Ontario

**Ministry of the Environment, Conservation and Parks**
**Ministère de l'Environnement, de la Protection de la nature et des Parcs**

# AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 5088-CHJLNW
Issue Date: September 22, 2022

Greenfield Global Inc.
141 Commerce Dr (Johnstown)
Township of Edwardsburgh/Cardinal, ON K0E 1T1

Site Location: GGI Johnstown Plant
141 Commerce Dr (Johnstown)
Township of Edwardsburgh/Cardinal, ON K0E 1T1

*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:*

the establishment of stormwater management Works as well as modification to existing industrial sewage Works servicing the expansion of the GGI Johnstown VHQ Ethanol Plant located at the above site address, for the collection, transmission, treatment and disposal of storm water, to provide Normal Level water quality protection and erosion control, and to attenuate post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event, as well as an increase of treated process wastewater discharge to the St. Lawrence River, consisting of the following proposed Works:

- **Process Wastewater Works:** discharge of approximately 680 cubic metres per day (average daily flow) of non-contact process wastewater while maintaining the existing peak discharge rate, originating from the following existing sources: reverse osmosis discharge, cooling tower blowdown discharge, water softener regeneration water, and multi-media filter backwash discharge, as well as additional sources: new microfiltration unit backwash, new cooling tower blowdown, new softener blowdown, new reverse osmosis reject, new boiler blowdown, discharging through a monitoring sump and quenching system via 100 mm diameter forcemain towards one 900 mm diameter outlet pipe discharging off-site via rip rap channel into a boat-slip at the Port of Johnstown, with capability to divert flow to two (2) above ground lined Emergency Purge Water Retention Ponds connected by a spillway with a combined volumetric capacity of 1,808 cubic metres and additional contingency volume of 251 cubic metres, for further treatment prior to disposal to the St. Lawrence river;
- **Check Dam:** One (1) check dam located within a swale directly upstream of the stormwater management wet pond, approximately 6.7m wide and 0.8 m high, comprised of boulders and rounded cobble, providing additional surface storage of approximately 50 cubic metres within the upstream swale, complete with 100 mm diameter orifice pipe and 0.5 m wide weir, discharging to the existing wet pond described below;

- **Bioretention Swale (catchment area 0.85 ha):** One (1) bioretention swale located at the north-east property limit, with a length of approximately 115 m at a longitudinal slope of 0.4 %, a channel width of 8 metres, comprised of a 50 mm mulch layer over 300 mm engineered soil mix overlaying the 250 mm deep subsurface stone reservoir, receiving surface runoff from the expanded access road and railway, providing a subsurface storage volume of approximately 300 cubic metres using 50 mm diameter clear stone wrapped in non-woven geotextile as well as one (1) 200 mm diameter perforated storm pipe, complete with one (1) ditch inlet catch basin at the downstream end of the swale raised by 15 cm to provide approximately 24 m3 additional surface storage and conveying excess runoff into the subsurface storage layer below, controlled by one (1) 150 mm diameter orifice plate, discharging excess runoff via 450 mm diameter outlet pipe towards an existing ditch on Commerce Drive;

**Existing Works:**

- **stormwater management facility (catchment area 18.53 hectares):** one (1) wet pond with sediment forebay, located at the south-central portion of the site, having a permanent pool volume of approximately 1,950 cubic metres, an active storage volume of approximately 7,980 cubic meters, complete with 3 metre wide access road, 150 mm deep emergency overflow spillway and spill control valve located on the pond inlet pipe, discharging via one (1) 150 mm diameter reversed slope outlet pipe as well as one (1) 1370 mm diameter perforated CSP riser and 375 mm diameter outlet pipe towards one (1) control manhole and ultimately to the St. Lawrence River;
- **Water quality unit:** one (1) oil/grit separator, Wilkinson Model WG-300 (or Equivalent Equipment) servicing the south-west parking lot, located downstream of a new ditch inlet, having a sediment storage capacity of 1,100 L, an oil storage capacity of 4,600 L and a total storage capacity of 8,500 L, receiving stormwater from the 1.68 ha parking lot area via vegetated swales (having a base width of 1.0 m, average side slope of 3:1 and a minimum depth of 0.3 m), discharging to an existing municipal ditch along Commerce Drive;

- **Conveyance Works:** drainage ditches around the site to convey stormwater run-off up to the 100-year storm event without overtopping; as well as culverts around the site capable of conveying the 2 to 5 year storm events;

**Existing Works to be replaced upon completion of proposed works:**

- **Process Wastewater Works:** discharge of approximately 326.6 $m^3$/day (average daily flow) of process wastewater from the following sources: reverse osmosis discharge, cooling tower blowdown discharge, water softener regeneration water, and multi-media filter backwash discharge, discharging through a monitoring sump and quenching system (as per process Wastewater Monitoring and Discharging document dated June 27, 2007) with capability to divert flow to an above ground lined Emergency Purge Water Retention Pond of a volumetric capacity of 760 cubic metres, for further treatment prior to disposal to the St. Lawrence river;

including erosion/sedimentation control measures during construction and all other controls and appurtenances essential for the proper operation of the aforementioned Works;

all in accordance with the submitted application and supporting documents listed in Schedule A forming part of this Approval.

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

1. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;

2. "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;

3. "District Manager" means the District Manager of the appropriate local District Office of the Ministry, where the Works are geographically located;

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

5. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;

6. "Equivalent Equipment" means alternate piece(s) of equipment that meets the design requirements and performance specifications of the piece(s) of equipment to be substituted;

7. "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;

8. "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;

9. "Owner" means Greenfield Global Inc. and its successors and assignees;

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

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

12. "Works" means the approved sewage works, and includes Proposed Works and Existing Works.

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

## TERMS AND CONDITIONS

### 1. GENERAL 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 terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

2. The Owner shall design, construct, operate and maintain the Works in accordance with the conditions of this Approval.

3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.

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

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

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

### 2. 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.

2. In the event that completion and commissioning of any portion of the Works is anticipated to be more than **five (5) years**, the Owner shall submit an application for extension at least twelve (12) months prior to the end of the five (5) years from the day of issuance of this Approval. The application shall include the reason(s) for the delay, whether there is any design change(s) and a review of whether the standards applicable at the time of Approval of the Works are still applicable at the time of request for extension, to ensure the ongoing protection of the environment.

### 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* shall be included in the notification; or

d. change of name of the corporation, and a copy of the most current information filed under the *Corporations Information Act, R.S.O. 1990, c. C39* 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 and the Director.

3. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

## 4. CONSTRUCTION OF THE WORKS

1. Upon the construction of the Works, the Owner shall prepare a statement, certified by 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 personnel.

2. Within one (1) year of the construction 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. OPERATION AND MAINTENANCE

1. The Owner shall make all necessary investigations, take all necessary steps and obtain all necessary approvals so as to ensure that the physical structure, siting and operations of the Works do not constitute a safety, health or flooding hazard to the general public.

2. The Owner shall undertake an inspection of the condition of the Works, at least twice a year, and undertake any necessary cleaning and maintenance to ensure that sediment, debris and excessive decaying vegetation are removed from the Works to prevent the excessive build-up of sediment, oil/grit, debris and/or decaying vegetation, to avoid reduction of the capacity and/or permeability of the Works, as applicable. The Owner shall also regularly inspect and clean out the inlet to and outlet from the Works to ensure that these are not obstructed.

3. The Owner shall construct, operate and maintain the stormwater management Works with the objective 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, foam or discoloration on the receiving waters.

4. The Owner shall ensure the immediate clean-out of the Works after a fuel or oil spill capture.

5. The Owner shall also ensure that the storage tank containment area is cleaned regularly of all accumulations so that incase of a spill or tank rupture the storage capacity of the containment is available and there is no overflow from the containment area.

6. The Owner shall ensure that the truck loading and unloading shall be properly operated and maintained to ensure that any spills in this area are captured in the ethanol storage dyke. The Owner shall ensure that the truck loading and unloading area, the ethanol storage dyke area and the storage tank containment area are cleaned regularly of all accumulations so that incase of a spill or tank rupture or a spill during loading and unloading operation, the storage capacity of the containment is available and there is no overflow from the containment area.

7. The Owner shall ensure that the sediment forebay is monitored on daily basis and in the event of any material that may cause an adverse impact on the environment is observed to have accumulated in the forebay, the Owner shall immediately close the outlet control valves discharging to the receiving environment and dispose of the accumulated contaminated water appropriately through a licensed waste hauler.

8. The Owner shall ensure that equipment and material for the containment, clean-up and disposal of fuel and oil and materials contaminated with such, is on hand and in good repair for immediate use in the event of:

    a. loss of fuel or oil to the Works; or

    b. a spill within the meaning of Part X of the EPA.

9. The Owner shall prepare an operations manual prior to the commencement of operation of the Works that includes, but is not necessarily limited to, the following information:

    a. operating and maintenance 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 abnormal situations and for notifying the District Manager; and

e. procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.

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

11. The Owner shall maintain a logbook to record the results of these inspections and any cleaning and maintenance operations undertaken, and shall keep the logbook at the Works for inspection by the Ministry. The logbook shall include the following:

    a. the name of the Works;

    b. the date and results of each inspection, maintenance and cleaning, including an estimate of the quantity of any materials removed and method of clean-out of the Works; and

    c. the date of each spill within the catchment area, including follow-up actions and remedial measures undertaken.

12. The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the operation and maintenance activities required by this Approval.

## 6. TEMPORARY EROSION AND SEDIMENT CONTROL

1. The Owner shall install and maintain temporary sediment and erosion control measures during construction and conduct inspections once every two (2) weeks and after each significant storm event (a significant storm event is defined as a minimum of 25 millimetres of rain in any 24 hours period). The inspections and maintenance of the temporary sediment and erosion control measures shall continue until they are no longer required and at which time they shall be removed and all disturbed areas reinstated properly.

2. The Owner shall maintain records of inspections and maintenance which shall be made available for inspection by the Ministry, upon request. The record shall include the name of the inspector, date of inspection, and the remedial measures, if any, undertaken to maintain the temporary sediment and erosion control measures.

## 7. EFFLUENT LIMITS

1. The Owner shall design, construct and operate the Process Wastewater Works such that the concentrations of the materials listed as effluent parameters in the effluent limits table in Schedule B are not exceeded in the effluent from the Process Wastewater Works.

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

    a. non-compliance with respect to a Monthly Average Concentration Limit is deemed to have occurred when the arithmetic mean concentration of all the weekly samples taken in a month analysed for a parameter named in Schedule B - Table 1, Column 1 is greater than the corresponding average concentration set out in Schedule B - Table 1, Column 3.

    b. non-compliance with respect to pH is deemed to have occurred when any single measurement is outside of the indicated range.

3. In addition to the above, the Owner shall maintain the temperature of the effluent from the Process Wastewater Works below 30 degrees Celsius, at all times and shall ensure that the effluent temperature shall not exceed the natural ambient water temperature (monitored through continuous monitoring of the river water intake as per Condition 8 (9)) by more than 10 degrees Celsius, at all times.

4. For the purposes of determining compliance with and enforcing subsection (3):

    a. non-compliance with respect to the temperature limits is deemed to have occurred when any single measurement of the effluent from the Process Wastewater Works is above 30 degrees C or the temperature differential between the effluent and natural ambient water exceeds 10 degrees Celsius.

## 8. EFFLUENT MONITORING

1. The Owner shall, upon commencement of operation of the 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 following sampling point(s), at the sampling frequencies and using the sample type specified for each parameter listed in the effluent monitoring table in Schedule B.

3. 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;

d. Biannually means once every six months.

4. 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 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;

d. 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

e. for a seven-day fathead minnow growth inhibition test, the *Owner* shall perform the test according to the procedure described in the Environment Canada publication entitled "Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows", dated February, 1992;

f. for a seven-day Ceriodaphnia Dubia reproduction inhibition and survivability test, the *Owner* shall perform the test according to the procedure described in the Environment Canada publication entitled "Biological Test Method: Test of Reproduction and Survival Using the Cladoceran Ceriodaphnia Dubia", dated February, 1992; and,

g. for any parameters not mentioned in the documents referenced in Paragraphs 4.a to 4.f, the written approval of the District Manager shall be obtained prior to sampling.

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. The Owner shall install and maintain a continuous flow measuring device, to measure the flowrate of the discharge 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 basis.

7. The Owner shall monitor and record on continuous basis the temperature of the river water at the intake from the St. Lawrence river.

8. For the purposes of ensuring non-toxic effluent through the monitoring of Acute Lethality to Rainbow Trout and Daphnia magna in subsection (1):

    a. the Owner shall operate and maintain the Works such that the effluent is non-acutely lethal to Rainbow Trout and Daphnia magna.

    b. if the effluent is found to be acutely lethal to Rainbow Trout or Daphnia magna, the Owner shall, within 24 hours of an acutely lethal effluent toxicity result, repeat the acute lethality test for Rainbow Trout and Daphnia magna to verify initial findings and assess if similar conditions continue to persist.

    c. where the acute lethality result is confirmed, the Owner shall immediately inform the District Manager in writing of the findings and shall review the effluent quality and determine if the concentration of chlorine residual in the acutely lethal effluent is below the established effluent limits.

    d. upon confirming that the effluent toxicity is not likely associated with chlorine residual, a toxicity elimination investigation shall be undertaken to determine the possible cause or source of effluent toxicity based on:

        i. the concentration of other potential contaminants measured in the effluent during the same period the acutely lethal effluent sample was collected;

        ii. the plant operations data during the period the acutely lethal sample was collected.

    e. upon determination of the cause or source of acute lethality to Rainbow Trout and Daphnia magna, the Owner shall determine what control measures, are appropriate to achieve non-acutely lethal effluent and shall propose time lines for the implementation of identified control measures. The Owner shall submit the proposed control measures and implementation time lines for approval to the District Manager.

9. The monitoring parameters listed in Schedule B are based on current processes and process materials used at the site. In case of any changes to the approved processes or materials handled at the site and serviced by the Works, the Owner shall apply to the director for an amendment of the approval.

10. A stormwater monitoring program shall include obtaining grab samples for **at least four (4)** rainfall wet events per year (with a minimum of 10 mm of rain for each wet event), one sampling event per season, with at least 30 days between two sampling events during active discharge.

11. The measurement frequencies specified in the effluent monitoring table in Schedule B in respect of any parameter related to bioretention monitoring are minimum requirements which may, after 3 years of monitoring in accordance with this Condition, be modified by the Director in writing from time to time.

12. 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 (1) 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, upon request, make all reports, manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

3. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the EPA, the Owner shall, within fifteen (15) days of the occurrence of any reportable spill as provided in Part X of the EPA and O. Reg. 675/98, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and a schedule of implementation.

4. The Owner shall immediately inform the District Manager in writing if the monitoring test for Chronic Toxicity of Fathead Minnow and Ceriodaphnia Dubia fails. The report shall identify the potential causes and necessary actions to be implemented to prevent the same from occurring again in future. A repeat sampling result shall also be provided to the District Manager after the implementation of control measures, to assure the District Manager that the concern has been eliminated.

5. The Owner shall prepare and submit a performance report to the District Manager on an annual basis within 90 days following the end of the period being reported upon.

The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:

a. a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 7, 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, including an estimate of the quantity of any materials removed from the Works;

d. 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;

e. a summary of the calibration and maintenance carried out on all effluent monitoring equipment;

f. a summary of any effluent quality assurance or control measures undertaken in the reporting period;

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

h. a summary of any Notifications and Contingency Plan undertaken during the reporting period and a discussion regarding their adequacy.

i. a summary of all spill or abnormal discharge events; and

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

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

10. **SPILL CONTINGENCY PLAN**

1. Within six (6) months from the issuance of this Approval, the Owner shall implement a spill contingency plan - that is a set of procedures describing how to mitigate the impacts of a spill within the area serviced by the Works. The Owner shall, upon request, make this plan available to Ministry staff. This plan shall include as a minimum:

a. the name, job title and location (address) of the Owner, person in charge, management or person(s) in control of the facility;

b. the name, job title and 24-hour telephone number of the person(s) responsible for activating the spill contingency plan;

c. a site plan drawn to scale showing the facility, nearby buildings, streets, catch-basins and manholes, drainage patterns (including direction(s) of flow in storm sewers), any receiving body(ies) of water that could potentially be significantly impacted by a spill and any features which need to be taken into account in terms of potential impacts on access and response (including physical obstructions and location of response and clean-up equipment);

d. steps to be taken to report, contain, clean up and dispose of contaminants following a spill;

e. a listing of telephone numbers for: local clean-up company(ies) who may be called upon to assist in responding to spills; local emergency responders including health institution(s); and Ministry Spills Action Centre 1-800-268-6060;

f. Safety Data Sheets (SDS) for each hazardous material which may be transported or stored within the area serviced by the Works;

g. the means (internal corporate procedures) by which the spill contingency plan is activated;

h. a description of the spill response training provided to employees assigned to work in the area serviced by the Works, the date(s) on which the training was provided and by whom;

i. an inventory of response and clean-up equipment available to implement the spill contingency plan, location and, date of maintenance/replacement if warranted; and

j. the date on which the contingency plan was prepared and subsequently, amended.

2. The spill contingency plan shall be kept in a conspicuous, readily accessible location on-site.

3. The spill contingency plan shall be amended from time to time as required by changes in the operation of the facility.

11. **ADDITIONAL STUDIES**

1. The Owner shall complete the on-going chronic toxicity study as per pre-consultation discussions with the MECP district office and provide the results to the District Manager for review no later than July 31, 2023.

2. Within four (4) months from the issuance of this Approval, the Owner shall complete the on-going in-water study as per pre-consultation discussions with the MECP district office and provide the results to the District Manager for review.

## Schedule A

1. Application for Approval of Industrial Sewage Works, dated October 14, 2016 and submitted by Steve Proulx of Greenfield Specialty Alcohols Inc.;

2. Stormwater Management Plan for Air Liquide Proposed Development, dated October 2016, along with drawings, prepared by GHD;

3. Comment and Response Letter to MOECC, dated April 5, 2017, prepared by GHD;

4. Application for Approval of Industrial Sewage Works, dated May 09, 2008 received May 15, 2008, and the associated documents submitted by Greenfield Ethanol Inc., Toronto, Ontario;

5. Application for Approval of Industrial Sewage Works, dated May November 13, 2006 received November 15, 2006, and the associated documents submitted by Greenfield Ethanol Inc., Toronto, Ontario;

6. Additional detailed Stormwater Management Plan submission by Mr. Kevin Hill, P.Eng., of AMEC Earth & Environmental Ltd., dated November 2006;

7. Electronic mail correspondence from Mr. Brian Fogg, P.Eng., of AMEC Earth & Environmental Ltd., dated February 02, 2007 and February 21, 2007, including response to the questions raised on the submission by the MOE; and,

8. Electronic mail correspondence from Mr. Brian Fogg, P.Eng., of AMEC Earth & Environmental Ltd., dated March 02, 2007, including response to the draft working document provided by the MOE.

9. Electronic mail correspondence from Mr. Brian Fogg, P.Eng., of AMEC Earth & Environmental Ltd., dated September 28, 2007, including the clearance letter on Federal EA review.

10. Electronic mail correspondence from Mr. Brian Fogg, P.Eng., of AMEC Earth & Environmental Ltd., dated October 01, 2007, including the Wastewater Monitoring and Discharging document dated June 27, 2007, prepared by AMEC.

11. Environmental Compliance Approval Application for Industrial Sewage Works submitted by GHD Limited and signed by Brendan Bland, Manager Greenfield Global Inc., dated March 22, 2022 and received on April 1, 2022, and all supporting documentation and information; and

12. Report "Plant Expansion", dated April 1, 2022 and revised August 17, 2022, including calculations and engineering drawings, prepared by GHD Limited.

## Schedule B

### Effluent Limits Table
### (measured at the discharge outlet from the Process Wastewater Works)

| Effluent Parameter | Average Calculator | Limit |
|---|---|---|
| Oil and Grease | Monthly Average Effluent Concentration | 15 mg/L |
| Total Residual Chlorine | Monthly Average Effluent Concentration | 0.01 mg/L |
| Total Phosphorus | Monthly Average Effluent Concentration | 1.0 mg/L |
| pH | Single Sample Result | between 6.5 - 8.5 inclusive |

### Effluent Monitoring Table - Process Wastewater

### (Sampling point at the discharge outlet of the process wastewater works)

| Effluent Parameter | Frequency | Sample Type |
|---|---|---|
| Total Suspended Solids | weekly | Grab |
| Total Phosphorus | weekly | Grab |
| ICP Metal Scan | quarterly | Grab |
| Total Residual Chlorine | weekly | Grab |
| Chloride | weekly | Grab |
| Tolytriazole | quarterly | Grab |
| Toxicity (Acute Lethality Rainbow Trout and Daphnia magna) | monthly | Grab |
| Toxicity (Chronic Toxicity Fathead Minnow and Ceriodaphnia Dubia) | biannually | Grab |
| pH | continuously | On-line probe |
| Flow | continuously | On-line probe |
| Temperature | continuously | On-line probe |

**Effluent Monitoring Table - Stormwater**

**(Sampling point at the discharge outlet of the stormwater pond)**

| Effluent Parameter | Frequency | Sample Type |
|---|---|---|
| Toxicity (Chronic Toxicity Fathead Minnow and Ceriodaphnia Dubia) | Once in Spring and Once in Fall | Grab |
| Total Suspended Solids | All Four Rainfall Events | Grab |
| Oil and Grease | All Four Rainfall Events | Grab |
| Total Ammonia Nitrogen (TAN) | All Four Rainfall Events | Grab |
| Unionized Ammonia | All Four Rainfall Events | Grab |
| pH | All Four Rainfall Events | Grab |

**Effluent Monitoring Table - Stormwater**

**(Sampling point at the discharge outlet of the bioretention cell)**

| Effluent Parameter | Frequency | Sample Type |
|---|---|---|
| Total Suspended Solids | All Four Rainfall Events | Grab |
| Oil and Grease | All Four Rainfall Events | Grab |
| Total Ammonia Nitrogen (TAN) | All Four Rainfall Events | Grab |
| Unionized Ammonia | All Four Rainfall Events | Grab |
| pH | All Four Rainfall Events | Grab |

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition 1 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. 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. Condition 1.4 is included to emphasize that the issuance of this Approval does not diminish any other statutory and regulatory obligations to which the Owner is subject in the construction, maintenance and operation of the Works. The Condition specifically highlights the need to obtain any necessary conservation authority approvals. The Condition also emphasizes the fact that this Approval doesn't limit the authority of the Ministry to require further information.

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 included as regular inspection and necessary removal of sediment and excessive decaying vegetation from the Works are required to mitigate the impact of sediment, debris and/or decaying vegetation on the treatment capacity of the Works. The Condition also ensures that adequate storage is maintained in the Works at all times as required by the design. Furthermore, this Condition is included to ensure that the Works are operated and maintained to function as designed.

6. Condition 6 is included as installation, regular inspection and maintenance of the temporary sediment and erosion control measures is required to mitigate the impact on the downstream receiving watercourse during construction until they are no longer required.

7. Condition 7 is imposed to ensure that the effluent discharged from the Works meets the Ministry's effluent quality requirements, as specified, on a continuous basis, thus minimizing environmental impact on the receiver.

8. Condition 8 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

and effluent objectives specified in the Approval and that the approved 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 will implement the Spill Contingency Plan, such that the environment is protected and deterioration, loss, injury or damage to any person(s) or property is prevented.

11. Condition 11 is included to ensure that the Owner will complete and submit studies required during the pre-consultation phase of this approval application.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 3083-AM6KKL issued on July 4, 2017**

In accordance with Section 139 of the *Environmental Protection Act,* you may by written notice served upon me, the Ontario Land Tribunal and in accordance with Section 47 of the *Environmental Bill of Rights,* 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

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

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

| | | | | |
|---|---|---|---|---|
| Registrar*<br>Ontario Land Tribunal<br>655 Bay Street, Suite 1500<br>Toronto, Ontario<br>M5G 1E5<br>OLT.Registrar@ontario.ca | and | The Minister of the Environment,<br>Conservation and Parks<br>777 Bay Street, 5th Floor<br>Toronto, Ontario<br>M7A 2J3 | and | The Director appointed for the purposes of<br>Part II.1 of the *Environmental Protection Act*<br>Ministry of the Environment,<br>Conservation and Parks<br>135 St. Clair Avenue West, 1st Floor<br>Toronto, Ontario<br>M4V 1P5 |

*** Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca**

This instrument is subject to Section 38 of the *Environmental Bill of Rights,* 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at https://ero.ontario.ca/, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act.*
DATED AT TORONTO this 22nd day of September, 2022

Fariha Pannu.

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

MS/
c: District Manager, MECP Kingston - District
Dilan Singaraja, GHD Limited