

AMENDED ENVIRONMENTAL COMPLIANCE APPROVALNUMBER 2418-AVJRJ5
Issue Date: April 19, 2018

Greely Village Centre Owners Association Inc.
6598 Pebble Trail Way
Greely, Ontario
K4P 0B6

Site Location: Greely Village Centre, Water's Edge
South of Parkway Road, East of Bank Street, and west of Sales Barn Road
Part of Lots 73 and 74, Concession 5, RCP 902
City of Ottawa, Ontario

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 and operation of non-municipal sewage works for the collection, transmission, treatment and disposal of domestic sewage with a Rated Capacity of 377 cubic metres per day and a Peak Flow Rate of 47.1 cubic metres per hour, servicing an 8.0 hectare shopping centre, 3.6 hectare office blocks and a 2.3 hectare arena block, located at 7549 Village Centre Place, Greely Village Centre, in the City of Ottawa, consisting of the following:

Sanitary Sewers and Wet Well

- sanitary sewers on Part 1, Block 69, Block 70, Block 72, Block 73, Blocks 62 to 66, discharging to a wet well of the proposed sewage treatment facility at Block 72
- one (1) 1.2 metre diameter prefabricated fibreglass wet well, equipped with two pumps, one for duty and one for standby, each capable of discharging 13.2 litres per second against a total dynamic head (TDH) of 4.26 metres, complete with control system and liquid level control system with alarms, discharging to an equalization tank

Sewage Treatment Plant

Capacity of Sewage Treatment Plant:

	Average Daily Flow (cubic metres per day)	Maximum Daily Flow Rate (cubic metres per day)	Peak Hourly Influent Flow Rate (cubic metres per hour)
Phase 1	125	251	15.8
Phase 2	250	502	31.5
Phase 3	377	754	47.1

Equalization (EQ) Tank

Operating Scenario 1 (Prior to the commissioning of Sludge Dewatering System):

- one (1) inground sewage Equalization (EQ) Tank, with a total liquid volume of 104.75 cubic metres and a total working volume of 96.50 cubic metres, equipped with blowers, high water level floats with visual alarm system, a vent pipe and other necessary appurtenances, receiving flow from wet well and discharging into Fine Screens
- one (1) inground sewage Equalization Tank, with a total liquid volume of 104.75 cubic metres and a total working volume of 96.50 cubic metres, equipped with blowers, high water level floats with visual alarm system, a vent pipe and other necessary appurtenances, temporarily working as Sludge Holding Tank for Phase 1 development, receiving sludge from Membrane Tanks, with the sludge to be removed periodically via a vacuum truck and hauling service to a certified waste/wastewater treatment and disposal facility - Robert O. Pickard Environmental Centre

Or

Operating Scenario 2 (After the commissioning of the Sludge Dewatering System):

- two (2) inground sewage Equalization Tanks, operating in series, each with a total liquid volume of 104.75 cubic metres and a total working volume of 96.50 cubic metres, each equipped with blowers, high water level floats with visual alarm system, a vent pipe and other necessary appurtenances, receiving flow from wet well and discharging into Fine Screens

Screening and Discharge Tank

- two (2) rotary brush Fine Screens with automatic cleaning 1 millimetre perforated plate, each having a capacity of 15.71 cubic meters per hour, discharging into a Discharging Tank
- one (1) 3,600 litre discharging tank, equipped with four (4) pumps, three (3) for duty and one for standby, each duty pump discharging into a Pre-Anoxic Tank

Membrane Biological Reactor (MBR) Sewage Treatment Units

Three (3) Membrane Biological Reactor (MBR) Sewage Treatment Units are to be installed through a 3-phase development (Phase 1: only one (1) unit is installed and operating; Phase 2: one (1) unit to be added with two (2) units operating in parallel; and Phase 3: one (1) more unit to be added with three (3) units operating in parallel). Each MBR Sewage Treatment Unit is capable of handling the Maximum Daily Flow of 251.3 cubic metres per day and consisting of the following:

- one (1) containerized Pre-Anoxic Tank, having a minimum volume of 64.93 cubic metres, equipped with duplex mix pumps, discharging into an Aerobic Tank
- one (1) containerized Aerobic Tank, having a minimum volume of 63.86 cubic metres, equipped with fine-bubble diffused aeration system, duplex blowers, duplex recycle pumps, recirculating partial effluent back to the Pre-Anoxic tank and discharging effluent into a Post-anoxic Tank
- one (1) containerized Post-Anoxic Tank, having a minimum volume of 13.45 cubic metres, equipped with duplex mix pumps, duplex feed forward pumps, discharging effluent into Membrane Filtration System
- one (1) Membrane Filtration System comprising a Membrane Tank equipped with two (2) MicroClear MB3-2 membrane modules and medium-bubble diffused aeration system, complete with permeate withdrawal pumps, air scouring blowers, backwash system and waste active sludge (WAS) pumps, discharging effluent to an Ultra Violet (UV) disinfection unit, and discharging WAS to the Holding Tank on Phase 1, or to a Sludge Dewatering System on Phase 2 and 3 when the Monthly Average Flow reaches half of the Rated Capacity
- one (1) totalizing mag flow meter
- chemical dosing systems, injecting caustic and alum into the Aerobic Tank and supplemental carbon source into the Post-Anoxic Tank

Sludge Dewatering System

- one (1) 5,870 litre sludge holding tank, equipped with coarse bubble diffusers, and duplex blowers, receiving WAS from the membrane tanks and discharging to the dewatering press
- one (1) sludge dewatering press with a capacity of 1.35 cubic meters per hour, equipped with a polymer dosing system, returning decant liquid to the Equalization Tank and discharging sludge into a solid bin for off-site disposal

Ultra Violet (UV) Disinfection

- each Membrane Biological Reactor (MBR) Sewage Treatment Unit to include two (2) in-line UV reactors in parallel for a total of six (6) UV reactors, each rated for 6.81 cubic meters per hour,

discharging to the proposed outlet pipe

Outlet Pipe

- one (1) 200 millimetre diameter outlet pipe, installed on Blocks 72 and 62, discharging to the McEvoy Branch of the Shields Municipal Drain and then to the Shields Creek that then flows to North Castor River and eventually to South Nation River

Miscellaneous

- all other mechanical system, electrical system, instrumentation and control system, odour control system, piping, pumps, valves and appurtenances essential for the proper, safe and reliable operation of the aforementioned sewage 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:

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

"Average Daily Flow" means the cumulative total sewage flow to the sewage works during a calendar year divided by the number of days during which sewage was flowing to the sewage works that year;

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

"Daily Concentration" means the concentration of a contaminant in the effluent discharged over any single day, as measured by a composite or grab sample, whichever is required;

"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 Ottawa District Office;

"E. Coli" refers to the thermally tolerant forms of Escherichia that can survive at 44.5 degrees Celsius;

"Effluent from the Works" means the final effluent from the Works, prior to discharging to the environment;

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

"Geometric Mean Density" is the nth root of the product of multiplication of the results of n number of samples over the period specified;

"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;

"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;

"Owner" means the Greely Village Centre Owners Association Inc., and includes its successors and assignees;

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

"Peak Flow Rate" means the maximum rate of sewage flow for which the plant or process unit was designed;

"Rated Capacity" means the volume of effluent of the Works approved for discharge over a 24-hour (1-day) period;

"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, 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 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, 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

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; and
 - (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. UPON THE SUBSTANTIAL COMPLETION OF THE WORKS

- (1) Upon the Substantial Completion of the Works, the Owner shall prepare a statement, certified by 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 personnel.
- (2) Within six (6) months of the Substantial Completion of the Works, a set of as-built drawings showing the works "as constructed" shall be prepared. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the Works for the operational life of the Works.

5. 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 named below as effluent parameters are not exceeded in the effluent from the Works.

Table 1 - Effluent Objectives		
Effluent Parameter	Concentration Objective (milligrams per litre unless otherwise indicated)	
	Summer (May 1 to October 31)	Winter (November 1 to April 30)
<i>CBOD5</i>	5	5
Total Suspended Solids	5	5
Total Ammonia Nitrogen	0.5	0.5
Nitrate Nitrogen	10	12
Total Phosphorus	0.08	0.08
<i>E. Coli.</i>	< 100 CFU/100 millilitres	< 100 CFU/100 millilitres

- (2) The Owner shall use best efforts at all time to:
- (a) maintain the pH of the effluent from the Works within the range of 6.5 to 8.5, inclusive, at all times;
 - (b) operate the works within the Rated Capacity of the Works;
 - (c) 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 or sheen or foam or discoloration on the receiving waters.
- (3) Notwithstanding subsection (1), the Owner shall implement the Total Phosphorus Management program outlined in the Total Phosphorus Management Agreement by and between Greely Family Farm Inc./Greely Village Centre Owners Association Inc. and the South Nation River Conservation Authority (SNC) dated February 18, 2016.
- (4) The Owner shall include in all reports submitted in accordance with Conditions 8 and 9 a summary of the efforts made and results achieved under this Condition.

6. EFFLUENT LIMITS

- (1) The Owner shall design, construct, operate and maintain the Works such that the concentrations and waste loadings of the materials named below as effluent parameters are not exceeded in the effluent from the Works.

Table 2 - Effluent Concentration Limits		
Effluent Parameter	Concentration Limits (milligrams per litre unless otherwise indicated)	
	Summer (May 1 to October 31)	Winter (November 1 to April 30)
Column 1	Column 2	Column 3
CBOD5	10	10
Total Suspended Solids	10	10
Total Ammonia Nitrogen	2	5
Nitrate Nitrogen	15	15
Total Phosphorus	0.1	0.1
E. Coli.	< 200 CFU/100 millilitres	< 200 CFU/100 millilitres
pH of the effluent maintained between 6.0 to 8.5, inclusive, at all times		

- (2) For the purposes of determining compliance with and enforcing subsection (1), the Monthly Average Concentration of one of CBOD5, Total Suspended Solids, Total Ammonia Nitrogen, Nitrate Nitrogen and Total Phosphorus parameters named in Column 1 of Table 2 of subsection (1) shall not exceed the corresponding maximum concentration set out in Column 2 or 3 of Table 2 of subsection (1).
- (3) Notwithstanding subsection (1), the Owner shall operate and maintain the Works such that the effluent is continuously disinfected so that the monthly Geometric Mean Density of E. Coli does not exceed 200 organisms per 100 millilitres of effluent discharged from the Works.

7. OPERATION AND MAINTENANCE

- (1) The Owner shall ensure no sewage to be directed to the Sewage Treatment Plant or any part thereof until all components of the sewage have been completed and commissioned as approved.
- (2) The Owner shall exercise due diligence in ensuring 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 operator 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.
- (3) The Owner shall prepare an operations manual prior to the commencement of operation 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;
 - (f) an odour prevention and contingency plan and procedures; and
 - (g) procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.
- (4) 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.
- (5) The Owner shall provide for the overall operation of the Works with an operator who holds a licence that is applicable to that type of facility and that is of the same class as or higher than the class of the facility in accordance with Ontario Regulation 129/04.
- (6) The Owner shall have a valid written agreement with a hauler who is in possession of a Waste Management Systems Approval of Approval, for the treatment and disposal of the sludge generated from the Works, at all times during an operation of the Works and submit a copy of a valid agreement with a licensed hauler to the District Manager.
- (7) Upon notification to the District Manager, where the Owner reasonably foresees the potential for non-compliance conditions to occur in the effluent quality due to either a pending significant increase in loading following a period of reduced loading, or due to insufficient nutrient supply rates to the plant by the influent feed, the Owner may use nutrient supplementation to support the nutrient requirements of the biological treatment system.

8. MONITORING AND RECORDING

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

- (1) (a) 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 sewage stream over the time period being monitored.

- (b) The sampling location for the effluent from the Works shall be established to the satisfaction of the District Manager prior to commencement of the operation of the sewage works and may be changed or abandoned or new locations added following commencement of the operation if, in the opinion of the District Manager, it is necessary to do so to ensure representative samples are being collected.
- (2) For the purposes of this condition, the following definitions apply:
- (a) Weekly means once each week;
 - (b) Monthly means once every month;
 - (c) Quarterly means once every three months; and
 - (d) Semi-annually means once every six months.
- (3) 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.

Table 3 - Influent Monitoring	
Frequency	Monthly
Sample location	Wet well
Sample Type	Grab
Parameters	CBOD5, Total Suspended Solids, Total Phosphorus, Total Kjeldahl Nitrogen, and pH

Table 4(A) - Effluent from the Works Monitoring	
Frequency	Weekly
Sample location	UV disinfection unit discharge
Sample Type	Grab
Parameters	CBOD5, Total Suspended Solids, Total Phosphorus, Total Ammonia Nitrogen, Nitrate Nitrogen, E. Coli, pH, Temperature

Table 4(B) - Effluent from the Works Monitoring	
Frequency	Semi-annually
Sample location	UV disinfection unit discharge
Sample Type	Grab
Parameters	Acute Toxicity (Rainbow Trout and Daphnia Magna)

Table 5 - Surface Water Monitoring	
Frequency	Quarterly
Sample location	1) one station in McEvoy Branch of the Shields Municipal Drain upstream of the discharge point 2) one station in McEvoy Branch of the Shields Municipal Drain downstream of the discharge point
Sample Type	Grab
Parameters	CBOD5, Total Suspended Solids, Total Phosphorus, Total Ammonia Nitrogen, Nitrate Nitrogen, E. Coli, pH, Temperature

- (4) 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 Version 2.0" (January 2016), PIBS 2724e02, as amended;
 - (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; and
 - (d) the Environment Canada publications "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout" (July 1990) and "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Daphnia magna" (July 1990), as amended from time to time by more recently published editions.
- (5) 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. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).
- (6) In the event of failure of any Acute Toxicity test, the Owner shall investigate the possible causes of the toxicity based on sampling data and monitoring, and upon determination of the cause or source of lethality determine appropriate control measure.
- (7) The measurement frequencies specified in subsection (2) in respect to any parameter are minimum requirements which may, after two (2) years of monitoring in accordance with this Condition, be modified by the District Manager in writing from time to time.
- (8) The Owner shall install and maintain a continuous flow measuring device, to measure the flowrate of the effluent from the Works 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) The Owner shall report to the District Manager or designate, any exceedence of any parameter specified in Condition 6 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedence.
- (3) In addition to the obligations under Part X of the *Environmental Protection Act*, 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) 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 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 description of efforts made and results achieved in meeting the Effluent Objectives of

Condition 5;

- (g) 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;
- (h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- (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.

10. FINANCIAL ASSURANCE

- (1) No later than thirty (30) days before operation of the Works, and no later than August 31, 2018, the Owner shall submit to the Director financial assurance as defined in Section 131 of the EPA, in an amount of TWO HUNDRED AND FIFTY thousand dollars (\$250,000) to pay for the compliance with and performance of any action specified in this Approval including the clean-up, monitoring and post closure care of the Works.
- (2) Commencing on April 30, 2023 and at intervals of five (5) years thereafter, the Owner shall submit to the Director, a re-evaluation of the amount of Financial Assurance to implement the actions required under Subsection (1). The re-evaluation shall include an assessment based on any new information relating to the environmental conditions of the Works and shall include the costs of additional monitoring and/or implementation of contingency plans required by the Director upon review of the closure plan and annual reports. The Financial Assurance must be submitted to the Director within ten (10) days of written acceptance of the re-evaluation by the Director.
- (3) Commencing on April 30, 2019, the Owner shall prepare and maintain at the Works an updated re-evaluation of the amount of Financial Assurance required to implement the actions required under Subsection (1) for each of the intervening years in which a re-evaluation is not required to be submitted to the Director under Subsection (2). The re-evaluation shall be made available to the Ministry, upon request.
- (4) The amount of Financial Assurance is subject to review at any time by the Director and may be amended at his/her discretion. If any Financial Assurance is scheduled to expire or notice is received, indicating Financial Assurance will not be renewed, and satisfactory methods have not been made to replace the Financial assurance at least sixty (60) days before the Financial Assurance terminates, the Financial Assurance shall forthwith be replaced by cash.

Schedule "A"

1. Application for Approval of Sewage Works dated October 24, 2017 and submitted by Marcel Renaud, Secretary/Treasurer of Greely Village Centre Owners Association Inc.
2. Design document entitled "Process Treatment System - ECA Submission Package" dated February 23, 2018, including enclosed engineering drawings dated February 22, 2018, prepared by newterra, Ltd.
3. a site plan dated Feb 22, 2018 and other supporting documentation provided by ARK engineering and Development.
4. Application for Approval of Sewage Works dated December 22, 2011 and submitted by Daniel Anderson, President of Greely Family Farm Inc./Greely Village Centre Owners Association Inc.
5. A letter dated December 23, 2011 from Envirosearch Operation Inc. to Ottawa District Office of Ministry of the Environment.
6. a site plan dated December 22, 2011 and other supporting documentation provided by ARK engineering and Development.
7. a Financial Assurance Report dated March, 2016 prepared by ARK engineering and Development.
8. all other additional supporting documentation and information provided by ARK Engineering.
9. Application for Approval of Sewage Works submitted by Daniel Anderson, President of Greely Family Farm Inc. dated August 13, 2010;
10. Detailed Description of Plant dated April 14, 2010, provided by Seprotech Systems Inc.;
11. Sanitary Sewer Serviceability Brief dated August 2010 (Revision 1) prepared by ARK engineering and Development;
12. Process Design Brief - Summer and Winter dated February 12, 2010 with enclosed engineering drawings dated December 21, 2010 or January 14, 2011, and all other supporting information and documentation provided by Seprotech Systems Inc. and ARK engineering and Development;
13. A letter dated November 4, 2010 from Daniel Payer of ARK Engineering and Development to Nancy He of Ministry of the Environment;
14. A letter dated November 26, 2010 from Daniel Payer of ARK Engineering and Development to Nancy He of Ministry of the Environment;

15. A letter dated December 17, 2010 from Daniel Payer of ARK Engineering and Development to Nancy He of Ministry of the Environment;
16. A letter dated December 21, 2010 from Daniel Payer of ARK Engineering and Development to Nancy He of Ministry of the Environment; and
17. A letter dated January 17, 2011 from Daniel Payer of ARK Engineering and Development to Nancy He of Ministry of the Environment.

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 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.
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 6 are exceeded.
6. Condition 6 is imposed to ensure that the effluent discharged from the Works to the Shields Creek 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, 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 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 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 and effluent limits 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.
10. Condition 10 is included to ensure that the Owner provides financial assurance on a timely basis, in an amount adequate to cover the capital and operating costs of the environmental measures for which it is provided and is in a form readily used by Ministry personnel.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 6166-8SNL4C issued on March 23, 2016.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. 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.

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:

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

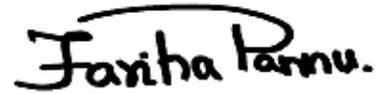
AND

The Director appointed for the purposes of Part II.1 of
the Environmental Protection Act
Ministry of the Environment and Climate Change
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**

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 April, 2018

A handwritten signature in black ink that reads "Fariha Pannu." The signature is written in a cursive style with a large, sweeping initial 'F'.

Fariha Pannu, P.Eng.

Director

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

NH/

c: District Manager, MOECC Ottawa District Office
Daniel Payer, ARK Engineering and Development