

Source: Assessment Roll Summary for the Township of Greater Madawaska, 2016.

The assessment base is used to allocate the capital costs between residential and commercial/industrial development. In this regard, it is recommended that 98.6% of the capital costs associated with the General Eligible Services service category, the Fire Protection service category, and the Transportation service category, be allocated to residential growth and 1.4% of the capital costs be allocated to commercial/industrial growth; however, in the case of the Recreation and Library service categories, the residential sector is the user of the service and, therefore, 100% of the capital costs of these categories are allocated to the residential sector.

5.0 TEN-YEAR CAPITAL EXPENDITURE FORECAST

The ten year capital expenditure forecast is based on a program which will result in the average level of service provided for the particular item or service category not exceeding the level of service for the past ten years. Appendix B illustrates the maximum potential development charge for each service category by applying the average level of service per capita over the previous 10 years to the projected population growth over the next 10 year period.

The following Table D illustrates the individual items within the service categories for which a development charge will be collected, and which are expected to be purchased or constructed over the next ten years, in order to meet an increase in the need for the service as a result of growth. Table D also provides an estimate of the cost (in 2016 \$) to acquire or build the particular item and the anticipated expenditure year.

With regard to the roads projects listed under the Transportation service category in the Ten-Year Capital Expenditure Forecast, should it be necessary for Council to substitute a similar road project for one that is listed in this Study, Council may do so without amendment to the Development Charges By-law, subject to certain conditions being met. These conditions are as follows: Council must pass a resolution to adopt an amended Ten-Year Capital Expenditure Forecast related to Development Charges; the portion of road to be funded through development charges is of equal length; the nature of the works are the same; and the same portion of costs are attributable to growth.

**Table D
The Township of Greater Madawaska Ten-Year Capital Expenditure Forecast (2016-2026)
for Projects/Purchases to be Funded Through Development Charges**

Service Category	No. of items or m² or km	Estimated Year of Expenditure	Total Estimated Gross Cost (2016\$)	Growth-Related Share (Eligible Charge) (2016\$)
General Eligible Services: Development Charges Study	1	2021	\$15,000.00	\$13,500.00
Development Charges Study	1	2026	\$15,000.00	\$13,500.00
Asset Management – Annual Update	1	2017 - 2026	\$25,000.00	\$2,300.00
Asset Management – 5 Year Review	1	2021	\$20,000.00	\$1,800.00
Zoning By-law Update	1	2018	\$20,000.00	\$1,800.00
Clinic (m2) (excess capacity)		2026	\$240,000.00	\$20,600.00
Signage (excess capacity)		2026	\$10,000.00	\$900.00
Strategic Plan	1	2017	\$10,000.00	\$900.00
General Eligible Total	-	-	\$355,000.00	\$55,200.00
Fire Protection: Fire Hall Bays (1 Bay Calabogie/1 Bay Griffith)	2	2021	\$720,000.00	\$140,600.00
Fire Trucks (New Pumper/Tanker)	1	2026	\$250,000.00	\$108,900.00
Self-Contained Breathing Apparatus Upgrades (20 units)	1	2017	\$80,000.00	\$16,600.00
New Compressor	1	2020	\$25,000.00	\$8,500.00
Fire Protection Total	-	-	\$1,075,000.00	\$274,600.00
Transportation: New Garage Bays (4 Bays)	4 Bays	2021	\$1,000,000.00	\$170,800.00
Storage Shed (40'x80' @ \$100/ft2)	40'x80'	2021	\$160,000.00	\$109,400.00
1/2 Ton Truck	1	2017	\$50,000.00	\$19,400.00
Tandem Trucks (excess capacity)	1	2026	\$235,000.00	\$235,000.00
Sand/Salt Shed	1	2019	\$260,000.00	\$80,100.00
Matawatchan Road (0.6 km)	0.6 km	2017	\$52,100.00	\$5,200.00
Flying Club Road (1.0 km)	1.0 km	2017	\$84,100.00	\$8,400.00

Frontenac Road (0.75 km)	0.75 km	2017	\$64,700.00	\$6,500.00
O'Neill Road (0.1 km)	0.1 km	2018	\$8,500.00	\$900.00
Barryvale Road (2.3 km)	2.3 km	2018	\$191,500.00	\$19,200.00
Barryvale Road (2.4 km)	2.4 km	2019	\$200,000.00	\$20,000.00
Barryvale Road (0.3 km)	0.3 km	2020	\$25,200.00	\$2,500.00
Tatty Hill Road (1.7 km)	1.7 km	2020	\$143,000.00	\$14,300.00
Mary Joanne Road (0.35 km)	0.35 km	2020	\$31,800.00	\$3,200.00
Barrett Chute Road (0.6 km)	0.6 km	2020	\$50,000.00	\$5,000.00
Barrett Chute Road (2.9 km)	2.9 km	2021	\$244,000.00	\$24,400.00
Ginza Street (0.3 km)	0.3 km	2022	\$25,300.00	\$2,500.00
Rosebrugh Road (0.7 km)	0.7 km	2022	\$59,000.00	\$5,900.00
Parnell Street (0.1 km)	0.1 km	2022	\$15,000.00	\$1,500.00
Madawaska Street (0.5 km)	0.5 km	2022	\$74,600.00	\$7,500.00
Spindle Drift (0.45 km)	0.45 km	2022	\$38,000.00	\$3,800.00
Kennedy Road (0.45 km)	0.45 km	2022	\$38,200.00	\$3,800.00
Kennedy Road (1.35 km)	1.35 km	2023	\$113,600.00	\$11,400.00
Pheasant Run (1.5 km)	1.5 km	2023	\$126,200.00	\$12,600.00
Mount St. Patrick Road (1.9 km)	1.9 km	2024	\$160,000.00	\$16,000.00
Matawatchan Road (1.0 km)	1.0 km	2024	\$84,100.00	\$8,400.00
Ferguson Lake Road (3.0 km)	3.0 km	2025	\$250,000.00	\$25,000.00
Transportation Total	-	-	\$3,783,900.00	\$644,100.00
Recreation:				
Ice Resurfacing Machine	1	2017	\$40,000.00	\$7,200.00
Storage Sheds	1	2017	\$12,000.00	\$4,200.00
Ginza Rink	1	2018	\$200,000.00	\$36,000.00
New Soccer Field (Calabogie)	1	2018	\$30,000.00	\$5,400.00
Ginza - Swing & Play Structures	1	2018	\$25,000.00	\$6,500.00
Recreation Total	-	-	\$307,000.00	\$59,300.00
Library:				
2017 Capital Expenditures	1	2017	\$7,000.00	\$1135.00
2018 Capital Expenditures	1	2018	\$11,900.00	\$3,485.00

2019 Capital Expenditures	1	2019	\$8,600.00	\$1,860.00
2020 Capital Expenditures	1	2020	\$9,000.00	\$2,020.00
2021 Capital Expenditures	1	2021	\$17,000.00	\$6,020.00
2022 Capital Expenditures	1	2022	\$7,500.00	\$1,205.00
2023 Capital Expenditures	1	2023	\$6,800.00	\$880.00
2024 Capital Expenditures	1	2024	\$6,900.00	\$880.00
2025 Capital Expenditures	1	2025	\$7,200.00	\$1,040.00
2026 Capital Expenditures	1	2026	\$7,000.00	\$900.00
Library Total	-	-	\$88,800.00	\$19,425.00
10-YEAR CAPITAL EXPENDITURE TOTAL	-	-	\$5,609,700.00	\$1,072,625.00

6.0 GROWTH-RELATED CAPITAL COSTS

The ten year capital expenditure forecast was used as a basis for calculating the eligible development charge. The costs of planned capital expenditures in 2016 dollars are listed in Table 2A. Table 2A shows the gross cost per unit or project, and the net cost per unit or project. Gross costs for capital items must be reduced by any known grants or subsidies. Additionally, as required by the Development Charges Act, the net capital costs shown on Table 2A for the General Eligible Services, and Recreation service categories are calculated on the basis of 10% of the gross capital cost being drawn from a funding source other than development charge revenues (this would not include grant or subsidy sources which are already deducted from the gross cost).

Also shown in Table 2A are: the share of the cost of capital items attributable to population growth over the ten year projection period, the eligible development charge, and the maximum potential development charge per service category. For items understood to be of equal benefit to both existing and future residents, a ten percent (10%) growth in population was applied to the net capital cost to determine the growth related share of the cost.

Table 2B shows how the eligible development charge for each service category is divided between residential and commercial/industrial development. The following subsections provide a discussion on how the eligible capital costs were determined.

6.1 General Eligible Services

The growth-related capital costs associated with the General Eligible Services category were determined to include the capital costs for the following:

- 100% of the net cost of a Development Charges Study in 2021.
- 100% of the net cost of a Development Charges Study in 2026.
- 10% of the net costs of annual Asset Management Plan Updates.
- 10% of the net cost of a 5 year review of the Asset Management Plan.
- 10% of the net cost of the Township's Zoning By-law Review.
- 10% of the net cost of the excess capacity in the clinic.
- 10% of the net cost of the excess capacity in signage.
- 10% of the net cost of a Strategic Plan.

The mandatory 10% deduction was applied to all costs in the General Eligible Services category, and no grants or subsidies were assumed to be available to undertake the works.

6.2 Fire Protection

As shown in Table 2A, the growth-related capital costs associated with the Fire Services category over the ten year period of the Study were determined to include the capital costs for the following:

- 20% of the net cost to construct 1 fire hall bay in Calabogie and 1 fire hall bay in Griffith in 2021
- 44% of the net cost to purchase a pumper/tanker truck.
- 21% of the net cost to upgrade 20 self-contained breathing apparatuses.
- 34% of the net cost to purchase a new compressor.

6.3 Transportation

Table D includes capital expenditures related to transportation. These include housing, rolling stock, and the road network. The capital costs for existing inventory and planned expenditures were drawn from the Township's Asset Management Plan, and Road Needs Study as well as engineering estimates and comparisons to capital costs for similar capital items in other municipalities. The growth related share of planned capital expenditures was determined in collaboration with Township staff. According to the Development Charges Act, there is no mandatory 10% reduction for services related to a highway as defined in the Municipal Act. No grants or subsidies are assumed to be available for any items. Thus, net costs are equal to gross costs for the Transportation service category.

As shown in Table 2A, the growth-related capital costs associated with the Transportation service category were determined to include the following:

- 17% of the net capital cost of 4 new garage bays in 2021.
- 68% of the net capital cost of a storage shed.
- 39% of the net capital cost of a ½ ton truck.
- 34% of the net capital cost of the excess capacity in tandem trucks.
- 29% of the net capital cost of a sand/salt storage shed.
- 10% of the net capital cost of upgrading Matawatchan Road, Flying Club Road, Frontenac Road, O'Neil Road, Barryvale Road, Tatty Hill Road, Mary Joanne Road, Barrett Chute Road, Ginza Street, Rosebrugh Road, Parnell Street, Madawaska Street, Spindle Drift Court, Kennedy Road, Pheasant Run, Mount St. Patrick Road, and Ferguson Lake Road.

6.4 Recreation

Table D includes capital expenditures related to recreation services. The capital costs for these items were derived from Township staff estimates. The growth related share of each expenditure was determined based on the increase in need for each existing facility as a result of population growth to 2026. This increase in need is calculated in Appendix B. According to the Development Charges Act, there is a mandatory 10%

reduction for services related to recreation. No grants or subsidies are assumed to be available for any items. Thus, net costs are equal to 90% of gross costs for the Recreation service category. No recreation development charges are applied to future commercial/industrial development.

As shown in Table 2A, the growth-related capital costs associated with the Recreation service category were determined to include the following:

- 20% of the net capital cost of an ice re-surfacing machine.
- 39% of the net capital cost of storage sheds.
- 20% of the net capital cost of the Ginza rink.
- 20% of the net capital cost of a new soccer field in Calabogie
- 29% of the net capital cost of swing and play structures at Ginza.

6.5 Library

Table D includes capital expenditures related to library services. The capital costs for these items were derived from Township staff estimates. The growth related share of each expenditure was determined based on the increase in need for each existing facility as a result of population growth to 2026. This increase in need is calculated in Appendix B. According to the Development Charges Act, there is a mandatory 10% reduction for services related to a library. No grants or subsidies are assumed to be available for any items. Thus, net costs are equal to 90% of gross costs for the Library service category. No library development charges are applied to future commercial/industrial development.

As shown in Table 2A, the growth-related capital costs associated with the Library service category were determined to include the following:

- 2017 net cost of capital expenditures which include:
 - 50% of the net capital cost of an Online Public Access Computer (OPAC) terminal - \$200.00
 - 50% of the net capital cost of slat wall shelving - \$325.00
 - 10% of the net capital cost of books - \$600.00
 - Total eligible development charge in 2017: \$1,135.00
- 2018 net cost of capital expenditures which include;
 - 50% of the net capital cost of a circulation desk with wheelchair accessibility - \$2,250.00
 - 50% of the net capital cost of a book cart - \$300.00
 - 50% of the net capital cost of slat wall shelving - \$325.00
 - 10% of the net capital cost of books - \$610.00
 - Total eligible development charge in 2018: \$3,485.00
- 2019 net cost of capital expenditures which include;
 - 50% of the net capital cost of library quality shelving - \$1,250.00
 - Books - \$610.00
 - Total eligible development charge in 2019: \$1,860.00
- 2020 net cost of capital expenditures which include;

- 50% of the net capital cost of slat panel public computer station - \$1,050.00
- 50% of the net capital cost of slat wall shelving - \$350.00
- 10% of the net capital cost of books - \$620.00
- Total eligible development charge in 2020: \$2,020.00
- 2021 net cost of capital expenditures which include;
 - 50% of the net capital cost of upgraded Integrated Library System (ILS) - \$5,000.00
 - 50% of the net capital cost of a periodical shelf - \$400.00
 - 10% of the net capital cost of books - \$620.00
 - Total eligible development charge in 2021: \$6,020.00
- 2022 net cost of capital expenditures which include;
 - 50% of the net capital cost of a juvenile book spinner - \$225.00
 - 50% of the net capital cost of slat wall shelving - \$ 350.00
 - 10% of the net capital cost of books - \$630.00
 - Total eligible development charge in 2022: \$1,205.00
- 2023 net cost of capital expenditures which include;
 - 50% of the net capital cost of slat wall shelving - \$250.00
 - 10% of the net capital cost of books - \$630.00
 - Total eligible development charge in 2023: \$880.00
- 2024 net cost of capital expenditures which include;
 - 50% of the net capital cost of stacking chairs - \$250.00
 - 10% of the net capital cost of books - \$640.00
 - Total eligible development charge in 2024: \$880.00
- 2025 net cost of capital expenditures which include;
 - 50% of a children's work table - \$400.00
 - 10% of the net capital cost of books - \$640.00
 - Total eligible development charge in 2025: \$1,040.00
- 2026 capital expenditures which include;
 - 50% of the net capital cost of stacking chairs - \$250.00
 - 10% of the net capital cost of books - \$650.00
 - Total eligible development charge in 2026: \$900.00

6.6 Excess Capacity

Except as indicated otherwise, no excess capacity was existing in any of the services for which a development charge may be collected. Council intends to recover, through future development charges, the costs of any excess capacity in items that will be purchased, or facilities that will be built during the ten year period of the capital forecast. This applies to all service categories, and is relevant in the event that either the eligible development charge exceeds current average service levels, or Council implements a development charge that is less than the maximum eligible charge.

FUTURE MUNICIPAL EXPENDITURES
That Qualify as Growth-Related Under the Development Charges Act
(2016 \$000's)

GENERAL ELIGIBLE	Expend. Year	GROSS Cost	NET Cost	Growth Related Share (% or #)	Eligible Dev. Charge	Maximum Dev. Charge
Development Charge Study	2021	\$15.0	\$13.5	100%	\$13.5	
Development Charge Study	2026	\$15.0	\$13.5	100%	\$13.5	
Asset Management - Annual Update	2017-2026	\$25.0	\$22.5	10%	\$2.3	
Asset Management - 5 Year Review	2021	\$20.0	\$18.0	10%	\$1.8	
Zoning By-law Update	2018	\$20.0	\$18.0	10%	\$1.8	
Clinic (m2) (excess capacity)	2026	\$240.0	\$216.0	10%	\$20.6	
Signage (excess capacity)	2026	\$10.0	\$9.0	10%	\$0.9	
Strategic Plan	2017	\$10.0	\$9.0	10%	\$0.9	
Subtotal		\$355.0	\$319.5		\$55.2	N/A

FIRE PROTECTION	Expend. Year	GROSS Cost	NET Cost	Growth Related Share (% or #)	Eligible Dev. Charge	Maximum Dev. Charge
Fire Hall Bays (1 Bay Calabogie/1 Bay Griffith)	2021	\$720.0	\$720.0	20%	\$140.6	
Fire Trucks (New Pumper/Tanker)	2026	\$250.0	\$250.0	44%	\$108.9	
Self Contained Breathing Apparatus Upgrades (20 units)	2017	\$80.0	\$80.0	21%	\$16.6	
New Compressor	2020	\$25.0	\$25.0	34%	\$8.5	
Subtotal		\$1,075.0	\$1,075.0		\$274.6	\$287.3

TRANSPORTATION	Expend. Year	Gross Cost	NET Cost	Growth Related Share (% or #)	Eligible Dev. Charge	Maximum Dev. Charge
New Garage Bays (4 Bays)	2021	\$1,000.0	\$1,000.0	17%	\$170.8	
Storage Shed (3200ft ² @ \$50)	2021	\$160.0	\$160.0	68%	\$109.4	
1/2 Ton Truck	2017	\$50.0	\$50.0	39%	\$19.4	
Tandem Trucks (excess capacity)	2026	\$235.0	\$235.0	34%	\$80.1	
Sand/Salt Shed	2019	\$260.0	\$260.0	29%	\$76.4	
Matawatchan Road (0.6 km)	2017	\$52.1	\$52.1	10%	\$5.2	
Flying Club Road (1.0 km)	2017	\$84.1	\$84.1	10%	\$8.4	
Frontenac Road (0.75 km)	2017	\$64.7	\$64.7	10%	\$6.5	
O'Neill Road (0.1 km)	2018	\$8.5	\$8.5	10%	\$0.9	
Barryvale Road (2.3 km)	2018	\$191.5	\$191.5	10%	\$19.2	
Barryvale Road (2.4 km)	2019	\$200.0	\$200.0	10%	\$20.0	
Barryvale Road (0.3 km)	2020	\$25.2	\$25.2	10%	\$2.5	
Tatty Hill Road (1.7 km)	2020	\$143.0	\$143.0	10%	\$14.3	
Mary Joanne Road (0.35 km)	2020	\$31.8	\$31.8	10%	\$3.2	
Barrett Chute Road (0.6 km)	2020	\$50.0	\$50.0	10%	\$5.0	
Barrett Chute Road (2.9 km)	2021	\$244.0	\$244.0	10%	\$24.4	
Ginza Street (0.3 km)	2022	\$25.3	\$25.3	10%	\$2.5	
Rosebrugh Road (0.7 km)	2022	\$59.0	\$59.0	10%	\$5.9	
Parnell Street (0.1 km)	2022	\$15.0	\$15.0	10%	\$1.5	
Madawaska Street (0.5 km)	2022	\$74.6	\$74.6	10%	\$7.5	
Spindle Drift (0.45 km)	2022	\$38.0	\$38.0	10%	\$3.8	
Kennedy Road (0.45 km)	2022	\$38.2	\$38.2	10%	\$3.8	
Kennedy Road (1.35 km)	2023	\$113.6	\$113.6	10%	\$11.4	
Pheasant Run (1.5 km)	2023	\$126.2	\$126.2	10%	\$12.6	
Mount St. Patrick Road (1.9 km)	2024	\$160.0	\$160.0	10%	\$16.0	
Matawatchan Road (1.0 km)	2024	\$84.1	\$84.1	10%	\$8.4	
Ferguson Lake Road (3.0 km)	2025	\$250.0	\$250.0	10%	\$25.0	
Subtotal		\$3,783.9	\$3,783.9		\$664.1	\$9,160.0

RECREATION	Expend. Year	GROSS Cost	NET Cost	Growth Related Share (% or #)	Eligible Dev. Charge	Maximum Dev. Charge
Ice Resurfacing Machine	2017	\$40.0	\$36.0	20%	\$7.2	
Storage Sheds	2017	\$12.0	\$10.8	39%	\$4.2	
Ginza Rink	2018	\$200.0	\$180.0	20%	\$36.0	
New Soccer Field (Calabogie)	2018	\$30.0	\$27.0	20%	\$5.4	
Ginza - Swing & Play Structures	2018	\$25.0	\$22.5	29%	\$6.5	
Subtotal		\$307.0	\$276.3		\$59.3	\$84.3

LIBRARY	Expend. Year	GROSS Cost	NET Cost	Growth Related Share (% or #)	Eligible Dev. Charge	Maximum Dev. Charge
2017 Capital Expenditures	2017	\$7.0	\$6.3	18%	\$1.13	
2018 Capital Expenditures	2018	\$11.9	\$10.7	32%	\$3.41	
2019 Capital Expenditures	2019	\$8.6	\$7.7	24%	\$1.86	
2020 Capital Expenditures	2020	\$9.0	\$8.1	25%	\$2.02	
2021 Capital Expenditures	2021	\$17.0	\$15.3	39%	\$6.02	
2022 Capital Expenditures	2022	\$7.5	\$6.7	18%	\$1.20	
2023 Capital Expenditures	2023	\$6.8	\$6.1	14%	\$0.88	
2024 Capital Expenditures	2024	\$6.9	\$6.2	14%	\$0.88	
2025 Capital Expenditures	2025	\$7.2	\$6.5	16%	\$1.04	
2026 Capital Expenditures	2026	\$7.0	\$6.3	14%	\$0.90	
Subtotal		\$88.8	\$79.9		\$19.3	\$115.4

Township of Greater Madawaska	TABLE 2B	March 2017
FUTURE MUNICIPAL EXPENDITURES:		
Allocation of Growth-Related Cost to Land Use Type		
(2016 \$000's)		

	Eligible Develop. Charge	Expend. Year	Residential Share 98.6%	Com/Ind Share 1.4%
GENERAL ELIGIBLE				
Development Charge Study	\$13.5	2021	\$13.3	\$0.2
Development Charge Study	\$13.5	2026	\$13.3	\$0.2
Asset Management - Annual Update	\$2.3	2017-2026	\$2.2	\$0.0
Asset Management - 5 Year Review	\$1.8	2021	\$1.8	\$0.0
Zoning By-law Update	\$1.8	2018	\$1.8	\$0.0
Clinic (m2) (excess capacity)	\$20.6	2026	\$20.3	\$0.3
Signage (excess capacity)	\$0.9	2026	\$0.9	\$0.0
Strategic Plan	\$0.9	2017	\$0.9	\$0.0
Subtotal	\$55.2		\$54.5	\$0.8

	Eligible Develop. Charge	Expend. Year	Residential Share 98.6%	Com/Ind Share 1.4%
FIRE PROTECTION				
Fire Hall Bays (1 Bay Calabogie/1 Bay Griffith)	\$140.6	2021	\$138.6	\$2.0
Fire Trucks (New Pumper/Tanker)	\$108.9	2026	\$107.3	\$1.5
Self Contained Breathing Apparatus Upgrades (20 units)	\$16.6	2017	\$16.4	\$0.2
New Compressor	\$8.5	2020	\$8.4	\$0.1
Subtotal	\$274.6		\$270.8	\$3.8

	Eligible Develop. Charge	Expend. Year	Residential Share 98.6%	Com/Ind Share 1.4%
TRANSPORTATION				
New Garage Bays (4 Bays)	\$170.8	2021	\$168.4	\$2.4
Storage Shed (3200ft ² @ \$50)	\$109.4	2021	\$107.9	\$1.5
1/2 Ton Truck	\$19.4	2017	\$19.1	\$0.3
Tandem Trucks (excess capacity)	\$80.1	2026	\$79.0	\$1.1
Sand/Salt Shed	\$76.4	2019	\$75.4	\$1.1
Matawatchan Road (0.6 km)	\$5.2	2017	\$5.1	\$0.1
Flying Club Road (1.0 km)	\$8.4	2017	\$8.3	\$0.1
Frontenac Road (0.75 km)	\$6.5	2017	\$6.4	\$0.1
O'Neill Road (0.1 km)	\$0.9	2018	\$0.8	\$0.0
Barryvale Road (2.3 km)	\$19.2	2018	\$18.9	\$0.3
Barryvale Road (2.4 km)	\$20.0	2019	\$19.7	\$0.3
Barryvale Road (0.3 km)	\$2.5	2020	\$2.5	\$0.0
Tatly Hill Road (1.7 km)	\$14.3	2020	\$14.1	\$0.2
Mary Joanne Road (0.35 km)	\$3.2	2020	\$3.1	\$0.0
Barrett Chute Road (0.6 km)	\$5.0	2020	\$4.9	\$0.1
Barrett Chute Road (2.9 km)	\$24.4	2021	\$24.1	\$0.3
Ginza Street (0.3 km)	\$2.5	2022	\$2.5	\$0.0
Rosebrugh Road (0.7 km)	\$5.9	2022	\$5.8	\$0.1
Parnell Street (0.1 km)	\$1.5	2022	\$1.5	\$0.0
Madawaska Street (0.5 km)	\$7.5	2022	\$7.4	\$0.1
Spindle Drift (0.45 km)	\$3.8	2022	\$3.7	\$0.1
Kennedy Road (0.45 km)	\$3.8	2022	\$3.8	\$0.1
Kennedy Road (1.35 km)	\$11.4	2023	\$11.2	\$0.2
Pheasant Run (1.5 km)	\$12.6	2023	\$12.4	\$0.2
Mount St. Patrick Road (1.9 km)	\$16.0	2024	\$15.8	\$0.2
Matawatchan Road (1.0 km)	\$8.4	2024	\$8.3	\$0.1
Ferguson Lake Road (3.0 km)	\$25.0	2025	\$24.7	\$0.4
Subtotal	\$664.1		\$654.8	\$9.3

	Eligible Develop. Charge	Expend. Year	Residential Share 100%	Com/Ind Share 0%
RECREATION				
Ice Resurfacing Machine	\$7.2	2017	\$7.2	\$0.0
Storage Sheds	\$4.2	2017	\$4.2	\$0.0
Ginza Rink	\$36.0	2018	\$36.0	\$0.0
New Soccer Field (Calabogie)	\$5.4	2018	\$5.4	\$0.0
Ginza - Swing & Play Structures	\$6.5	2018	\$6.5	\$0.0
Subtotal	\$59.3		\$59.3	\$0.0

	Eligible Develop. Charge	Expend. Year	Residential Share 100%	Com/Ind Share 0%
LIBRARY				
2017 Capital Expenditures	\$1.1	2017	\$1.1	\$0.0
2018 Capital Expenditures	\$3.4	2018	\$3.4	\$0.0
2019 Capital Expenditures	\$1.9	2019	\$1.9	\$0.0
2020 Capital Expenditures	\$2.0	2020	\$2.0	\$0.0
2021 Capital Expenditures	\$6.0	2021	\$6.0	\$0.0
2022 Capital Expenditures	\$1.2	2022	\$1.2	\$0.0
2023 Capital Expenditures	\$0.9	2023	\$0.9	\$0.0
2024 Capital Expenditures	\$0.9	2024	\$0.9	\$0.0
2025 Capital Expenditures	\$1.0	2025	\$1.0	\$0.0
2026 Capital Expenditures	\$0.9	2026	\$0.9	\$0.0
Subtotal	\$19.3		\$19.3	\$0.0

7.0 **FUND ADMINISTRATION**

A separate development charge reserve fund should be created into which all development charge revenues are deposited. Interest earned on the fund balance accrues to the fund and is an integral part of the development charge structure. Withdrawals from the fund are made only to pay for the growth-related net capital cost of service types listed in this report or to refund overpayment to owners, with interest, if appropriate.

A sub-account for each of the following service types should be maintained and the indicated proportionate share of development charge revenues and interest accumulated, and appropriate expenditures deducted (Tables 3A and 3B). The following Table E summarizes how the development charges that are collected are to be allocated between reserve fund sub-accounts.

Table E
The Township of Greater Madawaska
Allocation of Development Charges between Service Categories

<u>Service Category</u>	<u>Proportional Share</u>	
	<u>Residential</u>	<u>Commercial/ Industrial</u>
General Eligible Services	4.92 %	5.36 %
Fire Protection	24.46 %	26.87 %
Transportation	62.85 %	67.77 %
Recreation	5.93 %	0.0 %
Library	1.84 %	0.0 %
Total	100.0 %	100.0 %

Responsibility for the reserve fund and sub-account operations should be with the Treasurer, who is ultimately responsible for the fiscal viability of the reserve fund and its future commitments.

An annual report relating to the development charges by-law and reserve funds must be prepared by the Treasurer and submitted to Council, in accordance with the requirements of the Development Charges Act. The annual report from the Treasurer must also include the following information:

For each reserve fund:

- A description of the service for which the fund was established (list of services in the service category).

- For any credits in relation to the service or service category for which the fund was established, the amount outstanding at the beginning of the previous year, the amount given in the year, the amount used in the year, and the amount outstanding at the end of the year. These amounts must then be broken down further by individual credit holder.
- The amount of any money borrowed from the fund by the Township during the previous year and the purpose for which it was borrowed.
- The amount of interest accrued during the previous year on the money borrowed from the fund by the Township.
- The amount and source of any money used by the municipality in the previous year to repay money borrowed from the fund or interest on such money.
- A schedule that identifies credits recognized under section 17 and, for each credit recognized, the service against which the credit is applied and the source of funds used to finance the credit.

For each project that is financed in whole or in part through development charges:

- The amount of money from each reserve fund that is spent on the project.
- The amount and source of any other money that is spent on the project.

Township of Greater Madawaska	Table 3A	March 2017
SCHEDULE OF FUTURE ACQUISITIONS BY YEAR: General Charge That Qualify as Growth-Related (2016 \$000's)		

RESIDENTIAL

Service Category	Ratio	NPV ¹	Ex. Bal.	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
General Eligible	4.92%	46.58	2.2	1.1	2.0	0.2	0.2	15.3	0.2	0.2	0.2	0.2	34.7	54.50
Fire Protection	24.46%	231.71	0.0	16.4	0.0	0.0	8.4	138.6	0.0	0.0	0.0	0.0	107.3	270.80
Transportation	62.86%	595.36	0.0	38.9	37.8	95.1	24.6	300.4	24.7	23.6	24.1	24.7	79.0	672.90
Recreation	5.93%	56.15	0.0	0.0	47.9	0.0	0.0	7.2	0.0	0.0	0.0	0.0	4.2	59.30
Library	1.84%	17.38	2.3	1.1	3.4	1.9	2.0	6.0	1.2	0.9	0.9	1.0	0.9	19.30
TOTAL	100%	947.18	4.5	57.5	91.2	97.2	35.3	467.6	26.1	24.7	25.2	25.9	226.2	1,076.80

Notes: 1. Net Present Value

Township of Greater Madawaska	Table 3B SCHEDULE OF FUTURE AQUISITIONS BY YEAR: General Charge That Qualify as Growth-Related (2016 \$000's)	March 2017
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COMMERCIAL / INDUSTRIAL

Service Category	Ratio	NPV ¹	Ex. Bal.	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
General Eligible	5.36%	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.5	0.8
Fire Protection	26.87%	3.3	0.0	0.0	0.2	0.0	0.1	2.0	0.0	0.0	0.0	0.0	1.5	3.8
Transportation	67.77%	8.2	0.0	0.6	0.3	1.4	0.3	4.3	0.4	0.3	0.3	0.4	1.1	9.3
Recreation (Not Applicable)	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Library (Not Applicable)	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	100%	12.1	0.0	0.6	0.5	1.4	0.5	6.5	0.4	0.3	0.3	0.4	3.1	13.9

Notes: 1. Net Present Value

8.0 **IMPLEMENTATION**

8.1 Application of Development Charge

The current by-law provides for reduced development charge for residential development in registered plans of subdivisions. It is recommended that this practice be ended. A uniform development charge rate is recommended across the entire Township for the following reasons:

- a) Capital expenditures in the Township are designed to service the entire population, and therefore a Township-wide approach is an equitable approach for allocating these costs.
- b) The construction or acquisition program must be based on priority of need rather than attempting to balance construction by the financial returns of differing areas. It is not practical to draw definitive geographic boundaries within the Township to identify different levels of service.
- c) All services listed in this Study are available to all residents. The fund is simpler to administer on this basis.

The Development Charges By-law expires five years after the day it comes into force unless Council identifies an earlier expiry date or repeals it sooner.

8.2 Adjustments for Inflation

The development charge in the Township is based on a combination of projects to be built in the future, costed in 2016 dollars. It is therefore recommended that an annual inflation factor be applied to the development charge fee, to adjust for inflationary pressures. The Regulation to the Development Charges Act (Ontario Regulation 82/98, as amended) identifies the Statistics Canada Quarterly *Construction Price Statistics* catalogue number 62-007 as the prescribed index.

8.3 Development Charge Implementation and Collection

The development charges by-law should be implemented in full on the date of passage of the By-law and should apply to all new building permit applications. The Development Charges Act identifies the building permit stage as the time when development charges are payable. As services are required at or near the date that a building is occupied, it is appropriate to collect the development charge at the building permit stage.

8.4 Pamphlet

The Development Charges Act requires that a pamphlet be prepared which describes the general purpose of the development charges that are being imposed, the rules for determining if a development charge is payable and the amount, a list of the services to which the development charges relate, and a description of the general purpose of the Treasurer's annual report (statement of the Treasurer) and where it may be reviewed by the public. One copy of the pamphlet is to be distributed free of charge to any one requesting it.

8.5 Conditions to be imposed on Subdivision Approvals

The Development Charges Act requires that draft plan of subdivision approvals include a condition that, upon final approval of the subdivision, all initial purchasers of the subdivided land be informed at the time of transfer of ownership of all development charges related to the development of the land.

9.0 DEVELOPMENT CHARGES

9.1 Summary of New Development Charges

The following Table F provides a summary of the maximum new development charges for The Township of Greater Madawaska, which could be considered based on the Capital Expenditure Forecast. The new charges are based on calculations shown in Tables 4A and 4B. Table F shows the general development charge that would be applicable to new development on all lands in The Township of Greater Madawaska. It should be noted that values shown on Tables 4A and 4B are maximum amounts that can be collected. Township Council may decide not to collect the maximum eligible development charge from a certain category of use as long as the difference is not made up by another category of use.

The maximum new charges that could be collected based on the eligible portion of capital items in the Township’s Ten-year Capital Expenditure Forecast (Table D) are as follows:

**Table F: The Township of Greater Madawaska
Maximum Development Charges – General Charge**

The Township of Greater Madawaska - General Development Charge		
Use	Category	New Charge
Residential (per dwelling unit)	Single Detached Dwelling	\$ 4,448
	Attached Dwelling	\$ 4,351
	Apartment	\$ 3,956
	Mobile Home	\$ 3,758
Commercial/ Industrial/ (per m ² of G.F.A.)	Applies to all categories except expansions of existing Industrial buildings of less than 50% of the G.F.A.	\$ 2.62 per m ²
Institutional	Charge determined as per nature of the use, i.e., Residential components charged according to the class of use and other components charged as per Commercial/Industrial rate.	

9.2 Development Charges in Surrounding Municipalities

The following Table G provides a summary of the current development charges in surrounding municipalities. This information is provided to assist Council in determining a development charge that achieves the Township's capital investment goals, while being aware of development charges in surrounding municipalities with similar development contexts.

**Table G: The Township of Greater Madawaska
Development Charges in Area Municipalities**

Municipality	Residential Development Charges (Single-Detached dwelling)	Commercial/Industrial Development Charges	By-law Implementation/ Expiry Date
McNab/Braeside	\$3,763	\$5.04 m ²	June 17, 2014/ June 17, 2019
Horton	\$3,743	\$2.81 m ²	June 4, 2013 / June 4, 2018
Town of Renfrew	\$3,500	\$2.25 m ²	January 25, 2015 / December 31, 2016
Lanark Highlands	N/A	N/A	Expired October 27, 2014
Admaston/Bromley	N/A	N/A	N/A

9.3 Credits for Lot Levies Previously Collected

If the Township previously charged a lot levy for the creation of new lots, the Township must continue the practice of deducting the amount of the lot levy already paid for a vacant lot from the development charge that would be payable under the new development charges by-law, at the time a building permit is obtained for the lot.

Township of Greater Madawask:

**TABLE 4A
DEVELOPMENT CHARGES CALCULATION: General Charge
Net Growth-Related Capital Cost
(2016 \$000's)**

March 2017

RESIDENTIAL

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Population Forecast By Year	npv	5,953	6,009	6,065	6,121	6,178	6,234	6,290	6,346	6,403	6,459
Per year growth	562 480	56	56	56	56	56	56	56	56	56	56
Persons per Household		2.245	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
Decrease in Persons per Household	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Household Forecast By Year		2,651	2,676	2,701	2,726	2,751	2,776	2,801	2,826	2,851	2,876
Annual Increase	250 213	25	25	25	25	25	25	25	25	25	25

Net Present Value	3%
Net Capital Cost	947.2
Adjusted Population Growth	479
Net Capital Cost Per Capita	\$1,978

	PERSONS PER UNIT			PV of Cost / Capita
	Current	Decrease Factor	Adjusted	
Average Hhld	2.245	0.000	2.246	\$1,978
Single Detached	2.249	0.000	2.249	\$1,978
Attached	2.200	0.000	2.200	\$1,978
Apartment	2.000	0.000	2.000	\$1,978
Mobile Home	1.900	0.000	1.900	\$1,978

DEVELOPMENT CHARGE TABLE			
	Gross	Tax Credit	Net
Average Hhld	\$4,442	\$0.00	\$4,442
Single Detached	\$4,448	\$0.00	\$4,448
Attached	\$4,351	\$0.00	\$4,351
Apartment	\$3,956	\$0.00	\$3,956
Mobile Home	\$3,758	\$0.00	\$3,758

Township of Greater Madawaska	TABLE 4B DEVELOPMENT CHARGES CALCULATION: General Charge Net Growth-Related Capital Cost (2016 \$000's)	March 2017
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COMMERCIAL / INDUSTRIAL

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Commercial Square Metres (sq. meters of building space)										
Annual Growth	541	541	541	541	541	541	541	541	541	541

Net Present Value	3%
Net Capital Cost	12.1
Net Growth In Space	4616
Cost Per sq. m.	2.62
Tax Credit	0
Development Charge Per Sq. M. of Building Space	\$2.62

10.0 LONG TERM CAPITAL AND OPERATING COSTS

This section provides a brief examination of the long-term capital and operating costs for the capital facilities and infrastructure to be included in the Development Charges Study. This examination is required as one of the features of the Development Charges Act, 1997.

10.1 Net operating costs over the forecast period

The Municipality's net operating costs are not expected to increase by any significant amount as a result of the capital infrastructure program included in this Development Charge Study.

10.2. Long-term capital financing from non-development charge sources

Table 5A summarizes the components of the development-related capital program that will require funding from non-development charge sources. In total \$4,537,100 will need to be financed from non-development charge sources over the next ten years. This includes about \$75,000 in respect of the mandatory ten per cent discount required by the DCA for eligible general services and about \$4,486,100 for shares of projects related to capital replacement and for non-growth related shares of projects that provide benefit to the existing community.

Township of Greater Madawaska	Table 5A		March 2017
SUMMARY OF LONG TERM CAPITAL IMPACT			
(2016 \$000's)			

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Gross Cost	402.5	489.4	471.1	286.5	2,178.5	260.0	249.1	253.5	259.7	759.5	5,609.7
Eligible Development Charge	69.8	73.4	98.5	35.8	466.8	26.4	25.1	25.5	26.3	225.1	1,072.6
TOTAL	332.7	416.0	372.6	250.7	1,711.7	233.5	224.0	228.0	233.4	534.4	4,537.1

Township of Greater Madawaska	Table 5B		March 2017
SUMMARY OF CALCULATED ANNUAL PROVISIONS			
for Capital Acquisitions Funded by Development Charge			
(2016 \$000's)			

Service Category	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
GENERAL ELIGIBLE	2.5	4.4	4.4	4.4	11.3	11.3	11.3	11.3	11.3	11.3	83.4
FIRE PROTECTION	7.6	7.6	7.6	10.0	21.2	21.2	21.2	21.2	21.2	21.2	160.2
TRANSPORTATION	13.9	23.0	39.5	50.9	80.0	91.3	102.2	113.3	124.7	124.7	763.5
RECREATION	5.0	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	160.7
LIBRARY	0.7	1.8	2.6	3.5	5.1	5.8	6.5	7.1	7.8	8.5	49.4
TOTAL	29.7	54.2	71.5	86.1	134.9	146.9	158.5	170.2	182.3	182.9	1,217.2

11.0 ASSET MANAGEMENT

The Development Charges Act was amended in late 2015 and, effective January 1st 2016, municipalities are required to complete an Asset Management Plan before the passing of a development charges by-law. A key function of the Asset Management Plan is to demonstrate that all assets proposed to be funded under the development charges by-law are financially sustainable over their full life cycle.

11.1 Annual Capital Provisions

The annual capital provisions required to replace the capital infrastructure proposed to be funded under the development charges by-law is based on useful life assumptions and the capital cost of acquiring each asset.

As shown in Table 5B, by 2026 the Municipality will need to fund an additional \$1,217,200 over 10 years in order to properly fund the full life-cycle costs of the new assets supported under this Development Charges By-Law.

The calculated annual funding provision should be considered within the context of the Municipality's projected growth over the next ten years. This growth will have the effect of increasing the overall assessment base to offset the capital asset provisions required to replace the infrastructure proposed to be funded under the development charges bylaw.

The calculated annual provisions identified are considered to be financially sustainable as it is expected that the increased capital asset management requirements can be absorbed by the tax base over the long-term.

12.0 REFERENCES

Township of Greater Madawaska *Asset Management Plan – Version 2.0 (2014)*, prepared by Greenview Environmental, May, 2015.

Township of Greater Madawaska Roads Needs Study, Public Works Department, 2013.

Census Canada 2001, 2006 and 2011 Statistics, Population and Dwelling Count data.

Bill 98 - The *Development Charges Act, 1997* and Ontario Regulation 82/98, as amended by Regulation 428/15.

By-law No. 21-2012 of the Corporation of The Township of Greater Madawaska (Development Charges By-law).

Report for Development Charges Study, The Township of Greater Madawaska, prepared by Jp2g Consultants Inc., May, 2012.

Ontario Ministry of Finance/MPAC, 2016 Assessment Roll Summary, Total Assessment Value, Township of Greater Madawaska.

The Township of Greater Madawaska reserve fund report, December, 2015.

Township of Greater Madawaska staff interviews and various written communications.

APPENDIX “A”

Inventory of Existing Municipal Facilities and Level of Service (2007-2016)

APPENDIX “B”

Average Level of Service Applied To Population Growth (2017-2026)

AVERAGE LEVEL OF SERVICE APPLIED TO POPULATION GROWTH (2017-2026)
Township of Greater Madawaska 2017 to 2026

SERVICE CATEGORY	Average Level of Service (\$000's/#)	Incremental Increase in Need for Service (Avg. Lvl. Of Service x Pop. Growth)											Total attributed to growth
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
FIRE PROTECTION	\$0.51	\$0.0	\$28.7	\$57.5	\$86.2	\$114.9	\$143.7	\$172.4	\$201.1	\$229.8	\$258.6	\$287.3	\$287.3
TRANSPORTATION	\$16.29	\$0.0	\$916.0	\$1,832.0	\$2,748.0	\$3,664.0	\$4,580.0	\$5,496.0	\$6,412.0	\$7,328.0	\$8,244.0	\$9,160.0	\$9,160.0
RECREATION	\$0.15	\$0.0	\$8.4	\$16.9	\$25.3	\$33.7	\$42.1	\$50.6	\$59.0	\$67.4	\$75.8	\$84.3	\$84.3
LIBRARY	\$0.21	\$0.0	\$11.5	\$23.1	\$34.6	\$46.2	\$57.7	\$69.3	\$80.8	\$92.3	\$103.9	\$115.4	\$115.4

FIRE PROTECTION													
Fire Hall Bays	\$0.25	\$0.0	\$14.1	\$28.1	\$42.2	\$56.2	\$70.3	\$84.3	\$98.4	\$112.4	\$126.5	\$140.6	\$140.6
Pumper/Tankers	\$0.19	\$0.0	\$10.9	\$21.8	\$32.7	\$43.6	\$54.5	\$65.4	\$76.3	\$87.1	\$98.0	\$108.9	\$108.9
Self Contained Breathing Apparatus	\$0.03	\$0.0	\$1.7	\$3.3	\$5.0	\$6.6	\$8.3	\$10.0	\$11.6	\$13.3	\$14.9	\$16.6	\$16.6
Fire Equipment (i.e. Compressor)	\$0.02	\$0.0	\$0.8	\$1.7	\$2.5	\$3.4	\$4.2	\$5.1	\$5.9	\$6.8	\$7.6	\$8.5	\$8.5

TRANSPORTATION													
Buildings and Rolling Stock													
Municipal Garages	\$0.30	\$0.0	\$17.1	\$34.2	\$51.2	\$68.3	\$85.4	\$102.5	\$119.6	\$136.6	\$153.7	\$170.8	\$170.8
Small Trucks (1/2, 3/4 and 1 Ton)	\$0.04	\$0.0	\$2.0	\$4.1	\$6.1	\$8.1	\$10.2	\$12.2	\$14.2	\$16.3	\$18.3	\$20.3	\$20.3
Trucks/Tandem Trucks (Excess Capacity)	\$0.14	\$0.0	\$8.0	\$16.0	\$24.0	\$32.0	\$40.0	\$48.1	\$56.1	\$64.1	\$72.1	\$80.1	\$80.1
Salt Storage Areas	0.001	0.00	0.03	0.06	0.09	0.12	0.15	0.18	0.20	0.23	0.26	0.29	0.29
Storage Areas	0.001	0.00	0.07	0.14	0.20	0.27	0.34	0.41	0.48	0.55	0.61	0.68	0.68
Roads													
HRL Roads (All Roads)	\$2.55	\$0.0	\$143.7	\$287.3	\$431.0	\$574.6	\$718.3	\$861.9	\$1,005.6	\$1,149.3	\$1,292.9	\$1,436.6	\$1,436.58
LCB Roads (All Roads)	\$4.90	\$0.0	\$275.6	\$551.2	\$826.7	\$1,102.3	\$1,377.9	\$1,653.5	\$1,929.1	\$2,204.7	\$2,480.2	\$2,755.8	\$2,755.82
Gravel Roads (All Roads)	\$8.11	\$0.0	\$456.1	\$912.3	\$1,368.4	\$1,824.6	\$2,280.7	\$2,736.8	\$3,193.0	\$3,649.1	\$4,105.3	\$4,561.4	\$4,561.41
HRL Roads (Per KM)	\$0.09	\$0.0	\$5.2	\$10.4	\$15.6	\$20.8	\$26.0	\$31.3	\$36.5	\$41.7	\$46.9	\$52.1	\$52.09
LCB Roads (Per KM)	\$0.07	\$0.0	\$3.8	\$7.6	\$11.4	\$15.2	\$19.0	\$22.8	\$26.6	\$30.5	\$34.3	\$38.1	\$38.07
Gravel Roads (Per KM)	\$0.06	\$0.0	\$3.4	\$6.9	\$10.3	\$13.7	\$17.1	\$20.6	\$24.0	\$27.4	\$30.9	\$34.3	\$34.30
Gravel to LCB (Per KM)	\$0.007	\$0.0	\$0.4	\$0.8	\$1.1	\$1.5	\$1.9	\$2.3	\$2.6	\$3.0	\$3.4	\$3.8	\$3.77
LCB to HRL (Per KM)	\$0.02	\$0.0	\$1.4	\$2.8	\$4.2	\$5.6	\$7.0	\$8.4	\$9.8	\$11.2	\$12.6	\$14.0	\$14.02

RECREATION													
Ice Resurfacing	0.0003	0.00	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.195
Storage Sheds	0.0007	0.00	0.04	0.08	0.12	0.16	0.20	0.23	0.27	0.31	0.35	0.39	0.390
Rink Facilities	0.0003	0.00	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.195
New Soccer Field (Calabogie)	0.0005	0.00	0.03	0.06	0.09	0.12	0.15	0.18	0.20	0.23	0.26	0.29	0.293
Play Structures	0.0005	0.00	0.03	0.06	0.09	0.12	0.15	0.18	0.20	0.23	0.26	0.29	0.293