

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 5130-DBERCS

Issue Date: February 24, 2025

John Alexander Lowater
421 Palamino Pl
Waterloo, ON N2K 4K5

Site Location: Private Cottage Lot 923A Conestogo Lake
Lot Part of Lot 1, Concession 3
Township of Mapleton, Wellington County, ON N0G 1P0

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

establishment, use and operation of the Works for the treatment of sanitary sewage and subsurface disposal of treated effluent, rated at Maximum Daily Flow of 2,200 litres per day to service a proposed three-bedroom dwelling for recreational use, located at the above noted location, and consisting of the following:

PROPOSED WORKS**Septic / Sludge Tank (Identified as Anaerobic Digester) with Internal Pump Chamber**

- one (1) 4,565 litre single-compartment Waterloo Biofilter anaerobic digester model ADIPC-5700, located north of the proposed dwelling, equipped with an InnerTube, and an internal pump chamber equipped with a pump rated at about 212 litres per minute at a total dynamic head of 3 metres and complete with float control, a high level alarm and an inline filter, receiving raw sewage from the proposed residence identified above and discharging effluent to the proposed Waterloo Shed treatment unit as described below via a 50 millimetre forcemain;

Waterloo Shed Treatment Unit

- one (1) Waterloo Shed Treatment Unit model SH-35 (1.52 m x 2.46 m x 1.42 m; W x L x H), located southwest of the proposed dwelling, equipped with three (3) effluent spray nozzles, having a treatment capacity of 3,500 litres per day and a minimum volume of 4.9 cubic metres foam cube media, receiving effluent from the proposed anaerobic digester as described above and discharging effluent from an open-bottomed even distribution system to the proposed Type A dispersal bed as described below;

Type A Dispersal Bed

- one (1) Type A dispersal bed, located south of the proposed dwelling, receiving effluent from the proposed Waterloo Shed treatment unit as described above, consisting of a stone layer of area of 30 square metres, a minimum thickness of 200 millimetres, covered by geotextile fabric, overlaying a minimum 300 millimetre imported sand layer with a total area of 230 square metres, including a minimum 15 metre mantle extension in the downgradient direction beyond the perimeter of the treatment unit, and maintaining a minimum separation distance of 600 millimetres between the bottom of the stone layer and high groundwater table or native underlying soil with a percolation time of greater than 50 minutes per centimetre.

EXISTING SEWAGE SYSTEM

- one (1) existing Class 4 onsite sewage system, to be decommissioned in accordance with Condition 7 and replaced by the proposed Class 4 sewage system as described above under Proposed Works;

including all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the aforementioned sewage works;

all in accordance with the supporting documentation submitted to the Ministry as listed in the **Schedule A** in this Approval.

For the purpose of this environmental compliance approval, the following definitions apply:

1. "Approval" means this entire document and any schedules attached to it, and the application;
2. "CBOD₅" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
3. "Commissioned" means the construction is complete and the system has been tested, inspected, and is ready for operation consistent with the design intent;
4. "Director" means a person appointed by the Minister pursuant to Section 5 of the EPA for the purposes of Part II.I of the EPA;
5. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;
6. "*E. coli*" refers to coliform bacteria that possess the enzyme beta-glucuronidase and are capable of cleaving a fluorogenic or chromogenic substrate with the corresponding release of a fluorogen or chromogen, that produces fluorescence under long wavelength (366 nm) UV light, or color development, respectively. Enumeration methods include tube, membrane filter, or multi-well procedures. Depending on the method selected, incubation temperatures include 35.5 + 0.5 °C or 44.5 + 0.2 °C (to enumerate thermotolerant species). Depending on the procedure used, data are reported as either colony forming units (CFU) per 100 mL (for membrane filtration methods) or as most probable number (MPN) per 100 mL (for tube or multi-well methods);

7. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
8. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act*, R.S.O. 1990, c. P.28;
9. "Licensed Installer" means a person who is registered under the OBC to construct, install, repair, service, clean or empty on-site sewage systems;
10. "Maximum Daily Flow" means the largest volume of flow to be received during a one-day period for which the Works is designed to handle;
11. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;
12. "OBC" means the Ontario Building Code, Ontario Regulation 332/12 (Building Code) as amended to January 1, 2015, made under the *Building Code Act*, 1992, S.O. 1992, c. 23;
13. "Owner" means John Lowater and its successors and assignees;
14. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40, as amended;
15. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
16. "Works" means the approved sewage works, and includes Proposed Works.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
2. The Owner shall design, construct, operate and maintain the Works in accordance with the conditions of this Approval.
3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.

2. EXPIRY OF APPROVAL

1. This Approval will cease to apply to those parts of the Works which have not been constructed within **five (5) years** of the date of this Approval.
2. In the event that completion and commissioning of any portion of the Works is anticipated to be more than five (5) years, the Owner shall submit an application for extension at least **twelve (12) months** prior to the end of the five (5) years from the day of issuance of this Approval. The application shall include the reason(s) for the delay, whether there is any design change(s) and a review of whether the standards applicable at the time of Approval of the Works are still applicable at the time of request for extension, to ensure the ongoing protection of the environment.

3. CHANGE OF OWNER

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within **thirty (30) days** of the change occurring:
 - a. change of address of Owner;
 - b. change of Owner, including address of new owner;
 - c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Business Names Act* , R.S.O. 1990, c.B17 shall be included in the notification;
 - d. change of name of the corporation and a copy of the most current information filed under the *Corporations Information Act* , R.S.O. 1990, c. C39 shall be included in the notification.
2. In the event of any change in ownership of the Works, other than a change to a successor municipality, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager and the Director.
3. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

4. CONSTRUCTION

1. The Owner shall ensure that the construction of the Works is supervised by a Licensed Installer or a Licensed Engineering Practitioner.
2. The Owner shall ensure that the Works are constructed such that minimum horizontal clearance distances as specified in the OBC are satisfied, with the exception of the clearance to the drilled well as documented in the Stantec letter dated December 3, 2024.

3. The Owner shall ensure that the Waterloo Shed treatment system is installed in accordance with the manufacturer's installation manual.
4. Within **six (6) months** of the Works being Commissioned, the Owner shall prepare a statement, certified by a Licensed Installer or a Licensed Engineering Practitioner, that the Works are constructed in accordance with this Approval, and upon request, shall make the written statement available for inspection by Ministry staff.
5. Within **six (6) months** of the Works being Commissioned, the Owner shall prepare a set of as-built drawings showing the Works "as constructed". "As-built" drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the site for the operational life of the Works and shall be made available for inspection by Ministry staff.

5. OPERATIONS AND MAINTENANCE

1. The Owner shall ensure that, at all times, the Works and related equipment and appurtenances which are installed or used to achieve compliance with this Approval are properly operated and maintained.
2. The Owner shall sign a service and maintenance agreement with the manufacturer or approved agent of the Waterloo Biofilter Treatment Unit. The maintenance agreement must be retained at the site for as long as the Works are in operation, kept current and made available for inspection by the Ministry staff.
3. The Owner shall receive from the manufacturer or distributor of Waterloo Biofilter Treatment Unit printed literature that describes the unit in detail and provides complete instructions regarding the operation, servicing, and maintenance requirements of the unit and its related components necessary to ensure the continued proper operation in accordance with the original design and specifications.
4. The Owner shall ensure that the treatment system is at minimum inspected annually by the Waterloo Biofilter Treatment Unit authorized personnel, and maintained according to the manufacturer's recommendations including minimal **yearly** effluent sampling for CBOD_5 and Total Suspended Solids in accordance with Schedule B.
5. The Owner shall ensure that the drilled well, as documented in the Stantec letter dated December 3, 2024, is sampled according to Schedule C for Nitrate-Nitrogen and E. Coli using grab samples.
6. The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following documents and all analysis shall be conducted by a laboratory accredited to the ISO/IEC:17025 standard or as directed by the District Manager:
 - a. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended; and

- b. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions; and
- c. the Ministry's publication "Practices for the Collection & Handling of Drinking Water Samples" (Version 2, April 2009).

7. The Owner shall ensure that the anaerobic digester tank is pumped out every 3-5 years or when the tank is 1/3 full of solids.
8. The Owner shall ensure that grass-cutting is maintained regularly over the subsurface disposal bed(s), and that adequate steps are taken to ensure that the area of the underground Works is protected from vehicle traffic.
9. The Owner shall visually inspect the general area where Works are located for break-out once every month during the operating season.
10. In the event a break-out is observed from a subsurface disposal bed, the Owner shall do the following:
 - a. sewage discharge to that subsurface disposal system shall be discontinued;
 - b. the incident shall be **immediately** reported verbally to the Spills Action Centre (SAC) at (416) 325-3000 or 1-800-268-6060;
 - c. submit a written report to the District Manager within **one (1) week** of the break-out;
 - d. access to the break-out area shall be restricted until remedial actions are complete;
 - e. during the time remedial actions are taking place the sewage generated at the site shall not be allowed to discharge to the environment; and
 - f. sewage generated at the site shall be safely collected and disposed of through a licensed waste hauler to an approved sewage disposal site.
11. The Owner shall maintain a logbook to record the results of operation and maintenance activities specified in the above subclauses, and shall keep the logbook at the site and make it available for inspection by the Ministry staff.
12. The Owner shall retain for a minimum of **five (5) years** from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

6. REPORTING

1. **One week** prior to the start up of the operation of the Works, the Owner shall notify the District Manager (in writing) of the pending start up date.
2. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the EPA, the Owner shall, within **fifteen (15) days** of the occurrence of any reportable spill as provided in Part X of the EPA and O. Reg. 675/98, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and a schedule of implementation.

7. DECOMMISSIONING OF UN-USED SEWAGE SYSTEM

1. The Owner shall properly abandon any portion of unused existing sewage system, as directed below, and upon completion of decommissioning, report in writing to the District Manager:
 - a. any sewage pipes leading from building structures to unused sewage system components shall be disconnected and capped;
 - b. any unused septic tanks, holding tanks and pump chambers shall be completely emptied of its content by a licensed hauler and either be removed, crushed and backfilled, or be filled with granular material;
 - c. if the area of the existing leaching bed is going to be used for the purposes of construction of a replacement bed or other structure, all distribution pipes and surrounding material must be removed by a licensed hauler and disposed off site at an approved waste disposal site; otherwise the existing leaching bed may be abandoned in place after disconnecting, if there are no other plans to use the area for other purposes.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. The condition also advises the Owners their responsibility to notify any person they authorized to carry out work pursuant to this Approval the existence of this Approval.
2. Condition 2 is included to ensure that, when the Works are constructed, the Works will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.

3. Condition 3 is included to ensure that the Ministry records are kept accurate and current with respect to the approved Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.
4. Condition 4 is included to ensure that the Works are constructed, and may be operated and maintained such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented..
5. Condition 5 is included to require that the Works be properly operated, maintained, and equipped such that the environment is protected.
6. Condition 6 is included to ensure the Ministry is given prior notice of the pending start up date of the Works and all reportable spills are properly dealt with, documented and reported.
7. Condition 7 is included to ensure that any components of un-used Works are properly decommissioned.

Schedule A

1. Application for Environmental Compliance Approval submitted by John Alexander Lowater, Owner of Lot 923 Conestogo Lake Onsite Sewage System, received at the Ministry on September 12, 2024 for the proposed design and installation of a new onsite sewage system to service one three-bedroom private residential cottage, including design report, final plans and specifications dated September 9, 2024, prepared by E2TECH Services.

Schedule B
Effluent Objectives Table

Effluent Parameter (tested on outlet from the final Waterloo Biofilter Treatment Units)	Concentration Objective (milligrams per litre unless otherwise indicated)
CBOD5	10
Total Suspended Solids	10

Schedule C
Effluent Monitoring Table

Sampling Location	Treated effluent from the Waterloo Shed Treatment Unit at the sampling device, prior to discharging into the Type A dispersal bed
Frequency	Once per year during occupancy
Sample Type	Grab
Parameters	CBOD ₅ Total Suspended Solids (TSS)

Groundwater Monitoring Table

Sampling Location	at the drilled well, as documented in the Stantec letter dated December 3, 2024
Frequency	Once per year during occupancy
Sample Type	Grab
Parameters	Nitrate - Nitrogen E. coli

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me, the Ontario Land Tribunal and in accordance with Section 47 of the *Environmental Bill of Rights*, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Hearing") shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar*
Ontario Land Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5
OLT.Registrar@ontario.ca

and
The Minister of the Environment,
Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3

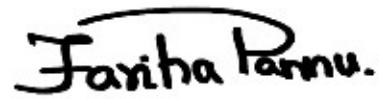
The Director appointed for the purposes of Part II.1 of the *Environmental Protection Act*
Ministry of the Environment,
Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

* **Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca**

This instrument is subject to Section 38 of the *Environmental Bill of Rights*, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act*.

DATED AT TORONTO this 24th day of February, 2025



Fariha Pannu, P.Eng.

Director

appointed for the purposes of Part II.1 of the
Environmental Protection Act

SH/

c: District Manager, MECP Guelph
Marc Ethier, E2TECH Services