

Ministry of the Environment, Conservation and Parks Ministère de l'Environnement, de la Protection de la nature et des Parcs

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 4602-CJVFRG Issue Date: October 31, 2022

Land O'Lakes Community Services, operating as Pine Meadow Nursing Home 12497 Highway 41 Hwy Addington Highlands, Ontario K0H 2G0

Site Location: Pine Meadow Nursing Home 124 Lloyd Street Township of Addington Highlands County of Lennox and Addington, Ontario

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

alteration/upgrade, replacement, usage and operation of existing Works for the treatment and subsurface disposal of sanitary sewage, located at the above noted Site Location and consisting of the following:

Details of Service Area

- Type of Occupancy: Residential (Community Facility)
- Type and Number of Units: Sixty-four (64) beds

Design Capacity of Septic System

Design Capacity	Prior to Completion of Construction of All Proposed Works	Upon Completion of Construction of All Proposed Works
Rated Capacity	31,425 cubic metres per day	31,425 cubic metres per day

PROPOSED WORKS

Phase 1

• two (2) new septic tanks to replace existing two (2) septic tanks, each with a minimum volume capacity of 34,000 litres and each equipped with an effluent filter, receiving flows from existing balancing tank

and discharge into a new pump chamber;

- one (1) new 10,000 litre pump chamber to replace existing two (2) siphon chambers, equipped with two (2) pumps, with one pump to dose existing leaching bed #1 at a rate of 2,257 litres per dose; and the other pump to dose existing leaching bed #2 at a rate of 1,600 litres per dose;
- four (4) new distribution boxes to replace existing distribution chamber of existing leaching beds #1 and #2;
- remediation to existing leaching beds #1 and #2 including removing the headers and footers and flushing out the distribution laterals to remove biomat and sand;

Phase 2

- one (1) new leaching bed to replace existing leaching beds #1 and #2, divided into two (2) cells, consisting of a total of forty-eight (48) runs of 100 millimetre diameter and 26.25 metre long distribution pipes spaced at a centre-to-centre distance of 1.6 metres and each installed in 600 millimetre high by 600 millimetre wide stone trench (with a maximum bottom depth of 900 millimetres) constructed on a layer of imported soil with a thickness of 450 millimetre and a percolation time of 8 to 12 minutes/centimetre and a layer of native sandy soil with a minimum thickness of 450 millimetre and a percolation rate of 2 to 8 minutes per centimetre, covered by topsoil with minimum thickness of 100 millimetres;
- modifications to the dosing rate in the 10,000 litre pump chamber to a new leaching bed, with a design new dosing rate of 3,711 litres/dose for each cell; and

including all other mechanical system, electrical system, instrumentation and control system, piping, pumps, valves and appurtenances essential for the proper, safe and reliable operation of the Works in accordance with this Approval, in the context of process performance and general principles of wastewater engineering only.

EXISTING WORKS

- one (1) 4,500 litre pump chamber, receiving sewage from norther wing build addition;
- one (1) maintenance hole (Manhole #1), receiving sewage from the main building;
- one (1) 4,000 collection tank, receiving sewage from east wing building addition and the above noted Manhole #1 and pump chamber, discharging effluent to a balancing tank via a maintenance hole (Manhole #2);
- one (1) three-compartment 46,600 litre balancing tank, and one 20,400 litre surge tank, inter connected with pipe, having a combined total volume of 67,000 litres, with the surge tank recirculating flow to the Manhole #2, and the balancing tank effluent pumped into two septic tanks;
- one (1) 22,750 litre septic tank (to be replaced by the new 34,000 litre septic tank), discharging effluent via gravity to a 2,800 litre siphon chamber (SP1) and then to a distribution chamber (DC1) for dosing

flow to a leaching bed (Leaching Bed 1);

- one (1) 45,000 litre septic tank (to be replaced by the new 34,000 litre septic tank)), discharging effluent via gravity to a 2,800 litre siphon chamber (SP2) and then to a distribution chamber (DC1) for dosing flow to a leaching bed (Leaching Bed 2);
- one (1) leaching bed (to be replace by the new leaching bed) consisting of thirty-two (32) runs of 100 millimetre diameter and 11.25 metre long distribution pipes each installed in 300 millimetre high by 50 millimetre wide stone trench and spaced at a centre-to-centre distance of 2 metres; and
- one (1) leaching bed (to be replace by the new leaching bed) consisting of sixteen (16) runs of 75 millimetre diameter and 30 metre long distribution pipes each installed in 300 millimetre high by 50 millimetre wide stone trench and spaced at a centre-to-centre distance of 1.5 metres.

DECOMMISSIONING OF UN-USED WORKS

Phase 1

- the existing 22,750 litre septic tank and 40,000 litre septic tank are to be decommissioned upon operation of the two (2) 34,000 litre septic tanks;
- the two (2) siphon chambers are to be are to be decommissioned upon operation of the 10,000 litre pump chamber; and

Phase 2

• the existing leaching beds #1 and #2 are to be decommissioned upon operation of the new leaching bed.

all in accordance with the submitted supporting documents listed in Schedule A.

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. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;
- 3. "District Manager" means the District Manager of the Kingston District Office;
- 4. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
- 5. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
- 6. "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;

- 7. "Licensed Installer" means a person who is registered under the OBC to construct, install, repair, service, clean or empty on-site sewage systems;
- 8. "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;
- 9. "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;
- 10. "Owner" means Land O'Lakes Community Services, operating as Pine Meadow Nursing Home, and its successors and assignees;
- 11. "OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c. O.40, as amended;
- 12. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
- 13. "Rated Capacity" means maximum daily sanitary sewage flow for which the Works are approved to handle;
- 14. "Works" means the approved sewage works, and includes Proposed Works, and Existing 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. CHANGE OF OWNER AND OPERATING AGENCY

- 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. B.17* 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. C.39* shall be included in the notification.
- 2. The Owner shall notify the District Manager, in writing, of any of the following changes within thirty (30) days of the change occurring:
 - a. change of address of the Operating Agency;
 - b. change of the Operating Agency, including address of the new Operating Agency.
- 3. In the event of any change in ownership of the Works, the Owner shall notify the succeeding owner in writing, of the existence of this Approval, and forward a copy of the notice to the District Manager.
- 4. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

3. CONSTRUCTION OF PROPOSED WORKS / RECORD DRAWINGS

- 1. All Proposed Works in this Approval shall be constructed and installed and must commence operation within five (5) years of issuance of this Approval, after which time the Approval ceases to apply in respect of any portions of the Works not in operation. In the event that the construction, installation and/or operation of any portion of the Proposed Works is anticipated to be delayed beyond the time period stipulated, the Owner shall submit to the Director an application to amend the Approval to extend this time period, at least six (6) months prior to the end of the period. The amendment application shall include the reason(s) for the delay and whether there is any design change(s).
- 2. The Owner shall ensure that the construction of the Works is supervised by a Licensed Installer or a Licensed Engineering Practitioner.
- 3. The Owner shall ensure that the Works are constructed such that minimum horizontal clearance distances as specified in the OBC are satisfied.

- 4. Upon construction of the Works, 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. Upon completion of construction of the Proposed Works, a set of record drawings of the Works shall be prepared or updated. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.

4. OPERATIONS, MAINTENANCE, AND RECORDING

- 1. The Owner shall ensure that, at all times, the Works and the related equipment and appurtenances used to achieve compliance with this Approval are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate funding, adequate staffing and training, including training in all procedures and other requirements of this Approval and the OWRA and regulations, adequate laboratory facilities, process controls and alarms and the use of process chemicals and other substances used in the Works.
- 2. The Owner shall ensure that the septic tank is pumped out every 3-5 years or when the tank is 1/3 full of solids and the effluent filter is cleaned out at minimum once a year (or more often if required).
- 3. 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.
- 4. The Owner shall visually inspect the general area where Works are located for break-out once every month during the operating season.
- 5. 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.

- 6. The Owner shall maintain a logbook to record the results of Operation and Maintenance activities specified in the above sub-clauses, and shall keep the logbook at the site and make it available for inspection by the Ministry staff.
- 7. The Owner shall employ measurement devices to accurately measure quantity of effluent being discharged to each individual subsurface disposal system, including but not limited to water/wastewater flow meters, event counters, running time clocks, or electronically controlled dosing, and shall record the daily volume of effluent being discharged to the subsurface disposal system.

5. MONITORING AND RECORDING

- 1. The Owner shall, upon commencement of operation of the Works, carry out a scheduled monitoring program of collecting samples at the required sampling points, at the frequency specified or higher, by means of the specified sample type and analyzed for each parameter listed in the tables under the monitoring program included in **Schedule B** and record all results, as follows:
 - a. all samples and measurements are to be taken at a time and in a location characteristic of the quality and quantity of the sewage stream over the time period being monitored.
 - b. definitions and preparation requirements for each sample type are included in document referenced in Paragraph 2.a.
 - c. The measurement frequencies specified in **Schedule B** in respect to any parameter may, after one (1) year of monitoring in accordance with this Condition, be modified by the Director in writing.
- 2. 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;
 - b. the publication "Standard Methods for the Examination of Water and Wastewater", as amended; and
 - c. for any parameters not mentioned in the documents referenced in Paragraphs 2.a and 2.b, the written approval of the District Manager shall be obtained prior to sampling.
- 3. The Owner shall employ measurement devices to accurately measure quantity of effluent being discharged to each individual subsurface disposal system, including but not limited to water/wastewater flow meters, event counters, running time clocks, or electronically controlled dosing, and shall record the daily volume of effluent being discharged to the subsurface disposal system.

4. 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**

- 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.
- 2. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
- 3. The Owner shall prepare, and submit upon request, a performance report, on an annual basis, by March 31 of the calendar year following the period being reported upon. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:
 - a. a summary and interpretation of surface water monitoring data;
 - b. a review and assessment of performance of Works, including all treatment units and disposal beds;
 - c. a description of any operating problems encountered and corrective actions taken at all Works located at the property;
 - d. a record of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of all Works located at the property including but not limited to: records of maintenance inspections for the treatment system, records of septic tank effluent filters cleaning, records of septic tank pump-outs, records of sludge pump-outs accumulated from the treatment system, records of visual inspections of all disposal systems;
 - e. a summary and interpretation of all daily flow data and results achieved in not exceeding the maximum daily sewage flow discharged into each one of the subsurface disposal system;
 - f. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
 - g. a summary of all spill or abnormal discharge events; and
 - h. any other information the District Manager requires from time to time.

7. DECOMMISSIONING OF UN-USED WORKS

- 1. The Owner shall properly abandon any portion of unused components of the Works, 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 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; and
 - 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.

Schedule A

1. Application for Environmental Compliance Approval dated February 16, 2022 and received on March 10, 2022, and submitted by Lakes O'Lakes Community Services, operating as Pine Meadow Nursing Home, for the proposed replacement, remediation and upgrade of septic systems, including design brief and final plans.

Schedule B

Groundwater Quality Monitoring

Sample location	three groundwater monitoring wells as follow:		
-	Well MW1 (south of the existing leaching bed #1); and		
	Wells MW2 and MW3 (north of the existing leaching beds)		
Frequency	Semi-annually (once every six months)		
Sample Type	Grab		
Parameters	Total Phosphorus, Total Nitrate and Nitrite Nitrogen, total Ammonia		
	Nitrogen, Chlorides, pH and water level		

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

- 1. Condition 1 regarding general provisions is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted.
- 2. Condition 2 regarding change of Owner and Operating Agency is included to ensure that the Ministry records are kept accurate and current with respect to ownership and Operating Agency of the 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.
- 3. Condition 3 regarding construction of Proposed Works/record drawings is included to ensure that the Proposed Works are constructed in a timely manner so that standards applicable at the time of Approval of the Works are still applicable at the time of construction to ensure the ongoing protection of the environment, and that prior to the commencement of construction of the portion of the Works that are approved in principle only, the Director will have the opportunity to review detailed design drawings, specifications and an engineer's report containing detailed design calculations for that portion of the Works, to determine capability to comply with the Ministry's requirements stipulated in the terms and conditions of the Approval, and also ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.
- 4. Condition 4 is regarding operation and maintenance is included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented.
- 5. Condition 5 regarding monitoring and recording is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and

maintained.

- 6. Condition 6 is regarding reporting is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for this Approval.
- 7. Condition 7 is included to ensure that any un-used components of the Works are properly decommissioned.

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

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

DATED AT TORONTO this 31st day of October, 2022

Fariha Parnu.

Fariha Pannu, P.Eng. Director appointed for the purposes of Part II.1 of the *Environmental Protection Act*

NH/

c: District Manager, MECP Kingston District Office Martin Burger, Groundwork Engineering Limited