

**ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 2525-C2WJNL  
Issue Date: May 20, 2021

Spirit Bay Harbour Inc.  
1048 Cedar Beach Rd  
Bracebridge, Ontario  
P1L 1W8

Site Location: Spirit Bay Harbour Marina  
1048 Cedar Beach Rd  
Bracebridge Town, District Municipality of Muskoka  
P1L 1W8

*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:*

replacement of existing on-site sewage works servicing the Spirit Bay Harbour Marina including a 121 seat restaurant, a retail kiosk, a new showroom and a maintenance shop, located at 1048 Cedar Beach Rd, in the Town of Bracebridge, Ontario, with a design maximum daily sanitary sewage flow of 20,008 L/d, and consisting of the following:

**Proposed Oil and Grease Interceptor for Restaurant**

- one (1) 13,650 L oil and grease interceptor, providing pre-treatment for the raw sewage from the restaurant via a 100 mm diameter gravity pipe, discharging to the main pump chamber via 75 mm forcemain;

**Proposed Main Pump Chamber**

- one (1) 7,000 L main pump chamber, equipped with 2 Liberty LSG200 series Grinder Pumps or equivalent rated 190 L/min at 12 m TDH and a duplex control panel, receiving raw sewage from Maintenance Building Lift Station, kiosk Lift Station, Showroom Lift Station, and Restaurant Oil and Grease Interceptor, discharging via a DR26 Series 160 Municipal Pipe 50 mm OD forcemain to the Sequencing Batch Reactor (SBR) sewage treatment plant as described below;

**Proposed Aquarobic Sequencing Batch Reactor**

one (1) SBR system rated for 20,400 L/day, processing a batch of treated effluent every 4 hours, for 6 batches per

day (i.e. 6 cycles per day), consisting of the following:

- one (1) 11,000 L trash tank completed with 100 mm diameter gravity pipe to discharge into to SBR aeration basin No. 1 described below;
- one (1) 21,000 L aeration basin outfitted with a network of bubble diffusers, air to supplied by 1.78 hp regenerative blower No. 1 (DG400-31 or equivalent), the liquid to discharge via a 100m diameter gravity pipe to SBR aeration basin No. 2 described below;
- one (1) 21,000 L aeration basin outfitted with a network of bubble diffusers, air to supplied by 1.75 hp regenerative blower No. 2 (DG400-31 or equivalent), complete with level logger control system, level alarms, and a transfer pump rated 9.5 L/s at 3 m TDH (Goulds WS0712B or equivalent), discharging to the clarifier tank described below;
- one (1) 11,000 L clarifier tank, complete with level logger control system, level alarms, a sludge return pump rated 9.5 L/s at 3 m TDH (Goulds WS0712B or equivalent) and a decant pump rated 9.5 L/s at 3 m TDH (Grundfos Unilift AP12 or equivalent), discharging a 3,400 L/batch via a 38 mm diameter forcemain to the dispersal bed described below;

### **Proposed Type A Dispersal Bed**

- one (1) raised Type A Dispersal Bed designed for the disposal of treated effluent from the treatment system, for a maximum daily flow of 20,000 L/day, having a sand area of 2,560 m<sup>2</sup> (80 m x 32 m, with minimum 300 mm thick fine sand fill with a phosphorus retention capability of 500 mg phosphorus/kg/soil, a percolation time in the range of 6 to 10 min/cm, and meeting OBC specifications), a top stone area of 405 m<sup>2</sup> (18 m x 22.5 m) with a minimum 300 mm thick layer of clean washed crushed stone meeting OBC specifications, equipped with eighteen (18) runs of 21.5 m long (a total of 387 m) 100 mm diameter perforated distribution pipe spaced at 1.0 m centre to centre and installed in the stone layer covered with a geotextile filter fabric and 200 mm top soil, having a minimum separation distance of 600 mm between the bottom of the stone layer and the high groundwater table, rock or native soil with a percolation time of 50 min/cm, with the dispersal bed having a minimum of 300 mm thick sand mantle extending a minimum of 15 metres down-gradient beyond the outermost distribution pipes in any direction in which the effluent will move laterally;

including all other mechanical system, electrical system, instrumentation and control system, standby power 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 supporting documents set out in Schedule "A" attached to this Approval.

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

"Act" means the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, as amended;

"Approval" means this entire document and any schedules attached to it, and the application;

"BOD5" (also known as TBOD<sub>5</sub>) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demand;

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

"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;

"District Manager" means the District Manager of the Barrie District Office;

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

"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;

"Seasonal Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured, or both, during a seasonal discharge period;

"Owner" means Spirit Bay Harbour Inc. and its successors and assignees;

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

"Proposed Works" means the sewage works described in the Owner's application, this Approval, to the extent approved by this Approval;

"Substantial Completion" has the same meaning as "substantial performance" in the *Construction Lien Act*;

"Works" means the sewage works described in the Owner's application, and this Approval, 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 conditions herein and shall take all reasonable measures to

ensure any such person complies with the same.

(2) Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.

(3) Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.

(4) Where there is a conflict between the documents listed in the Schedule submitted documents, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.

(5) The Conditions of this Approval are severable. If any Condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

## **2. EXPIRY OF APPROVAL**

(1) The approval issued by 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.

## **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 Owner;

(b) change of address of the 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 to the District Manager;

(d) change of name of the corporation where the Owner is or at any time becomes a 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 to the District Manager;

(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.

**4. CONSTRUCTION**

(1) The Owner shall ensure that the construction of the works is supervised by a Licensed Installer as defined in the Ontario Building Code or a Professional Engineer, as defined in the Professional Engineers Act.

(2) 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 or Licensed Installer for the percolation time (T) prior to delivering to the site location and the written records are kept at the site.

(3) Upon construction of the Works, the Owner shall prepare a statement, certified by a Licensed Installer or a Professional Engineer, that the Works are constructed in accordance with this Approval, and upon request, shall make the written statement available for inspection by Ministry staff and staff of the local municipality.

**5. EFFLUENT OBJECTIVES**

(1) The Owner shall design and undertake everything practicable to operate the Proposed Works with the objective that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent being discharged from the SBR treatment system to the Leaching Bed.

<b>Table 1 - Effluent Objectives</b> (for samples collected from the outlet of the SBR system upstream of Leaching Bed)	
<b>Effluent Parameter</b>	<b>Seasonal Average Concentration Objective</b> (milligrams per litre unless otherwise indicated)
CBOD <sub>5</sub>	15.0
Total Suspended Solids	15.0

(2) The Owner shall use best efforts to:

(a) maintain the pH of the effluent from the Works within the range of 6.5 to 9.0 inclusive, at all times;

(b) operate the Works below the maximum daily flow approved for the Works.

(3) The Owner shall include in all reports submitted in accordance with Condition 9, a summary of the efforts made and results achieved under this Condition.

**6. EFFLUENT LIMITS**

(1) The Owner shall operate and maintain the Works such that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent being discharged from the SBR treatment system to the Leaching Bed.

<b>Table 2 - Effluent Limits</b> (for samples collected from the outlet of the SBR treatment system upstream of leaching Bed)	
<b>Effluent Parameter</b>	<b>Seasonal Average Concentration</b> (milligrams per litre unless otherwise indicated)
Column 1	Column 2
CBOD <sub>5</sub>	25.0
Total Suspended Solids	25.0

(2) For the purposes of determining compliance with and enforcing subsection (1):

(a) The Seasonal Average Concentration of a parameter named in Column 1 of subsection (1) shall not exceed the corresponding maximum concentration set out in Column 2 of subsection (1).

(b) The pH of the effluent shall be maintained between 6.0 to 9.5, at all times.

(3) Paragraphs (a) to (b) of subsection (2) shall apply upon the Substantial Completion of the Works.

## 7. OPERATIONS AND MAINTENANCE

(1) The Owner shall prepare an Operations Manual within six (6) months of the start up of the Works, that includes, but is not necessarily limited to, the following information:

(a) operating procedures for routine operation of the Works;

(b) procedures for the inspection and calibration of monitoring equipment;

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

(d) repair and maintenance programs, including the frequency of repair and maintenance for the sewage Works;

(e) contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification of the District Manager; and

(f) complaint procedures for receiving and responding to public complaints.

(2) The Owner shall maintain the Operations Manual current and retain a copy at the location of the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.

(3) 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.

(4) The Owner shall sign a Service and Maintenance Agreement with the manufacturer or approved agent of the Aquarobic SBR treatment system. 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.

(5) The Owner shall receive from the manufacturer or distributor of Aquarobic SBR treatment system 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.

(6) The Owner shall ensure that the treatment systems are at minimum inspected and maintained according to the manufacturer's recommendations;

(7) The Owner shall ensure that the oil/grease interceptor is inspected and maintained on regular basis as required, and grease is disposed off site by a licensed hauler (e.g. at approved recycling sites).

(8) The Owner shall ensure that grass-cutting is maintained regularly over the subsurface disposal beds, 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 sewage 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 employ for the overall operation of the Works a person who possesses the level of training and experience sufficient to allow safe and environmentally sound operation of the Works.

(12) The Owner shall maintain a physical or digital logbook to record the results of Operation and Maintenance activities specified in the above subclauses, and shall make the logbook available for inspection by the Ministry staff.

(13) 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.

8. MONITORING AND RECORDING

The Owner shall, upon commencement of operation of the Works, carry out the following monitoring program:

(1) All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

(2) Samples shall be collected at the following sampling points, at the frequency specified, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

<b>Table 3 - Raw Sewage Monitoring</b> (Samples to be collected at the main pump chamber)		
<b>Parameters</b>	<b>Sample Type</b>	<b>Frequency</b>
BOD <sub>5</sub>	Grab	Three times during operating season
Total Suspended Solids	Grab	Three times during operating season
Total Phosphorus	Grab	Three times during operating season
pH	Grab	Three times during operating season

<b>Table 4 - Effluent Monitoring</b> (Samples to be collected at the outlet of SBR treatment system)		
<b>Parameters</b>	<b>Sample Type</b>	<b>Frequency</b>
CBOD <sub>5</sub>	Grab	Three times during operating season
Total Suspended Solids	Grab	Three times during operating season
Total Phosphorus	Grab	Three times during operating season
pH	Grab	Three times during operating season



(3) The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

(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 from time to time by more recently published editions;

(b) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;

(c) the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions.

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

(4) The Owner shall measure/estimate and record the daily volume of effluent being discharged to each sewage treatment system.

(5) 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.

## 9. 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) The Owner shall report to the District Manager or designate, any exceedance of any parameter specified in Condition 6 orally, as soon as reasonably possible, and in writing within seven (7) days after receiving analytic results of the exceedance.

(3) In addition to the obligations under Part X of the Environmental Protection Act, the Owner shall, within 10 working days of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, loss of any product, by-product, intermediate product, oil, solvent, waste material or any other polluting substance into the environment, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation.

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

(5) The Owner shall prepare, and submit to the District manager, a performance report, on an annual basis, within ninety (90) days following the end of the period being reported upon. The first such report shall cover the first annual period following the commencement of operation of the Works and

subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

- (a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 6, including an overview of the success and adequacy of the Works;
- (b) a tabulation of the daily volumes of effluent disposed through the sewage treatment systems during the reporting period;
- (c) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5;
- (d) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works; and
- (e) a description of any operating problems encountered and corrective actions taken.
- (f) a summary and interpretation of all flow data and results achieved in meeting the maximum daily flows for each sewage Works as approved under this Approval.
- (g) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- (h) a summary of all spill or abnormal discharge events; and
- (i) any other information the District Manager requires from time to time.

*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 in accordance with the approval and that record drawings of the Works "as Constructed" are maintained for future references.
5. Condition 5 is imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs and before the compliance limits of Condition 7 are exceeded.
6. Condition 6 is imposed to ensure that the effluent discharged from the Works meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver and to protect water quality, fish and other aquatic life in the receiving water body.
7. Condition 7 is included to require that the Works be properly operated, maintained, and equipped such that the environment is protected. As well, the inclusion of an operations manual, maintenance agreement with the manufacturer for the treatment process/technology and a complete set of "as constructed" drawings governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the owner and made available to the Ministry. Such a information 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 work.
8. Condition 8 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 specified in the Approval and that the Works does not cause any impairment to the receiving watercourse.

9. Condition 9 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 all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.

## SCHEDULE "A"

1. Environmental Compliance Approval Application for Municipal and Private Sewage Works, submitted by Azimuth Environmental Consulting Inc., dated October 28, 2020 and received on November 25, 2020.
2. Design brief on Private Sewage Works - Spirit Bay Harbour Marina, along with drawings, dated October 2020, and prepared by Azimuth Environmental Consulting Inc.
3. Water Resources Impact Assessment, dated September 2020, and prepared by Azimuth Environmental Consulting Inc.

*In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review 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 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:*

The Secretary\*  
Environmental Review Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5

AND

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

AND

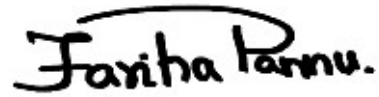
The Director appointed for the purposes of  
Part II.1 of the Environmental Protection Act  
Ministry of the Environment,  
Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or [www.ert.gov.on.ca](http://www.ert.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 20th day of May, 2021



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Fariha Pannu, P.Eng.

Director

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

YZ/

c: District Manager, MECP Barrie District Office  
Jackie Coughlin, Azimuth Environmental Consulting Inc.