



APPROVAL

PROVINCE OF ALBERTA

ENVIRONMENTAL PROTECTION AND ENHANCEMENT ACT
R.S.A. 2000, c.E-12, as amended.

APPROVAL NO.: 197502-02-00

APPLICATION NO.: 011-197502

EFFECTIVE DATE: August 04, 2023

EXPIRY DATE: July 31, 2033

APPROVAL HOLDER: Aquatera Utilities Inc.

ACTIVITY: Construction, operation and reclamation of a wastewater system
and a cogeneration power plant in the City of Grande Prairie

is subject to the attached terms and conditions.

Fidelma.Horgan Digitally signed by Fidelma.Horgan
Date: 2023.08.04 09:59:42 -06'00'

Designated Director under the Act Fidelma Horgan, P.Eng.

Date Signed August 04, 2023

## TERMS AND CONDITIONS ATTACHED TO APPROVAL

### PART 1: DEFINITIONS

#### SECTION 1.1: DEFINITIONS

- 1.1.1 All definitions from the Act and the regulations apply except where expressly defined in this approval.
- 1.1.2 In all PARTS of this approval:
- (a) “Act” means the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c.E-12, as amended;
  - (b) “acutely lethal” means that the effluent at 100% concentration kills, during a 96-hours period, more than 50% of the rainbow trout subjected to it.
  - (c) “air effluent stream” means any substances in a gaseous medium released by or from a plant;
  - (d) “ammonia-nitrogen” means the total of ionized ammonia-nitrogen (NH<sub>4</sub><sup>+</sup>-N) and un-ionized ammonia-nitrogen (NH<sub>3</sub>-N), measured in milligram per litre expressed as Nitrogen;
  - (e) “application” means the written submissions to the Director in respect of application number 011-197502 and any subsequent applications for amendments of approval number 197502-02-00;
  - (f) “approved laboratory” means a laboratory accredited to the requirements of ISO/IEC 17025, *General Requirements for The Competence of Testing and Calibration Laboratories*, for the test methods specified by the Director;
  - (g) “arithmetic mean” means the sum of all the sample analysis results divided by the total number of samples per reporting period;
  - (h) “ATAD” means auto-thermal thermophilic aerobic digestion which is an aerobic sludge digestion process that achieves thermophilic operating temperatures with supplemental heat;
  - (i) “BNR” means biological nutrient removal which is an integrated activated sludge process for removal of nitrogen and phosphorus in wastewater;
  - (j) “BOD<sub>5</sub>” means the Biochemical Oxygen Demand in milligrams per litre measured at 20°C over a five (5) day period;
  - (k) “CBOD” means the carbonaceous BOD<sub>5</sub> in milligrams per litre which is measured after the nitrogenous demand has been inhibited with an inhibitory chemical;

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- (l) “CEMS Code” means the *Continuous Emission Monitoring System (CEMS) Code*, Alberta Environment and Parks, April 7, 2021, as amended;
- (m) “chemical” means any substance that is added or used as part of the treatment process;
- (n) “cogeneration power plant” means all buildings, structures, process and pollution abatement equipment, vessels, storage facilities, material handling facilities and other installations associated with thermal electrical power generation from landfill gas that is generated by Aquatera’s bioreactor landfill cells, and blended with natural gas if required;
- (o) “composite sample” means:
  - (i) a composite of samples of the stream collected over a 24 hour period, which is representative of the stream sampled, collected every 15 minutes in a quantity proportional to the flow rate of the stream,
  - OR
  - (ii) a refrigerated (approximately 4°C) sample consisting of not less than twelve portions of equal volume which are representative of the stream sampled, collected over a 24 hour period, at a rate proportional to the flow rate of the stream sampled,
  - OR
  - (iii) a refrigerated (approximately 4°C) sample consisting of not less than twenty-four portions of equal volume which are representative of the stream sampled, collected at time intervals proportional to the flow rate of the stream sampled during each time interval, with a minimum of one sample collected every hour over a 24 hour period,
  - OR
  - (iv) a refrigerated (approximately 4°C) sample consisting of not less than twenty-four portions of equal volume collected sequentially at regular time intervals over a 24 hour period;
- (p) “continuous monitoring” means sampling or flow measurement through equipment that creates an uninterrupted output of the analysis or flow measurement;
- (q) “DAF” means dissolved air flotation;
- (r) “day” means calendar day;

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- (s) “Director” means an employee of the Government of Alberta designated as a Director under the Act;
- (t) “fugitive emissions” means emissions of substances to the atmosphere other than ozone depleting substances, originating from a plant source other than a flue, vent, or stack but does not include source which may occur due to breaks or ruptures in process equipment;
- (u) “geometric mean” means the calculated  $n^{\text{th}}$  root of the product of all the sample analyses within the reporting period, where  $n$  equals the total number of samples within the reporting period, as follows:

Geometric Mean:  $\sqrt[n]{S_1xS_2xS_3x...xS_n}$

where,

$n$  = the total number of samples within the reporting period

$S_1$  = the 1<sup>st</sup> sample analysis value

$S_n$  = the  $n^{\text{th}}$  sample analysis value;

- (v) “grab sample” means an individual sample collected in less than 30 minutes and which is representative of the substance sampled;
- (w) “ISO /IEC 17025” means the international standard, developed and published by International Organization for Standardization (ISO), specifying management and technical requirements for laboratories;
- (x) “loading” means the mass of a substance released to the Wapiti River over a specified time period from the approval holder’s wastewater system;
- (y) “manual stack survey” means a survey conducted in accordance with the *Alberta Stack Sampling Code*, Alberta Environment, 1995, as amended;
- (z) “month” means calendar month;
- (aa) “PAZA” means Peace Airshed Zone Association;
- (bb) “regulations” means the regulations issued pursuant to the Act and as amended;
- (cc) "TKN" means total Kjeldhal nitrogen which includes organic nitrogen and total ammonia-nitrogen, measured in milligram per litre;
- (dd) "total nitrogen" means the calculated total of TKN, nitrate-nitrogen and nitrite-nitrogen;
- (ee) “TP” means total acid-hydrolyzable phosphorus measured in milligram per litre;

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- (ff) “TSS” means the total suspended solids or non-filterable residue (NFR) measured in milligrams per litre;
- (gg) “uncommitted hydraulic reserve capacity” means the design capacity of the wastewater treatment plant minus the sum of the peak daily flow and the peak daily flow that would be used by development that is approved but not yet built;
- (hh) “UV” means ultraviolet light;
- (ii) “wastewater system” means wastewater collection system and wastewater treatment plant;
- (jj) “wastewater treatment plant” means the physical components of the wastewater system that are used to treat wastewater including components associated with the management of any wastes generated during treatment and includes the land located within the City of Grande Prairie, including the SE ¼ of Section 11, Township 71 as well as the NW ¼ of Section 24, Township 70, all located within Range 6, West of the 6th Meridian, that is being or has been used or held for or in connection with the Grande Prairie wastewater plant;
- (kk) “week” means calendar week; and
- (ll) “year” means calendar year.

**PART 2: GENERAL**

**SECTION 2.1: GENERAL**

- 2.1.1 The approval holder shall comply with all conditions in this approval.
- 2.1.2 Any conflict between the approval application and the terms and conditions of this approval shall be resolved in favor of this approval.
- 2.1.3 The terms and conditions of this approval do not affect any rights or obligations created under any other authorization issued by the Director.
- 2.1.4 The terms and conditions of this approval are severable. If any term or condition of this approval or the application of any term or condition is held invalid, the application of such term or condition to other circumstances and the remainder of this approval shall not be affected thereby.
- 2.1.5 *Environmental Protection and Enhancement Act* Approval No. 197502-01-00 is cancelled.

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### SECTION 2.2: ANALYTICAL REQUIREMENT

2.2.1 With respect to any sample required to be taken pursuant to this approval, the approval holder shall ensure that:

- (a) collection;
- (b) preservation;
- (c) storage;
- (d) handling; and
- (e) analysis

shall be conducted in accordance with the following unless otherwise authorized in writing by the Director:

- (i) for air:
  - (A) the *Alberta Stack Sampling Code*, Alberta Environment, 1995, as amended,
  - (B) the *Air Monitoring Directive*, Alberta Environment, 2016, as amended, and/or
  - (C) the *CEMS Code*;
- (ii) for waste:
  - (A) the *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, USEPA, SW-846, September 1986, as amended;
  - (B) the *Toxicity Characteristic Leaching Procedure (TCLP)* USEPA Regulation 40 CFR261, Appendix II, Method No. 1311, July 1992 as amended; and/or
  - (C) the *Standard Methods for the Examination of Water and Wastewater*, American Public Health Association, American Water Works Association, and the Water Environment Federation, 2017, as amended.
- (iii) for wastewater:
  - (A) the *Standard Methods for the Examination of Water and Wastewater*, published jointly by the American Public

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Health Association, American Water Works Association, and the Water Environment Federation, as amended or replaced from time to time, or

(B) a method authorized in writing by the Director.

2.2.2 The approval holder shall analyse all samples that are required to be obtained by this approval:

- (a) in a laboratory accredited pursuant to ISO/IEC 17025, as amended, for the specific parameter(s) to be analysed, or
- (b) in Aquatera in-house laboratory for parameters that passed Proficiency Testing, or
- (c) in a laboratory that complies with Laboratory Quality Assurance/Quality Control (QA/QC) program and splitting sampling program,
- (d) as otherwise authorized in writing by the Director.

2.2.3 On or before December 31, 2023, the approval holder shall submit the *Laboratory Quality Assurance and Quality Control Manual* to the Director.

2.2.4 If the *Laboratory Quality Assurance and Quality Control Manual* in 2.2.3 is found deficient, the approval holder shall correct all deficiencies identified by the Director, on or before the specified date.

2.2.5 The approval holder shall ensure that the monitoring equipment used is calibrated in accordance with the equipment or sampling kit manual specifications.

### **SECTION 2.3: OTHER**

2.3.1 All tanks shall conform to the *Guidelines for Secondary Containment for Above Ground Storage Tanks*, Alberta Environmental Protection, 1997, as amended, unless otherwise authorized in writing by the Director.

2.3.2 All above ground storage tanks containing liquid hydrocarbons or volatile organic liquids shall conform to the *Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Aboveground Storage Tanks*, Canadian Council of Ministers of the Environment, PN 1180, 1995, as amended.

## **PART 3: CONSTRUCTION AND UPGRADING REQUIREMENTS**

### **SECTION 3.1: CONSTRUCTION REQUIREMENTS**

Not used at this time.

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### **SECTION 3.2: UPGRADE REQUIREMENTS**

#### **DISINFECTION INSTALLATION**

- 3.2.1 The approval holder shall submit an application to the Director for the disinfection system installation and obtain an amendment to this approval on or before June 30, 2024, or as otherwise authorized in writing by the Director.
- 3.2.2 The application in 3.2.1 shall include the following at a minimum:
- (a) all related plans and specifications; and
  - (b) a final design report and drawings, signed and stamped by a professional engineer; and
  - (c) a schedule of implementation for construction of the upgrade to the wastewater system; and
  - (d) any other information specified in writing by the Director.
- 3.2.3 The disinfection system in 3.2.1 shall meet the following disinfection limits for the treated effluent discharging to the treated wastewater storage cell:
- (a) total coliform  $\leq 1,000/100\text{mL}$  (geometric mean of daily grab samples taken in a month); and
  - (b) faecal coliform  $\leq 200/100\text{mL}$  (geometric mean of daily grab samples taken in a month),
- 3.2.4 On or before December 31, 2025, the approval holder shall complete installation of the disinfection system unless otherwise authorized in writing by the Director.
- 3.2.5 The approval holder shall notify the Director in writing within seven (7) days after commencement of operation of the upgraded wastewater treatment plant.

#### **TOTAL NITROGEN MANAGEMENT IN TREATED WASTEWATER**

- 3.2.6 On or before December 31, 2024, the approval holder shall submit to the Director, a *Total Nitrogen Management Plan Report*, unless otherwise authorized in writing by the Director.
- 3.2.7 The report in 3.2.6 shall include the following:
- (a) an assessment of the capability of the existing treatment system to meet the target limit of 15 mg/L for total nitrogen; and



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- (b) an upgrade plan for the treatment system if the system cannot meet the target limit in 3.2.7(a).
- 3.2.8 If the report in 3.2.6 is found deficient, the approval holder shall correct all deficiencies identified by the Director by the date specified in writing by the Director.
- 3.2.9 If a plant upgrade is required to meet the limit in 3.2.7(a), the approval holder shall submit an application on or before December 31, 2025 and obtain an amendment to this approval prior to the commencement of the upgrade, unless otherwise authorized in writing by the Director.

**AMMONIA-NITROGEN MANAGEMENT IN TREATED WASTEWATER**

- 3.2.10 On or before December 31, 2024, the approval holder shall submit to the Director, an Ammonia-Nitrogen Management Plan, unless otherwise authorized in writing by the Director.
- 3.2.11 The plan in 3.2.10 shall include the following:
  - (a) an assessment of the capability of the existing treatment system to meet the ammonia-nitrogen limit of 5 mg/L for the entire year; and
  - (b) an upgrade plan for the treatment system if the system cannot meet the target limit in 3.2.11 (a).
- 3.2.12 If the report in 3.2.10 is found deficient, the approval holder shall correct all deficiencies identified by the Director by the date specified in writing by the Director.
- 3.2.13 If a plant upgrade is required to meet the limit in 3.2.11(a), the approval holder shall submit an application on or before December 31, 2025 and obtain an amendment to this approval prior to the commencement of the upgrade, unless otherwise authorized in writing by the Director.

**PART 4: OPERATIONS**

**SECTION 4.1: WASTEWATER SYSTEM AND COGENERATION POWER PLANT SYSTEM**

**WASTEWATER COLLECTION AND TREATMENT**

- 4.1.1 The approval holder shall not release any substances from the wastewater system to the surrounding watershed except as authorized under this approval.
- 4.1.2 The approval holder shall operate a wastewater system which shall include:
  - (a) the wastewater collection and transmission system directly connected to the wastewater treatment plant;

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- (b) an activated sludge biological wastewater treatment plant, including all of the following:
  - (i) fine screens, solids grinder, and flow equalization pump station,
  - (ii) aerated grit removal,
  - (iii) a flow equalization pond,
  - (iv) two (2) waste storage cells,
  - (v) two (2) primary clarifiers,
  - (vi) BNR bioreactors,
  - (vii) chemical phosphorus trimming (when required),
  - (viii) two (2) secondary clarifiers, and
  - (ix) a final polishing pond, known as the treated wastewater storage cell;
- (c) a treated wastewater storage cell that is outfitted with an emergency release weir to Bear Creek;
- (d) a treated wastewater outfall discharging to the Wapiti River located in the NW Section 24, Township 70, Range 6, West of the 6<sup>th</sup> Meridian;
- (e) sludge treatment, including all of the following:
  - (i) a DAF sludge thickeners,
  - (ii) a multi-reactor using ATAD process,
  - (iii) a sludge holding tank,
  - (iv) digested sludge dewatering by chemically assisted centrifuges, and
- (f) sludge disposal as described in the application, or as otherwise authorized in writing by the Director.

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**COGENERATION POWER PLANT**

4.1.3 The approval holder shall not release any air effluent streams to the atmosphere except as authorized by this approval.

4.1.4 The approval holder shall only release air effluent streams to the atmosphere from the following sources:

- (a) the two 1425 kW General Electric Jenbacher 420 Engine Exhaust Stacks as identified in the application;
- (b) the two diesel emergency generator exhaust stacks;
- (c) the Administration Building Boiler 1;
- (d) the Administration Building Boiler 2;
- (e) the ATAD Building Boiler;
- (f) the Process Building Domestic Hot Water Heater;
- (g) the Process Building Make-up Air Unit;
- (h) the gas flare stack;
- (i) the space ventilation exhaust stacks;
- (j) the space heater exhaust vents; and
- (k) any other source authorized in writing by the Director.

4.1.5 The approval holder shall maintain the following stacks according to the minimum height requirements specified in TABLE 4-1.

**TABLE 4-1: STACK HEIGHTS**

STACK	MINIMUM HEIGHT ABOVE GRADE (metres)
The two 1425 kW General Electric Jenbacher 420 Engine Exhaust Stacks	14.5

4.1.6 The approval holder shall control fugitive emissions and any source not specified in 4.1.4 in accordance with 4.1.7 of this approval unless otherwise authorized in writing by the Director.

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- 4.1.7 With respect to fugitive emissions and any source not specified in 4.1.4, the approval holder shall not release a substance or cause to be released a substance that causes or may cause any of the following:
- (a) impairment, degradation or alteration of the quality of natural resources;
  - (b) material discomfort, harm or adverse effect to the wellbeing or health of a person; or
  - (c) harm to property or to vegetative or animal life.

**OPERATIONS PROGRAM - WASTEWATER SYSTEM AND COGENERATION POWER PLANT**

- 4.1.8 On or before June 30, 2024, the approval holder shall develop and submit a wastewater system *Operations Program* that shall include, at a minimum, all of the information in SCHEDULE 1 of this approval.
- 4.1.9 The approval holder shall:
- (a) implement; and
  - (b) maintain
- the *Operations Program* for the Aquatera Regional Wastewater System.
- 4.1.10 The approval holder shall:
- (a) review the *Operations Program* annually at a minimum;
  - (b) update the *Operations Program* as required; and
  - (c) submit a summary of the changes to the *Operations Program* to the Director each year.

**SECTION 4.2: FACILITY CLASSIFICATION AND CERTIFIED OPERATOR REQUIREMENTS**

**FACILITY CLASSIFICATION**

- 4.2.1 The wastewater treatment facility in this approval is classified as Class IV in accordance with the *Water and Wastewater Operators' Certification Guidelines*.
- 4.2.2 The wastewater collection system in this approval is classified as Class IV in accordance with the *Water and Wastewater Operators' Certification Guidelines*.

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### **CERTIFIED OPERATOR**

- 4.2.3 At all times the operation of the wastewater treatment plant shall be performed by, or under the direction of the following number of persons who holds:
- (a) a valid level IV wastewater treatment certificate; and
  - (b) at least two operators who holds a valid level III (or higher) wastewater treatment certificate; and
  - (c) at least one other operator who holds a valid Level II (or higher) wastewater treatment operators certificate for each shift when shift operation is required.
- 4.2.4 At all times the operation of the wastewater collection system shall be performed by, or under the direction of the following number of persons who holds:
- (a) a valid level IV wastewater collection certificate; and
  - (b) at least two operators who holds a valid level III (or higher) wastewater collection certificate; and
  - (c) at least one other operator who holds a valid Level II (or higher) wastewater collection certificate for each shift when shift operation is required.

### **SECTION 4.3: SLUDGE DISPOSAL**

- 4.3.1 The approval holder shall only dispose of sludge:
- (a) to a registered or approved facility under the Act, or
  - (b) as authorized in writing by the Director.
- 4.3.2 To obtain written authorization referred to in 4.3.1 the approval holder shall:
- (a) submit a completed application form as outlined in *Guidelines for the Application of Municipal Wastewater Sludges to Agricultural Lands* Alberta Environment, March 2001, as amended, or
  - (b) submit a proposed alternative method of sludge management that is signed and stamped by a professional registered with APEGA (Association of Professional Engineers and Geoscientists of Alberta).

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- 4.3.3 The approval holder shall immediately report in accordance with Section 6.3 any release of sludge:
- (a) into a watercourse; or
  - (b) on land not approved to receive sludge.

**SECTION 4.4: CHEMICALS USED**

Not used at this time.

**SECTION 4.5: WASTEWATER IRRIGATION**

Not used at this time.

**PART 5: LIMITS**

**SECTION 5.1: WASTEWATER**

- 5.1.1 Treated wastewater from the wastewater treatment plant shall be discharged as follows:
- (a) discharge to Wapiti River located in the NW Section 24, Township 70, Range 6, West of the 6<sup>th</sup> Meridian; or
  - (b) release to the wastewater storage cells, and then discharge to the Wapiti River; or
  - (c) reuse for drilling, fracking and other related industrial uses; or
  - (d) as otherwise authorized in writing by the Director.
- 5.1.2 The approval holder shall ensure the treated wastewater discharge complies with the limits specified in TABLE 5-1.

**TABLE 5-1: LIMITS FOR TREATED WASTEWATER**

<b>PARAMETER</b>	<b>LIMIT</b>
CBOD	≤ 20 mg/L monthly arithmetic mean of daily composite samples
TSS	≤ 20 mg/L monthly arithmetic mean of daily composite samples
Ammonia-Nitrogen (December 1 to May 31)	≤ 10 mg/L monthly arithmetic mean of daily composite samples
Ammonia-Nitrogen (June 1 to November 30)	≤ 5 mg/L monthly arithmetic mean of daily composite samples
Total Phosphorus	≤ 1 mg/L monthly arithmetic mean of daily composite samples

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**SECTION 5.2: AIR EFFLUENT STREAMS**

**AIR LIMITS**

5.2.1 Releases of the following substances to the atmosphere shall not exceed the limits specified in TABLE 5-2.

**TABLE 5-2: AIR LIMITS**

PLANT UNIT	EMISSION SOURCE	SUBSTANCE	LIMIT
Each of the two 1425 kW General Electric Jenbacher 420 Engine Units	Engine Exhaust Stack	Nitrogen Oxides	3.1 kg/hr

5.2.2 The approval holder shall add natural gas to the landfill gas supplied to the electrical generators such that the net or lower heating value of the combined gas stream is not less than 16.2 MJ/m<sup>3</sup> (at 101.325 kPa and 15°C).

**PART 6: MONITORING AND REPORTING**

**SECTION 6.1: WASTEWATER**

6.1.1 The approval holder shall monitor the wastewater system as required in TABLE 6-1.

6.1.2 If the approval holder monitors for any substances or parameters which are the subject of limits in this approval more frequently than is required, using procedures authorized in this approval, then the approval holder shall provide the results of such monitoring as an addendum to the reports required by this approval.

**TABLE 6-1: MONITORING OF THE WASTEWATER SYSTEM**

PARAMETER	FREQUENCY (MINIMUM)	SAMPLE TYPE	SAMPLING LOCATION
UNTREATED WASTEWATER			
Volume	Continuous, record total m <sup>3</sup> per day	Calculated	Untreated wastewater entering the wastewater treatment plant
pH	Once a day	Composite	Untreated wastewater prior to primary clarifier
BOD <sub>5</sub>			
TSS			
Ammonia-Nitrogen			
Total Phosphorus			

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PARAMETER	FREQUENCY (MINIMUM)	SAMPLE TYPE	SAMPLING LOCATION
<b>TREATED WASTEWATER (Mechanical Treatment Plant)</b>			
Volume	Per event	Estimated	Treated wastewater for reuse
Volume	Continuous, record total m <sup>3</sup> per day	Calculated	Prior to discharge to the Wapiti River
pH	Once a day	Composite	
CBOD			
TSS			
Ammonia-Nitrogen			
Nitrate Nitrogen + Nitrite Nitrogen			
Total Nitrogen			
Total Phosphorus	Once a week	Grab	
Total Coliform Counts <i>E. Coli</i> or Faecal Coliform Counts			
<b>UNAUTHORIZED RELEASES</b>			
Release Volume (plant)	Per event - When release has been stopped	Estimated	Wastewater bypassing the wastewater treatment plant, accidental spills or overflows
Release Volume (lift stations)			Wastewater bypassing the lift station(s), accidental spills or overflows
Release Volume (collection system)			Wastewater bypasses, accidental spills or overflows from the wastewater collection system
pH	Per event - During the unauthorized discharge	Grab	At the release point
BOD <sub>5</sub>			
TSS			
Ammonia-Nitrogen			
Total Phosphorus			
<b>SLUDGE DISPOSAL</b>			
Sludge Volume	Total Volume	Estimated	Amount of sludge being hauled to EPEA approved or registered facilities



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**SECTION 6.2: AIR EFFLUENT STREAMS**

- 6.2.1 The approval holder shall monitor the air emission sources as specified in TABLE 6-2.
- 6.2.2 The approval holder shall report to the Director the results of the air emission source monitoring as required in TABLE 6-2.

**TABLE 6-2: SOURCE MONITORING AND REPORTING**

<b>Emission Source</b>	<b>Parameter</b>	<b>Frequency</b>	<b>Method of Monitoring</b>	<b>Method of Analysis</b>	<b>Reporting Frequency</b>	<b>Report To</b>
Each of the two 1425 kW General Electric Jenbacher 420 Engine Units	Nitrogen Oxides (expressed as NO <sub>2</sub> ), & Carbon Monoxide	Once per year	Manual Stack Survey	As per the <i>Alberta Stack Sampling Code</i>	Month after the survey is done	Director

- 6.2.3 The information required in 6.2.1 and 6.2.2 shall at a minimum, comply with:
  - (a) the *Alberta Stack Sampling Code*, Alberta Environment, 1995 as amended; and
  - (b) the *Air Monitoring Directive*, Alberta Environment, 2016, as amended, the approval holder shall notify the Director in writing a minimum of two weeks prior to any manual stack survey that is required to be conducted by this approval.

**AMBIENT AIR MONITORING**

- 6.2.4 The approval holder shall operate or cause to be operated the PAZA Air Quality Monitoring Program Network.
- 6.2.5 The approval holder shall submit or cause to be submitted monthly reports, which document the monitoring undertaken in 6.2.4, to the Director within 45 days from the end of each measured month.
- 6.2.6 The approval holder shall immediately apply to the Director to amend the ambient air monitoring and reporting requirements upon the occurrence of any of the following events:
  - (a) the approval holder ceases to actively participate in the PAZA Air Quality Monitoring Program Network;
  - (b) the PAZA Air Quality Monitoring Program Network ceases to operate; or

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- (c) the PAZA Air Quality Monitoring Program Network being amended without written acceptance from the Director.
- 6.2.7 The approval holder shall submit an annual air emissions report which contains information related to plant operation, performance of air pollution control equipment and air contaminant emissions.
- 6.2.8 The approval holder shall submit one copy of the Annual Air Emissions report in 6.2.7 on or before February 28 of the year following the year in which the information on which the report is based was collected.

**SECTION 6.3: CONTRAVENTION REPORTING**

- 6.3.1 In addition to any other reporting required pursuant to this approval, the Act, or the regulations, the approval holder shall immediately report to the Director any contravention of this approval, either:
  - (a) by telephone at 1-780-422-4505; or
  - (b) by a method:
    - (i) in compliance with the release reporting provisions in the Act and the regulations, or
    - (ii) authorized in writing by the Director.
- 6.3.2 In addition to any other reporting required pursuant to this approval, the Act, or the regulations, the approval holder shall immediately report to the Director by a method specified in 6.3.1, any structural or equipment malfunction in the wastewater system outlined in SECTION 4.1.
- 6.3.3 In addition to the immediate reporting in 6.3.1, the approval holder shall provide a report to the Director:
  - (a) in writing; or
  - (b) by a method:
    - (i) in compliance with the release reporting provisions in the Act and the regulations, or
    - (ii) authorized in writing by the Director

within seven (7) calendar days after the discovery of the contravention, or within another time period specified in writing by the Director, unless the requirement for the report is waived by the Director.

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6.3.4 The approval holder shall include, at a minimum, all of the following information in the report required in 6.3.1:

- (a) a description of the contravention;
- (b) the date of the contravention;
- (c) the duration of the contravention;
- (d) the legal land description of the location of the contravention;
- (e) an explanation as to why the contravention occurred;
- (f) a summary of all preventive measures and actions that were taken prior to the contravention;
- (g) a summary of all measures and actions that were taken to mitigate any effects of the contravention;
- (h) a summary of all measures that will be taken to address any remaining effects and potential effects related to the contravention;
- (i) the number of the approval issued under the Act for the wastewater system, and the name of the approval holder who held the approval at the time the contravention occurred;
- (j) the name, address, phone number and responsibilities of all persons operating the wastewater system at the time the contravention occurred;
- (k) the name, address, phone number and responsibilities of all persons who had charge, management or control of the wastewater system at the time that the contravention occurred;
- (l) a summary of proposed measures that will prevent future contraventions, including a schedule of implementation for these measures;
- (m) any information that was maintained or recorded under this approval, as a result of the incident; and
- (n) any other information required by the Director in writing.

### **SECTION 6.4: MONTHLY WASTEWATER REPORT**

6.4.1 In addition to any other reporting required under the Act, the regulations and this approval, the approval holder shall compile a monthly report, on or before the 15<sup>th</sup> of the month following the month in which the information on which the report is based was collected.

## **TERMS AND CONDITIONS ATTACHED TO APPROVAL**

- 6.4.2 The approval holder shall retain monthly reports at the wastewater treatment plant.
- 6.4.3 The approval holder shall include, at a minimum, all of the following information in the monthly report required in 6.4.1:
- (a) the name, email address, and telephone numbers of all certified operators;
  - (b) the name and the monthly quantity of any chemical added to the wastewater system;
  - (c) the analytical results for all parameters required to be monitored in accordance with this approval during the month;
  - (d) the locations of all sampling performed during the month in accordance with this approval;
  - (e) the results of all required monitoring and measurements conducted during the month in accordance with this approval;
  - (f) the data results validation of the on-line or continuous monitoring equipment; and
  - (g) a description of any problems experienced, and corrective actions taken at the wastewater system during the month.

### **SECTION 6.5: ANNUAL WASTEWATER REPORT**

- 6.5.1 In addition to any other reporting required under the Act, the regulations and this approval, the approval holder shall compile and submit an annual report, by February 28 of the year following the year in which the information on which the report is based was collected.
- 6.5.2 The approval holder shall retain a copy of annual reports at the wastewater treatment plant.
- 6.5.3 The approval holder shall include, at a minimum, all of the following information in the annual report required in 6.5.1:
- (a) a summary of the monthly wastewater reports, specifying the monthly arithmetic mean, including maximum and minimum values, of each parameter monitored, excluding coliform counts, as outlined in TABLE 6-1;
  - (b) the monthly geometric mean of total coliform and faecal coliform counts;
  - (c) the results of any other compliance monitoring done during the year pursuant to this approval, that was not included in any monthly report;

## **TERMS AND CONDITIONS ATTACHED TO APPROVAL**

- (d) the name of the supervising operators responsible for the operation of the wastewater system;
- (e) a summary of changes made to the *Operations Program*;
- (f) a summary of changes proposed to be made to the *Operations Program*;
- (g) the validation data results of the on-line or continuous monitoring equipment;
- (h) a timeline and plan for upgrading the wastewater treatment plant;
- (i) annual treated effluent re-use report; and
- (j) a summary of any operational problems experienced, and corrective actions taken at the wastewater system during the year.

6.5.4 If the approval holder monitors for any substances or parameters which are the subject of operational limits as set out in this approval more frequently than is required and using procedures authorized in this approval, then the approval holder shall provide the results of such monitoring as an addendum to the Annual Wastewater report required by this approval.

### **PART 7: RECORD KEEPING REQUIREMENTS**

#### **SECTION 7.1: GENERAL**

- 7.1.1 The approval holder shall record and retain the following for five (5) years from the date the record was created, all:
- (a) monthly reports; and
  - (b) annual reports required under this approval.
- 7.1.2 The approval holder shall retain the following records for the life of the wastewater system:
- (a) the *Operations Program*; and
  - (b) copies of all:
    - (i) reports prepared pursuant to SECTION 7.1;
    - (ii) as-built engineering drawings of the wastewater system.

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**TERMS AND CONDITIONS ATTACHED TO APPROVAL**

7.1.3 The approval holder shall include, at a minimum, all of the following information in the annual and monthly reports required:

- (a) the date, location and time of monitoring, and the name of the person collecting the sample;
- (b) identification of the sample type, including, but not limited to whether the sample is taken as required in the approval, a repeat sample, or other special purpose sample;
- (c) date of analysis;
- (d) laboratory name and person responsible for performing analysis;
- (e) the analytical method used; and
- (f) the results of the analysis.

7.1.4 The approval holder shall immediately provide any records, reports or data required under this approval to the Director or an inspector, upon request.

**PART 8: RECLAMATION AND DECOMMISSIONING**

**SECTION 8.1: GENERAL**

8.1.1 The approval holder shall apply for an amendment to this approval prior to decommissioning the wastewater system or cogeneration power plant as required in 8.1.1, or a portion of the wastewater system or cogeneration power plant by submitting the following to the Director:

- (a) Decommissioning Plan; and
- (b) Land Reclamation Plan.

8.1.2 An application for an amendment as per 8.1.1 shall be submitted a minimum of six (6) months prior to the wastewater system or cogeneration power plant, or a portion of the wastewater system or cogeneration power plant ceasing operation, except for repairs and maintenance.

August 04, 2023  
DATED

Fidelma.Horgan Digitally signed by Fidelma.Horgan  
Date: 2023.08.04 10:00:09 -06'00'

DESIGNATED DIRECTOR UNDER THE ACT  
Fidelma Horgan, P.Eng.

## **SCHEDULE 1 OPERATIONS PROGRAM**

The wastewater system Operations Program shall include, at a minimum, all of the following:

- (1) Administrative Information for the wastewater system, including the following:
  - (a) name of the wastewater system;
  - (b) EPEA approval No.;
  - (c) name and telephone number for the wastewater system:
    - (i) owner and person responsible,
    - (ii) certified operators, and
    - (iii) engineering consultants;
  - (d) the name of cover-off operator(s) in the event that the Certified Operator is not available to operate the system;
  - (e) a list of contacts for: Alberta Environment and Protected Areas, Alberta Health Services, the local Fire Department, Disaster Coordinator, and other agencies;
  - (f) a copy of the wastewater system drawings; and
  - (g) the date of the last update of the Operations Program.
- (2) Routine Operational and Maintenance Procedures, which shall include, at a minimum, all of the following:
  - (a) general description of treatment process;
  - (b) operating instructions of the treatment process, equipment and operating procedures;
  - (c) general maintenance schedule;
  - (d) general maintenance instructions of treatment process equipment, and monitoring equipment;
  - (e) location of outfall and potential downstream impacts; and
  - (f) the schedule and procedures for maintenance of the collection system, including lift stations.

## **SCHEDULE 1 OPERATIONS PROGRAM**

- (3) Routine Operational Procedures for Monitoring and Analysis, which shall include, at a minimum, all of the following:
  - (a) operational and compliance sampling and tests to be performed;
  - (b) methods used for monitoring and analysis;
  - (c) locations of sampling and monitoring points; and
  - (d) laboratory data quality assurance information.
  
- (4) Emergency Response Plan, which shall, at a minimum, include steps to be taken in the event of the following:
  - (a) exceeding the limits in this approval;
  - (b) the effluent sample is determined to be acutely lethal;
  - (c) unauthorized discharge from the wastewater treatment plant or wastewater collection system;
  - (d) flood that affects wastewater system;
  - (e) mismanagement of chemicals;
  - (f) power failure;
  - (g) treatment equipment breakdown;
  - (h) wastewater collection system break; and
  - (i) a portion or entire wastewater system becoming inoperable (due to natural or deliberate catastrophe), including steps in providing an alternate wastewater treatment.
  
- (5) A copy or reference to the sanitary sewer bylaw that the municipality uses to manage discharge into the sanitary sewer collection system.