

Feasibility Study for Municipal Water and Sewage Servicing

Public Information Centre

Location: Puslinch Community Centre
23 Brock Road South, Puslinch
6:30 p.m. to 8:30 p.m.

June 24 2019



TOWNSHIP OF
PUSLINCH
EST. 1850

Public Information Centre Summary

Introduction and Meeting Purpose

Background Info and Projections

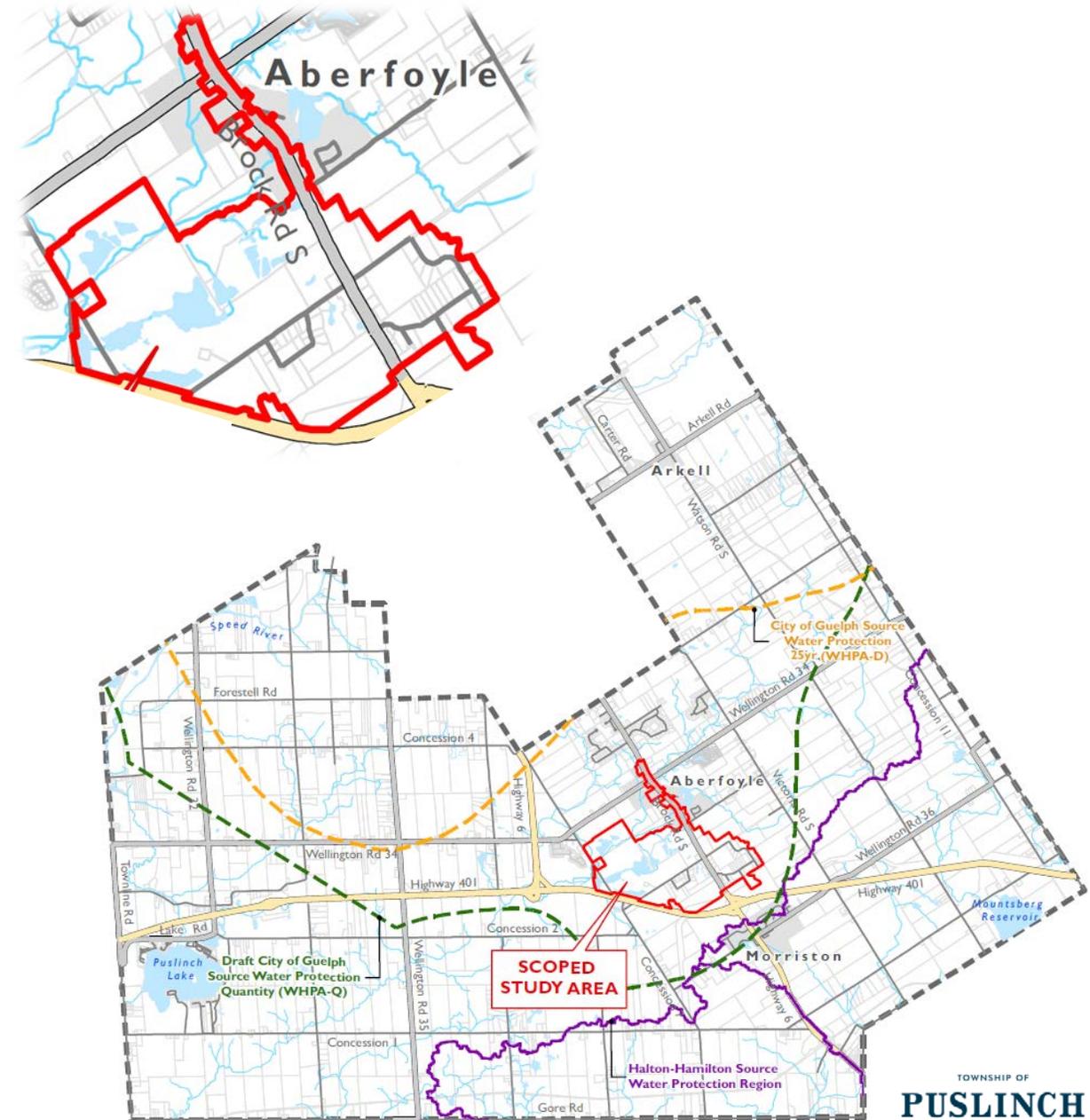
Water Servicing Options

Sewage Servicing Options

Next Steps

Feasibility Study Details

- In 2018, the Township began undertaking a Feasibility Study to assess the viability of implementing municipal water and sewage servicing.
 - A reduced scoped study area is now being looked at
 - Taking into account industrial and commercial areas (excluding residential)



Development Opportunities

- The Township is an attractive place for development
 - Go Transit access, close proximity to Guelph, natural setting, major markets
- Surrounded by growing urban centres on all four sides with increasing demands for resources and land
 - Lack of municipal servicing limits opportunities for growth
 - Current servicing consist of individual on-site wells, septic systems as well as few private communal water and sewage systems

Purpose of this Meeting

- This meeting will provide Scoped Study Area users with the opportunity to:
 - Understand why the Township is undertaking this additional study and the new scope
 - Review the high-level water and sewage servicing options being considered
 - Review the key advantages and disadvantages identified for each servicing option
 - Review and discuss the study with Township staff and their consultants, and any questions you may have related to the study
- The Feasibility Study will provide the basis for proceeding (or not proceeding) with a Municipal Class EA Study that will be necessary before implementing any drinking water or sewage servicing solution

Major Industrial and Commercial Users

- The Scoped Study Area contains the highest concentrations of employment lands in the Township
- Including; food processing, concrete pipe manufacturer, water bottling and aggregate extraction
 - Royal Canin
 - Nestle
 - Capital Paving
 - Maple Leaf Foods
 - Con-Cast Pipe
 - Dufferin Aggregates

Projected Employment Growth

Type	Projected Growth / Planning Period		
	2016	2036	2041
I&C – Total Employment ¹	4,020	5,160	5,630
Notes:			
1. Projected Employment Growth as per Wellington County Official Plan May 6, 1999 (Last Revision September 1, 2016). Includes ‘no fixed place of work’ employment.			

Type	Average Day Demands (m ³ /d)	Max. Day Demands (m ³ /d)
I&C Large Users ²	31,000	52,704
Notes:		
1. Includes a portion of existing employment. Employment numbers for study area to be confirmed with County of Wellington. Includes current water demands for large users – significantly < than ex. permitted capacity		

Summary

Preliminary Projected Water Demands and Sewage Flows

Type	Average Day Demands (m ³ /d)	Max. Day Demands (m ³ /d)
Water Demands	1,393	2,905
Sewage Flows	2,027	6,479

The preliminary water and wastewater demands are based on the projected employment population and exclude allowances for process water currently consumed by the large users. It is assumed that the large users will continue to source their individual process water demands from their current sources.

High-level servicing options developed for consideration:

Intra-Municipal Servicing

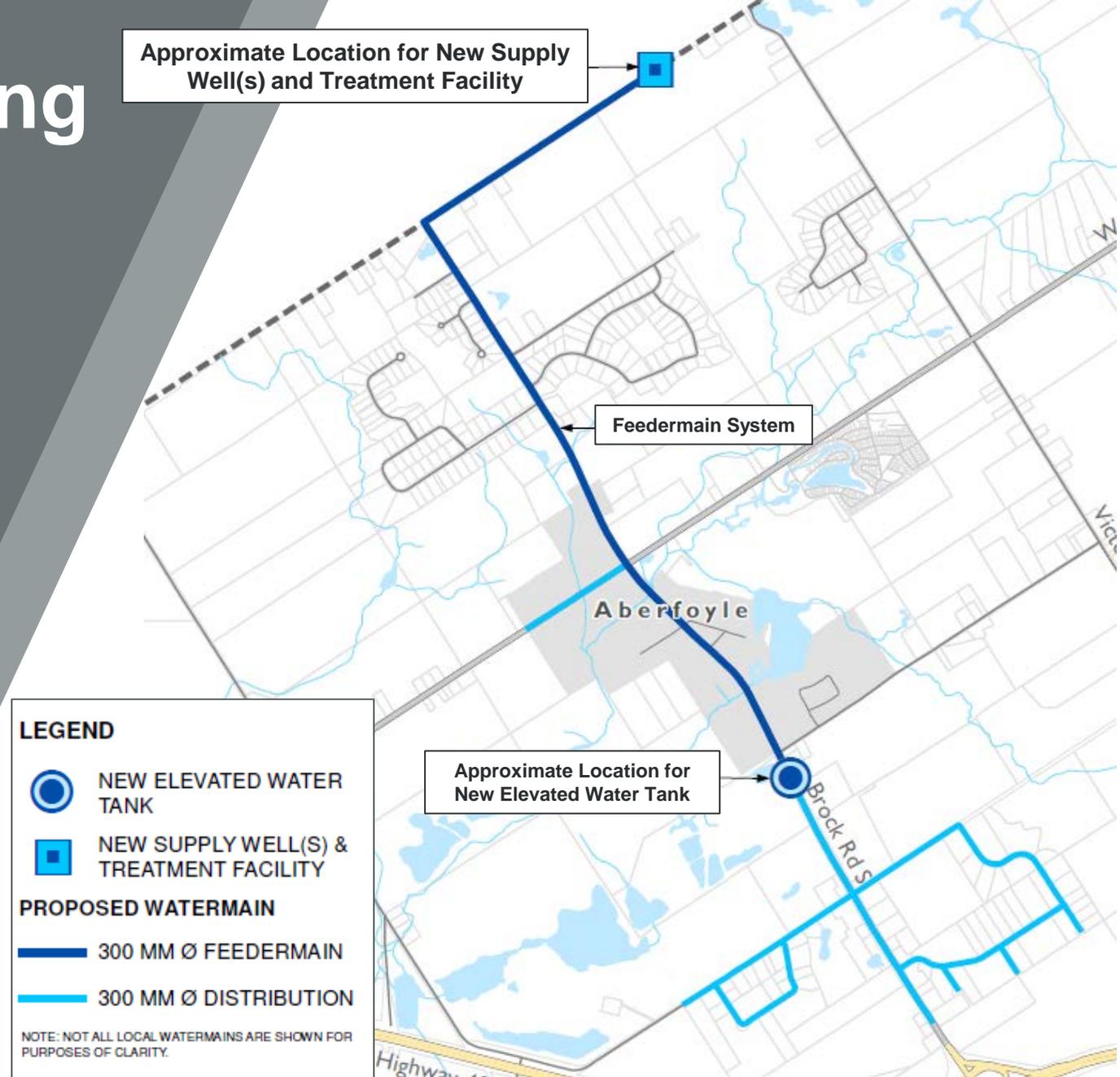
- *Provided by the Township*
- New municipal water system
 - New well(s), Treatment facility, Storage, Pumping, Distribution
- New municipal sewage system
 - New pumping station, Treatment system, Conveyance system

Inter-Municipal Servicing

- *Provided jointly by the Township and City of Guelph*
- Connection to City of Guelph Water supply and distribution system
- Connection to City of Guelph sewage collection and treatment system

Option 1: Water Servicing Intra-Municipal

- Major components:
 - New groundwater supply source
 - New water treatment facility
 - New distribution system
 - New storage facility
 - Note: location of well subject to further review during subsequent EA Study
- High-level estimated construction cost:
 - \$23 million



Option 2: Water Servicing Inter-Municipal

- Major components:

- Connect directly to CofG distribution system
- New metering facility and potential pressure control station
- New storage facility
- New distribution system

- High-level estimated construction cost:

- \$20 million
- Note: estimate does not include any costs to upgrade Guelph infrastructure

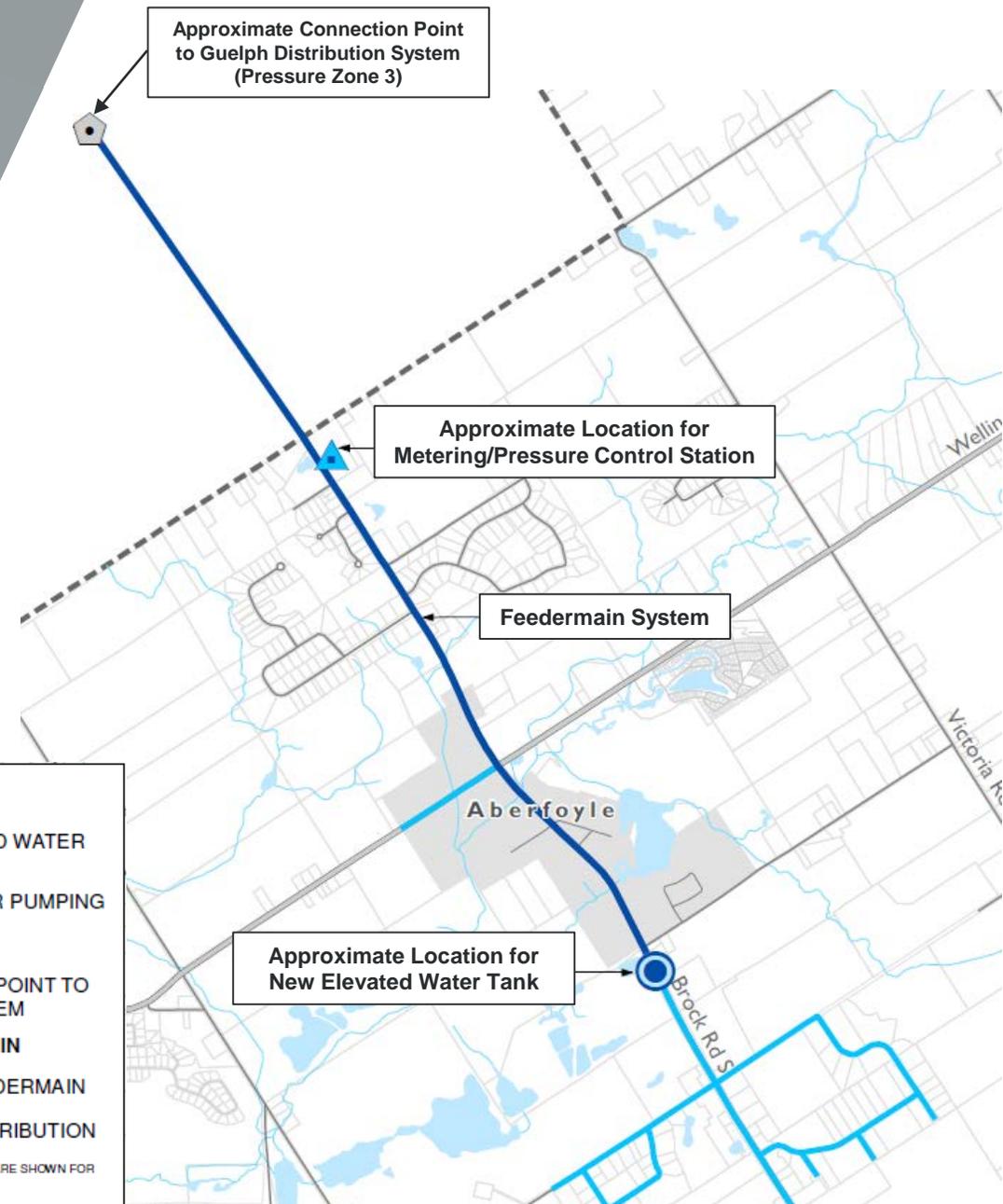
LEGEND

-  NEW ELEVATED WATER TANK
-  NEW BOOSTER PUMPING STATION
-  PROPOSED CONNECTION POINT TO GUELPH SYSTEM

PROPOSED WATERMAIN

-  400 MM Ø FEEDERMAIN
-  300 MM Ø DISTRIBUTION

NOTE: NOT ALL LOCAL WATERMANS ARE SHOWN FOR PURPOSES OF CLARITY.

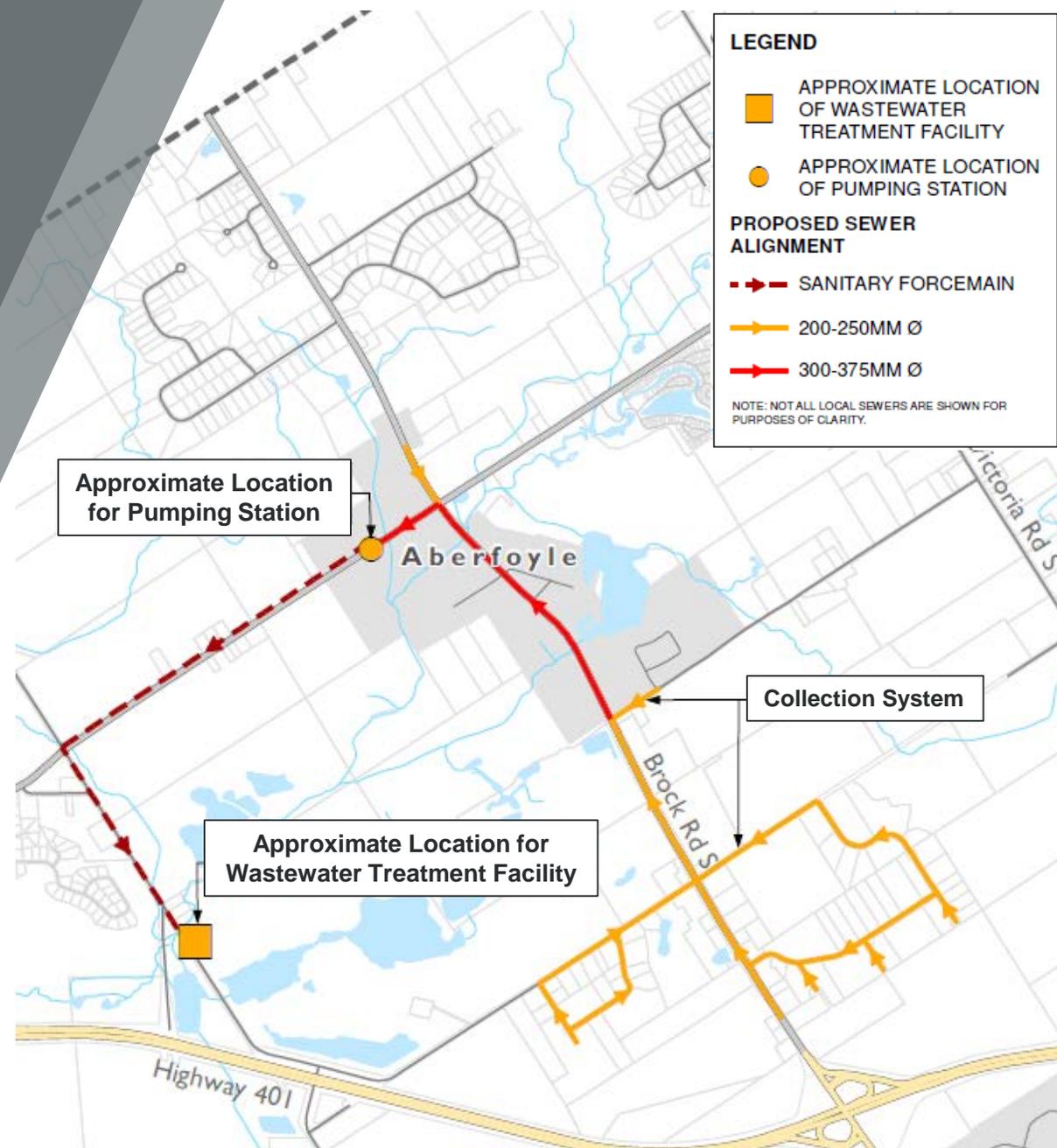


Preliminary Assessment of High-Level Water Servicing Options

Option	Key Advantages	Key Disadvantages
1A: Intra-Municipal	<ul style="list-style-type: none"> Independent system – greater local control 	<ul style="list-style-type: none"> Higher capital, O&M and Life Cycle Cost Requires larger amount of new infrastructure
1B: Inter-Municipal	<ul style="list-style-type: none"> Lower capital, O&M and Life Cycle Cost Optimizes use of existing infrastructure Guelph has a proven track record of providing high quality drinking water Economy of scale may be realized with Joint Supply system May improve opportunities for funding assistance with joint Projects Bulk water rates may be set, thereby establishing more predictable O&M costs 	<ul style="list-style-type: none"> Upgrades to infrastructure in the City may be required – cost unknown at this time and may be significant Bulk water supply rates are unknown at this time Need for an inter-municipal servicing agreement (Guelph & Puslinch)
Common to both Options	<ul style="list-style-type: none"> Easier to manage and monitor the single system for water quality and quantity Burden to obtain private updated PPTW and comply with changes in condition would be removed from individual users and placed on the township Bulk water rates may be set, thereby establishing more predictable O&M costs Municipal water and sewage servicing encourages developers to invest and promote growth in the Township 	<ul style="list-style-type: none"> Township will hold responsibility for the increased PPTW conditions in compliance to the WHPA-Q Increased costs for township with new source protection requirements Cost of extending private water service and connection to existing plumbing is in addition to the estimated costs Existing private and communal wells to be decommissioned Amendments to Official Plan and Secondary Plans may be required

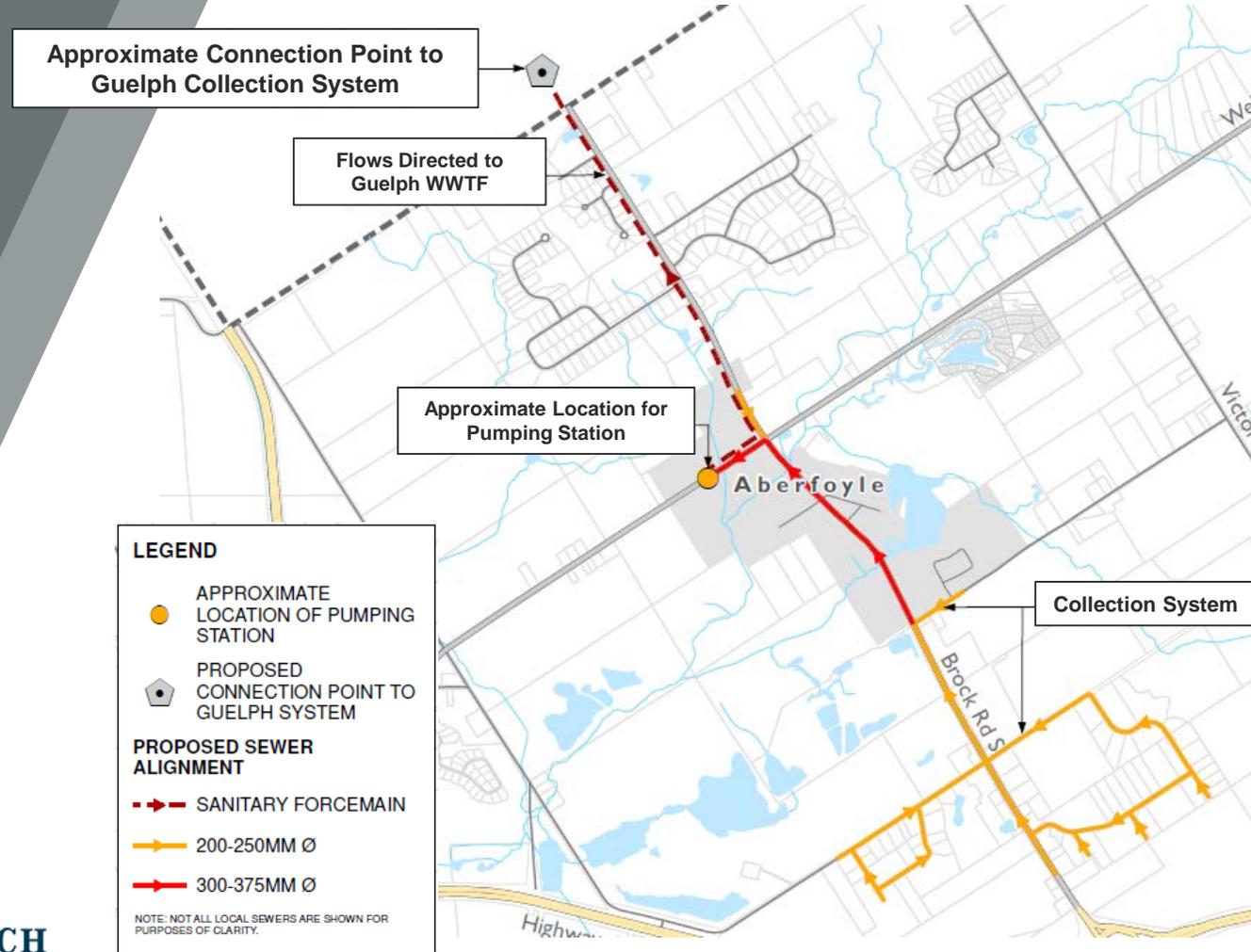
Option 1: Sewage Servicing Intra-Municipal

- Major components:
 - New gravity collection system
 - New pumping station
 - New wastewater treatment facility
 - Effluent discharge to Mill Creek (will be subject to an Assimilative Capacity Study)
- High-level estimated construction cost:
 - \$29 million



Option 2: Sewage Servicing Inter-Municipal

- Major components:
 - New gravity collection system
 - New pumping station
 - Discharge into the Guelph collection system for further treatment and disposal
- High-level estimated construction cost:
 - \$12 million
 - Note: does not include costs to upgrade Guelph Infrastructure



Preliminary Assessment of High-Level Sewage Servicing Options

Option	Key Advantages	Key Disadvantages
1A: Intra-Municipal	<ul style="list-style-type: none"> • Independent system – greater local control 	<ul style="list-style-type: none"> • Higher capital, O&M and Life Cycle Cost • Requires larger amount of new infrastructure • Assimilative capacity of receiving stream may be a limiting factor – alternate discharge location or higher quality effluent may be needed – cost implication
1B: Inter-Municipal	<ul style="list-style-type: none"> • Lower capital, O&M and Life Cycle Costs • Lower operational requirements for the collection system • Economy of scale may be realized with Joint Wastewater Treatment system • Provides an opportunity for Joint Funding applications • Known wastewater rates will assist in establishing predictable O&M budgets 	<ul style="list-style-type: none"> • Upgrades to infrastructure in the City may be required – cost unknown at this time and may be significant • Need for an inter-municipal Servicing Agreement (Guelph & Puslinch)
Common to both Options	<ul style="list-style-type: none"> • Municipal sewage servicing encourages developers to invest and promote growth in the Township • Amendments to Official Plans, Secondary Plans, Approved Draft Plans may be required 	

Typical Usage Charges

For a user consuming 10 m³ of drinking water and generating 10 m³ of wastewater daily, the ***Estimated Preliminary User Charges*** would be.

	WATER SERVICING		WASTEWATER SERVICING	
	OPTION 1	OPTION 2	OPTION 1	OPTION 2
MONTHLY COST	\$297	\$56	\$289	\$66

- The Preliminary User Charge estimated above does not include Life Cycle Costs. Final user charges would be established following completion of a Rate Study to be undertaken following completion of construction.
- User Rates identified for Option 2 – Inter-Municipal Servicing do not include Bulk Water Rates or Wastewater Rates which would be imposed by the City of Guelph. The Bulk Water Rate and Wastewater disposal rate to be negotiated between the Township and the City as part of the Servicing Agreement(s).

Project Timeline

Target Completion Date	Task
May 31, 2019	Notice and Draft Addendum Report circulated to Township, Agencies and Businesses
June 24, 2019	Public Meeting / Workshop
July 12, 2019	Last Date for Comments by businesses
August 2, 2019	Final Addendum Feasibility Study Report provided to Township
September 4, 2019	Final Addendum Feasibility Study Report provided to Council for Information
September 18, 2019	Presentation to Council
TBD	Council Approval of Decision (ie., to proceed with Class EA Study or to not proceed further with study)
2019 - 2021	Class EA Study Completion (subject to Council approval and budget allocation)
Dates are preliminary and subject to change	

Questions?



Project Contacts

For more information about this project, or to view the Public Information Centre displays online, please visit our website:

<http://www.puslinch.ca/en/living-here/feasibility-study-for-municipal-water-and-sewage-servicing-.asp>

Should you have any questions or concerns about this study, please contact:

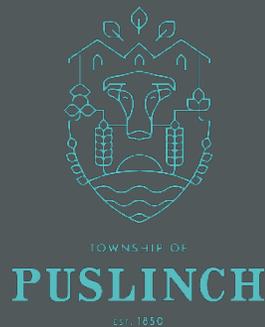
Karen M. Landry CAO/Clerk

Township of Puslinch

Klandry@puslinch.ca

T 519 763-1226, 214

7404 Wellington Rd 34 Puslinch, ON N0B 2J0



Stuart Winchester, P.Eng.

Partner / Director, Municipal Infrastructure

Stuart.Winchester@cima.ca

T 519 772-2299, 6202 C 519 998-1725

900-101 Frederick Street, Kitchener, ON N2H 6R2

