THE CORPORATION OF THE TOWNSHIP OF ESSA COMMITTEE OF THE WHOLE MEETING WEDNESDAY, MARCH 22, 2023 6:00 p.m.

AGENDA

Members of the public wishing to attend can do so by attending in person to the Council Chambers located in the Administration Centre at 5786 County Road 21, Utopia.

1. OPENING OF MEETING BY THE MAYOR

The Township of Essa acknowledges that we are situated on the traditional land of the Anishinaabeg, Huron-Wendat and the Tiononati people. We are dedicated to honouring Indigenous history and culture and committed to moving forward in the spirit of reconciliation and respect with all First Nation, Métis and Inuit people.

- 2. DISCLOSURE OF PECUNIARY INTEREST
- 3. DELEGATIONS / PRESENTATIONS / PUBLIC MEETINGS
- p. 1 a. Delegation Dave Ritchie, Simcoe County Federation of Agriculture re: Overview of the Federation and its Functions.
- p. 10 **b. Delegation Jackie Hall, Hemson** re: Development Charges Background Study

STAFF REPORTS

- 4. PLANNING AND DEVELOPMENT
- p. 45 a. Staff Report PD007-23 submitted by the Manager of Planning, re: Proposed Telecommunication Tower, 7788 9th Line, Xplornet Communications Inc.

Recommendation: Be it resolved that Staff Report PD007-23 be received; and That Council approve an application for a proposed telecommunication tower to be located at 7788 9th Line.

- 5. PARKS AND RECREATION / COMMUNITY SERVICES
- 6. FIRE AND EMERGENCY SERVICES
- p. 62 a. Staff Report FD001-23 submitted by the Fire Chief, re: Purchase of a Replacement Deputy Fire Chief vehicle as part of the budget approval 2023.

Recommendation: Be it resolved that Staff Report FD001-23 be received; and That Council authorize the Fire Chief to purchase a 2023 Chevrolet Silverado RST at the purchase price of \$62,543.00 excluding applicable tax and licensing.

7. PUBLIC WORKS

p.64 a. Correspondence submitted by Ontario Clean Water Agency (OCWA), re:
Schedule 22 Summary Reports (2022) and Section 11 Annual Reports (2022)
for the Angus, Baxter and Thornton Drinking Water Systems.

Recommendation: Be it resolved that the 2022 Schedule 22 Summary Reports and the 2022 Section 11 Annual Reports from the Ontario Clean Water Agency for the Angus, Baxter and Thornton Drinking Water and Distribution Systems be received; and That a notice be posted on the Township's website stating that the 2022 Summary Reports are available for inspection at the Administration Centre or on the Township website by any member of the public during normal business hours, at no charge.

p. 127 b. Staff Report PW001-23 submitted by the Senior Project Manager, Ainley Group, re: Proposed Baxter Wastewater Treatment Plant – Summary of Key Design Elements.

Recommendation: Be it resolved that Staff Report PW001-23 be received; and That Council accept in principle, on a high-level, the design details related to the proposed wastewater treatment plant (WWTP) in Baxter, which will service Brookfield's new, 253 residential units and possibly the Baxter Central Public School.

- 8. FINANCE
- 9. CLERKS / BY-LAW ENFORCEMENT / IT
- p. 171 a. Staff Report C005-23 submitted by the Deputy Clerk, re: 2023 General Assistance Grants.

Recommendation: Be it resolved that Staff Report C005-23 be received; and That Council approve the recommended tax exemption and donation amounts as presented in Attachment No. 1 of this Report.

- 10. CHIEF ADMINISTRATIVE OFFICER (C.A.O.)
- 11. OTHER BUSINESS
- 12. ADJOURNMENT

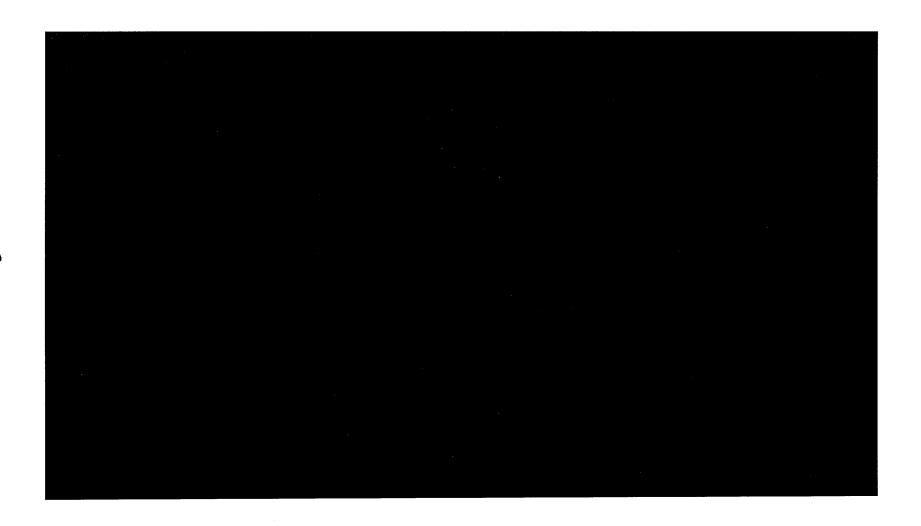
Recommendation: Be it resolved that this meeting of Committee of the Whole of the Township of Essa adjourn at _____ p.m., to meet again on the 5th day of April, 2023 at 6:00 p.m.



DAVE RITCHIE

PRESIDENT OF THE SIMCOE COUNTY FEDERATION OF AGRICULTURE















Canadä







THANK YOU FOR YOUR TIME

Council Information Session

Development Charges Background Study



TOWNSHIP OF ESSA Wednesday, March 22, 2023





Today We Will Discuss...

- Background and Study Process
- Bill 23 Legislative Changes
- Development Forecast
- DC Capital Program
- Draft Calculated DC Rates
- Rate Comparison
- Next Steps



What are Development Charges?

 Charges imposed on development to pay for "growthrelated" capital costs



 Pays for new infrastructure and facilities to maintain service levels

Principle is "growth pays for growth"



DCs in Township of Essa

 Council passed Development Charges By-law No. 2018-54 on June 20, 2018 that imposed rates for the following services:

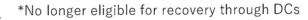
General Services:

- Library Services
- Fire Services
- Parks and Recreation
- Public Works and Fleet
- Police
- General Government*
- By-law No. 2018-54 will expire on June 21, 2023

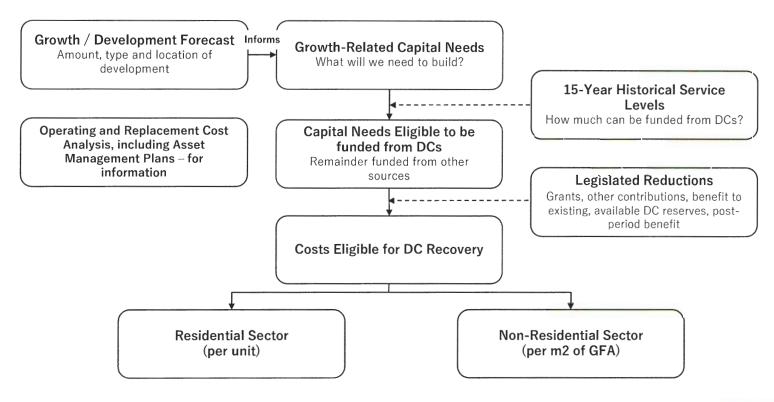
Engineered Services:

- Roads and Related
- Angus Sewer Services
- Angus Water Services
- Thornton Water Services
- Baxter Sewer Services





Development Charges Study Process







DC Legislation has Changed in Recent Years

- Housing Supply Action Plan and subsequent legislation:
 - Bill 108, the *More Homes, More Choice Act*
 - Bill 197, the COVID-19 Economic Recovery Act
 - Bill 23, the More Homes Built Faster Act



- Report on the Ontario Housing Affordability Taskforce (February 2022)
- June 2022 election mandate:
 - Affordability (house sales/rents are outpacing incomes)
 - Goal of 1.5 million new homes constructed by 2031



Government Aims to Reduce Housing Costs by Reducing Municipal Fees and Charges

- Legislative changes will freeze, reduce and exempt DCs
 - Exemptions
 - Phase-ins
 - Discounts



 Housing Accelerator Fund – could be used to compensate municipalities to pay for critical growth-related infrastructure



New DC Exemptions (in Effect)

- In existing rentals (4+ units), greater of:
 - One unit
 - 1% of existing units
- Residential intensification in existing and new units
- Non-profit housing (now defined)
- Inclusionary zoning units (must be affordable)





New Mandatory Phase-In of DC Rates

- 5 year phase-in of total DCs imposed
- Retroactive to DC by-laws passed since January 1, 2022
- Significant revenue loss associated with mandatory phase-in/discount

Year	Maximum DC
1	80%
2	85%
3	90%
4	95%
5	100%

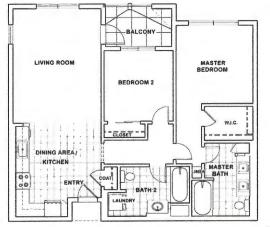




New Discounts For Rental Housing (in Effect)

- Rental housing development (now defined as 4+ units)
 - 25% for 3+ bedrooms
 - 20% for 2 bedrooms
 - 15% for 1 bedroom and bachelor







New Exemptions for Affordable Housing (Not Yet in Effect)

- Rental 80% of average market rent
- Ownership 80% of average purchase price
- Province to issue bulletins to establish market rents and purchase price
- Administered through agreement 25 years, with ability to register on title
 - Possible standard forms of agreement

Impact to Development Charges:

- Not in force yet requires additional action by the Province
- Depending on what the "average" market rents and purchase prices are, could have significant impact
- Administratively burdensome



New Exemptions for Attainable Housing (Not Yet in Effect)

- "Select" Attainable Housing
- Not affordable and not rental
- 7
- Administered through agreement – until unit is sold, with ability to register on title
- What is "select" is to be prescribed

Impact to Development Charges:

- Not in force yet requires additional action by the Province
- Unclear how Attainable will be defined – potentially significant impact
- Administratively burdensome



DC Eligible Service Changes Introduced by Bill 23

- Services no longer eligible for DC funding include:
 - Housing Services
 - Growth-related studies (including DC studies)

Impact to Development Charges:

- No impact for housing services not levied in Essa Township
- Revenue loss associated with studies





Other Changes Introduced by Bill 23

- Historical service levels now based on 15 years
- Services for which land is an ineligible cost may be prescribed
- Maximum life of DC by-law extended from 5 years to 10 years
- Interest rate for DC freezes and payment plans now prescribed
 - Prime +1%
- Must spend <u>or</u> allocate at least 60% of reserve fund balances each year for
 - Water, wastewater, and roads DCs
 - Other DC services may be prescribed



DC Eligible Services

- Water Supply Services
- Wastewater Services
- Stormwater Drainage and Control Services
- Services Related to a Highway (Roads, Public Works Buildings, and Fleet)
- Transit
- Waste Diversion
- Policing Services
- Fire Protection Services
- Ambulance Services

- Public Libraries (Including resources)
- Recreation (Arena, centres, etc.)
- Park Development (Excluding parkland acquisition)
- Long-term Care
- Public Health
- Provincial Offences Act incl. By-law Enforcement
- Emergency Preparedness
- Child Care

Note: Parking, Cemeteries, Housing, and Studies are no longer eligible for recovery through DCs.



Development Forecast: Township-wide

		Township-Wide Growth				
Growth Forecast		2023 -	- 2032	2023-2046		
	2022 Estimate	Growth	Total at 2032	Growth	Total at 2046	
Residential						
Total Occupied Dwellings	8,123	1,717	9,840	3,940	12,063	
Total Population						
Census	23,470	4,136	27,606	8,569	32,039	
Population In New Dwellings		5,267		10,106		
Non-Residential						
Employment	8,210	1,380	9,590	2,860	11,070	
Non-Residential Building Space (sq.m.)		37,760		181,000		

^{*}Place of work employment shown (excludes work at home)

Area-specific forecast for Angus (Water and Sewer):

- 2023-2032 = 1,344 units (78% of all units)
- 2023-2046 = 3,319 units (84% of all units)





Growth-Related Capital Programs

- Capital programs have been informed by:
 - Previous DC Background Study
 - 2023 Capital Budget
 - Water and Wastewater: 2022 Angus Infrastructure Master Plan
 - Roads and Related: Ongoing Transportation Master Plan (WSP)
 - Discussions with staff



- Grants, subsidies and other contributions
- "Benefit to existing" or replacement elements
- Available DC reserve funds
- "Post Period" benefits





Summary of Capital Program (in \$000): 2023-2032

Service		Grants,		DC Recoverable Cost			
	Gross Cost	Subsidies, Recoveries	FYICTINO	Available Reserves	Post Period	In-Period	
Library Services	\$312.7	\$0.0	\$0.0	\$53.3	\$0.0	\$259.4	
Fire Services	\$8,090.0	\$0.0	\$1,508.8	\$1,245.1	\$2,504.6	\$2,831.5	
Police	\$102.0	\$0.0	\$0.0	\$0.0	\$0.0	\$102.0	
Parks and Recreation	\$14,924.2	\$0.0	\$1,049.3	\$4,707.5	\$0.0	\$9,167.4	
Public Works	\$5,900.0	\$0.0	\$806.4	\$155.9	\$1,518.4	\$3,419.3	
Roads and Related	\$115,317.0	\$0.0	\$13,693.8	\$6,270.5	\$60,118.8	\$35,233.9	
TOTAL	\$144,645.9	\$0.0	\$17,058.2	\$12,432.3	\$64,141.9	\$51,013.5	





Summary of Water and Sewer Capital Program (in \$000): 2023-2046

Service Gross Cost	Gross	Grants,	Benefit to	DC Recoverable Cost		
	Subsidies, Recoveries	Existing	Available Reserves	Post Period	In-Period	
Wastewater	\$19,448.7	\$0.0	\$0.0	\$6,174.1	\$0.0	\$13,274.6
Water	\$19,202.3	\$0.0	\$0.0	\$2,410.8	\$0.0	\$16,791.5
TOTAL	\$38,651.0	\$0.0	\$0.0	\$8,584.9	\$0.0	\$30,066.1



Fully Calculated Residential Development Charges (Angus – Serviced)

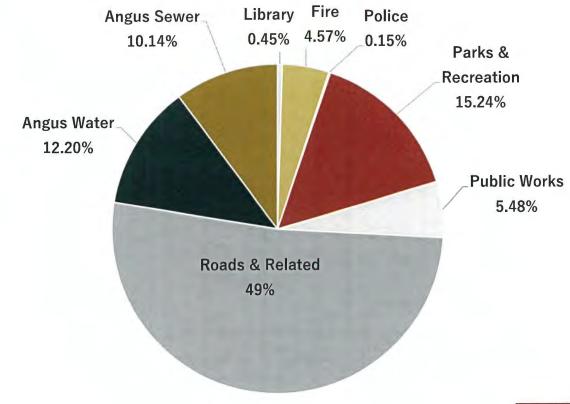
\$/Unit

Single/Detached \$37,233

Other Multiples \$32,919

Large Apartment (2+ Bedrooms) \$21,945

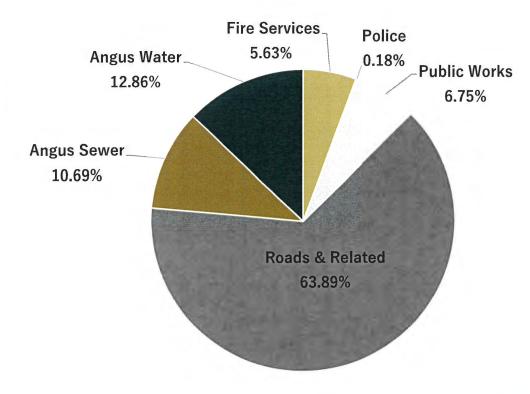
Small Apartment (Bachelor and 1 Bedrooms \$16,170





Fully Calculated Non-Residential Development Charge (Angus – Serviced)









Current vs. Calculated Charges

Residential	Current Charge/SDU	Calculated Charge/SDU	Difference in Charge		
	Charge/ 3DO	Charge/ 3DO	\$	%	
Total Charge \$/unit	\$25,014	\$37,233	\$12,219	48.9%	



Non-Residential	Current Charge	Calculated Charge	Difference in Charge	
			\$	%
Total Charge \$/sq.m.	\$122.00	\$190.74	\$68.74	56.3%

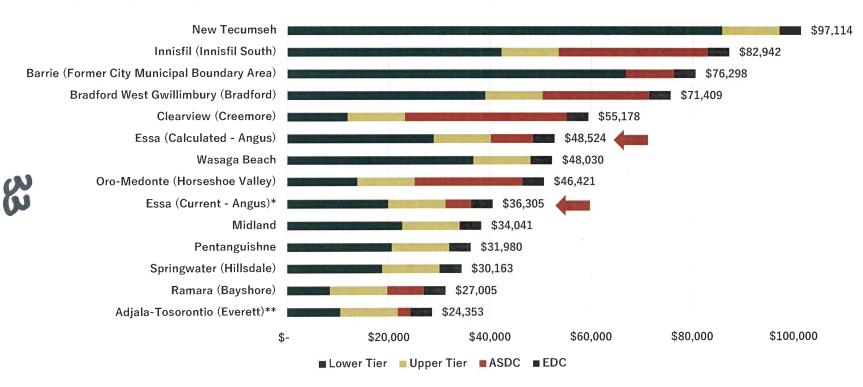


Calculated Development Charges with Phase-in

Charge Type	Fully Calculated	Year 1 (80%)	Year 2 (85%)	Year 3 (90%)	Year 4 (95%)	Year 5 (100%)
Singles & Semis	\$37,233	\$29,786	\$31,648	\$33,510	\$35,371	\$37,233
Other Multiples	\$32,919	\$26,335	\$27,981	\$29,627	\$31,273	\$32,919
Apartments 2+ Bedrooms	\$21,945	\$17,556	\$18,653	\$19,751	\$20,848	\$21,945
Apartments Bachelor and 1 Bedroom	\$16,170	\$12,936	\$13,745	\$14,553	\$15,362	\$16,170
Non-Residential Charge per m2	\$190.74	\$152.59	\$162.13	\$171.66	\$181.20	\$190.74



Residential Rate Comparison (per Single Detached Unit)

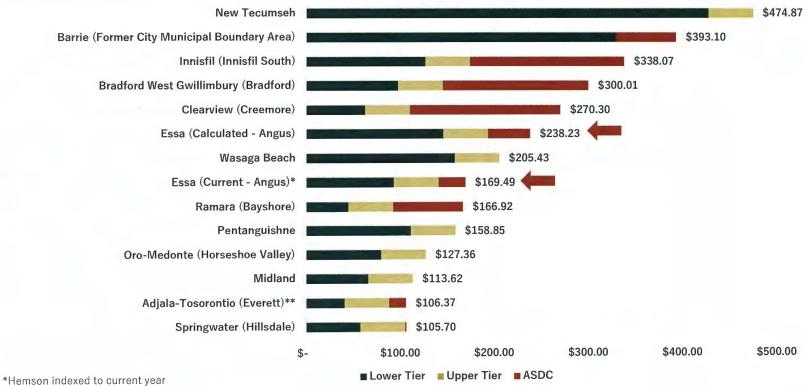


^{*}Hemson indexed to current year



^{**}No water or sewer charge

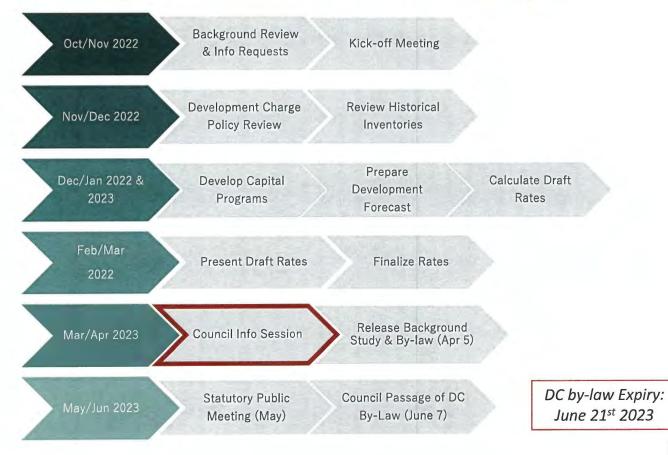
Non-Residential Rate Comparison (per sq. m.)





^{**}No water or sewer charge

DC Project Timeline & Next Steps









Additional Slides for Q&A



Library Services

Tatal Canital	Cuente	Benefit-to- Existing	Development-Related			
Total Capital Program	Grants/ Subsidies		Available DC Reserves	2023 - 2032	Post 2032	
\$313,000	\$0	\$0	\$53,000	\$260,000	\$0	



- Maximum Permissible DC Funding Envelope = \$1,905,000
- 2023-2032 Capital Program:
 - Additional Parking
 - New Collection Materials
 - New Outdoor Meeting Space (Structure and Equipment)



Fire Services

Total Conital	Grants/	Benefit-to-	Development-Related		
Total Capital Program	Grants/ Subsidies	Existing	Available DC Reserves	2023 - 2032	Post 2032
\$8,090,000	\$0	\$1,509,000	\$1,245,000	\$2,832,000	\$2,504,000



- Maximum Permissible DC Funding Envelope = \$2,832,000
- 2023-2032 Capital Program:
 - Station 2 (Angus) Expansion and Furniture/Equipment
 - New Fire Vehicles: Fire Prevention Officer, New Aerial and Fire Training Vehicle
 - Bunker Gear
 - New Equipment for Servicing High/Mid-Rise Buildings



Police Services

Total Constal	Cuanta/	Benefit-to-	De	evelopment-Relate	ed
Total Capital Program	Grants/ Subsidies	Existing	Available DC Reserves	2023 - 2032	Post 2032
\$102,000	\$0	\$0	\$0	\$102,000	\$0





- 2023-2032 Capital Program:
 - Personal Equipment
 - New Vehicles



Parks and Recreation

Total Canital	Cuental	Panafit to	rants/ Benefit-to- Development-Related			
Total Capital Program	Grants/ Subsidies	Existing	Available DC Reserves	2023 - 2032	Post 2032	
\$14,924,000	\$0	\$1,049,000	\$4,708,000	\$9,167,000	\$0	

Maximum Permissible DC Funding Envelope = \$23,891,000



- 2023-2032 Capital Program:
 - Angus Recreation Centre Land and Construction
 - Thornton Arena Multipurpose Room
 - New Trucks
 - Three New Dog Parks
 - Baxter Park expansion
 - Pedestrian Bridge over Nottasaga
 - Playground Equipment and Amenities
 - Trail Construction



Services Related to a Highway: Public Works and Fleet

Total Canital	Cuanta	Benefit-to- Existing	Development-Related			
Total Capital Program	Grants/ Subsidies		Available DC Reserves	2023 - 2032	Post 2032	
\$5,900,000	\$0	\$807,000	\$156,000	\$3,419,000	\$1,518,000	



- Maximum Permissible DC Funding Envelope = \$3,419,000
- 2023-2032 Capital Program:
 - New Fleet Vehicles
 - Expanding Sand Dome



Services Related to a Highway: Roads and Related

Total Canital	Cranta	Benefit-to- Existing	Crants / Development-Related			
Total Capital Program	Grants/ Subsidies		Available DC Reserves	2023 - 2032	Post 2032	
\$115,317,000	\$0	\$13,694,000	\$6,270,000	\$35,234,000	\$60,119,000	



- Maximum Permissible DC Funding Envelope = \$174,438,000
- 2023-2032 Capital Program
 - 10 Road Reconstruction and Strengthening projects
 - 13 Road Urbanizations
 - 2 Intersection Improvements and 3 Intersection Signalizations
 - 2 Safety and Pedestrian Improvements
 - 2 Bridges
 - 29 Metres of On-Road Active Transportation Trails



Water Supply and Distribution: 2023-2046 (build-out) Capital Program

Total Canital	Cuanta	Development-Related			d
Total Capital Program	Grants/ Subsidies	Benefit-to- Existing	Available DC Reserves	2023 - 2046	Post 2046
\$19,202,000	\$0	\$0	\$2,411,000	\$16,791,000	\$0



Development-Related Water Services Projects

- Increase PTTW and Existing Well Capacity Township
- New Water Storage Tanks (3) (Southwest, Northwest, and Northeast)
- Water Distribution Network Expansion (Linear Infrastructure)
- Debenture Payments for Mill Street Reservoir
- Debenture Payment for Brownley Reservoir



Sewage Treatment and Collection 2023-2046 (Build-Out) Capital Program

		Benefit-to- Existing	De	evelopment-Relate	ed
Total Capital Program	Grants/ Subsidies		Available DC Reserves	2023 - 2046	Post 2046
\$19,449,000	\$0	\$0	\$6,174,000	\$13,275,000	\$0



Development-Related Water Services Projects

- Debenture Payments for the Angus WWTP and Pump Station No. 2
- Expand Existing Wastewater Treatment Plant
- Area 1 Sanitary Collection Upgrades
- Area 2 Sanitary Collection Upgrades





TOWNSHIP OF ESSA STAFF REPORT

STAFF REPORT NO.: PD007-23

DATE: March 22nd, 2023

TO: Committee of the Whole

FROM: Samuel Haniff

Manager of Planning

SUBJECT: Proposed Telecommunication Tower, 7788 9th

Line, Xplornet Communications Inc.

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RECOMMENDATION

Staff Report PD007-23 be received; and

That Council consider approving an application for a proposed telecommunication tower to be locate at 7788 9th Line.

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BACKGROUND

The Township has been notified by Xplornet Communications Inc. that a proposed 45m self-support lattice tower is to be located at 7788 9th Line, in the centre of the subject site behind the existing barn, setback 250m from 9th Line (See Attachment A). The proposed tower includes a 45m self-support lattice tower. Radio equipment is installed on the upper portion of the tower that will provide wireless internet services to Xplornet customers in the community. An equipment cabinet is installed at the base of the tower to process the radio equipment, with a leasehold area of 15.0m X 15.0m. The tower will have an anticlimb installation on the base, and the base will remain natural. Any requirements for an approved entrance and/or NVCA permissions will be sought out by Xplornet Communications Inc.

The purpose of the installation of the tower is to improve wireless internet services to those in the immediate area of Ivy, more specifically those who are Xplornet customers. As per the Department of Innovation, Science and Economic Development Canada (ISED) for public consultation on the installation of Telecommunication Towers, the applicant must consult with the local municipality, as well as the public. The applicant has informed this office that public consultation took place via mail-out to neighbours within a radius of 135m, as per ISED standards under the Radiocommunication Act, as well as placed an advertisement in the Borden Citizen and Alliston Herald. Under this protocol, the applicant is to address all reasonable and relevant concerns, make all reasonable

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efforts to resolve them in a mutually acceptable manner and must keep a record of all associated communications.

COMMENTS AND CONSIDERATIONS

ISED is responsible for regulating radio and telecommunication in Canada and for authorizing the location of the telecommunication facilities. Companies are required to consult with Navigation Canada, Transport Canada, and the municipality prior to erecting communication towers, but the municipality is not the approval authority.

The municipality's concerns are taken into consideration, and the licensing process will be delayed for negotiations if the Municipality does not support the application. If the applicant for the Telecommunication Tower cannot reach an agreement with the land-use authority, ISED will decide on the appropriate course of action, using the information provided by both parties.

Furthermore, Planning Staff would like to stress, ISED has stated all antenna towers have to satisfy all technical requirements and comply with Health Canada's Safety Code 6, which imposes strict limits on the radio frequency energy sent out by any antenna tower. Health Canada continues to monitor all domestic and international scientific evidence on radiofrequency, electric magnetic fields (EMF) and health. If new scientific evidence were to show that exposure to radiofrequency EMF at levels below the Canadian limits is a health concern, they would take action to protect all our health and safety.

Through the consultation process, the proponent must seek a letter of concurrence from the local municipality. It is expected that following the consultation process, the municipality would supply the required letter once Council and Staff have reviewed any concerns.

According to the Township's Zoning By-law (2003-50), the subject property is zoned as Agricultural and Rural. According to the Township's Official Plan, the subject property is designated as Agricultural and Rural. The portion of the site proposed to house the tower is zoned Agricultural and designated Agricultural (see Attachment B).

The Township's Official Plan does not restrict telecommunication towers in Agricultural designations. Further, this use would be permissible in accordance with the Township's Zoning By-law which stipulates per Section 4.12d) that "Nothing in the By-law shall prevent the use of any land for the erection or use of any building or structure for the purpose of a public service by the Corporation of the Township of Essa, any telephone or communications company", provided that a municipality provides a letter of concurrence in accordance with federal requirements.

Currently, Staff do not object to the proposed use and recommend Council to endorse the attached Letter of Concurrence (Attachment C) for the property at 7788 9th Line.



FINANCIAL IMPACT

None. The proponent has provided the required fee in the amount of \$1000 to cover staff time.

Dollman

Manager of Finance Approval

SUMMARY/OPTIONS

Council may:

- 1. Take no further action.
- 2. Direct Staff to provide the Letter of Concurrence to the applicant for 7788 9th Line
- 3. Direct Staff in another manner Council deems appropriate.

CONCLUSION

Option #2 is recommended.

Prepared and Submitted by:

Samuel Haniff, BURPI., MCIP, RPP

Manager of Planning

Reviewed by:

Colleen Healey-Dowdall

CAO

Attachment A – Request for Concurrence Letter (with maps)

Attachment B – Township Zoning and Designation Maps

Attachment C - Draft Concurrence Letter

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Participation of the grants of \$100000



Tel:-(905)-928-9481
Fax: (888) 622-4939
482 South Service Road East, Suite 130
Oakville, Ontario L6J-2X6
www.forbesbrosltd.ca

March 7, 2023

Samuel Haniff, Senior Planner Township of Essa 5786 County Road 21 Utopia, ON LOM 1T0

CLIENT: Xplore Inc.

RE: Request for Concurrence - Proposed 45m Self-Support Lattice Tower Site

SITE ID: IVY – ON7965

ADDRESS: 7788 9th Line, Thornton, ON

Mr. Haniff,

Forbes Bros. Ltd. on behalf of Xplore Inc. is advising the Township of Essa that public consultation has been completed for Xplore's proposed 45m self-support lattice tower site located at 7788-9th Line, Thornton, ON.

าดีกักราชที่ ก็ที่เหมือน ใหม่ก็เราโดยเล่นใช้เรา ได้ยุ และ และโดยกระสะหม่องเราเทียกในที่เรา ได้ พระกลายกลัง เ

The approval authority for wireless telecommunication towers is within ISED, under the Radiocommunication Act. ISED's Radiocommunication and Broadcasting Antenna Systems — CPC-2-0-03, Issue 5 outlines the process for the proponent to follow and encourages the establishment of policies from the land-use authority as they are best positioned to contribute to optimum siting of facilities to meet their own community needs.

ISED's *Radiocommunication and Broadcasting Antenna Systems – CPC-2-0-03, Issue 5,* can be retrieved at: https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/cpc-2-0-03-i5.pdf/\$file/cpc-2-0-03-i5.pdf.

Township of Essa has not established a policy and ISED default public consultation process has been followed.

Municipal Consultation

Submitted an Information Package on January 24, 2023 that provided the Township of Essa with the following details:

- Proposed Site Details
- Site Sketch
- Photo Rendering
- Co-location Opportunities Considered
- Federal Requirements
- Draft Public Consultation Material
 - o Mail Notification
 - o Public Notice

No requests for additional information, comments or objections were received from the Township.

ISED - Default Public Consultation

Mail Notification

• ISED requires a mail notification to be sent to all property owners, within 3 times height of the proposed 45m tower, 135m measured from the proposed tower. Mail notification was sent to all property owners using a mailing list provided by the Township – January 30, 2023

Public Notice

• ISED requires a public notice published in the local paper for proposed towers greater than 30m. Public notice was published in the Alliston Herald and online the Borden Citizen – February 2, 2023

ISED – Default Public Consultation Summary

No submissions or inquires have been received.

Request for Concurrence

Municipal and public consultation has been completed for the proposed 45m self-support lattice tower site with no submissions received.

Provided Township of Essa has no concerns to address we are requesting on behalf of Xplore Inc. to receive letter of concurrence from the Township of Essa for the proposed 45m self-support lattice tower site at 7788 9th Line, Thornton, ON as described in the Information Package submitted on January 24, 2023.

Sincerely,

Jay Lewis
Land Acquisition & Government Relations
Forbes Bros. Ltd.

Proposed Site Details:

Site Address: 7788 9th Line, Thornton, ON

Latitude: 44.301317° Longitude: -79.781180°

Legal Description: PT E 1/2 LT 23 CON 8 ESSA TWP PT 1, 51R15523; ESSA

The approximation of the second secon

Xplore is proposing a 45mself-support lattice tower site in the entre of the subject property behind the existing barn, setback 250m from 9th Line. An existing field entrance will be utilized to access property



Aerial Image of Proposed Location

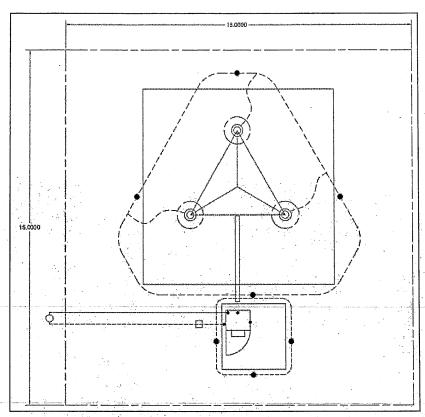
The proposed site includes a 45m self-support (freestanding – no guyed wires) lattice tower. The tower has a face width of 2.75m at the base and tapers to 1m at the top.

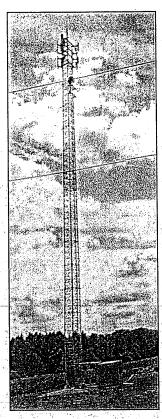
Radio equipment is installed on the upper portion of the tower that will provide wireless internet services to Xplornet customers in the community.

An equipment cabinet is installed at the base of the tower to process the radio equipment.



Enlarged Aerial Image of Proposed Location





Proposed Compound Layout Plan & Example Tower

Photo Rendering

Proposed 45m self-support tower FWB site as it would appear from the laneway, half way between proposed site and 9th Line, facing west. Please note that although considered to be accurate, this is an artist's rendering only.

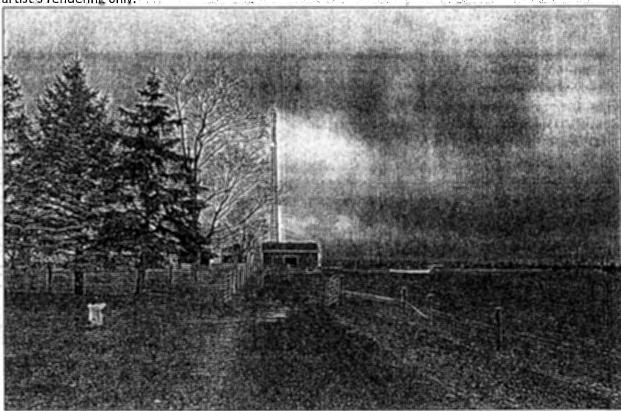


Photo Rendering of the Proposed 45m Lite-Duty Self-Support Lattice Tower

51

Co-Location Opportunities Considered:

Xplore always considers co-locating or securing their wireless equipment on existing structures such as other third-party communication towers, water towers or buildings prior to prosing a new communication tower in an effort to minimize the number of towers in a region.

There are no structures in the immediate area that can be utilized or considered for co-location to achieve coverage objectives and a new tower is required. All future applications for co-location on the proposed tower will be considered.

Federal Requirements:

Health Canada

Xplore attests that the radio installation described in this notification package will be installed and operated on an ongoing basis so as to comply with Health Canada's Safety Code 6, as may be amended from time to time, for the protection of the general public including any combined effects of nearby installations within the local radio environment.

Impact Assessment Act

Xplore attests that the radio antenna system described in this notification package is excluded from environmental assessment under the *Impact Assessment Act*.

Transport Canada

Xplore attests the proposed structure will meet Transport Canada's aeronautical obstruction marking requirements as set out in Canadian Aviation Regulations - Standard 621. Xplore anticipates the proposed tower installation will not require marking or lighting and will provide this information once available to any interested party upon request.

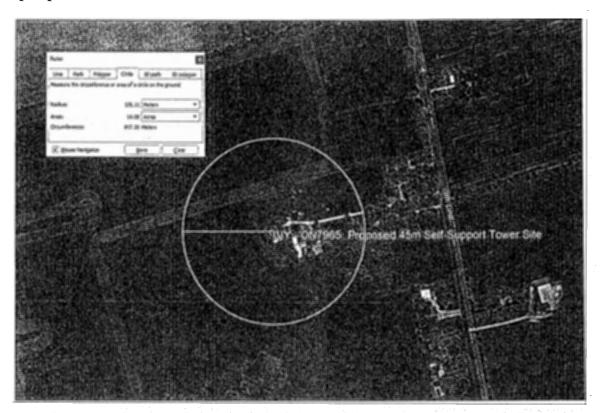
Engineering Principles

Xplore attests that the radio antenna system described in this notification package will be constructed in compliance with the National Building Code of Canada and comply with good engineering practices including structural adequacy.

Public Consultation Material

Mail Notification

ISED requires 3 * height of proposed 45m tower, 135m, measured from proposed tower.







Tel: (905) 928-9481

Fax: (888) 622-4939

482 South Service Road East, Suite 130
Oakville, Ontario L6J 2X6

www.forbesbrostd.ca

DATE

Re: MAIL NOTIFICATION - XPLORE INC.

Proposed 45m Self-Support Lattice Tower Site

7788 9th Line, Thornton, ON

Site ID: IVY - 0N7965

Dear Current Resident / Owner,

Forbes Bros: Ltd. is sending this mail notification on behalf of Xplore Inc. to notify you of the proposed 45m self-support lattice tower site located at 7788 9th Line, Thornton, ON.

The proposed location is within an optimal area to provide improved wireless internet services to the community.

The purpose of this notification and public consultation is to allow submissions or request for additional information from the local community and for the proponent to address all relevant questions and concerns. The Proponent and Land-Use Authority contact information can be found at the end of the notification and may be submitted until the closing date of

At the end of the public consultation process, if the Proponent is satisfied that it has addressed all relevant questions and would like to move forward with the installation, a request for a letter of concurrence will be submitted to the Township of Essa along with all correspondence from the public consultation process.

Sincerely,

Jay Lewis

Land Acquisition & Government Relations

Forbes Bros. Ltd.

Proposed Site Details:

Site Address: 7788 9th Line, Thornton, ON

Latitude: 44.301317° Longitude: -79.781180°

Legal Description: PT E 1/2 LT 23 CON 8 ESSA TWP PT 1, 51R15523; ESSA

Xplore is proposing a 45mself-support lattice tower site in the entre of the subject property behind the existing barn, setback 250m from 9th Line. An existing field entrance will be utilized to access property and site. The subject property is zoned Agricultural and identified as Agricultural in the Official Plan.



Aerial Image of Proposed Location

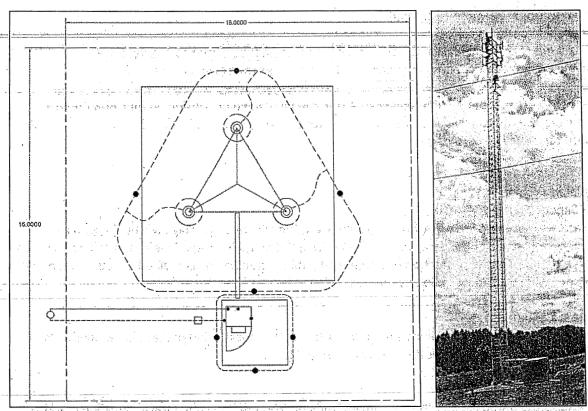
The proposed site includes a 45m self-support (freestanding – no guyed wires) lattice tower. The tower has a face width of 2.75m at the base and tapers to 1m at the top.

Radio equipment is installed on the upper portion of the tower that will provide wireless internet services to Xplornet customers in the community.

An equipment cabinet is installed at the base of the tower to process the radio equipment.



Enlarged Aerial Image of Proposed Location



Proposed Compound Layout Plan & Example Tower

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Photo Rendering

Proposed 45m self-support tower FWB site as it would appear from the laneway, half way between proposed site and 9th Line, facing west. Please note that although considered to be accurate, this is an artist's rendering only.

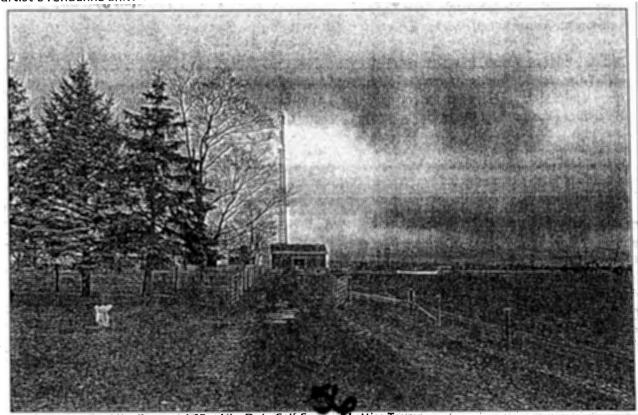


Photo Rendering of the Proposed 45m Lite-Duty Self-Support Lattice Tower

Co-Location Opportunities Considered:

Xplore always considers co-locating or securing their wireless equipment on existing structures such as other third-party communication towers, water towers or buildings prior to prosing a new communication tower in an effort to minimize the number of towers in a region.

There are no structures in the immediate area that can be utilized or considered for co-location to achieve coverage objectives and a new tower is required. All future applications for co-location on the proposed tower will be considered.

Federal Requirements:

Health Canada

Xplore attests that the radio installation described in this notification package will be installed and operated on an ongoing basis so as to comply with Health Canada's Safety Code 6, as may be amended from time to time, for the protection of the general public including any combined effects of nearby installations within the local radio environment.

Impact Assessment Act

Xplore attests that the radio antenna system described in this notification package is excluded from environmental assessment under the *Impact Assessment Act*.

Transport Canada

Xplore attests the proposed structure will meet Transport Canada's aeronautical obstruction marking requirements as set out in Canadian Aviation Regulations - Standard 621. Xplore anticipates the proposed tower installation will not require marking or lighting and will provide this information once available to any interested party upon request.

Engineering Principles

Xplore attests that the radio antenna system described in this notification package will be constructed in compliance with the National Building Code of Canada and comply with good engineering practices including structural adequacy.

Innovation, Science and Economic Development Canada (ISED)

General information relating to antenna systems is available through ISED's Spectrum Management and Telecommunications website http://www.ic.gc.ca/antenna.

Close of Comments:

DATE TBD

Contact Information:

Forbes Bros. Ltd.

Jay Lewis Land Acquisition & Gov. Relations 482 South Service Rd. E., Suite 130

Oakville, Ontario L6J 2X6 Tel: 905.928.9481

Fax: 888.622.4939

Email: jlewis@forbesbrosltd.ca

Innovation, Science and Economic **Development Canada**

Toronto District Office 151 Yonge Street, 4th Floor Toronto, Ontario M5C 2W7

Tel: 855.465.6307 Fax: 416.954.3553

Email: spectrumtoronto-spectretoronto@ised-isde.gc.ca Email: shaniff@essatownship.on.ca

Township of Essa

Samuel Haniff Senior Planner 5786 County Road 21 Utopia, ON LOM 1TO Tel: 705.424.9917 x111

Fax: 705.424-2367



Public Consultation Material

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Public Notice

PUBLIC NOTICE

XPLORE INC. - Proposed 45m Self-Support Lattice Tower Site

Xplore Inc. has proposed a 45m tall steel self-support lattice tower and related radio equipment at 7788 9th Line, Thornton, Ontario. Site is proposed in the center of the subject property behind the existing barn, setback 250m from 9th Line. An existing field entrance will be utilized to access property and site. Proposed tower site will improve Xplore wireless internet services to the community.

ANY PERSON may make a written submission or request additional information to the individuals listed below by closing date of DATE TBD.

PLEASE TAKE NOTICE the approval of this site and its design is under the exclusive jurisdiction of the Government of Canada through Innovation, Science and Economic Development Canada (ISED). For more information on the federal process pertaining to these installations please contact the local ISED office at: spectrumtoronto-spectretoronto@cised-isde.gc.ca

Site ID: IVY - ON7965

Coordinates: 44.301317°, -79.781180°

XPLORE INC. c/o FORBES BROS. LTD.

Jay Lewis, Land Acquisition & Gov. Relations Suite 130, 482 South Service Rd E

Oakville, Ontario. L6J 2X6

Tel: (905) 928-9481 Fax: (888) 622-4939

Email: jlewis@forbesbrosltd.ca

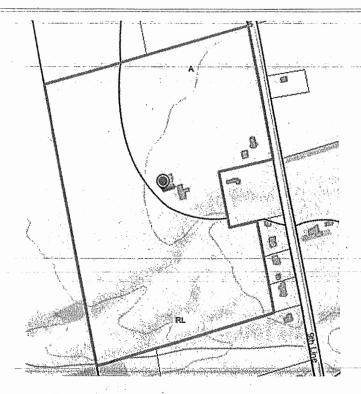
TOWNSHIP OF ESSA

Samuel Haniff, Senior Planner 5786 County Road 21 Utopia, Ontario. LOM 1T0

Tel: (705) 424-9917 x111 Fax: (705) 424-2367

Email: shaniff@esstownship.on.ca



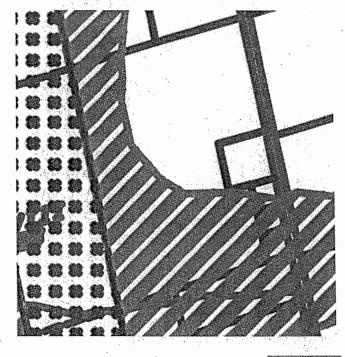


Township of Essa Zoning By-law

Zoning:

Agricultural (A)

Rural (RL)



Township of Essa Official Plan

Designation:

Agricultural

Rural

AGRICULTURAL



RURAL





Corporation of the Township of Essa 5786 Simcoe County Road #21 Utopia, Essa Township, Ontario



Telephone: (705) 424-9917 Fax: (705) 424-2367

Web: <u>www.essatownship.on.ca</u> Email: <u>shaniff@essatownship.on.ca</u>

ATTACHMENT C

March 22, 2023

Jay Lewis
Forbes Bros. Ltd.
482 South Service Road East, Suite 130
Oakville, ON L6J 2X6

Dear Sir,

RE:

Proposed Telecommunications Installation by XPLORNET at 7788 9th Line, Roll #4321-010-003-11901-000 Letter of Concurrence

Further to the consultation with the Township of Essa by FB Connect, a Forbes Bros Company, on behalf of Xplornet, regarding Con 8 E Pt. Lot 23, RP51R15523 Pt. 1, Township of Essa, this will confirm that following a complete review of all documentation, the Township of Essa provides this Letter of Concurrence for provision in accordance with the Radiocommunications Act and Innovation, Science and Economic Development Canada procedure on Telecommunications (as per Guideline CPC-2-0-03).

This letter is provided on condition that Forbes Bros Company on behalf of Xplornet obtains the proper building permit following approval and as well, agrees to provide the Municipality with dedicated space on the telecommunications tower should the Municipality, including its Fire Department, require space in the future.

Please note that any building erected shall be designed and maintained in general harmony with the buildings or structures permitted in the Institutional zone (per Sec 4.12d03).

I trust the above is satisfactory. Should you have any questions, please do not hesitate to call.

Regards,

Samuel Haniff, BURPI, MCIP, RPP Manager of Planning Township of Essa



TOWNSHIP OF ESSA STAFF REPORT

STAFF REPORT NO.: FD001-23

DATE: March 22, 2023

TO: Committee of the Whole

FROM: D. Burgin, Fire Chief

SUBJECT: Purchase of a replacement Deputy Chief vehicle as part

of the budget approval 2023

RECOMMENDATION

That Staff Report FD001-23 be received; and

That Council authorize the Fire Chief to purchase a 2023 Chevrolet Silverado RST at the purchase price of \$62,543.00 excluding applicable tax and licensing.

BACKGROUND

The Essa Fire Department has been operating a 2014 Ford Explorer as a senior fire officer vehicle for an extensive period. This vehicle was purchased used, being a former police vehicle and has reached a mileage level of over 280,000 kilometers. To provide ongoing reliability, for emergency responses, this vehicle was approved for replacement in the 2023 capital budget.

This capital expenditure will also require the purchase of all the items to convert the pick-up truck into a fire emergency response vehicle such as emergency lighting, siren, box cap and roll out tray, striping, emergency console, and radio/repeater installation. All items are included within the 2023 budget.

COMMENTS AND CONSIDERATIONS

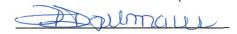
Several pick-up trucks have been investigated and three quotes for similar vehicles obtained.

Quote	Price	Comments
Georgian Chevrolet – 2023 Silverado RST	\$62,543.00 excluding applicable tax and licensing fees	Almost identical to Fire Chief vehicle for consistency of fleet. Available for immediate delivery
Hanna Ford – 2023 F-150 XLT	\$61,924.00 excluding applicable tax and licensing fees	Minimum three months delivery and could be longer
Ernie Dean Chevrolet – 2023 Sierra 1500	\$68,177.50 excluding applicable tax and licensing fees	Much higher price than the other two quotes obtained

FINANCIAL IMPACT

The purchase of a replacement Deputy Chief vehicle has been included in the 2023 Fire Department Capital Budget with funding approval of \$100,000.00 to cover the vehicle and all components required to make it an operational emergency vehicle.

Manager of Finance:



SUMMARY/OPTIONS

Council may:

- 1. Take no further action.
- 2. Authorize the Fire Chief to purchase a 2023 Chevrolet Silverado RST from Georgian Chevrolet at the cost of \$62,543.00.00 excluding tax and licensing fees.
- 3. Direct staff in another manner.

CONCLUSION

Option #2 is recommended, since the Silverado truck can be delivered immediately which is preferrable to all Departments including Building Department which will be receiving the used Deputy Chief vehicle.

Respectfully submitted by:	Reviewed by:
D. Burgín	Challey.
Fire Chief	Colleen Healey-Dowdall CAO

SUMMARY REPORT

ONTARIO REGULATION 170/03 SECTION 22

ANGUS DRINKING WATER SYSTEM



FOR THE PERIOD: JANUARY 1, 2022 – DECEMBER 31, 2022

Prepared for the Corporation of the Township of Essa by the Ontario Clean Water Agency





Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

This report was prepared in accordance with the requirements of <u>O.Req 170/03, Schedule 22, Summary Reports for Municipalities</u> for the following system and reporting period:

Drinking-Water System Number: Drinking-Water System Name: Drinking-Water System Owner: Drinking-Water System Category: Period being reported:

260001026
Angus Drinking Water System
The Corporation of the Township of Essa
Large Municipal Residential
January 1, 2022 - December 31, 2022

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on May 10, 2022 for the period covering July 1, 2021 to May 10, 2022. On August 23, 2022 the Inspection Report was issued and an Inspection Summary Rating Record (IRR) of 100% was received.

The following is a summary of non-compliances noted in the MECP Inspection Report, as well as the duration and the measures that were taken to correct the non-compliance. If any self-reported non-compliances were included in the inspection report, they will be noted in Table 1.

Table 1. Non-Compliances and Corrective Actions noted in the 2021/2022 MECP Inspection Report

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
N/A	N/A	N/A

The following table (Table 2) is a summary of any incidents that the Operating Authority interpreted as a instances where any requirements of the Act, the regulations, the system's approval, drinking water works permit (DWWP), municipal drinking water licence (MDWL), and any orders applicable were not met. The Operating Authority reported the following incidents to the MECP and confirmation of whether the incidents are considered non-compliances are noted in the MECP Inspection Report and included in Table 1.

Table 2. Self-Reported Incidents and Corrective Actions for the Reporting Period

Incident	Duration	Corrective Actions
N/A	N/A	N/A

For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Angus Drinking Water System Annual Report (Section 11).

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 21) summarize the quantities and flowrates of water supplied during the reporting period, including monthly averages and maximum daily flows as well as a comparison to the rated capacity and flowrates approved in the system's approval, DWWP or MDWL.

As required by the MDWL, regulatory flow measuring devices are checked/verified and where necessary calibrated. These checks/verifications/calibrations are performed annually by a third party to ensure the flow measuring devices are within acceptable deviation limits.

2.1 Treated Water

Municipal Drinking Water License (MDWL):	118-103 (Issue Number: 6)
Allowable Rated Capacity for Mill Street Well Supply System:	3,932 m³/day
Allowable Rated Capacity for McGeorge Street Well Supply System:	2,592 m³/day
Allowable Rated Capacity for Brownley Well Supply System:	4,251 m³/day
Allowable Flowrate into Treatment System:	N/A

As per the MDWL, the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed the listed rated capacity. However, the MDWL allows a system to be operated temporarily at a maximum daily volume and/or a maximum flowrate above the values set out in the MDWL for the purposes of fighting a large fire or for the maintenance of the drinking water system.

Table 3. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for Mill Street Well Supply System in 2022

	Treated Water Flow- Mill Street Well Supply System				
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
January	1,551.10	39.45%	1,773.00	45.09%	48,084.00
February	1,684.32	42.84%	1,790.00	45.52%	47,161.00
March	1,533.84	39.01%	1,757.00	44.68%	47,549.00
April	1,734.00	44.10%	2,961.00	75.31%	52,020.00
May	2,750.93	69.96%	3,276.70	83.33%	85,278.70
June	2,357.83	59.97%	3,270.00	83.16%	70,735.00
July	2,129.84	54.17%	2,501.00	63.61%	66,025.00
August	1,948.90	49.57%	2,205.00	56.08%	60,416.00
September	1,728.63	43.96%	2,394.00	60.89%	51,859.00

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

	Treated Water Flow- Mill Street Well Supply System				
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
October	1,225.00	31.15%	1,686.00	42.88%	37,975.00
November	1,153.93	29.35%	1,452.00	36.93%	34,618.00
December	1,151.77	29.29%	1,455.00	37.00%	35,705.00
2022	1,745.84	44.40%	3,276.70	83.33%	637,425.70

A review of flow information for the reporting period indicates that the Mill Street Well Supply System operated within the rated capacity specified in the MDWL, for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

Table 4. Treated Water Annual and Monthly Average and Maximum Flowrates for Mill Street Well Supply System in 2022

Treated Wa	Treated Water Flowrate- Mill Street Well Supply System				
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)			
January	18.07	50.70			
February	19.51	50.60			
March	17.68	53.70			
April	20.66	100.70			
May	32.09	102.80			
June	27.87	71.30			
July	24.61	137.00			
August	22.58	66.50			
September	19.91	137.00			
October	14.44	137.00			
November	13.33	51.20			
December	13.39	52.40			
2022	20.35	137.00			

A summary of flowrates of water that flows out of the Mill Street treatment subsystem to the distribution system can be found in the above table. A summary of flowrates of water that flows into the Mill Street treatment subsystem can be found in Table 10. The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate of water that flows into the treatment subsystem.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

Table 5. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for McGeorge Well Supply System in 2022

The same of the sa	Treated Water Flow- McGeorge Well Supply System					
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)	
January	62.96	2.43%	135.26	5.22%	1,951.61	
February	81.33	3.14%	113.32	4.37%	2,277.36	
March	56.90	2.20%	93.38	3.60%	1,763.99	
April	140.89	5.44%	582.73	22.48%	4,226.59	
May	448.41	17.30%	701.72	27.07%	13,900.83	
June	536.78	20.71%	842.50	32.50%	5,367.77	
July ^{5A}	-	-	-	-	-	
August	-	-	-	-	-	
September	-	-	-	-	-	
October	-	_	-	-	-	
November	-	-	-	-	-	
December	-	-	-	-	-	
2022	221.21	8.50%	842.50	32.50%	29,488.15	

^{5A}McGeorge Well Supply System has been offline since June 11, 2022 for maintenance and inspection activities.

A review of flow information for the reporting period indicates that the McGeorge Well Supply System operated within the rated capacity specified in the MDWL, for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

Table 6. Treated Water Annual and Monthly Maximum Flowrates for McGeorge Well

Sup	ply	System	in	2022
-----	-----	---------------	----	------

Treated Water Flowrate- McGeorge Well Supply System		
January	18.11	
February	10.68	
March	11.03	
April	20.00	
May	20.00	
June	18.57	
July ^{6A}	-	
August	-	
September	-	
October	-	
November	_	
December	-	
2022	20.00	

^{6A}McGeorge Well Supply System has been offline since June 11, 2022 for maintenance and inspection activities.

A summary of flowrates of water that flows out of the McGeorge treatment subsystem to the distribution system can be found in the above table. A summary of flowrates of water that flows into the McGeorge treatment subsystem can be found in Tables 12 and 14. The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate of water that flows into the treatment subsystem.

Table 7. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for Brownley Well Supply System in 2022

	Treated Water Flow- Brownley Well Supply System				
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
January	1,114.84	26.23%	1,460.40	34.35%	34,560.04
February	1,149.51	27.04%	1,446.20	34.02%	32,186.22
March	1,108.34	26.07%	1,400.00	32.93%	34,358.55
April	955.32	22.47%	1,219.40	28.69%	20,061.70
May ^{7A}	-	_	-	_	-
June	1,435.32	33.76%	1,959.90	46.10%	30,141.62
July	1,323.64	31.14%	1,963.00	46.18%	41,032.85
August	1,104.23	25.98%	1,657.60	38.99%	34,231.16
September	1,054.29	24.80%	1,764.89	41.52%	31,628.70
October	1,120.32	26.35%	1,485.58	34.95%	34,729.91

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

	Treated Water Flow- Brownley Well Supply System				
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
November	1,010.02	23.76%	1,513.02	35.59%	30,300.66
December	1,053.80	24.79%	1,384.57	32.57%	32,667.65
2022	1,129.97	26.58%	1,963.00	46.18%	355,899.06

^{7A}Brownley Well Supply System and Treated Water were offline from April 22 to June 9, 2022 for well inspections and maintenance activities.

A review of flow information for the reporting period indicates that the Brownley Well Supply System operated within the rated capacity specified in the MDWL, for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

Table 8. Treated Water Annual and Monthly Maximum Flowrates for Brownley Well Supply System in 2022

Treated Water Flowrate- Brownley Well Supply System			
January	44.47		
February	42.54		
March	55.15		
April	47.03		
May ^{8A}	-		
June	72.20		
July	277.70		
August	58.79		
September	85.46		
October	127.05		
November	43.39		
December	59.76		
2022	277.70		

^{8A}Brownley Well Supply System and Treated Water were offline from April 22 to June 9, 2022 for well inspections and maintenance activities.

A summary of flowrates of water that flows out of the Brownley treatment subsystem to the distribution system can be found in the above table. A summary of flowrates of water that flows into the Brownley treatment subsystem can be found in Tables 16, 18 and 20. The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate of water that flows into the treatment subsystem.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

2.2 Raw Water

Permit to Take Water Number (PTTW):	0411-93LSQW
Allowable Maximum Raw Water Volume - Well #1: Mill Street	3,927.77 m³/day
Allowable Maximum Raw Water Flowrate - Well #1: Mill Street	2,728 L/Min (45.47 L/sec)
Allowable Maximum Volume of Raw Water - Well #2: Centre Street (McGeorge)	1,296.00 m³/day
Allowable Maximum Raw Water Flowrate – Well #2: Centre Street (McGeorge)	900 L/Min (15.00 L/sec)
Allowable Maximum Volume of Raw Water - Well #3: Centre Street (McGeorge)	1,296.00 m³/day
Allowable Maximum Raw Water Flowrate – Well #3Centre Street (McGeorge)	900 L/Min (15.00 L/sec)
Allowable Maximum Volume of Raw Water - Well #4: Brownley	1,800.00 m³/day
Allowable Maximum Raw Water Flowrate – Well #4: Brownley	1,250.00 L/Min (20.83 L/sec)
Allowable Maximum Volume of Raw Water - Well #5: Brownley	654.62 m³/day
Allowable Maximum Raw Water Flowrate – Well #5: Brownley	455 L/Min (7.58 L/sec)
Allowable Maximum Volume of Raw Water - Well #6: Brownley	1,800.00 m³/day
Allowable Maximum Raw Water Flowrate – Well #6: Brownley	1,250 L/Min (20.83 L/sec)
Allowable Maximum Combined Raw Water Volume from Well #1, Well #2, Well #3, Well #4, Well #5 and Well #6:	9,585.00 m³/day

As per the PTTW, water shall only be taken from the specified source(s) and at the rates and amounts taken as specified in the permit. Notwithstanding, the above maximum daily takings, the maximum daily taking of water from all wells identified is limited to 9,585.00 m³/day. See table 21 for a review of the combined maximum daily takings of water from all wells identified within the Angus Drinking Water System.

Table 9. Raw Water (Well #1- Mill Street) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Mill Street Well #1					
Timeframe Average Percent of Maximum Percent of Allowable Flow (m³/day) Volume (m³/day) Average Percent of Allowable Flow (m³/day) Volume (m³/day)					Total Volume (m³)
January	1,549.71	39.46%	1874.00	47.71%	48041.00

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

	Raw Water Flow – Mill Street Well #1						
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)		
February	1,713.54	43.63%	1,956.00	49.80%	47,979.00		
March	1,557.77	39.66%	2,038.00	51.89%	48,291.00		
April	1,661.07	42.29%	2,701.00	68.77%	49,832.00		
May	2,667.51	67.91%	3,276.70	83.42%	82,692.70		
June	2,364.17	60.19%	3,269.00	83.23%	70,925.00		
July	2,069.03	52.68%	2,485.00	63.27%	64,140.00		
August	1,901.39	48.41%	2,212.00	56.32%	58,943.00		
September	1,681.57	42.81%	2,346.00	59.73%	50,447.00		
October	1,189.10	30.27%	1,711.00	43.56%	36,862.00		
November	1,118.83	28.49%	1,446.00	36.81%	33,565.00		
December	1,116.58	28.43%	1,493.00	38.01%	34,614.00		
2022	1,715.85	43.69%	3,276.70	83.42%	626,331.70		

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #1.

Table 10. Raw Water (Well #1- Mill Street) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Mill Street Well #1					
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)			
January	39.88	55.00 ^{10A}			
February	41.63	55.00 ^{10A}			
March	41.69	55.00 ^{10A}			
April	41.43	55.00 ^{10A}			
May	40.72	45.17			
June	41.29	46.62 ^{10A}			
July	40.49	45.24			
August	40.49	45.25			
September	40.40	45.99 ^{10A}			
October	40.66	49.34 ^{10A}			
November	40.80	49.18 ^{10A}			
December	40.87	49.05 ^{10A}			
2022	40.86	55.00 ^{10A}			

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Mill Street Well #1 with the exception of: ^{10A}January, February, March, April, June, September, October, November and December 2022-flowrate exceedances were of very short duration and were a result of well pump start-up.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

Table 11. Raw Water (Well #2- Centre Street (McGeorge)) Monthly Average, Maximum Flow and Total Volume for 2022

"Anh Photo	Raw Water Flow – Centre Street (McGeorge) Well #2					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)	
January	38.36	2.96%	78.50	6.06%	1,189.22	
February	48.48	3.74%	64.23	4.96%	1,357.32	
March	34.79	2.68%	55.88	4.31%	1,078.36	
April	77.21	5.96%	303.07	23.39%	2,316.23	
May	227.03	17.52%	351.05	27.09%	7,037.82	
June	105.12	8.11%	432.25	33.35%	3,153.69	
July ^{11A}	-	-	-	-	-	
August	-	-	-	-	-	
September	-	-	-	-	-	
October	-	-	_	-	-	
November	_	-	-	_	-	
December	-	-	-	-	-	
2022	88.50	6.83%	432.25	33.35%	16,132.64	

^{11A}Well #2-Centre Street (McGeorge) has been offline since June 11, 2022 for maintenance and inspection activities.

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #2.

Table 12. Raw Water (Well #2- Centre Street (McGeorge)) Annual and Monthly Maximum Flowrates for 2022

Raw Water Flowrate – Centr	e Street (McGeorge) Well #2
January	7.71
February	7.58
March	7.65
April	9.28
May	13.68
June	8.90
July ^{12A}	-
August	-
September	-
October	-
November	-
December	-
2022	13.68

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

^{12A}Well #2 at Centre Street (McGeorge) has been offline since June 11, 2022 for maintenance and inspection activities.

A review of flow information for the reporting period indicates that the system operated within the PTTW's the maximum allowable raw water flowrate for Well #2.

Table 13. Raw Water (Well #3-Centre Street (McGeorge)) Monthly Average, Maximum Flow and Total Volume for 2022

	Raw Water Flow – Centre Street (McGeorge) Well #3						
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)		
January	27.87	2.15%	56.76	4.38%	863.87		
February	34.47	2.66%	51.49	3.97%	965.04		
March	25.81	1.99%	40.30	3.11%	800.20		
April	67.73	5.23%	292.94	22.60%	2,031.96		
May	220.87	17.04%	348.44	26.895	6,847.05		
June	89.98	6.94%	424.71	32.77%	2,699.35		
July ^{13A}	-	-	-	-	-		
August	-	-	-	-	-		
September	_	_	_	_	-		
October	-	-	-	_	-		
November	_	-	-	_	-		
December	-	-	-	-	-		
2022	77.79	6.00%	424.71	32.77%	14,207.47		

^{13A}Well #3 at Centre Street (McGeorge) has been offline since June 11, 2022 for maintenance and inspection activities.

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #3.

Drinking Water System Regulation: O. Reg 170/03 Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

Table 14. Raw Water (Well #3-Centre Street (McGeorge)) Annual and Monthly **Maximum Flowrates for 2022**

Raw Water Flowrate – Centr	Raw Water Flowrate – Centre Street (McGeorge) Well #3					
January	8.30					
February	8.28					
March	9.15					
April	10.96					
May	12.55					
June	8.36					
July ^{12A}	-					
August	-					
September	-					
October	-					
November	-					
December	-					
2022	12.55					

^{14A}Well #3 at Centre Street (McGeorge) has been offline since June 11, 2022 for maintenance and inspection activities.

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well #3.

Table 15. Raw Water (Well #4- Brownley) Monthly Average, Maximum Flow and **Total Volume for 2022**

Raw Water Flow – Brownley Well #4						
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)	
January	466.18	25.90%	612.23	34.01%	14,451.65	
February	466.95	25.94%	579.84	32.21%	13,074.55	
March	452.93	25.16%	556.64	30.92%	14,040.84	
April	248.10	13.78%	542.54	30.14%	7,443.00	
May ^{15A}	-	-	-	-	-	
June	454.98	25.28%	999.55	55.53%	13,649.53	
July	546.92	30.38%	810.76	45.04%	16,954.45	
August	455.88	25.33%	705.19	39.18%	14,132.21	
September	434.74	24.15%	722.48	40.14%	13,042.20	
October	463.27	25.74%	611.11	33.95%	14,361.28	
November	417.31	23.18%	623.75	34.65%	12,519.37	
December	427.62	23.76%	540.08	30.00%	13,256.10	
2022	402.91	22.38%	999.55	55.53%	146,925.18	

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

^{15A}Well #4 at Brownley was offline between April 22 to June 9, 2022 for well inspections and maintenance activities.

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #4.

Table 16. Raw Water (Well #4- Brownley) Annual and Monthly Average and Maximum Flowrates for 2022

Rav	Raw Water Flowrate – Brownley Well #4					
Timeframe	meframe Average Flowrate (L/sec)					
January	16.88	20.39				
February	16.76	18.76				
March	16.73	18.41				
April	9.91	30.05 ^{16A}				
May ^{16A}	-	-				
June	15.63	18.34				
July	16.71	34.91 ^{16B}				
August	16.70	18.12				
September	16.71	18.19				
October	16.72	18.32				
November	16.73	18.37				
December	16.73	18.30				
2022	14.67	34.91 ^{16B}				

^{16A}Well #4 at Brownley was offline between April 22 to June 9, 2022 for well inspections and maintenance activities.

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well #4 with the exception of:

Table 17. Raw Water (Well #5- Brownley) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Brownley Well #5					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	147.18	22.48%	194.29	29.68%	4,562.48
February	152.06	23.23%	185.58	28.35%	4,257.55
March	156.35	23.88%	393.74	60.15%	4,846.72

^{16A} April 2022 – Flowrate exceedances were of very short duration and were a result of well pump start-up.

^{16B}July 27, 2022 – Flowrate exceedances due to external third party flow measuring device verification and calibration.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

	Raw Water Flow – Brownley Well #5						
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)		
April	93.43	14.27%	513.93	78.51%	2802.86		
May ^{17A}	-	-	-	_	-		
June	151.63	23.16%	331.46	50.63%	4,549.00		
July	182.60	27.89%	268.95	41.08%	5,660.70		
August	152.75	23.33%	234.98	35.90%	4,735.37		
September	145.87	22.28%	242.93	37.11%	4,376.18		
October	155.41	23.74%	204.61	31.26%	4,817.67		
November	140.00	21.39%	208.54	31.86%	4,199.93		
December	138.13	21.10%	353.38	53.98%	4,281.95		
2022	134.62	20.56%	513.93	78.51%	49,090.41		

^{17A}Well #5 at Brownley was offline between April 22 to June 9, 2022 for well inspections and maintenance activities.

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #4.

Table 18. Raw Water (Well #5- Brownley) Annual and Monthly Average and Maximum Flowrates for 2022

Rav	Raw Water Flowrate – Brownley Well #5		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)	
January	5.33	6.45	
February	5.36	7.79 ^{18A}	
March	5.45	6.59	
April	3.22	12.17 ^{18B}	
May ^{18A}	-	-	
June	5.21	6.67	
July	5.62	17.93 ^{18C}	
August	5.61	6.45	
September	5.65	6.45	
October	5.64	6.47	
November	5.64	6.46	
December	5.09	6.66	
2022	4.81	17.93	

^{18A}Well #5 at Brownley was offline between April 22 to June 9, 2022 for well inspections and maintenance activities.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well #5 with the exception of:

^{18A} February 2022 – Flowrate exceedances were of very short duration and were a result of well pump start-up

Table 19. Raw Water (Well #6- Brownley) Monthly Average, Maximum Flow and Total Volume for 2022

(**)	Ra	w Water Flow –	Brownley Well	#6	
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	504.91	28.05%	667.83	37.10%	15,652.32
February	556.49	30.92%	1,379.53	76.64%	15,581.59
March	496.53	27.59%	611.50	33.97%	15,392.46
April	279.40	15.52%	597.39	33.19%	8,382.12
May ^{19A}	_	-	-	-	-
June	499.66	27.76%	1,091.42	60.63%	14,989.86
July	600.18	33.34%	894.82	49.71%	18,605.67
August	495.75	27.54%	769.22	42.73%	15,368.11
September	470.24	26.12%	778.74	43.26%	14,107.28
October	498.45	27.69%	660.35	36.69%	15,451.88
November	447.50	24.86%	669.53	37.20%	13,425.06
December	483.78	26.88%	849.30	47.18%	14,997.10
2022	444.41	24.69%	1,379.53	76.64%	161,953.45

^{19A}Well #6 at Brownley was offline between April 22 to June 9, 2022 for well inspections and maintenance activities.

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #4.

Table 20. Raw Water (Well #6- Brownley) Annual and Monthly Average and Maximum Flowrates for 2022

Ra	w Water Flowrate – Brownley W	ell #6
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	18.40	31.64 ^{20A}
February	18.36	21.77 ^{20B}
March	18.34	18.85
April	10.98	18.84

^{18B} April 2022 – Flowrate exceedances were of very short duration and were a result of well pump start-up

^{18C} July 27, 2022 – Flowrate exceedances due to external third party flow measuring device verification and calibration.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

Rav	Raw Water Flowrate – Brownley Well #6		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)	
May ^{20A}	-	-	
June	17.24	22.14 ^{20C}	
July	18.48	34.90 ^{20D}	
August	18.31	18.90	
September	18.20	18.77	
October	18.16	18.73	
November	18.04	18.63	
December	18.06	18.86	
2022	16.03	34.90 ^{20D}	

^{20A}Well #6-Brownley was offline between April 22 to June 9, 2022 for well inspections and maintenance activities.

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well #6 with the exception of:

Table 21. Combined Well (Well #1, Well #2, Well #3, Well #4, Well #5, Well #6) Annual and Monthly Flow and Annual Volume for 2022

Con	nbined Well Flow	(Well #1, Well #2	2, Well #3, Well #	4, Well #5 & Wel	l #6)
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	2,734.21	28.53%	3,483.61	36.34%	84,760.54
February	2,971.97	31.01%	3,910.91	40.80%	83,215.05
March	2,724.18	28.42%	3,478.89	36.30%	84,449.58
April	2,426.94	25.32%	4,612.03	48.12%	72,808.17
May	3,115.41	32.50%	3,976.19	41.48%	96,577.57
June	3,665.55	38.24%	6,548.39	68.32%	109,966.43
July	3,398.73	35.46%	4,459.53	46.53%	105,360.82
August	3,005.77	31.36%	3,921.39	40.91%	93,178.69
September	2,732.43	28.51%	4,090.15	42.67%	81,972.66
October	2,306.22	24.06%	3,187.07	33.25%	71,492.83

^{20A} January 2022 – Flowrate exceedances were of very short duration and were a result of well pump start-up.

^{20B} February 2022 – Flowrate exceedances were of very short duration and were a result of well pump start-up.

^{20C}June 2022 – Flowrate exceedances were of very short duration and were a result of well pump start-up.

^{20D}July 27, 2022 – Flowrate exceedances due to external third party flow measuring device verification and calibration.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Angus Drinking Water System

Con	nbined Well Flow	(Well #1, Well #	2, Well #3, Well #	4, Well #5 & Wel	II #6)
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
November	2,123.64	22.16%	2,947.82	30.75%	63,709.36
December	2,166.10	22.60%	2,826.45	29.49%	67,149.15
2022	2,780.93	29.01%	6,548.39	68.32%	1,014,640.85

A review of the flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily taking of water from the taking of water from all wells identified (9,585.00 m³/day).

SUMMARY REPORT

ONTARIO REGULATION 170/03
SECTION 22

BAXTERDISTRIBUTION SYSTEM



FOR THE PERIOD: JANUARY 1, 2022 – DECEMBER 31, 2022

Prepared for the Corporation of the Township of Essa by the Ontario Clean Water Agency





Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Baxter Distribution System

This report was prepared in accordance with the requirements of <u>O.Reg 170/03</u>, <u>Schedule 22</u>, <u>Summary Reports for Municipalities</u> for the following system and reporting period:

Drinking-Water System Number: Drinking-Water System Name: Drinking-Water System Owner: Drinking-Water System Category: Period being reported: 220004064

Baxter Distribution System

The Corporation of the Township of Essa

Small Municipal Residential

January 1, 2022 – December 31, 2022

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on May 10, 2022 for the period covering July 1, 2021 to May 10, 2022. On September 13, 2022 the Inspection Report was issued and an Inspection Summary Rating Record (IRR) of 100% was received.

The following is a summary of non-compliances noted in the MECP Inspection Report, as well as the duration and the measures that were taken to correct the non-compliance. If any self-reported non-compliances were included in the inspection report, they will be noted in Table 1.

Table 1. Non-Compliances and Corrective Actions noted in the 2021/2022 MECP Inspection Report

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
N/A	N/A	N/A

The following table (Table 2) is a summary of any incidents that the Operating Authority interpreted as a instances where any requirements of the Act, the regulations, the system's approval, drinking water works permit (DWWP), municipal drinking water licence (MDWL), and any orders applicable were not met. The Operating Authority reported the following incidents to the MECP and confirmation of whether the incidents are considered non-compliances are noted in the MECP Inspection Report and included in Table 1.

Table 2. Self-Reported Incidents and Corrective Actions for the Reporting Period

Incident	Duration	Corrective Actions
N/A	N/A	N/A

For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Baxter Distribution System Annual Report (Section 11).

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Baxter Distribution System

2. Assessment of Flowrates and Quantity of Water Supplied

In 2017, Baxter Drinking Water System became a stand-alone distribution system receiving treated water from the Raymond A. Ultrafiltration Plant owned by the Town of Collingwood. Treated water is transported via a water transmission main (pipeline) that stretches from the Town of Collingwood to Alliston, in the Township of New Tecumseth. The Township of Essa has an agreement with the Township of New Tecumseth to receive 100 m³/day from the pipeline. Since treated water is supplied to the distribution system, Baxter DS does not have a Permit to Take Water as it does not draw from a raw water source.

The following tables (Table 3 and 4) summarize the quantities and flowrates of water received from the New Tecumseth Pipeline and then supplied to the Baxter Distribution System during the reporting period, including average and maximum day volumes as well as a comparison to the allowable takings approved in the system's approval, DWWP or MDWL.

2.1 Treated Water

Municipal Drinking Water License (MDWL):	118-102 (Issue Number: 4)
Allowable Rated Capacity:	Not Applicable
Allowable Flowrate into Treatment System:	Not Applicable

The applicable MDWL does not contain an allowable rated capacity or allowable flowrate into the treatment system. Rated capacity is assessed based on the contractual agreement between the Township of Essa and the Township of New Tecumseth, which stipulates that the Baxter Distribution System may take up to 100 m³/day of treated water from the transmission pipeline.

Table 3. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to the New Tecumseth Pipeline Allowable Daily Takings and Total Volume for 2022

Timeframe	Average Daily Takings (m³/day)	Maximum Daily Takings (m³/day)	Total Volume Taken (m³)
January	27.1	39.3	839.4
February	26.1	31.6	731.6
March	26.7	42.2	826.5
April	28.7	58.0	862.2
May	43.1	77.4	1,336.3
June	38.6	97.5	1,159.2
July	37.0	60.1	1,145.9
August	38.0	58.1	1,178.0
September	30.8	48.3	922.9
October	27.2	37.3	842.8
November	26.5	32.3	796.1

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Essa: Baxter Distribution System

Timeframe	Average Daily Takings (m³/day)	Maximum Daily Takings (m³/day)	Total Volume Taken (m³)
December	26.6	35.1	823.6
2022	31.4	97.50	11,464.5

A review of flow information for the reporting period indicates that the Baxter distribution system operated within the allowable taking volume (100 m³/day) stipulated in the contract between the Township of Essa and the Township of New Tecumseth. During the reporting period the average and maximum daily taking values from the transmission pipeline ranged between 31.6% and 97.5%, of the allowable daily flow.

2.2 Distribution Water

Table 4. Distribution Water Annual and Monthly Average and Total Flow for 2022

2022 Flow from the Baxter Pumphouse to the Distribution System		
Timeframe	Average Daily Flow (m³/day)	Total Flow (m³/day)
January	23.7	735.0
February	23.2	649.0
March	23.8	737.0
April	26.3	790.0
May	40.6	1,258.0
June	35.3	1,060.0
July	35.0	1,085.0
August	34.6	1,072.0
September	28.2	845.0
October	24.2	750.0
November	23.5	705.0
December	23.2	720.0
2022	28.5	10,406.00

The applicable MDWL and contract do not list a maximum allowable limit for flow or flowrate of water that flows into the distribution system.

SUMMARY REPORT

ONTARIO REGULATION 170/03
SECTION 22

THORNTON DRINKING WATER SYSTEM



FOR THE PERIOD: JANUARY 1, 2022 – DECEMBER 31, 2022

Prepared for the Corporation of the Township of Essa by the Ontario Clean Water Agency





Schedule 22 Summary Report: January 1, 2022 to December 31, 2022 Township of Essa: Thornton (Glen Avenue) Drinking Water System

This report was prepared in accordance with the requirements of <u>O.Reg 170/03, Schedule 22, Summary Reports for Municipalities</u> for the following system and reporting period:

Drinking-Water System Number: Drinking-Water System Name: Drinking-Water System Owner: Drinking-Water System Category: Period being reported:

220006945
Thornton (Glen Avenue) Drinking Water System
The Corporation of the Township of Essa
Large Municipal Residential
January 1, 2022 - December 31, 2022

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on June 16, 2022 for the period covering July 1, 2021 to June 16, 2022. On September 28, 2022 the Inspection Report was issued and an Inspection Summary Rating Record (IRR) of 100% was received.

The following is a summary of non-compliances noted in the MECP Inspection Report, as well as the duration and the measures that were taken to correct the non-compliance. If any self-reported non-compliances were included in the inspection report, they will be noted in Table 1.

Table 1. Non-Compliances and Corrective Actions noted in the 2021/2022 MECP Inspection Report

No	n-Compliance(s)	Duration	Required Actions & Corrective Actions
	N/A	N/A	N/A

The following table (Table 2) is a summary of any incidents that the Operating Authority interpreted as a instances where any requirements of the Act, the regulations, the system's approval, drinking water works permit (DWWP), municipal drinking water licence (MDWL), and any orders applicable were not met. The Operating Authority reported the following incidents to the MECP and confirmation of whether the incidents are considered non-compliances are noted in the MECP Inspection Report and included in Table 1.

Table 2. Self-Reported Incidents and Corrective Actions for the Reporting Period

Incident	Duration	Corrective Actions
N/A	N/A	N/A

For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Thornton (Glen Avenue) Drinking Water System Annual Report (Section 11).

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022 Township of Essa: Thornton (Glen Avenue) Drinking Water System

2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 13) summarize the quantities and flowrates of water supplied during the reporting period, including monthly averages and maximum daily flows as well as a comparison to the rated capacity and flowrates approved in the system's approval, DWWP or MDWL.

As required by the MDWL, regulatory flow measuring devices are checked/verified and where necessary calibrated. These checks/verifications/calibrations are performed annually by a third party to ensure the flow measuring devices are within acceptable deviation limits.

2.1 Treated Water

Municipal Drinking Water License (MDWL):	118-101 (Issue Number: 4)	
Allowable Rated Capacity:	1,540 m ³ /day	
Allowable Flowrate into Treatment System:	17.82 L/s	

As per the MDWL, the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed the listed rated capacity. However, the MDWL allows a system to be operated temporarily at a maximum daily volume and/or a maximum flowrate above the values set out in the MDWL for the purposes of fighting a large fire or for the maintenance of the drinking water system.

Table 3. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2022

	Treated Water Flow ^{3A}					
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)	
January	316.27	20.54%	368.78	23.95%	9,804.26	
February	344.79	22.39%	418.29	27.16%	9,654.22	
March	359.70	23.36%	435.80	28.30%	11,150.55	
April	338.89	22.01%	933.24	60.60%	10,166.68	
May	494.02	32.08%	832.45	54.06%	15,314.48	
June	629.04	40.85%	944.57	61.34%	18,871.20	
July	757.30	49.18%	1,114.38	72.36%	23,476.37	
August	637.76	41.41%	1,172.41	76.13%	19,770.47	
September	489.97	31.82%	676.16	43.91%	14,699.01	
October	418.55	27.18%	1,235.79	80.25%	12,975.05	
November	353.22	22.94%	688.60	44.71%	10,596.49	
December	336.82	21.87%	409.60	26.60%	10,441.46	
2022	457.32	29.70%	1,235.79	80.25%	166,920.24	

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022 Township of Essa: Thornton (Glen Avenue) Drinking Water System

A review of flow information for the reporting period indicates that the Thornton drinking water system operated within the rated capacity specified in the MDWL, for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

Table 4. Treated Water Annual and Monthly Maximum Flowrates for 2022

Treated Water Maximum Flowrate			
Timeframe	Maximum Flowrate (L/sec)		
January	10.9		
February	15.3		
March	10.8		
April	14.0		
May	21.0		
June	130.0		
July	29.4		
August	18.1		
September	20.1		
October	59.6		
November	78.6		
December	18.8		
2022	130.0		

A summary of flowrates of water that flows out of the Thornton treatment subsystem to the distribution system can be found in the above table. A summary of flowrates of water that flows into the Thornton treatment subsystem can be found in Tables 6, 8, 10 and 12.

2.2 Raw Water

Permit to Take Water Number (PTTW):	0113-A4LMPV
Allowable Maximum Raw Water Volume - Well #1:	522.72 m ³ /day
Allowable Maximum Raw Water Flowrate - Well #1:	363 L/min (6.05 L/sec)
Allowable Maximum Volume of Raw Water - Well #2:	522.72 m³/day
Allowable Maximum Raw Water Flowrate – Well #2:	363 L/Min (6.05 L/sec)
Allowable Maximum Volume of Raw Water - Well #3:	492.48 m³/day
Allowable Maximum Raw Water Flowrate – Well #3:	342 L/min (5.70 L/sec)
Allowable Maximum Volume of Raw Water - Well #4:	328.32 m³/day
Allowable Maximum Raw Water Flowrate – Well #4:	228 L/min (3.80 L/sec)
Allowable Maximum Combined Raw Water Volume from Well #1, Well #2, Well #3 and Well #4	1,540.00 m³/day

As per the PTTW, water shall only be taken from the specified source(s) and at the rates and amounts taken as specified in the permit. Notwithstanding the totals identified above for each well, the maximum combined taking per day from Well #1, #2, #3 and #4 is limited to 1,540,000

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022 Township of Essa: Thornton (Glen Avenue) Drinking Water System

litres (1,540.0 m³/day). The PTTW also stipulates that wells #3 and #4 shall not be operated simultaneously. The system is design so that well #3 and well #4 cannot physical run at the same time, an internal lockout mechanism has been installed to lock out one well when the other well is running.

Table 5. Raw Water (Well #1) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Well #1					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	80.63	15.43%	201.97	38.64%	2,499.60
February	121.55	23.25%	279.49	53.47%	3,403.34
March	110.65	21.17%	235.84	45.12%	3,430.04
April	110.46	21.13%	262.78	50.27%	3,313.67
May	143.31	27.42%	392.46	75.08%	4,442.66
June	177.25	33.91%	492.55	94.23%	5,317.43
July	236.41	45.23%	509.75	97.52%	7,328.85
August	205.79	39.37%	453.44	86.75%	6,379.45
September	153.92	29.45%	360.55	68.98%	4,617.75
October	126.65	24.23%	339.52	64.95%	3,926.01
November	99.38	19.01%	317.48	60.74%	2,981.35
December	93.51	17.89%	229.71	43.95%	2,898.74
2022	138.46	26.49%	509.75	97.52%	50,538.89

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #1.

Table6. Raw Water (Well #1) Annual and Monthly Average and Maximum Flowrates for 2022

	Raw Water Flowrate – Well #1				
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)			
January	5.78	6.5			
February	3.88	6.6			
March	3.17	6.5			
April	3.84	6.5			
May	3.17	6.2			
June	3.65	6.4			
July	5.43	6.4			
August	3.91	6.5			
September	3.28	6.3			

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Raw Water Flowrate – Well #1				
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)		
October	3.15	6.4		
November	3.19	6.4		
December	2.98	6.4		
2022	3.72	6.6		

A review of flow information for the reporting period indicates that the system operated outside the PTTW's maximum allowable raw water flowrate for Well #1 during all reporting months. Instances of flowrate exceedances were of very short duration and are explained by frequent well pump start-ups and instantaneous flow rate measurements. Maximum flowrates exceedances for all months were only 0.3-0.5 L/sec higher than the allowable flowrates (6.05 L/sec). The average monthly flowrate for each reporting month was below the allowable maximum rate.

Table 7. Raw Water (Well #2) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Well #2					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	118.36	22.64%	245.03	46.88%	3,669.29
February	110.49	21.14%	341.29	65.29%	3,093.60
March	110.71	21.18%	285.84	54.68%	3,431.92
April	100.38	19.20%	342.77	65.57%	3,011.39
May	163.38	31.26%	426.07	81.51%	5,064.87
June	220.71	42.22%	476.35	91.13%	6,621.17
July	268.45	51.36%	501.12	95.87%	8,322.06
August	193.50	37.02%	501.12	95.87%	5,998.56
September	145.35	27.81%	460.75	88.14%	4,360.46
October	135.18	25.86%	371.30	71.03%	4,190.59
November	119.10	22.78%	263.75	50.46%	3,573.08
December	109.09	20.87%	253.81	48.56%	3,381.92
2022	149.91	28.68%	501.12	95.87%	54,718.91

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #2.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022 Township of Essa: Thornton (Glen Avenue) Drinking Water System

Table 8. Raw Water (Well #2) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Well #2					
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)			
January	5.64	6.9			
February	2.82	6.9			
March	2.56	6.9			
April	2.46	6.8			
May	3.85	6.8			
June	4.37	6.8			
July	3.85	6.6			
August	3.28	6.5			
September	2.43	6.4			
October	2.87	6.3			
November	2.94	6.2			
December	2.66	6.4			
2022	3.23	6.9			

A review of flow information for the reporting period indicates that the system operated outside of the PTTW's the maximum allowable raw water flowrate for Well #2 during all reporting months. Instances of flowrate exceedances were of very short duration and are explained by frequent well pump start-ups and instantaneous flow rate measurements. Maximum flowrates exceedances for all months were only 0.20-0.85 L/sec higher than the allowable flowrates (6.05 L/sec). The average monthly flowrate for each reporting month was below the allowable maximum rate.

Table 9. Raw Water (Well #3) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Well #3					***
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	59.87	12.16%	153.24	31.12%	1,855.86
February	80.39	16.32%	170.30	34.58%	2,251.05
March	83.50	16.96%	177.16	35.97%	2,588.42
April	74.83	15.19%	156.57	31.79%	2,245.02
May	102.25	20.76%	293.37	59.57%	3,169.65
June	119.34	24.23%	365.96	74.31%	3,580.29
July	129.78	26.35%	376.60	76.47%	4,023.21
August	142.54	28.94%	331.13	67.24%	4,418.87
September	110.26	22.39%	263.92	53.59%	3,307.77

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022 Township of Essa: Thornton (Glen Avenue) Drinking Water System

Raw Water Flow – Well #3					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
October	86.16	17.50%	194.88	39.57%	2,670.92
November	67.81	13.77%	164.20	33.34%	2,034.39
December	68.85	13.98%	168.49	34.21%	2,134.50
2022	93.92	19.07%	376.60	76.47%	34,279.95

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #3.

Table 10. Raw Water (Well #3) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Well #3				
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)		
January	4.51	5.7		
February	2.24	6.2		
March	2.45	5.8		
April	2.54	5.8		
May	2.12	5.6		
June	2.06	5.8		
July	1.97	5.5		
August	2.25	5.9		
September	2.48	5.7		
October	4.33	5.6		
November	2.02	5.6		
December	2.25	5.5		
2022	2.44	6.2		

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well #3 with the exception of February, March, April, June and August, 2022. Instances of flowrate exceedances were of very short duration and are explained by frequent well pump start-ups and instantaneous flow rate measurements. Maximum flowrates exceedances for all listed months were only 0.10-0.50 L/sec higher than the allowable flowrates (6.05 L/sec). The average monthly flowrate for each reporting month was below the allowable maximum rate.

Drinking Water System Regulation: O. Reg 170/03 Schedule 22 Summary Report: January 1, 2022 to December 31, 2022 Township of Essa: Thornton (Glen Avenue) Drinking Water System

Table 11. Raw Water (Well #4) Monthly Average, Maximum Flow and Total Volume for 2022

	Raw Water Flow – Well #4				
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	60.49	18.42%	125.04	38.08%	1,875.14
February	55.98	17.05%	171.69	52.29%	1,567.43
March	56.39	17.18%	146.10	44.50%	1,748.00
April	51.80	15.78%	177.70	54.12%	1,554.00
May	82.39	25.09%	216.89	66.06%	2,554.20
June	106.54	32.45%	243.05	74.03%	3,196.20
July	116.11	35.36%	254.61	77.55%	3,599.27
August	89.94	27.39%	252.87	77.02%	2,788.06
September	74.32	22.64%	234.58	71.45%	2,229.56
October	65.19	19.86%	159.97	48.72%	2,021.00
November	61.81	18.83%	136.76	41.65%	1,854.42
December	56.88	17.32%	131.49	40.05%	1,763.32
2022	73.29	22.32%	254.61	77.55%	26,750.60

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #4.

Table 12. Raw Water (Well #4) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Well #4				
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)		
January	2.93	4.6		
February	1.36	4.3		
March	1.32	4.3		
April	1.29	4.5		
May	1.76	4.0		
June	1.58	4.9		
July	1.62	3.9		
August	1.33	4.4		
September	1.27	4.0		
October	2.85	4.4		
November	1.46	4.4		
December	1.42	4.3		
2022	1.59	4.9		

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A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well #4. Instances of exceeding the allowable PTTW maximum flow rate (L/sec) are explained by instantaneous flow rate measurements and well pump start-ups.

Table 13. Combined Well (Well #1, Well #2, Well #3 and Well #4) Annual and Monthly Flow and Annual Volume for 2022

Combined Well Flow (Well #1, Well #2, Well #3 and Well #4)					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	319.35	20.74%	370.07	24.03%	9,899.89
February	368.41	23.92%	792.47	51.46%	10,315.42
March	361.24	23.46%	431.94	28.05%	11,198.38
April	337.47	21.91%	783.25	50.86%	10,124.08
May	491.33	31.90%	812.78	52.78%	15,231.38
June	623.84	40.51%	940.52	61.07%	18,715.09
July	750.75	48.75%	1,064.64	69.13%	23,273.39
August	631.77	41.02%	944.01	61.30%	19,584.94
September	483.85	31.42%	695.33	45.15%	14,515.54
October	413.18	26.83%	953.16	61.89%	12,808.52
November	348.11	22.60%	713.04	46.30%	10,443.24
December	328.34	21.32%	398.20	25.86%	10,178.48
2022	455.58	29.58%	1,064.64	69.13%	166,288.35

A review of the flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily taking of water from the taking of water from all wells identified (1,540 m³/day).

ANNUAL REPORT

ONTARIO REGULATION 170/03
SECTION 11

ANGUS DRINKING WATER SYSTEM



FOR THE PERIOD: JANUARY 1, 2022 – DECEMBER 31, 2022

Prepared for the Corporation of the Township of Essa by the Ontario Clean Water Agency



Section 11 Annual Report: January 1, 2022 to December 31, 2022 The Corporation of the Township of Essa: Angus Drinking Water System

This report was prepared in accordance with the requirements of <u>O.Reg 170/03, Section 11</u>, <u>Annual reports</u> for the following system and reporting period:

Drinking Water System Number:	260001026
Drinking Water System Name:	Angus Drinking Water System
Drinking Water System Owner:	The Corporation of the Township of Essa
Drinking Water System Category:	Large Municipal Residential
Reporting Period:	January 1, 2022 to December 31, 2022

Does your Drinking Water System serve more than 10,000 people?

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Is your Annual Report available to the public at no charge on a website on the Internet?

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Note: If a large municipal residential system serves more than 10,000 people, the owner of the system shall ensure that a copy of every report prepared under this section is available to the public at no charge on a website on the Internet. O. Reg. 170/03, Section 11. (10)

Location where Summary Report required under O. Reg 170/03, Schedule 22 will be available for inspection. (O. Reg 170/03, Section 11.(6)(5)):

- Hard copy available for public viewing at the Township of Essa Municipal Office, 5786
 Simcoe County Road 21, Utopia, Essa Township, ON, LOM 1T0
- http://www.essatownship.on.ca

Note: this is required for large municipal residential systems or small municipal residential systems.

List all Drinking Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	N/A

Did you provide a copy of your annual report to all Drinking Water System owners that are connected to you and to whom you provide all of its drinking water?

/-		
NI/A		
IN/A		
,		



How system users are notified that the annual report is available, and is free of charge:

Χ	Public access/notice via the web				
Χ	Public access/notice via Government Office				
	Public access/notice via a newspaper				
Χ	Public access/notice via Public Request				
	Public access/notice via a Public Library				
	Public access/notice via other method:				

Description of Drinking Water System (O.Reg 170/03, Section 11.(6)(a)):

The Angus Drinking Water System is classified as a Large Municipal Drinking Water System, servicing an approximate population of 14,503 persons. The system is comprised of three pumphouses, including the Mill Street Pumphouse, McGeorge Pumphouse and Brownley Pumphouse which draw water from six production wells, along with receiving water from the Collingwood/Alliston pipeline within the Mill Street Pumphouse. The three facilities supply water through a common distribution system.

McGeorge (Centre Street) Pumphouse

The raw water for the McGeorge pumphouse is supplied by two drilled groundwater wells (Well 2 and Well 3). The water pumped from the wells is treated with sodium silicate (for iron sequestration) and sodium hypochlorite (for primary and secondary disinfection) and the treated water is stored in two underground reservoirs prior to entering the distribution system. Online equipment continuously monitors and records free chlorine residual and flowrates. The pumphouse is also equipped with standby power in the event of a power failure.

Mill Street Pumphouse

The Mill Street Pumphouse is located at 28 Mill Street in Angus. Raw Water is supplied from one drilled groundwater well (Well 1). As groundwater is pumped from the well, chemical feed pumps add sodium silicate (for iron sequestering) and sodium hypochlorite (for primary disinfection). Treated water is stored in two underground reservoirs. Flow is measured before entering the reservoir and as the treated water enters the distribution system. pumphouse is equipped with a stand-by diesel generator to provide stand-by power in the event of a power failure. Note: The Mill Street Water Treatment Plant receives the daily difference of 100 m³ minus Baxter Water System daily water taking from the New Tecumseth Pipeline as of 2015. The Raymond A. Barker Ultrafiltration Plant in Collingwood supplies safe drinking water through the Pipeline to the Baxter and Mill Street facilities. Collingwood water results found the Compliance sample are Annual Reports at: https://www.collingwood.ca/town-services/water-sewer-services

Brownley Pumphouse

The Brownley Pumphouse is located at 8610 5th Line. Raw Water is supplied from three groundwater wells (Well 4, Well 5 and Well 6). As groundwater is pumped from the wells, chemical feed pumps add sodium silicate (for iron sequestering) and sodium hypochlorite (for primary disinfection). Treated water is stored in one (1) underground reservoir. Flow is measured before entering the reservoir and as the treated water enters the distribution system. The pumphouse is equipped with a stand-by diesel generator to provide backup power in the event of a power failure.

List of water treatment chemicals used by the system during the reporting period $(O.Reg\ 170/03,\ Section\ 11.(6)(a))$:

- Sodium Hypochlorite 12% Solution
- Sodium Silicate

Significant expenses were incurred to:

Χ	Install required equipment
Х	Repair required equipment
Χ	Replace required equipment

Description of major expenses during the reporting period to install, repair or replace required equipment (O.Reg 170/03, Section 11.(6)(e)):

Generator Check Valve Replacement

No significant expenses were incurred

- Distribution System Flushing and Swabbing
- Hydrant Repairs, Painting and Replacement
- Distribution system water meter replacements
- QDOS chemical pump rebuild kits
- Below Grade Well Inspections, flow testing and refurbishments- Brownley and McGeorge Pumphouse
- Well casing and concrete repairs- McGeorge reservoir
- Installation and repairs: general pumphouse maintenance- heaters, doors, soffits etc.
- High lift pump rebuilds- Mill Street and Brownley pumphouse
- Install new chlorine analyzer probes and membrane caps- McGeorge, Brownley and Mill Street pumphouses

Summary of any reports/notices submitted to the Ministry and/or Spills Action Centre in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 during the reporting period, including a description of any corrective actions taken under Schedule 17 or 18 (O. Reg 170/03, Section 11.(6)(b),(d):

Incident Date (yyyy/mm/dd)	Parameter/ Notice of	Result & Unit	Summary of Reporting, Corrective Actions & Resolution
N/A	N/A	N/A	• N/A

Table 1. Microbiological testing done under the Schedule 11 of Regulation 170/03 during this reporting period ($O.Reg\ 170/03$, $Section\ 11.(6)(c)$).

Location	Number of	Range Coli or Resu	Fecal	Coliform Results of HPC Sai		Range (
	Samples	Min.	Max.	Min.	Max.	Samples	Min.	Max.
RW ^{1A} , Well 1	52	0	0	0	0	0	N/A	N/A
RW ^{1A} , Well 2	35 ^{1D}	0	0	0	0	0	N/A	N/A
RW ^{1A} , Well 3	25 ^{1E}	0	0	0	0	0	N/A	N/A
RW ^{1A} , Well 4	53	0	0	0	20	0	N/A	N/A
RW ^{1A} , Well 5	53	0	0	0	2	0	N/A	N/A
RW ^{1A} , Well 6	53	0	0	0	0	0	N/A	N/A
TW1 ^{1B}	23 ^{1F}	0	0	0	0	23	<10	10
TW2 ^{1B}	52	0	0	0	0	52	<10	10
TW3 ^{1B}	45 ^{1G}	0	0	0	0	45	<10	50
Distribution	266 ^{1C}	0	0	0	0	93 ^{1C}	<10	90

Note: HPC = Heterotrophic Plate Count

Note: Units for E.Coli or Fecal Results are cfu/100 mL, units for Total Coliform Results are cfu/100 mL, units for HPC results are cfu/1mL

^{1A}RW = Raw Water. RW Well 1= Raw Water Well #1 Mill Street; RW Well 2= Raw Water Well #2 McGeorge; RW Well 3= Raw Water Well #3 McGeorge; RW Well 4= Raw Water Well #4 Brownley; RW Well 5= Raw Water Well #5 Brownley; RW Well 6= Raw Water Well #6 Brownley;

^{1B}TW= Treated Water. TW1= Treated Water McGeorge Pumphouse; TW2= Treated Water Mill Street Pumphouse; TW3= Treated Water Brownley Pumphouse

^{1C}O.Reg 170/03 Schedule 10-2.(1)(2)(3) requires that a system that serves 100,000 people or less, at least eight distribution samples, plus one additional distribution sample for every 1,000 people served by the system, are taken every month, with at least one of the samples being taken in each week and that each of the samples taken is tested for E.Coli, Total Coliforms. At least 25 percent of the samples required must be tested for general bacteria population expressed as colony counts on heterotrophic plate count (HPC). As of 2022, the population of Angus is 14,503 persons, as confirmed by the owner on



February 11, 2022 based on the 2021 Statistics Canada Census Data and thus requires at the minimum 22 monthly distribution samples

^{1D}Well 2 at McGeorge has been offline since June 10th, 2022 due to maintenance and repair activities. No samples have been taken since the week of September 6th, 2022

^{1E}Well 3 at McGeorge has been offline since June 10th, 2022 due to maintenance and repair activities. No samples have been taken since the week of June 27th, 2022

¹FTW1 at McGeorge Pumphouse has been offline since June 10th, 2022 due to maintenance and repair activities. No samples have been taken since the week of June 13th, 2022

^{1G}TW3 at Brownley Pumphouse was offline from due to maintenance and repair activities. No samples were taken between the weeks of April 25th to June 6th, 2022.

Table 2. Operational testing done under Schedule 7 of Regulation 170/03 during the period covered by this Annual Report (O. Reg 170/03, Section 11.(6)(c)).

Parameter & Location	Number Range of Result		
	Samples	Min.	Max.
Turbidity, Raw Water Mill Street Well 1 (Grab) [NTU] 2A	12	0.16	0.60
Turbidity, Raw Water McGeorge Well 2 (Grab) [NTU] 2A	7 ^{2D}	0.14	0.62
Turbidity, Raw Water McGeorge Well 3 (Grab) [NTU] 2A	6 ^{2E}	0.16	0.69
Turbidity, Raw Water Brownley Well 4 (Grab) [NTU] 2A	11 ^{2F}	0.17	0.67
Turbidity, Raw Water Brownley Well 5 (Grab) [NTU] 2A	11 ^{2F}	0.17	0.65
Turbidity, Raw Water Brownley Well 6 (Grab) [NTU] 2A	11 ^{2F}	0.13	0.80
Free Chlorine Residual, (Continuous) McGeorge [mg/L]-TW ^{2B}	8760	0.58	2.07
Free Chlorine Residual, (Continuous) Mill Street [mg/L]-TW ^{2B}	8760	0.94	1.57
Free Chlorine Residual, (Continuous) Brownley [mg/L]-TW ^{2B}	8760	0.70	2.20
Free Chlorine Residual, Distribution (Continuous) [mg/L]-DW ^{2C}	8760	0.41	2.76

Note: The number of samples used for continuous monitoring units is 8760.

^{2E}Well 3 at McGeorge has been offline since June 10th, 2022. No RW turbidity samples were taken from July to December, 2022.



^{2A}O.Reg 170/03 Schedule 7-3.(1)(1.1) requires a raw water sample be taken at least once every month from each well that is supplying water to the system and tested for turbidity.

^{2B}O.Reg 170/03 Schedule 7-2.(1) requires a drinking water system that provides chlorination for primary disinfection to sample and test for free chlorine residual with continuous monitoring equipment in the treatment process at or near a location where the intended contact time has just been completed.

^{2C}O.Reg 170/03 Schedule 7-2.(3) requires a large municipal residential system that provides secondary disinfection to take at least seven distribution samples each week and immediately tested for free chlorine residual, if the system provides chlorination and does not provide chloramination

^{2D}Well 2 at McGeorge has been offline since June 10th, 2022. No RW turbidity samples were taken from August to December, 2022.

Table 3. Summary of additional testing and sampling results carried out in accordance with the requirement of an approval, municipal drinking water licence or order (including OWRA) or other legal instrument. (O. Reg 170/03, Section 11.(6)(c))

Legal Instrument & Issue Date (yyyy/mm/dd)	Parameter	Date Sampled (yyyy/mm/dd)	Result	Unit of Measure
N/A	N/A	N/A	N/A	N/A

Table 4. Summary of Inorganic parameters tested during this reporting period or the most recent sample results (O.Reg~170/03, Section~11.(6)(c))

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Antimony: Sb (μg/L) – TW1	2021/01/26	<mdl 0.9<="" td=""><td>6.0</td><td>No</td></mdl>	6.0	No
Antimony: Sb (μg/L) – TW2	2021/01/26	<mdl 0.9<="" td=""><td>6.0</td><td>No</td></mdl>	6.0	No
Antimony: Sb (μg/L) – TW3	2021/01/26	<mdl 0.9<="" td=""><td>6.0</td><td>No</td></mdl>	6.0	No
Arsenic: As (μg/L) - TW1	2021/01/26	0.4	10.0	No
Arsenic: As (μg/L) - TW2	2021/01/26	0.7	10.0	No
Arsenic: As (μg/L) - TW3	2021/01/26	0.3	10.0	No
Barium: Ba (μg/L) – TW1	2021/01/26	86.5	1000.0	No
Barium: Ba (μg/L) – TW2	2021/01/26	139.0	1000.0	No
Barium: Ba (μg/L) – TW3	2021/01/26	61.1	1000.0	No
Boron: B (μg/L) – TW1	2021/01/26	28.0	5000.0	No
Boron: B (μg/L) – TW2	2021/01/26	36.0	5000.0	No
Boron: B (μg/L) – TW3	2021/01/26	34.0	5000.0	No
Cadmium: Cd (µg/L) – TW1	2021/01/26	<mdl 0.003<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Cadmium: Cd (µg/L) – TW2	2021/01/26	<mdl 0.003<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Cadmium: Cd (µg/L) – TW3	2021/01/26	0.014	5.0	No
Chromium: Cr (μg/L) – TW1	2021/01/26	0.24	50.0	No
Chromium: Cr (µg/L) – TW2	2021/01/26	0.35	50.0	No
Chromium: Cr (μg/L) – TW3	2021/01/26	0.42	50.0	No
Mercury: Hg (μg/L) – TW1	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Mercury: Hg (μg/L) – TW2	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Mercury: Hg (μg/L) – TW3	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Selenium: Se (μg/L) – TW1	2021/01/26	<mdl 0.04<="" td=""><td>50.0</td><td>No</td></mdl>	50.0	No

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^{2F}Wells 4, 5, and 6 at Brownley were offline from April 19th to June 1st, 2022. No RW turbidity samples were taken in May, 2022.

Colonium Co (ug/L) TM2	2021/01/20	<mdl 0.04<="" th=""><th>50.0</th><th>No</th></mdl>	50.0	No
Selenium: Se (µg/L) – TW2	2021/01/26			
Selenium: Se (µg/L) – TW3	2021/01/26	0.09	50.0	No
Uranium: U (μg/L) – TW1	2021/01/26	0.024	20.0	No
Uranium: U (μg/L) – TW2	2021/01/26	0.072	20.0	No
Uranium: U (μg/L) – TW3	2021/01/26	1.61	20.0	No
Fluoride (mg/L) – TW1	2018/07/17 ⁴⁸	0.21	1.5	No
Fluoride (mg/L) – TW2	2018/07/17 ⁴⁸	0.17	1.5	No
Fluoride (mg/L) – TW3	2018/07/17 ^{4B}	0.19	1.5	No
Nitrite (mg/L) - TW1	2022/01/13	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) - TW1	2022/04/19	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) - TW2	2022/01/13	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) - TW2	2022/04/19	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) - TW2	2022/07/20	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) - TW2	2022/10/17	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) - TW3	2022/01/13	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) - TW3	2022/04/19	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) - TW3	2022/07/20	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) - TW3	2022/10/17	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrate (mg/L) - TW1	2022/01/13	0.027	10.0	No
Nitrate (mg/L) - TW1	2022/04/19	0.022	10.0	No
Nitrate (mg/L) - TW2	2022/01/13	0.016	10.0	No
Nitrate (mg/L) - TW2	2022/04/19	0.015	10.0	No
Nitrate (mg/L) - TW2	2022/07/20	0.011	10.0	No
Nitrate (mg/L) - TW2	2022/10/17	0.028	10.0	No
Nitrate (mg/L) - TW3	2022/01/13	1.55	10.0	No
Nitrate (mg/L) - TW3	2022/04/19	1.49	10.0	No
Nitrate (mg/L) - TW3	2022/07/20	1.48	10.0	No
Nitrate (mg/L) - TW3	2022/10/17	1.38	10.0	No

	Sample Date	Sample	Aesthetic	Exceedance		
Parameter & Location	(yyyy/mm/dd)	Sample Result	Objective (AO)	АО	> 20 mg/L	
Sodium: Na (mg/L) – TW1	2018/07/17 ^{4C}	13.9	200	No	No	
Sodium: Na (mg/L) – TW2	2018/07/17 ^{4C}	17.5	200	No	No	
Sodium: Na (mg/L) – TW3	2018/07/17 ^{4C}	15.6	200	No	No	

Note: MDL = Minimum Detection Limit, TW = Treated Water

Note: TW1= McGeorge Treatment Pumphouse; TW2= Mill Street Treatment Pumphouse; TW3= Brownley Treatment Pumphouse

^{4A}Inorganic Parameters (Schedule 23) are required to be tested every 36 months for a large municipal residential system, if the system obtains water from a raw water source that is ground water (O. Reg



170/03 Schedule 13-2(b). The last set of samples was collected and tested in 2021, the next set of samples is scheduled to be collected and tested in 2024.

^{4B}Fluoride is reportable every 60 months. The most recent Fluoride samples were tested in 2018, the next set of samples is scheduled to be tested in 2023.

Note: There is no regulatory Maximum Allowable Concentration (MAC) Sodium. The aesthetic objective (AO) for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

^{4C}Sodium is reportable every 60 months. The most recent Sodium samples were tested in 2018, the next set of samples is scheduled to be tested in 2023.

Table 5: Summary of lead testing under Schedule 15.1 during this reporting period ($O.Reg\ 170/03$, Section 11.(6)(g))

	Noveborof	Range	e of Results	Number of
Location/Type & Parameter	Number of Samples ^{5A}	Min.	Max.	- Lead Exceedances (MAC = 10 μ/L)
Peri	od: January 1 to	April 15		
Plumbing – Lead (μg/L) ^{5B}	N/A	N/A	N/A	0
Distribution – Lead (μg/L) ^{5C}	N/A	N/A	N/A	0
Distribution – Alkalinity (mg/L as CaCO₃)	8	168	170	N/A
Distribution – pH	4	7.42	7.49	N/A
Perio	od: June 15 to Oc	tober 15		
Plumbing – Lead (μg/L) ^{5B}	N/A	N/A	N/A	0
Distribution – Lead (μg/L) ^{5C}	N/A	N/A	N/A	0
Distribution – Alkalinity (mg/L as CaCO₃)	4	134	139	N/A
Distribution – pH	4	7.49	7.83	N/A
Per	iod: December 1	L5 to 31		
Plumbing – Lead (μg/L) ^{5B}	N/A	N/A	N/A	0
Distribution – Lead (μg/L) ^{5C}	N/A	N/A	N/A	0
Distribution – Alkalinity (mg/L as CaCO ₃)	N/A	N/A	N/A	N/A
Distribution - pH	N/A	N/A	N/A	N/A

Note: this is required for large municipal residential systems, small municipal residential systems or non-municipal year-round residential system. (O.Reg 170/03, Section 11.(6)(g))



^{5A}The number of sampling points for the system is based on the population served by the system. The number of people served by the system is 14,503 persons (as confirmed with the Owner on February 11, 2022 based on the 2021 Statistics Canada Census data) and therefore requires four (4) distribution sampling points per sampling period.

Table 6: Summary of Organic parameters sampled during this reporting period or the most recent sample results (O.Reg~170/03, Section~11.(6)(c)).

Parameter & Location	Sample Date ^{6A} (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Alachlor (μg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Alachlor (μg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Alachlor (μg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Azinphos-methyl (μg/L) - TW1	2021/01/26	<mdl 0.05<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Azinphos-methyl (μg/L) - TW2	2021/01/26	<mdl 0.05<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Azinphos-methyl (μg/L) - TW3	2021/01/26	<mdl 0.05<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Benzene (μg/L) - TW1	2021/01/26	<mdl 0.32<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Benzene (μg/L) - TW2	2021/01/26	<mdl 0.32<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Benzene (μg/L) - TW3	2021/01/26	<mdl 0.32<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Benzo(a)pyrene (μg/L) - TW1	2021/01/26	<mdl 0.004<="" td=""><td>0.01</td><td>No</td></mdl>	0.01	No
Benzo(a)pyrene (μg/L) - TW2	2021/01/26	<mdl 0.004<="" td=""><td>0.01</td><td>No</td></mdl>	0.01	No
Benzo(a)pyrene (μg/L) - TW3	2021/01/26	<mdl 0.004<="" td=""><td>0.01</td><td>No</td></mdl>	0.01	No
Bromoxynil (µg/L) - TW1	2021/01/26	<mdl 0.33<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Bromoxynil (µg/L) - TW2	2021/01/26	<mdl 0.33<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Bromoxynil (µg/L) - TW3	2021/01/26	<mdl 0.33<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Carbaryl (µg/L) - TW1	2021/01/26	<mdl 0.05<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Carbaryl (μg/L) - TW2	2021/01/26	<mdl 0.05<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Carbaryl (μg/L) - TW3	2021/01/26	<mdl 0.05<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Carbofuran (µg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No





^{5B}Plumbing samples are not applicable as this system qualifies for the plumbing exemption per O. Reg 170/03 Schedule 15.1-5 (9) (10).

^{5C}This system follows a reduced sampling schedule (O.Reg 170/03, Section 15.1.5). Distribution lead samples are collected every 36 months. The most recent set of distribution lead samples were collected within the winter period of December 15, 2020 to April 15, 2021 and summer period of June 15, 2021 to October 15, 2021. The next set of distribution lead samples is scheduled to be collected within the winter period of December 15, 2023 to April 15, 2024 and summer period of June 15, 2024 to October 15, 2024.

Parameter & Location	Sample Date ^{6A} (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Carbofuran (μg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Carbofuran (µg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Carbon Tetrachloride (μg/L) - TW1	2021/01/26	<mdl 0.17<="" td=""><td>2.0</td><td>No</td></mdl>	2.0	No
Carbon Tetrachloride (μ g/L) - TW2	2021/01/26	<mdl 0.17<="" td=""><td>2.0</td><td>No</td></mdl>	2.0	No
Carbon Tetrachloride (μ g/L) - TW3	2021/01/26	<mdl 0.17<="" td=""><td>2.0</td><td>No</td></mdl>	2.0	No
Chlorpyrifos (µg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Chlorpyrifos (µg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Chlorpyrifos (µg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Diazinon (μg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Diazinon (μg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Diazinon (μg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Dicamba (μg/L) - TW1	2021/01/26	<mdl 0.2<="" td=""><td>120.0</td><td>No</td></mdl>	120.0	No
Dicamba (μg/L) - TW2	2021/01/26	<mdl 0.2<="" td=""><td>120.0</td><td>No</td></mdl>	120.0	No
Dicamba (μg/L) - TW3	2021/01/26	<mdl 0.2<="" td=""><td>120.0</td><td>No</td></mdl>	120.0	No
1,2-Dichlorobenzene (μg/L) - TW1	2021/01/26	<mdl 0.41<="" td=""><td>200.0</td><td>No</td></mdl>	200.0	No
1,2-Dichlorobenzene (μg/L) - TW2	2021/01/26	<mdl 0.41<="" td=""><td>200.0</td><td>No</td></mdl>	200.0	No
1,2-Dichlorobenzene (μg/L) - TW3	2021/01/26	<mdl 0.41<="" td=""><td>200.0</td><td>No</td></mdl>	200.0	No
1,4-Dichlorobenzene (μg/L) - TW1	2021/01/26	<mdl 0.36<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
1,4-Dichlorobenzene (μ g/L) - TW2	2021/01/26	<mdl 0.36<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
1,4-Dichlorobenzene (μg/L) - TW3	2021/01/26	<mdl 0.36<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
1,2-Dichloroethane (μg/L)- TW1	2021/01/26	<mdl 0.35<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
1,2-Dichloroethane (μg/L)- TW2	2021/01/26	<mdl 0.35<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
1,2-Dichloroethane (μg/L)- TW3	2021/01/26	<mdl 0.35<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
1,1-Dichloroethylene (μg/L) - TW1	2021/01/26	<mdl 0.33<="" td=""><td>14.0</td><td>No</td></mdl>	14.0	No



Parameter & Location	Sample Date ^{6A} (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
1,1-Dichloroethylene (μg/L) - TW2	2021/01/26	<mdl 0.33<="" td=""><td>14.0</td><td>No</td></mdl>	14.0	No
1,1-Dichloroethylene (μg/L) - TW3	2021/01/26	<mdl 0.33<="" td=""><td>14.0</td><td>No</td></mdl>	14.0	No
Dichloromethane (Methylene Chloride) (μg/L) - TW1	2021/01/26	<mdl 0.35<="" td=""><td>50.0</td><td>No</td></mdl>	50.0	No
Dichloromethane (Methylene Chloride) (μg/L) - TW2	2021/01/26	<mdl 0.35<="" td=""><td>50.0</td><td>No</td></mdl>	50.0	No
Dichloromethane (Methylene Chloride) (μg/L) - TW3	2021/01/26	<mdl 0.35<="" td=""><td>50.0</td><td>No</td></mdl>	50.0	No
2,4-Dichlorophenol (μg/L) - TW1	2021/01/26	<mdl 0.15<="" td=""><td>900.0</td><td>No</td></mdl>	900.0	No
2,4-Dichlorophenol (μg/L) - TW2	2021/01/26	<mdl 0.15<="" td=""><td>900.0</td><td>No</td></mdl>	900.0	No
2,4-Dichlorophenol (μg/L) - TW3	2021/01/26	<mdl 0.15<="" td=""><td>900.0</td><td>No</td></mdl>	900.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (μg/L) - TW1	2021/01/26	<mdl 0.19<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (μg/L) - TW2	2021/01/26	<mdl 0.19<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (μg/L) - TW3	2021/01/26	<mdl 0.19<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
Diclofop-methyl (μg/L) - TW1	2021/01/26	<mdl 0.4<="" td=""><td>9.0</td><td>No</td></mdl>	9.0	No
Diclofop-methyl (μg/L) - TW2	2021/01/26	<mdl 0.4<="" td=""><td>9.0</td><td>No</td></mdl>	9.0	No
Diclofop-methyl (μg/L) - TW3	2021/01/26	<mdl 0.4<="" td=""><td>9.0</td><td>No</td></mdl>	9.0	No
Dimethoate (μg/L) - TW1	2021/01/26	<mdl 0.06<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Dimethoate (µg/L) - TW2	2021/01/26	<mdl 0.06<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Dimethoate (µg/L) - TW3	2021/01/26	<mdl 0.06<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Diquat (µg/L) - TW1	2021/01/26	<mdl 1.0<="" td=""><td>70.0</td><td>No</td></mdl>	70.0	No
Diquat (µg/L) - TW2	2021/01/26	<mdl 1.0<="" td=""><td>70.0</td><td>No</td></mdl>	70.0	No
Diquat (µg/L) - TW3	2021/01/26	<mdl 1.0<br=""><mdl 0.03<="" td=""><td>70.0 150.0</td><td>No</td></mdl></mdl>	70.0 150.0	No
Diuron (μg/L) - TW1 Diuron (μg/L) - TW2	2021/01/26 2021/01/26	<mdl 0.03<="" td=""><td>150.0</td><td>No No</td></mdl>	150.0	No No





Parameter & Location	Sample Date ^{6A} (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Diuron (μg/L) - TW3	2021/01/26	<mdl 0.03<="" td=""><td>150.0</td><td>No</td></mdl>	150.0	No
Glyphosate (μg/L) - TW1	2021/01/26	<mdl 1.0<="" td=""><td>280.0</td><td>No</td></mdl>	280.0	No
Glyphosate (μg/L) - TW2	2021/01/26	<mdl 1.0<="" td=""><td>280.0</td><td>No</td></mdl>	280.0	No
Glyphosate (μg/L) - TW3	2021/01/26	<mdl 1.0<="" td=""><td>280.0</td><td>No</td></mdl>	280.0	No
Malathion (μg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>190.0</td><td>No</td></mdl>	190.0	No
Malathion (μg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>190.0</td><td>No</td></mdl>	190.0	No
Malathion (μg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>190.0</td><td>No</td></mdl>	190.0	No
Metolachlor (μg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>50.0</td><td>No</td></mdl>	50.0	No
Metolachlor (μg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>50.0</td><td>No</td></mdl>	50.0	No
Metolachlor (μg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>50.0</td><td>No</td></mdl>	50.0	No
Metribuzin (μg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>80.0</td><td>No</td></mdl>	80.0	No
Metribuzin (μg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>80.0</td><td>No</td></mdl>	80.0	No
Metribuzin (μg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>80.0</td><td>No</td></mdl>	80.0	No
Monochlorobenzene (Chlorobenzene) (μg/L) - TW1	2021/01/26	<mdl 0.3<="" td=""><td>80.0</td><td>No</td></mdl>	80.0	No
Monochlorobenzene (Chlorobenzene) (μg/L) - TW2	2021/01/26	<mdl 0.3<="" td=""><td>80.0</td><td>No</td></mdl>	80.0	No
Monochlorobenzene (Chlorobenzene) (μg/L) - TW3	2021/01/26	<mdl 0.3<="" td=""><td>80.0</td><td>No</td></mdl>	80.0	No
Paraquat (μg/L) - TW1	2021/01/26	<mdl 1.0<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
Paraquat (μg/L) - TW2	2021/01/26	<mdl 1.0<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
Paraquat (μg/L) - TW3	2021/01/26	<mdl 1.0<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
PCB (μg/L) - TW1	2021/01/26	<mdl 0.04<="" td=""><td>3.0</td><td>No</td></mdl>	3.0	No
PCB (μg/L) - TW2	2021/01/26	<mdl 0.04<="" td=""><td>3.0</td><td>No</td></mdl>	3.0	No
PCB (μg/L) - TW3	2021/01/26	<mdl 0.04<="" td=""><td>3.0</td><td>No</td></mdl>	3.0	No
Pentachlorophenol (μg/L) - TW1	2021/01/26	<mdl 0.15<="" td=""><td>60.0</td><td>No</td></mdl>	60.0	No
Pentachlorophenol (μg/L) - TW2	2021/01/26	<mdl 0.15<="" td=""><td>60.0</td><td>No</td></mdl>	60.0	No
Pentachlorophenol (μg/L) - TW3	2021/01/26	<mdl 0.15<="" td=""><td>60.0</td><td>No</td></mdl>	60.0	No
Phorate (μg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>2.0</td><td>No</td></mdl>	2.0	No
Phorate (μg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>2.0</td><td>No</td></mdl>	2.0	No
Phorate (μg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>2.0</td><td>No</td></mdl>	2.0	No

Parameter & Location	Sample Date ^{6A} (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Picloram (μg/L) - TW1	2021/01/26	<mdl 1.0<="" td=""><td>190.0</td><td>No</td></mdl>	190.0	No
Picloram (μg/L) - TW2	2021/01/26	<mdl 1.0<="" td=""><td>190.0</td><td>No</td></mdl>	190.0	No
Picloram (μg/L) - TW3	2021/01/26	<mdl 1.0<="" td=""><td>190.0</td><td>No</td></mdl>	190.0	No
Prometryne (µg/L) - TW1	2021/01/26	<mdl 0.03<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Prometryne (μg/L) - TW2	2021/01/26	<mdl 0.03<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Prometryne (μg/L) - TW3	2021/01/26	<mdl 0.03<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Simazine (μg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
Simazine (μg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
Simazine (μg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
Terbufos (μg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Terbufos (μg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Terbufos (μg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Tetrachloroethylene (μg/L) - TW1	2021/01/26	<mdl 0.35<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
Tetrachloroethylene (μg/L) - TW2	2021/01/26	<mdl 0.35<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
Tetrachloroethylene (μg/L) - TW3	2021/01/26	<mdl 0.35<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
2,3,4,6-Tetrachlorophenol $(\mu g/L)$ - TW1	2021/01/26	<mdl 0.2<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW2	2021/01/26	<mdl 0.2<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW3	2021/01/26	<mdl 0.2<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
Triallate (µg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>230.0</td><td>No</td></mdl>	230.0	No
Triallate (µg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>230.0</td><td>No</td></mdl>	230.0	No
Triallate (μg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>230.0</td><td>No</td></mdl>	230.0	No
Trichloroethylene (μg/L) - TW1	2021/01/26	<mdl 0.44<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Trichloroethylene (µg/L) - TW2	2021/01/26	<mdl 0.44<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Trichloroethylene (μg/L) - TW3	2021/01/26	<mdl 0.44<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
2,4,6-Trichlorophenol (μg/L) - TW1	2021/01/26	<mdl 0.25<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
2,4,6-Trichlorophenol (μg/L) - TW2	2021/01/26	<mdl 0.25<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No



Parameter & Location	Sample Date ^{6A} (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
2,4,6-Trichlorophenol (μg/L) - TW3	2021/01/26	<mdl 0.25<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
2-methyl-4- chlorophenoxyacetic acid (MCPA) (µg/L) - TW1	2021/01/26	<mdl 0.12<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
2-methyl-4- chlorophenoxyacetic acid (MCPA) (µg/L) - TW2	2021/01/26	<mdl 0.12<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
2-methyl-4- chlorophenoxyacetic acid (MCPA) (µg/L) - TW3	2021/01/26	<mdl 0.12<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
Trifluralin (µg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>45.0</td><td>No</td></mdl>	45.0	No
Trifluralin (μg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>45.0</td><td>No</td></mdl>	45.0	No
Trifluralin (µg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>45.0</td><td>No</td></mdl>	45.0	No
Vinyl Chloride (μg/L) - TW1	2021/01/26	<mdl 0.17<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Vinyl Chloride (μg/L) - TW2	2021/01/26	<mdl 0.17<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Vinyl Chloride (μg/L) - TW3	2021/01/26	<mdl 0.17<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Trihalomethane: Total (µg/L) Annual Average - DW	4 Quarters of 2022	28.0	100.00	No
HAA Total (μg/L) Annual Average - DW	4 Quarters of 2022	<mdl 5.3<="" td=""><td>80.00</td><td>No</td></mdl>	80.00	No

Note: TW = Treated Water, DW = Distribution Water, MDL = Minimum Detection Limit, MAC = Maximum Allowable Concentration, HAA = Haloacetic Acids

Note: TW1= McGeorge Treatment Pumphouse; TW2= Mill Street Treatment Pumphouse; TW3= Brownley Treatment Pumphouse

^{6A}Organic Parameters (Schedule 24) are required to be tested every 36 months for a large municipal residential system, if the system obtains water from a raw water supply that is ground water (O. Reg 170/03 Schedule 13-4.(1b)). The last set of samples was collected and tested in 2021, the next set of samples is scheduled to be collected and tested in 2024.

Table 7: List of Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards for the reporting period.

Parameter	Result Value	Unit of Measure	Date of Sample	
N/A	N/A	N/A	N/A	

ANNUAL REPORT

ONTARIO REGULATION 170/03
SECTION 11

BAXTER DISTRIBUTION SYSTEM



FOR THE PERIOD: JANUARY 1, 2022 – DECEMBER 31, 202

Prepared for the Corporation of the Township of Essa by the Ontario Clean Water Agency





Drinking Water System Regulation: O. Reg 170/03 Section 11 Annual Report: January 1, 2022 to December 31, 2022 The Corporation of the Township of Essa: Baxter Distribution System

This report was prepared in accordance with the requirements of <u>O.Reg 170/03, Section 11</u>, <u>Annual reports</u> for the following system and reporting period:

Drinking Water System Number:	260086866
Drinking Water System Name:	Baxter Drinking Distribution System
Drinking Water System Owner:	The Corporation of the Township of Essa
Drinking Water System Category:	Small Municipal Residential
Reporting Period:	January 1, 2022 to December 31, 2022

Does your Drinking Water System serve more than 10,000 people?

l No	
1 110	

Is your Annual Report available to the public at no charge on a website on the Internet?

Yes	

Note: If a large municipal residential system serves more than 10,000 people, the owner of the system shall ensure that a copy of every report prepared under this section is available to the public at no charge on a website on the Internet. O. Reg. 170/03, Section 11. (10)

Location where Summary Report required under O. Reg 170/03, Schedule 22 will be available for inspection. (O. Reg 170/03, Section 11.(6)(5)):

- Hard copy available for public viewing at the Township of Essa Municipal Office at 5786
 Simcoe County Road 21, Utopia, Essa Township, ON, LOM1T0
- http://www.essatownship.on.ca

Note: this is required for large municipal residential systems or small municipal residential systems.

List all Drinking Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	N/A

Did you provide a copy of your annual report to all Drinking Water System owners that are connected to you and to whom you provide all of its drinking water?

4 -		
NI/A		
Ν/Δ		
IN/ A		
,		

How system users are notified that the annual report is available, and is free of charge:



Drinking Water System Regulation: O. Reg 170/03 Section 11 Annual Report: January 1, 2022 to December 31, 2022 The Corporation of the Township of Essa: Baxter Distribution System
X Public access/notice via Government Office Public access/notice via a newspaper X Public access/notice via Public Request Public access/notice via a Public Library Public access/notice via other method:
Description of Drinking Water System (O.Reg 170/03, Section 11.(6)(a)):
The Baxter Distribution System is classified as a stand-alone Small Municipal Residential Drinking Water System servicing an approximately population of 340 persons in the Hamlet of Baxter, Township of Essa.
On November 21, 2017 the drinking water system became a stand-alone distribution system, receiving treated water from the Raymond A. Barker Ultrafiltration Plant owned by the Town of Collingwood via a water transmission main (pipeline) that stretches from the Town of Collingwood to Alliston, in the Township of New Tecumseth. The Township of Essa has an agreement with the Town of New Tecumseth to receive 100 m³/day from the pipeline.
The water from the pipeline is initially sent to fill the Baxter storage tank, and the balance of the 100m³ is sent to the Angus (Mill Street) reservoir. Modifications to the chlorination system enable re-chlorination of the treated water in the pipeline prior to filling the storage tank. Treated water from Collingwood is monitored by an online free chlorine analyzer as it enters the pumphouse. An above-ground water storage tank is on site, to provide water storage.
A "dry hydrant" is provided for fire truck filling or for filling the storage tank (hauled water) if the pipeline was down for maintenance and is unavailable. The Baxter Distribution System is equipped with a stand-by diesel generator to provide stand-by backup power in the event of a power failure.
List of water treatment chemicals used by the system during the reporting period (O.Reg 170/03, Section 11.(6)(a)):
Sodium Hypochlorite 12% Solution
Significant expenses were incurred to:
Install required equipment
Repair required equipment
Replace required equipment
X No significant expenses were incurred
Description of major expenses during the reporting period to install, repair or replace required equipment (O.Reg 170/03, Section 11.(6)(e)):
Not Applicable

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Summary of any reports/notices submitted to the Ministry and/or Spills Action Centre in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 during the reporting period, including a description of any corrective actions taken under Schedule 17 or 18 (O. Reg 170/03, Section 11.(6)(b),(d):

Incident Date (yyyy/mm/dd)	Parameter/ Notice of	Result & Unit	Summary of Reporting, Corrective Actions & Resolution
N/A	N/A	N/A	N/A

Table 1. Microbiological testing done under the Schedule 11 of Regulation 170/03 during this reporting period (O.Reg~170/03, Section 11.(6)(c)).

Location	Number of Samples	Coli	e of E. or Fecal sults	Range o Colif Res	orm	Number of HPC	Rang HF Sam	c
	Samples	Min.	Max.	Min.	Max.	Samples	Min.	Max.
Distribution – DW	52 ^{1A}	0	0	0	0	52 ^{1B}	<10	270

Note: HPC = Heterotrophic Plate Count

Note: Units for E.Coli or Fecal Results are cfu/100 mL, units for Total Coliform Results are cfu/100 mL, units for HPC results are cfu/1mL

Table 2. Operational testing done under Schedule 7 of Regulation 170/03 during the period covered by this Annual Report (O. Reg 170/03, Section 11.(6)(c)).

Parameter & Location	Number of	- 1	
	Samples	Results	Max.
Free Chlorine Residual, Distribution(Continuous) [mg/L]-DW ^{2A}	8760	0.82	1.60
Free Chlorine Residual, Distribution (Grab) [mg/L]-DW ^{2B}	104	0.85	1.54

Note: The number of samples used for continuous monitoring units is 8760.

^{1A}As per O.Reg 170/03 Schedule 11-2(1)(b), the number of distribution samples for a small municipal residential system that receives all of its water from another Large Municipal System is one per week.

¹⁸In addition as per O.Reg 170/03, Schedule 11-2(2)(a)(b)(c), the owner of the drinking water system and the operating authority for the system must ensure that each of the samples taken under subsection (1) Is tested for (a) E.Coli; (b) total coliforms; and (c) general bacteria population expressed as colony counts on a heterotrophic plate counts.

^{2A}Continuous distribution free chlorine is monitored at Baxter DS as it leaves the storage tank and enters the distribution system.

^{2B}O.Reg 170/03 Schedule 7-2.(5) requires a small municipal residential system that provides secondary disinfection to take at least two distribution samples each week and immediately tested for free chlorine residual, if the system provides chlorination and does not provide chloramination.

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Table 3. Summary of additional testing and sampling results carried out in accordance with the requirement of an approval, municipal drinking water licence or order (including OWRA) or other legal instrument. (O. Reg 170/03, Section 11.(6)(c))

Legal Instrument & Issue Date (yyyy/mm/dd)	Parameter	Date Sampled (yyyy/mm/dd)	Result	Unit of Measure
N/A	N/A	N/A	N/A	N/A

Table 4. Summary of Inorganic parameters tested during this reporting period or the most recent sample results (O.Reg 170/03. Section 11.(6)(c))

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Inorganic Parameters – TW ^{4A}	N/A	N/A	N/A	N/A

^{4A}Treated water inorganic testing is not applicable for Baxter Distribution System as the system is supplied by treated water from the Collingwood DWS via the Alliston to Collingwood Pipeline. Please refer to the Collingwood Drinking Water System Annual Compliance Report for 2022. It is located at the following website: https://www.collingwood.ca/town-services/water-sewer-services

Parameter & Location	Sample Date Sample		Aesthetic	Exceedance	
Parameter & Location	(yyyy/mm/dd)	Result	Objective (AO)	AO > 20 mg/l	> 20 mg/L
Sodium: Na (mg/L) – TW	N/A	N/A	200 ^{4B}	N/A	N/A

Note: MDL = Minimum Detection Limit

Note: Treated water sodium testing is not applicable for Baxter Distribution System as the system is supplied by treated water from the Collingwood DWS via the Alliston to Collingwood Pipeline. Please refer to the Collingwood Drinking Water System Annual Compliance Report for 2022. It is located at the following website: https://www.collingwood.ca/town-services/water-sewer-services

Table 5: Summary of lead testing under Schedule 15.1 during this reporting period ($O.Reg\ 170/03$, Section 11.(6)(g))

Location/Type & Parameter	Number of Samples ^{5A}	Range of Results		Number of Lead Exceedances			
	Min. Max. (M	(MAC = 10 μ /L)					
Period: January 1 to April 15							
Plumbing – Lead (μg/L) ^{5B}	N/A	N/A	N/A	0			
Distribution – Lead (μg/L) ^{5C}	N/A	N/A	N/A	0			
Distribution – Alkalinity (mg/L as CaCO ₃)	1	77.0	77.0	N/A			

^{4B}There is no regulatory Maximum Allowable Concentration (MAC) Sodium. The aesthetic objective (AO) for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

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Distribution – pH	1	7.46	7.46	N/A		
Period: Jur	ne 15 to October	15				
Plumbing – Lead (μg/L) ⁵⁸	N/A	N/A	N/A	0		
Distribution – Lead (μg/L) ^{5C}	N/A	N/A	N/A	0		
Distribution – Alkalinity (mg/L as CaCO ₃)	1	75	75	N/A		
Distribution – pH	1	7.78	7.78	N/A		
Period: December 15 to 31						
Plumbing – Lead (μg/L) ⁵⁸	N/A	N/A	N/A	0		
Distribution – Lead (μg/L) ^{5C}	N/A	N/A	N/A	0		
Distribution – Alkalinity (mg/L as CaCO ₃)	N/A	N/A	N/A	N/A		
Distribution - pH	N/A	N/A	N/A	N/A		

Note: this is required for large municipal residential systems, small municipal residential systems or non-municipal year-round residential system. (O.Reg 170/03, Section 11.(6)(g))

Table 6: Summary of Organic parameters sampled during this reporting period or the most recent sample results (O.Reg 170/03, Section 11.(6)(c)).

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC	
Organic Parameters – TW ^{6A}	N/A	N/A	N/A	N/A	
Trihalomethane: Total	4 Quarters of	50.0	100.00	No	
Annual Average (μg/L) - DW	2022	50.0	100.00	NO	
Haloacetic Acid: Total Annual	4 Quarters of	27.6	80.00	No	
Average (μg/L) - DW	2022	27.0	80.00	110	

Note: MDL = Minimum Detection Limit, MAC = Maximum Allowable Concentration



^{5A}This system follows a reduced sampling schedule (O.Reg 170/03, Section 15.1.5). The number of sampling points for the system is based on the population served by the system. The number of people served by the system is 340 persons (as confirmed with the Owner on November 15, 2021) and therefore requires one distribution sampling points per sampling period.

^{5B}Plumbing samples are not applicable as this system qualifies for the plumbing exemption per O. Reg 170/03 Schedule 15.1-5 (9) (10).

^{5C}This system follows a reduced sampling schedule (O.Reg 170/03, Section 15.1.5). Distribution lead samples are collected every 36 months. The most recent set of distribution lead samples were collected within the winter period of December 15, 2020 to April 15, 2021 and summer period of June 15, 2021 to October 15, 2021. The next set of distribution lead samples is scheduled to be collected within the winter period of December 15, 2023 to April 15, 2024 and summer period of June 15, 2024 to October 15, 2024.

^{6A}Treated water Organic parameters testing is not applicable for Baxter Distribution System as the system is supplied by treated water from the Collingwood DWS via the Alliston to Collingwood Pipeline. Please refer to the Collingwood Drinking Water System Annual Compliance Report for 2022. It is located at the following website: https://www.collingwood.ca/town-services/water-sewer-services

Drinking Water System Regulation: O. Reg 170/03 Section 11 Annual Report: January 1, 2022 to December 31, 2022 The Corporation of the Township of Essa: Baxter Distribution System

Table 7: List of Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards for the reporting period.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

ANNUAL REPORT

ONTARIO REGULATION 170/03
SECTION 11

THORNTON DRINKING WATER SYSTEM



FOR THE PERIOD: JANUARY 1, 2022 – DECEMBER 31, 2022

Prepared for the Corporation of the Township of Essa by the Ontario Clean Water Agency





Section 11 Annual Report: January 1, 2022 to December 31, 2022

The Corporation of the Township of Essa: Thornton (Glen Avenue) Drinking Water System

This report was prepared in accordance with the requirements of <u>O.Reg 170/03, Section 11,</u>
<u>Annual reports</u> for the following system and reporting period:

Drinking Water System Number:	220006945		
Drinking Water System Name:	Thornton (Glen Avenue) Drinking Water System		
Drinking Water System Owner:	The Corporation of the Township of Essa		
Drinking Water System Category:	Large Municipal Residential		
Reporting Period:	January 1, 2022 to December 31, 2022		

Does your Drinking Water System serve more than 10,000 people?

No

Is your Annual Report available to the public at no charge on a website on the Internet?

Yes

Note: If a large municipal residential system serves more than 10,000 people, the owner of the system shall ensure that a copy of every report prepared under this section is available to the public at no charge on a website on the Internet. O. Reg. 170/03, Section 11. (10)

Location where Summary Report required under O. Reg 170/03, Schedule 22 will be available for inspection. (O. Reg 170/03, Section 11.(6)(5)):

- Hard copy available for public viewing at the Township of Essa Municipal Office at 5786
 Simcoe County Road 21, Utopia, Essa Township, ON, LOM1T0
- http://www.essatownship.on.ca

Note: this is required for large municipal residential systems or small municipal residential systems.

List all Drinking Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	N/A

Did you provide a copy of your annual report to all Drinking Water System owners that are connected to you and to whom you provide all of its drinking water?

	N/A					-		
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How system users are notified that the annual report is available, and is free of charge:



Drinking Water System Regulation: O. Reg 170/03 Section 11 Annual Report: January 1, 2022 to December 31, 2022 The Corporation of the Township of Essa: Thornton (Glen Avenue) Drinking Water System
X Public access/notice via Government Office
Public access/notice via a newspaper
X Public access/notice via Public Request
Public access/notice via a Public Library
Public access/notice via other method:
Description of Drinking Water System (O.Reg 170/03, Section 11.(6)(a)):
The Thornton (Glen Avenue) Drinking water system is classified as a Large Municipal
Residential Drinking Water System servicing an approximate population of 1,550 persons via
519 residential service connections on Glen Avenue in the Hamlet of Thornton, Township of
Essa. The system is comprised of one pumphouse which draws water from four groundwater
wells.
Raw water supplied from the wells to the Glen Avenue pumphouse is treated with sodium
hypochlorite for disinfection. Treated water is pumped to two (2) fused glass-lined bolted steel
above-ground storage tanks. Water is then pumped from the storage tanks to the distribution
system using four high lift pumps. The pumphouse is also equipped with a standby diesel
generator to provide power in the event of a power failure.
List of water treatment chemicals used by the system during the reporting period (O.Reg 170/03, Section 11.(6)(a)):
Sodium Hypochlorite 12% Solution
Significant expenses were incurred to:
X Install required equipment
X Repair required equipment
X Replace required equipment
No significant expenses were incurred
Description of major expenses during the reporting period to install, repair or replace required equipment (O.Reg 170/03, Section 11.(6)(e)):
Distribution watermain swabbing
Distribution service line repairs, curb stop inspections and meters repairs/installations
Highlift pump rebuilds, maintenance
Distribution fire hydrant repair and replacement
Reservoir pressure transducer pit sump pump install

Stand-by diesel generator repairs

Increase existing stand pipe capacity (installation and commissioning)

Section 11 Annual Report: January 1, 2022 to December 31, 2022

The Corporation of the Township of Essa: Thornton (Glen Avenue) Drinking Water System

Summary of any reports/notices submitted to the Ministry and/or Spills Action Centre in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 during the reporting period, including a description of any corrective actions taken under Schedule 17 or 18 (O. Reg 170/03, Section 11.(6)(b),(d):

Incident Date (yyyy/mm/dd)	Parameter/ Notice of	Result & Unit	Summary of Reporting, Corrective Actions & Resolution
N/A	N/A	N/A	N/A

Table 1. Microbiological testing done under the Schedule 11 of Regulation 170/03 during this reporting period (O.Reg~170/03, Section 11.(6)(c)).

Location	Number of	Range of E. Coli or Fecal Results		Range of Total Coliform Results		Number of HPC	Range Sam	
	Samples	Min.	Max.	Min.	Max.	Samples	Min.	Max.
RW ^{1A} , Well 1	52	0	0	0	35	0	N/A	N/A
RW ^{1A} , Well 2	52	0	0	0	0	0	N/A	N/A
RW ^{1A} , Well 3	52	0	0	0	2	0	N/A	N/A
RW ^{1A} , Well 4	52	0	0	0	4	0	N/A	N/A
Treated Water	52	0	0	0	0	52	<10	20
Distribution	120 ^{1B}	0	0	0	0	52	<10	10

Note: HPC = Heterotrophic Plate Count

Note: Units for E.Coli or Fecal Results are cfu/100 mL, units for Total Coliform Results are cfu/100 mL, units for HPC results are cfu/1mL

^{1A}RW = Raw Water

¹⁸O.Reg 170/03 Schedule 10-2.(1)(2)(3) requires that a system that serves 100,000 people or less, at least eight distribution samples, plus one additional distribution sample for every 1,000 people served by the system, are taken every month, with at least one of the samples being taken in each week and that each of the samples taken is tested for E.Coli, Total Coliforms. At least 25 percent of the samples required must be tested for general bacteria population expressed as colony counts on heterotrophic plate count (HPC). As of 2022, the population of Thornton is 1,550 persons, confirmed by the owner on November 12th, 2021 and thus requires at the minimum 9 monthly distribution samples

Section 11 Annual Report: January 1, 2022 to December 31, 2022

The Corporation of the Township of Essa: Thornton (Glen Avenue) Drinking Water System

Table 2. Operational testing done under Schedule 7 of Regulation 170/03 during the period covered by this Annual Report (O. Reg 170/03, Section 11.(6)(c)).

Dawanatan 8 Laastian	Number of	Range of	Results
Parameter & Location	Samples	Min.	Max.
Turbidity, Raw Water, Well 1 (Grab) [NTU] ^{2A}	12	0.10	0.53
Turbidity, Raw Water, Well 2 (Grab) [NTU] 2A	12	0.20	0.84
Turbidity, Raw Water, Well 3 (Grab) [NTU] 2A	12	0.08	0.86
Turbidity, Raw Water, Well 4 (Grab) [NTU] 2A	12	0.14	0.82
Free Chlorine Residual, On-line [mg/L]-TW ^{2B}	8760	0.94	2.19
Free Chlorine Residual, Distribution [mg/L]- DW ^{2C}	364	0.77	1.79

Note: The number of samples used for continuous monitoring units is 8760.

Table 3. Summary of additional testing and sampling results carried out in accordance with the requirement of an approval, municipal drinking water licence or order (including OWRA) or other legal instrument. (O. Reg 170/03, Schedule 11.(6)(c))

Legal Instrument	Sample Location & Parameter	Sampling	Allowable	Actual
& Issue Date		Frequency	Result	Result
(yyyy/mm/dd)				
N/A	N/A	N/A	N/A	N/A

Table 4. Summary of Inorganic parameters tested during this reporting period or the most recent sample results (O.Reg~170/03, Schedule~11.(6)(c))

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Antimony: Sb (μg/L) - TW	2021/01/26	<mdl 0.9<="" td=""><td>6.0</td><td>No</td></mdl>	6.0	No
Arsenic: As (μg/L) - TW	2021/01/26	0.2	10.0	No
Barium: Ba (μg/L) - TW	2021/01/26	84.2	1000.0	No
Boron: B (μg/L) - TW	2021/01/26	35.0	5000.0	No
Cadmium: Cd (µg/L) - TW	2021/01/26	<mdl 0.003<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Chromium: Cr (µg/L) - TW	2021/01/26	0.62	50.0	No

^{2A}O.Reg 170/03 Schedule 7-3.(1)(1.1) requires a raw water sample be taken at least once every month from each well that is supplying water to the system and tested for turbidity.

^{2B}O.Reg 170/03 Schedule 7-2.(1) requires a drinking water system that provides chlorination for primary disinfection to sample and test for free chlorine residual with continuous monitoring equipment in the treatment process at or near a location where the intended contact time has just been completed.

^{2c}O.Reg 170/03 Schedule 7-2.(3) requires a large municipal residential system that provides secondary disinfection to take at least seven distribution samples each week and immediately tested for free chlorine residual, if the system provides chlorination and does not provide chloramination

Section 11 Annual Report: January 1, 2022 to December 31, 2022

The Corporation of the Township of Essa: Thornton (Glen Avenue) Drinking Water System

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Mercury: Hg (μg/L) - TW	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Selenium: Se (μg/L) - TW	2021/01/26	0.05	50.0	No
Uranium: U (μg/L) - TW	2021/01/26	0.539	20.0	No
Fluoride (mg/L) - TW	2018/07/17 ^{4B}	0.22	1.5	No
Nitrite (mg/L) – TW	2022/01/13	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) – TW	2022/04/19	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) – TW	2022/07/20	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrite (mg/L) – TW	2022/10/17	<mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Nitrate (mg/L) – TW	2022/01/13	1.64	10.0	No
Nitrate (mg/L) – TW	2022/04/19	1.75	10.0	No
Nitrate (mg/L) – TW	2022/07/20	1.59	10.0	No
Nitrate (mg/L) - TW	2022/10/17	1.85	10.0	No

	Samula Data	Sample	Aesthetic	Exc	eedance
Parameter & Location	Sample Date (yyyy/mm/dd)	Result	Objective (AO)	AO	> 20 mg/L
Sodium: Na (mg/L) – TW	2018/07/17 ^{4C}	33.6	200	No	Yes ^{4D}
Sodium: Na (mg/L) – TW	2018/07/24 ^{4C}	37.0	200	No	Yes ^{4D}

Note: MDL = Minimum Detection Limit, TW = Treated Water

Note: There is no regulatory Maximum Allowable Concentration (MAC) Sodium. The aesthetic objective (AO) for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

^{4A}Inorganic Parameters (Schedule 23) are required to be tested every 36 months for a large municipal residential system, if the system obtains water from a raw water source that is ground water (O. Reg 170/03 Schedule 13-2(b). The last set of samples was collected and tested in 2021, the next set of samples is scheduled to be collected and tested in 2024.

^{4B}Fluoride is reportable every 60 months. The most recent Fluoride samples were tested in 2018, the next set of samples is scheduled to be tested in 2023.

^{4C}Sodium is reportable every 60 months. The most recent Sodium samples were tested in 2018, the next set of samples is scheduled to be tested in 2023.

^{4D}On July 17, 2018 adverse water quality incident #140921 was reported to the Spills Action Centre, Ministry of Health and Ministry of the Environment, Conservation, and Parks for a treated water sodium exceedance of 33.6 mg/L. A resample was taken on July 24, 2018 as per the corrective actions outline in O.Reg170/03 Schedule 17(3) and resample results were 37.0 mg/L. No further actions advised. Notice of incident resolution sent on August 1, 2018.

Section 11 Annual Report: January 1, 2022 to December 31, 2022

The Corporation of the Township of Essa: Thornton (Glen Avenue) Drinking Water System

Table 5: Summary of lead testing under Schedule 15.1 during this reporting period (O.Reg 170/03, Section 11.(6)(g))

Location/Type & Parameter	Number of	Rang Resi		Number of Lead Exceedances
	Samples ^{5A}	Min.	Max.	(MAC = $10 \mu/L$)
Period: Ja	nuary 1 to April 1	.5		
Plumbing – Lead (μg/L) ^{5B}	N/A	N/A	N/A	0
Distribution – Lead (μg/L) ^{5C}	N/A	N/A	N/A	0
Distribution – Alkalinity (mg/L as CaCO ₃)	4	212	224	N/A
Distribution – pH	2	7.55	7.60	N/A
Period: Jur	ne 15 to October	15		
Plumbing – Lead (μg/L) ^{5B}	N/A	N/A	N/A	0
Distribution – Lead (μg/L) ^{5C}	N/A	N/A	N/A	0
Distribution – Alkalinity (mg/L as CaCO ₃)	2	209	210	N/A
Distribution – pH	2	7.41	7.46	N/A
Period: D	ecember 15 to 3	1		
Plumbing – Lead (μg/L) ^{5B}	N/A	N/A	N/A	0
Distribution – Lead (μg/L) ^{5C}	N/A	N/A	N/A	0
Distribution – Alkalinity (mg/L as CaCO ₃)	N/A	N/A	N/A	N/A
Distribution - pH	N/A	N/A	N/A	N/A

Note: this is required for large municipal residential systems, small municipal residential systems or non-municipal year-round residential system. (O.Reg 170/03, Section 11.(6)(g))

^{5A}The number of sampling points for the system is based on the population served by the system. The number of people served by the system is 1,550 persons (as confirmed with the Owner on November 12, 2021) and therefore requires two (2) distribution sampling points per sampling period.

^{5B}Plumbing samples are not applicable as this system qualifies for the plumbing exemption per O. Reg 170/03 Schedule 15.1-5 (9) (10).

^{5C}This system follows a reduced sampling schedule (O.Reg 170/03, Section 15.1.5). Distribution lead samples are collected every 36 months. The most recent set of distribution lead samples were collected within the winter period of December 15, 2020 to April 15, 2021 and summer period of June 15, 2021 to October 15, 2021. The next set of distribution lead samples is scheduled to be collected within the winter period of December 15, 2023 to April 15, 2024 and summer period of June 15, 2024 to October 15, 2024.

Section 11 Annual Report: January 1, 2022 to December 31, 2022
The Corporation of the Township of Essa: Thornton (Glen Avenue) Drinking Water System

Table 6: Summary of Organic parameters sampled during this reporting period or the most recent sample results (O.Reg 170/03, Section 11.(6)(c)).

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Alachlor (μg/L) - TW	2021/01/26	<mdl 0.02<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW	2021/01/26	<mdl 0.01<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Azinphos-methyl (μg/L) - TW	2021/01/26	<mdl 0.05<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Benzene (μg/L) - TW	2021/01/26	<mdl 0.32<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Benzo(a)pyrene (μg/L) - TW	2021/01/26	<mdl 0.004<="" td=""><td>0.01</td><td>No</td></mdl>	0.01	No
Bromoxynil (μg/L) - TW	2021/01/26	<mdl 0.33<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
Carbaryl (μg/L) - TW	2021/01/26	<mdl 0.05<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Carbofuran (μg/L) - TW	2021/01/26	<mdl 0.01<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Carbon Tetrachloride (μg/L) - TW	2021/01/26	<mdl 0.17<="" td=""><td>2.0</td><td>No</td></mdl>	2.0	No
Chlorpyrifos (μg/L) - TW	2021/01/26	<mdl 0.02<="" td=""><td>90.0</td><td>No</td></mdl>	90.0	No
Diazinon (μg/L) - TW	2021/01/26	<mdl 0.02<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Dicamba (μg/L) - TW	2021/01/26	<mdl 0.2<="" td=""><td>120.0</td><td>No</td></mdl>	120.0	No
1,2-Dichlorobenzene (μg/L) - TW	2021/01/26	<mdl 0.41<="" td=""><td>200.0</td><td>No</td></mdl>	200.0	No
1,4-Dichlorobenzene (μg/L) - TW	2021/01/26	<mdl 0.36<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
1,2-Dichloroethane (μg/L) - TW	2021/01/26	<mdl 0.35<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
1,1-Dichloroethylene (μg/L) - TW	2021/01/26	<mdl 0.33<="" td=""><td>14.0</td><td>No</td></mdl>	14.0	No
Dichloromethane (Methylene Chloride) (μg/L) - TW	2021/01/26	<mdl 0.35<="" td=""><td>50.0</td><td>No</td></mdl>	50.0	No
2,4-Dichlorophenol (μg/L) - TW	2021/01/26	<mdl 0.15<="" td=""><td>900.0</td><td>No</td></mdl>	900.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW	2021/01/26	<mdl 0.19<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
Diclofop-methyl (μg/L) - TW	2021/01/26	<mdl 0.4<="" td=""><td>9.0</td><td>No</td></mdl>	9.0	No
Dimethoate (μg/L) - TW	2021/01/26	<mdl 0.06<="" td=""><td>20.0</td><td>No</td></mdl>	20.0	No
Diquat (μg/L) - TW	2021/01/26	<mdl 1.0<="" td=""><td>70.0</td><td>No</td></mdl>	70.0	No
Diuron (μg/L) - TW	2021/01/26	<mdl 0.03<="" td=""><td>150.0</td><td>No</td></mdl>	150.0	No
Glyphosate (μg/L) - TW	2021/01/26	1.0	280.0	No
Malathion (μg/L) - TW	2021/01/26	<mdl 0.02<="" td=""><td>190.0</td><td>No</td></mdl>	190.0	No
Metolachlor (μg/L) - TW	2021/01/26	<mdl 0.01<="" td=""><td>50.0</td><td>No</td></mdl>	50.0	No

Section 11 Annual Report: January 1, 2022 to December 31, 2022

The Corporation of the Township of Essa: Thornton (Glen Avenue) Drinking Water System

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Metribuzin (μg/L) - TW	2021/01/26	<mdl 0.02<="" td=""><td>80.0</td><td>No</td></mdl>	80.0	No
Monochlorobenzene (Chlorobenzene) (μg/L) - TW	2021/01/26	<mdl 0.3<="" td=""><td>80.0</td><td>No</td></mdl>	80.0	No
Paraquat (μg/L) - TW	2021/01/26	<mdl 1.0<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
PCB (μg/L) - TW	2021/01/26	<mdl 0.04<="" td=""><td>3.0</td><td>No</td></mdl>	3.0	No
Pentachlorophenol (μg/L) - TW	2021/01/26	<mdl 0.15<="" td=""><td>60.0</td><td>No</td></mdl>	60.0	No
Phorate (μg/L) - TW	2021/01/26	<mdl 0.01<="" td=""><td>2.0</td><td>No</td></mdl>	2.0	No
Picloram (μg/L) - TW	2021/01/26	<mdl 1.0<="" td=""><td>190.0</td><td>No</td></mdl>	190.0	No
Prometryne (μg/L) - TW	2021/01/26	<mdl 0.03<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Simazine (μg/L) - TW	2021/01/26	<mdl 0.01<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
Terbufos (μg/L) - TW	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Tetrachloroethylene (μg/L) - TW	2021/01/26	<mdl 0.35<="" td=""><td>10.0</td><td>No</td></mdl>	10.0	No
2,3,4,6-Tetrachlorophenol (μg/L) - TW	2021/01/26	<mdl 0.2<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
Triallate (μg/L) - TW	2021/01/26	<mdl 0.01<="" td=""><td>230.0</td><td>No</td></mdl>	230.0	No
Trichloroethylene (μg/L) - TW	2021/01/26	<mdl 0.44<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
2,4,6-Trichlorophenol (μg/L) - TW	2021/01/26	<mdl 0.25<="" td=""><td>5.0</td><td>No</td></mdl>	5.0	No
2-methyl-4- chlorophenoxyacetic acid (MCPA) (µg/L) - TW	2021/01/26	<mdl 0.12<="" td=""><td>100.0</td><td>No</td></mdl>	100.0	No
Trifluralin (μg/L) - TW	2021/01/26	<mdl 0.02<="" td=""><td>45.0</td><td>No</td></mdl>	45.0	No
Vinyl Chloride (μg/L) - TW	2021/01/26	<mdl 0.17<="" td=""><td>1.0</td><td>No</td></mdl>	1.0	No
Trihalomethane: Total Annual Average (µg/L) - DW	4 Quarters of 2022	21.5	100.00	No
Haloacetic Acid: Total Annual Average (μg/L) - DW	4 Quarters of 2022	13.2	80.00	No

Note: TW = Treated Water, DW = Distribution Water, MDL = Minimum Detection Limit, MAC = Maximum Allowable Concentration, HAA = Haloacetic Acids

^{6A}Organic Parameters (Schedule 24) are required to be tested every 36 months for a large municipal residential system, if the system obtains water from a raw water supply that is ground water (O. Reg 170/03 Schedule 13-4.(1b)). The last set of samples was collected and tested in 2021, the next set of samples is scheduled to be collected and tested in 2024.

Drinking Water System Regulation: O. Reg 170/03 Section 11 Annual Report: January 1, 2022 to December 31, 2022

The Corporation of the Township of Essa: Thornton (Glen Avenue) Drinking Water System

Table 7: List of Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards for the reporting period.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A



TOWNSHIP OF ESSA STAFF REPORT

STAFF REPORT NO.:

PW001-23

DATE:

March 22, 2023

TO:

Committee of the Whole

FROM:

Preya Balgobin P. Eng., Senior Project Manager,

Ainley Group, Township Engineers

SUBJECT:

Proposed Baxter Wastewater Treatment Plant

Summary of Key Design Elements

RECOMMENDATION

That Staff Report PW001-23 be received; and

That Council accept in principle, on a high-level, the design details related to the proposed wastewater treatment plant (WWTP) in Baxter, which will service Brookfield's new, 253 residential units and possibly the Baxter Central Public School.

BACKGROUND

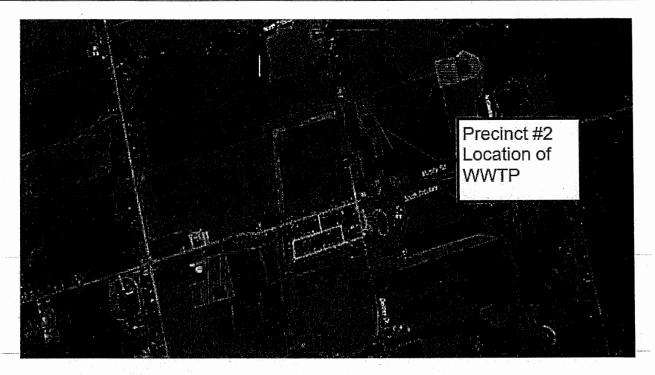
Brookfield Properties has completed a Schedule C Class Environmental Assessment (EA) for construction of a new Wastewater Treatment Plant (WWTP) to service Brookfield's development in Baxter. Brookfield is now at the fifth and final stage of the Class EA process, which is the design and construction phase.

This report is a summary of the key design elements of the proposed WWTP and discusses:

- Location of the WWTP
- The WWTP's treatment capacity
- Aesthetic features of the WWTP
- Odour control
- Management of sludge and biosolids

LOCATION OF THE WWTP

The Class EA considered several locations and evaluated each based on various criteria, including technical merit, aesthetic impacts, impacts to the community during construction and operation, environmental impacts, potential for odour impacts, and costs (capital and operation and maintenance). The preferred location is "Precinct 2", which is shown in the figure below.



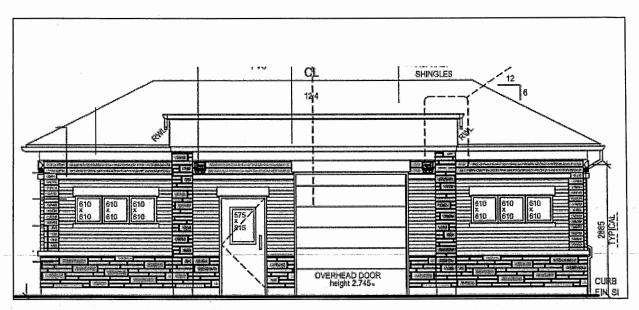
WWTP TREATMENT CAPACITY

The proposed WWTP is designed to service 253 homes in Brookfield's development. There is no allowance for existing homes to tie into the WWTP. Per Brookfield's design brief, the estimated average daily flow from the 253 homes is 227 m³/d. The WWTP is designed with some contingency and can treat an average daily flow up to 360 m³/d.

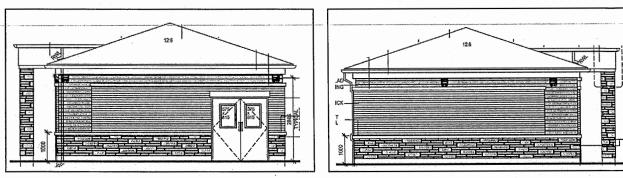
There is on-going discussion about connecting the Baxter Central Public School to the WWTP. However, the Township has asked the developer to advise of the amount of flow expected from the school and confirm that the WWTP can accommodate and treat the additional flow and pollutant loading. Additionally, there are financial elements related to who will bear the costs for connecting the school that need to be resolved before a decision can be made.

APPEARANCE OF THE WWTP

At the Township's instruction during the Class EA, the architectural design of the WWTP is to be aesthetically pleasing, be consistent with the architectural style of the community, and blend into the community, i.e., it should not look like a traditional brown-brick institutional facility nor should it be overly ornate. The figure below shows Brookfield's architectural drawing of the front of the WWTP building. Note that the WWTP building will be the only above-ground structure on the site.

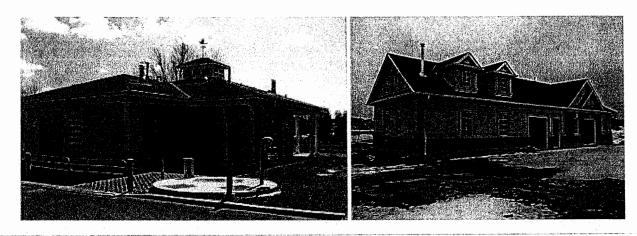


The two figures below show views of both sides of the WWTP building.

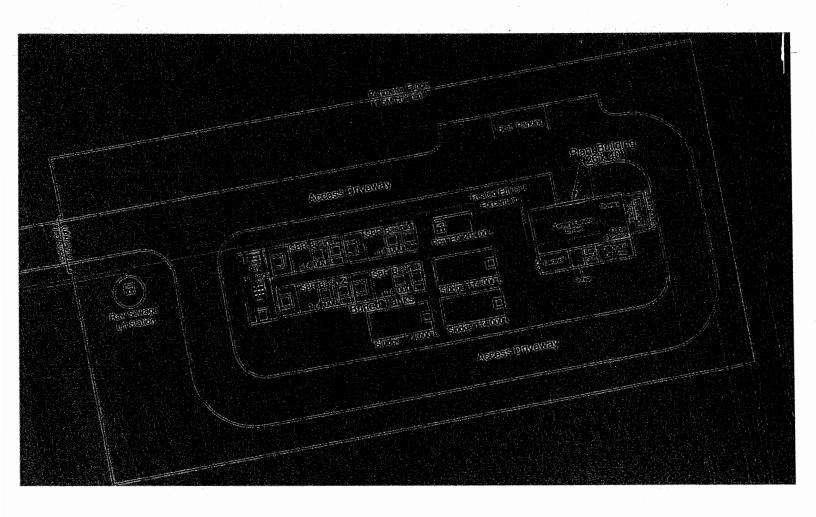


There are no artist renderings of the facility, however, Brookfield provided the images below of WWTP facilities that they have previously constructed for other communities. Brookfield has agreed that the final architectural design will be based on input from the Township.

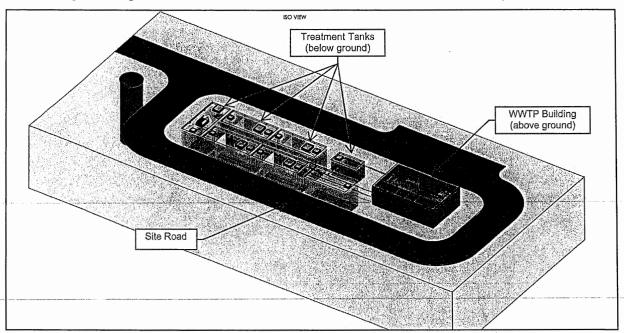




The figure below shows an aerial view (site layout) of the WWTP. All structures, except the WWTP Building (Plant Building in figure below) will be below-grade.



The last figure below shows an isometric/3-Dimensional view of the WWTP layout. Note that the three sludge holding tanks were not shown on the earlier version of the site layout.



ODOUR CONTROL MEASURES

There are odour control measures included in the WWTP design. The odour control system consists of these features:

- All treatment tanks are to be under-ground tanks with covers to contain odours
- Air from the tanks will be vented through a central stack, which will be treated by activated carbon or ozonation before release to the environment. The technology will be finalized during the detailed design phase.
- The central stack will be directed through the WWTP building roof.

Brookfield issued a letter of commitment that stated,

"Brookfield commits to the integration of odour control into the plant design and the installation of odour treatment technology at the facility to ensure that any odours generated do not negatively affect the community. The type of technology to be implemented will be determined through detailed design, based on input from the Township, Ainley, and/or OCWA. The odour treatment technology selected will be to the satisfaction of the Township."

The major WWTP treatment process as well as the sludge storage tanks include aeration, which prevents the development of odours by preventing the wastewater/sludge from becoming septic due to lack of air.

MANAGEMENT OF SLUDGE AND BIOSOLIDS

Wastewater treatment systems have two processes: one that separates and treats the liquid component that will be discharged to a water body and the second that collects and treats the solids/sludge component. The sludge generated at the WWTP will be stored in underground, covered, aerated tanks and subsequently land-applied to farm fields.

Land application of stabilized sludge (referred to as biosolids) is a common practice in Ontario and is regulated by the Ministry of the Environment Conservation and Parks (MECP). The Angus plant land-applies their biosolids.

Land-application can only be done during the warm months, when the ground is not frozen. The (MECP) requires that facilities that use land application as their only method of biosolids disposal have sufficient storage to store sludge that is generated through the cold months, specifically storage for 240 days of sludge production. The Baxter design provides three storage tanks with sufficient capacity to meet the 240-day requirement.

The initial approach for sludge management was to truck all the sludge to the Angus plant throughout the year. No-onsite sludge storage at the Baxter plant was to be provided. This approach was revised when the Angus operations staff advised that the plant does not have sufficient capacity to accept sludge from Baxter.

With the addition of on-site sludge storage, there is expected to be a reduction in the number of trucks hauling from the facility since there will be no haulage during the winter months. In the summer months, it is expected that the stored sludge will be hauled in large quantities taken from the storage tanks, which may also reduce trucking frequency.

COMMENTS AND CONSIDERATIONS

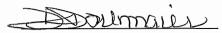
Brookfield needs to apply for an Environmental Compliance Approval (ECA) from the MECP to receive approval of the WWTP design before the MECP will allow it to be placed into operation. Once Brookfield has submitted the ECA application to the Township for review, Council will be requested to endorse the application, if acceptable, prior to Brookfield submitting to the MECP.

In addition to the ECA, the Township is entering into a WWTP System Servicing Agreement with Brookfield, where Brookfield will cover the cost and all adjustments, corrections, or modifications required in the WWTP system to ensure that the facility functions per the approved ECA and to the Township's satisfaction for a period of two years before the Township will accept ownership of the facility.

FINANCIAL IMPACT

The developer has agreed to have the WWTP constructed to serve the Township's needs. The developer will construct and operate the WWTP at their expense until final acceptance by the municipality in accordance with the WWTP System Servicing Agreement (attached in draft).

Manager of Finance:



OPTIONS

Council may:

- 1. Receive the Report for information.
- 2. Direct staff in another manner.

CONCLUSION

Option No. 1 is recommended.

Preya Balgobin, P. Eng.
Senior Project Manager
Ainley-Group

Reviewed by,
Reviewed by,

Michael Mikael, P. Eng.
Mgr of Public Works
Chief Administrative Officer

WASTEWATER TREATMENT SYSTEM SERVICING AND RESPONSIBILITY AGREEMENT

File # E-T-0602__

BETWEEN:

THE CORPORATION OF THE TOWNSHIP OF ESSA

- and -

C.L. MARSHALL FARMS LIMITED and RANDALL MARSHALL

("First Mortgagee")

The Corporation of the Township of Essa 5786 Simcoe County Road # 21 Utopia, ON LOM 1T0

Attention: Colleen Healey-Dowdall, CAO Tel:

705-424-9770

Email: chealey@essatownship.on.ca



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WASTEWATER TREATMENT SYSTEM SERVICING AND RESPONSIBILITY AGREEMENT

	ΝF	

THE CORPORATION OF THE TOWNSHIP OF ESSA

("Township")

-and

BROOKFIELD RESIDENTIAL (ONTARIO) LIMITED

("Developer")

- and -

C.L. MARSHALL FARMS LIMITED and RANDALL MARSHALL

("First Mortgagee")

RECITALS

1. The Developer warrants that it is the owner of the lands in the Township of Essa, in the County of Simcoe, described as follows:

Part of Lot 16 Concession 4 Essa, Parts 1 and 2 Plan 51R41377; Township of Essa, as set out in as Schedule "A" attached

being Lots 1 through 119 (inclusive) and Blocks 120 through 123 (inclusive) and Henderson Street, Shorey Lane, Edgar Avenue and Felhazi Trail on the unregistered M-Plan for Phase 1 (hereinafter referred to as the "Phase 1 Plan"), a reduced copy of which is attached as Schedule "B-1";

and being Lots 1 through 134 (inclusive) and Blocks 135 and 136 and Henderson Street and Cochrane Crescent on the unregistered M-Plan for Phase 2 (hereinafter referred to as the "Phase 2 Plan"), a reduced copy of which is attached as Schedule "B-2";

(Together hereinafter referred to as the "Lands");

The Township is the owner of lands acquired from 1045279 Ontario Ltd. which comprise part of the total lands required for this development, which lands are described as follows:

Pt Lt 16 Con 5 Essa being Pts 1, 2, & 3 on 51R-41354, Township of Essa, County of Simcoe (the "Township Lands")



- The Developer proposes to develop the Lands in two (2) Phases with two (2) registered M-Plans and one (1) Subdivision Agreement;
- The Developer proposes to subdivide the Lands for the purpose of selling, conveying or leasing the Lands in lots, blocks or units by reference to two (2) registered M-Plans;
- The Developer warrants that it received Draft Plan Approval for the Lands from the Corporation of the Township of Essa dated March 17, 2010, and the Draft Plan Approval expires on March 15, 2024;
- 6. The Developer warrants that the file number for the Draft Plan Approval is E-T-0602;
- 7. As a condition of approval for the development of the Lands, the Developer has or will have entered into a Subdivision Agreement with the Township for the development of the Lands;
- 8. The Developer has agreed with the Township to have the Wastewater Treatment Plant constructed to serve the Lands;
- Pursuant to the terms of the Subdivision Agreement, the Developer agreed to construct and operate the Wastewater Treatment Plant at their expense until Final Acceptance of the Wastewater Treatment Plant by the Township, as further described in Section 4 of this Agreement;
- 10. The Township is authorized to enter-into a Wastewater Treatment System Servicing and Responsibility Agreement ("Agreement") to require the Developer to construct and operate a Wastewater Treatment Plant.
- 11. The Developer and the Township have entered into this Agreement for the purpose of defining the terms and conditions upon which the construction and operation of the Wastewater Treatment Plant will be carried out.
- 12. The Developer agrees to transfer ownership of and responsibility for the operation of the Wastewater Treatment Plant to the Township upon expiry of the Wastewater Treatment Plant Maintenance Period, as set out in the Subdivision Agreement.
- 13. The Developer will obtain all Environmental Compliance Approvals (ECA) (sewage, air and noise) from the Ministry of the Environment, Conservation and Parks (MECP) that are required for the construction and operation of the Wastewater Treatment Plant prior to placing the Wastewater Treatment Plant into service for its intended purpose and discharging treated wastewater to the Nottawasaga River.

NOW THEREFORE THE AGREEMENT WITNESSES that in consideration of other good and valuable consideration and the sum of Two Dollars (\$2.00), now paid by each of the Parties to each other, the receipt whereof is hereby acknowledged, the Parties hereto covenant, promise and agree with each other to the following:

SECTION 1 - DEFINITIONS

1.1 In this Agreement, unless something in the subject matter or context is inconsistent therewith, the following words have the following meanings:

- 1.1.1. "Critical Low Flow" means a total of 40 m³/d average daily flow of wastewater from the Development, which is the minimum flow as reported by the Developer at which the Wastewater Treatment Plant is designed to effectively operate.
- 1.1.2. **"Engineer and Contractor"** means the engineer and contractor retained by the Developer to design and construct the Wastewater Treatment Plant;
- 1.1.3. "Environmental Compliance Approval" means the approval or provisional approval issued by the MECP for the construction and operation of the Wastewater Treatment Plant:
- 1.1.4. "Township Engineer" means the consulting engineer or engineers appointed by the Township;
- 1.1.5. "Subdivision Agreement" means the Agreement to be entered into between the Township and the Developer pursuant to the Draft Plan Approval.
- 1.1.6. "Wastewater Treatment Plant" means the wastewater treatment plant and site (hereinafter referred to as "WWTP"), effluent disposal forcemain, including the forcemain road, and other related appurtenances identified in the Environmental Compliance Approval and described in detail in the related engineering plans and specifications submitted to and accepted by the MECP and the Township. The wastewater collection system is separate and not included in this definition.

SECTION 2 - ADMINISTRATION

2.1 Recitals Deemed True

2.1.1 The Parties agree that the Recitals shall be deemed to be true and shall be incorporated as terms of the Agreement.

2.2 Lands

2.2.1 The Lands benefitting from the Agreement are as set out in Schedule "A" attached.

2.3 <u>Developer Defined</u>

2.3.1 The word Developer where used in the Agreement includes an individual, an association, a partnership or corporation and where the singular is used it shall be construed as including the plural.

2.4 <u>Developer's Expense</u>

2.4.1 The Developer agrees to be responsible to satisfy all requirements of the Agreement that it is responsible for as set out in the Agreement at its expense and acknowledges that all of the Developer's obligations are deemed to include the words "at the expense of the Developer" and "to the Township's satisfaction".

2.5 Registration of Agreement

2.5.1 The Developer consents to the registration of the Agreement by the Township on the Lands, in the sole discretion of the Township at the Developer's



expense.

2.5.2 The Developer consents to the registration of any additional agreements with the Township amending, adding to, or deleting any of the terms of the Agreement on the Lands, in the sole discretion of the Township.

2.6 Attached Schedules

- 2.6.1 The following schedules are attached hereto and form part of the Agreement:
 - 2.6.1.1 SCHEDULE "A" Legal Description of Lands
 - 2.6.1.2 SCHEDULE "B-1" Reduced Copy of the Unregistered M-Plan for Phase 1
 - 2.6.1.3 SCHEDULE "B-2" Reduced Copy of the Unregistered M-Plan for Phase 2
 - 2.6.1.4 SCHEDULE "C" Haul Route for Interim Sewage Trucking
 - 2.6.1.5 SCHEDULE "D" Required Structure of WWTP Operating and Maintenance Manual
 - 2.6.1.6 SCHEDULE "E" Required Structure/Contents of WWTP Process Control Narrative
 - 2.6.1.7 SCHEDULE "F" Estimated Cost of Works to be Constructed
 - 2.6.1.8 SCHEDULE "G" Letter of Credit

2.7 <u>Legal Notice to Parties</u>

2.7.1 Where the Agreement requires notice to be delivered by one Party to the other, such notice shall be in writing and delivered either personally or by email at the addresses noted below. Notice shall be deemed to have been given on the date of delivery.

TOWNSHIP:

The Corporation of the Township of Essa 5786 Simcoe County Road 21 Utopia, Ontario LOM 1T0

Attention:

Colleen Healey-Dowdall, CAO

Tel:

(705) 424-9770

Email:

chealey@essatownship.on.ca

DEVELOPER:

Brookfield Residential (Ontario) Limited 3381 Steeles Avenue East, Suite 100 Toronto, Ontario M2H 3S7

Attention:

Rayna Thompson, Senior Director, Land Development

Tel:

905-948-5003

Email:

rayna.thompson@brookfieldpropertiesdevelopment.com

MORTGAGEE:

C.L. Marshall Farms Limited 122 Murphy Road Angus, Ontario LOM 1B1

Attention: Charles L. Marshall, President

Tel: 705-424-5078

Email: marshdev2003@yahoo.com

Randall Marshall 118 Denney Drive Angus, Ontario LOM 1B1

Randall Marshall 705-623-3005

marshdev2020@yahoo.com

It is agreed that such addresses, telephone numbers and/or electronic mail addresses may be changed by written notice to the Parties.

2.8 Consent to Assign

- 2.8.1 The Developer shall not assign the Agreement without the written consent of the Township. The Township agrees that it will provide its written consent to any assignment provided:
 - 2.8.1.1 The Developer is in good standing with respect to all of its obligations under the Agreement;
 - 2.8.1.2 The person or entity the Agreement is assigned to ("Assignee") agrees in writing to assume all of the outstanding obligations of the Developer under the Agreement including but not limited to the Developer's obligation to provide and maintain Securities to assure the due carrying out of the Agreement; and
 - 2.8.1.3 The Assignee shall be shown as the registered owner of the Lands.
- 2.8.2 Upon any such assignment being completed, the Developer and the Township shall have no further obligations to one another under the Agreement, which said obligations shall be between the Township and the Assignee, provided that the Township shall not be required to return to the Developer any of its deposited Securities until Securities in a like amount and in a form satisfactory to the Township's Solicitor are deposited with the Township.

2.9 Mortgages

- 2.9.1 All Mortgagees consent to and agree:
 - 2.9.1.1 To be bound by the terms of the Agreement;
 - 2.9.1.2 To postpone their interest in the Lands as if the Agreement were registered in priority to their mortgage including any subsequent amendments, extensions and assignments of their mortgage, and all Mortgagees consent to executing a postponement of their mortgage to the Agreement including any amendments to the Agreement, which postponement may be registered on title at the sole discretion of the Township;
- 2.9.2 That any amounts which the Township is entitled to collect pursuant to the Agreement, including all funds expended by or expenses incurred on behalf of the Township to rectify any breaches of the Agreement by any of the Parties, shall constitute a first charge against the Lands and the Mortgagees agree to execute postponements of their charges to any outstanding amounts pursuant to the Agreement if required to do so by the Township;
- 2.9.3 That the Township shall be entitled to recover any amounts owed to it pursuant to the Agreement upon the sale or distribution of the Lands in priority to the interest of any Party hereto and prior to the interest of any



subsequent encumbrancers or owners of the Lands;

- 2.9.4 That in the event of becoming owner or otherwise gaining control of all or part of the Lands pursuant to their mortgage, either beneficially or in trust and either alone or in combination with another party, they will be subject to the Agreement in the same manner as if the Mortgagee had executed the Agreement in the capacity of the Developer;
- 2.9.5 That in the event of a sale or conveyance of all or part of the Mortgagee's interest in the Lands, the Mortgagee shall require as a condition precedent to the closing of any such sale or conveyance, that the new owner (the purchaser) will have covenanted with the Township in writing to perform and undertake all of the terms of the Agreement in the same manner as if the purchaser had executed the Agreement in the capacity of the Developer; and
- 2.9.6 That in the event that the Township registers any further agreements amending, adding to, or deleting any of the terms of the Agreement, all Mortgagees agree to postpone their interest in any prior mortgages to any such agreements registered on title to the Lands, if requested to do so by the Township, at the Developer's expense.

2.10 Access/Emergency Access

2.10.1 The Developer acknowledges and agrees that the Township and/or the Township's Engineer or their designates, agents and various authorities involved with the approval of the WWTP are authorized by the Developer to enter onto the Lands and the WWTP Lands at all times for all purposes as set out in the Agreement, or related to the Agreement including emergency access, to ensure that all provisions contained in the Agreement are complied with by the Developer, and to protect the interests of the Township and its residents.

2.11 Severability & Enforceability

2.11.1 The Township and the Developer agree that all provisions contained in the Agreement shall be severable, unless specifically stated otherwise herein, and that should any of the provisions of the Agreement be declared invalid or unenforceable by a court of competent jurisdiction it shall not affect the enforceability of each and every other clause contained herein.

2.12 Waiver

2.12.1 The failure of the Township at any time to require performance by the Developer of any obligation under this Agreement shall in no way affect its right thereafter to enforce such obligation, nor shall the waiver by the Township of the performance of any obligation hereunder be taken or be held to be a waiver of the performance of the same or any other obligation hereunder at any later time. The Township shall specifically retain its rights at law to enforce the Agreement.

2.13 Effective Date

2.13.1 The Agreement shall be effective from the date it is executed by the Township, the Developer and any Mortgagees.



2.14 Interpretation of Agreement

- 2.14.1 The part number and headings, subheadings and section, subsection, clause and paragraph numbers are inserted for convenience of reference only and shall not affect the construction or interpretation of the Agreement.
- 2.14.2 The Agreement shall be construed with all changes in singular and plural, number and gender, as may be required by the context.
- 2.14.3 Reference herein to any statute or any provision thereof shall include such statute or provisions thereof as amended, revised, re-enacted and/or consolidated from time to time and any successor statute thereto.
- 2.14.4 All obligations contained herein, although not expressed to be covenants, shall be deemed to be covenants.
- 2.14.5 Whenever a statement or provision in the Agreement is followed by words denoting inclusion or example and then there is a list of, or reference to specific items, such list or reference shall not be read so as to limit the generality of that statement or provisions, even if words such as "without limiting the generality of the foregoing" do not precede such list or reference.

2.15 Further Assurances

2.15.1 The Developer shall execute such further and other documents, consents or applications as are required to give effect to the provisions of the Agreement.

2.16 Governing Law

2.16.1 The Agreement is made pursuant to and shall be governed by and construed in accordance with the laws of the Province of Ontario and shall be treated in all respects as an Ontario contract.

2.17 Entire Agreement

2.17.1 The Agreement constitutes the entire agreement between the parties pertaining to the subject matter hereof.

2.18 No Modifications

2.18.1 No modification of, or amendment to the Agreement shall be valid or binding unless set forth in writing and duly executed by the Parties hereto.

2.19 Enurement

2.19.1 The Agreement shall be binding upon and enure to the benefit of the Parties to the Agreement and their respective successors and assigns. All obligations contained in this Agreement on the part of the Developer shall run with the Lands and shall be binding upon the Developer, its successors and assigns, as owners and occupiers from time to time, and the obligations shall be for the benefit of the Township.

2.20 No Fettering of Discretion

2.20.1 Notwithstanding any other provisions of the Agreement, the Parties hereto agree with each other that none of the provisions of the Agreement (including a provision stating the Parties' intention) is intended to operate, nor shall have the effect of operating, in any way to fetter either the Township Council which authorized the execution of the Agreement or any of its successor councils in the exercise of any of Council's discretionary powers, duties or authorities. The Developer hereby acknowledges that it will not obtain any advantageous



planning or other consideration or treatment by virtue of the existence of the Agreement.

2.21 <u>Time of the Essence/Extension of Time</u>

2.21.1 Time shall always be of the essence of the Agreement. Any time limits specified in the Agreement may be extended with the consent in writing of both the Developer and the Township, but no such extension of time shall operate or be deemed to operate as an extension of any other time limit, and time shall be deemed to remain of the essence of the Agreement notwithstanding any extension of any time limit.

2.22 Applicable Laws

- 2.22.1 In constructing or operating the WWTP, the Developer shall comply with all statutes, laws, by-laws, regulations, ordinances, orders and requirements of governmental or other public authorities having the jurisdiction at any time, applicable and in force. Without limiting the generality of the foregoing, the Developer agrees to comply with, and cause to be complied with, the provisions of the Occupational Health and Safety Act, R.S.O 1990, c O.1, (the "Occupational Health and Safety Act"), the Environmental Protection Act, R.S.O. 1990, c. E.19, (the "Environmental Protection Act") and the Ontario Water Resources Act, R.S.O. 1990, c. O.40, (the "Ontario Water Resources Act"), and any regulations, policies, and guidelines relating thereto, including all obligations of the contractor and employer under the Occupational Health and Safety Act and regulations as applicable, and any obligation to obtain any approval or permit required under the Environmental Protection Act or the Ontario Water Resources Act or any regulations, policies and guidelines relating thereto. The Developer further agrees to handle and dispose of all materials in accordance with the foregoing legislation.
- 2.22.2 The Developer agrees that it shall do, cause to be done, or refrain from doing any act or thing as directed by the Township if at any time the Township considers that any situation or condition is unsafe, damaging to the environment or contrary to the provisions of any applicable laws.
- 2.22.3 The Developer acknowledges and agrees that if it fails to comply with such direction, the Township may take action to remedy the situation at the expense of the Developer and if any action is taken, the Township shall be entitled to draw upon any Securities filed by the Developer under the Agreement or under the Subdivision Agreement to pay the cost of the action taken.
- 2.22.4 The Developer acknowledges and agrees that no condonation, excuse, oversight or delay in action by the Township in respect of any default, breach or non-observance by the Developer at any time or times in respect of any covenant, provision or condition in this Agreement shall operate as a waiver of the Township's rights under this Agreement in respect of any such or continuing or subsequent default, breach or non-observance and no waiver shall be inferred from or implied by anything done or omitted by the Township except an express waiver issued by the Township in writing.



2.23 General Breach

- 2.23.1 Upon default by the Developer of any of its obligations under the Agreement, the Township may cash in and retain the Securities herein, and shall have the right to enter onto the lands to make safe all construction.
- 2.23.2 Notwithstanding anything contained previously in the Agreement, the Developer agrees that upon default by the Developer of any of its obligations under the Agreement, the Township may cash in and/or draw upon any securities, and the Township may wish to complete all or any part of the requirements contained in the Agreement, and/or restrict building permits and/or occupancy permits, and the Township shall have the right to enter onto the Lands to make safe all construction. The Developer agrees that under these circumstances it shall be deemed to have waived all claims to any of the Securities held by the Township, and any surplus Securities shall be forfeited to the Township as liquidated damages as required to indemnify the Township for all of the Developer's obligations in the Agreement.

2.24 Failure to Maintain

- 2.24.1 If, at any time, the Developer fails to carry out required emergency maintenance work, within twenty-four (24) hours, or non-emergency maintenance work within forty-eight (48) hours of receipt of a request from the Township, then the Township's Engineer may, without further notice, undertake the maintenance work and the total cost of the work, including engineering fees, legal fees and any administrative fees shall be borne by the Developer.
- 2.24.2 The Township in its sole discretion, shall have the option of deducting the total amount of the cost of the work from any Securities held by the Township, or billing the Developer directly.
- 2.24.3 If the Township elects to bill the Developer and the Developer fails to pay the Township within thirty (30) days of the date of billing, then any money owing may be deducted from any Securities held by the Township.

2.25 Municipal Act - Section 349(1) and 446

2.25.1 The Developer acknowledges and agrees that any action taken by the Township, or on its behalf, pursuant to the Agreement, shall be in addition to and without prejudice to any Security or other guarantee given on behalf of the Developer, for the performance of its covenants and agreements, and upon default on the part of the Developer, the Township shall in addition to all other remedies available to it, be at liberty to utilize the provisions of Section 349(1) and 446 of the Municipal Act, 2001, S.O. 2001, c. 25, plus all remedies available to it pursuant to any Township By-law passed under the Municipal Act or the Planning Act, R.S.O. 1990, c. P. 13, (the "Planning Act"), if the Township has exhausted all Letters of Credit and cash deposits, and the Developer has not replaced these Securities as required by the Township.

2.26 Waiver of Breach

2.26.1 It is agreed by the Parties that the Township shall be at liberty, in its sole discretion, to waive any or all of the provisions of the Agreement and that such waiver shall not affect in any way the enforceability of the Agreement.



2.26.2 It is agreed that such actions may also be taken even if the Parties hereto, or any of them, may be in breach of any term of the Agreement and that such actions shall not affect the obligations of the Parties to the Agreement or in any way prejudice the ability of the Township to enforce all of the terms of the Agreement.

2.27 Construction Act

- 2.27.1 The Developer agrees that the service of any written notice of lien on the Township, or registration of any claim for lien or certificate of action arising pursuant to the Construction Act, R.S.O. 1990, c. C30, (The "Construction Act"), from the development, or the commencement of any action against the Developer or the Township by any person purporting to be a subcontractor or material or equipment supplier, shall, at the Township's option, constitute a default under the terms of the Agreement.
- 2.27.2 It is the responsibility of the Developer to vacate any claims for lien or certificates of action arising from the development in respect of improvements made to land owned by the Developer or Township, at its own expense, forthwith upon being advised in writing of the existence of same by the Township, and to defend any proceedings arising therefrom against the Township at the Developer's own expense, and the Developer shall be in default of the Agreement if it fails to do so.
- 2.27.3 In the event of default, the Township may, at its option, liquidate the Securities or draw upon any Letter of Credit issued as may be determined by the Township in its sole discretion that may be necessary to protect the Township's interests. The Township shall have no obligation, however, to hold back or pay into court any sum of money in regard to dealings with land not owned by the Township.
- 2.27.4 Without limiting the generality of the foregoing, such purposes aforementioned in this Section may include but are not limited to, taking legal advice and defending any proceedings arising from the service of any written notices of lien or the registration of any claims for lien or certificates of action, vacating the registration of any claims for lien or certificates of action filed in respect of the lien of any person making payment into court of security pursuant to any orders vacating the registration of liens or obtaining orders dismissing lien actions against the Township after a lien is vacated from lands owned by the Township.
- 2.27.5 In any event, the Township shall be entitled to retain any Securities or Letter of Credit deposited with the Township until all liens in respect of the improvements covered by the Agreement and made to lands owned by the Township or the Developer have expired, or have been satisfied, discharged or provided for by being vacated from title pursuant to the Construction Act.

2.28 Estoppel

2.28.1 The Developer agrees that it will not call into question, directly or indirectly, in any proceeding or action in court, or before any administrative tribunal, the Township's right to enter into and enforce the Agreement. The law of contract applies to the Agreement and the Parties are entitled to all remedies arising from it, notwithstanding any provision of s.51 of the Planning Act, interpreted to the contrary. The Developer and the Township agree that adequate consideration has flowed from each Party to the other and that these provisions are not severable. This provision may be plead by either Party, in any action or proceeding, as an estoppel of any denial of such right.



2.29 Failure to Complete Works/External Works

- 2.29.1 The Developer agrees that should they fail to complete any of the Works or External Works, or any other work contemplated or required by the Agreement, or should they not complete any of the Works or any other work to the satisfaction of the Township or the Township's Engineers, the Township is under no obligation whatsoever to complete all or any portion of the Works but the Township has the right to complete the Works if it so chooses upon first giving the Developer 48 hours' notice of its intention to do so. In the event of an emergency, the Township may complete any work without notice to the Developer. The Township will advise the Developer within 7 days after completing any work, of the nature and extent of the work completed by the Township and the cost may be deducted from the Letter of Credit held by the Township, or any other Security held by the Township. The Developer agrees that if the Security held by the Township is insufficient, any short fall may be collected by the Township as set out further in the Agreement.
- 2.29.2 The Developer agrees that the Township in its sole discretion shall have the right to enter onto the Lands to take whatever remedial action it deems necessary to safeguard the health and welfare of the residents of the Township, including but not limited to filling in holes, blocking off access, posting signs and leveling terrain, all at the Developer's expense. The Developer further agrees to indemnify the Township, its agents or servants, from any and all claims which may arise as a result of any actions taken by the Township pursuant to this Section. The Developer acknowledges that any Letters of Credit or other Securities held by the Township may be used for any purposes required by this Section.

2.30 Document Transmission

2.30.1 The parties agree that the acceptance, rejection or modification of this Agreement can be transmitted in electronic form and that communication by such means will be legal and binding on all parties.

2.31 Signing in Counterpart

- 2.31.1 This Agreement may be signed in counterparts and each counterpart Agreement for all purposes constitutes one Agreement, and binds all Parties hereto, notwithstanding that all Parties are not signatories to the same counterpart Agreement.
- 2.31.2 The Parties agree that this Agreement shall be binding upon them when all Parties have executed at least one copy of this Agreement, and all of such counterpart Agreement when taken together, shall constitute one and the same Agreement, notwithstanding that all parties have not executed the same copy of the Agreement.

SECTION 3 - FINANCE

- 3.1 <u>Township's Legal, Planning, Administrative (including Public Works), Consulting,</u>
 Contracting and Engineering Costs
 - 3.1.1 The Developer agrees to pay to the Township all of the Township's costs plus a 10% administrative fee, plus interest accrued to the date payment is made, at a rate of 15% per annum equal to 1.25% per month, which will be recoverable from the Developer for all costs incurred by the Township relating to this Agreement, including but not limited to the following: legal, planning, administrative (including public works), peer review consultants, other



consultants, external contractors, engineers, soil testing, hydrogeology, environmental consultants and testing, landscape and/or other consultants, as the Township may retain in its sole and absolute discretion, from time to time, plus all applicable taxes, which costs are incurred by the Township and/or invoiced to the Township for matters completed prior to or subsequent to the date of execution of the Agreement. This shall include costs to provide legal representation, engineering evidence, and planning evidence at any hearing, or otherwise required in the process of completion or operation of the WWTP, or as required by the Township to enforce or complete any provision of the Agreement, including the need for the Township to safeguard the interests of the residents of the Township, or to ensure that the interests of the Township are protected fully in all other respects, or in relation to any issues that arises in any other way as a result of the Developer entering into the Agreement or proceeding to develop the Lands.

- 3.1.2 The Developer agrees to pay to the Township all of the Township's costs plus a 10% administrative fee, plus interest accrued to the date payment is made at a rate of 15% per annum equal to 1.25% per month, which will be recoverable from the Developer for all costs incurred by the Township relating to the Agreement including, but not limited to, the following: legal, planning, administrative (including public works), peer review consultants, other consultants, external contractors, and engineers, soil testing, hydrogeology, environmental consultants and testing, landscape and/or other consultants, from time to time, plus all applicable taxes, for all items including but not limited to: checking plans, reviewing specifications, inspections, ongoing administration of the Agreement, enforcement of any term of the Agreement including any matter that arises as a result of the Township entering into the Agreement, whether due to any direct action taken by the Developer or not, or which may arise indirectly as a result of the Developer developing the Lands. This shall include any negotiations or discussions with the Developer, the Developer's lawyers, engineers, other parties retained by the Developer, or any other party howsoever related to the Development, or as a result of the Developer challenging any matter arising pursuant to the Agreement including but not limited to legal and engineering costs, and for all other costs incurred by the Township for the legal or engineering review of any aspect of the Agreement, including any legal opinions required by the Township for any matter relating to or arising from the Developer entering into the Agreement. This also includes any requirement for the Developer to enter into any Amendments in the future, that in the sole and absolute discretion of the Township are deemed to be required by the Township. The Developer agrees that legal costs shall include any additional title searching or legal opinions required for any Amendments. The Developer further agrees that all such costs set out herein shall be invoiced to and paid by the Developer until such time as the Township and Developer execute a Mutual General Release pursuant to Section 13.5 - Mutual General Release of Lands from Provisions of Subdivision Agreement.
- 3.1.3 The Developer understands and agrees that accounts will be submitted to the Developer either through the Township or directly from the Township's Engineer, planners and legal counsel for payment within thirty (30) days of submission and, if not paid within thirty (30) days, the amount will be deducted and paid from the cash on deposit with the Township.
- 3.1.4 The Developer agrees that all legal costs incurred by the Township pursuant to the Agreement are to be paid by the Developer on a one hundred percent (100%) cost recovery basis by the Township, without any deduction or set off whatsoever.



- 3.1.5 The Developer further agrees that all engineering costs incurred and to be paid for by it under the Agreement, shall be levied according to the Tariff set out by the Association of Professional Engineers of Ontario.
- 3.1.6 In the event that the Township finds it reasonably necessary to engage the services of an engineer or technical personnel not permanently employed by the Township to review the plans of the Developer and/or carry out on-site inspections of the work, the Township will advise the Developer accordingly of this need and the costs of any such personnel so engaged shall be the responsibility of the Developer. The Township may require a deposit for this purpose.

3.2 Developer's Liability & Indemnity

- 3.2.1 The Developer agrees to indemnify and save harmless the Township, its officers, agents, contractors or employees, from and against all suits and claims, causes of action and demands whatsoever arising out of or connected with the carrying out of the Developers obligations in the Agreement or from the Developer having entered into the Agreement, and including claims pursuant to the Construction Act, R.S.O. 1990, c. C.30, (the "Construction Act"). This indemnity does not extend to the negligence of the Township, its officers, agents, contractors or employees. The Township has the right to withhold and/or use any portion of any Securities provided pursuant to the Agreement to indemnify the Township for any legal fees, engineering fees or administrative fees the Township incurs to defend its interest against any such suit or claim or demand as set out in this paragraph.
- 3.2.2 The Developer shall indemnify and save harmless the Township, its officers, agents, contractors and employees, from and against any and all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of or attributable to any act or omission connected with the construction or operation of the WWTP. It is specifically understood and agreed that inspections of any aspect of construction, review by the Township's Engineer, Township Public Works Staff, or any other works or action undertaken by the Township, its officers, agents, contractors or employees (which are hereinafter specifically agreed to be acting as agents of the Developer with respect to such work), shall impose no liability upon the Township to the Developer and the Developer specifically agrees that no such claim will be made. This indemnity does not extend to the negligence of the Township, its officers, employees, agents or contractors.
- 3.2.3 The Developer further agrees that it shall indemnify and save harmless the Township from all actions, causes of action, suits, claims, costs and demands whatsoever which may arise either directly or indirectly by reason of any damage to any lands abutting the Lands or to any building erected thereon arising from or in consequence of any alteration of grade or level or by reason of any other Works undertaken by the Developer. This indemnity does not extend to the negligence of the Township, its officers, employees, agents or contractors.

3.3 <u>Performance of Covenants</u>

3.3.1 Any action taken by the Township or on its behalf pursuant to the Agreement shall be in addition to and without prejudice to any security or other guarantee given on behalf of the Developer for the performance of its covenants and agreements herein and upon default on the part of the Developer hereunder, the Township shall, in addition to any other remedy available to it, be at liberty to utilize the provisions of Section 349(1) and 446 of the Municipal Act, 2001, S.O. 2001, c. 25 (the "Municipal Act").



3.4 Insurance

- The Developer agrees to provide to the Township and the Township's Solicitor, 3.4.1 prior to execution of the Agreement by the Township, a complete copy of a Commercial General Liability Insurance Policy ("CGL") in an amount of no less than Five Million Dollars (\$5,000,000.00) per occurrence, subject to the Township's right to set higher limits if it considers it necessary, naming the Township and the Township's agents, including but not limited to, the Township's Engineer, as additional insured for insurance against all damages or claims for damages. The insurance policy must contain provisions to the satisfaction of and as specified by the Township's insurer, the Township and/or its Solicitor, and the form and content and type of Commercial General Liability Insurance Policy is subject to the approval of the aforementioned parties. In the event that any amendments are required by the Township to the insurance policy the Developer must proceed to obtain an amended policy of insurance and provide a complete copy of the new Commercial General Liability Insurance-Policy-within-thirty (30) days of a-written request by the Township to do so. The Developer shall keep the aforesaid insurance policy in effect until such time as the Works are finally accepted and assumed by the Township and the Maintenance Period has expired.
- 3.4.2 The Developer confirms that the policy will include the following provisions in addition to all standard provisions:
 - 3.4.2.1 Commercial General Liability Insurance of not less than Five Million Dollars (\$5,000,000.00) per occurrence;
 - 3.4.2.2 non-owned automobile liability;
 - 3.4.2.3 cross liability and severability of interest;
 - 3.4.2.4 forty-five (45) days' cancellation or material change notice to all additional insured;
 - 3.4.2.5 additional insured, as required; and
 - 3.4.2.6 blasting, if applicable.
- 3.4.3 The Developer acknowledges and confirms that the premiums for the policy shall be paid initially for a one (1) year period. Upon execution of the Agreement and one (1) month prior to the anniversary date of the policy each year, the Developer shall provide a copy of the renewal policy to the Township showing the insurance to continue to be in full force and effect, failing which the Township shall be entitled to obtain insurance from its own insurer at the Developer's expense.
- 3.4.4 If the Township receives notice from the insurer that it has cancelled or refused to renew the insurance, or that it intends to do so, or if the Township otherwise determines that the insurance has lapsed or is about to lapse without renewal or replacement, the Township may, on written notice to the Developer and at the sole expense of the Developer, obtain insurance in accordance with this Section. In such circumstances, the Township shall be entitled to obtain new insurance or add the necessary insurance coverage to the Township's blanket insurance. The Developer shall forthwith, upon receipt of written notice from the Township, reimburse the Township for the cost of such insurance payable as noted above. In addition, the Township shall, at its sole discretion and option be entitled to draw upon any security posted under the Agreement to cover the costs of this insurance.



- 3.4.5 The Developer acknowledges and agrees that neither the issuance of the policy of insurance nor the acceptance of the policy of insurance by the Township shall be construed as relieving the Developer from responsibility for other or larger claims, if any, for which it may be held responsible.
- 3.4.6 The Developer acknowledges that its insurer shall not be entitled to deny insurance coverage to the Township and the Township's agents, including but not limited to the Township's Engineer, because of equities which may accrue to the primary insurer being the Developer. This would include but not be limited to failure by the Developer to pay its insurance premiums on a timely basis and keep the insurance in good standing, incomplete disclosure by the Developer of all pertinent facts to the insurer or provision of incomplete or improper information to the Developer's insurer.
- 3.4.7 The Developer agrees that in the event the insurance policy is inadequate to cover a claim for which the Township might otherwise be responsible, or the Developer's insurer fails to cover a claim for which the Township might otherwise be responsible, the Township in its sole discretion may utilize any Securities provided by the Developer pursuant to the Agreement to satisfy the said claim or claims.

SECTION 4 - MANAGEMENT OF WASTEWATER PRIOR TO OPERATION OF THE WWTP

4.1 Management of Wastewater Prior to Operation of the WWTP

- 4.1.1 The WWTP shall not be placed into service until the average daily wastewater flow from the Lands is equal to or greater than the Critical Low Flow.
- 4.1.2 The Developer is responsible for continuous monitoring the total flow from the Lands to determine if daily average flows have reached the Critical Low Flow level. The number of occupied units shall not be used to establish if the Critical Low Flow Level has been reached.
- 4.1.3 Prior to construction, the Developer will be required to provide an acknowledgement to the Township that they will be responsible for the interim hauling of raw wastewater generated by the Lands to the Angus WWTP until the Baxter WWTP can be placed into service.
- 4.1.4 The Township will accept the hauled sewage at the Angus facility on an interim basis until the Baxter WWTP can be placed into service; however, the Township reserves the right to stop accepting the hauled sewage for any reason. In that event, the Developer shall arrange for interim haulage to another facility and shall provide written confirmation from the party receiving the wastewater that the Developer is authorized to deliver the wastewater to the facility.
- 4.1.5 The Developer shall provide written confirmation to the Township that they have retained a licensed hauling contractor to undertake the interim hauling.

4.1.6 Haul Routes for Interim Hauling of Wastewater

4.1.6.1. The Developeragrees to provide a Sewage Haul Route Plan which must be approved by the Township and attached as Schedule "C" to the Agreement, including but not limited to items such as management of spills, the time periods during which haulage can occur, and a list of a minimum of four (4) emergency contacts with telephone numbers and email addresses, prior to execution of the Agreement by the Township.



- 4.1.6.2. The Developer agrees that in the event of any failure to comply with the approved Sewage Haul Route Plan, the Township will give notice of such breach to the Developer. The Developer will have forty-eight (48) hours from delivery of the notice within which to either:
 - 4.1.6.2.1. Provide evidence satisfactory to the Township that the breach was not related to the Development and/or not caused by the Developer or any of its employees, associates, contractors, agents, sub-contractors or designates; or
 - 4.1.6.2.2. In the event of not being able to provide such evidence, to pay the sum of One Thousand Dollars (\$1,000.00) to the Township as predetermined liquidated damages for each documented breach of the haul route.
- 4.1.6.3. The parties acknowledge that the liquidated damages reasonably reflect the additional cost of the Township's administration, inspection, site attendances and labour costs in monitoring compliance with the haul route requirements of this Agreement.
- 4.1.6.4. The Developer agrees to keep, maintain, and make available for inspection the following records in a good and businesslike manner as applicable and as required by the Township:
 - 4.1.6.4.1. The full and complete legal name, and business name, if different from the legal name, of each hauler;
 - 4.1.6.4.2. The date, time, and volume of each delivery;
 - 4.1.6.4.3. The Developer must ensure the following as applicable and as required by the Township:
 - 4.1.6.4.3.1. Provision of temporary signage to identify haul route;
 - 4.1.6.4.3.2. Measures to be employed to prevent tracking mud and other debris onto the road:
 - 4.1.6.4.3.3. Measures to be employed to ensure minimal disruption of normal traffic and maximum noise from trucking; and
 - 4.1.6.4.3.4. Provision of at least five (5) business days' notice to the Township of the commencement of hauling of sewage.
 - 4.1.6.4.4. The Developer is responsible for all maintenance and related costs for the following:
 - 4.1.6.4.4.1. Damage to or degradation of the roads that are used by vehicles hauling any material;
 - 4.1.6.4.4.2. To keep said roads in a good state of repair and free from dust and mud, including but not limited to application of mud mats,



road cleaners, and dust control suppressants;

4.1.6.4.4.3. For any other reasonable work required on the roads that the Township may deem necessary to address damage related to the Haulage;

4.1.6.4.4.4. In the event that the Developer does not complete the maintenance required pursuant to this Section or otherwise, the Township may utilize any Securities deposited with the Township pursuant to the Subdivision Agreement to complete any such work;

For the Haulage permitted under the Agreement, the Township may require the Developer to produce an Initial Road Condition Report detailing the condition of any Township roads being used to haul sewage, or other material. The Township may use the Initial Road Condition Report to require the Developer to contribute, to the extent it is reasonably found liable, to the restoration of the road being used to haul the sewage, to its initial condition as set out in the Initial Road Condition Report, at the sole expense of the Developer, at the discretion of the Township, acting reasonably.

SECTION 5 - CONSTRUCTION AND OPERATION OF THE WWTP

5.1 <u>Commencement of Construction</u>

5.1.1 The Developer shall not commence construction until:

4.1.6.4.4.5.

- 5.1.1.1. All required securities have been deposited by the Developer;
- 5.1.1.2. The Plans and Specifications have been deemed sufficiently complete by the Township, to allow construction to start;
- 5.1.1.3. All required permits and approvals have been secured and copies provided to the Township.

5.2 Construction in Accordance with Approved Plans

- 5.2.1 The Developer shall construct the WWTP in accordance with the approved Plans and Specifications in accordance with this Agreement and the Subdivision Agreement.
- 5.2.2 The Developer hereby agrees that the WWTP shall be constructed in a good and workmanlike manner free of any defects (even if such defect is as a result of faulty workmanship, material or design).

- 5.2.3 The Developer agrees that it shall maintain and keep current the approvals of all government agencies and that it shall comply with all the requirements of those agencies.
- 5.2.4 The Developer agrees to maintain the WWTP site and surrounding areas in a tidy and orderly manner, free of debris, dust, and mud.

5.3 Substantial Completion

- 5.3.1 When all, or the interim portion (forcemain along Gauley Drive and the onsite lift station), of the WWTP has been completed, the Developer's Engineer shall notify the Township, provide certification of the satisfactory completion, and request an inspection. Once requested, the Township will perform an inspection and arrange for all appropriate agencies to perform their inspections.
- 5.3.2 When the Township is satisfied that the interim portion of the WWTP has been substantially completed, the Township may grant occupancy, provided all other occupancy requirements as further described within the Subdivision Agreement are also met. Substantial Completion shall not be met until such time as the full WWTP is operational.
- 5.3.3 Substantial Completion may be issued when the Township is satisfied that the full WWTP has been substantially completed in accordance with the Plans and Specifications, the Letter of Commitment from the Developer dated January 7, 2022 and attached as Appendix H, and the Developer has supplied the Township with the following:
 - 5.3.3.1. Certification from the Developer's Engineer that the WWTP has been constructed in conformance with the approved plans, specifications, permits, and approvals.
 - 5.3.3.2. Certification from the Developer's Engineer that the Start Up and Commissioning Plan has been successfully completed. This may include:
 - 5.3.3.2.1. Commissioning checklist
 - 5.3.3.2.2. Witnessing and documentation of all tests and equipment operation/verification
 - 5.3.3.2.3. Completion and documentation of performance testing
- 5.3.3.3. Final Operation & Maintenance (O&M) Manual, including all approvals, permits, warranties, guaranty certificates, etc. as detailed in Schedule D, to the satisfaction of the Township;
- 5.3.3.4. The Developer has provided the Township with a Process Control Narrative that follows the structure and content provided in Schedule E and as approved by the Township.
- 5.3.3.5. Record drawings.
- 5.3.3.6. A Statutory Declaration, in a form approved by the Township, that all accounts for work and materials have been paid except for statutory holdbacks the Developer is required to retain pursuant to the Construction Act and confirmation there are no outstanding claims for liens or otherwise in connection with work done or materials supplied for or on behalf of the Developer in relation to the WWTP.

- 5.3.3.6.1. The Certificate of Substantial Completion may contain a list of minor deficiencies which are to be corrected by the Developer in the specified timeframe, but which are not considered of sufficient importance to delay the issuance of Substantial Completion.
- 5.3.3.6.2. If the deficiencies are not completed in accordance with the approved schedule, the Township may proceed to have the deficiencies corrected at the Developer's expense.
- 5.3.3.6.3. The Township may withhold the Certificate of Substantial Completion if the Developer is in default of any requirements or obligations of this Agreement or the Subdivision Agreement.

5.4 <u>WWTP Maintenance Period</u>

- 5.4.1 The Maintenance Period for the WWTP shall commence from the date that the Township issues the Certificate of Substantial Completion for the WWTP and extending for a period of two (2) years following occupancy of 253 residences (Phase 1 and Phase 2 ultimate completion) in the Development or when wastewater received at the WWTP from the development is equal to the design capacity of the WWTP (360 m³/d average day flow or 500 m³/d peak day flow to be confirmed during design), whichever event occurs first, unless there is a capacity shortfall (insufficient capacity) occurs, which will result-in-extending the maintenance period by default.
- 5.4.2 During the Maintenance Period, the Township and/or the Township's designated Operating Authority shall be responsible for all typical costs for the operation and maintenance of the WWTP, including equipment replacement costs, consumables, utilities, etc., which are to be reimbursed by the Developer. The Developer shall be responsible for all costs incurred for rectification of issues stemming from the design or construction of the WWTP, including odour control issues stemming from the design of the odour control system.
- 5.4.3 The Township, on behalf of the Operating Authority, shall provide monthly invoices to the Developer in connection with the costs of operating and maintaining the WWTP during the Maintenance Period.
- 5.4.4 The WWTP Maintenance Period is required to ensure and demonstrate that the WWTP is operating reliably and achieving its effluent performance limits as defined in the Environmental Certificate of Approval (ECA). The Township may extend the Maintenance Period as required, if all Developer's obligations have not been completed in accordance with the Agreement. The Township reserves the right in its discretion, acting reasonably, to choose the length of extension for the WWTP Maintenance Period.
- 5.4.5 During the WWTP Maintenance Period, the Township and/or the Township's designated Operating Authority will be responsible for the management, storage, and off-site disposal of sludge and/or biosolids generated at the WWTP in accordance with the governing regulations and MECP guidelines.
- 5.4.6 Prior to placing the WWTP into service, the Developer shall provide the Township with written confirmation that they have a standing agreement with a biosolids hauler for hauling and disposal (land-application) of the biosolids generated at the facility.
- 5.4.7 The Developer further agrees that, during the WWTP Maintenance Period, the WWTP shall be operated by the Township or its designated Operating



Authority, the Ontario Clean Water Agency (OCWA). The Township shall enter into agreement with the Operating Authority such that the Operating Authority shall be responsible for all operational and day-to-day duties required to operate the WWTP in a manner to ensure its continuous performance in meeting the effluent limits and objectives as set out in the ECA, as well as all MECP reporting and record keeping requirements, responding to all complaints received at the facility, site maintenance, ordering equipment and supplies, coordinating repairs, payment of fees/fines resulting from conditions created at the WWTP due to operational and/or maintenance practices at the facility, excluding issues related to design or construction errors and odour control issues related to design or construction of the odour control system, which are the Developer's responsibility.

- 5.4.8 During the Maintenance Period, the Developer will be responsible for rectification and all costs associated with rectification of issues stemming from the design, performance of the odour control system due to its design, and/or construction of the WWTP. Rectification-measures will-include but not be limited to redesigning of the WWTP components or systems, implementing upgrades or modifications to the WWTP required to correct the design/construction issues, payment of all costs associated with developing and implementing the corrective measures, payment of all fees/fines resulting from the WWTP performance issues due to the design and/or construction.
- 5.4.9 During the Maintenance Period, the Developer shall arrange for monthly meetings with the Township and the Operating Authority to review WWTP operation and maintenance activities, identify operational / maintenance challenges, advise the Developer of design and/or construction deficiencies.
- 5.4.10 The Operating Authority shall provide the Developer and their representatives with access to the WWTP within a reasonable time frame to investigate and implement remedies related to design or construction issues. The Developer shall implement corrective measures after discussion with and agreement from the Township and in such a way to avoid contravention of the WWTP's ECA requirements.
- 5.4.11 Within 120 days following approval of the User Rate Study, as defined herein, the Township may reimburse the Developer a percentage of the annual collected user fee minus the annual required funds for lifecycle infrastructure renewal costing as defined in section 5.4.12 to offset a percentage of operation and maintenance fees paid by the developer during maintenance period
- 5.4.12 Lifecycle infrastructure renewal costing is the actual total cost to construct the WWTP facility excluding applicable divided by 20 years (end of life cycle), inflated on 20 years to establish a healthy asset management reserve to replace the entire facility at year 20 (end of life cycle). This yearly dollar amounts will be kept with the municipality in the Asset management reserve collected from the User fee.

5.5 User Rate Study

5.5.1 Commencing with the first occupancy, the Township will collect user fees in accordance with their current user rates. These fees will be held in the municipality's reserve fund. Once the average daily flow at the WWTP reaches 65% of the projected full-buildout average flow, based on a minimum of one month of flow data, the Developer shall undertake a User Rate Study, at their own expense, to review the operation and maintenance cost history, establish projected operation and maintenance costs over the lifecycle of the facility, determine suitable reserve funds, and determine what the user rates should



be. Following approval of the User Rate Study by the Township, the Developer may be eligible to begin receiving a portion of the total fees and charges collected by the Township to offset the operation and maintenance costs, up to a maximum of the amount actually invoiced to, and paid by the Developer for operation and maintenance of the WWTP.

5.6 <u>Maximum Occupancy</u>

5.6.1 If average daily flows or peak daily flows to the WWTP at any time reach the WWTP's rated average day or rated peak day capacity, as defined in its ECA, prior to full occupancy of the Development (Phase 1 and/or 2), the Developer will not be permitted to increase occupancy in the development.

SECTION 6 - FINAL ACCEPTANCE/ASSUMPTION OF WWTP

- 6.1 The Developer acknowledges that ownership of the WWTP and the land upon which it is to be located will be transferred to the Township in accordance with the requirements of the Subdivision Agreement entered into between the Township and the Developer, and the Developer agrees to provide signed Transfers/Authorization and Directions to the Township's Lawyer prior to execution of the Subdivision Agreement by the Township.
- **6.2**—Within_thirty_(30)_days_of_the_expiration_of_the_WWTP_Maintenance_Period,_the_Developer shall make a written request to the Township for a final inspection to be made and, despite the two (2) year period or greater period as noted herein, the WWTP Maintenance Period will continue until:
 - 6.2.1 All outstanding works or repairs have been completed to the satisfaction of the Township.
 - 6.2.2 The Developer has provided to the Township, and in form acceptable to the Township, a detailed list and construction cost or supply value of the assets being acquired by the Township to be included in the inventory of assets owned by the Township pursuant to the Township's asset management requirements.
 - 6.2.3 All permits and approvals have been transferred to the Township.
 - 6.2.4 The Township has issued the Certificate of Maintenance and Final Acceptance.

SECTION 7 – SECURITY FOR CONSTRUCTION AND OPERATION

- 7.1 Before signing the Agreement, the Developer will deposit with the Township an irrevocable Letter or Letters of Credit from a Tier 1 Canadian Chartered Bank in the format provided in Schedule "G" attached and in the amount as set out in Schedule "F" attached, which is one hundred and ten percent (110%) of the estimated cost of works. This is to cover the faithful performance of the works and is in addition to any monies previously deposited with the Township.
- 7.2 The requirements for discharging of securities are as described in the Subdivision Agreement.



SECTION 8 - INSPECTION AND MONITORING

- 8.1 The Developer agrees to retain a Consulting Professional Engineer ("Developer's Engineer"), skilled and experienced in the type of work pertaining to this Agreement, to supervise, monitor, and inspect the work, including providing certifications as required by the Township related to performance and up to the end of the Maintenance Period. The requirements of the Developer's Engineer for the purposes of this Agreement will be consistent with those as described within the Subdivision Agreement.
- 8.2 The Developer covenants and agrees to allow the Township, its employees, officers, servants and agents a right of access to the WWTP to allow the Township to perform periodic inspection as required by the Township.
- 8.3 The Developer acknowledges and agrees that if, in the reasonable opinion of the Township, the WWTP requires emergency operation or repairs, such operation or repairs shall be carried out in an expeditious manner by the Developer, at its sole expense, or, if the Township so determines, may be carried out by the Township at the Developer's expense. The reasonable cost of such emergency operation or repairs completed by the Township shall be recoverable within fifteen (15) days of written demand therefor and, in default of payment, may be deducted by the Township from the Developer's security as referenced in Section 7.1 of this Agreement.

IN WITNESS WHEREOF the Parties hereto have executed the Agreement. Dated at_____, ON , this__ day of THE CORPORATION OF THE TOWNSHIP OF ESSA Per:_ Name: Sandie Macdonald Title: Mayor Per: Name: Lisa Lehr Title: Clerk We have authority to bind the Corporation. ____, ON , this_ **BROOKFIELD RESIDENTIAL (ONTARIO) LIMITED** Per: Name: Title: Per: Name: Title: I/We have authority to bind the Corporation.



Dated at	, ON , this	day of
	•	(1st MORTGAGEE) C.L. MARSHALL FARMS LIMITED
		Per: Name: Title: I/We have authority to bind the Corporation.
Dated at	, ON , this	day of
Witness: (as to signature		(1st MORTGAGEE)
		Randall Marshall

SCHEDULE "A"

LEGAL DESCRIPTION OF LANDS

NOTE: It is understood and agreed that this Schedule forms part of The Corporation of the Township of Essa Wastewater Treatment System Servicing and Responsibility

LEGAL DESCRIPTION OF LANDS

Part of Lot 16 Concession 4 Essa, Parts 1 And 2 Plan 51R41377; Township of Essa, County of Simcoe, being part of PIN 58990-0115.

Assessment Roll Number: 4321 010 007 15400

Phase 1:

Lots 1 through 119 (inclusive) and Blocks 120 through 123 (inclusive), and Henderson Street, Shorey Lane, Edgar Avenue and Felhazi Trail on the unregistered plan of subdivision M-Plan

Phase 2:

Lots 1 through 134 (inclusive) and Blocks 135 and 136 (inclusive), and Henderson Street and Cochrane Crescent on the unregistered plan of subdivision M-Plan

LEGAL DESCRIPTION OF TOWNSHIP LANDS

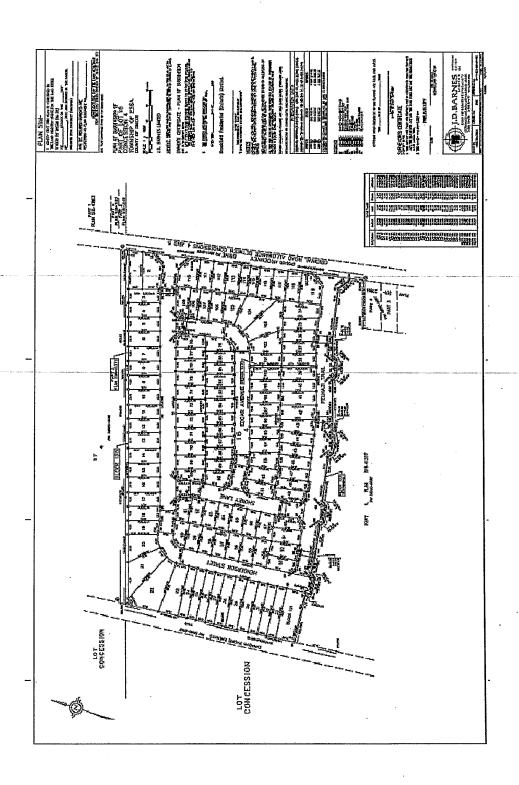
Pt Lt 16 Con 5 Essa being Pts 1, 2, & 3 on 51R-41354, Township of Essa, County of Simcoe, being all of PIN 58111-0347.

SCHEDULE "B-1"

M-PLAN FOR PHASE 1

NOTE: It is understood and agreed that this Schedule forms part of The Corporation of the Township of Essa Wastewater Treatment System Servicing and Responsibility Agreement

A reduced copy of the unregistered Plan for Phase 1 is attached to the originally executed copies of the Subdivision Agreement. The Parties have agreed to the unregistered Plan contained in this Agreement. They, and other details relating thereto, can be viewed at the Township of Essa offices at 5786 Simcoe County Road #21, Utopia, ON, LOM 1TO during business hours from Monday — Friday.

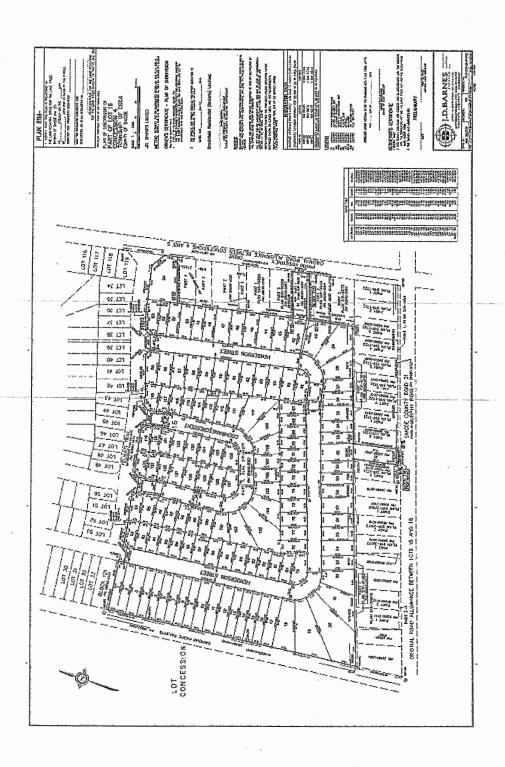


SCHEDULE "B-2"

M-PLAN FOR PHASE 2

NOTE: It is understood and agreed that this Schedule forms part of The Corporation of the Township of Essa Wastewater Treatment System Servicing and Responsibility Agreement

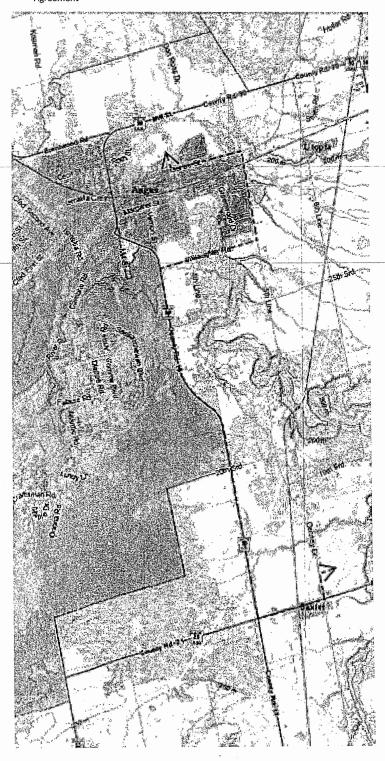
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SCHEDULE "C"

HAULAGE ROUTE FOR INTERIM SEWAGE TRUCKING

NOTE: It is understood and agreed that this Schedule forms part of The Corporation of the Township of Essa Wastewater Treatment System Servicing and Responsibility Agreement





Haul Route for WWTP Temporary Sewage Hauling



SCHEDULE "D"

REQUIRED STRUCTURE OF WWTP OPERATING AND MAINTENANCE MANUAL

NOTE: It is understood and agreed that this Schedule forms part of The Corporation of the Township of Essa Wastewater Treatment System Servicing and Responsibility Agreement

Γ	PAF	RT ONE - OPERATIONAL DESCRIPTION	<u>PA</u> I	RT TWO – EQUIPMENT MANUFACTURERS' DATA
	1.	BACKGROUND/INTRODUCTION	1.	
	2.	ABBREVIATIONS		1.1. Local SBR Sales Representative
	3.	PLANT APPROVALS AND PERMITS		1.2. SBR Process Design, Decanters, and
	4.	PLANT DESCRIPTION and MAJOR COMPONENTS		Controls
1		4.1. Lift Station		1.3. Aeration System
		4.2. Raw Balance Tank		1.4. Air Control Valves
		4.3. Sequencing Batch Reactor		1.5. Blowers
		4.4. Post SBR EQ Tank		1.6. Pumps
		4.5. Tertiary Filtration System		1.7. Tertiary Treatment
		4.6. UV Disinfection System		1.8. UV System
	-charter 11	4.7. Alum Dosing System		1.9. Instrumentation
		4.8. Sludge Storage		1.10. Etc.
		4.9. Plant Performance Monitoing System	2	WARRANTY CERTIFICATES
		4.10. Control System	3.	
		4.10.1. PLC	٦.	EQUI MENT DATA SILETS
-		4.10.1. Operator Interface (HMI)		
1		• • • •		
		4.11. Power Supply System 4.11.1.—Facility Power-System		
		4.11.2. Standby Power System	******	The state of the s
		4.12. Building HVAC and Plumbing 4.12.1. HVAC		
	_	4.12.2. Plumbing		
	5.	DESIGN PARAMETERS		
-		5.1. Plant Design Parameters		
		5.2. Plant MECP Performance Requirements		. •
-		5.3. Control Setpoints		
		5.3.1. SBR Decanter		
		5.3.2. Dissolved Oxygen	١.	
		5.3.3. Waste Activated Sludge (WAS)		
		Pump		
	_	5.3.4. Etc.		
	0.	EQUIPMENT OPERATION		
		6.1. Lift Station		
		6.2. Raw Balance Tank		
		6.3. Sequencing Batch Reactor		
		6.3.1. Aeration System		
		6.3.2. Decanters		
		6.3.3. Waste Activated Sludge (WAS)		
		Pumps		•
		6.3.4. Dissolved Oxygen Control System		
		6.4. Post SBR EQ Tank		
		6.5. Tertiary Filtration System		
		6.6. UV Disinfection System		
		6.7. Sludge Storage		
		6.8. Alum Dosing System		
-		6.9. Power Supply System		
		6.9.1. Facility Power System		
		6.9.2. Standby Power System		
-		6.10. Building HVAC		
		6.10.1. HVAC		



SCHEDULE "E"

REQUIRED STRUCTURE/CONTENTS OF WWTP PROCESS CONTROL NARRATIVE

NOTE: It is understood and agreed that this Schedule forms part of The Corporation of the Township of Essa Wastewater Treatment System Servicing and Responsibility Agreement

1. INTRODUCTION

2. CONTROL PHILOSOPHY AND SCADA MONITORING

- 2.1. Control Hierarchy
- 2.2. Interlocks
- 2.3. Alarms
- 2.4. Statistical Calculations
- 2.5. Trends
- 2.6. Device Virtual Points

3. PROCESS OVERVIEW

- 3.1. Block Diagram of Processes
- 3.2. Description of Process Overview
- 3.3. Equipment
- 3.4. Instrumentation
- 3.5. Modes-of-Operation-
 - 3.5.1. Normal Operation
 - 3.5.1.1. Automatic

 - 3.5.1.2. Manual
 - 3.5.2. Emergency Operation

4. I/O LISTING

5. CONTROL LOGIC

- 5.1. Lift Station
- 5.2. Raw Balance Tank
- 5.3. Sequencing Batch Reator
- 5.4. Post SBR Tank
- 5.5. Tertiary Filtration System
- 5.6. UV Disinfection System
- 5.7. Alum Dosing
- 5.8. Sludge Storage / Management

6. FAILURE RESPONSE

- 6.1. PLC Failure Response
- 6.2. Power Failure Response
- 6.3. Equipment Failure Response
- 6.4. Interlock Summary
- 7. PROCESS SETTINGS

SCHEDULE "F"

ESTIMATED COST OF WORKS TO BE CONSTRUCTED

NOTE: It is understood and agreed that this Schedule forms part of The Corporation of the Township of Essa Wastewater Treatment System Servicing and Responsibility Agreement



SCHEDULE "G"

LETTER OF CREDIT

NOTE: It is understood and agreed that this Schedule forms part of The Corporation of the Township of Essa Wastewater Treatment System Servicing and Responsibility Agreement

BANK OF _	
DATE OF ISSUE:, 2012	
APPLICANT: Name of Customer Address of Customer Address of Customer (hereinafter called the "Applicant")	BENEFICIARY: The Corporation of the Township of Essa 5786 Simcoe County Road 21, UTOPIA ESSA TOWNSHIP ON LOM 1TO (hereinafter called the "Beneficiary")
AMOUNT:	and 00/100's
Canadian Dollars (Cdn. \$00)	
Irrevocable and Unconditional Standby Letter	of Credit Number:(The "Credit")
	ter of Credit is issued subject to "Uniform Customs and Revision, being International Chamber of Commerce
Ontario, (postar code), for the a	account of our customer,, account of our customer,, account of, all code), up to an aggregate amount of and 00/100's Canadian Dollars (Cdn. \$
establish and give to you an Irrevocable Letter of may be drawn on by you at any time and fron upon us by you which demand we shall hor	, We, the Bank of, hereby of Credit in your favour, in the above total amount, which in time to time upon written demand for payment made nour without enquiring whether you have the right as ake such demand and without recognizing any claim of yment by us.
Township of Essa. Partial drawings shall be pe state on its face that it is drawn under this Le Letter of Credit must be presented with the de	an authorized signing officer of The Corporation of the rmitted. Demand drawn under this Letter of Credit is to tter of Credit stating its number and date. The original mand to us at the Bank of
Condominium / Site Plan / Other Agreement, in obligations, between our said customer, and Mortgagees, regarding Pre-Servicing / Sub-	es to a Pre-servicing / Subdivision / Development / cluding but not limited to municipal services and financial, and The Corporation of the Township of Essa, division / Development / Condominium / Site Plan / other (property description), Township of Essa,



Schedule "G" Page 2

The amount of this Letter of Credit may be reduced from time to time, as advised by notice in writing, given to us by an authorized signing officer of The Corporation of the Township of Essa.

We hereby agree that drawings under this Letter of Credit will be duly honoured upon demand.

The Letter of Credit will continue in force for a period of one year, but shall be subject to the condition hereinafter set forth. It is a condition of the Letter of Credit that it shall be deemed to be automatically extended without amendment for one year from the present or any future expiration date hereof, unless at least thirty (30) days prior to the present or such future expiration date, we notify you in writing by registered mail or courier with proof of receipt by you that we elect not to consider this Letter of Credit renewed for any such additional period.

For and on Behalf of Bank of	Bank of	
(Authorized Signature)	(Authorized Counter Signature)	
Letter of Credit Number:		

THIS DOCUMENT CONSISTS OF TWO (2) PAGES



SCHEDULE "H

LETTER OF COMMITMENT FROM BROOKFIELD FOR WWTP DESIGN



TOWNSHIP OF ESSA STAFF REPORT

STAFF REPORT NO.:

C005-23

DATE:

March 22, 2023

TO:

Committee of the Whole

FROM:

Krista Pascoe, Deputy Clerk

SUBJECT:

2023 General Assistance Grants

RECOMMENDATION

That Staff Report C005-23 be received; and

That Council approve the recommended tax exemption and donation amounts as presented in Attachment No. 1 of this Report.

BACKGROUND

Each year the Township collects grant applications from organizations requiring financial assistance for a variety of reasons. In order to be eligible for consideration as a recipient, the applicant must be:

- A not-for-profit, or registered charitable organization; and
- · Operated by a volunteer base; and
- Provide accessible, needed, and worthwhile service proven to benefit the Township of Essa residents.

In accordance with Policy A01-19 "Community Assistance Grants" (Attachment No.2), the deadline for submission is January 31st each calendar year.

COMMENTS AND CONSIDERATIONS

Letters and applications were mailed out to previous recipients in November of 2022, requesting submission of their completed application with their supplementary documentation prior to the deadline of January 31, 2023. Additionally, a notice was placed on the Township's website, Facebook Page and Twitter account to encourage organizations to submit their funding requests to the Clerk's Department prior to the deadline.

The Clerk's Department has received 19 applications of which are summarized for Council's consideration (Attachment No. 1) and approval.

FINANCIAL IMPACT

\$9,000.00 was approved in the 2023 Operating Assistance Budget for the Municipal Grants/Donations Program.

Should Council approve the recommended amounts contained in Attachment No. 1, the total to be awarded to recipients is \$8,700.00.

Should Council wish, they could increase the recommended amounts as they see fit or leave the remaining \$300.00 in the Operating Assistance G/L to be awarded to applicants at a later date (in the event that applications are received in the future.)

Manager of Finance

SUMMARY/OPTIONS

Council may:

- 1. Take no further action, thereby receiving the Report and not approving any municipal grants in 2023.
- 2. Approve the recommended tax exemption and donation amounts as presented in Attachment No. 1 of this Report.
- 3. Approve the tax exemption and donation amounts with adjustments as deemed appropriate by Council.

CONCLUSION

It is recommended that Council approve Option No. 2.

Respectfully submitted:

Reviewed by:

Reviewed by:

Krista Pascoe

Lisa Lehr

Deputy Clerk

Manager of Legislative Services

Colleen Healey-Dowdall Chief Administrative Officer

Attachments:

- 1. 2023 Community Assistance Grant Allocations
- 2. Policy A01-19 "Community Assistance Grants"

Attachment 1 2023 Grant Application Summary

			± 2022	2023	2023	2023
Organization	Purpose/Event	T/E/ Grant	Amount	Requested	Recommended	Amount Approved by
			Approved	Amount	Amount	Council
Alliston & Area Physician Recruitment	Recruitment and Retention of medical doctors in the Community	Grant	n/a	\$ 8,000.00	\$ -	
Angus & District Lions Club	Canada Day (parade of flags, local talent, music/dance etc.)	Grant	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	
Angus Royal Legion Branch 499	Grant would be used towards purchase of presentation equipment	Grant	\$ 1,000.00	\$ 1,650.00	\$ 1,000.00	
Angus Santa Claus Parade Committee	Santa Claus Parade (prizes, floats, bands, handouts etc.)	Grant	\$ 500.00	\$ 500.00	\$ 500.00	
Camphill Communities Ontario	Grant would be used towards housing and capital renovations req'd for affordable housing	Grant	\$ 300.00	\$ 2,500.00	\$ 300.00	
Community Living Association (CLASS)	Grant would be used towards purchase of a new dining table for our group home in Essa	Grant	n/a	\$ 1,141.00	\$ -	
Essa & District Agricultural Society	Grant would be used towards Essa and District Agiriculture Society Essa National Draft Horse Show	Grant	\$ 300.00	\$ 5,000.00	\$ 300.00	
Friends of the Utopia Mill & Park	Grant would be used towards the retention of the Utopia Conservation Area	Grant	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	
Friends of the Utopia Mill & Park	Tax Exemption assists in the retention of the Utopia Conservation Area	T/E	\$ 550.00	\$ 550.00	\$ 550.00	
Museum on the Boyne	To assist with the cost of storage boxes to properly store and preserve a collection donated by Essa resident Walter Ball	Grant	\$ 300.00	Any amt	\$ 300.00	
Next Step Literacy Council of South Simcoe	Grant would assist with the purchase of a new laptop	Grant	\$ 400.00	\$ 500.00	\$ 400.00	
Nottawasaga Pines Secondary School	Assist with ensuring local Youth are certified lifeguards prior to graduation	Grant	n/a	\$ 5,000.00	\$ -	
Nottawasaga Pines Secondary School	To provide a \$100.00 award to two (2) well deserving students	Grant	\$ 200.00	\$ 200.00	\$ 200.00	
Pinewoods Chapel	Grant would be used to assist with the costs incurred running the Free Food Friday program	Grant	\$ 300.00	\$ 1,500.00	\$ 300.00	
S.H.I.F.T	Grant would assist with the costs relating to the winter programming/overnight shelter and daytim	e Grant	n/a	\$ 10,000.00	\$	
Simcoe County Plowmen's Association	Grant would be used to assist in paying our competitors prize money and advertising the event, etc.	. Grant	\$ 300.00	\$ 300.00	\$ 300.00	
South Simcoe 4-H Association	Grant would be used to subsidize memebership fee and help with costs of youth camps and conferences	Grant	\$ 250.00	\$ 500.00	\$ 250.00	
South Simcoe Arts Council	Grant would be used to support Youth Arts Programming	Grant	\$ 300.00	\$ 500.00	\$ 300.00	
The Good Shepherd Food Bank of Alliston	Grant would assist with the purchase of a Ford Transit Cargo Van	Grant	n/a	\$ 5,000.00	\$	
Thornton and Area Action Committee	Grant would be used to continue with planting of flowers and to assist with banners and supplies for special events	Grant	\$ 1,500.00	\$ 3,000.00	\$ 1,500.00	
Thornton Horticultural Society	Grant would be used to help maintain and keep the community looking beautiful with flowers and trees	Grant	\$ 350.00	\$ 500.00	\$ 500.00	
				Total	\$ 8,700.00	
	Total T/E and Grants /	Mocated I	Based on Reco	mmendations	\$ 8,700.00	
	Total Budg	et - Gener	al Assistance	Grant Account	\$ 9,000.00	
	Amount Remaining in General Grant Account to be kept fo					
	The process of the state of the			, ,		





Township of Essa Policy # A01-19 "Community Assistance Grants"

SUBJECT:	Date issued:	Effective Date:	Resolution No:
Community Assistance Grants	February 28, 2019	March 6, 2019	CW045-19
SCOPE: STAFF, COUNCIL AND A	APPLICANTS	Revised: n/a	Page 1 of 2

A. PURPOSE:

The Township of Essa's Community Assistance Grants Policy establishes eligibility requirements and outlines application requirements. The Community Assistance Grant Program is available to help support not-for-profit organizations, whose initiatives add to the quality of life for the residents of Essa Township as a whole.

B. GRANT APPLICATION PROCESS:

All completed applications must be submitted to the Clerk's Department, no later than January 31st of each calendar year, with all supporting documentation attached as follows;

- 1. Brief description of the organization, including its constitution, mission statement, or statement of purpose.
- 2. Purpose for which the Grant will be used.
- 3. Previous Years financial statement.
- 4. Proposed Budget for the current operating year.
- 5. Reporting on how previous years Grants were used.
- 6. List of volunteer Board of Directors/Executive (name, address and telephone number).
- 7. Other sources of funding the applicant has applied for or obtained.
- Signature of signing authority (ies).

C. ELIGIBILITY CRITERIA

In order to be eligible for a Community Grant, applicants must meet all of the following criteria:

- 1. Must be a not-for-profit, or registered charitable organization; and
- 2. Must be operated by a volunteer base; and
- 3. Provide an accessible, needed and worthwhile service proven to benefit the Township of Essa residents.

D. APPLICATION APPROVAL PROCESS:

Upon commencement of the annual budget process each fall, the Township will provide notification to the public through its electronic media (website and twitter) as well as mailing the notice to past recipients.

- 1. Applications must be submitted using the prescribed form.
- 2. Only complete applications received on or before the deadline will be reviewed.
- 3. Applications will be reviewed by members of staff and recommendations for assistance will be prepared and submitted for Council approval.
- 4. The application process is a competitive process and there is no guarantee that any award will be granted, or that the amount requested will be awarded in full.
- 5. Only successful applicants will be contacted, and a cheque will be forwarded.





Township of Essa Policy # A01-19 "Community Assistance Grants"

Where to but med country sales			
SUBJECT:	Date issued:	Effective Date:	Resolution No:
Community Assistance Grants	February 28, 2019	March 6, 2019	CW045-19
SCOPE: STAFF, COUNCIL AND A	PPLICANTS	Revised: n/a	Page 2 of 2

Notwithstanding the eligibility and criteria above, Council may approve application requests that do not meet all criteria or are inconsistent with the requirements in this Policy, at their discretion, provided that the requested amount in the application does not exceed the annual approved Community Assistance Grant Program budget.

Appendices:

1. Township of Essa Grant Application.



Appendix 1 TOWNSHIP OF ESSA

GRANT APPLICATION

Applications for grants and donations are not automatically renewed each year; each application is reviewed based on merit each budget year. Organizations requesting donations may be required to submit recent bank statements and/or financial statements. Please attach a separate sheet if additional space is required to complete your application. Financial Donation in the amount of \$_____ REQUESTING: OR Township Tax Grant – Property Roll Number: Organization Name and Address Information Organization Name Address Postal Code _____ Town Telephone _____ Contact Name e-mail _____ Fax _____ Organization Information Number of Essa Membership Fee Members Residents If Applicable _____ Geographic Area Served: _____ Date Formed _____ Outline the mission, purpose and objectives of your organization. Purpose for which the current grant/donation would be used, if approved. Give complete details, i.e. project or event description, time frame, and community benefits relative to The Township of Essa.

17/

Type of Organization (i.e. Registered Charity, Non-Profit Organization, etc.) and registration number.

Other Sources of Revenue grants/subsidies, private fund		at have been or will b	pe received – oth	ner donations
Do you currently receive oth waiver or reduction, photoco			bsidization, tax r	eductions, fe
	the first section of the form of the contract	and the contract of the contra		
Have you received grants/do Amount Requested ***A FINANCIAL STATEME Signature of Authorized Of	Amount A	oproved JS YEAR IS TO BE A	Year(s)	
Amount Requested***A FINANCIAL STATEME Signature of Authorized Of	Amount A	pproved JS YEAR IS TO BE A	Year(s)	
Amount Requested ***A FINANCIAL STATEME Signature of Authorized Of	Amount A	Diproved	Year(s)	
Amount Requested ***A FINANCIAL STATEME Signature of Authorized Of Name and Positio Name and Positio For Office Use Only	Amount A	Date	Year(s)	
Amount Requested ***A FINANCIAL STATEME Signature of Authorized Of Name and Positio Name and Positio For Office Use Only App	Amount A	Date Denied	Year(s)	

Note: Personal information contained on this form is collected pursuant to the *Municipal Freedom of Information and Protection of Privacy Act*, and will be used for the purpose of determining eligibility for grants. Questions about this collection should be directed to the Clerk/Freedom of Information Coordinator, The Corporation of the Township of Essa, 5786 County Road 21, Utopia, Ontario, L0M 1T0.