



# Fiscal Impact Assessment

Township of Cavan Monaghan

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Proposed Development of 787 and 825 Fallis Line

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# Table of Contents

	Page
<b>1. Introduction.....</b>	<b>1</b>
1.1 Terms of Reference .....	1
1.2 Assumptions for the Study .....	1
1.3 Approach .....	2
<b>2. Development Description .....</b>	<b>3</b>
2.1 Development Proposal.....	3
2.2 Assessment Assumptions.....	6
<b>3. Impact on the Township of Cavan Monaghan.....</b>	<b>7</b>
3.1 Direct Development-related Capital Costs .....	7
3.2 Indirect Development-related Capital Costs.....	9
3.3 Township's Potential Development Charges Revenue .....	11
<b>4. Impact on the Township of Cavan Monaghan's Operating Budget .....</b>	<b>12</b>
4.1 Operating Expenditure Implications .....	12
4.2 Operating Revenue Implications.....	21
4.3 Taxation Revenue.....	25
<b>5. Lifecycle Analysis .....</b>	<b>26</b>
5.1 Summary of Lifecycle Costs .....	26
<b>6. Net Impact of the Proposed Development on the Township of Cavan Monaghan.....</b>	<b>28</b>
6.1 Summary of Net Impact .....	28



## List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
C.M.H.C.	Canada Mortgage and Housing Corporation
D.C.	Development Charges
F.I.R.	Financial Information Return
M.P.A.C.	Municipal Property Assessment Corporation
O.P.A.	Official Plan Amendment
P.P.U.	Persons Per Unit



# 1. Introduction

## 1.1 Terms of Reference

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The Township of Cavan Monaghan (“Township”) requires CSU Developments Inc. to submit a fiscal impact analysis for their proposed subdivision. CSU Developments Inc. has requested that Watson & Associates Economists Ltd. undertake a fiscal analysis of the impact of this development on the Township. This analysis is to assess the impact of this development on services provided by the Township and determine the capital and operating expenditure implications along with the anticipated revenues to be generated from this development.

The proposed development is a residential subdivision outside of the Millbrook urban area of the Township, located on the west side of County Road 10 and south of Fallis Line. The subdivision would include a mix of single-detached homes, townhomes, and apartments. The development would consist of the following components:

- 57 units of 52' Single Detached Homes;
- 106 units of 45' Single Detached Homes;
- 208 units of 35' Single Detached Homes;
- 125 units of Townhomes;
- 200 units of Apartments;
- 2.06 hectares of Parkland;
- 4.92 kilometres of roads;
- 4.93 kilometres of water mains;
- 5.01 kilometres of wastewater mains;
- 5.59 kilometres of storm sewers; and
- A Stormwater Management Facility located on 2.34 hectares.

## 1.2 Assumptions for the Study

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As mentioned above, the proposed development is located outside of the Millbrook urban area. However, the development is submitting an Official Plan Amendment (O.P.A.) application in order to be included within the urban boundary. Therefore, the calculations provided in this report have assumed that the subject property would be



treated as if it was considered part of the Millbrook area. This assumption may need to be refined depending on the outcome of the O.P.A. application.

Additionally, the Township is currently undertaking a Master Servicing Plan that will review the water and wastewater capacity for the Millbrook area. Based on discussions with Township staff, allocations for water and wastewater have been suspended until the Master Servicing Plan is complete. The proposed development has offered alternative servicing solutions to the Township for their consideration and these assumptions may be considered as part of those servicing reviews. For the purposes of the calculations herein, it is presumed that the proposed development would be serviced with municipal water and wastewater. If, through the Master Servicing Plan process, the Township approves a different servicing solution, then the calculations with respect to water and wastewater would need to be revised.

## 1.3 Approach

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The approach utilized in this analysis is consistent with the methodology devised by the firm and used for over 33 years to evaluate fiscal impact for more than three dozen landowners, the Ministry of Municipal Affairs, the Ontario Land Corporation, Canada Mortgage and Housing Corporation (C.M.H.C.), and municipalities such as Oakville, Burlington, Halton Hills, Caledon, York Region, East Gwillimbury, Collingwood, Durham Region, Pickering, Haldimand-Norfolk, Halton Region, Georgian Bay Township, as well as previous fiscal impact studies in Cavan Monaghan.

Essentially, the methodology involves an operating and capital cost analysis. The operating cost analysis involves calculating the municipality's tax and water/wastewater rates calculation with the addition of the subject development. Note that for the purposes of this analysis, we have used 2018 Financial Information Return (F.I.R.) data as it provides the most up to date data on actual spending and received revenues for the Township. For the evaluation, revenues and expenditures attributable to the development are estimated on an incremental basis. That is, revenue and expenditure dollars are assigned to the project, only in accordance with anticipated variations it would create from the 2018 base year, if it had been built out, as of that time. Sunk costs are ignored and service levels are planned as remaining generally constant.



The capital cost analysis discusses the funding sources available to the Township. The financing methods and the resultant charges involved are variable and dependent on the following:

- ultimate servicing solutions;
- municipal financial policy decisions; and
- detailed benefiting area calculations.

## 2. Development Description

### 2.1 Development Proposal

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The development, proposed by CSU Developments Inc., is for a subdivision located outside the Millbrook area of the Township, located on the west side of County Road 10 and south of Fallis Line. This proposed development revises the previously submitted application for 825 Fallis Line in 2017.

The overall development will include a total of 696 units consisting of single detached homes, townhomes, and apartments. Phasing of this development has not been provided; therefore, the analysis will be provided based on the buildout of the development.

Figure 2-1 provides for a summary of the proposed development. Figure 2-2 provides the estimated population arising from this development based on the most recent persons per unit data (as provided in the Township's 2019 Development Charges Study). Figure 2-3 provides a map of the proposed development.

Figure 2-1  
Summary of Proposed Development

Type Of Units	Units Increment
	Number of Units
Single-Detached Dwellings (52')	57
Single-Detached Dwellings (45')	106
Single-Detached Dwellings (35')	208
Townhomes	125
Apartments	200
<b>Total</b>	<b>696</b>



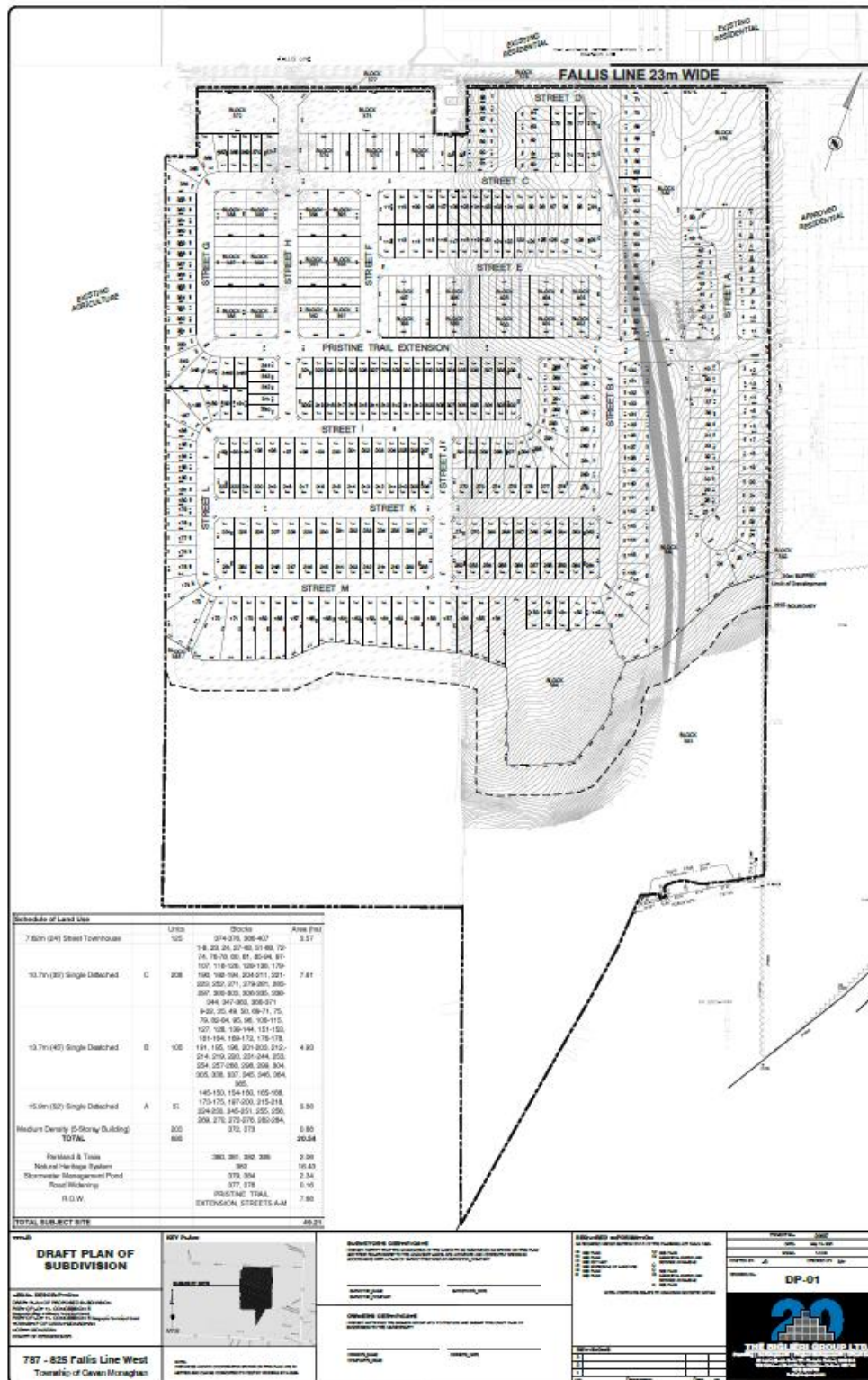
Figure 2-2  
Summary of Population Growth

Type Of Units	Population Increment
Single-Detached Dwellings (52')	182
Single-Detached Dwellings (45')	339
Single-Detached Dwellings (35')	666
Townhomes	260
Apartments	284
<b>Total</b>	<b>1,731</b>





Figure 2-3  
Map of the Draft Plan of Subdivision





## 2.2 Assessment Assumptions

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As the new development is constructed, the Township will receive additional assessment arising from the completion of the units. Figure 2-4 provides for the estimated new assessment to be generated from the development. This estimated assessment was calculated based upon a similar process completed in recent studies. The steps undertaken in the recent study were as follows:

- Estimated sales prices for the single detached homes and townhomes were provided by the developing landowner (apartment sales prices was not unavailable).
- Due to a lack of comparable units within Cavan Monaghan, a survey of sales prices and assessments for single detached homes, townhomes, and apartments in the Peterborough area was undertaken.
- The average assessment values for single detached homes from Peterborough were applied to the 35' lots, as the assessment survey from Peterborough were similar those lot sizes.
  - For the 45' and 52' lots, the relationship between the sales price and average assessment value from the 35' lots was used to estimate the assessment for those lots, based on a proportionate share of their respective sale prices.
- Due to a lack of comparable townhomes within the survey, the same method of estimating the assessment for the 45' and 52' lot singles were applied to the townhomes (i.e. the relationship between sales price data for the townhomes versus the 35' lots was used to estimate the assessment value for townhomes).
- As the apartment sales prices are not available, the average assessment values for apartments from Peterborough was used.
- The total assessment value (which will form the basis for the property tax revenue estimate) was calculated using the estimated average assessment per unit multiplied by the number of units for each development type.



Figure 2-4  
Estimated Assessment

Type Description	Estimated Average Selling Price per Unit <sup>2</sup>	Estimated Assessment per Unit <sup>1,3,4</sup>	Number of Units	Assessed Value
Single-Detached Dwellings (52')	700,000	411,000	57	\$23,427,000
Single-Detached Dwellings (45')	650,000	381,000	106	\$40,386,000
Single-Detached Dwellings (35')	600,000	352,000	208	\$73,216,000
Townhomes	400,000	235,000	125	\$29,375,000
Apartments	N/A	185,000	200	\$37,000,000
<b>Total</b>			<b>696</b>	<b>\$203,404,000</b>

1 The assessed value is based on the assessment per unit utilized in previous Fiscal Impact Studies for developments in the Millbrook area (using Peterborough data). As home prices have increased dramatically in the past few years, utilizing an analysis of the historical relationship between sales prices and assessment may not provide accurate results. The above provides for a conservative estimate.

2 The sale price was provided by the developer as an estimate for singles, semis, and townhouses. The sales price for apartments has not been

3 The assessed value for Townhouses are based on the relationship between the single-detached dwelling assessed value and anticipated sales price.

4 The assessed value for Apartments is based a survey of assessed values for recently constructed condominium apartments in Peterborough.

### 3. Impact on the Township of Cavan Monaghan

The Township's capital budget consists of both growth and non-growth related capital projects. The Township's residential and non-residential share of growth-related costs are funded from development charges (D.C.).

Non-growth-related capital expenditures, which cover repairs, replacements, non-recoverable D.C. items, etc., are financed from existing reserves/reserve funds, operating budget transfers, debt, grant/ subsidies (when available) and related sources.

For the following analysis, as well as the lifecycle cost analysis in Chapter 5, the "Functional Servicing Report" completed by Valdor Engineering was used. This report identified the works required for the development for roads, water, wastewater, and stormwater services.

#### 3.1 Direct Development-related Capital Costs

The following provides an overview of the capital needs and commentary on the impact of this development on Township services:

##### **Roads (Local):**

- The development includes approximately 4.92 kilometres of local (internal) roads and 4.94 kilometres of sidewalks within the site plan. Under the Township's local service policy, the development of these roads and sidewalks are a direct developer responsibility and will be fully funded by the developer.



- As previously described, the proposed development is adjacent to Fallis Line, west of County Road 10. The plan has identified one entrance connecting to Fallis Line. Urbanization of Fallis Line - County Road 10 Westerly (\$500,000 estimated cost) has been identified in the Township's Development Charges Background Study, however, the project is only anticipated to be undertaken up to the current Millbrook boundary. As this development is just outside the boundary line, it has been assumed that another urbanization project will need to be undertaken in order to accommodate growth in this area. Therefore, a similar project cost of \$500,000 for the further urbanization of Fallis Line has been assumed, with a similar developer contribution of \$400,000 (it is assumed that the proposed development will be responsible for urbanizing Fallis Line up to their westerly property line). This results in a net amount of \$100,000 to be recovered from development charges (note: if this project is approved, the Township's D.C. study will need to be updated).
- Once the subdivision is assumed by the Township, maintenance and winter control costs will be borne by the Township.

#### **Parkland:**

- In regard to parkland requirements, the Township's Official Plan provides: "For residential development, redevelopment or plans of subdivision providing for low, medium and/or high density uses, conveyance or dedication shall be either equal to 5 percent of the land proposed for development, redevelopment or subdivision or 1 hectare per 300 dwelling units, whichever is greater".
- Based on the Township's parkland requirements, the development would need to dedicate 2.46 hectares of parkland.
- The plan of subdivision provided in Figure 2-3 provides for 2.06 hectares of parkland for 696 units.
- The development is 0.4 hectares short of the Township's parkland dedication requirements. Therefore, the development will need to pay a cash-in-lieu for the shortfall.

#### **Water (Local):**

- The proposed development is assumed to include 4.93 kilometres of local watermains to service the units. Of this amount:
  - 1.07 kilometres are 150mm mains;



- 2.53 kilometres are 200mm mains; and
- 1.33 kilometres are 250mm mains.

Under the Township's local service policy these works would be considered a direct developer responsibility (as these watermain are assumed to be 300 mm or less).

- As discussed in Section 1 of the report, the proposed development is currently outside the Millbrook boundary. If the Township approves the inclusion of this subdivision into the Millbrook boundary, then the watermain within the proposed CSU development will need to connect to the existing water system.

### **Wastewater (Local):**

- The proposed development is assumed to include 5.01 kilometres of local wastewater main to service the units, all of which have a diameter of 200mm. Under the Township's local service policy these works would be considered a direct developer responsibility (as these wastewater main are assumed to be 375 mm or less).
- As discussed in Section 1 of the report, the proposed development is currently outside the Millbrook boundary. If the Township approves the inclusion of this subdivision into the Millbrook boundary, then the wastewater main within the proposed CSU development will need to connect to the existing sanitary system.

### **Stormwater Management:**

- The proposed development includes a stormwater management pond, along with stormwater main within the local roads. The stormwater main vary in size from 250mm up to 825mm and are assumed to total 5.59 kilometres. The area associated with the pond is 2.34 hectares as noted in the draft plan of subdivision (Figure 2-3). Under the Township's local service policy, quality and quantity works are a direct developer responsibility.

## **3.2 Indirect Development-related Capital Costs**

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The Township's D.C. background study identified a forecasted growth of 3,670 population in the Millbrook area and 3,812 in the Township over their forecast period. As the proposed development includes a forecast population of 1,731 (based on the



P.P.U.s provided in the D.C. study), this amounts to 47.2%<sup>1</sup> of the forecast period development for the Millbrook area and 45.4%<sup>1</sup> of the development anticipated in the Township. The development charge provides for services which are external to the development to which a broader benefit is to be derived. An overview of the services is provided below:

### **Services Related to a Highway:**

- The Township's D.C. background study has identified a number of roads and sidewalks to be constructed due to growth. As development occurs throughout the Township, the need for these projects will be required. Further, a depot at the Cavan Works Yard, a tandem dump truck/plow, and a rubber tire backhoe have been identified to facilitate the road-related needs due to growth.

### **Fire Protection:**

- The D.C. study has identified a new Firehall Number 1 in Millbrook and should be sufficient to accommodate this proposed development.

### **Police Services:**

- The D.C. makes a provision for additional capital contract costs to accommodate growth. As growth occurs, this amount may need to be revised.

### **Parks and Recreation:**

- The Township's D.C. study has identified multiple recreation projects to service both existing and new development. The construction of these works (which includes a new Community Centre/ Arena) appears to be sufficient to service the additional population growth resulting from new development.

### **Library Services:**

- The D.C. study makes provision for additional library space and to expand collection materials. As development throughout the Township occurs, this

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<sup>1</sup>As mentioned in section 1, the calculations herein have assumed the proposed development would be included in the Township's urban boundary and would benefit from/contribute towards the applicable urban services (water and wastewater).





should facilitate the additional capital needs requirements as a result of growth.

### **Water Services:**

- The D.C. study identifies a number of water projects to service the Millbrook area. These works include a watermain extension from Fallis Line across County Road 10, Watermains on Duke and King Street, a booster pumping station, provision for future oversizing, and studies.
- As mentioned previously, the Township is currently undertaking a Master Servicing Plan, which may amend the capital listing provided in the D.C. Study to include the servicing of land outside of the urban boundary.

### **Wastewater Services:**

- The D.C. study provides for a number of wastewater works to service the Millbrook area. These works include various wastewater mains, relining of sewers, oversizing of mains, a pumping station, and studies.
- As mentioned previously, the Township is currently undertaking a Master Servicing Plan, which may amend the capital listing provided in the D.C. Study.

## **3.3 Township's Potential Development Charges Revenue**

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Based on the D.C. projects identified above, the proposed development is estimated to generate the following D.C. revenues<sup>1</sup> (based on the Township's Development Charge By-law 2019-69, as amended):

Residential	Number of Units	Total Development Charges
Single-Detached Dwellings (52')	57	1,117,656
Single-Detached Dwellings (45')	106	2,078,448
Single-Detached Dwellings (35')	208	4,078,464
Townhomes	125	1,661,375
Apartments	200	2,000,900
<b>Total</b>	<b>696</b>	<b>10,936,843</b>

As noted in the previous section, this development is located outside the Millbrook area. The development has included an O.P.A. application to have these lands included

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<sup>1</sup> Note that the D.C. revenues are for illustrative purposes only and does not have an effect on the fiscal impact calculations.



within the urban boundary. Therefore, the D.C. revenues presented above include water and wastewater. The D.C. revenues will need to be adjusted if the proposed development is not included in the urban area.

## 4. Impact on the Township of Cavan Monaghan's Operating Budget

This chapter examines the potential impact of the subdivision proposal (at buildout) on the Township's operating budget. This is done by examining the revenue and expenditure implications separately, and then together with reference to net operating position. An additional analysis has been carried out to include lifecycle costs resulting from works required by this development. In the analysis below, the resultant impact on water and wastewater services in the Township is calculated separately.

### 4.1 Operating Expenditure Implications

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Figure 4-1 summarizes the Township's "Revenue Fund" or "Operating Fund" transactions for 2018 (based on the Township's Financial Information Return (F.I.R.)). This represents a simple "model" of the Township's financial position for the operating fund and provides the structure of the financial impact analysis contained in this chapter.

Figure 4-2 modifies the operating expenditures shown in Figure 4-1 by netting "Interest on Long Term Debt", "External Transfers", and "Amortization" from the total. The debt charges are for "sunk" investments, unaffected by growth. The external transfers can vary significantly from year to year and relate largely to capital expenditures and general reserves, which are addressed separately in this analysis. Further, amortization is an accounting allocation which seeks to capture annual replacement costs. As this is based on historical costs, a separate analysis on lifecycle expenditures (based on future replacement cost) is conducted later in this report. It is therefore appropriate to remove these three classes of expenditures from the spending base, before determining incremental loss and/or average operating fund spending levels per capita and employee.

Figure 4-3 allocates the Township's existing operating expenditure components between the needs of residential development and non-residential development, based





on differences in the amount of such development and the need for particular types of services in each case. The expenditure allocation is then presented on a per household/per employee basis. The expenditures are divided between residential and non-residential development based on varying proportions for each service. Most expenditures have been shared on a population-to-employment basis. As the 2018 population is 9,346 and the 2018 employment is 2,446, these costs are split approximately 79%/21%. For solid waste and waste diversion, an allocation of 10% to non-residential was assumed. For parks and recreation, and libraries, a minor allocation has been provided to non-residential development which acknowledges some usage by the non-residential sector (5%). In regard to water and wastewater services, the expenditures have been calculated on a per customer basis. The 2018 number of customers for the water and wastewater systems is based on the Township's 2020 water and wastewater rate study.

Figures 4-4a and 4-4b assesses each of the Township's key service components in relation to the proposed development (tax and rate supported, respectively), to determine how the operating costs are likely to be impacted based on the characteristics and location of the subject development.



Figure 4-1  
Summary of Consolidated Expenditures, Revenues, and Tax rates  
2018 F.I.R. Data ('000's \$)

Summary of Consolidated Expenditures and Revenues	General Levy
<b>1. GROSS EXPENDITURES</b>	
1.1 General Government	1,194.0
1.2 Fire	894.1
1.3 Police	1,247.6
1.4 Conservation Authority	445.6
1.5 Protective Inspection and Control	39.7
1.6 Building Permit and Inspection Services	223.0
1.7 Emergency Measures	4.1
1.8 Roadways & Winter Control	2,944.5
1.9 Parking	3.1
1.10 Street Lighting	43.3
1.11 Wastewater Collection/Conveyance	214.8
1.12 Wastewater Treatment & Disposal	1,349.7
1.13 Water Treatment	213.6
1.14 Water Distribution/Transmission	304.7
1.15 Solid Waste Collection	71.8
1.16 Solid Waste Disposal	217.5
1.17 Waste Diversion	8.9
1.18 Other: Risk Management	13.7
1.19 Parks	257.4
1.20 Recreation Facilities	496.9
1.21 Libraries	393.8
1.22 Other:	3.3
1.23 Planning and Zoning	227.7
1.24 Commercial and Industrial	194.6
<b>Total Gross Expenditures</b>	<b>11,007.3</b>
<b>2. REVENUES</b>	
2.1 Payment in Lieu of Taxes	27.1
2.2 Unconditional Grants	506.0
2.3 Specific Grants	910.4
2.4 Revenue from Other Municipalities	1.3
2.5 Total User Fees and Service Charges	2,680.1
2.6 Licenses, Permits, Rents etc.	37.5
2.7 Fines and Penalties	168.6
2.8 Investment Income	333.7
2.9 Gain/Loss on sale of land & Capital Assets	(210.9)
2.10 Deferred Revenue Earned	542.8
2.11 Donations & Donated Tangible Capital Assets	610.2
2.12 Gaming and Casino Revenues	2,290.7
2.13 Other: Other Revenue	90.8
2.14 Total of all supplementary taxes (Supps, Omits, Section 359)	313.3
2.15 Local Improvement	25.0
2.16 Business improvement area	14.0
2.17 (Surplus) / Deficit	(5,053.4)
<b>Total Revenues</b>	<b>3,287.3</b>
<b>NET EXPENDITURES</b>	<b>7,720.1</b>
<b>3. PROPERTY TAXATION</b>	<b>7,720.1</b>



Figure 4-1 (Con't)  
Summary of Consolidated Expenditures, Revenues, and Tax rates  
2018 F.I.R. Data ('000's \$)

Tax Classes	General Levy		
	Market Assessment	Tax Ratio	Weighted Assessment
<b>4 CALCULATION OF TAX RATES</b>			
<u>Weighted Assessment (000's)</u>			
4.1 Residential Assessment (RT)	1,013,271.9	1.0000	1,013,271.9
4.2 Multi-Residential Assessment (MT)	3,487.5	1.7802	6,208.4
4.3 Commercial Assessment (CT)	77,169.0	1.0986	84,777.9
4.4 Commercial Excess and Vacant Land Assessment (CU, CX, CJ)	4,955.3	1.0986	5,443.9
4.5 Industrial Assessment (IT, IH, JT)	6,560.5	1.5432	10,124.2
4.6 Industrial Excess and Vacant Assessment (IU, IX)	1,926.6	1.5432	2,973.1
4.7 Pipeline Assessment (PT)	6,736.2	0.9386	6,322.6
4.8 Farmlands and Managed Forest Assessment (FT, TT)	170,546.9	0.2500	42,636.7
4.9 Commercial, New Construction Assessment (XT)	3,326.8	1.0986	3,654.8
<b>4.10 Total Weighted Assessment (000's)</b>	<b>1,287,980.6</b>		<b>1,175,413.5</b>
4.11 2018 Residential Tax Rate (RT)			0.641559%
4.12 2018 Multi-Residential Tax Rate (MT)			1.142104%
4.13 2018 Commercial Tax Rate (CT)			0.704817%
4.14 2018 Commercial Excess and Vacant Land Tax Rate (CU, CX, CJ)			0.493372%
4.15 2018 Industrial Tax Rate (IT, IH, JT)			0.990054%
4.16 2018 Industrial Excess and Vacant Tax Rate (IU, IX)			0.643535%
4.17 2018 Pipeline Tax Rate (PT)			0.602168%
4.18 2018 Farmlands and Managed Forest Tax Rate (FT)			0.160390%
4.19 2018 Commercial New Construction Tax Rate (XT)			0.704817%

Source: Township of Cavan Monaghan 2018 Financial Information Return



**Figure 4-2**  
**Summary of Net Operating Expenditures for 2018**

Category	Total Gross Expenditures	Interest on Long Term Debt	External Transfers	Amortization	Net Operating Expenditures
1.1 General Government	1,194,014	-	-	64,633	1,129,381
1.2 Fire	894,098	-	-	123,727	770,371
1.3 Police	1,247,611	-	-	-	1,247,611
1.4 Conservation Authority	445,607	-	335,816	-	109,791
1.5 Protective Inspection and Control	39,684	-	-	-	39,684
1.6 Building Permit and Inspection Serv	222,985	-	-	710	222,275
1.7 Emergency Measures	4,105	-	-	-	4,105
1.8 Roadways & Winter Control	2,944,482	-	-	908,454	2,036,028
1.9 Parking	3,090	-	-	3,090	-
1.10 Street Lighting	43,348	-	-	23,695	19,653
1.11 Wastewater Collection/Conveyance	214,758	-	-	121,436	93,322
1.12 Wastewater Treatment & Disposal	1,349,678	262,203	-	425,629	661,846
1.13 Water Treatment	213,552	-	-	43,399	170,153
1.14 Water Distribution/Transmission	304,728	-	-	140,200	164,528
1.15 Solid Waste Collection	71,766	-	-	-	71,766
1.16 Solid Waste Disposal	217,507	-	-	1,040	216,467
1.17 Waste Diversion	8,939	-	-	-	8,939
1.18 Other: Risk Management	13,719	-	-	812	12,907
1.19 Parks	257,363	-	-	11,243	246,120
1.20 Recreation Facilities	496,933	-	-	85,294	411,639
1.21 Libraries	393,787	-	-	79,878	313,909
1.22 Other:	3,250	-	-	3,250	-
1.23 Planning and Zoning	227,714	-	-	-	227,714
1.24 Commercial and Industrial	194,625	-	-	-	194,625
<b>TOTAL</b>	<b>11,007,343</b>	<b>262,203</b>	<b>335,816</b>	<b>2,036,490</b>	<b>8,372,834</b>

Source: Township of Cavan Monaghan 2018 Financial Information Return



**Figure 4-3**  
**Average Cost per Capita and per Employee (2018)**

Category	Total Net Operating Expenditure	Residential Share		Cost Per Capita	Non-Residential Share		Cost Per Employee
		%	\$		%	\$	
<b>1. Expenditures</b>							
1.1 General Government	1,129,381	79%	895,115	95.78	21%	234,266	95.78
1.2 Fire	770,371	79%	610,574	65.33	21%	159,797	65.33
1.3 Police	1,247,611	79%	988,821	105.80	21%	258,790	105.80
1.4 Conservation Authority	109,791	79%	87,017	9.31	21%	22,774	9.31
1.5 Protective Inspection and Control	39,684	79%	31,452	3.37	21%	8,232	3.37
1.6 Building Permit and Inspection Service	222,275	79%	176,169	18.85	21%	46,106	18.85
1.7 Emergency Measures	4,105	79%	3,254	0.35	21%	852	0.35
1.8 Roadways & Winter Control	2,036,028	79%	1,613,697	172.66	21%	422,331	172.66
1.9 Parking	0	79%	0	0.00	21%	0	0.00
1.10 Street Lighting	19,653	79%	15,576	1.67	21%	4,077	1.67
1.15 Solid Waste Collection	71,766	90%	64,589	6.91	10%	7,177	2.93
1.16 Solid Waste Disposal	216,467	90%	194,820	20.85	10%	21,647	8.85
1.17 Waste Diversion	8,939	90%	8,045	0.86	10%	894	0.37
1.18 Other: Risk Management	12,907	79%	10,230	1.09	21%	2,677	1.09
1.19 Parks	246,120	95%	233,814	25.02	5%	12,306	5.03
1.20 Recreation Facilities	411,639	95%	391,057	41.84	5%	20,582	8.41
1.21 Libraries	313,909	95%	298,214	31.91	5%	15,695	6.42
1.22 Other:	0	79%	0	0.00	21%	0	0.00
1.23 Planning and Zoning	227,714	79%	180,480	19.31	21%	47,234	19.31
1.24 Commercial and Industrial	194,625	0%	0	0.00	100%	194,625	79.57
<b>Subtotal</b>	<b>7,282,985</b>		<b>5,802,924</b>	<b>620.91</b>		<b>1,480,061</b>	<b>605.10</b>
1.11 Wastewater Collection/Conveyance	93,322			155.02			155.02
1.12 Wastewater Treatment & Disposal	661,846			1,099.41			1,099.41
1.13 Water Treatment	170,153			277.12			277.12
1.14 Water Distribution/Transmission	164,528			267.96			267.96
<b>Subtotal</b>	<b>1,089,849</b>			<b>1,799.51</b>			<b>1,799.51</b>
2018 Water Customers	614						
2018 Wastewater Customers	602						
2018 Year Population	9,346	79%					
2018 Year Employment	2,446	21%					



**Figure 4-4a**  
**Operating Expenditures – Growth Sensitivity Analysis (Tax Supported – 2018\$)**

Expenditure Category	RESIDENTIAL			NON-RESIDENTIAL		
	Net Expenditure per Capita	Growth Share %	Net Expenditure Recast	Net Expenditure per Employee	Growth Share %	Net Expenditure Recast
1.1 General Government	95.78	25%	23.95	95.78	25%	23.95
1.2 Protection to Person and Property						
1.2.1 Fire	65.33	100%	65.33	65.33	100%	65.33
1.2.2 Police	105.80	100%	105.80	105.80	100%	105.80
1.2.3 Conservation Authority	9.31	100%	9.31	9.31	100%	9.31
1.2.4 Protective Inspection and Control	3.37	100%	3.37	3.37	100%	3.37
1.2.5 Building Permit and Inspection Service	18.85	100%	18.85	18.85	100%	18.85
1.2.6 Emergency Measures	0.35	100%	0.35	0.35	100%	0.35
1.3 Transportation Services						
1.3.1 Roadways & Winter Control	172.66	75%	129.50	172.66	75%	129.50
1.3.2 Parking	-	0%	-	-	0%	-
1.3.3 Street Lighting	1.67	75%	1.25	1.67	75%	1.25
1.4 Environmental Services						
1.4.1 Solid Waste Collection	6.91	100%	6.91	2.93	100%	2.93
1.4.2 Solid Waste Disposal	20.85	100%	20.85	8.85	100%	8.85
1.4.3 Waste Diversion	0.86	100%	0.86	0.37	100%	0.37
1.4.5 Other: Risk Management	1.09	100%	1.09	1.09	100%	1.09
1.5 Recreation and Cultural Services						
1.5.1 Parks	25.02	75%	18.77	5.03	75%	3.77
1.5.2 Recreation Facilities	41.84	100%	41.84	8.41	100%	8.41
1.5.3 Libraries	31.91	100%	31.91	6.42	100%	6.42
1.6 Planning and Development						
1.6.1 Planning and Zoning	19.31	100%	19.31	19.31	100%	19.31
1.6.2 Commercial and Industrial	-	0%	-	79.57	100%	79.57
<b>TOTAL</b>	<b>620.91</b>		<b>499.25</b>	<b>605.10</b>		<b>488.43</b>

Source: Township of Cavan Monaghan 2018 Financial Information Return

**Figure 4-4b**  
**Operating Expenditures – Growth Sensitivity Analysis (Rate Supported – 2018\$)**

Expenditure Category	RESIDENTIAL			NON-RESIDENTIAL		
	Net Expenditure per Customer	Growth Share %	Net Expenditure Recast	Net Expenditure per Customer	Growth Share %	Net Expenditure Recast
1.7 Water and Wastewater Services						
1.7.1 Wastewater Collection/Conveyance	155.02	100%	155.02	155.02	100%	155.02
1.7.2 Wastewater Treatment & Disposal	1,099.41	100%	1,099.41	1,099.41	100%	1,099.41
1.7.3 Water Treatment	277.12	100%	277.12	277.12	100%	277.12
1.7.4 Water Distribution/Transmission	267.96	100%	267.96	267.96	100%	267.96
<b>TOTAL</b>	<b>1,799.51</b>		<b>1,799.51</b>	<b>1,799.51</b>		<b>1,799.51</b>

Source: Township of Cavan Monaghan 2018 Financial Information Return

The “Growth Share %” column denotes a particular percentage factor in each case. This factor reflects any variation from the current overall average per household expenditure level, which is called for in dealing with a development increment. For instance, if the average existing expenditure for a service is \$100 per household,



economies of scale or other efficiencies, may indicate that service costs for the growth increment alone are likely to be lower than average, say 90% (or \$90 per capita), while being unaltered for the base population. This determination has been based on analysis of the municipality's budget, discussions with Township staff, other relevant studies prepared as part of this process, facility configuration, practice elsewhere, and the consultant's experience. The provisions made are considered to be adequate with respect to the proposed development and existing service capacity in the Township.

These percentage attributions are used to compute average incremental operating costs per household and per employee, which is reflected in the "Net Expenditure" column. The per household and employee expenditure averages are utilized, subsequently, to estimate the incremental expenditure requirement generated by growth.

Based on the analysis provided in Figures 4-4a and 4-4b, the forecast of annual expenditures has been undertaken. Figures 4-5a and 4-5b provide for the per household and per employee amount multiplied by the assumed growth take-up as provided in Figure 2-2. The total line provides for the product of this calculation.



Figure 4-5a  
Operating Expenditures Summary (Tax Supported – 2018\$)

CATEGORY	Cost Per Capita	Cost Per Employee	Incremental Expenditures (2018\$)
<b>1. <u>Expenditures</u></b>			
1.1 General Government	23.95	23.95	41,457
1.2 Fire	65.33	65.33	113,086
1.3 Police	105.80	105.80	183,140
1.4 Conservation Authority	9.31	9.31	16,116
1.5 Protective Inspection and Control	3.37	3.37	5,833
1.6 Building Permit and Inspection Services	18.85	18.85	32,629
1.7 Emergency Measures	0.35	0.35	606
1.8 Roadways & Winter Control	129.50	129.50	224,165
1.9 Parking	-	-	-
1.10 Street Lighting	1.25	1.25	2,164
1.15 Solid Waste Collection	6.91	2.93	11,961
1.16 Solid Waste Disposal	20.85	8.85	36,091
1.17 Waste Diversion	0.86	0.37	1,489
1.18 Other: Risk Management	1.09	1.09	1,887
1.19 Parks	18.77	3.77	32,491
1.20 Recreation Facilities	41.84	8.41	72,425
1.21 Libraries	31.91	6.42	55,236
1.22 Other:	-	-	-
1.23 Planning and Zoning	19.31	19.31	33,426
1.24 Commercial and Industrial	-	79.57	-
<b>TOTAL</b>	<b>499.25</b>	<b>488.43</b>	<b>864,202</b>

Figure 4-5b  
Operating Expenditures Summary (Rate Supported – 2018\$)

CATEGORY	Cost Per Residential Customer	Cost Per Customer Non-residential Customer	Incremental Expenditures (2018\$)
<b>1. <u>Expenditures</u></b>			
1.11 Wastewater Collection/Conveyance	155.02	155.02	77,200
1.12 Wastewater Treatment & Disposal	1,099.41	1,099.41	547,506
1.13 Water Treatment	277.12	277.12	138,006
1.14 Water Distribution/Transmission	267.96	267.96	133,444
<b>TOTAL</b>	<b>1,799.51</b>	<b>1,799.51</b>	<b>896,156</b>





## 4.2 Operating Revenue Implications

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Figure 4-6 sets out the 2018 non-tax revenues for the Township as outlined in Figure 4-1. The figure distinguishes the revenues by service specific revenues (defined as being directly related to individual programs) and those being of a general nature.

Figure 4-7 assesses the 2018 non-tax revenues as to those which may be directly affected by growth. Generally, any unconditional grants and subsidies have been eliminated and the residual amounts are assessed as to their applicability to growth. The costs are then allocated between households and employees to provide a per household and per employee revenue.

Figures 4-8a and 4-8b assesses the estimated proportionate share of growth in a similar manner as provided in Tables 4-5a and 4-5b. Figures 4-9a and 4-9b then determines the forecast non-tax revenue to be generated annually based on the growth at buildout provided in Figure 2-2.



**Figure 4-6**  
**Operating Revenue Summary (2018\$)**

CATEGORY	NON-TAX OPERATING REVENUES (2018\$)							
	Ontario Conditional Grants	Canada Conditional Grants	Other Municipalities	User Fees and Service Charges	Ontario Grants - Tangible Capital Assets	Canada Grants - Tangible Capital Assets	User Fees, Service Charges, and Grants	Total Revenue - FIR
<b>2. Revenues</b>								
2.1 <u>Service Specific Non-Tax Revenues</u>								
General Government	45,300	-	1,250	64,845	-	1,680	110,145	113,075
Fire	-	-	-	57,219	-	-	57,219	57,219
Protective Inspection and Control	1,909	-	-	-	-	-	1,909	1,909
Building Permit and Inspection Services	-	-	-	643,330	-	-	643,330	643,330
Roadways & Winter Control	75,701	-	-	128,795	-	1,680	204,496	206,176
Wastewater Collection/Conveyance	-	-	-	742,342	-	-	742,342	742,342
Wastewater Treatment & Disposal	-	-	-	85,316	-	-	85,316	85,316
Water Distribution/Transmission	-	-	-	492,505	-	75,000	492,505	567,505
Solid Waste Collection	-	-	-	113,787	-	-	113,787	113,787
Solid Waste Disposal	-	-	-	54,484	-	-	54,484	54,484
Waste Diversion	-	-	-	3,247	-	-	3,247	3,247
Parks	-	-	-	8,024	123,600	-	8,024	131,624
Recreation Facilities	-	-	-	191,303	-	-	191,303	191,303
Libraries	26,526	3,353	-	10,857	-	-	40,736	40,736
Planning and Zoning	-	-	-	77,489	-	1,680	77,489	79,169
Commercial and Industrial	-	-	-	6,574	-	-	6,574	6,574
Residential Development	60,806	-	-	-	-	-	60,806	60,806
Other:	20,467	-	-	-	-	-	20,467	20,467
2.2 <u>Other Non-Tax Revenues</u>								
Payment in Lieu of Taxes								27,082
Unconditional Grants								506,000
Specific Grants								910,434
Revenue from Other Municipalities								1,250
Total User Fees and Service Charges								2,680,117
Licenses, Permits, Rents etc.								37,510
Fines and Penalties								168,632
Investment Income								333,678
Gain/Loss on sale of land & Capital Assets								(210,920)
Deferred Revenue Earned								542,792
Donations & Donated Tangible Capital Assets								610,224
Gaming and Casino Revenues								2,290,748
Other: Other Revenue								90,831
Total of all supplementary taxes (Supps, Omits, Section 359)								313,305
Business improvement area								14,000
(Surplus) / Deficit								(5,053,354)
<b>TOTAL</b>	<b>230,709</b>	<b>3,353</b>	<b>1,250</b>	<b>2,680,117</b>	<b>123,600</b>	<b>80,040</b>	<b>2,914,179</b>	

Source: Township of Cavan Monaghan 2018 Financial Information Return



**Figure 4-7**  
**Non-Tax Operating Revenue Summary – Average Revenue Per Capita and Per Employee**

CATEGORY	Total Net Operating Revenue and Grants	Residential Share		Revenue Per Capita	Non-Residential Share		Revenue Per Employee
		%	\$		%	\$	
<b>2. Revenues</b>							
2 <u>Service Specific Non-Tax Revenues</u>							
General Government	110,145	79%	87,298	9.34	21%	22,847	9.34
Fire	57,219	79%	45,350	4.85	21%	11,869	4.85
Protective Inspection and Control	1,909	79%	1,513	0.16	21%	396	0.16
Building Permit and Inspection Services	643,330	79%	509,885	54.56	21%	133,445	54.56
Roadways & Winter Control	128,795	79%	102,079	10.92	21%	26,716	10.92
Solid Waste Collection	113,787	90%	102,408	10.96	10%	11,379	4.65
Solid Waste Disposal	54,484	90%	49,036	5.25	10%	5,448	2.23
Waste Diversion	3,247	90%	2,922	0.31	10%	325	0.13
Parks	8,024	95%	7,623	0.82	5%	401	0.16
Recreation Facilities	191,303	95%	181,738	19.45	5%	9,565	3.91
Libraries	40,736	95%	38,699	4.14	5%	2,037	0.83
Planning and Zoning	77,489	79%	61,416	6.57	21%	16,073	6.57
Commercial and Industrial	6,574	0%	-	-	100%	6,574	2.69
Residential Development	60,806	100%	60,806	6.51	0%	-	-
Other:	20,467	79%	16,222	1.74	21%	4,245	1.74
2 <u>Other Non-Tax Revenues</u>							
Payment in Lieu of Taxes	27,082	n/a	-	-	n/a	-	-
Unconditional Grants	506,000	n/a	-	-	n/a	-	-
Specific Grants <sup>1</sup>	910,434	n/a	-	-	n/a	-	-
Revenue from Other Municipalities	1,250	n/a	-	-	n/a	-	-
Total User Fees and Service Charges <sup>1</sup>	2,680,117	n/a	-	-	n/a	-	-
Licenses, Permits, Rents etc.	37,510	79%	29,729	3.18	21%	7,781	3.18
Fines and Penalties	168,632	79%	133,653	14.30	21%	34,979	14.30
Investment Income	333,678	79%	264,464	28.30	21%	69,214	28.30
Gain/Loss on sale of land & Capital Assets	(210,920)	n/a	-	-	n/a	-	-
Deferred Revenue Earned	542,792	79%	430,201	46.03	21%	112,591	46.03
Donations & Donated Tangible Capital Assets	610,224	79%	483,646	51.75	21%	126,578	51.75
Gaming and Casino Revenues	2,290,748	n/a	-	-	n/a	-	-
Other: Other Revenue	90,831	79%	71,990	7.70	21%	18,841	7.70
Total of all supplementary taxes (Supps, Omits, Section 359)	313,305	n/a	-	-	n/a	-	-
Business improvement area	14,000	n/a	-	-	n/a	-	-
(Surplus) / Deficit	(5,053,354)	n/a	-	-	n/a	-	-
<b>Subtotal</b>	<b>4,780,644</b>	<b>-</b>	<b>2,680,677</b>	<b>286.84</b>	<b>-</b>	<b>621,305</b>	<b>254.00</b>
<b>2. Water and Wastewater</b>							
2 <u>Service Specific Non-Tax Revenues</u>							
Wastewater Collection/Conveyance	742,342			1,233.13			1,233.13
Wastewater Treatment & Disposal	85,316			141.72			141.72
Water Treatment	-			-			-
Water Distribution/Transmission	492,505			802.13			802.13
<b>Subtotal</b>	<b>1,320,163</b>			<b>2,176.97</b>			<b>2,176.97</b>
<b>TOTAL</b>	<b>6,100,807</b>		<b>2,680,677</b>	<b>2,463.81</b>		<b>621,305</b>	<b>2,430.97</b>

2018 Water Customers 614  
2018 Wastewater Customers 602  
2018 Year Population 9,346  
2018 Year Employment 2,446

<sup>1</sup> Specific grants and Total User Fees and Service Charges have been included in section 2.1 above



**Figure 4-8a**  
Non-Tax Operating Revenue – Growth Sensitivity Analysis (Tax Supported – 2018\$)

REVENUE CATEGORY	RESIDENTIAL			NON-RESIDENTIAL		
	Net Revenue per Capita	Growth Share %	Net Revenue Recast	Net Revenue per	Growth Share %	Net Revenue Recast
2.1 <u>Service Specific Non-Tax Revenues</u>						
General Government	9.34	25%	2.34	9.34	25%	2.34
Fire	4.85	100%	4.85	4.85	100%	4.85
Protective Inspection and Control	0.16	100%	0.16	0.16	100%	0.16
Building Permit and Inspection Services	54.56	100%	54.56	54.56	100%	54.56
Roadways & Winter Control	10.92	75%	8.19	10.92	75%	8.19
Solid Waste Collection	10.96	100%	10.96	4.65	100%	4.65
Solid Waste Disposal	5.25	100%	5.25	2.23	100%	2.23
Waste Diversion	0.31	100%	0.31	0.13	100%	0.13
Parks	0.82	75%	0.62	0.16	75%	0.12
Recreation Facilities	19.45	100%	19.45	3.91	100%	3.91
Libraries	4.14	100%	4.14	0.83	100%	0.83
Planning and Zoning	6.57	100%	6.57	6.57	100%	6.57
Commercial and Industrial	-	0%	-	2.69	100%	2.69
Residential Development	6.51	100%	6.51	-	0%	-
Other:	1.74	100%	1.74	1.74	100%	1.74
Sub-total	135.58		125.65	102.74		92.97
2.2 <u>Other Non-Tax Revenues</u>						
Licenses, Permits, Rents etc.	3.18	100%	3.18	3.18	100%	3.18
Fines and Penalties	14.30	100%	14.30	14.30	100%	14.30
Investment Income	28.30	100%	28.30	28.30	100%	28.30
Deferred Revenue Earned	46.03	0%	-	46.03	0%	-
Donations & Donated Tangible Capital Asset	51.75	0%	-	51.75	0%	-
Other: Other Revenue	7.70	50%	3.85	7.70	50%	3.85
Sub-total	151.26		49.63	151.26		49.63
<b>TOTAL</b>	<b>286.84</b>		<b>175.28</b>	<b>254.00</b>		<b>142.60</b>

Source: Township of Cavan Monaghan 2018 Financial Information Return

**Figure 4-8b**  
Non-Tax Operating Revenue – Growth Sensitivity Analysis (Rate Supported – 2018\$)

REVENUE CATEGORY	RESIDENTIAL			NON-RESIDENTIAL		
	Net Revenue per Customer	Growth Share %	Net Revenue Recast	Net Revenue per	Growth Share %	Net Revenue Recast
2.1 <u>Service Specific Non-Tax Revenues</u>						
Wastewater Collection/Conveyance	1,233.13	100%	1,233.13	1,233.13	100%	1,233.13
Wastewater Treatment & Disposal	141.72	100%	141.72	141.72	100%	141.72
Water Treatment	-	100%	-	-	100%	-
Water Distribution/Transmission	802.13	100%	802.13	802.13	100%	802.13
<b>TOTAL</b>	<b>2,176.97</b>		<b>2,176.98</b>	<b>2,176.97</b>		<b>2,176.98</b>



Figure 4-9a  
Non-Tax Operating Revenue Summary (Tax Supported – 2018\$)

CATEGORY	Revenue Per Capita	Revenue Per Employee	Incremental Revenues (2018\$)
<b>2. Revenues</b>			
2.1 <u>Service Specific Non-Tax Revenues</u>			
General Government	2.34	2.34	4,051
Fire	4.85	4.85	8,395
Protective Inspection and Control	0.16	0.16	277
Building Permit and Inspection Services	54.56	54.56	94,443
Roadways & Winter Control	8.19	8.19	14,177
Solid Waste Collection	10.96	4.65	18,972
Solid Waste Disposal	5.25	2.23	9,088
Waste Diversion	0.31	0.13	537
Parks	0.62	0.12	1,073
Recreation Facilities	19.45	3.91	33,668
Libraries	4.14	0.83	7,166
Planning and Zoning	6.57	6.57	11,373
Commercial and Industrial	-	2.69	-
Residential Development	6.51	-	11,269
Other:	1.74	1.74	3,012
2.2 <u>Other Non-Tax Revenues</u>			-
Licenses, Permits, Rents etc.	3.18	3.18	5,505
Fines and Penalties	14.30	14.30	24,753
Investment Income	28.30	28.30	48,987
Other: Other Revenue	3.85	3.85	6,664
<b>TOTAL</b>	<b>175.28</b>	<b>142.60</b>	<b>303,410</b>

Figure 4-9b  
Non-Tax Operating Revenue Summary (Rate Supported – 2018\$)

CATEGORY	Revenue Per Residential Customer	Revenue Per Non-residential	Incremental Revenues (2018\$)
<b>2. Revenues</b>			
2.1 <u>Service Specific Non-Tax Revenues</u>			
Wastewater Collection/Conveyance	1,233.13	1,233.13	614,099
Wastewater Treatment & Disposal	141.72	141.72	70,577
Water Distribution/Transmission	802.13	802.13	399,461
<b>TOTAL</b>	<b>2,176.98</b>	<b>2,176.98</b>	<b>1,084,136</b>

## 4.3 Taxation Revenue

Based on the Weighted Assessment Increment calculations provided in Figure 2-4, a forecast of the taxation revenue to be generated at buildout was undertaken using the 2018 tax rates. Figure 4-10 provides for this calculation at buildout. In undertaking this



calculation, it is recognized that the property does currently pay property taxes to the Township estimated at \$5,292 (based on 2018 phased-in assessment and 2018 residential tax rate). This amount has been netted from the estimated taxation revenue estimate to establish the additional taxation revenue increment.

Figure 4-10  
Property Tax Revenue

Property Tax Classes	Municipal Property Tax Revenue (2018\$)
<b>1. Property Tax<sup>1</sup></b>	
Residential Growth	
<i>Residential Assessment (RT)</i>	203,404,000
Property Tax Revenue <b>0.6583%</b>	1,338,992
Total Residential Property Tax Revenue	1,338,992
<i>Less Existing Property Tax Revenue</i>	5,292
<b>TOTAL PROPERTY TAX REVENUE</b>	<b>1,333,700</b>

<sup>1</sup> Tax Rates (2018)	General Tax Rate
2018 Residential Tax Rate (RT)	0.6583%

## 5. Lifecycle Analysis

### 5.1 Summary of Lifecycle Costs

Figures 5-1a and 5-1b provides for an analysis on the anticipated annual lifecycle costs associated with the direct (internal) capital works identified for this development (discussed in Chapter 3). Some of the works (i.e. roads, sidewalks, etc.) are a direct developer responsibility as per the Township's local service policy, however once these works are assumed, the Township will incur lifecycle costs associated with the future replacement of the works at the end of their useful life. This replacement of capital is often referred to as asset management or lifecycle cost. The method selected in this analysis to assess future asset replacement costing is the sinking fund method which provides that money will be contributed annually and invested, so that those funds will



grow over time to equal the amount required for future replacement. The following factors were utilized to calculate the annual replacement cost of the capital projects (annual contribution = factor X capital asset cost) and are based on an annual growth rate of 3% and an assumed capital inflation costs of 2% per year over the average useful life of the asset. These costs are included in the net impact calculations in Chapter 6.

Figure 5-2 provides for an analysis of the indirect capital costs identified in the Township's D.C. study. As indicated in Chapter 3, the Township's D.C. background study identified a forecasted growth of 3,670 population in the Millbrook area and 3,812 in the Township over their forecast period. The annual lifecycle contribution amounts have been divided by their respective forecast period populations to generate a per capita cost by service. These per capita costs have been multiplied by the proposed development's population forecast of 1,731. These costs are included in the net impact calculations in Chapter 6.

**Figure 5-1a**  
**Annual Asset Replacement Costing Forecast – New Infrastructure (Tax Supported – 2018\$)**

Service	Unit Measure	Unit Cost 2018\$	Capital Cost	% of Cost	Asset Useful Life (years)	Lifecycle Factor	Annual Contribution Total
<u>Transportation</u>							
Local Roads and Streetlights (2 lane) (km)	4.92	777,500	3,822,200				
- Base			2,790,206	73%	35	0.0165	92,300
- Surface			1,031,994	27%	15	0.0538	74,700
Sidewalks (assumed one side) (km)	4.94	279,700	1,381,700	100%	25	0.0274	62,200
Fallis Line Urbanization - Along Property Frontage	1.00	500,000	500,000	100%	25	0.0274	22,500
<u>Drainage/Stormwater</u>							
Storm Sewers (km)	5.59	275,700	1,541,200	100%	100	0.0016	18,400
Storm Pond (ha)	2.34	655,400	1,533,600	100%	50	0.0089	36,600
<b>Total</b>			<b>12,600,900</b>				<b>306,700</b>

*Note: Replacement costs based on figures utilized in previous fiscal impact analysis for recent Millbrook developments, indexed to 2018\$*



**Figure 5-1b**  
Annual Asset Replacement Costing Forecast – New Infrastructure (Rate Supported – 2018\$)

Service	Unit Measure	Unit Cost 2018\$	Capital Cost	% of Cost	Asset Useful Life (years)	Lifecycle Factor	Annual Contribution Total
<u>Water</u>							
Water Mains - Local (km)	4.93	287,000	1,414,900	100%	80	0.0031	21,500
<u>Wastewater</u>							
Wastewater Mains - Local (km)	5.01	287,000	1,437,900	100%	100	0.0016	17,200
<b>Total</b>			<b>2,852,800</b>				<b>38,700</b>

Note 1: Replacement costs based on figures utilized in previous fiscal impact analysis for recent Millbrook developments, indexed to 2018\$

Note 2: The above only includes localized mains. Major infrastructure lifecycle costs are included in the Broader Lifecycle Impact (Figure 5-2)

**Figure 5-2**  
Indirect Annual Lifecycle Costs

Service	Annual Lifecycle Contribution	D.C. Forecast Population	Annual Lifecycle Contribution Per Capita	Proportionate Share of Annual Lifecycle costs for this Development
Wastewater Services (Millbrook)	86,233	3,670	23.50	40,673
Water Services (Millbrook)	47,480	3,670	12.94	22,395
<b>Total - Millbrook Specific</b>	<b>133,713</b>			<b>63,067</b>
Roads and Related	198,545	3,812	52.08	90,158
Fire Protection Services	108,561	3,812	28.48	49,297
Police Services	3,461	3,812	0.91	1,572
Outdoor & Indoor Recreation Services	202,312	1,722	117.49	203,369
Library Services	31,815	1,722	18.48	31,982
<b>Total - Township-wide Services</b>	<b>544,695</b>			<b>376,378</b>

## 6. Net Impact of the Proposed Development on the Township of Cavan Monaghan

### 6.1 Summary of Net Impact

Figure 6-1 summarizes the foregoing analysis provided in Chapter 4 over a planned forecast period. This table calculates the operating expenditures, including a provision for overall capital spending and non-tax revenues and taxation revenues to provide for the net annual financial position.

Based on the results provided in Figure 6-1, the development would provide a net positive contribution to the Township on an annual basis for both tax and rate supported services. A net positive position is expected (at buildout of the lands) at approximately





\$89,830 annually with respect to tax supported services and approximately \$86,213 for water and wastewater services, for a total of \$176,043 annually.



**Figure 6-1**  
Summary of the Tax and Rate Supported Impacts to the Township

Summary of Fiscal Impact	2018\$
	At Buildout
<b>Tax Supported</b>	
1. <u>Revenues</u>	
<b>1.1 Property Tax</b>	
Residential Growth	1,338,992
Non-residential Growth	0
Less Existing Property Tax	5,292
<b>Total Property Tax Revenue</b>	<b>1,333,700</b>
<b>1.2 Non-Tax</b>	
Residential Growth	303,410
Non-residential Growth	0
<b>Total Non-Tax Revenue</b>	<b>303,410</b>
<b>1.3 Total Revenue</b>	
Residential Growth	1,642,402
Non-residential Growth	0
Less Existing Property Tax	5,292
<b>Total Revenue</b>	<b>1,637,110</b>
2. <u>Expenditures</u>	
<b>2.1 Operating</b>	
Residential Growth	864,202
Non-residential Growth	0
<b>Total Operating Expenditures</b>	<b>864,202</b>
<b>2.2 Lifecycle</b>	
Total Internal Lifecycle Expenditure	306,700
Broader City-wide Lifecycle impact	376,378
<b>Total Lifecycle Expenditures</b>	<b>683,078</b>
<b>Total Expenditures</b>	<b>1,547,279</b>
<b>3. Tax Supported - Surplus (Deficit)</b>	<b>89,830</b>
<b>Rate Supported</b>	
4. <u>Revenues</u>	
<b>4.1 Operating Revenue</b>	
Water Revenue	399,461
Wastewater Revenue	684,675
<b>Total Revenue</b>	<b>1,084,136</b>
5. <u>Expenditures</u>	
<b>5.1 Operating</b>	
Water Expenditure	271,450
Wastewater Expenditure	624,706
<b>Total Operating Expenditures</b>	<b>896,156</b>
<b>5.2 Lifecycle</b>	
Internal Lifecycle Expenditures	38,700
Broader City-wide Lifecycle impact	63,067
<b>Total Lifecycle Expenditures</b>	<b>101,767</b>
<b>Total Expenditures</b>	<b>997,923</b>
<b>6 Rate Supported - Surplus (Deficit)</b>	<b>86,213</b>
<b>7. Grand Total - Surplus (Deficit)</b>	<b>176,043</b>