APPENDIX E

COST ESTIMATES FOR CONCEPTUAL WATER AND WASTEWATER SYSTEMS

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Memo

From: Matt Pearson
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To:	Gary Scandlan, Associate Director, Watson and Associates, Economists Ltd.
Re:	Town of Erin SSMP
File #:	08128
Date:	June 2, 2014

Introduction

The SSMP

The Town is undertaking a Settlement and Servicing Master Plan (SSMP) which is:

"A plan to encompass the community's visions and ideas, while approaching planning and servicing issues in a comprehensive, rational and environmentally-minded way. The SSMP will identify strategies for community planning and municipal servicing over the next 25 years, specific to the needs and wants of the residents of the Town."

The study process has been underway for 5 years and is nearing completion. Phase 1 of the process concentrated on collecting data related to the environmental background, and community planning. This phase was completed in 2012. We are in Phase 2, which concentrates on identifying alternative planning and servicing strategies, and are nearing the end of the study. The SSMP has identified a need for communal sanitary sewage servicing. The Town is currently exclusively serviced by private systems. There are also existing deficiencies with municipal water servicing. The solution, to build a wastewater treatment system that discharges into the West Credit River, is limited in the number of persons which can be accommodated. Council has identified that they wish to set aside capacity for the existing communities of Hillsburgh and Erin and allocate any remaining capacity to future development.

A March 27th memo to Council (attached) sets out the issues and provides a recommendation to develop information further. Council accepted this recommendation and we are now reviewing the following three scenarios:

1. Existing Erin and Hillsburgh with future growth allocated to both communities.
2. Existing Erin and Hillsburgh with future growth allocated only to Erin Village.
3. Existing Erin and Hillsburgh with growth allocated to only Hillsburgh.

We would expect that the next decision of Council will be to accept one of these scenarios as the one to be carried forward into the SSMP. They will make a decision on this after considering information that includes impact on the environment; fulfillment of the Town's goals as expressed in the Town's planning documents and obtained through the SSMP process; and the financial ability to implement the needed infrastructure in the future. The final design and a more detailed cost of any solution would be determined in detail during Phase 3 and 4 of a Class Environmental Assessment. Ultimately the Town could decide not to carry through with any scenario (the do-nothing option) if the costs or environmental impacts are deemed not feasible for the Town.

Financial Review

The Terms of Reference for the study specified under 4.2(g) to:

"Develop a financial plan specific to all servicing options considered that addresses municipalities debt capacity, long term operating costs and sustainability, sources of funding and impacts on existing Sewer and Water Rates and Development Charges Bylaws;"

It also specified that:

"The Consultant is to confer with the Town's Economic Consultant, Watson and Associates Ltd., in the review of existing Water and Sewer Rate Study, Development Charges Bylaw and the development of financial Plans specific to servicing options being considered."

We are providing at this time estimated costs for a traditional project to implement a sanitary sewage solution for the SSMP. This is predicated on constructing a sewage treatment facility discharging into the West Credit River. The assimilative capacity of the river has been defined as the equivalent of 6000 persons of treated effluent. This is a conservative number based on expected water use and sewage production, and the treatment criteria required for this river. This will allow for the servicing of all the existing population (4500) of Hillsburgh and Erin Village and an additional 1500 persons of future development.

There were deficiencies (unserviced properties, a poor well and a lack of storage) identified with the existing water systems in the study area, so additional facilities will have to be constructed to address these and to accommodate any future development. We have provided cost estimates to address the existing needs and to construct new facilities in each community. These could be built as required, as the demands increase with development. We have also provided estimated costs to connect the two existing water systems together. Doing so eliminates the new for some new wells, but adds new costs for interconnecting pipe and more complicated supply solutions (a new well system versus just a new well(s)). Other than installing new watermain to connect the existing unserviced lots to the existing systems, most new facilities require future Class EA evaluation and hydrogeological studies to construct new wells, water storage and booster pumping facilities.

In addition to the Financial Plan outlined in the Terms of Reference 4.2(g) referred to above, we would request that you provide the following review with respect to the sanitary sewage system:

- In addition to the financial review of the traditional system presented, could you work backwards to see at what capital cost a system becomes feasible (affordable) for the Town to undertake without upper tier grant contributions, with respect to borrowing capabilities. Phasing could be considered, with the Village of Erin proceeding before Hillsburgh, as the sewage flows downhill to Erin Village.

- The possibility of undertaking a project as a P3 has been suggested. This would likely be done using technologies preferred by the contractor, and at a lower capital cost than a traditional system. Could you provide comments on this type of financing arrangement and its potential benefits and negatives to the Town and its ability to implement the preferred SSMP solution?

Attachments

Attached to this memo are the following appendices:

1. March 27, 2014 memo from BMROSS to Town Council regarding planning/servicing scenarios.

2. Town of Erin SSMP, Conceptual Sanitary Servicing Costs, Erin and Hillsburgh Existing Population and Future Development Allocation Scenarios

3. Town of Erin SSMP, Estimated Costs for Water Supply and Storage, based on identified deficiencies and demands triggered by future development.

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Memo

From: Matt Pearson
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Appendix A
To June 2, 2014 memo to Watson and Associates

To:	Town of Erin Council
Re:	SSMP – Decisions coming out of March 20th Workshop
File #:	08128
Date:	March 27th, 2014

This memo report is further to our workshop of March 20th, 2014 in which we discussed moving the SSMP process along to an evaluation of municipal servicing strategies.

Assimilative Capacity

As you are aware it was identified last spring that the draft Assimilative Capacity Study (ACS) required additional technical input to verify and support assumptions needed to define an AC number, and subsequently the potential population that could be serviced by a municipal sewage treatment plant with a direct discharge to the West Credit River. Key to this was additional stream flow monitoring, at a different location on the West Credit River below the Village of Erin, as required by the CVC. This was completed through the summer and fall of 2013 by the CVC and in December we received new 7Q20 values to use in the AC calculation. Up to date water quality data was also provided and analyzed. Your hydrogeologist, Ray Blackport, conducted a review of the CVC modelling and assumptions related to the new low flow values, as the study team wanted to be satisfied that we maximized the stream capacity and growth potential available to the Town, in the AC calculations. We completed a draft ACS based on the updated data and have been in ongoing discussions with the CVC and the MOE regarding the methodology and assumptions used in the calculations. At this time an assimilative capacity population of 6000 persons has been agreed to by the Core Management Team, as the number to carry forward through the SSMP process. As discussed at the workshop this number includes an allowance for climate change impacts that was required by the CVC and the MOE.

Allocation of AC Population

In order to complete the SSMP Council needs to decide how to allocate sewage treatment capacity for a population of 6000 people, so that an evaluation can be conducted on the technical/financial/environmental consequences of municipal servicing alternatives. This review

will be based on the background information gleaned from the SSMP process to date, including the March 28, 2012 Background Report, the CVC Existing Conditions Report of May, 2011, financial analysis to be provided by the Town's Economist consultant, Watson & Associates, town staff, and your municipal engineer, Triton Engineering.

Key to moving forward is direction from Council on where the 6000 population would be allocated. An initial decision to be made is whether or not to allocate a sewage treatment capacity to service the existing population of the communities of Hillsburgh and Erin Village. The decision matrix provided at the workshop is attached to this report as Exhibit A. It shows that there are 4 options for servicing the existing population:

A) Service existing Erin Village and Hillsburgh.
B) Service existing Erin Village only.
C) Service existing Hillsburgh only.
D) Service new development only.

Attached to this report as Exhibit B are two of the slides provided at the workshop, which identify some impacts/benefits of allocating capacity to existing and future development.

Once Council has made a decision on whether or not the existing populations are to be assigned capacity, we can evaluate scenarios based on where the future capacity could be allocated. If the decision is to allocate capacity to existing growth in both communities, Option A above, we would evaluate the following scenarios with respect to technical, financial and environmental advantages and disadvantages:

1. Existing Erin and Hillsburgh with future growth allocated to both communities.
2. Existing Erin and Hillsburgh with future growth allocated only to Erin Village.
3. Existing Erin and Hillsburgh with growth allocated to only Hillsburgh.

If the decision is made to only service the existing population in Erin (B), we would prepare a scenario based on servicing Erin and allocating all future population to Erin.

If a decision is made to only service the existing population in Hillsburgh (C), we would prepare a scenario based on servicing Hillsburgh and allocating future population to Hillsburgh.

If a decision is made to only service new development (D) we would prepare a scenario based on leaving the existing population on individual systems.

Recommendation

Based on the studies conducted to date as part of the SSMP process, we would recommend to Council that they set aside assimilative capacity to service the existing population of both villages, Option A. This is consistent with the Vision Statement developed by the SSMP Liaison Committee, which was accepted by Council and the Problem/Opportunity Statement developed for the SSMP and accepted by Council. We would then proceed to evaluate scenarios 1, 2, and 3, outlined above.

Exhibit A

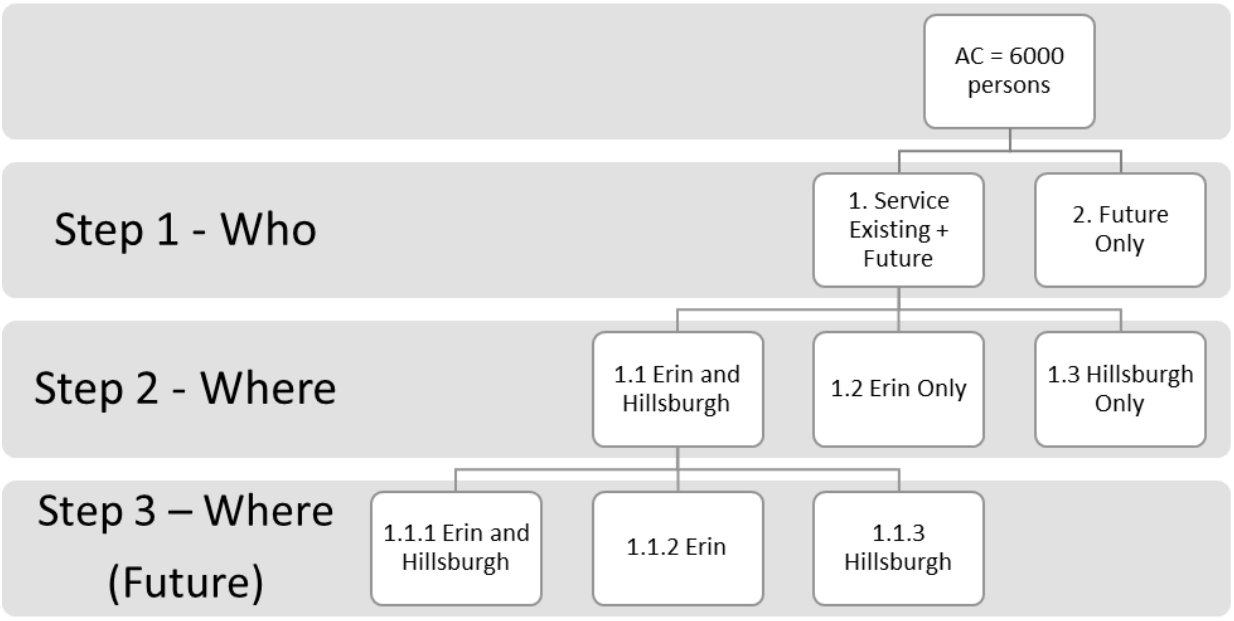
AC = 6000 persons
Step 1 - Who
1. Service Existing + Future
2. Future Only
Step 2 - Where
1.1 Erin and Hillsburgh
1.2 Erin Only
1.3 Hillsburgh Only
Step 3 – Where (Future)
1.1.1 Erin and Hillsburgh
1.1.2 Erin
1.1.3 Hillsburgh

Exhibit B: Comparison of servicing Existing + Future against servicing Future Only

Does this option…	**1. Service Existing + Future**	**2. Future Only**	**Comments**
Create a vibrant and sustainable community	✓	×	• Servicing **future only** will create an inequality in services available to new residents and the existing residents. • Servicing **future growth** only may draw businesses from the cores, impacting their long term sustainability.
Create employment opportunities	✓	✓	• The availability of servicing may attract and retain businesses, creating local job opportunities.
Allow for a range and mix of housing (e.g. seniors, starter)	✓	✓	• Will allow for smaller lots → more likely to have smaller (senior or starter) homes. • Will allow for infilling (apartments, condos).
Maintain the small town atmosphere	✓	×	• Servicing **existing + future** limits the ultimate population to 6000. • Servicing **future only** may create a 'have and have not' atmosphere within the community.
Allow for responsible development patterns	✓	✓	• Will allow for compact development • Will allow for greater range and mix of housing • Will allow for redevelopment and infilling
Allow for responsible servicing	✓	×	• Servicing **existing + future** addresses the existing issues related to septic systems, holding tanks in the cores, setbacks, and septage disposal. • Servicing **future only** does not address existing issues related to septic systems, holding tanks in the cores, and setbacks on small lots. • Servicing **future only** creates inequalities within the community.
Protect and preserve the natural environment	✓	×	• Servicing **existing + future** will eliminate impacts from septic systems to the West Credit River. • Servicing **existing + future** reduces the amount of potential greenfield development. • Servicing **future only** will not address existing aging septic systems, which have the potential to impact the West Credit River in both villages.
Meet policy requirements	✓	-	• Servicing **existing + future** is consistent with population and servicing policies. • Wellington County OP 11.2.2 (Objectives) b) to deliver an adequate supply of potable water and means of sewage disposal to meet the needs of existing and future residents and businesses;

Step 2 - Where

1.1 Erin and Hillsburgh | 1.2 Erin Only | 1.3 Hillsburgh Only

Does this option…	**Existing + future**			**Comments**
	1.1 Erin and Hillsburgh	**1.2 Erin Only**	**1.3 Hillsburgh Only**	
Create a vibrant and sustainable community	✓	×	×	• Servicing only **one community** (Erin or Hillsburgh) will create two-tiered service level between the communities. • Businesses and community services may leave the **unserviced community**, which will impact the sustainability of the downtown core. • **Unserviced community** likely to have restricted ability to redevelop vacant buildings.
Create employment opportunities	✓	✓	✓	• The availability of servicing may attract and retain businesses, creating local job opportunities.
Allow for a range and mix of housing (e.g. seniors, starter)	✓	✓	✓	• Servicing will allow for smaller lots → more likely to have smaller (senior or starter) homes. • Will allow for infilling (apartments, condos). • **Community without servicing** is not likely to obtain a better range and mix of housing and existing problems (no senior or starter homes) will remain. • Lack of a mix of housing types may impact population of **unserviced community**, as seniors (the largest population segment) move to other communities with more appropriate housing for their needs.
Maintain the small town atmosphere	✓	✓	✓	• Communities will remain small as growth will be limited by the AC.

Does this option…	Existing + future			Comments
	1.1 Erin and Hillsburgh	**1.2 Erin Only**	**1.3 Hillsburgh Only**	
Allow for responsible development patterns	✓	×	×	• **Servicing both communities** will allow for compact development, a greater range and mix of housing, and will allow for redevelopment and infilling. • **Community without servicing** may have limited development large lots (~ 1 acre) to accommodate septic systems. Large lots will increase the urban extent of the village, and decrease the overall efficiency of other infrastructure (roads, municipal water).
Allow for responsible servicing	✓	×	×	• Servicing **both communities** addresses the existing issues related to septic systems, holding tanks in the cores, setbacks, and septage disposal. • Servicing **one community** does not address existing issues related to septic systems, holding tanks in the cores, and setbacks on small lots currently present in both communities . • Servicing **one community** creates inequalities between the two communities.
Protect and preserve the natural environment	✓	✓	✓	• Servicing **both communities** will eliminate impacts from septic systems to the West Credit River. • Servicing **both communities** reduces the amount of potential greenfield development. • Servicing **one community** will not address existing aging septic systems in the other community, which have the potential to impact the West Credit River.

Town of Erin
SSMP
Conceptual Level Sanitary Servicing Costs
ERIN / HILLSBURGH

Appendix B

to June 2, 2014 memo to Watson & Associates

Job # :	08128
Date :	Feb 2013
Revised :	June 2014

CONCEPTUAL

GROWTH ALLOCATION SCENARIOS

1. Existing Erin and Hillsburgh with future growth allocated to both communities.
2. Existing Erin and Hillsburgh with future growth allocated only to Erin Village.
3. Existing Erin and Hillsburgh with growth allocated to only Hillsburgh.

Potential Connections (All Uses):

Location	**Properties**
Hillsburgh	510
Erin	1120
Growth	500
Total:	**2130**

Note: Potential Connections includes all residential and commercial properties. At this time a commercial use is considered equivalent to a residential property.
For Erin, Stanley Park has been included as one connection. There are approximately 110 mobile homes and cottages which equates to approximately 60 ERU's.

Estimated Conceptual Capital Costs:

Hillsburgh Collection System		$6,800,000
Hillsburgh Railtrail Trunk (HB to Erin)		$2,500,000
Erin Collection System		$18,000,000
Erin Trunk Sewer and Main Pumping Station (Shared with Hillsburgh)		$6,200,000
Sewage Plant		$24,500,000
	TOTAL:	**$58,000,000**

Estimated Conceptual Annual Operating Costs:

Sewage Plant		$750,000
Main Sewage Pumping Station		$75,000
Collection Costs		$75,000
	TOTAL:	**$900,000**

Note: Operating and Maintenance costs include chemicals, hydro, salaries, biosolid disposal, supplies and equipment, additional maintenance and media replacement.

Cost Allocation:

OPTION 1: Split Growth

Component	Potential Connections (All Uses): Existing		Growth		Total
	Hillsburgh	Erin	Hillsburgh	Erin	
Hillsburgh Collection System	510	0	0	0	510
Hillsburgh Railtrail Trunk (HB to Erin)	510	0	250	0	760
Erin Collection System	0	1120	0	0	1120
Erin Trunk Sewer and Main Pumping Station (Shared with Hillsburgh)	510	1120	250	250	2130
Sewage Plant	510	1120	250	250	2130

OPTION 2: Future Growth to Erin Only

Component	Potential Connections (All Uses): Existing		Growth		Total
	Hillsburgh	Erin	Hillsburgh	Erin	
Hillsburgh Collection System	510	0	0	0	510
Hillsburgh Railtrail Trunk (HB to Erin)	510	0	0	0	510
Erin Collection System	0	1120	0	0	1120
Erin Trunk Sewer and Main Pumping Station (Shared with Hillsburgh)	510	1120	0	500	2130
Sewage Plant	510	1120	0	500	2130

OPTION 3: Future Growth to Hillsburgh Only

Component	Potential Connections (All Uses): Existing		Growth		Total
	Hillsburgh	Erin	Hillsburgh	Erin	
Hillsburgh Collection System	510	0	0	0	510
Hillsburgh Railtrail Trunk (HB to Erin)	510	0	500	0	1010
Erin Collection System	0	1120	0	0	1120
Erin Trunk Sewer and Main Pumping Station (Shared with Hillsburgh)	510	1120	500	0	2130
Sewage Plant	510	1120	500	0	2130

Town of Erin
SSMP
Conceptual Level Water Servicing Costs
ERIN / HILLSBURGH

Appendix C

to June 2, 2014 memo to Watson & Associates

Job # :	08128
Date :	Feb 2013
Revised :	June 2014

CONCEPTUAL

GROWTH ALLOCATION SCENARIOS

1. Existing Erin and Hillsburgh with future growth allocated to both communities.
2. Existing Erin and Hillsburgh with future growth allocated only to Erin Village.
3. Existing Erin and Hillsburgh with growth allocated to only Hillsburgh.

System	System Requirements	Connection Breakdown
Hillsburgh System-All Existing	Need New well (120 m3/day deficit) + new well for HH + 130 m^3 of storage	280 current, 230 new existing
Hillsburgh System-All Ex. + Growth (250)	Need New well (536 m3/day deficit) + new well for HH + 420 m^3 of storage	280 cur., 230 new ex., 250 growth
Hillsburgh System-All Ex. + Growth (500)	Need New well (952 m3/day deficit) + new well for HH + 690 m^3 of storage	280 cur., 230 new ex., 500 growth
Erin System - All Existing	Put BE well in service (29 m3/day surplus) + storage is OK	1010 current, 110 new existing
Erin System - All Ex. + Growth (250)	Put BE well in service + add new well (602 m3/day deficit) + no new storage	1010 cur., 110 new ex., 250 growth
Erin System - All Ex. + Growth (500)	Put BE well in service + add new well (1232 m3/day deficit) + 240 m^3 of storage	1010 cur., 110 new ex., 500 growth
Combined System - All Existing	Drill new well to replace H2 well. Don't need BE well. Don't need storage.	
Combined System - All Ex. + Growth (500)	Need BE wells + drill new well to replace H2 well + some storage (550 m3) In both these combined cases, need booster station to boost pressure to Hillsburgh plus interconnecting pipe.	

Note: The current connected for Erin includes the Stanley Park. It has been included as one connection but equates to about 60 ERU's.

Hillsburgh - Service Those Not Connected

230	Services	$1,100	per ea.	$250,000	
1800	m trunk main	$300	per m	$540,000	
Drill new well for HH (H2) because of lead issue				$100,000	No guarantee that the new well will be free from lead….investigation will be required.
Drill a new well for system redundancy				$100,000	Assume 90 metre deep well +/-
Expand existing H2 reservoir and associated work				$195,000	
			Subtotal	**$1,185,000**	
EA, Studies, Engineering and Contingency			25%	$300,000	
			Total	**$1,485,000**	

Hillsburgh - Add Growth Connections (250)

Complete all the above		$1,185,000	HH new well, expanded reservoir, redundant well, etc.
Construct well system and ground level storage		$1,400,000	Located around the new fire hall?
	Subtotal	**$2,585,000**	
EA, Studies, Engineering and Contingency	25%	$650,000	
	Total	**$3,235,000**	

Hillsburgh - Add Growth Connections (500)

Complete all the above		$2,585,000	HH new well, expanded reservoir, redundant well, new well supply system
Expand/Upgrade new well and G/L storage		$250,000	Upgrade - bigger pumps, etc.
	Subtotal	**$2,835,000**	
EA, Studies, Engineering and Contingency	25%	$710,000	
	Total	**$3,545,000**	

Erin - Service Those Not Connected

110	Services	$1,100	per ea.	$120,000	
200	m trunk main	$300	per m	$60,000	
Upgrade and Reinstate Bel-Erin Well Supply				$800,000	Upgrade Bel-Erin system to provide treatment (UV and filtration)
			Subtotal	**$980,000**	
EA, Studies, Engineering and Contingency			25%	$250,000	
			Total	**$1,230,000**	

Erin - Add Growth Connections (250)

Complete all the above			$980,000	
Construct well system and ground level storage			$1,600,000	
		Subtotal	**$2,580,000**	
EA, Studies, Engineering and Contingency		25%	$650,000	
		Total	**$3,230,000**	

Erin - Add Growth Connections (500)

Complete all the above			$2,580,000	
Expand/Upgrade new well and G/L storage			$350,000	Upgrade - bigger pumps, 2nd well, etc.
		Subtotal	**$2,930,000**	
EA, Studies, Engineering and Contingency		25%	$730,000	
		Total	**$3,660,000**	

Combined System - All Existing					
Hillsburgh					
230	Services	$1,100	per ea.	$250,000	
1800	m trunk main	$300	per m	$540,000	
Drill new well for HH (H2) because of lead issue				$100,000	
			Subtotal	**$890,000**	
EA, Studies, Engineering and Contingency			25%	$220,000	
			Total	**$1,110,000**	
Erin					
110	Services	$1,100	per ea.	$120,000	
200	m trunk main	$300	per m	$60,000	
			Subtotal	**$180,000**	
EA, Studies, Engineering and Contingency			25%	$50,000	
			Total	**$230,000**	
Interconnection					
4730	m trunk main	$275	per m	$1,300,000	
10	Chambers	$20,000	per ea.	$200,000	
Pressure Booster Station back to Hillsburgh				$900,000	
			Subtotal	**$2,400,000**	
EA, Studies, Engineering and Contingency			25%	$600,000	
			Total	**$3,000,000**	
Summary - Combined - All Existing					
Hillsburgh				$890,000	
Erin				$180,000	
Interconnection				$2,400,000	
			Subtotal	**$3,470,000**	
EA, Studies, Engineering and Contingency			25%	$870,000	
			Total	**$4,340,000**	
Combined System - Add Growth Connections (500)					
Complete all the above				$3,470,000	
Upgrade and Reinstate Bel-Erin Well Supply				$800,000	Upgrade Bel-Erin system to provide treatment (UV and filtration)
Construct well system and additional storage				$1,950,000	
			Subtotal	**$6,220,000**	
EA, Studies, Engineering and Contingency			25%	$1,560,000	
			Total	**$7,780,000**	

APPENDIX F

FINANCIAL ANALYSIS

TOWN OF ERIN

SERVICING AND SETTLEMENT MASTER PLAN (SSMP) FINANCIAL REVIEW

AUGUST 7, 2014

Watson & Associates ECONOMISTS LTD.

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Planning for growth

CONTENTS

1. INTRODUCTION

1. INTRODUCTION

1.1 Study Purpose

The Town of Erin is a predominantly rural municipality, located in southeastern Wellington County. The municipality presently has two communities, Erin Village and Hillsburgh, which are (mostly) serviced by water but are on private septic systems. The Town of Erin has initiated a process for completing a Servicing and Settlement Master Plan (SSMP) to address servicing, planning and environmental issues within the Town. The study area for the SSMP includes the villages of Erin and Hillsburgh, as well as a portion of the surrounding rural lands.

The SSMP was awarded to and is being undertaken by B.M. Ross and Associates. As part of the Terms of Reference for the SSMP, the following was provided:

- "Develop a financial plan specific to all servicing options considered that addresses municipalities debt capacity, long term operating costs and sustainability, sources of funding and impacts on existing Sewer and Water Rates and Development Charges Bylaws;"
- "The Consultant is to confer with the Town's Economic Consultant, Watson and Associates Ltd., in the review of existing Water and Sewer Rate Study, Development Charges Bylaw and the development of Financial Plans specific to servicing options being considered."

The purpose of this report is to provide Council with potential options for funding the undertaking and mechanisms for potential cost recovery of the capital works.

1.2 Background

The work undertaken by B.M. Ross has been carried out in two phases. The first phase was the data collection and background study phase. The findings of the first phase were documented in a March 28, 2013 report. The second phase of the study has focused on the development and evaluation of alternative solutions to recognise and address potential impacts to sensitive land uses, surface and ground water resources, concerns of residents, and the long-term objectives of the Town. At this point in the SSMP evaluations, the Town has directed B.M. Ross to evaluate 3 sanitary servicing alternatives (which are variations of implementing a sanitary sewage system for each village and providing for various future growth configurations). The sanitary servicing alternatives would provide for:

- 1,120 existing properties in Erin;
- 510 existing properties in Hillsburgh; and
- Growth for 500 residential units.

Based on the above, three servicing scenarios were developed by B.M. Ross for evaluation:

- **Scenario 1 – Split Growth:** service existing properties in Erin and Hillsburgh and provide for 250 units of growth in both Erin and Hillsburgh.
- **Scenario 2 – Growth in Erin:** service existing properties in Erin and Hillsburgh and provide for 500 units of growth in Erin (only).
- **Scenario 3 – Growth in Hillsburgh:** service existing properties in Erin and Hillsburgh and provide for 500 units of growth in Hillsburgh (only).

1.3 Sanitary Sewer – Allocation of Benefit to Properties

Based on Council's direction noted above, the potential allocation of benefit between existing and future properties is provided as follows:

Table 1-1
Benefiting Properties for Each Servicing Scenario

Scenarios (Each Scenario Services Existing Properties)	Property Connections		
	Exisiting	Growth	Total
1 ***Split Growth***			
Erin	1,120	250	
Hillsburgh	510	250	2,130
2 ***Growth in Erin***			
Erin	1,120	500	
Hillsburgh	510	-	2,130
3 ***Growth in Hillsburgh***			
Erin	1,120	-	
Hillsburgh	510	500	2,130

It is noted that the property connections identified above include both single family residential units along with multi-residential properties and commercial/industrial properties. Generally, many of the latter noted properties have higher usage than the single family homes and hence should bear a higher proportion of the cost of the servicing system. Many municipalities undertaking a similar process have determined that a single detached residential unit equivalent would be most equitable. B.M. Ross has assisted in collecting these "equivalents" based on a review of water usage data. Based on this information, the following properties would be assessed a higher allocation based on equivalent flows:

Table 1-2
Properties with Higher System Usage

Customer	Address	Equivalent Residential Units
Erin:		
Stanley Park		82
Town of Erin Centre 2000/Arena	14 Boland Drive, Erin	21
Upper Grand District School Board-High School	14 Boland Drive, Erin	7
Loblaws Inc.	134 Main St, Erin	7
Central Wire	1 Erinville Drive, Erin	7
Apartment Building	11 Wellington Rd 124, Erin	6
The Royal Canadian Legion-Erin	12 Dundas St, Erin	6
Upper Grand District School Board-Public School	185 Daniel St, Erin	4
Image Car Wash	2 Erin Park Drive, Erin	4
The Wellington County Roman Catholic School	30 Millwood Rd, Erin	3
Apartment Building	15 Wellington Rd 124, Erin	3
Wellington Housing Corp.	14 Centre St, Erin	3
Wellington Housing Corp. Senior's Apartments	22 Church Blvd, Erin	3
Hillsburgh:		
Erin Twp Non-Profit Housing	15 Spruce St. Hillsburgh	16
Total		172

Based on the above, Table 1-1 has been modified to represent the number of single detached equivalent units:

Table 1-3
Benefiting Residential Unit Equivalents for Each Servicing Scenario

Scenarios (Each Scenario Services Existing Properties)	Residential Equivalents		
	Exisiting	Growth	Total
1 ***Split Growth***			
Erin	1,263	250	
Hillsburgh	525	250	2,288
2 ***Growth in Erin***			
Erin	1,263	500	
Hillsburgh	525	-	2,288
3 ***Growth in Hillsburgh***			
Erin	1,263	-	
Hillsburgh	525	500	2,288

1.4 Water Servicing – Allocation of Benefit to Properties

As part of their evaluation, B.M. Ross identified the need for further water projects to service some of the properties within the wastewater servicing scenarios. Some existing properties within Erin and Hillsburgh are not connected to the municipal water system. As well, additional water servicing must provided to accommodate the added growth. Based on the prior scenarios:

- **Scenario 1** - Service 110 existing Erin & 230 existing Hillsburgh and provide 250 units growth in each community.
- **Scenario 2 -** Service existing 110 Erin & 230 existing Hillsburgh and provide 500 units growth in Erin (only).
- **Scenario 3** - Service existing 110 Erin & 230 existing Hillsburgh and provide 500 units growth in Hillsburgh (only).

2. SERVICING OF THE AREA

2. SERVICING OF THE AREA

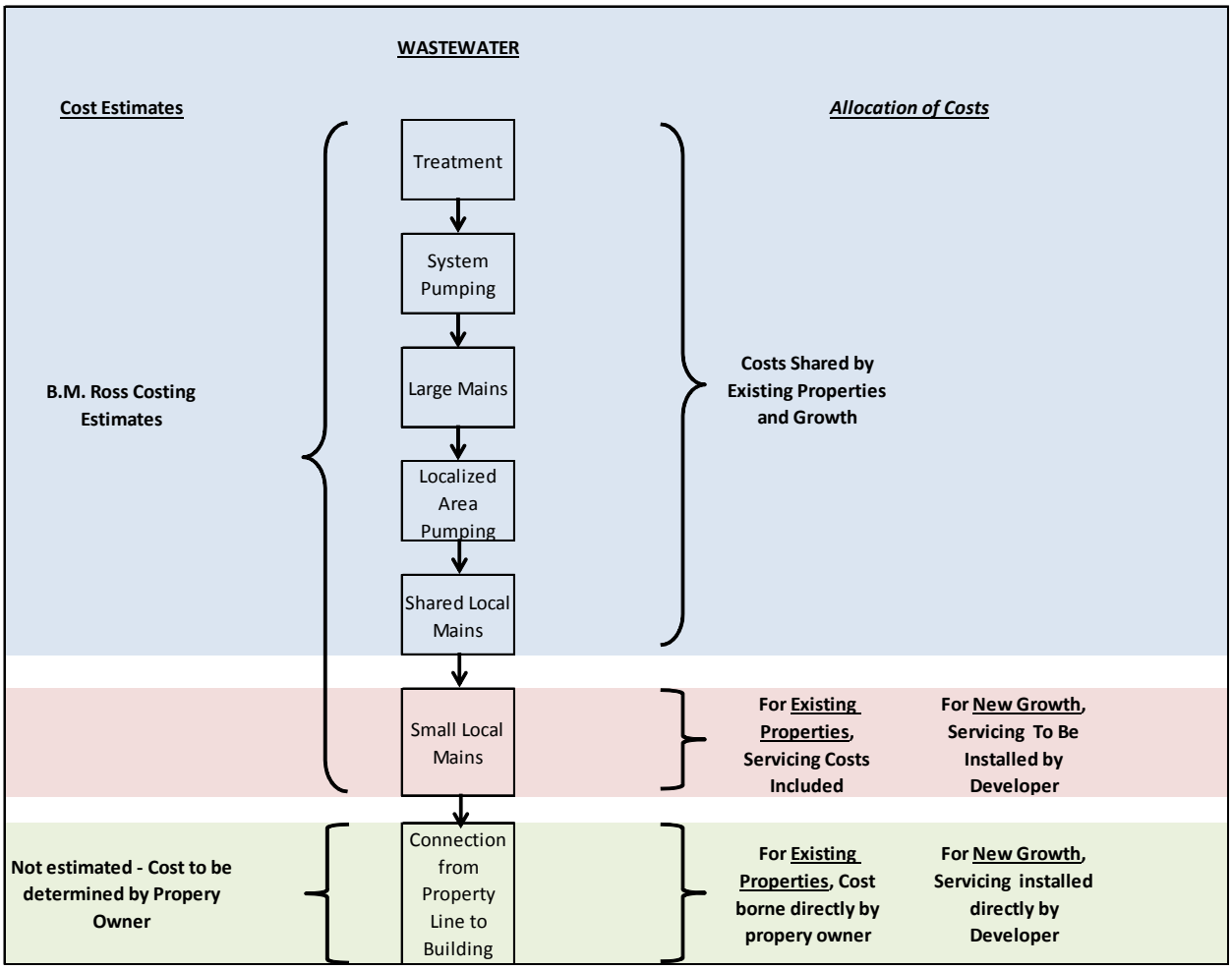
2.1 Basis for Costing

B.M. Ross has undertaken a detailed evaluation of the servicing requirements for the two communities for both wastewater and water needs. The basis for their detailed servicing evaluation is provided in their April 11, 2013 Draft "Town of Erin Servicing and Settlement Master Plan Final Report".

The costs have been developed to service both existing properties and potential new growth within the area (depending upon the scenario). There are three categories of costs to be considered in servicing the properties:

1. Broad System Costs – includes treatment, major pumpage, large mains, localized area pumping and shared local mains;
2. Localized Servicing – small local mains directly servicing adjacent properties; and
3. Connections from property line to building.

The above servicing categories are depicted in the schematic below. The top category, denoted in blue, represents the "Broad System" costs which provide the major collection, transmission and treatment of the sewage effluent. These costs are shared by all properties, both existing and new. The second category (denoted in pink), "Localized Servicing", provides for the local mains which will be constructed on existing neighbourhood roads and will directly service the existing properties (note that these works include servicing to the property line of each existing lot). These costs have been provided for existing properties only. Costs related to providing local servicing to potential new lots within subdivisions will be paid for directly by the developing landowner and hence, are not included herein. The last category (denoted in green) represents the cost of extending the servicing from the property line to hook each building into the system. These costs are the responsibility of each property owner (existing and new) and have not been included herein. These costs will vary depending on a number of factors (e.g. the distance between the lot line and connection to inside the building) and are specific to each individual property.



2.2 Servicing Costs

B.M. Ross has undertaken a detailed evaluation of the servicing requirements for the two communities for both wastewater and water needs. The detailed costing information is provided in Tables 2-1 and 2-2.

Table 2-1
Summary of Sanitary Servicing Costs

#	Project	$
1	Hillsburgh Collection System	6,800,000
2	Hillsburgh Railtrail Trunk - HB to Erin (shared with Hillsburgh and Growth)	2,500,000
3	Erin Collection System	15,400,000
4	Eric Collection System (portion shared with Growth)	2,600,000
5	Erin Trunk Sewer and Main PS (shared with Hillsburgh and Growth)	6,200,000
6	Sewage Plant (shared by Erin, Hillsburgh and Growth)	24,500,000
7	Land (shared by Erin, Hillsburgh and Growth)	500,000
	Total	58,500,000

Table 2-2
Summary of Water Servicing Costs

	Servicing Costs			
Scenario	Hillsburgh	Erin	Provision for Land	Total
1	1,750,000	2,000,000	250,000	4,000,000
2	1,485,000	2,430,000	250,000	4,165,000
3	2,060,000	1,230,000	250,000	3,540,000

3. CAPITAL COST FINANCING ALTERNATIVES

3. CAPITAL COST FINANCING ALTERNATIVES

3.1 Summary of Capital Cost Financing Alternatives

Historically, the powers that municipalities have had to raise alternative revenues to taxation to fund capital services have been restrictive. Over time, legislative reforms have been introduced. Some of these have expanded municipal powers (e.g. Bill 26 introduced in 1996 to provide for expanded powers for imposing fees and charges), while others appear to restrict them (Bill 98 in 1997 providing amendments to the *Development Charges Act*).

It is noted at the outset that the Province updated the *Municipal Act* which came into force on January 1, 2003. Part XII of the Act and O.Reg. 584/06, govern a municipality's ability to impose fees and charges. In contrast to the previous *Municipal Act*, this Act provides municipalities with broadly defined powers and does not differentiate between fees for operating and capital purposes. It is noted that the powers to recover capital costs under the previous *Municipal Act* continue within the newer Statutes and Regulations, as indicated by s.9(2) and s.452 of the *Municipal Act, 2001*.

Under s.484 of *Municipal Act, 2001*, the Local Improvement Act was repealed with the in force date of the *Municipal Act* (January 1, 2003). The municipal powers granted under the *Local Improvement Act* now fall under the jurisdiction of the *Municipal Act*.

The methods of capital cost recovery available to municipalities are provided in the following sections.

3.2 *Development Charges Act, 1997*

In November, 1996, the Ontario Government introduced Bill 98, a new *Development Charges Act*. The Province's stated intentions were to "create new construction jobs and make home ownership more affordable" by reducing the charges and to "make municipal Council decisions more accountable and more cost effective." The basis for this Act is to allow municipalities to recover the growth-related capital cost of infrastructure necessary to accommodate new growth within the municipality. Generally the new Act provided the following changes to the former Act:

- Replace those sections of the 1989 DCA which govern municipal development charges. (Education development charges are not to be significantly altered at this time.);
- Limit services which can be financed from development charges, specifically excluding parkland acquisition, administration buildings, and cultural, entertainment, tourism, solid waste management and hospital facilities;

- Ensure that the level of service used in the calculation of capital costs will not exceed the average level of service over the previous decade. Level of service is to be measured from both a quality and quantity perspective;
- Provide that uncommitted excess capacity available in existing municipal facilities and benefits to existing residents are removed from the calculation of the charge;
- Ensure that the development charge revenues collected by municipalities are spent only on those capital costs identified in the calculation of the development charge;
- Require municipalities to contribute funds (e.g. taxes, user charges or other non-development charge revenues) to the financing of certain projects primarily funded from development charges. The municipal contribution is 10 percent for services such as recreation, parkland development, libraries, etc.;
- Permit (but apparently not require) municipalities to grant developers credits for the direct provision of services identified in the development charge calculation and, when credits are granted, require the municipality to reimburse the developer for the costs the municipality would have incurred if the project had been financed from the development charge reserve fund;
- Set out provisions for front-end financing capital projects (limited to essential services) required to service new development; and
- Set out provisions for appeals and complaints, and transitional rules, including that municipalities will have up to 18 months from the date of proclamation of the new Act to establish new development charge by-laws, otherwise the old by-laws will expire.

The Municipality presently imposes development charges for water services along with other tax supported services.

3.3 ***Municipal Act***

3.3.1 Part XII of the *Municipal Act* provides municipalities with broad powers to impose fees and charges via passage of a by-law. These powers, as presented in s.391(1), include imposing fees or charges:

- "for services or activities provided or done by or on behalf of it;
- for costs payable by it for services or activities provided or done by or on behalf of any other municipality or local board; and
- for the use of its property including property under its control."

Restrictions are provided to ensure that the form of the charge is not akin to a poll tax. Any charges not paid under this authority may be added to the tax roll and collected in a like manner. The fees and charges imposed under this part are not appealable to the OMB.

3.3.2 s.221 of the previous *Municipal Act*, permitted municipalities to impose charges, by by-law, on owners or occupants of land who would or might derive benefit from the construction of sewage (storm and sanitary) or water works being authorized (in a Specific Benefit Area). For a by-law imposed under this section of the previous *Act:*

- A variety of different means could be used to establish the rate and recovery of the costs could be imposed by a number of methods at the discretion of Council (i.e. lot size, frontage, number of benefiting properties, etc.);
- Rates could be imposed in respect to costs of major capital works, even though an immediate benefit was not enjoyed;
- Non-abutting owners could be charged;
- Recovery was authorized against existing works, where a new water or sewer main was added to such works, "notwithstanding that the capital costs of existing works has in whole or in part been paid.";
- Charges on individual parcels could be deferred;
- Exemptions could be established;
- Repayment was secured; and
- OMB approval was not required.

While under the *Municipal Act, 2001* no provisions are provided specific to the previous s.221, the intent to allow capital cost recovery through fees and charges is embraced within s.391. The *Municipal Act, 2001* also maintains the ability of municipalities to impose capital charges for water and sewer services on landowners not receiving an immediate benefit from the works. Under s.391(2) of the Act, “a fee or charge imposed under subsection (1) for capital costs related to sewage or water services or activities may be imposed on persons not receiving an immediate benefit from the services or activities but who will receive a benefit at some later point in time.” Also, capital charges imposed under s.391 are not appealable to the OMB on the grounds that the charges are “unfair or unjust.”

3.3.3 s.222 of the previous *Municipal Act* permitted municipalities to pass a by-law requiring buildings to connect to the municipality's sewer and water systems, charging the owner for the cost of constructing services from the mains to the property line. Under the new *Municipal Act*, this power still exists under Part II, General Municipal Powers (s.9 (3) b of the *Municipal Act*). Enforcement and penalties for this use of power are contained in s.427 (1) of the *Municipal Act*.

3.3.4 Under the previous *Local Improvement Act*:

- A variety of different types of works could be undertaken, such as watermain, storm and sanitary sewer projects, supply of electrical light or power, bridge construction, sidewalks, road widening and paving;

- Council could pass a by-law for undertaking such work on petition of a majority of benefiting taxpayers, on a 2/3 vote of Council and on sanitary grounds, based on the recommendation of the Minister of Health. The by-law was required to go to the OMB, which might hold hearings and alter the by-law, particularly if there were objections;
- The entire cost of a work was assessed only upon the lots abutting directly on the work, according to the extent of their respective frontages, using an equal special rate per metre of frontage; and
- As noted, this Act was repealed as of April 1, 2003; however, O.Reg. 119/03 was enacted on April 19, 2003 which restores many of the previous *Local Improvement Act* provisions; however, the authority is now provided under the *Municipal Act, 2001*.

3.4 Grant Funding Availability

Since the early 1980's, the level of Provincial and Federal assistance toward municipal infrastructure has declined significantly. By the mid 1990's, there were very limited funds available from senior levels of government. In mid-2000, initiatives from the Provincial and Federal level were announced; providing for a new program (OSTAR) to assist small cities, towns and rural areas in addressing infrastructure improvements. In November 2004, another program (COMRIF) was introduced which also provided combined assistance from the senior governments until early 2007. Subsequently Federal and Provincial Funding have been made available under the Build Canada Fund and Stimulus Fund Programs. Under the specific requirements of these programs, the projects must be "shovel ready" and are allocated on a case by case basis. At present, no major programs are available however initial communications by the province anticipate that further programs may be available in the coming years.

3.5 Debenture Financing

Although it is not a direct method of minimizing the overall cost to the ratepayer, debentures are used by municipalities to assist in the cash flow of large capital expenditures.

The Ministry of Municipal Affairs and Housing (MMAH) regulates the level of debt incurred by Ontario municipalities, through its powers established under the *Municipal Act*. Ontario Regulation 403/02 provides the current rules respecting municipal debt and financial obligations. Through the rules established under these regulations, a municipality's debt capacity is capped at a level where no more than 25% of the municipality's own purpose revenue may be allotted for servicing the debt (i.e. debt charges). Erin's maximum borrowing level is between $15 and $25 million (based on 10 year and 20 year debt, respectively) range, however, it is forecast to be higher over the forecast period thus allowing for the recommended level of debt.

3.6 Infrastructure Ontario Loans

Infrastructure Ontario (IO) is an arms length crown corporation, which has been set up as a tool to offer low-cost and longer-term financing to assist municipalities in renewing their infrastructure (this corporation has merged the former OSIFA into its operations) IO combines the infrastructure renewal needs of municipalities into an infrastructure investment "pool". IO will raise investment capital to finance loans to the public sector by selling a new investment product called Infrastructure Renewal Bonds to individual and institutional investors.

IO provides access to infrastructure capital that would not otherwise be available to smaller borrowers. Larger borrowers receive a longer term on their loans than they could obtain in the financial markets, and can also benefit from significant savings on transaction costs such as legal costs and underwriting commissions. Under the IO approach, all borrowers receive the same low interest rate. IO will enter into a financial agreement with each Municipality subject to technical and credit reviews, for a loan up to the maximum amount of the loan request.

The first round of the former OSIFA's 2004-05 infrastructure renewal program was focused on municipal priorities of clean water infrastructure, sewage treatment facilities, municipal roads and bridges, public transit and waste management infrastructure. The focus of the program was subsequently expanded to include:

- clean water infrastructure;
- sewage infrastructure;
- waste management infrastructure;
- municipal roads and bridges;
- public transit;
- municipal long-term care homes;
- renewal of municipal social housing and culture;
- tourism and recreation infrastructure;
- municipal administrative facilities;
- local police and fire stations;
- emergency vehicles and equipment; and
- ferries, docks and airports.

It is noted that the interest rates will vary from time to time. The following interest rates were available to municipalities for the following term, based on a serial repayment schedule as of August 1, 2014:

Lending Rates as of August 1, 2014	
Term	Serial
5 Year	1.91%
10 Year	2.67%
15 Year	3.09%
20 Year	3.37%
25 Year	3.55%
30 Year	3.66%

To be eligible to receive these loans, municipalities must submit a formal application along with pertinent financial information. Allotments are prioritized and distributed based upon the Province's assessment of need.

3.7 Private Public Partnerships (3P)

Since 1993, the province has provided municipalities with direct authority to enter into a variety of different 3P agreements with the private sector. These agreements have taken various forms extending from simple contracts for a service to complex design, build, operate and finance arrangements. Table 3-1 provides for an overview of these different forms of agreements.

Table 3-1
Different Types of 3P Agreements

Model	Construction	Operations	Capital Investment or Financing	Ownership at End of Contract Term
Operating Maintain Manage (OMM)	N/A	Private	Public	Public
Lease		Private	Public	Public
Lease Develop Operate (LDO)		Private	Private	Public
Design Build Operate (DBO)	Private	Private	Public	Public
Design-Build-Finance-Transfer (DBFT)	Private	Public	Private	Public
Design-Build-Finance-Maintain (DBFM)	Private	Public	Private	Public
Design-Build-Finance-Operate (DBFO)	Private	Private	Private	Public
Build-Own-Operate (BOO)	Private	Private	Private	Private
Build-Own-Operate-Transfer (BOOT)	Public	Private	Private	Public

Generally, prior to procurement, the contracting municipality establishes a list of objectives or guiding principles that are used to guide the potential procurement process. This allows the interested private partners to formulate and cost the particular arrangement for consideration of the municipality. For example, guiding principles may include:

- Quality of service definition;
- Operating flexibility/innovation/efficiency;
- Asset protection and maintenance;
- Continuity of service;
- Environmental impact;
- Municipal input and control;
- Value for service;
- Capital projects; and
- Appropriate allocation of risk.

With respect to financing of capital works, the private sector borrows at higher rates of interest than the public sector and hence, based on projects undertaken across Canada, the interest rate tends to be 2.5%-4.0% higher than what municipalities can borrow at.

3.8 Commentary on Various Funding Options

Of the various alternatives provided in this section, the following are suggested for further consideration of the municipality for the capital expenditures provided herein:

- *Municipal Act* – Part 12
    - Non-growth (i.e. Existing) portion of the costs should be recovered by Part 12 of *Municipal Act* (using similar approach to s. 221 of the former *Act*);
    - Allows municipality to impose a charge against a specific area – is not appealable to the OMB; and
    - *Act* allows for various methods of recovery (e.g. per lot, assessment, frontage, area or "any method the Council considers fair") – the Residential Equivalent generally has the greatest acceptance.

- *Municipal Act* - Local Improvement Regulation
    - Local Improvement is not recommended – recovery on a linear frontage charge basis – also not fully cost recoverable and subject to OMB appeal.

- Development Charges
    - Growth portion of the costs would be recovered by area specific DC;

  - Some municipalities have secured additional contributions or have developers take on an added portion of the costs; and
  - Town should consider asking Developers to prepay the DC's to offset debenturing needs.

- Grants
  - Grant funding may be a consideration and would significantly reduce the net cost to benefiting properties; and
  - Unless otherwise stipulated by grant program, usually grant is shared with both growth related and non-growth related costs.

- Private-Public Partnership (3P)
  - 3P partnerships to be evaluated (during final implementation phase) for design/build and operating contracts.
  - Municipalities borrow money at significantly lower rates of interest than the private sector (on average 2.5% - 4%) - Infrastructure Ontario (I.O.) loans are lower than if the municipality borrowed directly on its own so Infrastructure Ontario loans are recommended for financing.

- Debt (Infrastructure Ontario)
  - Preferred method of debt financing.

4. CALCULATION OF POTENTIAL COSTS PER PROPERTY

4. CALCULATION OF POTENTIAL COSTS PER PROPERTY

4.1 Wastewater Servicing Cost per Property

As noted earlier, the wastewater servicing options provide for servicing of all existing properties within the Erin and Hillsburgh communities (based on residential unit equivalent allocation) along with servicing 500 new units of growth. The following provides for the allocation of costs for each area under the three scenarios:

Table 4-1
Allocation of Capital Cost

Benefit	Scenario (Each Scenario Services Existing Properties)		
	1	2	3
	Split Growth	Growth in Erin	Growth in Hillsburgh
Existing	49,430,922	49,824,675	50,462,306
Growth	9,069,078	8,675,325	8,037,694

Based on the above cost allocations, the cost per unit to be charged to existing and future properties (based on a single detached equivalent cost) is as follows:

Table 4-2
Cost Per Unit Comparison

Benfiting Units	Scenario (Each Scenario Services Existing Properties)		
	1	2	3
	Split Growth	Growth in Erin	Growth in Hillsburgh
Existing	27,646	27,866	28,223
Growth	18,138	17,351	16,075

Note: Growth Units do not include localized mains which will be installed by developers as their costs

4.2 Water Servicing Cost per Property

Similar to Wastewater above, the capital costs to service the non-water service properties within Erin and Hillsburgh communities along with providing servicing to the 500 units of development under each scenario are provided below. Note that B. M. Ross has also identified that some improvements to address deficiencies in the existing systems which would be cost share by existing connected properties.

Table 4-3
Allocation of Capital Cost

Benefit	Scenario (Each Scenario Services Some Existing Properties)		
	1	2	3
	Split Growth	Growth in Erin	Growth in Hillsburgh
Existing (connected properties)	1,269,360	1,269,360	1,269,360
Existing (unconnected properties)	1,565,200	1,565,200	1,565,200
Growth	3,898,810	2,578,810	2,208,810

Based on the above cost allocations, the cost per unit to be charged to existing and future properties is as follows:

Table 4-4
Cost Per Unit Comparison

Benefit	Scenario (Each Scenario Services Some Existing Properties)		
	1	2	3
	Split Growth	Growth in Erin	Growth in Hillsburgh
Existing (connected properties)	984	984	984
Existing (unconnected properties)	4,550	4,550	4,550
Growth	7,798	5,158	4,418

4.3 Payment Options Available to Landowners

The *Municipal Act* would allow homeowners the choice to either commute (pay for) the capital costs per property upfront or pay for it over a period of time via a loan. To make a loan available to the landowner, the Town would need to debenture the costs on behalf of the landowner and have these costs recovered over a 10 or 20-year period (the term of the debentures). The landowner's per lot charge plus interest would then be remitted to the municipality over the period of the debenture which would then be used to make the debt payments. The advantage of a municipal loan to the existing resident or business is that they can receive the benefit of the (often) lower interest rates which the municipality may borrow at. Alternatively, the homeowner may wish to borrow the necessary amount by way of a (re)mortgage on their property. This may allow for up to a 25-year repayment schedule.

For analysis purposes, the following annual payments have been calculated based upon the two costs per property amounts discussed above. The following rates are based upon those available presently (interest rates can vary over time and will depend upon the market conditions at the time the financing is undertaken). Note that should grants be available, the below noted payments would reduce by the % of the grant:

- Based on the total per lot charge for wastewater of approx. $28,000, the annual payment would be:
    - 15 year municipal loan at 3.25% - $2,361
    - 20 year municipal loan at 3.50% - $1,948
    - 25 year mortgage at 3.1% - $1,607

- Based on the total per lot charge for water of approx. $4,500, the annual payment would be:
    - 15 yr municipal loan at 3.25% - $380
    - 20 yr municipal loan at 3.50% - $313

- 25 yr mortgage at 3.1% - $258

4.4 Commentary on Debt Capacity

As noted in section 3.5, MMAH regulations allow municipalities to issue debt to the limit of where annual debt payments equal 25% of total municipal revenues (i.e. all revenues net of federal and provincial grants). Based on today's financial position, Erin's debt capacity would allow between $15 million (10 year debt) - $25 million (20 year debt) to be issued. As noted earlier, based on a "No Grant Scenario", borrowing for existing properties could require approx. $50 million for wastewater and $3 million for water (note – it is assumed that the $9 million (wastewater) and $3 million (water) needed for growth are paid upfront by developers). To undertake the full project, grant funding will be needed. The following identifies the benefit of different levels of grant funding (and assume that no full upfront payments are made by landowners):

Debt Financing Needed for Existing Properties

Assumed Level of Grant Funding	Debt Funding Needed After Grant			Debt Limit (Based on 20 Yr debt)	Amount Over Limit
	Wastewater	Water	Total		
0%	50,000,000	2,800,000	52,800,000	25,000,000	27,800,000
10%	45,000,000	2,520,000	47,520,000	25,000,000	22,520,000
20%	40,000,000	2,240,000	42,240,000	25,000,000	17,240,000
30%	35,000,000	1,960,000	36,960,000	25,000,000	11,960,000
40%	30,000,000	1,680,000	31,680,000	25,000,000	6,680,000
50%	25,000,000	1,400,000	26,400,000	25,000,000	1,400,000
60%	20,000,000	1,120,000	21,120,000	25,000,000	(3,880,000)
66%	17,000,000	952,000	17,952,000	25,000,000	(7,048,000)

Based on the above, a minimum level of grant funding would be in the 55%-60% range. Should the Town need to reserve some debt capacity for other capital purposes (i.e. cost of road improvements related to the above) then the grant funding level needed would generally be in the 66% range.

5. CONCLUSIONS AND OBSERVATIONS

5. CONCLUSIONS AND OBSERVATIONS

Based on the foregoing, the following conclusions and observations are provided:

- The amount of capital costs involved in this undertaking is significant;
- The Town needs to pursue grants to reduce the overall impact on property owners;
- Grants are also needed to remain within the Town's debt capacity limits – a minimum 55%-60% would be needed to make the project viable, however, grants in the range of 66% should be considered in order to have the financial ability to undertake other capital works (e.g. road works associated with this project);
- Municipal Act (Part XII) charges should be considered as the primary basis for recovering the cost for existing properties – costs should be distributed on a single detached equivalent basis;
- For growth related costs, developing landowners would need to prepay their charges to offset the cost of borrowing and to minimize the impact on the debt capacity; and
- Staging of the works may be considered – need to assess the portion of oversizing costs within the system which may have to be cash flowed if undertaken in this manner.