AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 2896-DAQJSF
Issue Date: January 17, 2025

2859069 Ontario Inc.
1613 Kilworthy Rd
Barrie, Ontario
P0E 1G0

Site Location: Muskoka Beach House
1613 Kilworthy Rd
Gravenhurst Town, District Municipality of Muskoka
P0E 1G0

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, usage and operation of new Sewage Works, for the treatment of sanitary sewage from Muskoka Beach House, a resort (formerly operated Silver Pines Resort) via a Sewage Treatment Plant (iQ MBBR treatment unit) and Final Effluent disposal to subsurface as follows:

Classification of Sewage Treatment Plant (Upon Completion of Construction of All Proposed Works):
Secondary

Details of Service Area:

- **Type of Occupancy**: All sesonal residential (resort)
- **Type and Surface :** One two (2) bedroom apartment, located above the restaurant, four three (3) bedroom year round cottage, restaurant (not 24 hour) with 120 seats, 58 four (4) persons campground sites / Bunkie (non-serviced) without water or sewer hook-up and 16 two (2) persons campground sites / bunkie (non-serviced) without water or sewer hook-up.

Design Capacity of Sewage Treatment Plant:

Design Capacity with All Treatment Trains in Operation	Upon Completion of Construction of All Proposed Works
Maximum Daily Flow	42.99 m^3/d

PROPOSED WORKS

Sanitary Sewage Pumping Stations

- **Sewage pumping station No.1** (regulated under the Ontario Building Code): with a 22,000 L single chamber tank to pump 833 L per dose, equipped with two (duty/standby) submersible sewage pumps rated at 4/10 HP, discharging to the balancing tank (Equalization Tank #1) described below.

- **Sewage pumping station No.2** (regulated under the Ontario Building Code): with a 6,800 L single chamber tank to pump 400 L per dose, equipped with two (duty/standby) submersible sewage pumps rated at 4/10 HP, discharging to the balancing tank (Equalization Tank #1) described below.

- **Sewage pumping station No.3** (regulated under the Ontario Building Code): with a 2,700 L single chamber tank to pump 200 L per dose, equipped with two (duty/standby) submersible sewage pumps rated at 4/10 HP, discharging to the balancing tank (Equalization Tank #2) described below.

Primary Treatment

- **Equalization Tank/Balancing Tank**: a 36,600 L in ground pre-cast concrete tank to handle peak daily flows, homogenize the loading of raw wastewater, equipped with duplex pumps to pump into the Sludge Storage Tank #2 based on a time dose rate of 1.79 m^3/hr.

- **Sludge Storage Tank #2**: 30,000 L first sludge storage tank discharging liquid phase to Sludge Storage Tank #3.

- **Sludge Storage Tank #3**: 30,000 L second sludge storage tank discharging liquid phase to Primary Clarifier Tank #4.

- **Primary Clarifier #4**: 22,750 L primary clarifier tank discharging liquid phase to the secondary treatment stage.

Secondary Treatment System

- **iQ MBBR**: consisting of 22,750 L aerobic bioreactor No.1 tank #5 equipped with plastic media and air blower, 30,000 L intermediary clarifier tank #6 and 22,750 L aerobic bioreactor No.2 tank #7 equipped with plastic media and air blower all three unit operating in series, and 22,750 L secondary clarifier to remove

solids prior to tertiary treatment.

- **Secondary Clarifier**: 1/3 of 22,750 L two-compartment tank #8

- **Tertiary Denitrification Tank**: 1/3 of 22,750 L three compartment MBBR anoxic bioreactor tank #8 equipped with plastic media and dosed with supplemental carbon, to remove residual nitrate nitrogen.

- **Tertiary Effluent Polishing Tank**: 1/3 of 22,750 L three compartment MBBR aerobic bioreactor tank #8 equipped with plastic media and three air blowers, to consume any excess carbon from the denitrification unit.

- **Mixing Tank**: 1,365 L Floc reactor tank #9 for mixing of chemical used for phosphorus precipitation from liquid coming from the secondary treatment prior to chemical sludge settlement in secondary clarifier tank #10 and liquid phase flowing to tertiary clarifier.

- **Tertiary Clarifier**: 1/3 of 22,750 L two-compartment tank #10, discharging treated wastewater to Effluent Pump Tank.

- **Effluent Pump Tank**: 15,000 L effluent pump tank (2/3 of tank #10), equipped at the inlet with two Ultraviolet (UV) disinfection units operating in series and housing four sewage pumps dosing 1,344 L per dose (alternating doses between pumps) to four Shallow Buried Trench field cells to be located along the west property boundary that fronts Joy Road.

- **UV disinfaction Units**: two (2) UV disinfection units operating in series, each rated to treat up to 32.706 cubic meters per day.

Subsurface Disposal Beds

- ***Shallow buried trench (****Maximum of 42.99 cubic meters per day****)*** : one (1) bed of four (4) cells, each with twelve (12) 18.0 m runs at 2.0 m on centre.

EXISTING WORKS (to be decommissioned)

Two (2) existing on-site sewage septic systems with a total combined daily sewage flow of **16,233 L/d** consisting of:

Sewage Works No.1 rated at a maximum daily flow of **14,633 L/d** to service existing residence/restaurant, washroom station for 47 trailer sites (without sewer connections) and two (2) cottages (#2 & #3); and

Sewage Works No.2 rated at maximum daily flow of **1,600 L/d** to service one (1) existing cottage (#1).

Sewage Works No.1 (Q =14,633 L/d)

Located in the western area of the Resort, installed originally in 1977, to service existing 2-bedroom residence/restaurant (68 seats), Washroom Bld. (with showers) to service 47 existing trailer sites and two

cottages (#2 & #3) as follows:

Septic Tanks at Washroom Bldg.

- Two (2) existing septic tanks, each having a capacity of approximately 22,730 L installed in series by the Washroom Bld., equipped with an OBC approved effluent filter installed on outlet from the second septic tank, collecting sewage from the Washoom Bld. and discharging via a gravity to an existing Effluent Pump Chamber, as described below;

Septic Tank at Residence/Restaurant

- One (1) existing septic tank having a capacity of approximately 7,571 L installed by the Residence/Restaurant, equipped with an OBC approved effluent filter installed on outlet from the septic tank, collecting sewage from the complex building via two sewers: one from washrooms and one from the restaurant's kitchen sink(s) via an oil/grease interceptor, and discharging via a gravity to an existing Effluent Pump Chamber, as described below;

Septic Tanks at Cottages #2 & #3

- Two (2) existing septic tanks,each having a capacity of approximately 3,600 L, located at each cottage, equipped with an OBC approved effluent filter installed on outlet from the septic tank, and collecting sewage from the cottage (#2 or #3), discharging via a gravity to an existing Effluent Lift Station, as described below;

Effluent Lift Station

- An existing Effluent Lift Station with a total capacity of approximately 400 L, equipped with one (1) submersible pump operated on demand, equipped with a high level audible/visual alarm system, discharging into the existing Effluent Pump Chamber, as described below;

Effluent Pump Chamber

- An existing Effluent Pump Chamber with a total capacity of approximately 2,271 L, equipped with one (1) submersible pump operated on demand, rated at 100 L/min at 7 m total dynamic head (TDH), equipped with a high level audible/visual alarm system, discharging a dosing volume of effluent (900 L) via two (2) 100 mm diameter forcemains into the existing subsurface disposal system, as described below;

Subsurface Disposal Leaching Bed

- An existing conventional trench type leaching bed with a total length of 100 diameter distribution piping of 439 m, consisting of two (2) cells (220.5 m per cell), each cell having 12 rows of distribution piping installed in conventional type trenches, each approximately 18.29 m long.

Sewage Works No.2 (Q =1,600 L/d)

To service an existing 3-bedroom cottage as follows:

Septic Tank with Pump Chamber

- One (1) existing septic tank, having a capacity of approximately 3,637 L equipped with an OBC approved effluent filter installed on outlet from the septic tank, equipped with one (1) effluent submersible pump rated at 100 L/min at 7 m TDH, collecting sewage from the cottage, dosing effluent via a forcemain to an existing Raised Filter Bed as described below;

Subsurface Disposal Filter Bed

- An existing raised conventional trench type leaching bed with a total length of 75 diameter distribution piping of approximately 73 m (240 ft), consisting of six (6) rows of distribution piping each approximately 12.19 m.

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;

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 Environmental Compliance Approval and any Schedules attached to it;

2. "BOD5" (also known as TBOD5) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demands;

3. "CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;

4. "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;

5. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;

6. "EPA" means the *Environmental Protection Act* , R.S.O. 1990, c.E.19;

7. "Final Effluent" means effluent that is discharged to the environment through the approved effluent disposal facilities, that are required to meet the compliance limits stipulated in the Approval for the

Sewage Treatment Plant at the Final Effluent sampling point(s);

8. "Grab Sample" or "Grab" means an individual sample of at least 1000 millilitres collected in an appropriate container at a randomly selected time over a period of time not exceeding 15 minutes;

9. "Influent" means flows to the Sewage Treatment Plant from the collection system;

10. "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;

11. "Maximum Daily Flow" (also referred to as Peak Daily Flow Rate or Maximum Day Flow) means the largest volume of flow to be received during a one-day period for which the sewage treatment process unit or equipment is designed to handle;

12. "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;

13. "Normal Operating Condition" means the condition when all unit process(es), excluding Preliminary Treatment System, in a treatment train is operating within its design capacity;

14. "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;

15. "Operating Agency" means the Owner, person or the entity that is authorized by the Owner for the management, operation, maintenance, or alteration of the Works in accordance with this Approval;

16. "Owner" means 2859069 Ontario Inc., including any successors and assignees;

17. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40;

18. "Preliminary Treatment System" means all facilities in the Sewage Treatment Plant associated with screening and grit removal;

19. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;

20. "Secondary Effluent" means the effluent from the Secondary Treatment System;

21. "Secondary Treatment System" means all facilities in the Sewage Treatment Plant associated with biological treatment, secondary sedimentation and phosphorus removal unit processes;

22. "Sewage Treatment Plant" means all the facilities related to sewage treatment within the sewage treatment plant site excluding the Final Effluent disposal facilities;

23. "Single Sample Result" means the test result of a parameter in the effluent discharged on any day, as

measured by a probe, analyzer or in a composite or grab sample, as required;

24. "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.

4. The issuance of, and compliance with the conditions of this Approval does not:

    a. relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including, but not limited to, the obligation to obtain approval from the local conservation authority necessary to construct or operate the Works; or

    b. limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

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

1. All Proposed Works in this Approval shall be constructed and installed and must commence operation within **ten (10) 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. Upon completion of construction of the Proposed Works, the Owner shall prepare and submit a written statement to the District Manager, certified by a Licensed Engineering Practitioner, that the Proposed Works is constructed in accordance with this Approval.

3. **One (1) week** prior to the commencement of the operation of the Proposed Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.

4. Within **one (1) year** of 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.

5. The Owner shall ensure that the treatment technologies are installed in accordance with the manufacturer's installation manual.

6. The Owner shall ensure that the Works are constructed such that minimum horizontal clearance distances as specified in the OBC are satisfied.

7. The Owner shall ensure that an imported soil that is required for construction of any subsurface disposal bed as per this Approval is tested and verified by the Licensed Engineering Practitioner for the percolation time (T) prior to delivering to the site location and the written records are kept

at the site.

4. COMPLIANCE LIMITS

1. The Owner shall operate and maintain the Sewage Treatment Plant such that compliance limits for the Final Effluent parameters listed in the table(s) included in **Schedule B** are met.

5. OPERATION AND MAINTENANCE

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 staffing and training, including training in all procedures and other requirements of this Approval and the OWRA and relevant regulations made under the OWRA, process controls and alarms and the use of process chemicals and other substances used in the Works.

2. The Owner shall prepare/update the operations manual for the Works within **six (6) months** of completion of construction of the Proposed Works, that includes, but not necessarily limited to, the following information:

    a. operating procedures for the Works under Normal Operating Conditions;

    b. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;

    c. repair and maintenance programs, including the frequency of repair and maintenance for the Works;

    d. procedures for the inspection and calibration of monitoring equipment;

    e. operating procedures for the Works to handle situations outside Normal Operating Conditions and emergency situations such as a structural, mechanical or electrical failure, or an unforeseen flow condition,

    f. a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification of the Spills Action Centre (SAC) and District Manager;

    g. procedures for receiving, responding and recording public complaints, including recording any followup actions taken.

3. The Owner shall maintain an up to date operations manual and make the manual readily accessible for reference at the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.

4. The Owner shall ensure that the Operating Agency fulfills the requirements under O. Reg. 129/04, as

amended for the Works, including the classification of facilities, licensing of operators and operating standards.

5. The Owner shall maintain a logbook to record the results of all inspections, repair and maintenance undertaken, calibrations, monitoring and spill response or contingency measures undertaken and shall make the logbook available for inspection by Ministry staff. The logbook shall include the following:

    a. the name of the operator making the entry; and

    b. the date and results of each inspection, repair, maintenance, calibration, monitoring, spill response and contingency measure.

6. The Owner shall, upon completion of construction, prepare and make available for inspection by Ministry staff, a maintenance agreement with the manufacturer for the treatment process/technology. The maintenance agreement must be retained at the site and kept current for the operational life of the Works.

7. 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.

8. The Owner shall visually inspect the general area where Works are located for break-out **once every month** during the operating season.

9. 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 bed 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.

10. The Owner shall ensure that sludge tanks be inspected **at least twice per year**, and the sewage sludge accumulated in the sludge tanks be periodically withdrawn at the frequency required to maintain efficiency of the treatment system.

11. The Owner shall install two (2) new groundwater monitoring wells, one well directly downgradient of the dispersal bed and one upgradient and collect samples at the frequency specified in **Schedule C**, by means of the specified sample type, analyze for each parameter listed and record all results.

12. The Owner shall monitor background well to the north, downgradient well and property boundary wells to the south and west and collect samples at the frequency specified in **Schedule C**, by means of the specified sample type, analyze for each parameter listed and record all results.

13. The Owner shall have a valid written agreement with a hauler who is in possession of a Waste Management Systems Approval, for the treatment and disposal of the sludge generated from the Works, at all times during operation of the Works.

14. The Owner shall ensure that flow of effluent discharged into the subsurface disposal bed does not exceed: 42.99 cubic meters per day.

15. 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 operation and maintenance activities required by this Approval.

6. 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 C** 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.b.

    c. definitions for frequency:

        i. Daily means once every day;

        ii. Weekly means once every week;

        iii. Bi-weekly means once every two weeks;

        iv. Monthly means once every month;

        v. Quarterly means once every three months;

vi. Semi-annually means once every six months;

vii. Annually means once every year;

viii. Biennially means once every two years;

d. The measurement frequencies specified in **Schedule C** 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 Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only)", as amended;

   b. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;

   c. the publication "Standard Methods for the Examination of Water and Wastewater", as amended; and

   d. for any parameters not mentioned in the documents referenced in Paragraphs 2.a, 2.b and 2.c, the written approval of the District Manager shall be obtained prior to sampling.

3. The Owner shall monitor and record the flow rate and daily quantity using flow measuring devices or other methods of measurement as approved below calibrated to an accuracy within plus or minus 15 per cent (+/- 15%) of the actual flowrate of the following:

   a. Influent flow to the Sewage Treatment Plant by continuous flow measuring devices and instrumentations/pumping rates, or in lieu of an actual installation of equipment, adopt the flow measurements of the Final Effluent for the purpose of estimating Influent flows if the Influent and Final Effluent streams are considered not significantly different in flow rates and quantities;

   b. Final Effluent discharged from the Sewage Treatment Plant by continuous flow measuring devices and instrumentations/pumping rates, or in lieu of an actual installation of equipment, adopt the flow measurements of the Influent for the purpose of estimating Final Effluent flows if the Influent and Final Effluent streams are considered not significantly different in flow rates and quantities;

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.

7. LIMITED OPERATIONAL FLEXIBILITY

1. The Owner may make pre-authorized modifications to the sewage pumping stations and Sewage Treatment Plant in Works in accordance with the document "Limited Operational Flexibility - Protocol

for Pre-Authorized Modifications to Private Works" (Schedule D), as amended, subject to the following:

a. the modifications will not involve the addition of any new treatment process or the removal of an existing treatment process, including chemical systems, from the liquid or solids treatment trains as originally designed and approved.

b. the scope and technical aspects of the modifications are in line with those delineated in Schedule D and conform with the Ministry's publication "Design Guidelines for Sewage Works 2008", as amended, Ministry's regulations, policies, guidelines, and industry engineering standards;

c. the modifications shall not negatively impact on the performance of any process or equipment in the Works or result in deterioration in the Final Effluent quality;

d. where the pre-authorized modification requires notification, a "Notice of Modifications to Sewage Works" (Schedule D), as amended shall be completed with declarations from a Licensed Engineering Practitioner and the Owner and retained on-site prior to the scheduled implementation date. All supporting information including technical memorandum, engineering plans and specifications, as applicable and appropriate to support the declarations that the modifications conform with LOF shall remain on-site for future inspection.

2. The following modifications are not pre-authorized under Limited Operational Flexibility:

a. Modifications that involve addition or extension of process structures, tankages or channels;

b. Modifications that involve relocation of the Final Effluent outfall or any other discharge location or that may require reassessment of the impact to the receiver or environment;

c. Modifications that involve addition of or change in technology of a treatment process or that may involve reassessment of the treatment train process design;

d. Modifications that require changes to be made to the emergency response, spill prevention and contingency plan; or

e. Modifications that are required pursuant to an order issued by the Ministry.

8. REPORTING

1. The Owner shall report to the District Manager orally **as soon as possible** any non-compliance with the compliance limits specified in Condition 7, and in writing within **seven (7) days** of non-compliance.

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.

3. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

4. The Owner shall prepare performance reports on a calendar year basis and submit to the District Manager in an electronic format 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 all Influent monitoring data, and a review of the historical trend of the sewage characteristics and flow rates;

   b. a summary and interpretation of all flow data and results achieved in not exceeding the subsurface bed design flow discharged into the subsurface disposal system;

   c. a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;

   d. a summary of all operating issues encountered and corrective actions taken;

   e. a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;

   f. a summary of any effluent quality assurance or control measures undertaken;

   g. a summary of the calibration and maintenance carried out on all Influent, Imported Sewage and Final Effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment as required in this Approval or recommended by the manufacturer;

   h. a description of efforts made and results achieved in meeting the Design Objectives Condition;

   i. a tabulation of the volume of sludge generated, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;

   j. a summary of any complaints received and any steps taken to address the complaints;

   k. any changes or updates to the schedule for the completion of construction and commissioning operation of major process(es) / equipment groups in the Proposed Works;

   l. any other information the District Manager requires from time to time.

9. DECOMMISSIONING OF UN-USED WORKS

1. The Owner shall properly abandon any portion of unused Existing 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 Works 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.

Schedule A

1. Application for Environmental Compliance Approval submitted by Kimberley Maguire, Owner of Muskoka Beach House received on May 7, 2024 for the proposed Muskoka Beach House Development, including design report, final plans and specifications.

Schedule B

Final Effluent Compliance Limits

Concentration Limits upon completion of construction of the Proposed iQ MBBR treatment unit

Final Effluent Parameter	**Averaging Calculator**	**Limit** (maximum unless otherwise indicated)
CBOD5	Single Sample Result	10.0 mg/L
Total Suspended Solids	Single Sample Result	10.0 mg/L
Total Phosphorus	Single Sample Result	1.5 mg/L
Total Nitrogen	Single Sample Result	7.0 mg/L
Nitrate Nitrogen	Single Sample Result	2.5 mg/L
E-coli	Single Sample Result	100 CFU/mL

Schedule C

Monitoring Program

Influent

(sampling point at outlet of the equalization/balancing tank)

Parameters	Sample Type	Minimum Frequency
BOD5	Grab	Quarterly
Total Suspended Solids	Grab	Quarterly
Total Phosphorus	Grab	Quarterly
E-coli	Grab	Quarterly
Total KjeldhalNitrogen	Grab	Quarterly

Final Effluent

(sampling point at the effluent pump tank)

Parameters	Sample Type	Minimum Frequency
CBOD5	Grab	Quarterly
Total Suspended Solids	Grab	Quarterly
Total Phosphorus	Grab	Quarterly
Total Nitrogen	Grab	Quarterly
Nitrate Nitrogen	Grab	Quarterly
E-coli	Grab	Quarterly

Schedule D

Limited Operational Flexibility

Protocol for Pre-Authorized Modifications to Works

1. General

1. Pre-authorized modifications are permitted only where Limited Operational Flexibility has already been granted in the Approval and only permitted to be made at the pumping stations and sewage treatment plant in the Works, subject to the conditions of the Approval.

2. Where there is a conflict between the types and scope of pre-authorized modifications listed in this document, and the Approval where Limited Operational Flexibility has been granted, the Approval shall take precedence.

3. The Owner shall consult the District Manager on any proposed modifications that may fall within the scope and intention of the Limited Operational Flexibility but is not listed explicitly or included as an example in this document.

4. The Owner shall ensure that any pre-authorized modifications will not:

    a. adversely affect the hydraulic profile of the Sewage Treatment Plant or the performance of any upstream or downstream processes, both in terms of hydraulics and treatment performance;

    b. result in new Overflow or Bypass locations, or any potential increase in frequency or quantity of Overflow(s) or Bypass(es).

    c. result in a reduction in the required Peak Flow Rate of the treatment process or equipment as originally designed.

2. Modifications that do not require pre-authorization:

1. Works that are exempt from Ministry approval requirements;

2. Modifications to the electrical system, instrumentation and control system.

3. Pre-authorized modifications that do not require preparation of "Notice of Modification to Sewage Works"

1. Normal or emergency maintenance activities, such as repairs, renovations, refurbishments and replacements with Equivalent Equipment, or other improvements to an existing approved piece of equipment of a treatment process do not require pre-authorization. Examples of these activities are:

a. Repairing a piece of equipment and putting it back into operation, including replacement of minor components such as belts, gear boxes, seals, bearings;

b. Repairing a piece of equipment by replacing a major component of the equipment such as motor, with the same make and model or another with the same or very close power rating but the capacity of the pump or blower will still be essentially the same as originally designed and approved;

c. Replacing the entire piece of equipment with Equivalent Equipment.

2. Improvements to equipment efficiency or treatment process control do not require pre-authorization. Examples of these activities are:

a. Adding variable frequency drive to pumps;

b. Adding on-line analyzer, dissolved oxygen probe, ORP probe, flow measurement or other process control device.

4. Pre-Authorized Modifications that require preparation of "Notice of Modification to Sewage Works"

1. Pumping Stations

a. Replacement or realignment of existing sewers including manholes, valves, gates, weirs and associated appurtenances provided that the modifications will not add new influent source(s) or result in an increase in flow from existing sources as originally approved.

b. Extension or partition of wetwell to increase retention time for emergency response and improve station maintenance and pump operation;

c. Replacement or installation of inlet screens to the wetwell;

d. Replacement or installation of flowmeters;

e. Replacement, reconfiguration and modifications to pump suctions and discharge pipings including valve, gates, motors, variable frequency drives and associated appurtenances to maintain firm pumping capacity or modulate the pump rate provided that the modifications will not result in a reduction in the firm pumping capacity or discharge head or an increase in the peak pumping rate of the pumping station as originally designed;

f. Replacement or realignment of existing forcemain(s) including valves, gates, and associated appurtenances provided that the modifications will not reduce the flow capacity or increase the total dynamic head and transient in the forcemain.

2. Sewage Treatment Plant

1. Sewers and appurtenances

    a. Replacement or realignment of existing sewers (including pipes and channels), including manholes, valves, gates, weirs and associated appurtenances within the a sewage treatment plant, provided that the modifications will not add new influent source(s) or result in an increase in flow from existing sources as originally approved and that the modifications will remove hydraulic bottlenecks or improve the conveyance of sewage into and through the Works.

2. Flow Distribution Chambers/Splitters

    a. Replacement or modification of existing flow distribution chamber/splitters or construction of new flow distribution chamber/splitters, including replacements or installation of sluice gates, weirs, valves for distribution of flows to the downstream process trains, provided that the modifications will not result in a change in flow distribution ratio to the downstream process trains as originally designed.

3. Imported Sewage Receiving Facility

    a. Replacement or relocation of loading bays, connect/disconnect hook-up systems and unloading/transferring systems;

    b. Replacement or relocation of screens, grit removal units and compactors;

    c. Replacement or relocation of pumps, such as dosing pumps and transfer pumps, valves, piping and appurtenances;

    d. Replacement or relocation of storage tanks/chambers and spill containment systems;

    e. Replacement, relocation or installation of flow measurement and sampling equipment.

4. Preliminary Treatment System

    a. Replacement of existing screens and grit removal units with equipment of the same or higher process performance technology, including where necessary replacement or upgrading of existing screenings dewatering washing compactors, hydrocyclones, grit classifiers, grit pumps, air blowers conveyor system, disposal bins and other ancillary equipment to the screening and grit removal processes.

    b. Replacement of channel aeration systems, including air blowers, air supply main, air headers, air laterals, air distribution grids and diffusers.

5. Primary Treatment System

    a. Replacement of existing sludge removal mechanism, including sludge chamber;

    b. Replacement of scum removal mechanism, including scum chamber;

    c. Replacement of primary sludge pumps, scum pumps, provided that:the modifications will not result in a reduction in the firm pumping capacity or discharge head that the primary sludge pump(s) and scum pump(s) are originally designed to handle.

6. Secondary Treatment System

    1. Biological Treatment

        a. Conversion of complete mix aeration tank to plug-flow multi-pass aeration tank, including modifications to internal structural configuration;

        b. Addition of inlet gates in multi-pass aeration tank for step-feed operation mode;

        c. Partitioning of an anoxic/flip zone in the inlet of the aeration tank, including installation of submersible mixer(s);

        d. Replacement of aeration system including air blowers, air supply main, air headers, air laterals, air distribution grids and diffusers, provided that the modifications will not result in a reduction in the firm capacity or discharge pressure that the blowers are originally designed to supply or in the net oxygen transferred to the wastewater required for biological treatment as originally required.

    2. Secondary Sedimentation

        a. Replacement of sludge removal mechanism, including sludge chamber;

        b. Replacement of scum removal mechanism, including scum chamber;

        c. Replacement of return activated sludge pump(s), waste activated sludge pump(s), scum pump(s), provided that the modifications will not result in a reduction in the firm pumping capacity or discharge head that the activated sludge pump(s) and scum pump(s) are originally designed to handle.

7. Post-Secondary Treatment System

    a. Replacement of filtration system with equipment of the same filtration technology, including feed pumps, backwash pumps, filter reject pumps, filtrate extract pumps, holding tanks associated with the pumping system, provided that the modifications will not result in a reduction in the capacity of

the filtration system as originally designed.

8. Disinfection System

    1. UV Irradiation

        a. Replacement of UV irradiation system, provided that the modifications will not result in a reduction in the design capacity of the disinfection system or the radiation level as originally designed.

    2. Chlorination/Dechlorination and Ozonation Systems

        a. Extension and reconfiguration of contact tank to increase retention time for effective disinfection and reduce dead zones and minimize short-circuiting;

        b. Replacement of chemical storage tanks, provided that the tanks are provided with effective spill containment.

9. Supplementary Treatment Systems

    1. Chemical systems

        a. Replacement or relocation of chemical storage tanks for existing chemical systems only, provided that the tanks are sited with effective spill containment;

        b. Replacement of chemical dosing pumps provided that the modifications will not result in a reduction in the firm capacity that the dosing pumps are originally designed to handle.

        c. Relocation and addition of chemical dosing point(s) including chemical feed pipes and valves and controls, to improve phosphorus removal efficiency;

        d. Use of an alternate chemical provided that it is a non-proprietary product and is a commonly used alternative to the chemical approved in the Works, provided that the chemical storage tanks, chemical dosing pumps, feed pipes and controls are also upgraded, as necessary.

10. Sludge Management System

    1. Sludge Holding and Thickening

        a. Replacement of sludge holding tanks, sludge handling pumps, such as transfer pumps, feed pumps, recirculation pumps, provided that modifications will not result in reduction in the solids storage or handling capacities;

    2. Sludge Digestion

a. Replacement of digesters, sludge handling pumps, such as transfer pumps, feed pumps, recirculation pumps, provided that modifications will not result in reduction in the solids storage or handling capacities;

b. replacement of sludge digester covers.

3. Sludge Dewatering and Disposal

a. Replacement of sludge dewatering equipment, sludge handling pumps, such as transfer pumps, feed pumps, cake pumps, loading pumps, provided that modifications will not result in reduction in solids storage or handling capacities.

11. Standby Power System

1. Replacement or installation of standby power system, including feed from alternate power grid, emergency power generator, fuel supply and storage systems, provided that the existing standby power generation capacity is not reduced.

12. Lagoons

a. installing baffles in lagoon provided that the operating capacity of the lagoon system is not reduced;

b. raise top elevation of lagoon berms to increase free-board;

c. replace interconnecting pipes and chambers between cells, provided that the process design operating sequence is not changed;

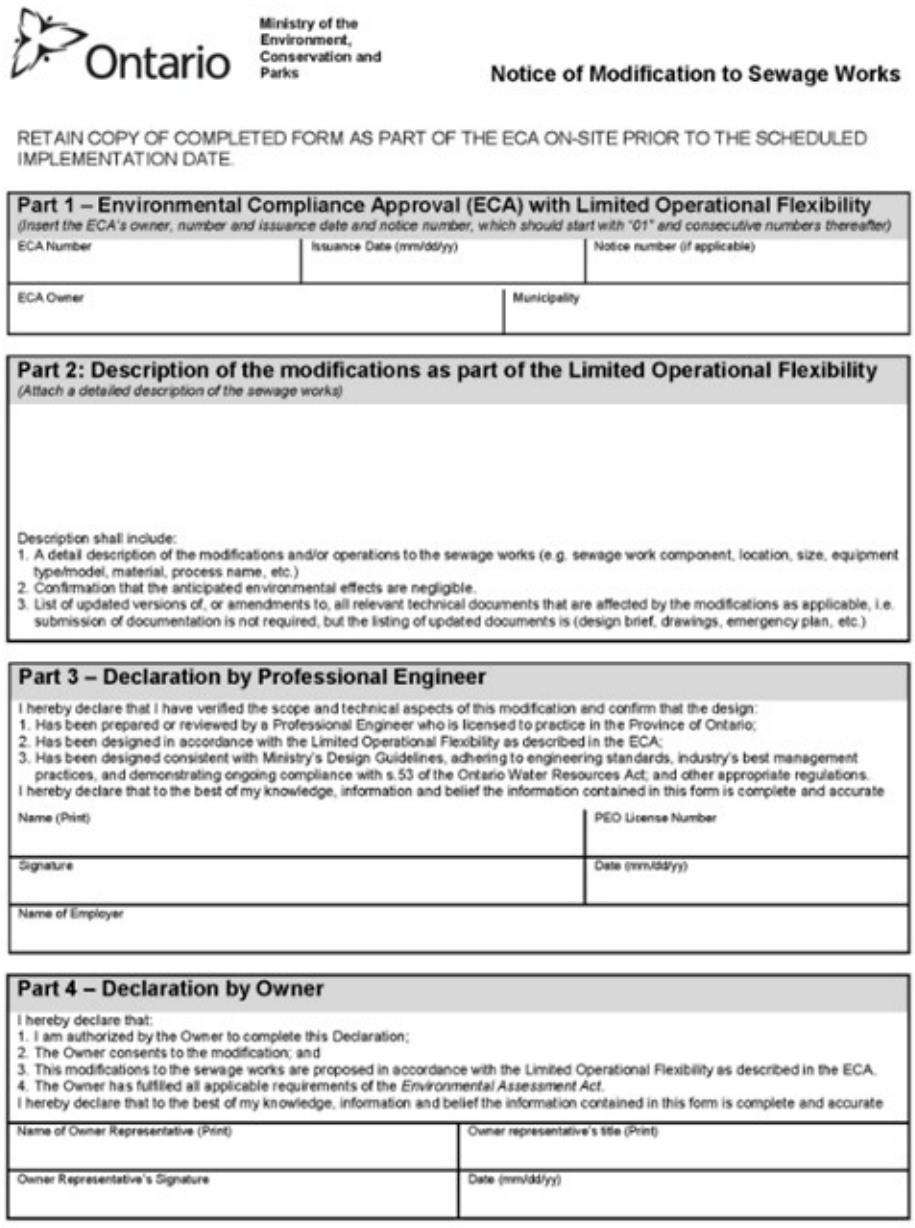
d. replace mechanical aerators, or replace mechanical aerators with diffused aeration system provided that the mixing and aeration capacity are not reduced;

e. removal of accumulated sludge and disposal to an approved location offsite.

3. Final Effluent Disposal Facilities

a. Replacement or realignment of the Final Effluent channel, sewer or forcemain, including manholes, valves and appurtenances from the end of the treatment train to the discharge outfall section, provided that the sewer conveys only effluent discharged from the Sewage Treatment Plant and that the replacement or re-aligned sewer has similar dimensions and performance criteria and is in the same or approximately the same location and that the hydraulic capacity will not be reduced.

This page contains an image of the form entitled "Notice of Modification to Sewage Works". A digital copy can be obtained from the District Manager.



Ontario

Ministry of the Environment, Conservation and Parks

Notice of Modification to Sewage Works

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA ON-SITE PRIOR TO THE SCHEDULED IMPLEMENTATION DATE.

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility

(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)

ECA Number	Issuance Date (mm/dd/yy)	Notice number (if applicable)

ECA Owner	Municipality

Part 2: Description of the modifications as part of the Limited Operational Flexibility

(Attach a detailed description of the sewage works)

Description shall include:
1. A detail description of the modifications and/or operations to the sewage works (e.g. sewage work component, location, size, equipment type/model, material, process name, etc.)
2. Confirmation that the anticipated environmental effects are negligible.
3. List of updated versions of, or amendments to, all relevant technical documents that are affected by the modifications as applicable, i.e. submission of documentation is not required, but the listing of updated documents is (design brief, drawings, emergency plan, etc.)

Part 3 – Declaration by Professional Engineer

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:
1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;
3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name (Print)	PEO License Number

Signature	Date (mm/dd/yy)

Name of Employer

Part 4 – Declaration by Owner

I hereby declare that:
1. I am authorized by the Owner to complete this Declaration;
2. The Owner consents to the modification; and
3. This modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA.
4. The Owner has fulfilled all applicable requirements of the *Environmental Assessment Act*.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name of Owner Representative (Print)	Owner representative's title (Print)

Owner Representative's Signature	Date (mm/dd/yy)

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 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 regarding compliance limits is imposed to ensure that the Final Effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements.

5. Condition 5 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. As well, the inclusion of a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the Works.

6. Condition 6 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 at a level which is consistent with the design objectives and compliance limits.

7. Condition 7 regarding Limited Operational Flexibility is included to ensure that the Works are constructed, maintained and operated in accordance with the Approval, and that any pre-approved modification will not negatively impact on the performance of the Works.

8. Condition 8 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.

9. Condition 9 is included to ensure that any components of un-used Works are properly decommissioned.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 8233-A44PTF issued on June 17, 2016.

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 Notice") 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.

Pursuant to subsection 139(3) of the *Environmental Protection Act,* a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

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

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 17th day of January, 2025

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

YK/
c: District Manager, MECP Barrie
Eric Gunnell, Gunnell Engineering