

**Report For Development Charges Study
Township of Beckwith
June 2019**

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DEVELOPMENT CHARGES BACKGROUND STUDY

EXECUTIVE SUMMARY

The enactment of the Development Charges Act, 1997 and its associated regulations (Ontario Regulation 82/98) require municipalities to establish a new Development Charges By-law every five years. As such, the Council of the Township of Beckwith has completed a study to determine the basis for a new development charge for the period June 1, 2019 to May 31, 2024.

An analysis of the Township’s growth patterns and the anticipated growth related capital costs, over the next five years, has led to the determination of a recommended development charge apportioned as follows:

	Current Development Charge \$	Study Maximum Development Charge \$	Suggested Development Charge \$				
			Year 1	Year 2	Year 3	Year 4	Year 5
Administration/ Development Charge Study	60	68	60	60	60	60	60
Fire Protection	655	878	675	725	750	775	800
Road Systems	3,400	4,304	3,475	3,575	3,675	3,775	3,875
Works Equipment	190	441	190	190	215	240	265
Housing	115	0	0	0	0	0	0
Recreation	1,580	2,258	1,600	1,700	1,800	1,900	2,000
Total	6,000	7,949	6,000	6,250	6,500	6,750	7,000

The Development Charges Act, 1997 specifically sets out the requirements for the determination of a development charge, in section 5(1), and requires that the background study be prepared in accordance with the Act and its regulations. The following report has been prepared on this basis and has been approved by the Council of the Township of Beckwith.

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1.0 INTRODUCTION

The Township of Beckwith presently has in place a Development Charges By-Law, under The Development Charges Act, 1997, and has collected development charges since 1991. The funds collected through this program have eased the burden of development, allowing the municipality to prosper and grow, without requiring existing taxpayers to contribute significantly to the capital cost of new growth. The Development Charges Act requires the municipality to establish a new Development Charges By-Law every five years, in this instance, prior to June 1, 2019.

The Development Charges Act, 1997, came into force and effect on March 1, 1998 and includes a requirement for municipalities to complete or update a supporting Background Study before passing a Development Charges By-Law. The purpose of the Background 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 the implementing Development Charges By-Law.

2.0 METHODOLOGY

The methodology used to determine a development charge is outlined below.

- (i) Forecast Growth ▶ Using historic trends and taking into consideration external factors, the amount, type and location of growth is estimated.
- (ii) Determine the increased service needs that occur as a result of the estimated growth. Confirm Council's intent to meet those requirements and ensure that the projects funded by the development charges do not provide an above average level of service.
- (iii) Determine Eligible Capital Expenditures
 - ▶ ensure excess available capacity is used first;
 - ▶ discount expenditures by the amount of benefit to the existing taxpayers;
 - ▶ finalize estimated costs into an affordable program.

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- (iv) Establish Rules ▶ Recommend rules in relation to exemptions, phasing, indexing, areas to which the By-law applies, etc.

- (v) Calculate the Development Charge.

3.0 GROWTH FORECASTS

Introduction

Population projections, as well as residential, commercial and industrial growth forecasts were prepared for the Development Charges Background Study for Beckwith Township in 2014. Since that time, there has been another national census that provides data to re-evaluate the population forecast as well as to review other relevant development trends.

The data from the 2016 Census revealed the average annual population increases in the 1.90% range for the past five years. From 2006 to 2011, the average increase was 1.90% per year, and approximately 1.90% annually for the 2011 to 2016 period. The increase in number of households has also grown. Over the period from 2001 through 2006, the number of households increased by 240 households and over the following five years, the number of households increased by another 303. During the past five years (2014 - 2018) there has been an increase of 318 households, consistent with the increase in population.

Population projections and growth forecasts are subject to many variables and are, at best, reasonable prognostications of what may happen. Statistical data should be reviewed in light of the observations and experiences of those closest to the events. This can provide the appropriate context for the value judgements that are required for developing realistic population and growth forecasts.

The new Census data and the various trends that have been evident over the last Census period indicate the population projections have been reasonable. For the purposes of The Development Charges Background Study, projections of future population, forecasts of residential development by numbers and types of dwellings have been prepared.

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Population Projection

Population projections were prepared for the Township of Beckwith and are included in the 2014 Development Charges Background Study. In that study a 1.90% average annual growth rate was forecast. The population data for Beckwith Township from 1996 to 2016 is shown in Table 1.

Table 1 ▶ Township of Beckwith Population 1996 - 2016 *

	1996		2001		2006		2011		2016
Population Average	** 5,462		6,046		6,387		6,990		7,644
5 Year Average Annual Increase		2.10%		1.10%		1.90%		1.90%	

* Source: Census Canada

** Adjusted population to account for annexation of land to the Town of Carleton Place

The recent Official Plan review undertaken for the County of Lanark by Metro Economics indicates that the population of the Township of Beckwith will continue to grow at a rate of 1.90% and over a 25 year period, in excess of 2.00% per year. Due to the expansion of Highway 7, and the resulting growth in the Town of Carleton Place, in the County Official Plan Study, it is noted that the Township of Beckwith's share of Lanark County's population in 2016 was 11.12% of Lanark County's population. The study projects that in 2041, this could increase to 15.35%. Based on the trends to date, we have maintained a projection of 1.90% per annum. In 2016, the Township population had grown to 7,644.

The population between the years 2006 and 2016 is summarized in Table 2.

The population figures between Census years were based on the average annual increase in population over that time period. The average annual increases are based on the expected annual growth.

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Table 2 ▶ Township of Beckwith Population 2006 - 2016 *

Year	Population
2006 *	6,387
2007	6,507
2008	6,627
2009	6,748
2010	6,869
2011 *	6,990
2012	7,111
2013	7,246
2014	7,383
2015	7,524
2016 *	7,644

* figures for 2006, 2011 and 2016 are from Census Canada

The projected population from the baseline year of 2016 for the next ten years is summarized in Table 3. It is based on an increase in population as determined by using the projection of 1.90% average annual growth.

Table 3 ▶ Township of Beckwith Population 2016 - 2026 *

Year	Population
2016	7,644
2017	7,789
2018	7,937
2019	8,088
2020	8,242
2021	8,398
2022	8,557
2023	8,720
2024	8,886
2025	9,055
2026	9,227

* Based on an average annual growth rate of 1.90%.

Residential Growth Forecast

The residential growth projection is based on a review of past construction activity. The summary of building permits issued for new residences in the time period from 2001 to 2018 is included in Table 4.

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Table 4 ▶ Township of Beckwith New Residential Buildings 1999 - 2013

Year	Permits
2001	52
2002	74
2003	48
2004	56
2005	33
2006	29
2007	37
2008	37
2009	40
2010	60
2011	66
2012	63
2013	63
2014	54
2015	60
2016	63
2017	73
2018	68

In the 2014 Development Charge Study, the projection for future residential land requirements was based on 53 housing starts per year. In the past five years, the average number of housing starts per year has been 65. It is reasonable to assume that residential growth will continue at this rate based on the last five years. The projected residential growth in terms of numbers of dwellings is summarized in Table 5.

Table 5 ▶ Township of Beckwith New Residential Construction 2013 - 2026

Year	New Dwellings	Total Dwellings
2013 (actual)	53	3,003
2014 (actual)	54	3,057
2015 (actual)	60	3,117
2016 (actual)	63	3,180
2017 (actual)	72	3,252
2018 (actual)	68	3,320
2019	65	3,385
2020	65	3,450
2021	65	3,515
2022	65	3,580
2023	65	3,645
2024	65	3,710
2025	65	3,775
2026	65	3,840

To date, residential growth in the Township has been in the form of single detached

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dwellings. While this may change, the number of dwellings for the Census years from 2001 to 2016 are included in Table 6 and reflect single family dwellings.

Table 6 ▶ Township of Beckwith Dwellings and Household Characteristics 2001 - 2016 *

	2001	2006	2011	2016
Population	6,046	6,387	6,990	7,644
Dwellings	2,490	2,649	2,950	3,179
Average Persons per Household	2.4	2.8	2.4	2.4

* Source: Census Canada

The average number of persons per household has remained constant for the period 2011 to 2016. While it is likely that new residential development will continue to be attractive to young families, Beckwith is also popular with retirees. Generally persons per household for young families in single dwellings tend to be higher than the overall average of persons per household. Many older couples have fewer or sometimes no children. A reasonable estimate of persons per household for the projected residential growth would be 2.4.

Commercial and Industrial Growth Forecast

The forecasting of commercial and industrial growth in Beckwith Township is a challenge for various reasons. The commercial and industrial assessment base is small, as is typical in a rural municipality, and there has been a relatively small amount of commercial and industrial development in the Township in the past twenty years. In addition, municipal boundary adjustments between Beckwith Township and the Town of Carleton Place, resulted in the annexation of approximately 400 acres of land on both sides of Highway No. 7 and property east of McNeely Avenue to the Town. This land contained a substantial amount of the commercial development in Beckwith Township.

The Township has traditionally not imposed a development charge on commercial and industrial development so no detailed analysis was prepared for projected commercial/industrial growth. In 2018, commercial and industrial assessment represented only 1.69% of the Township's total taxable assessment.

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4.0 ELIGIBLE CAPITAL EXPENDITURES AND MUNICIPAL SERVICE STANDARDS

(i) **General Government**

In accordance with Section 2(4) of the Development Charges Act, 1997 and Section 2.1(17) of O.Reg 82/98, the municipality may not impose a development charge to cover the increased capital costs required for upgrades to headquarters for administration of the municipality.

However, Section 5(3)6 of the Act states that the municipality would be entitled to collect a development charge to pay the cost of the development charge background studies. It is proposed that \$25,000 be collected for the study every five years, including the requisite information required for roads needs.

(ii) **Fire Services**

The Township of Beckwith operates a volunteer fire department, with 25 volunteers and a volunteer Fire Chief. The fire hall is located on the 9th Line of Beckwith, near the Municipal building.

In 2018, the Fire Department had equipment which would cost \$3,034,000 to replace, as shown in Table 7.

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Table 7 ▶ Fire Department ▶ Equipment and Housing in 2019

Unit	Year	Type	Replacement Cost \$
120	2004	Pumper	375,000
121	1987	Pumper	250,000
130	1992	Tanker	325,000
131	1998	Tanker	325,000
140	1995	Rescue	550,000
150	2005	Equipment Van	225,000
		Equipment on Rescue Van	240,000
		Radio and Clothing	86,000
		Miscellaneous Equipment	61,000
		Housing	597,000
			3,034,000

The ratio of fire equipment replacement cost per household for 2019 is calculated as follows:

$$\$3,034,000 / 3,385 = \$896 \text{ per household (2019)}$$

In 2013 with the total estimated replacement cost of fire equipment, vehicles and housing of \$2,199,000, the ratio of replacement cost per household was:

$$\$2,199,000 / 3,003 = \$732 \text{ per household (2009)}$$

Anticipated Capital Expenditures 2019 - 2024

Table 8 ▶ Fire Department Expenditures

Year	Item	Approximate Cost (\$)
2018 / 2019	Pumper Truck	\$495,388
2019	Development Charges Collected	(49,604)
	Total	\$445,784

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Near the end of 2018, the Township purchased an additional pumper truck at a total cost of \$495,388. This additional pumper was required due to growth in a number of subdivisions within the Township and was finally licensed in March of 2019. The Council has indicated this new unit will be partially funded from development charges over a ten year period. To date the Township has raised \$49,604 from development charges to apply to the new pumper leaving a balance of \$445,784 that will be eligible for the 2019 study.

Based on the current level of service the maximum that can be collected by the Township from development charges on a per household basis will be \$896. Should the growth be in accordance with the new dwellings forecast, a total of \$291,200 could be collected.

(iii) **Environmental Services**

Sewage Disposal Services

At the present time, all development in the Township of Beckwith are serviced by private sewage disposal services.

Waste Management

In accordance with Sections 2.1(1)5 and 6 of the Act, the Township may not collect a development charge for the provision of waste management services. Beckwith Township does not incur significant capital costs for waste management.

(iv) **Road System**

Charges levied under the Development Charges Act for road works are only eligible if the improvements are being made as a result of new growth. Maintenance operations, including normal expected reconstruction activities are not eligible.

Improvements that have a measurable benefit to the existing taxpayers must be discounted by the pro-rated value of that benefit.

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Roads are constructed with the intent of providing safe access for the volume of traffic using the facility. As traffic volumes increase, the width of the road base and driving surface need to be improved. For example, a 5m platform with gravel surface provides a sufficient service level if traffic volumes are less than 50 vehicles-per-day. For a traffic volume of 1,000 vehicles-per-day, a 9m platform and paved surface is needed to provide the same level of service.

The development charge should only cover the costs of improving the road condition and not the complete re-construction cost. If an existing surface-treated road is being widened and paved as a result of additional traffic, then it is reasonable to allocate the cost of the widening and the cost of the pavement minus the cost of surface treatment to development charge.

Benchmark Costs

Benchmark costs are costs associated with capital improvements to the Township's roads. These costs can also be for new road construction or capital expenditure to improve a road to a higher standard, for example, upgrading a gravel road to a surface treated or paved road. Average unit costs have been developed based on local construction costs.

Fixed costs are costs associated with maintenance of the existing road system and include overhead, salaries, etc. Fixed costs for forecast requirements were derived from historical expenditures.

The estimated cost for identified improvements to the Township's Road System are calculated on an approximate basis, using average benchmark costs for various items. These costs have been averaged using unit cost information obtained locally. Unit prices are shown in Table 9 below and costs are summarized by construction type in Table 10. These costs are based on 2019 dollars and adjustments should be made for inflation for each budget year.

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Table 9 ▶ Benchmark Costs

Item	Benchmark Costs \$	
Earth Excavation, Grading	11.00	per cubic metre
Earth Excavation, Ditching	13.00	per metre
Road Widening Per Shoulder	50.00	per metre
Removal – Pulverize	1.50	per square metre
Removal – Asphalt	2.00	per square metre
Remove / Replace Diameter CSP (16m x 600mm)	6,550.00	each
Granular A	17.50	per tonne
Granular B	16.50	per tonne
Single Surface Treatment (SST)	5.25	per square metre
Double Surface Treatment (DST)	8.25	per square metre
Asphalt - Wear Course	100.00	per tonne
Asphalt - Base Course	100.00	per tonne
Topsoil & Sod	12.00	per square metre
Topsoil & Seed	7.50	per square metre

Table 10 ▶ Surface Treatment or Low Cost Bituminous (LCB)

Code	Description	Unit Price (\$ per Km)
LCB-R1	Resurfacing Single surface treatment 6.0m wide	34,000
LCB-R2	Partial Depth Reconstruction Pulverize or scarify 50-150mm granular A., double surface treatment, 10% spot drainage improvements, culvert replacement and 10% contingency	139,000
LCB-R3	Full Depth Reconstruction Earth excavation, 150mm G.A, 300mm granular B, culvert replacement, engineering, geotechnical and 10% contingency	464,000

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Table 11 ▶ Asphalt or High Cost Bituminous (HCB)

Code	Description	Unit Price (\$ per Km)
HCB-R1	Resurfacing 40 mm lift of HL3 asphalt by 6.0m and 10% contingency	69,000
HCB-R2	Partial Depth Reconstruction Pulverize, place 50-150 mm G.A., 50mm lift of HL4 asphalt, shouldering, 10% spot drainage improvements, culvert replacement and 10% contingency	166,000
HCB-R3	Full Depth Reconstruction Remove asphalt, earth exc., 150mm G.A., 300mm G.B., 50mm lift of HL4 asphalt, shouldering, culvert replacement, engineering, geotechnical and 10% contingency	512,000

Road Projects Eligible for Development Charges

The Township contracted McIntosh Perry Consulting Engineers Ltd. to complete a road needs study for the next ten years. As a result, McIntosh Perry was able to extract those projects that were eligible for this development charge study. One project is scheduled for the next five years that was included in the prior study - the 6th Line of Beckwith and has been included with the eligible projects in the current study.

Table 12 ▶ Projects Carried Over From Prior Development Charge Study

Project Description	Surface	Planned Improvements	Total Cost \$	Residential Development Related Costs \$
6 th Line Beckwith * Development Charges Collected	Gravel	LCB - R1	356,539	349,408 (278,000)
Eligible Cost Carryforward				71,408

* This project was not part of the original 2013 development charge study. The Township held a public meeting and amended the 2014-16 Development Charge By-Law with By-Law 2018-19.

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Table 13 ▶ Estimated Future Road Capital Projects *

Project Description	Current Surface	Planned Improvements	Total Costs \$	Development Related Cost \$
Project Carried Forward 6 th Line Beckwith	Gravel	LCB-R1	356,539	71,408
2019				
Mockingbird Lane	HCB	HCB-R2	76,145	---
Hummingbird Lane	HCB	HCB-R2	50,535	---
Cedar Crest Drive	HCB	HCB-R2	98,450	---
Cuckoo's Nest Road	Gravel	LCB-R2	194,600	82,583
Bourne Road	Gravel	LCB-R2	13,900	5,899
2020				
Ashton Station Road	Gravel	LCB-R2	176,530	74,914
Dewer Side Road	Gravel	LCB-R1	47,600	9,520
Amberwood Road	Gravel	LCB-R2	166,800	70,785
2021				
Bourne Road	Gravel	LCB-R2	417,000	176,963
Crooked Side Road	Gravel	LCB-R2	222,400	94,380
2022				
10 th Line - Beckwith Road	HCB	HCB-R2	597,600	291,060
2023				
7 th Line - Beckwith Road	LCB	HCB-R2	1,128,800	549,780
			3,546,899	1,427,292

* Based on data provided by McIntosh Perry Consulting Engineers Ltd. extracted from 5 year road plan

Code Chart

Code	Description
HCB-R1	High Cost (Asphalt) Resurfacing
HCB-R2	High Cost (Asphalt) Resurfacing, Excavating
HCB-R3	High Cost (Asphalt) Resurfacing, Full Reconstruction
LCB-R1	Low Cost (Tar & Chip) Reconstruction
LCB-R2	Low Cost (Tar & Chip) Reconstruction / Drainage / Culverts

The portion of proposed development related road projects over the next five years amount to \$1,427,292 including the portion of the 6th Line of Beckwith that is being carried forward from the previous study.

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(v) Public Works Housing Facilities

The Public Works garage and support buildings are located on the 9th Line, and the estimated current value is presented below.

Table 14 ▶ Public Works Housing

Public Works Housing	Value \$
Salt Shed 40 x 60 feet	70,000
Office 1,275 square feet @ \$120.00 per square foot	153,000
Garage 3,860 square feet @ \$75.00 per square foot	289,500
Sand Shed 3,300 square feet @ \$40.00 per square foot	132,000
Cold Storage Shed 1,200 square feet @ \$30.00 per square foot	36,000
Total	680,500

The estimated amount of development charges collected must not include an increase in the level of service exceeding the average level of service over the 10 year period preceding the preparation of the background study, as per Section 5(1)4 of the Act. To determine the average level of service, the estimated value of the housing (2019 dollars) is calculated for 2013 and 2019 and divided by the number of households in that given year.

Ratio for capital expenditures per household:

(2009) \$680,500 / 3,385 households = \$201 per household

(2013) \$579,650 / 3,003 households = \$193 per household

The municipality is not planning to add any new housing during the next five years. As a result no amount shall be collected under public works housing for this study.

(vi) Public Works Equipment

Under the Development Charges Act additional equipment can be funded by the levy provided it is the result of new development. Current equipment and its estimated value is set out in the Table below.

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Table 15 ▶ 2019 Equipment

Current Equipment	Life Cycle Years	Replacement Value \$
2006 Chevrolet 1 Ton	10	75,000
2008 Chevrolet ½ Ton	10	36,000
2012 Chevrolet ½ Ton	5	36,000
1991 Ford Farm Tractor / Mower	20	40,000
2005 INTL Tandem Plow	20	230,000
2009 INTL Plow	20	230,000
2009 INTL Plow	20	230,000
2000 Champion Grader	20	250,000
2015 INTL Terrastar 3 Ton	10	95,000
2014 Terex Backhoe	10	110,700
2016 CAT Backhoe	10	130,000
Steamer		10,000
Pressure Washer		9,300
Miscellaneous Equipment		40,000
Total		1,522,000

Table 16 ▶ 2013 Equipment

Current Equipment	Breakdown \$	Value \$
½ ton trucks	2 @ 30,000	60,000
5 Ton Plow with Sander	3 @ 210,000	630,000
1 Ton Plow	1 @ 45,000	45,000
Grader with Plow and Wing	1 @ 350,000	350,000
CAT Backhoe	1 @ 120,000	120,000
1991 Ford Tractor	1 @ 7,500	7,500
Steamer	1 @ 9,000	9,000
Pressure Washer	1 @ 7,500	7,500
Miscellaneous Tools		35,000
Total		1,264,000

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The municipality purchased an additional backhoe / loader at a cost of \$99,679 due to growth in the Township that was eligible as a development charge expenditure as part of the last study. Since this asset has a ten year life span, the amount eligible to be carried forward into the 2019 study is set out below:

Eligible Equipment Development Charge (per 2013 Study)	\$ 99,679
Development Charges collected 2013 - 2018	\$ 60,000
Eligible to be carried forward	\$ 39,679

The Township is also going to acquire an additional 3 ton plow truck as a result of growth in the Township during the next five years.

The total amount eligible for public works equipment in the current study is set out in the table below.

Table 17 ▶ Estimate 5 Year Capital Equipment Expenditures / Development Related

Year 2014 - 2019		
Equipment	Development Related Costs	Total Costs \$
New Backhoe / Loader	carried forward	39,679
New 3 Ton Plow Truck	additional unit	130,000
Total DC Eligible		169,679

The maximum amount eligible to be received through development charges for the next five years is calculated as follows:

Capital equipment cost per household:

$$2013 \quad \frac{\$1,264,000}{3,003 \text{ households}} = \$421 \text{ per household}$$

$$2019 \quad \frac{\$1,522,000}{3,385 \text{ households}} = \$450 \text{ per household}$$

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Total possible revenue in 5 years:

$$(\$450/\text{unit}) \times (65 \text{ new units} \times 5 \text{ years}) = \$146,250$$

A gross amount of \$146,250 is included in the development charge calculation for this study.

(vii) **Recreational Facilities**

There are a number of recreation facilities available to the public in the Township of Beckwith. In addition, the Township has a cost-sharing agreement with the Towns of Carleton Place and Mississippi Mills to allow Beckwith residents to use recreation facilities in Carleton Place.

The following facilities are currently available in Beckwith Township:

- ▶ Beckwith Recreation Complex
 - ▶ multi-use indoor field made of artificial turf
 - ▶ NHL sized ice pad
 - ▶ canteen
 - ▶ meeting room
- ▶ Brunton Community Hall
- ▶ Prospect Church
- ▶ Log Barn at Beckwith Park
- ▶ Parks
 - ▶ 10th Line Recreation Land
 - ▶ Prospect Recreation Land
 - ▶ Wallace Recreation Land
 - ▶ Duff's Woods Beach
 - ▶ Beckwith Park
 - ▶ Queensway West
- ▶ Ball Diamonds
 - ▶ Beckwith Public School
 - ▶ Beckwith Park (2)
- ▶ Splash Pad

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- ▶ Parks Playground Structure
- ▶ Multi-Use Beckwith Park
 - ▶ 12 multi-use grass fields (soccer, football, rugby, etc.)
 - ▶ 1 artificial turf field
- ▶ Beckwith Trail Network

The following recreation facilities and services are located in Carleton Place and the Township of Beckwith participates in a cost-sharing arrangement for their operation and maintenance.

- ▶ Carleton Place Library
- ▶ Indoor Swimming Pool
- ▶ Double-pad Arena, Community Hall
- ▶ Soccer Fields (4)
- ▶ Baseball Diamonds (5)
- ▶ Tennis Courts (3)

As per the Development Charges Act, the anticipated services for the five-year period of the Development Charges Study cannot exceed the average level of service for the period prior to the Study. In order to determine the existing level of service, it is appropriate to calculate the total value of the existing facilities. The following table shows the approximate value of current (2019) recreation facilities:

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Table 18 ▶ Recreation Facilities

Facility	Approximate Value \$	Beckwith's Share \$
10 th Line Recreation Land	50,000	50,000
Prospect Recreation Land	40,000	40,000
Wallace Recreation Land (2)	80,000	80,000
Duff's Wood Beach	50,000	50,000
Queensway West	100,000	100,000
Beckwith Park	1,040,000	1,040,000
Brunton Community Hall	250,000	250,000
Carleton Place Pool	1,000,000	(23.99%) 239,900
Carleton Place Arena	2,100,000	(22.02%) 462,420
Carleton Place Library	0	(23.99%) 0
Recreation Complex	4,500,000	4,500,000
Prospect Church	26,000	26,000
Log Barn at Beckwith Park	10,000	10,000
Beckwith Trail Network	225,000	225,000
Splash Pad	311,000	311,000
Playground Structure	376,000	376,000
Shade Structure	40,000	40,000
Total Value		7,800,320

The existing level of service in Beckwith Township in 2013 was calculated as per the 2013 Study as follows:

$$\$7,073,320 / 3,003 \text{ units} = \$2,355 \text{ per household}$$

The current level of service in Beckwith is estimated as follows:

$$\$7,800,320 / 3,385 \text{ units} = \$2,304 \text{ per household}$$

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Anticipated Capital Expenditures > 2019 - 2024

The table below shows recreation related projects and expenses that are anticipated in the next five years in Beckwith Township, and their gross costs, and eligible development charge costs.

In the 2009 development charge study, it was noted the Township acquired a recreation complex currently valued at \$4,500,000. These facilities meet the needs of the current residents, but has also provided the Township the ability to handle growth in the recreation area. The facility will be able to satisfy a population of 10,000 residents. Consistent with the previous study thirty-three percent of the remaining costs associated with the centre continue to be eligible for funding through development charges. The recreation complex was acquired in part with the proceeds of long term debt. The total debt remaining for the next five years amounts to \$713,527. Thirty-three percent of that cost, or \$235,464 is eligible for funding through development charges.

During the period of the last development charge study the Township purchased extensive park equipment and constructed a splash pad that cost a total of \$688,000 a portion of which was to be funded from development charges. The prior study anticipated that \$255,000 would be eligible as a development charge expenditure. Given the amount was underestimated in the prior study, \$100,000 has been carried forward to the 2019 Development Charge Study.

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Table 19 ▶ Projected Recreation Capital Expenditures (2019 - 2024)

Project	Gross Cost \$	Reduction 10% ss 5(1) \$	Eligible Development Costs \$
Trails	100,000	10,000	90,000
Purchase of Park Equipment (picnic tables, garbage cans, benches, lawn mower, playground equipment)	30,000	3,000	27,000
Splash Pad / Park Equipment Carried Forward from Previous Study	100,000	10,000	90,000
Trees/Landscaping	9,000	900	8,100
Parking Facilities	25,000	2,500	22,500
Toboggan Hill	25,000	2,500	22,500
New Indoor Turf Building (Track) *	750,000	75,000	675,000
Recreation Complex repayment of long term debt (years 11 to 15)	235,464	23,546	211,918
Totals	1,274,464	127,446	1,147,018

- * Council proposes to construct a new indoor turf building as part of its asset management plan at a projected cost of \$3.0M. Council has determined 50% of the capital project would be excess capacity and thereby eligible for development charges that can be collected over a period of at least 10 years. As a result one half of the excess has been included in this study.

Capital Cost Reduction

The Development Charges Act requires that development related costs for all services except for those related to water supply, waste water services, stormwater and drainage control, highways, electrical powers, police and fire protection, be reduced by a 10 percent factor. This reduction has been included in the above table.

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Summary

The total recreation extracted expenditures for the next five years that are eligible for development charges are \$1,147,018. As no recreation activity is related to commercial or industrial development, all of the recreation development charge can be allocated to future residential development. For the purposes of this study, however, the proportion of commercial and industrial assessment of 2.00% has been deducted.

The development charge study assumes new households would contribute a similar amount to recreation as the existing households or \$2,304 per household, the current level of service.

Given the forecasted number of households over the next five years is 65 units per year, for a total of 325 units, the maximum recreation amount attributable to development would be:

325 @ \$2,304 or \$748,800

5.0 DEVELOPMENT CHARGE CALCULATION

Table 20 ▶ Future Growth Related Municipal Expenditures Under the Development Charges Act (2014 - 2019)

Expenditure Category	Expenditure Year	Gross Cost \$ (000's)	Eligible Net Cost Sec 5(1) \$ (000's)	Eligible Development Charge \$ (000's)
Study	2019	25.0	22.5	22.5
Fire Protection	2019 - 2024	445.8	291.2	291.2
Road Systems	2019 - 2024	1,427.3	1,427.3	1,427.3
Public Works Housing	2019 - 2024	0.0	0.0	0.0
Works Equipment	2019 - 2024	169.6	146.2	146.2
Recreation	2019 - 2024	1,274.5	1,147.0	748.8
		3,342.2	3,034.2	2,636.0

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The following table illustrates the relative assessment breakdown between residential and commercial/industrial.

Table 21 ▶ Assessment Analysis

	\$ Assessment (000's)	Percentage
Residential/Farm	1,160,162	98.31%
Commercial/Industrial	19,923	1.69%
Total	1,180,085	100.0%

Source: Township of Beckwith, MPAC ▶ 2018 taxable assessment

Average commercial / industrial assessment as a percentage of total assessment for the period 2014 to 2018 inclusive has been approximately 1.69%. For the purposes of this study, we have deducted 2.00% to allow for the portion of development charges that would be attributable to commercial and industrial properties based on the last five years.

The assessment basis is probably the fairest manner to allocate the capital costs between residential and commercial/industrial for eligible service categories of the development charges study. It seems clear there is not a significant commercial/industrial assessment base within the Township and a significant increase is not contemplated as outlined in Section 3.0 of this report. Given the inherent benefits to all ratepayers of commercial and industrial development, the study does not provide for a commercial/industrial development charge. This fact is consistent with the previous study. Nevertheless, the portion attributable to the commercial/industrial sector cannot be assessed to new residential growth. As a result those expenditures which would relate to commercial and industrial development as well as residential, have been reduced by 2.00% based on the relative assessment noted above.

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Table 22 ▶ Final Costs Eligible for Development Charge

	Eligible Costs for Development Charge \$ (000's)	Percentage	
		Residential Share 98.00%	Commercial/ Industrial Share 2.00
Development Charge Study	22.5	22.0	0.5
Fire Protection	291.2	285.4	5.8
Road Systems	1,427.3	1,398.8	28.5
Public Works Housing	0.0	0.0	0.0
Works Equipment	146.2	143.3	2.9
Recreation	748.8	733.8	15.0
Total	2,636.0	2,583.3	52.7

Table 23 ▶ Development Charge Calculation

Service Area	Eligible Residential Share \$	Projected # of Households \$	Maximum Development Charge \$
Development Charge Study	22.0	325	68.0
Fire Protection	285.4	325	878.0
Road Systems	1,398.8	325	4,304.0
Public Works Housing	0.0	325	0.0
Works Equipment	143.3	325	441.0
Recreation	733.8	325	2,258.0
Total	2,583.3		7,949.0

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Table 24 ▶ Summary of Development Charge Calculation

	Current Development Charge \$	Study Maximum Development Charge \$	Suggested Development Charge \$				
			Year 1	Year 2	Year 3	Year 4	Year 5
Administration/ Development Charge Study	60	68	60	60	60	60	60
Fire Protection	655	878	675	725	750	775	800
Road Systems	3,400	4,304	3,475	3,575	3,675	3,775	3,875
Works Equipment	190	441	190	190	215	240	265
Housing	115	0	0	0	0	0	0
Recreation	1,580	2,258	1,600	1,700	1,800	1,900	2,000
Total	6,000	7,949	6,000	6,250	6,500	6,750	7,000

6.0 DEVELOPMENT CHARGE ACCOUNTING

A separate development charge reserve fund should be created into which all development charge revenues are deposited. Interest earned on the fund balance accrue 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. Sub-accounts for service categories which require a ten percent municipal contribution should be maintained separately from those that do not require a ten percent municipal contribution.

The reasons for the sub-accounts, rather than different reserve funds is simplicity of accounting and control and the ability to “borrow” funds from one service type to another

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without creating an overdraft in a reserve fund.

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 is to include statements of the opening and closing balances of the Reserve fund for the preceding year and the transactions relating to the reserve funds. The Treasurer shall give a copy of the statement to the Minister of Municipal Affairs and Housing on request.

The annual report from the Treasurer must also include the following information:

For each reserve fund: (O.Reg 82/98, S.12)

- ▶ 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

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repay money borrowed from the fund or interest on such money.

- ▶ A schedule that identifies credit recognized under Section 17 of the Development Charges Act 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.

7.0 IMPLEMENTATION

7.1 Application of Development Charge

A uniform development charge rate is recommended across the entire Township for the following reasons:

- a) Most 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) Most capital projects represent large irregular expenditure that preclude an even rate of expansion or implementation. 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.
- c) It is simpler to administer.

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

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7.2 Adjustments for Inflation (O.Reg 82/98, S.7)

The development charge in the Township is based on a combination of projects to be built in the future costed in 2019 dollars. An annual inflation factor may be applied to the development charge fee to adjust for inflationary pressures. The regulation to the Development Charges Act (Ontario Regulation 82/98) identifies the Statistics Canada Quarterly, Construction Price Statistics, catalogue number 62.007 as the prescribed index.

7.3 Development Charge Implementation and Collection (DCA-S.O. Ch.27, S.26)

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.

7.4 Pamphlet (O.Reg 82/98, S.14)

The Development Charges Act requires that 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 Clerk-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 anyone requesting it.

7.5 Conditions to be Imposed on Subdivision Approvals (DCA. S.O. Ch.27, S.59)

The Development Charges Act now requires that one of the conditions in giving approval to a draft plan of subdivision, must ensure that the persons who first purchase the subdivided

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land after the final approval of the draft plan of subdivision are informed at the time the land is transferred, of all of the development charges related to the development.

8.0 SUMMARY OF NEW DEVELOPMENT CHARGES

8.1 Proposed Development Charge and Allocation

The following table provides a summary of the suggested new development charges for the Township of Beckwith. The proposed charge and the related allocation is as follows:

Table 25 ▶ Development Charge 2014 - 2019

Per Residential Unit	\$6,000 to \$7,000
Commercial/Industrial	NIL
Institutional	Charge determined as per nature of use.

Allocation of Development Charge (2014 - 2019)					
	Year 1	Year 2	Year 3	Year 4	Year 5
Development Charge Study	60	60	60	60	60
Fire Protection	675	725	750	775	800
Road Systems	3,475	3,575	3,675	3,775	3,875
Works Equipment	190	190	215	240	265
Housing	0	0	0	0	0
Recreation	1,600	1,700	1,800	1,900	2,000
	6,000	6,250	6,500	6,750	7,000

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APPENDIX

At the time of this study, housing starts in the Township of Beckwith are predominately if not solely comprised of single detached, semi-detached and duplex dwellings. With increased housing demands and given that the zoning bylaw does not limit residential housing to these dwelling types, Council finds it expedient at this time to incorporate a fee structure for various types of dwellings.

The demand placed on much of the capital infrastructure are generated by the increase in the number of residents therefore in order to determine a fair charge by dwelling type the average number of persons per residential unit by dwelling type will be used. Without sufficient statistical data available to establish household size by dwelling type within the Township, and knowing that other local Townships also would not have sufficient data, this information was sought from the Town of Carleton Place, the nearest Town.

Appendix - Table 1 Average Household Size by Dwelling Type for Town of Carleton Place
(Data taken from the Town’s current Development Charges Study)

Housing Type	Average Persons / Unit Carleton Place
Single detached, Semi-detached and Duplex	2.45
Multiples including townhouses, garden homes, row houses, triplex or other multiple type dwelling units where no other dwelling unit is located above or below it	2.30
Multiples including apartments and other multiple type dwelling units where another dwelling unit is constructed above and / or below it and the said dwelling unit contains two or more bedrooms. (or 1 bedroom + a den, family room, etc.)	2.20
Multiples (bachelor or one bedroom units)	1.30
Multiples (no kitchen or cooking facilities in units)	1.00

When analyzing the above information, it was decided that Carleton Place’s average persons per unit data would be a good indicator of household sizes by dwelling type for future development within the Township of Beckwith.

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APPENDIX

The ratio of persons per unit for the various `multiples` dwelling types to the persons per unit of singles dwelling types was used to calculate the Development Charges Fee by Dwelling Type.

Appendix - Table 2 Development Charges Fee (Year 1) by Dwelling Type

	Housing Type	Average Persons /Unit 1	Average Persons/Unit as a Percentage of Row A 2 $2 = 1 \div 1A \times 100$	Development Charges Fee (Year 1) 3 $3 = 3A \times 2$
A	Singles (Single detached, Semi-detached Duplex and Converted Dwellings)	2.45	100.00%	\$6,000
B	Multiples (where no other dwelling unit is located above or below such as Row Housing)	2.30	93.88%	\$5,630
C	Multiples (where another unit may be above and/or below and unit has the possibility of two or more bedrooms)	2.20	89.80%	\$5,390
D	Multiples (bachelor or one bedroom units)	1.30	53.06%	\$3,180
E	Multiples (no kitchen or cooking facilities in units)	1.00	40.82%	\$2,450

Note: Fee rounded to closest \$10

Using the ratios established in Table 3, the Development Charges Fee has been calculated for each year of the study and is presented below.

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APPENDIX

Appendix - Table 3 Development Charges Fee (Year 1 through 5) by Dwelling Type

	Housing Type	Development Charges Fee (Year 1)	Development Charges Fee (Year 2)	Development Charges Fee (Year 3)	Development Charges Fee (Year 4)	Development Charges Fee (Year 5)
A	Singles (Single detached, Semi-detached Duplex and Converted Dwellings)	\$6,000	\$6,250	\$6,500	\$6,750	\$7,000
B	Multiples (where no other dwelling unit is located above or below such as Row Housing)	\$5,630	\$5,870	\$6,100	\$6,340	\$6,570
C	Multiples (where another unit may be above and/or below and unit has the possibility of two or more bedrooms)	\$5,390	\$5,610	\$5,840	\$6,060	\$6,290
D	Multiples (bachelor or one bedroom units)	\$3,180	\$3,320	\$3,450	\$3,580	\$3,710
E	Multiples (no kitchen or cooking facilities in units)	\$2,450	\$2,550	\$2,650	\$2,750	\$2,850

Note: Fee rounded to closest \$10

It is anticipated that housing starts will continue to be single detached, semi-detached, duplex and converted units, but if over the five year span of this study there are housing starts for other dwelling types Table 4 will be applied. This will result in a reduced per unit Development Charge Fee for 'multiples dwelling types', reflecting the reduced demands on municipal infrastructure.