

**ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 9536-BL4LPV  
Issue Date: March 26, 2020

Agromart Terminals Inc.  
17554 Plover Mills Road  
Thames Centre, Ontario  
N0M 2P0

Site Location: 17554 Plover Mills Road RR 3  
Municipality of Thames Centre  
County of Middlesex

*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:*

stormwater management and treatment works for 4.5 ha site area with fertilizer activity out of a total site area of 10.19 ha, designed to capture and treat first flush 25 mm of rainfall that falls during periods of high fertilizer activity (approximately 6 weeks in the Spring around April/May and approximately 3 weeks in the Fall around September), comprising;

**Southwest Pond**

Southwest Pond located just south of the Barrel Dome, having a storage volume of approximately 155 m<sup>3</sup>, sized to capture the first 25 mm of rain falling on Area B (6,026 m<sup>2</sup>) and the regraded area immediately north (1,775 m<sup>2</sup>), complete with a 15.24 cm (6 inch) overflow standpipe and a 3 m wide overflow weir, and small pump in a pump chamber connected to the pond via a 15.24 cm (6 inch) standpipe designed to empty the pond in approximately 4 days by pumping to the Storage Pond during the periods of high fertilizer activity at an average rate of 27 L/minute;

**Southeast Pump Tank**

One (1) 10,700 L Southeast Pump Tank located northeast of the Barrel Dome, designed to capture the first 25 mm of rain falling on Area A (8,465 m<sup>2</sup>), complete with pumps having pump capacity of 1,200 L/min, discharging to the Storage Pond during periods of high fertilizer activity;

**Northeast Pump Tank**

One (1) 13,300 L Northeast Pump Tank located north of Dome 6, designed to capture the first 25 mm of rain falling on the central 15,081 m<sup>2</sup> area and Dome 5 area of 2,309 m<sup>2</sup>, complete with pumps having pump capacity of 1,200 L/min, discharging to the Storage Pond during periods of high fertilizer activity;

### **Northwest Tank**

One (1) 13,300 L Northwest pump tank located west of the Flat Storage Building, designed to capture the first 25 mm of rain falling on the area on the west side of Domes 1 and 8 (approximately 1 ha), complete with pumps having pump capacity of 1,200 L/minute, discharging to the Storage Pond during periods of high fertilizer activity;

### **Conveyor Pit**

- One existing pump in the Conveyor Pit (located near Domes 4 and 5 to just east of the railway), retrofitted with a valve to discharge any water in the Conveyor Pit to the Storage pond during periods of high fertilizer activity;
- One existing pump collecting passive drainage from weeping tiles surrounding the Conveyor Pit, retrofitted with a valve to discharge any collected water to the Storage Pond during periods of high fertilizer activity;

### **Storage Pond**

- One (1) Storage Pond with compacted native clayey soil basin, located in the northwest corner of the site, having a total volume of 2,410 m<sup>3</sup>, complete with an overflow standpipe and a 6.25 m wide emergency exit weir, designed to store first flush rainfall volume from the Southwest Pond, Southeast Tank, Northeast Tank, Northwest Tank and Conveyor Pit collected during the periods of high fertilizer activity;
- One (1) pump basin connected to the Storage Pond with a pump rated at 32 L/min (45,000 L/day) at a TDH of 3 m slowly feeding water to the AQUA Wetland System (AWS) Dosing Tank;

### **Dosing Tank**

One (1) 4,500 L AWS Dosing Tank (Newmarket Precast or equivalent) with pump rated at 450 L/min at 12 m TDH, with options of flow recirculation from various parts of the AWS, dosing AWS Cell #1;

### **AQUA Wetland System (AWS)**

One (1) 1,800 m<sup>2</sup> AWS (subsurface, vertical flow constructed wetland), designed for a Hydraulic Loading Rate of 45,000 L/d, located in the southwest corner of the site, consisting of four (4) cells (operating in series with option for flow recirculation), each cell having an area of 450 m<sup>2</sup> with a depth of 1.22 m and lined with impervious material, with Cell #1 filled with gravel and functioning as a pre-treatment cell with aerobic conditions and providing filtration and nitrification, Cell #2 filled with sand and gravel and designed for aerobic treatment, alum dosing implemented in Cell #2 or other cells as the system performance is optimized, Cell #3 filled with wood chips for denitrification, Cell #4 filled with gravel for effluent polishing, and timed-dose discharging to South Municipal Drain through an existing onsite catchbasin;

including all other mechanical system, and control system, piping, 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 **Schedule A.**

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

1. "Approval" means this entire document and any schedules attached to it, and the application;
2. "District Manager" means the District Manager of the London District Office of the Ministry;
3. "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;
4. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended;
5. "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;
6. "Owner" means Agromart Terminals Inc., and its successors and assignees;
7. "OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c. O.40, as amended;
8. "Previous Works" means those portions of the sewage works previously constructed and approved under an Approval;
9. "Proposed Works" means the sewage works described in the Owner's application, this Approval, to the extent approved by this Approval;

*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 CONDITION**

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 A, 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. 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 or operating authority, or both;
  - b. change of address of Owner or operating authority or address of new Owner or operating authority;
  - c. change of partners where the Owner or operating authority is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Partnerships Registration Act*;
  - d. change of name of the corporation where the Owner or operator is or at any time becomes a corporation, and a copy of the most current "Initial Notice or Notice of Change" (Form 1, 2 or 3 of O. Reg. 189, R.R.O. 1980, as amended from time to time), filed under the *Corporations Information Act*, shall be included in the notification to the District Manager;
2. In the event of any change in ownership of the Works, 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.
3. The Owner shall ensure that all communications made pursuant to this condition will refer to this Approval's number.

### **3. OPERATIONS MANUAL**

1. The Owner shall prepare an operations manual prior to the commencement of operation of the sewage 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. contingency plans and procedures for dealing with potential spill, bypasses and any other abnormal situations and for notifying the District Manager; and
  - e. complaint procedures for receiving and responding to public complaints.
2. The Owner shall maintain the operations manual up to date through revisions undertaken from time to time and retain a copy at the location of the sewage works. Upon request, the Owner shall make the manual available for inspection and copying by Ministry personnel.

### **4. EFFLUENT OBJECTIVES**

1. The Owner shall use best efforts to design, construct and operate the Works with the objective that the concentrations of the materials listed as effluent parameters in the effluent objectives table in **Schedule B** are not exceeded in the effluent from the Works.
2. As a further effluent objective, the Owner shall use best efforts to maintain the pH of the effluent from the Works within the range of 6 to 9, inclusive, at all times.
3. The Owner shall include in all reports submitted in accordance with Condition 7 a summary of the efforts made and results achieved under this Condition.

### **5. EFFLUENT - VISUAL OBSERVATIONS**

1. Notwithstanding any other condition in this Approval, the Owner shall ensure that the effluent from the Works is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters.

## 6. EFFLUENT MONITORING AND RECORDING

1. The Owner shall, upon commencement of operation of the sewage works, carry out a monitoring program and 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 and analyzed at the sampling point(s), at the sampling frequencies and using the sample type specified for each parameter listed in the effluent monitoring table included in **Schedule C**.
3. The methods and protocols for sampling, analysis, toxicity testing, and recording shall conform, in order of precedence, to the methods and protocols specified in the following:
  - a. 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;
  - b. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition) as amended from time to time by more recently published editions;
  - c. the Environment Canada publications "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout" (EPS 1/RM/13 Second Edition - December 2000) and "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna* " (EPS 1/RM/14 Second Edition - December 2000), as amended from time to time by more recently published editions; and
  - d. in respect of any parameters not mentioned in (a) - (c), the written approval of the District Manager, which approval shall be obtained prior to sampling.
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.
5. A continuous flow measuring device(s) shall be installed and maintained to measure the flowrate of the effluent from the AWS, with an accuracy to within plus or minus 15 per cent of the actual flowrate for the entire design range of the flow measuring device and the Owner shall measure, record and calculate the flowrate for the effluent stream on each day of sampling.

## 7. 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 4 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedance.
3. In addition to the obligations under Part X of the EPA, the Owner shall, within ten (10) working days of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, bypass or 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. At the end of the three year monitoring period of untreated stormwater, the Owner shall submit a report to the District Manager which shall include but not limited to the summary and interpretation of all monitoring data and recommendations in the light of the monitoring data for any changes as to how the site stormwater management needs to be modified.
5. The Owner shall prepare and submit a performance report to the District Manager on an annual basis within sixty (60) 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 objectives outlined in Condition 4, including an overview of the success and adequacy of the sewage 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 sewage 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 description of efforts made and results achieved in meeting the Effluent Objectives of Condition 4.

g. 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.
2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to 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.
3. Condition 3 is included to ensure that a comprehensive operations manual 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 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.
4. Condition 4 and 5 are 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.
5. Condition 6 is included to require the Owner to demonstrate on a continual basis that the quality and quantity of the effluent from the approved works is consistent with the (design objectives and) effluent limits specified in the Approval and that the approved works does not cause any impairment to the receiving watercourse.
6. Condition 7 is included to provide a performance record for future references and to ensure that the Ministry is made aware of problems as they arise, so that the Ministry can work with the Owner in resolving the problems in a timely manner.



## **Schedule A**

1. Application for Environmental Compliance Approval May 6, 2019 and received on May 10, 2019, including design report, final plans, specifications and all supporting documentation.

## Schedule B

### Final Effluent Objectives For Stormwater Treatment Works

**Concentration Objectives for final effluent sampled at:** discharge pump basin in Cell #4 of AWS

<b>Final Effluent Parameter</b>	<b>Averaging Calculator</b>	<b>Objective</b> (maximum unless otherwise indicated)
CBOD <sub>5</sub>	Monthly Average Effluent Concentration*	10.0 mg/L (April 1 - October 31) 15.0 mg/L (November 1 - March 30)
Total Suspended Solids	Monthly Average Effluent Concentration*	15.0 mg/L (April 1 - October 31) 25.0 mg/L (November 1 - March 30)
Total Phosphorus	Monthly Average Effluent Concentration*	0.6 mg/L (April 1 - October 31) 1.0 mg/L (November 1 - March 30)
NH <sub>3</sub> -N	Monthly Average Effluent Concentration*	3.0 mg/L (April 1 - October 31) 6.0 mg/L (November 1 - March 30)
NO <sub>3</sub> -N	Monthly Average Effluent Concentration*	10.0 mg/L (April 1 - October 31) 15.0 mg/L (November 1 - March 30)

\*based upon a sampling frequency of weekly, or 2 times per month, at a minimum

### Final Effluent Loading Limits For Stormwater Treatment Works

**Loading Limits for final effluent sampled at:** discharge pump basin in Cell #4 of AWS

<b>Final Effluent Parameter</b>	<b>Averaging Calculator</b>	<b>Limit</b> (maximum unless otherwise indicated)
CBOD <sub>5</sub>	Monthly Average Daily Effluent Loading	0.45 kg/day (April 1 - November 31) 0.675 kg/day (October 1 - March 30)
Total Suspended Solids	Monthly Average Daily Effluent Loading	0.675 kg/day (April 1 - November 31) 1.125 kg/day (October 1 - March 30)
Total Phosphorus	Monthly Average Daily Effluent Loading	0.027 kg/day (April 1 - November 31) 0.045 kg/day (October 1 - March 30)
NH <sub>3</sub> -N	Monthly Average Daily Effluent Loading	0.135 kg/day (April 1 - November 31) 0.27 kg/day (October 1 - March 30)
NO <sub>3</sub> -N	Monthly Average Daily Effluent Loading	0.45 kg/day (April 1 - November 31) 0.675 kg/day (October 1 - March 30)

## Schedule C

### Monitoring Program For Stormwater Management Works

#### Aqua Wetland System (AWS) Influent Monitoring Table

<b>Sampling Location</b>	Pump Basin of the Storage Pond (Monitoring Location 1)
<b>Frequency</b>	Monthly when the flow is present
<b>Sample Type</b>	Grab
<b>Parameters</b>	BOD5, Total Suspended Solids, Total Phosphorus, Nitrate, Nitrite, TKN, Ammonia, pH, Temperature

#### Aqua Wetland System (AWS) Effluent Monitoring Table

<b>Sampling Location</b>	Discharge Pump Basin in Cell #4 of AWS (Monitoring Location 2)
<b>Frequency</b>	Weekly or Two Times per Month when the flow is present
<b>Sample Type</b>	Grab
<b>Parameters</b>	CBOD5, Total Suspended Solids, Total Phosphorus, Nitrate, Nitrite, TKN, Ammonia, pH, Temperature

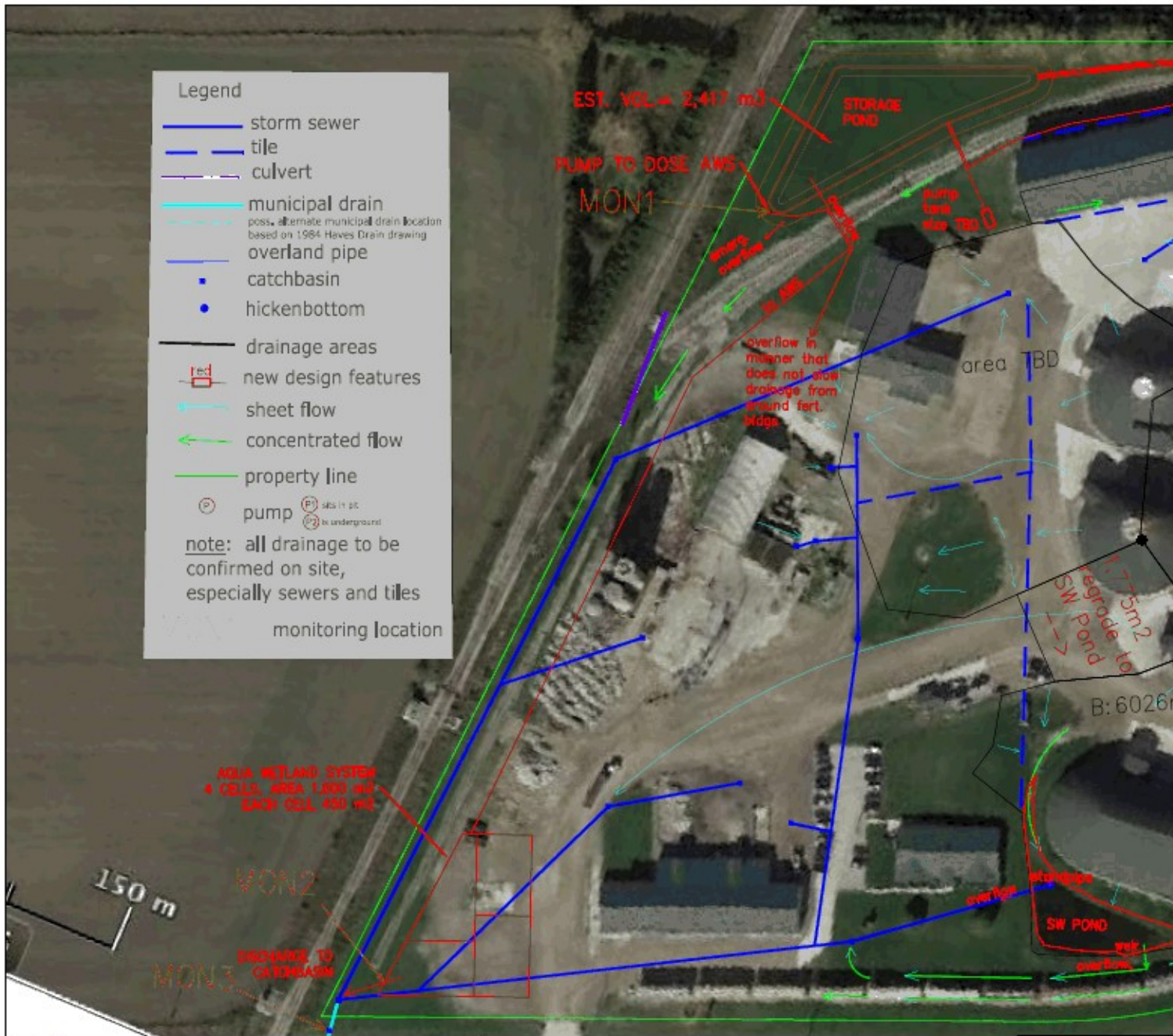
## Untreated Stormwater Monitoring Table

<b>Sampling Location</b>	<p>1. Southwest discharge point (existing catchbasin) (Monitoring Location 4) (Monitoring Location 4)</p> <p>2. Northeast discharge point at existing Hickenbottom drain in northeast depressed area (Monitoring Location 4)</p> <p>3. Northeast discharge point at the overflow from the NE tank into the storm sewer (Monitoring Location 5)</p>
<b>Duration</b>	Three (3) years starting from the date of this Approval
<b>Frequency</b>	<p>Two Times during the Spring high fertilizer activity period (~6 week period around April/May) during a storm that generates offsite flow and is not preceded by a rainfall in the previous 3 days</p> <p>Two Times during the Summer (in between the Spring and Fall high fertilizer activity periods), during a storm that generates offsite flow and is not preceded by a rainfall in the previous 3 days</p> <p>Two Times during the Fall high fertilizer activity period (~3 week period around September), during a storm that generates offsite flow and is not preceded by a rainfall in the previous 3 days</p>
<b>Sample Type</b>	Grab
<b>Parameters</b>	BOD5, Total Suspended Solids, Total Phosphorus, Nitrate, Nitrate, TKN, Ammonia, pH

For each stormwater sample, the following will be recorded:

- time of the sample
- the number of days from the last rainfall
- site fertilizer activity since the last rainfall (e.g., high, med, low, none)
- the number of mm of rain that had fallen by the time of the sample being taken
- the intensity of the storm up to the time the sample was taken. For example, if a storm starts at 8:00 am and a sample is taken at 9:30 am by which time 15 mm of rain had fallen, then approximate rain intensity = 15 mm in 1.5 h = 10 mm/h.

A rain gauge will be installed at the site to record rainfall amounts and intensities.



**Rivercourt**

Rivercourt Engineering Inc.  
 4 Beechwood Crescent  
 Toronto ON M4K 2K8  
 Tel, 647-479-4104  
 www.rivercourt.ca

**AQUA**

**TREATMENT TECHNOLOGIES**  
 THE AQUA WETLAND SYSTEM

AQUA Treatment Technologies Inc.  
 4250 Fly Rd, Campden ON L0R 1G0  
 905-327-4571  
 www.aqua-tt.com

**Project Name:**  
 Agromart Belton  
 Stormwater Treatment

**Project Address:**  
 17554 Plover Mills Rd.  
 Thorndale, Ontario  
 NOM 2P0

**Date:**  
 Feb. 25, 2020

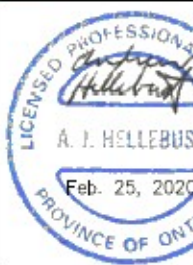
**Drawing Title:**  
 Site Plan with  
 Monitoring  
 Locations shown

**Drawing Number:**  
 2 revised

**Drawn By:**  
 MU

**Checked By:**  
 AH

**Scale:**  
 see scale



*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

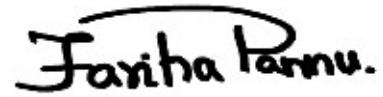
The Director appointed for the purposes of  
Part II.1 of the Environmental Protection Act  
Ministry of the Environment,  
Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* 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 26th day of March, 2020

A handwritten signature in black ink that reads "Fariha Pannu." The signature is written in a cursive, slightly stylized font.

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Fariha Pannu, P.Eng.

Director

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

KH/

c: District Manager, MECP London District.  
Andrew Hellebust, Rivercourt Engineering Inc.