



Fiscal and Economic Impact Assessment

Township of Cavan Monaghan

Proposed Residential and Non-Residential Development of Kawartha Downs

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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
P.P.U.	Persons Per Unit



1. Introduction

1.1 Terms of Reference

The Township of Cavan Monaghan (“Township”) requires RIC (Highway 28) Inc. & RIC (Moore Drive) Inc. to submit a fiscal and economic impact analysis for their proposed subdivision. RIC (Highway 28) Inc. & RIC (Moore Drive) Inc. has requested that Watson & Associates Economists Ltd. undertake this 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 located within the Fraserville area of the Township, with the residential subdivision at 1490 County Road 28 and 1683 Moore Drive, while the non-residential development will be at 1382 County Road 28 (Kawartha Downs). The developments would include a mix of single-detached homes, semi-detached homes, townhomes, as well as commercial buildings. The following provides an overview of the development’s components:

- 210 units of 40' Single Detached Homes;
- 118 units of 36' Single Detached Homes;
- 66 units of 33' Semi-detached Homes;
- 123 units of Townhomes;
- 316,815 square feet of additional commercial development;
- 0.83 hectares of Parkland;
- 4.02 kilometres of roads;
- 8.04 kilometres of sidewalks;
- 4.02 kilometres of water mains;
- 4.02 kilometres of wastewater mains;
- 4.02 kilometres of storm sewers; and
- A Stormwater Management Facility located on 2.56 hectares.



1.2 Assumptions for the Study

The proposed servicing parameters of the development (both internal and external works) are currently in the preliminary stages and requires further discussions between the development group and the Township. Additionally, the proposed development is located in Fraserville, where municipal water and wastewater servicing is not available. The development has proposed that it will construct all of the required services for the site and provide the required water and wastewater servicing. However, it is unclear where the discussions between the Township and the development will lead with respect to the servicing route, treatment type, as well as the assumed maintenance and overall ownership of the water and wastewater system for the development.

Therefore, this study has provided for three (3) scenarios related to the water and wastewater servicing of the site and are detailed in Chapter 8 of this report. The scenarios are as follows:

- 1) Water and Wastewater Systems are Privately-Owned (Township does not assume the systems)
- 2) Water and Wastewater Systems will be Area-Specific (Township assumes the systems and billing will be on an area-specific basis)
- 3) Water and Wastewater Systems will be Combined (Township assumes the systems and combines the billing with Millbrook – combined expenditures and revenues)

Note: For all three scenarios, it is believed that the non-water/wastewater assets within the residential development will be assumed and maintained by the Township at buildout.

Based on the foregoing, Chapters 4, 5, 6, and 7 of this analysis will discuss the fiscal impact to the Township with respect to Tax-supported services and assets (non-water/wastewater). Chapter 8 will provide the rate-supported analysis based on the scenarios noted above, while Chapter 3 will provide the economic impacts.



1.3 Approach

Fiscal Impact Analysis

The approach utilized in the financial analysis is consistent with the methodology devised by the firm and used for over 34 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 2020 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 2020 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.

Economic Impact Analysis

The economic impact analysis presented herein focuses on the initial economic impacts generated by the construction/development of the project and the anticipated annual employment (direct and indirect) generated from the operations of the development at buildout.



Based on the capital expenditures identified, the number of construction jobs to be created as a result of construction and development of the project was calculated by applying the 2018 Statistics Canada Ontario input-output multipliers for direct, indirect, and total jobs for the non-residential and residential building construction industry.

For the non-residential land uses, the analysis is based on the 2018 provincial multipliers available in the Statistics Canada Input/Output model, which provides a comprehensive accounting model of the inter-industrial structure of the Ontario economy. The appropriate employment density assumptions were identified and an estimate of total direct employment to be accommodated within the subject area at buildout is presented. The potential indirect “spin-off” employment using a weighted average of employment multiplier data, based on the sectors anticipated to be accommodated on the corresponding lands, was identified.



2. Development Description

2.1 Development Proposal

The development, proposed by RIC (Highway 28) Inc. & RIC (Moore Drive) Inc., is for a subdivision located within the Fraserville area of the Township, located on the west side of County Road 28 and south of Moore Drive. Phasing of this development has not been provided; therefore, the analysis will be provided based on the buildout of the development. It should be noted that the residential and non-residential growth figures provided in the following subsections were not identified as part of the growth forecast contained within the Township's recently completed 2022 Development Charges (D.C.) Background Study. The growth forecast and capital requirements in the D.C. study would need to be revised if this development is approved.

2.1.1 *Proposed Residential Development Parameters*

The overall development will include a total of 517 residential units consisting of single detached homes, semi-detached homes, and townhomes. Figure 2-1 provides for a summary of the proposed residential 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 2022 D.C Study.

Figure 2-1
Summary of Proposed Residential Development

Type Description	Number of Units
Single-Detached Dwellings (40')	210
Single-Detached Dwellings (36')	118
Semi-Detached Dwellings (33')	66
Townhomes (25')	123
Total	517



Figure 2-2
Summary of Population Growth

Type Of Units	Population Increment
Single-Detached Dwellings (40')	614
Single-Detached Dwellings (36')	345
Semi-Detached Dwellings (33')	193
Townhomes (25')	244
Total	1,396

2.1.2 Proposed Non-Residential Development Parameters

A detailed employment and non-residential G.F.A. at buildout analysis has been prepared based on the submitted site plan information from the development. As shown in Figure 2-3, the Kawartha Downs Site Plan is anticipated to encompass 33,600 sq.m (351,815 sq.ft.) G.F.A. of commercial and recreational uses at buildout, accommodating an event centre, a hotel, an outdoor FIFA soccer field/stadium, an amphitheatre, and a horse/cattle barn. This provides an estimated employment yield of 103 employees.

Figure 2-3
Kawartha Downs Proposed Residential Development
Employment and Non-Residential G.F.A. at Buildout

Non-Residential Development	Non-Residential Building G.F.A.		Direct Employment
	sq.ft	sq.m	
Event Centre	58,500	5,585	18
Hotel	62,840	6,000	22
Outdoor FIFA Soccer Field/Stadium	90,100	8,605	18
Amphitheatre	105,375	10,065	45
Horse/Cattle Barn ^[1]	35,000	3,345	0
Total	351,815	33,600	103

^[1] No additional employment is associated with the horse/cattle barn because the existing structure is being demolished.

Source: Adapted from Kawartha Downs Site Plan of Development, September 6, 2022 by Watson & Associates Economists Ltd.

Of this amount, 30,255 sq.m (316,815 sq.ft.) of the proposed development has been included in the fiscal analysis as that is the portion of new construction that will generate



employment and additional assessment. The 3,345 sq.m (35,000 sq.ft.) related to the horse/cattle barn will not generate additional employment/assessment as it is replacing an existing structure that will be demolished.

Figures 2-4 and 2-5 provide a map of the proposed residential and non-residential developments, respectively.



Figure 2-4
Draft Map of the Proposed Residential Development

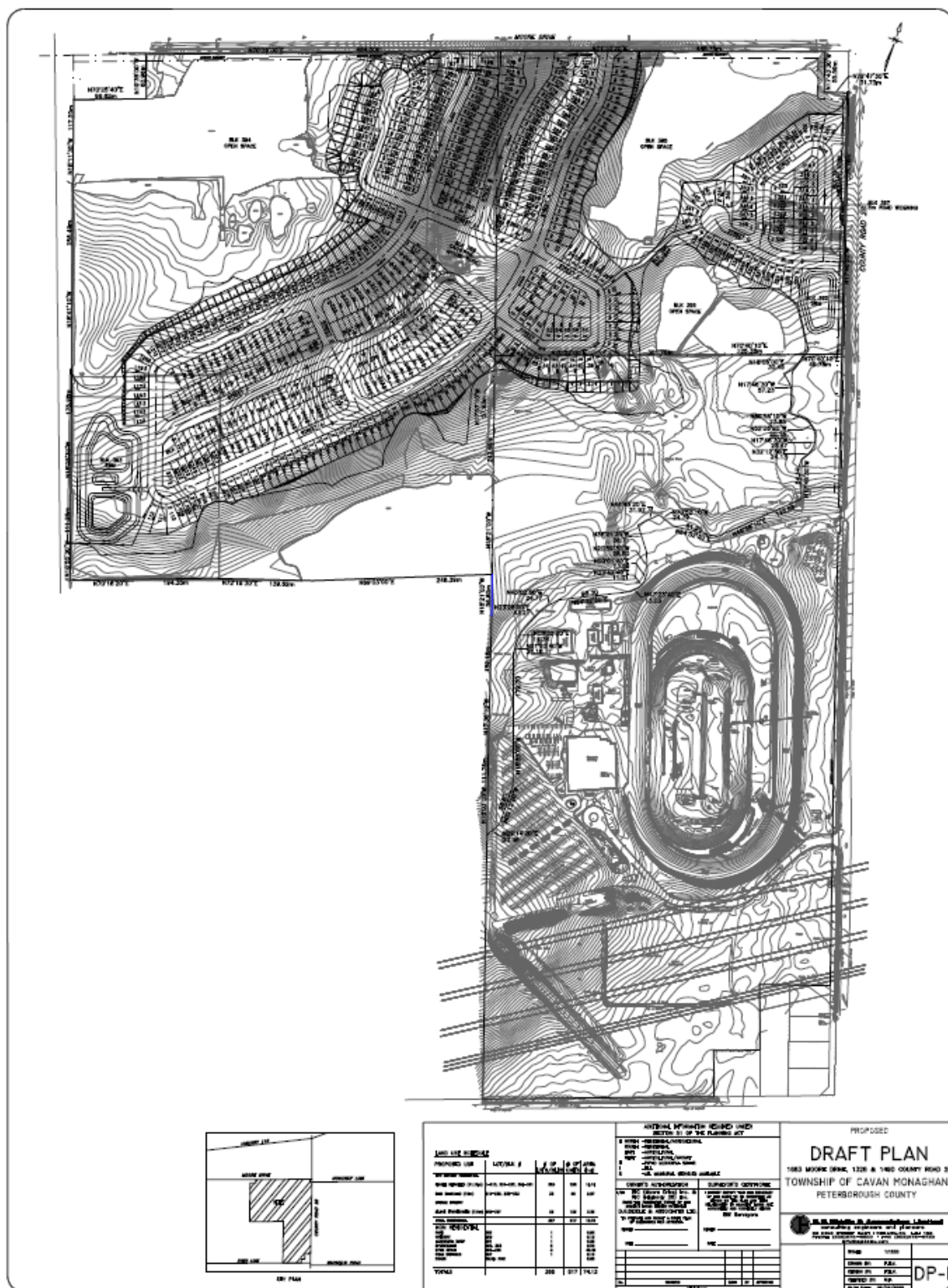
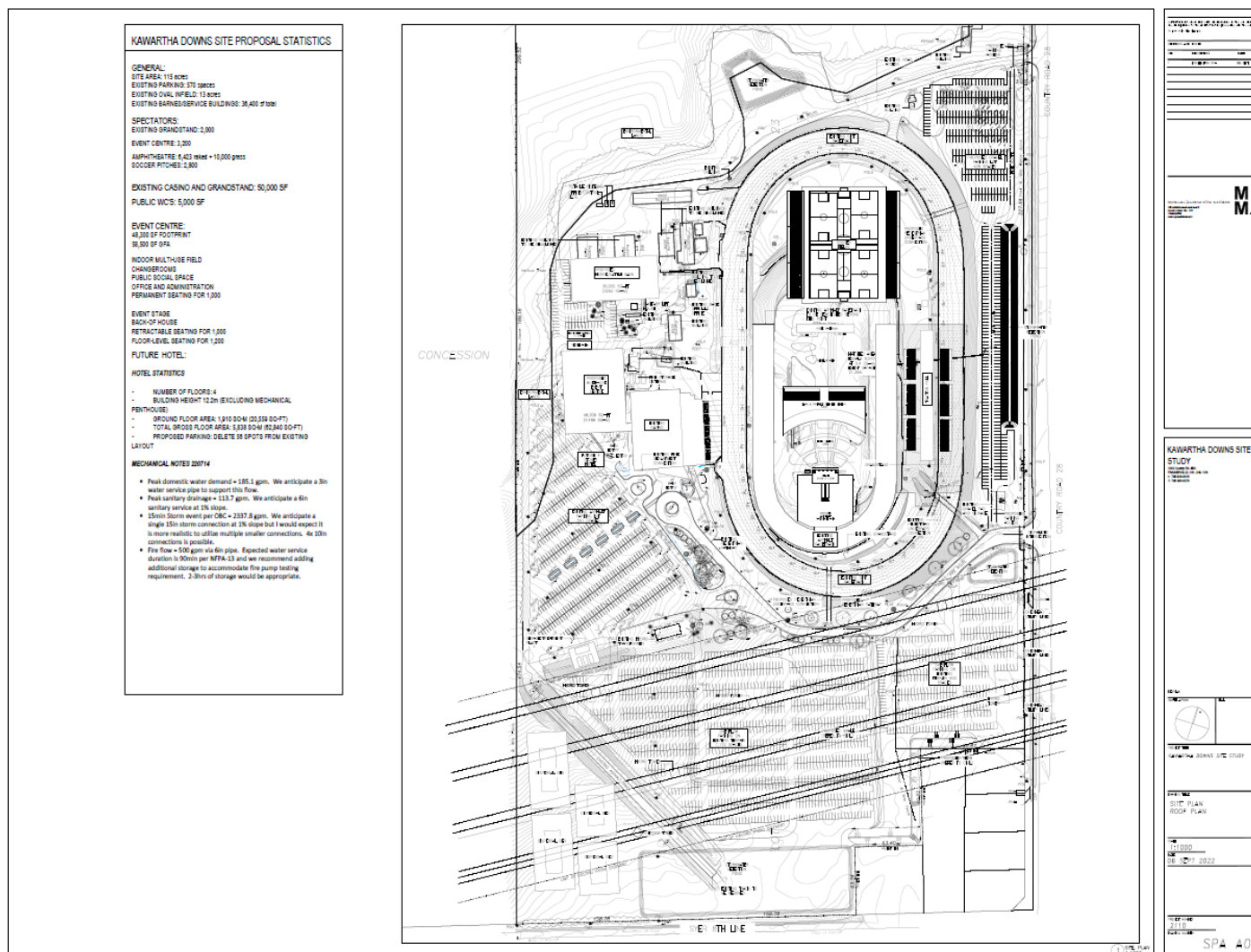




Figure 2-5
Draft Map of the Proposed Non-Residential Development





2.2 Assessment Assumptions

As the new development is constructed, the Township will receive additional assessment arising from the completion of the units. Figure 2-6 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. Note that the assessment values presented herein are based on MPAC's database, which are still based on the 2016 full phased-in values. The steps undertaken in the recent study were as follows:

- Estimated sales prices for the single detached homes, semi-detached homes, and townhomes were provided by the developing landowner.
- The average assessment values for single detached homes from Cavan Monaghan (Millbrook) were applied to the 40' lots, as the assessment survey identified similar lot sizes.
 - For the 36' singles and 33' semi-detached lots, the relationship between the sales price and average assessment value from the 40' 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 Cavan Monaghan, the average assessment values for townhomes in Peterborough was used.
- The assessment for the commercial units were based on similar properties throughout Ontario. A weighted average was taken to account for the different types of commercial space within the development (event space, hotel, amphitheatre, and FIFA soccer field).
- 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 2-6
Estimated Assessment

Type Description	Estimated Average Selling Price per Unit ²	Estimated Assessment per Unit ^{1,3,4}	Number of Units	Assessed Value
Single-Detached Dw ellings (40')	1,200,000	503,000	210	\$105,630,000
Single-Detached Dw ellings (36')	1,100,000	461,000	118	\$54,398,000
Semi-Detached Dw ellings (33')	900,000	377,000	66	\$24,882,000
Tow nhomes (25')	800,000	344,000	123	\$42,312,000
Total			517	\$227,222,000

1 The assessed value is based on the assessment per unit for developments in the Millbrook area. 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 w as provided by the developer as an estimate for singles, semis, and tow nhouses.

3 The assessed value for Tow nhouses are based on a survey of assessed units in Peterborough.

Type Description	Average Assessment per Sq.ft. ⁴	Est. GFA	Assessed Value
Commercial	172	316,815	\$54,492,180
Total		316,815	\$54,492,180

4 The commercial assessment per sq.ft. is based on a w eighted average of event spaces, hotels, outdoor fields, and amphitheatres throughout Ontario



3. Economic Impacts of Land-Use Concepts

The following chapter provides an assessment of economic benefits associated with the proposed Kawartha Downs development at buildout based on the parameters identified in Chapter 2.

3.1 Construction Value

Figure 3-1 illustrates the estimated construction value of the Kawartha Downs development at buildout. As illustrated:

- The Kawartha Downs Site Plan has an estimated total construction value of \$290.3 million; and
- Residential construction totals an estimated \$194.5 million (67% of total construction value) while the non-residential component totals an estimated \$95.8 million (33% of total) under the Kawartha Downs Site Plan.¹

¹ It is important to note that the construction value in Figure 3-1 is higher than the assessment value identified in Figure 2-6. This may be due to but not limited to the recent increase in the cost of construction which assessment values may not fully reflect yet. The development cost related to the horse/cattle barn will not generate additional assessment as it is replacing an existing structure that will be demolished. The surface parking space construction also yields a development cost but does not yield any assessment value or employees.



Figure 3-1
Estimate of Construction Costs of Kawartha Downs Site Plan – Buildout ^[1]

Construction Type	Construction Value (000s)
Residential	
Single-Detached	\$131,700
Semi-Detached	\$21,800
Townhouses	\$41,000
Residential Total	\$194,500
Non-Residential	
Event Centre	\$13,000
Hotel	\$15,700
Outdoor FIFA Soccer Field/Stadium	\$25,500
Amphitheatre	\$24,400
Horse/Cattle Barn	\$2,300
Non-Residential Sub-Total	\$80,900
Parking (2,077 surface spots)	\$14,900
Non-Residential Total	\$95,800
Total Construction Value	\$290,300

^[1] Construction costs are in 2022 dollars

Note: Figures may not sum precisely due to rounding.

Source: Watson & Associates Economists Ltd.

3.2 Employment Impacts

Direct Employment

- Figure 3-2 presents the total direct employment to be accommodated within the subject area at buildout. The total direct employment is based on the non-residential G.F.A. parameters identified in Chapter 2 and potential employment density derived by Watson based on Floor Space per Worker (F.S.W.) assumptions.¹ These metrics have regard for market considerations and development trends within the broader regional context.
- As shown in Figure 3-2:
 - Commercial employment represents the majority of non-residential development and all net new employment in the forms of an event centre, hotel, outdoor FIFA soccer stadium, and amphitheater; and

¹ Site plans reviewed from September 6, 2022.



- At buildout, the Kawartha Downs Site Plan is anticipated to accommodate approximately an additional 103 jobs. All employment is within the commercial sector with the following breakout by development type:
 - Event Centre: 18 jobs
 - Hotel: 22 jobs
 - Outdoor FIFA Soccer Field/Stadium: 18 jobs
 - Amphitheatre: 45 jobs
- The horse/cattle barn is not anticipated to yield new employment because it is replacing existing related structures.

Figure 3-2
Direct Employment Growth at Buildout – Kawartha Downs Site Plan

Non-Residential Development	Building G.F.A.	Building G.F.A.	Floor Space per Worker	Floor Space per Worker	Employment Yield	Employment Yield
	sq.ft	sq.m	sq.ft	sq.m	Direct Jobs	% of Jobs
Event Centre	58,500	5,585	3,260	311	18	17.5%
Hotel	62,840	6,000	2,830	270	22	21.3%
Outdoor FIFA Soccer Field/Stadium	90,100	8,605	5,050	482	18	17.5%
Amphitheatre	105,375	10,065	2,330	223	45	43.7%
Horse/Cattle Barn ^[1]	35,000	3,345	n/a	n/a	n/a	0%
Total	351,815	33,600			103	100%

^[1] No additional employment is associated with the horse/cattle barn because existing structure are being demolished.

Source: Adapted from Kawartha Downs Site Plan of Development, September 6, 2022 by Watson & Associates Economists Ltd.



Employment Multipliers or “Spin-Off” Employment Potential

Employment multipliers provide a summary of the indirect economic effect or “shock” from income and/or employment generated by a particular employment sector. The economic (employment) multipliers by sector and the potential “spin-off” employment under the two land-use concepts are discussed below.

Indirect Employment Growth Potential

Figure 3-3 summarizes the potential “spin-off” employment using a weighted average of employment multiplier data based on the sectors anticipated to be accommodated on the corresponding lands. This analysis is based on 2018 provincial multipliers available in the Statistics Canada Input/Output model, which provides a comprehensive accounting model of the inter-industrial structure of the Ontario economy.

The results of this analysis identify that Kawartha Downs could potentially yield up to an additional 42 indirect jobs by buildout distributed on a broad regional basis under the. The indirect jobs generated may be local in nature (i.e. within the Township of Cavan Monaghan) or located more broadly (i.e. provincial, national, and international).

Collectively, the total number of jobs (direct and indirect) generated totals 145. The economic spin-offs are largely concentrated in arts, entertainment and recreation uses

Figure 3-3
Direct and Indirect Employment Growth at Buildout – Kawartha Downs Site Plan

Land Use	Multiplier ^[1]	Direct Employment	Indirect Employment	Total Employment (Direct and Indirect)
Event Centre	1.42	18	7	25
Hotel	1.29	22	8	30
Outdoor FIFA Soccer Field/Stadium	1.42	18	7	25
Amphitheatre	1.42	45	20	65
Horse/cattle barn ^[2]	1.59	0	-	-
Total	1.41	103	42	145

^[1] Weighted average of Statistics Canada Provincial Input-Output Multipliers, 2018 based on a mix of anticipated employment sectors to be accommodated on lands.

^[2] No additional employment is associated with the horse/cattle barn because existing structures are being demolished.

Source: Watson & Associates Economists Ltd.



Induced Effect of Employment

Employment also generates positive “induced” effects which are derived from the spending of labour income on the consumption of goods and services that drive “non-basic” employment growth. These effects are not captured in the economic multipliers, but they are significant, nonetheless. The strength of the “induced” effects is largely related to average household income. Higher income opportunities permit families and individuals to enjoy a higher standard of living with more disposable income. In turn, this generates growth in household savings, taxation, and consumption of goods and services within the local economy. This increase in demand results in further expansion of the local and regional employment markets, largely in the retail and business services sectors.

The highest paid job sectors tend to be “export-based” knowledge-based sectors and/or non-retail employment. Within the context of the proposed site plan and the employment mix identified, the Kawartha Downs Site Plan is anticipated to generate addition spin-off employment.

Temporary (Construction) Employment Growth

Anticipated residential and non-residential development will also influence growth within temporary employment sectors such as the construction industry. During the construction phase, expenditures will be made for the construction of buildings and infrastructure. This investment will create employment associated with construction, as well as generate spending on materials and services required. Additional benefits (multipliers) will be derived as employees spend income earned in the local economy.

Figure 3-4 provides an estimate of direct and indirect temporary employment generated (in person years) for every \$1,000 spent on non-residential construction, as well as the purchased materials, equipment, and services by the commercial operations, using employment multiplier data available from the Statistics Canada Input-Output model.¹

¹ For the purposes of this exercise, it was necessary to estimate construction costs in 2018 \$ to apply available Statistics Canada I/O multiplier data to calculate employment generated. The cost of constructing residential and non-residential development is based on industry averages for 2022 using RSMeans Cost of construction and a review of comparable developments.



As illustrated, the construction of new residential and non-residential development would generate a total of 1,940 person years of (temporary construction) employment. Based on an average of 5 years of work per employee, this would generate demand for approximately 390 construction employees for Cavan Monaghan and the surrounding area. Further, additional employment generated from the construction of infrastructure associated with new development has been excluded from this analysis.



Figure 3-4
Kawartha Downs Site Plan Temporary (Construction) Employment

				Employment Multipliers ^[1]			Person Years of Employment Generated		
Sector	Total sq.m	Value of Construction 000s 2022\$	Value of Construction 000s 2018\$	Direct	Indirect	Total	Direct	Indirect	Total
Residential									
Single-Detached Units	81,485	\$ 131,700	\$ 119,600	0.00443	0.00294	0.00738	530	350	880
Semi-Detached Units	13,515	\$ 21,800	\$ 19,800	0.00443	0.00294	0.00738	90	60	150
Townhouse Units	19,815	\$ 41,000	\$ 37,200	0.00443	0.00294	0.00738	165	110	275
Non-Residential									
Event Centre	5,585	\$ 13,000	\$ 11,800	0.00472	0.00263	0.00735	55	30	85
Hotel	6,000	\$ 15,700	\$ 14,200	0.00472	0.00263	0.00735	65	35	100
Outdoor FIFA Soccer Field/Stadium	8,605	\$ 25,500	\$ 23,200	0.00472	0.00263	0.00735	110	60	170
Amphitheatre	10,065	\$ 24,400	\$ 22,200	0.00472	0.00263	0.00735	105	60	165
Surface Parking	69,000	\$ 14,900	\$ 13,500	0.00472	0.00263	0.00735	65	35	100
Horse/Cattle Barn	3,345	\$ 2,300	\$ 2,100	0.00472	0.00263	0.00735	10	5	15
Total	217,835	\$ 290,300	\$ 263,600				1,195	745	1,940

Source: Watson & Associates Economists Ltd.



4. Capital Cost Impacts 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 Clearford Water Systems Inc. and the site works compiled by D.G. Biddle & Associates Limited were used. Those documents identified the works required for the development for roads, water, wastewater, and stormwater services. For the purposes of the capital and operating analysis, all costing information has been adjusted to 2020 dollars to remain consistent with the 2020 F.I.R. data.

As noted earlier, Chapter's 4, 5, 6, and 7 will assess the tax-supported services/assets (non-water/wastewater) that would impact the Township as a result of the proposed development. The rate-supported (water and wastewater) impacts will be discussed in Chapter 8.

4.1 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 4.02 kilometres of local (internal) roads and 8.04 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.
 - 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".
 - "For industrial or commercial development, redevelopment or subdivision, a conveyance or dedication based on 2 percent of the land".
- Based on the Township's parkland requirements, the development would need to dedicate 1.77 hectares of parkland.
 - This amount is based on the alternative rate of 1 hectare per 300 dwelling units for residential and 2% for the non-residential development.
- The plan of subdivision provided in Figure 2-4 provides for 0.83 hectares of parkland for the development.
- The development appears to be 0.94 hectares short of the Township's parkland dedication requirements. Therefore, the development may be required to pay a cash-in-lieu for the shortfall.

Stormwater Management:

- The proposed development includes a stormwater management pond, along with stormwater mains and other various infrastructure (manholes, catch basins, leads, etc.) within the local roads. The stormwater mains are 750mm in size and are assumed to total 4.02 kilometres. The area associated with the pond is 2.56 hectares as noted in the draft plan of subdivision (Figure 2-4). Under the Township's local service policy, quality and quantity works are a direct developer responsibility.

4.2 Indirect Development-related Capital Costs

The Township's D.C. background study identified a forecasted growth of 3,281 in the Township over a buildout forecast period. As the proposed development includes a forecast population of 1,396 (based on the P.P.U.s provided in the D.C. study), this amounts to 42.6% of the forecast period's residential development anticipated in the



Township. For non-residential, the proposed development assumes 103 new employees, this amounts to 7.4% of the non-residential development anticipated in the Township. However, as noted in Chapter 2, the proposed development was not part of the growth forecast projections that were identified in the 2022 D.C. study

The commentary on the development charge impacts provided below are based on the current D.C. requirements identified in the 2022 D.C. study. These assumptions on the broader benefit, as well as the growth forecast, would need to be revised if the proposed development is approved.

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. However, the Township may need to consider potential upgrades/capital works on Moore Drive and/or County Road 28 to support this potential development site.
- With respect to public works facilities and fleet, the Township's D.C. has identified new/upgraded facilities (Millbrook Yard) and various vehicles and equipment (e.g. tandem dump truck/plow, rubber tire backhoe, sidewalk machine, etc.) to facilitate the road-related needs due to growth. Township staff will need to assess the available capacity of these capital works and determine if additional items are required to service the proposed Kawartha Downs development

Fire Protection:

- The D.C. study has identified a provision for a new fire facility, vehicles, and equipment. Township staff will need to assess if this provision is 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 parks and recreation projects (which includes new playgrounds, amenities, trails, etc.) to service new development. The project listing may need to be revisited to incorporate the additional parkland to be dedicated resulting from the proposed development.

Library Services:

- The D.C. study makes provision for additional library space and to expand collection materials. As development throughout the Township occurs, these figures may need to be revised to facilitate additional capital needs resulting from the growth within the proposed development.

4.3 Township's Potential Development Charges Revenue

Based on the D.C. projects identified above, the proposed development is estimated to generate the following D.C. revenues¹ (based on the Township's Development Charge By-law 2022-43):

Residential	Number of Units	Total Development Charges
Single-Detached Dwellings (40')	210	1,702,050
Single-Detached Dwellings (36')	118	956,390
Semi-Detached Dwellings (33')	66	534,930
Townhomes (25')	123	675,516
Total	517	3,868,886
Non-Residential	Sq.ft. of Development	Total Development Charges
Commercial	316,815	601,949
Total	316,815	601,949
Grand Total Development Charges		\$4,470,835

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



The D.C. revenues presented above are only with respect to the municipal-wide charges. As the proposed development is not located in the urban-serviced area of the Township, water and wastewater D.C.s do not apply.

5. 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. As noted earlier, the resultant impact on water and wastewater services in the Township is calculated separately in Chapter 8.

5.1 Operating Expenditure Implications

Figure 5-1 summarizes the Township's "Revenue Fund" or "Operating Fund" transactions for 2020 (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 5-2 modifies the operating expenditures shown in Figure 5-1 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 5-3 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 2020 population is estimated to be 9,758 and the 2020 employment is 2,583, these costs are split approximately 79%/21%. For parks and recreation, solid waste, waste diversion, and libraries, a minor allocation has been provided to non-residential development which acknowledges some usage by the non-residential sector (5%).

Figure 5-4 assesses each of the Township's key tax-supported service components in relation to the proposed development to determine how the operating costs are likely to be impacted based on the characteristics and location of the subject development.



Figure 5-1
Summary of Consolidated Expenditures, Revenues, and Tax rates
2020 F.I.R. Data ('000's \$)

Summary of Consolidated Expenditures and Revenues	General Levy
1. GROSS EXPENDITURES	
1.1 General Government	1,461.9
1.2 Fire	893.9
1.3 Police	1,347.1
1.4 Conservation Authority	345.5
1.5 Protective Inspection and Control	40.4
1.6 Building Permit and Inspection Services	284.9
1.7 Emergency Measures	10.9
1.8 Roadways & Winter Control	3,208.2
1.9 Parking	3.1
1.10 Street Lighting	70.7
1.11 Wastewater Collection/Conveyance	545.9
1.12 Wastewater Treatment & Disposal	1,365.2
1.13 Urban Storm Sewer System	5.1
1.14 Water Treatment	240.9
1.15 Water Distribution/Transmission	186.9
1.16 Solid Waste Collection	148.4
1.17 Solid Waste Disposal	200.0
1.18 Waste Diversion	8.2
1.19 Other: Other environmental	24.9
1.20 Parks	270.8
1.21 Recreation Facilities	386.9
1.22 Libraries	916.2
1.23 Other:	0.0
1.24 Planning and Zoning	307.0
1.25 Commercial and Industrial	206.7
Total Gross Expenditures	12,518.5
2. REVENUES	
2.1 Payment in Lieu of Taxes	43.2
2.2 Unconditional Grants	719.4
2.3 Specific Grants	501.6
2.4 Revenue from Other Municipalities	0.0
2.5 Total User Fees and Service Charges	2,491.7
2.6 Licenses, Permits, Rents etc.	29.0
2.7 Fines and Penalties	116.1
2.8 Investment Income	111.8
2.9 Gain/Loss on sale of land & Capital Assets	(74.0)
2.10 Deferred Revenue Earned	3,164.2
2.11 Donations & Donated Tangible Capital Assets	167.5
2.12 Gaming and Casino Revenues	86.0
2.13 Other: Other	82.2
2.14 Total of all supplementary taxes (Supps, Omits, Section 359)	180.7
2.15 Local Improvement	0.0
2.16 Business improvement area	14.0
2.17 (Surplus) / Deficit	(4,919.9)
Total Revenues	2,713.6
NET EXPENDITURES	9,804.9
3. PROPERTY TAXATION	9,804.9



Figure 5-1 (Con't)
Summary of Consolidated Expenditures, Revenues, and Tax rates
2020 F.I.R. Data ('000's \$)

Tax Classes	General Levy		
	Market Assessment	Tax Ratio	Weighted Assessment
4 CALCULATION OF TAX RATES			
<u>Weighted Assessment (000's)</u>			
4.1 Residential Assessment (RT)	1,216,642.9	1.0000	1,216,642.9
4.2 Multi-Residential Assessment (MT)	3,976.0	1.7802	7,078.1
4.3 Commercial Assessment (CT)	84,682.8	1.0986	93,032.5
4.4 Commercial Excess and Vacant Land Assessment (CU, CX, CJ))	6,412.0	1.0986	7,044.3
4.5 Industrial Assessment (IT, IH, JT)	7,050.1	1.5432	10,879.7
4.6 Industrial Excess and Vacant Assessment (IU, IX)	2,572.1	1.5432	3,969.3
4.7 Pipeline Assessment (PT)	7,327.0	0.9386	6,877.1
4.8 Farmlands and Managed Forest Assessment (FT, TT)	220,647.9	0.2500	55,162.0
4.9 Commercial, New Construction Assessment (XT)	6,020.5	1.0986	6,614.1
4.10 Total Weighted Assessment (000's)	1,555,331.3		1,407,299.9
4.11 2020 Residential Tax Rate (RT)			0.678511%
4.12 2020 Multi-Residential Tax Rate (MT)			1.207885%
4.13 2020 Commercial Tax Rate (CT)			0.745412%
4.14 2020 Commercial Excess and Vacant Land Tax Rate (CU, CX, CJ)			0.521788%
4.15 2020 Industrial Tax Rate (IT, IH, JT)			1.047078%
4.16 2020 Industrial Excess and Vacant Tax Rate (IU, IX)			0.680601%
4.17 2020 Pipeline Tax Rate (PT)			0.636850%
4.18 2020 Farmlands and Managed Forest Tax Rate (FT)			0.169628%
4.19 2020 Commercial New Construction Tax Rate (XT)			0.745412%

Source: Township of Cavan Monaghan 2020 Financial Information Return



Figure 5-2
Summary of Net Operating Expenditures for 2020

Category	Total Gross Expenditures	Interest on Long Term Debt	External Transfers	Amortization	Net Operating Expenditures
1.1 General Government	1,461,890	-	-	96,578	1,365,312
1.2 Fire	893,933	-	-	102,995	790,938
1.3 Police	1,347,054	-	-	-	1,347,054
1.4 Conservation Authority	345,524	-	345,524	-	-
1.5 Protective Inspection and Control	40,386	-	-	-	40,386
1.6 Building Permit and Inspection Services	284,927	-	-	-	284,927
1.7 Emergency Measures	10,860	-	-	-	10,860
1.8 Roadways & Winter Control	3,208,223	-	-	922,836	2,285,387
1.9 Parking	3,095	-	-	3,095	-
1.10 Street Lighting	70,696	-	-	32,033	38,663
1.11 Wastewater Collection/Conveyance	545,907	-	-	103,661	442,246
1.12 Wastewater Treatment & Disposal	1,365,175	246,108	-	519,608	599,459
1.13 Urban Storm Sewer System	5,138	-	-	5,138	-
1.14 Water Treatment	240,927	-	-	63,380	177,547
1.15 Water Distribution/Transmission	186,900	-	-	76,287	110,613
1.16 Solid Waste Collection	148,389	-	-	7,736	140,653
1.17 Solid Waste Disposal	200,043	-	-	1,041	199,002
1.18 Waste Diversion	8,247	-	-	-	8,247
1.19 Other: Other environmental	24,937	-	-	9,934	15,003
1.20 Parks	270,776	-	-	14,413	256,363
1.21 Recreation Facilities	386,866	-	-	-	386,866
1.22 Libraries	916,195	-	-	578,717	337,478
1.23 Museums and Cultural Services	38,721	-	-	38,721	-
1.24 Planning and Zoning	306,999	-	-	-	306,999
1.25 Commercial and Industrial	206,702	-	-	1,655	205,047
TOTAL	12,518,510	246,108	345,524	2,577,828	9,349,050

Source: Township of Cavan Monaghan 2020 Financial Information Return

Note: the water and wastewater information presented in Figure 5-2 is for illustrative purposes to summarize the total operating expenditures within the Township. As noted earlier, the water and wastewater impacts will be assessed separately in Chapter 8.



Figure 5-3
Average Cost per Capita and per Employee (2020)

Category	Total Net Operating Expenditure	Residential Share		Cost Per Capita	Non-Residential Share		Cost Per Employee
		%	\$		%	\$	
1. Expenditures							
1.1 General Government	1,365,312	79%	1,079,549	110.63	21%	285,763	110.63
1.2 Fire	790,938	79%	625,393	64.09	21%	165,545	64.09
1.3 Police	1,347,054	79%	1,065,113	109.15	21%	281,942	109.15
1.4 Conservation Authority	0	79%	0	0.00	21%	0	0.00
1.5 Protective Inspection and Control	40,386	79%	31,933	3.27	21%	8,453	3.27
1.6 Building Permit and Inspection Services	284,927	79%	225,291	23.09	21%	59,636	23.09
1.7 Emergency Measures	10,860	79%	8,587	0.88	21%	2,273	0.88
1.8 Roadways & Winter Control	2,285,387	79%	1,807,050	185.19	21%	478,337	185.19
1.9 Parking	0	79%	0	0.00	21%	0	0.00
1.10 Street Lighting	38,663	79%	30,571	3.13	21%	8,092	3.13
1.16 Solid Waste Collection	140,653	95%	133,620	13.69	5%	7,033	2.72
1.17 Solid Waste Disposal	199,002	95%	189,052	19.37	5%	9,950	3.85
1.18 Waste Diversion	8,247	95%	7,835	0.80	5%	412	0.16
1.19 Other: Other environmental	15,003	79%	11,863	1.22	21%	3,140	1.22
1.20 Parks	256,363	95%	243,545	24.96	5%	12,818	4.96
1.21 Recreation Facilities	386,866	95%	367,523	37.66	5%	19,343	7.49
1.22 Libraries	337,478	95%	320,604	32.86	5%	16,874	6.53
1.23 Other:	0	79%	0	0.00	21%	0	0.00
1.24 Planning and Zoning	306,999	79%	242,743	24.88	21%	64,256	24.88
1.25 Commercial and Industrial	205,047	0%	0	0.00	100%	205,047	79.38
Subtotal	8,019,185		6,390,271	654.87		1,628,914	630.62
2020 Year Population	9,758	79%					
2020 Year Employment	2,583	21%					



Figure 5-4
Operating Expenditures – Growth Sensitivity Analysis (Tax Supported – 2020\$)

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	110.63	25%	27.66	110.63	25%	27.66
1.2 Protection to Person and Property						
1.2.1 Fire	64.09	100%	64.09	64.09	100%	64.09
1.2.2 Police	109.15	100%	109.15	109.15	100%	109.15
1.2.3 Conservation Authority	-	100%	-	-	100%	-
1.2.4 Protective Inspection and Control	3.27	100%	3.27	3.27	100%	3.27
1.2.5 Building Permit and Inspection Services	23.09	100%	23.09	23.09	100%	23.09
1.2.6 Emergency Measures	0.88	100%	0.88	0.88	100%	0.88
1.3 Transportation Services						
1.3.1 Roadways & Winter Control	185.19	75%	138.89	185.19	75%	138.89
1.3.2 Parking	-	0%	-	-	0%	-
1.3.3 Street Lighting	3.13	75%	2.35	3.13	75%	2.35
1.4 Environmental Services						
1.4.1 Solid Waste Collection	13.69	100%	13.69	2.72	100%	2.72
1.4.2 Solid Waste Disposal	19.37	100%	19.37	3.85	100%	3.85
1.4.3 Waste Diversion	0.80	100%	0.80	0.16	100%	0.16
1.4.5 Other: Other environmental	1.22	100%	1.22	1.22	100%	1.22
1.5 Recreation and Cultural Services						
1.5.1 Parks	24.96	75%	18.72	4.96	75%	3.72
1.5.2 Recreation Facilities	37.66	100%	37.66	7.49	100%	7.49
1.5.3 Libraries	32.86	100%	32.86	6.53	100%	6.53
1.6 Planning and Development						
1.6.1 Planning and Zoning	24.88	100%	24.88	24.88	100%	24.88
1.6.2 Commercial and Industrial	-	0%	-	79.38	100%	79.38
TOTAL	654.87		518.58	630.62		499.33

Source: Township of Cavan Monaghan 2020 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 capita, 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 Figure 5-4, the forecast of annual expenditures has been undertaken. Figure 5-5 provides for the per household and per employee amount multiplied by the assumed growth take-up as provided in Figures 2-2 and 2-3. The total line provides for the product of this calculation.

Figure 5-5
Operating Expenditures Summary (Tax Supported – 2020\$)

CATEGORY	Cost Per Capita	Cost Per Employee	Incremental Expenditures (2020\$) Residential	Incremental Expenditures (2020\$) Non-Residential	Total Incremental Expenditures (2020\$)
1. Expenditures					
1.1 General Government	27.66	27.66	38,613	2,849	41,462
1.2 Fire	64.09	64.09	89,470	6,601	96,071
1.3 Police	109.15	109.15	152,373	11,242	163,616
1.5 Protective Inspection and Control	3.27	3.27	4,565	337	4,902
1.6 Building Permit and Inspection Services	23.09	23.09	32,234	2,378	34,612
1.7 Emergency Measures	0.88	0.88	1,228	91	1,319
1.8 Roadways & Winter Control	138.89	138.89	193,890	14,306	208,196
1.10 Street Lighting	2.35	2.35	3,281	242	3,523
1.16 Solid Waste Collection	13.69	2.72	19,111	280	19,391
1.17 Solid Waste Disposal	19.37	3.85	27,041	397	27,437
1.18 Waste Diversion	0.80	0.16	1,117	16	1,133
1.19 Other: Other environmental	1.22	1.22	1,703	126	1,829
1.20 Parks	18.72	3.72	26,133	383	26,516
1.21 Recreation Facilities	37.66	7.49	52,573	771	53,345
1.22 Libraries	32.86	6.53	45,873	673	46,545
1.24 Planning and Zoning	24.88	24.88	34,732	2,563	37,295
1.25 Commercial and Industrial	-	79.38	-	8,176	8,176
TOTAL	518.58	499.33	723,938	51,431	775,369

5.2 Operating Revenue Implications

Figure 5-6 sets out the 2020 non-tax revenues for the Township as outlined in Figure 5-1. 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 5-7 assesses the 2020 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 the population and employees to provide a per capita and per employee revenue.



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

Figure 5-6
Operating Revenue Summary (2020\$)

CATEGORY	NON-TAX OPERATING REVENUES (2020\$)							
	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
2. Revenues								
2.1 <u>Service Specific Non-Tax Revenues</u>								
General Government	-	-	-	33,167	25,000	50,000	33,167	108,167
Fire	-	-	-	53,387	-	-	53,387	53,387
Protective Inspection and Control	1,726	-	-	-	-	-	1,726	1,726
Building Permit and Inspection Services	-	-	-	388,604	-	-	388,604	388,604
Roadways & Winter Control	-	-	-	21,527	-	-	21,527	21,527
Wastewater Collection/Conveyance	-	-	-	1,102,140	-	-	1,102,140	1,102,140
Wastewater Treatment & Disposal	-	-	-	70,419	-	-	70,419	70,419
Water Distribution/Transmission	117,424	-	-	625,972	-	-	743,396	743,396
Solid Waste Collection	-	-	-	39,351	-	-	39,351	39,351
Solid Waste Disposal	-	-	-	47,040	-	-	47,040	47,040
Waste Diversion	-	-	-	4,111	-	-	4,111	4,111
Other: Other environmental	5,668	-	-	-	-	-	5,668	5,668
Parks	-	-	-	955	-	-	955	955
Recreation Facilities	-	-	-	24,116	-	-	24,116	24,116
Libraries	20,754	16,838	-	3,726	-	-	41,318	41,318
Planning and Zoning	-	-	-	77,161	-	-	77,161	77,161
2.2 <u>Other Non-Tax Revenues</u>								
Payment in Lieu of Taxes								43,194
Unconditional Grants								719,400
Specific Grants								501,560
Total User Fees and Service Charges								2,491,676
Licenses, Permits, Rents etc.								29,044
Fines and Penalties								116,134
Investment Income								111,831
Gain/Loss on sale of land & Capital Assets								(73,982)
Deferred Revenue Earned								3,164,180
Donations & Donated Tangible Capital Assets								167,526
Gaming and Casino Revenues								86,016
Other: Other								82,173
Total of all supplementary taxes (Supps, Omits, Section 359)								180,695
Business improvement area								14,000
(Surplus) / Deficit								(4,919,875)
TOTAL	145,572	16,838	-	2,491,676	25,000	50,000	2,654,086	

Source: Township of Cavan Monaghan 2020 Financial Information Return

Note: the water and wastewater information presented in Figure 5-6 is for illustrative purposes to summarize the total operating revenues within the Township. As noted earlier, the water and wastewater impacts will be assessed separately in Chapter 8.



Figure 5-7
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
		%	\$		%	\$	
2. Revenues							
2.1 <u>Service Specific Non-Tax Revenues</u>							
General Government	33,167	79%	26,225	2.69	21%	6,942	2.69
Fire	53,387	79%	42,213	4.33	21%	11,174	4.33
Protective Inspection and Control	1,726	79%	1,365	0.14	21%	361	0.14
Building Permit and Inspection Services	388,604	79%	307,268	31.49	21%	81,336	31.49
Roadways & Winter Control	21,527	79%	17,021	1.74	21%	4,506	1.74
Solid Waste Collection	39,351	95%	37,384	3.83	5%	1,968	0.76
Solid Waste Disposal	47,040	95%	44,688	4.58	5%	2,352	0.91
Waste Diversion	4,111	95%	3,906	0.40	5%	206	0.08
Other: Other environmental	5,668	79%	4,482	0.46	21%	1,186	0.46
Parks	955	95%	907	0.09	5%	48	0.02
Recreation Facilities	24,116	95%	22,910	2.35	5%	1,206	0.47
Libraries	41,318	95%	39,252	4.02	5%	2,066	0.80
Planning and Zoning	77,161	79%	61,011	6.25	21%	16,150	6.25
2.2 <u>Other Non-Tax Revenues</u>							
Payment in Lieu of Taxes	43,194	n/a	-	-	n/a	-	-
Unconditional Grants	719,400	n/a	-	-	n/a	-	-
Specific Grants ¹	501,560	n/a	-	-	n/a	-	-
Total User Fees and Service Charges ¹	2,491,676	n/a	-	-	n/a	-	-
Licenses, Permits, Rents etc.	29,044	79%	22,965	2.35	21%	6,079	2.35
Fines and Penalties	116,134	79%	91,827	9.41	21%	24,307	9.41
Investment Income	111,831	79%	88,425	9.06	21%	23,406	9.06
Gain/Loss on sale of land & Capital Assets	(73,982)	n/a	-	-	n/a	-	-
Deferred Revenue Earned	3,164,180	n/a	-	-	n/a	-	-
Donations & Donated Tangible Capital Assets	167,526	n/a	-	-	n/a	-	-
Gaming and Casino Revenues	86,016	n/a	-	-	n/a	-	-
Other: Other	82,173	79%	64,974	6.66	21%	17,199	6.66
Total of all supplementary taxes (Supps, Omits, Section 359)	180,695	n/a	-	-	n/a	-	-
Business improvement area	14,000	n/a	-	-	n/a	-	-
(Surplus) / Deficit	(4,919,875)	n/a	-	-	n/a	-	-
Subtotal	3,451,703	-	876,822	89.85	-	200,491	77.62
2020 Year Population			9,758				
2020 Year Employment			2,583				
1 Specific grants and Total User Fees and Service Charges have been included in section 2.1 above							



Figure 5-8
Non-Tax Operating Revenue – Growth Sensitivity Analysis (Tax Supported – 2020\$)

REVENUE CATEGORY	RESIDENTIAL			NON-RESIDENTIAL		
	Net Revenue per Capita	Growth Share %	Net Revenue Recast	Net Revenue per Employee	Growth Share %	Net Revenue Recast
2.1 Service Specific Non-Tax Revenues						
General Government	2.69	25%	0.67	2.69	25%	0.67
Fire	4.33	100%	4.33	4.33	100%	4.33
Protective Inspection and Control	0.14	100%	0.14	0.14	100%	0.14
Building Permit and Inspection Services	31.49	100%	31.49	31.49	100%	31.49
Roadways & Winter Control	1.74	75%	1.31	1.74	75%	1.31
Solid Waste Collection	3.83	100%	3.83	0.76	100%	0.76
Solid Waste Disposal	4.58	100%	4.58	0.91	100%	0.91
Waste Diversion	0.40	100%	0.40	0.08	100%	0.08
Other: Other environmental	0.46	100%	0.46	0.46	100%	0.46
Parks	0.09	75%	0.07	0.02	75%	0.02
Recreation Facilities	2.35	100%	2.35	0.47	100%	0.47
Libraries	4.02	100%	4.02	0.80	100%	0.80
Planning and Zoning	6.25	100%	6.25	6.25	100%	6.25
Sub-total	62.37		59.90	50.14		47.69
2.2 Other Non-Tax Revenues						
Licenses, Permits, Rents etc.	2.35	100%	2.35	2.35	100%	2.35
Fines and Penalties	9.41	100%	9.41	9.41	100%	9.41
Investment Income	9.06	100%	9.06	9.06	100%	9.06
Other: Other	6.66	50%	3.33	6.66	50%	3.33
Sub-total	27.48		24.15	27.48		24.15
TOTAL	89.85		84.05	77.62		71.84

Source: Township of Cavan Monaghan 2020 Financial Information Return

Figure 5-9
Non-Tax Operating Revenue Summary (Tax Supported – 2020\$)

CATEGORY	Revenue Per Capita	Revenue Per Employee	Incremental Revenues (2020\$) Residential	Incremental Revenues (2020\$) Non-Residential	Total Incremental Revenues (2020\$)
2. Revenues					
2.1 Service Specific Non-Tax Revenues					
General Government	0.67	0.67	935	69	1,004
Fire	4.33	4.33	6,045	446	6,491
Protective Inspection and Control	0.14	0.14	195	14	210
Building Permit and Inspection Services	31.49	31.49	43,960	3,243	47,204
Roadways & Winter Control	1.31	1.31	1,829	135	1,964
Solid Waste Collection	3.83	0.76	5,347	78	5,425
Solid Waste Disposal	4.58	0.91	6,394	94	6,487
Waste Diversion	0.40	0.08	558	8	567
Other: Other environmental	0.46	0.46			690
Parks	0.07	0.02	98	2	100
Recreation Facilities	2.35	0.47	3,281	48	3,329
Libraries	4.02	0.80	5,612	82	5,694
Planning and Zoning	6.25	6.25	8,725	644	9,369
2.2 Other Non-Tax Revenues					
Licenses, Permits, Rents etc.	2.35	2.35	3,281	242	3,523
Fines and Penalties	9.41	9.41	13,136	969	14,106
Investment Income	9.06	9.06	12,648	933	13,581
Other: Other	3.33	3.33	4,649	343	4,992
TOTAL	84.05	71.84	116,692	7,352	124,733



5.3 Taxation Revenue

Based on the Weighted Assessment Increment calculations provided in Figure 2-6, a forecast of the taxation revenue to be generated at buildout was undertaken using the 2020 tax rates. Figure 5-10 provides for this calculation at buildout. In undertaking this calculation, it is recognized that the undeveloped properties located on 1490 County Road 28 and 1683 Moore Drive (the proposed development site) does currently pay property taxes to the Township, which is estimated at \$2,056 for the residential site (based on the current assessment and 2020 farm tax rate) and \$82,189 for Kawartha Downs located on 1382 County Road 28 (based on the current assessment and 2020 commercial tax rate). The existing property tax amount with respect to the residential site has been netted from the estimated taxation revenue estimate to establish the additional taxation revenue increment. The non-residential property taxes are assumed to continue as the new non-residential growth is in addition to the existing development.

Figure 5-10
Property Tax Revenue

Property Tax Classes	Municipal Property Tax Revenue (2020\$)
1. Property Tax¹	
Residential Growth	
<i>Residential Assessment (RT)</i>	227,222,000
Property Tax Revenue 0.6985%	1,587,050
Total Residential Property Tax Revenue	1,587,050
Non-residential Growth	
<i>Commercial Assessment (CT)</i>	54,492,180
Property Tax Revenue 0.7673%	418,132
Total Commercial Property Tax Revenue	418,132
<i>Less Existing Property Tax Revenue</i>	2,056
TOTAL PROPERTY TAX REVENUE	2,003,126

¹ Tax Rates (2020)	General Tax Rate
2020 Residential Tax Rate (RT)	0.6985%
2020 Commercial Tax Rate (CT)	0.7673%



6. Lifecycle Analysis

6.1 Summary of Lifecycle Costs

Figure 6-1 provides for an analysis on the anticipated annual lifecycle costs associated with the direct (internal) capital works identified for this development (discussed in Chapter 4). The costs were provided by D.G. Biddle & Associates Limited and were adjusted to reflect 2020 dollars. 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 4% and an assumed capital inflation costs of 3% per year over the average useful life of the asset. These costs are included in the net impact calculations in Chapter 7.

Figures 6-2 and 6-3 provides for an analysis of the residential and non-residential indirect capital costs identified in the Township's D.C. study. As indicated in Chapter 4, the Township's D.C. background study identified a forecasted growth of 3,281 population / 1,399 employment in the Township over the buildout forecast period. The annual lifecycle contribution amounts have been divided by their respective forecast period populations to generate a per capita/per employee cost by service (the residential and non-residential splits are based on the Township's D.C. Study). These per capita and per employee costs have been multiplied by the proposed development's population forecast of 1,396 people and 103 employees, respectively. These costs are included in the net impact calculations in Chapter 7.

Note: The analysis in Figures 6-1 and 6-2 are with respect to non-water/wastewater assets only. As stated earlier, the impacts related to water and wastewater are presented separately in Chapter 8.



Figure 6-1
Annual Asset Replacement Costing Forecast – New Infrastructure (Tax Supported – 2020\$)

Service	Quantity	Unit of Measure	Unit Cost (2020\$)	Capital Cost	Asset Useful Life (years)	Lifecycle Factor	Annual Contribution Total
Transportation							
Local Roads and Streetlights (2 lane) (4.02 km)							
- Granular 'B' (450mm)	13,700	m ³	46	630,200	50	0.0066	23,500
- Granular 'A'	4,850	sq.m	62	300,700	50	0.0066	11,200
- Subdrains	8,040	metre	17	136,700	50	0.0066	5,100
- Concrete Curb	8,040	metre	96	771,800	50	0.0066	28,800
- HL8 Base Asphalt (50mm)	32,200	sq.m	15	483,000	15	0.0499	48,800
- HL3 Surface Asphalt (40mm)	3,220	sq.m	12	38,600	15	0.0499	3,900
- Traffic and regulatory street signs	2	each	460	900	50	0.0066	30
Streetlights	75	each	6,240	468,000	50	0.0066	17,500
Sidewalks (both sides)	8,040	metre	120	964,800	50	0.0066	36,000
Moore Drive Reconstruction	700	metre	3,750	2,625,000	35	0.0136	130,300
Drainage/Stormwater							
Storm Sewers (750mm)	4,020	metre	610	2,452,200	80	0.0018	61,500
Leads	320	metre	290	92,800	80	0.0018	2,300
Manholes	265	each	3,250	861,300	80	0.0018	21,600
Rear Catchbasins	8	each	3,500	28,000	80	0.0018	700
Catchbasins	75	each	3,000	225,000	80	0.0018	5,600
Catchbasin Connections	650	each	420	273,000	80	0.0018	6,800
Service Connections	270	each	1,170	315,900	80	0.0018	7,900
Storm Pond - West	1	each	1,456,600	1,456,600	50	0.0066	54,300
Storm Pond - East	1	each	416,200	416,200	50	0.0066	15,500
Engineering/Contingency/Taxes			3,754,700	3,754,700			
Total				16,295,400			481,330

Note: The replacement costs are based on figures from D.G. Biddle & Associates Limited

Figure 6-2
Indirect Annual Lifecycle Costs (Residential)

Service	Annual Lifecycle Contribution	Annual Lifecycle Contribution (Residential)	D.C. Forecast Population	Annual Lifecycle Contribution Per Capita	Proportionate Share of Annual Lifecycle costs for this Development (Residential)
Roads and Related	202,285	141,599	3,281	43.16	60,248
Fire Protection Services	78,393	54,875	3,281	16.73	23,348
Police Services	11,990	8,393	3,281	2.56	3,571
Outdoor & Indoor Recreation Services	104,192	98,983	2,782	35.58	49,669
Library Services	34,487	32,763	2,782	11.78	16,440
Total - Township-wide Services	431,347	336,613			153,277

Figure 6-3
Indirect Annual Lifecycle Costs (Non-Residential)

Service	Annual Lifecycle Contribution	Annual Lifecycle Contribution (Non-Residential)	D.C. Forecast Employment	Annual Lifecycle Contribution Per Capita	Proportionate Share of Annual Lifecycle costs for this Development (Non-Residential)
Roads and Related	202,285	60,685	1,399	43.38	4,468
Fire Protection Services	78,393	23,518	1,399	16.81	1,731
Police Services	11,990	3,597	1,399	2.57	265
Outdoor & Indoor Recreation Services	104,192	5,210	1,399	3.72	384
Library Services	34,487	1,724	1,399	1.23	127
Total - Township-wide Services	431,347	94,734			6,975



7. Net Tax-Supported Impact of the Proposed Development on the Township of Cavan Monaghan

7.1 Summary of Net Tax-Supported Impact

Figure 7-1 summarizes the foregoing analysis provided in Chapter 5 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 7-1, both the residential and non-residential development would provide a net positive contribution to the Township on an annual basis for the tax supported services. At buildout of the lands:

- The residential portion of the development is estimated to have a net positive position of approximately \$343,784 annually with respect to tax supported services.
- The non-residential portion of the development is estimated to have a net positive position of approximately \$367,126 annually with respect to tax supported services.
- On a combined basis, the proposed development is estimated to generate a surplus approximately \$710,909 annually with respect to tax supported services.



Figure 7-1
Summary of the Tax Supported Impacts to the Township (2020\$)

Summary of Fiscal Impact	2020\$	2020\$	2020\$
	Residential (At Buildout)	Non-Residential (At Buildout)	Total (At Buildout)
Tax Supported			
1. Revenues			
1.1 Property Tax			
Residential Growth	1,587,050	-	1,587,050
Non-residential Growth	-	418,132	418,132
Less Existing Property Tax	2,056	-	2,056
Total Property Tax Revenue	1,584,994	418,132	2,003,126
1.2 Non-Tax			
Residential Growth	117,334	-	117,334
Non-residential Growth	-	7,400	7,400
Total Non-Tax Revenue	117,334	7,400	124,733
1.3 Total Revenue			
Residential Growth	1,704,384	-	1,704,384
Non-residential Growth	-	425,532	425,532
Less Existing Property Tax	2,056	-	2,056
Total Revenue	1,702,328	425,532	2,127,859
2. Expenditures			
2.1 Operating			
Residential Growth	723,938	-	723,938
Non-residential Growth	-	51,431	51,431
Total Operating Expenditures	723,938	51,431	775,369
2.2 Lifecycle			
Total Internal Lifecycle Expenditures	481,330	-	481,330
Broader Township-wide Lifecycle impacts	153,277	6,975	160,251
Total Lifecycle Expenditures	634,607	6,975	641,581
Total Expenditures	1,358,544	58,406	1,416,950
3. Tax Supported - Surplus (Deficit)	343,784	367,126	710,909



8. Water and Wastewater Impacts

8.1 Proposed Water and Wastewater Servicing

As described earlier, the proposed development is located in Fraserville, which is an area of the Township where municipal water and wastewater servicing is not available. The development has indicated that it will construct all of the required services for the site and provide for water and wastewater. However, it is unclear where the discussions between the Township and the development will lead with respect to the servicing route, treatment type, as well as the assumed maintenance and overall ownership of the water and wastewater system for the development.

Through the review of the background information and discussions with the development's consultants, the proposed Kawartha Downs development has identified a listing of water and wastewater capital works to service the site. It is assumed that these services will be constructed and financed by the developer and primarily service the residential site.

Water:

- The proposed development is assumed to include approximately 4 kilometres of local (i.e. internal) watermains to service the units. The development will also require various valves, hydrants, and miscellaneous connections. Under the Township's local service policy these works would be considered a direct developer responsibility (as these watermains are all internal to the development).
- In addition the internal water services, the development will require access to a water supply, as well as other external infrastructure. This includes:
 - A water treatment facility and pumphouse;
 - It is proposed that a well could be constructed at a site that is 5 kilometres west of the development
 - Water storage; and
 - An estimated 5 kilometres of trunk mains to distribute the water from the offsite well.



These projects have not been identified in the Township's D.C. study. It is assumed that the developer will provide for the financing and construction of the noted works.

Wastewater:

- The proposed development is assumed to include approximately 4 kilometres of local (i.e. internal) wastewater mains and a 2 kilometre forcemain to service the units. The development will also require manholes, safety grates, pumping stations, and lateral connections. Under the Township's local service policy these works would be considered a direct developer responsibility (as these wastewater works are all internal to the development).
- In addition the internal wastewater services, the development will require a means to treat the wastewater produced by the site, as well as other external infrastructure. As noted earlier, these works will need to be discussed and approved with the Township. At a preliminary level, the suggested capital works include:
 - A wastewater treatment facility;
 - It is proposed that a modular wastewater treatment unit could be constructed at a site; and
 - An estimated 2.5 kilometre forcemain to transfer the treated effluent offsite.

These projects have not been identified in the Township's D.C. study. It is assumed that the developer will provide for the financing and construction of the noted works.

Details of the water and wastewater infrastructure noted above is presented in Figure 8-1. The figure provided outlines the capital costs, quantity, and anticipated lifecycle requirements using the sinking fund method identified in Chapter 6.



Figure 8-1
Annual Asset Replacement Costing Forecast – New Infrastructure (Rate Supported – 2020\$)

Service	Quantity	Unit of Measure	Unit Cost (2020\$)	Capital Cost	Asset Useful Life (years)	Lifecycle Factor	Annual Contribution Total
Water							
Water Mains - Local (150mm)	2,000	metre	190	380,000	80	0.0018	9,500
Water Mains - Local (200mm)	2,000	metre	230	460,000	80	0.0018	11,500
CPP Trunk (300mm)	1,000	metre	420	420,000	80	0.0018	10,500
Gate Valve (150mm)	60	each	2,080	124,800	80	0.0018	3,100
Anchor Tee, Valve, Box, and Hydrants (150mm)	55	each	6,240	343,200	80	0.0018	8,600
Type K Copper Water Services (19mm)	517	each	1,040	537,700	80	0.0018	13,500
Water Mains - External Trunk	5,000	metre	300	1,500,000	80	0.0018	29,000
Treatment Facility and Pump	1	each	624,200	624,200	80	0.0018	12,000
Water Storage	1	each	499,400	499,400	80	0.0018	9,600
Wastewater							
Wastewater Mains - Local (200mm)	4,020	metre	210	844,200	80	0.0018	21,200
Manholes (1200mm)	335	each	2,410	807,400	80	0.0018	20,300
Safety Gate	12	each	1,330	16,000	80	0.0018	400
Service Connections (100mm)	517	each	1,410	729,000	80	0.0018	18,300
Wastewater Forcemain - Local	2,070	metre	420	869,400	80	0.0018	21,800
Wastewater Pumping Station - Local	2	each	1,248,500	2,497,000	80	0.0018	62,600
Wastewater Treatment - Modular	1	each	2,913,100	2,913,100	80	0.0018	56,200
Wastewater Forcemain - External	2,500	metre	400	1,000,000	80	0.0018	19,300
Engineering/Contingency/Taxes			2,403,800	2,403,800			
Total				16,969,200			327,400

Note 1: The replacement costs for the localized items are based on figures from D.G. Biddle & Associates Limited

Note 2: The replacement costs for the treatment facilities, storage, and external works are based on figures from Clearford Water Systems Inc.

8.2 Water and Wastewater Servicing Scenarios

As mentioned earlier, the servicing parameters for the proposed development are in the preliminary stages and requires further discussions between the developer and the Township. Currently, it is unclear where the discussions between the Township and the developers will lead with respect to the servicing route, treatment type, as well as the assumed maintenance and overall ownership of the water and wastewater system for the site. Therefore, three (3) scenarios have been undertaken for the potential water and wastewater servicing of the proposed development:

- 1) Water and Wastewater Systems are Privately-Owned (Township does not assume the systems)
- 2) Water and Wastewater Systems will be Area-Specific (Township assumes the systems and billing will be on an area-specific basis)



- 3) Water and Wastewater Systems will be Combined (Township assumes the systems and combines the billing with Millbrook – combined expenditures and revenues)

8.2.1 Scenario 1 – Water and Wastewater Systems are Privately-Owned (Township does not assume the systems)

This scenario assumes that the development will operate as a standalone system that will be privately owned and operated. The operating and capital/lifecycle costs will not be the responsibility of the Township and will not affect the municipal expenditures or revenues.

8.2.2 Scenario 2 – Water and Wastewater Systems will be Area-Specific (Township assumes the systems and billing will be on an area-specific basis)

This scenario examines the impact to the Township if it assumed the water and wastewater infrastructure of the development and billing of the system will be on an area-specific basis, separate from the Millbrook system. The Township would need to consider the impacts of the operating costs, as well as the future lifecycle requirements of the infrastructure.

With respect to operating expenditures, Clearford Water Systems Inc. provided estimates of the water and wastewater treatment costs for the development. The costing is based on an annual amount per customer:

- Water Treatment: \$223 per customer
- Wastewater Treatment: \$1,397 per customer

Information related to water distribution and wastewater collection was not provided by the development. Therefore, the information from Millbrook was utilized in its absence. A 50% reduction was applied to the operating cost of the Millbrook water distribution and wastewater collection systems as it is recognized that the existing linear systems are older and that the new Fraserville systems would reflect a short to medium-term operating costs.

In addition to the above, administration and overhead costs have been assumed at a rate of 5% of the total operating costs. This amount would cover items such as billings, collections, arrears, etc. that the Township would incur.



Based on the information provided, the total operating costs associated with this development is summarized in Figure 8-2.

Figure 8-2
Operating Expenditures Summary – Area Specific Scenario (Rate Supported – 2020\$)

CATEGORY	Cost Per Customer	Number of Customers	Total Incremental Expenditures (2020\$)
Expenditures			
Wastewater Collection/Conveyance	239	517	123,589
Wastewater Treatment & Disposal	1,397		722,022
Water Treatment	223		115,518
Water Distribution/Transmission	59		30,516
Adminstration and Overhead (5%)	96		49,582
Subtotal	2,014		1,041,227

With respect to the lifecycle costs, the details of the proposed water and wastewater impacts are provided in Figure 8-1. Based on that figure, the Township will need to budget approximately \$327,400 annually towards the future replacement of the works at the end of their useful life. On a per customer basis, this would amount to \$633 per customer.

In summary, this area-specific scenario will require the Township to manage an additional \$1,041,227 of operating costs and \$327,400 for lifecycle requirements, for a combined annual impact of \$1,368,627 to service the proposed development. This would represent a combined per customer amount of \$2,647.

Figure 8-3
Total Incremental Expenditures and Cost per Customer – Area Specific Scenario (2020\$)

CATEGORY	Cost Per Customer	Number of Customers	Total Incremental Expenditures (2020\$)
Expenditures			
Wastewater Collection/Conveyance	239	517	123,589
Wastewater Treatment & Disposal	1,397		722,022
Water Treatment	223		115,518
Water Distribution/Transmission	59		30,516
Adminstration and Overhead (5%)	96		49,582
Subtotal	2,014		1,041,227
Annual Lifecycle Expenditures	633		327,400
Total Annual Expenditures	2,647		1,368,627



8.2.3 Scenario 3 – Water and Wastewater Systems will be Combined (Township assumes the systems and combines the billing with Millbrook – combined expenditures and revenues)

This scenario examines the impact to the Township if it assumed the water and wastewater infrastructure of the development and billing of the systems would be on a combined basis with the Millbrook system. Similar to scenario 2, the following provides the impacts of the operating costs and future lifecycle requirements of the infrastructure for the Township.

As mentioned earlier, Clearford Water Systems Inc. provided estimates of the water and wastewater treatment operating costs for the development. For this analysis, the costing from scenario 2 will be combined with the Millbrook expenditures using a weighted average of the water and wastewater customers for both Millbrook and proposed development in Fraserville. A summary of the customer allocation and percentages by system is provided in Figure 8-4:

Figure 8-4
Allocation of Water and Wastewater Customers

Service	Millbrook	Proposed Development	Total
Customers	937	517	1,454
% of Total	64%	36%	

With respect to the cost per customer for Millbrook, the Water and Wastewater Rate Study, dated November 19, 2021, identified an annual residential bill of \$1,721 per customer (based on 2020 rates). This amount provides for the recovery of water and wastewater expenditures related to operating, capital, debt, lifecycle, and reserve transfers. Based on the weighting information provided in Figure 8-4, the cost per customer for Millbrook and the proposed development (Figure 8-3) has been recalculated and presented in Figure 8-5.



Figure 8-5
Average Customer Bill – Combined Scenario (Rate Supported – 2020\$)

Description	Cost per Customer	Weighting	Combined Bill per Customer
Millbrook	1,721	64%	1,102
Proposed Development	2,647	36%	953
Total - Average Customer Bill - Combined Scenario		100%	\$ 2,055



9. Summary of the Fiscal and Economic Impacts of the Proposed Development

The analysis presented herein examined the fiscal and economic impacts of the proposed Kawartha Downs development. Based on the information provided in the prior chapters, the following observations are provided:

Economic Impact

Based on the economic impact analysis, the proposed Kawartha Downs development is estimated to:

- Develop 517 residential units and approximately 351,815 sq.ft. of non-residential buildings.
- The total construction value of the development is estimated at \$290.3 million.
 - Of this amount, \$194.5 million is related to the residential development and \$95.8 million is related to the non-residential development.
- The residential development is estimated to provide a population of 1,396 people.
- The non-residential development is estimated to generate 145 jobs.
 - Of this amount, 103 are considered direct employment and 42 are indirect employment.

Fiscal Impact – Tax-Supported

Based on the information presented in Chapter 7, both the residential and non-residential development would provide a net positive contribution to the Township on an annual basis for the tax supported services. The proposed development is estimated to generate a surplus approximately \$710,909 annually with respect to tax supported services.

Fiscal Impact – Rate-Supported

The analysis presented in Chapter 8 examined the impact to the Township with respect to the water and wastewater servicing of the proposed development under three scenarios: a standalone system, an area specific billing system, or a combined billing



system with Millbrook. The following provides for a summary of the impacts to the Township under each scenario:

- Scenario 1: Standalone System
 - There would be no expenditure or revenue impacts to the Township as the proposed development would be privately owned and operated.
- Scenario 2: Area-specific system
 - Under this scenario, the Township would assume the proposed development's water and wastewater systems.
 - The billing and associated expenditures will be treated on an area-specific basis.
 - Based on the anticipated water and wastewater expenditures to service the proposed development, the annual bill per customer is estimated at \$2,647 per year.
- Scenario 3: Combined Billing with Millbrook
 - Similar to scenario 2, the Township would assume the proposed development's water and wastewater systems.
 - This scenario combines the annual water and wastewater bills of both Millbrook and the proposed development.
 - Based on the calculations for this scenario, the combined annual bill per customer for both Millbrook and the proposed development is estimated at \$2,055 per year.