

**ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER A-500-8093784351

Version: 1.0

Issue Date: January 19, 2021

*Pursuant to section 20.3 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 and subject to all other applicable Acts or regulations this Environmental Compliance Approval is issued to:*

FLOWER GROUP OPERATING INC.

443 SEACLIFF DRIVE WEST, UNIT  
SIGNAGE  
ONTARIO  
N8H 4C9

*For the following site:*

443 Seacliff Drive West, Leamington, LEAMINGTON, ONTARIO,  
CANADA, N8H 4C9

*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:*

sanitary sewage and process wastewater treatment works, having a Rated Capacity of 114,000 litres per day and a projected average daily flow of 75,600 litres per day, to service existing and new greenhouses for accommodating a total of 124 on-site workers, up to 86 off-site employees at greenhouse and warehouse facilities, as well as 12.5 cubic metres of process wastewater from greenhouse operations, located at 443 Seacliff Drive, in the Municipality of Leamington, consisting of the following:

- one (1) influent pump chamber (regulated under the Ontario Building Code), receiving all influent flows and discharging into an aerated lagoon system;
- one (1) aerated lagoon divided into two cells - a partial mix cell (Cell #1) and a settling cell (Cell #2), with the partial mix cell having a volume capacity of 1282 cubic metres and equipped with air diffuser system along with blowers, and the settling cell having a volume capacity of 713 cubic metres, discharging into a Submerged Attached Growth Reactor (SAGR) cell;
- one (1) Submerged Attached Growth Reactor (SAGR) system, having dimensions of 8 metres by 31 metres by 2.44 metres (water depth) filled with granular media, complete with secondary influent distribution laterals, geo-membrane liner, aeration system, and an effluent collection chamber, discharging effluent into a drum filter;
- one (1) chemical dosing system, for the dosing of Alum to the influent of aerated lagoon, and the dosing of coagulate chemical (Alum) to the SAGR effluent;
- one (1) cloth drum filter, with 2.8 square metres of cloth filter media, discharging the Final Effluent into the Lower Section of Judson Morse Drain;

- provision for a UV disinfection system, if necessary; and
- all other controls, electrical equipment, instrumentation, piping, valves and appurtenances essential for the proper operation of the aforementioned Works.

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

## **DEFINITIONS**

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

1. "Approval" means this entire Approval document and any Schedules to it, including the application and Supporting Documentation;
2. "BOD5" (also known as TBOD5) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demand;
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.I of the EPA;
5. "District Manager" means the District Manager of the Sarnia/Windsor District Office;
6. "E. Coli" refers to the thermally tolerant forms of Escherichia that can survive at 44.5 degrees Celsius;
7. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
8. "Final Effluent" means sewage discharge via the sewage treatment system outfall after undergoing the full train of unit processes as listed in the Approval;
9. "Geometric Mean Density" is the nth root of the product of multiplication of the results of n number of samples over the period specified;
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, as amended;
11. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;
12. "Monthly Average Concentration" means the arithmetic mean of all Daily Concentrations of a contaminant in the effluent sampled or measured, or both, during a calendar month;
13. "Owner" means Flower Group Operating Inc. and its successors and assignees;
14. "OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c. O.40, as amended;
15. "Rated Capacity" means design daily sanitary sewage flow for which the Works are approved to handle;
16. "Works" means the approved sewage works.

## **TERMS AND CONDITIONS**

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

## 1. GENERAL PROVISIONS

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

## 2. EXPIRY OF APPROVAL

1. This Approval will cease to apply to those parts of the Works which have not been constructed within five (5) years of the date of this Approval.

## 3. CHANGE OF OWNER

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within thirty (30) days of the change occurring:
  - a. change of address of Owner;
  - b. change of Owner, including address of new owner;
  - c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c. B.17, as amended, shall be included in the notification;
  - 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. C.39, as amended, shall be included in the notification;
2. In the event of any change in ownership of the Works, other than a change to a successor municipality, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager and the Director.
3. The Owner shall ensure that all communications made pursuant to this condition refer to the environmental compliance approval number.

## 4. CONSTRUCTION

1. The Owner shall ensure that the construction of the Works is supervised by a Licensed Engineering Practitioner.
2. 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.
3. Upon construction of the Works, the Owner shall prepare a set of as-built drawings showing the works "as constructed", which shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the site for the operational life of the Works and shall be made available for inspection by Ministry staff.

## 5. EFFLUENT OBJECTIVES

1. The Owner shall design and undertake everything practicable to operate the Works within the Rated Capacity of the sewage treatment system.

## 6. EFFLUENT LIMITS

1. The Owner shall design, construct, operate and maintain the Works such that the concentrations of the materials in Table 1 of Schedule B as effluent parameters are not exceeded in the Final Effluent of the Works, prior to discharging into the Lower Section of Judson Morse Drain.
2. During commissioning stage, nine (9) months after the date of start-up, the Owner shall operate and maintain the Works such that the concentrations of the materials in Table 1A of Schedule B as effluent parameters are not exceeded in the Final Effluent of the Works, prior to discharging into the Lower Section of Judson Morse Drain.
3. The Owner shall cease discharge of the non-compliant effluent to the receiver (Lower Section of Judson Morse Drain) within 24 hours under the following conditions, until the treatment system returns to compliance:
  - a. Upon request by the District Manager; and
  - b. Should Total Ammonia Nitrogen concentration named in Column 1 of Table 1 of Subsection (1) from any minimum 8-hour composite sample exceed 6.0 mg/L during the operational life of the Works, including start-up and commissioning, the Owner shall stop within 24 hours discharging to the receiver (Lower Section of Judson Morse Drain).
4. Under the cease-discharging conditions pursuant to above Subsections 3.a. or 3.b., the Owner shall implement the contingency measures pursuant to Condition 7.2.e., and ensure the non-compliant effluent be either recirculated through the treatment system for re-treatment for compliance, or be hauled off-site to an approved waste disposal site by a registered waste hauler.
5. Upon the sewage treatment system returning to compliance, the Owner shall ensure the District Manager be notified prior to discharge resumption.

## 7. OPERATIONS 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 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 prepare an operations manual, prior to the the Substantial Completion of the Works, that includes, but not necessarily limited to, the following information:
  - a. operating procedures for routine operation of the Works;
  - 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. 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 District Manager. The contingency plan shall be prepared by a Professional Engineer to the satisfaction of the District Manager, and shall cover the entire operational life of the sewage Work; and
  - f. procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.

3. 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.
4. The Owner shall operate the Works so that there is no leakage, spill, discharge of raw sewage, and sewage from partial treatment to any surface waters.
5. 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.

## 8. 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 Tables 2 and 3 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. Bi-weekly means once every two weeks
    - ii. Monthly means once every one month
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 from time to time by more recently published editions;
  - b. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial /Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended; and
  - 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.
3. The Owner shall submit influent and effluent monitoring results required by Tables 2 and 3 in Schedule C to the District Manager right upon receiving the sample analysis results for the first nine (9) months after the date of start-up.
4. The temperature and pH of the effluent from the Works shall be determined in the field at the time of sampling for Total Ammonia Nitrogen.
5. The sampling frequencies, parameters and locations specified in subsection (2) are minimum requirements which may, after twelve (12) months of monitoring in accordance with this Condition, be modified by the Director in writing from time to time.
6. The Owner shall install and maintain a continuous flow measuring device, to measure the daily quantities of effluent from the Works being discharged to the Lower Section of Judson Morse

Drain, with an accuracy to within plus or minus 15 per cent (+/- 15%) of the actual flowrate for the entire design range of the flow measuring device, and record the flowrate at a daily frequency.

## 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. 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.
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 and submit a performance report, on an annual basis, within ninety (90) days following the end of each operational season to the District Manager. The first such report shall cover the first annual period following the commencement of operation of the Works and subsequent reports shall 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 description of any operating problems encountered and corrective actions taken;
  - c. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;
  - d. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
  - e. a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
  - f. a summary of flow data for the quantity of daily flow discharged from the sewage treatment system, interpretation of all flow data, and assessment on whether or not the Rated Capacity of the Works is capable of handling the maximum daily flow rates.
  - g. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
  - h. a tabulation of the volume of sludge generated in the reporting period, 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 of;
  - i. a summary of all By-pass, spill or abnormal discharge events; and
  - j. any other information the District Manager may require from time to time.

## REASONS

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*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 expiry of approval 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 regarding change of owner 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 regarding construction is included to ensure that the works are constructed, and may be operated and maintained such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented.
5. Condition 5 regarding design objectives is imposed to establish non-enforceable Rated Capacity objective which the Owner is obligated to use best efforts to strive towards on an ongoing basis.
6. Condition 6 regarding compliance limits is imposed to ensure that the Final Effluent discharged from the Works to the municipal drain meets the Ministry's effluent quality requirements.
7. Condition 7 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.
8. Condition 8 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 compliance limits.
9. Condition 9 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.

## APPEAL PROVISIONS

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*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.elto.gov.on.ca](http://www.elto.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 [www.ero.ontario.ca](http://www.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 19th day of January, 2021

A handwritten signature in black ink that reads "Fariha Pannu." The signature is written in a cursive style with a horizontal line above the first few letters.

Fariha Pannu

Director

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

c: Jamie Lefaive, LAKESHORE

Jack Li, Ontario Clean Water Agency

The following schedules are a part of this environmental compliance approval:

# **SCHEDULE 1**

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## **Schedule A**

Application for Environmental Compliance Approval submitted by Jamie Lefaive of FLOWER GROUP OPERATING INC. received on July 8, 2020 for the proposed sanitary sewage and process wastewater treatment works serving existing and new greenhouses, including design report, final plans and specifications.

## SCHEDULE 2

### Schedule B

**Table 1 - Final Effluent Compliance Limits**

| <b>Effluent Parameter</b>    | <b>Averaging Calculator</b>    | <b>Concentration Limit</b><br>(maximum unless otherwise indicated) |
|------------------------------|--------------------------------|--|
| CBOD5                        | Monthly Average Concentration  | 10.0 mg/L (May 01 to October 31)                                   |
|                              |                                | 15.0 mg/L (November 01 to April 30)                                |
| Total Suspended solid        | Monthly Average Concentration  | 10.0 mg/L (May 01 to October 31)                                   |
|                              |                                | 15.0 mg/L (November 01 to April 30)                                |
| Total Phosphorus             | Monthly Average Concentration  | 0.3 mg/L   |
| Total Ammonia Nitrogen (TAN) | Monthly Average Concentration  | 2.0 mg/L (May 01 to October 31)                                    |
|                              |                                | 3.0 mg/L (November 01 to April 30)                                 |
| <i>E. coli</i>               | Monthly Geometric Mean Density | *100 CFU/100 mL  |

\*Note: If the MPN method is utilized for *E.coli* analysis the limit shall be 100 MPN/100 mL.

**Table 1A - Interim Effluent Limits (only for a period of nine (9) months after the date of start-up)**

| <b>Effluent Parameter</b>    | <b>Averaging Calculator</b>    | <b>Concentration Limit</b><br>(maximum unless otherwise indicated) |
|------------------------------|--------------------------------|--|
| CBOD5                        | Monthly Average Concentration  | 20.0 mg/L (May 01 to October 31)                                   |
|                              |                                | 25.0 mg/L (November 01 to April 30)                                |
| Total Suspended Solid        | Monthly Average Concentration  | 30.0 mg/L  |
| Total Phosphorus             | Monthly Average Concentration  | 2.0 mg/L   |
| Total Ammonia Nitrogen (TAN) | Monthly Average Concentration  | 4.0 mg/L (May 01 to October 31)                                    |
|                              |                                | 6.0 mg/L (November 01 to April 30)                                 |
| <i>E. coli</i>               | Monthly Geometric Mean Density | *100 CFU/100 mL  |

\*Note: If the MPN method is utilized for *E.coli* analysis the limit shall be 100 MPN/100 mL.

## SCHEDULE 3

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### Schedule C

**Table 2 - Influent Monitoring**

|                          |   |
|--------------------------|---|
| <b>Sample location</b>   | at the inlet chamber of aerated lagoon Cell #1  |
| <b>Sample Type</b>       | Grab  |
| <b>Minimum Frequency</b> | Monthly   |
| <b>Parameters</b>        | BOD5, Total Suspended Solids, Total Phosphorus, Total Ammonia Nitrogen, Total Kjeldahl Nitrogen, pH |

**Table 3 - Final Effluent Monitoring**

|                          |   |
|--------------------------|---|
| <b>Sample Location</b>   | Final effluent from the Cloth Drum Filter, prior to discharging into the Lower Section of Judson Morse Drain                      |
| <b>Sample Type</b>       | Minimum 8-hour Composite (except pH, and Temperature)   |
| <b>Minimum Frequency</b> | Bi-weekly   |
| <b>Parameters</b>        | CBOD5, Total Suspended Solids, Total Ammonia Nitrogen, Total Phosphorus, E. coli, pH (field, grab), and Temperature (field, grab) |