



October 1, 2020

Tracking Number: 391084
Authorization Number: 14651

VIA EMAIL:

Greg Buchholz, gbuchholz@lakecountry.bc.ca
Kiel Wilkie, kwilkie@lakecountry.bc.ca
Joanne Quarmby, jquarmby@urbansystems.ca
District of Lake Country, admin@lakecountry.bc.ca

District of Lake Country
10150 BOTTOMWOOD LAKE ROAD
LAKE COUNTRY, BC
V4V 2M1

Dear Greg Buchholz and Kiel Wilkie,

Re: Notice of Intent to Issue Operational Certificate No. 14651 Under the Provisions of the *Environmental Management Act* in the name of the District of Lake Country

Pursuant to Sections 28(4) & (5) of the *Environmental Management Act* and Sections 4(6) & 7 of the Public Notification Regulation, and as indicated in the enclosed notice, the Director intends to issue an operational certificate to the District of Lake Country a minimum of 30 days after publication of the notice. Also enclosed is a copy of the draft operational certificate.

In accordance with the Public Notification Regulation, you are requested to publish a copy of the enclosed notice in one issue each of the Lake Country Calendar, the Kelowna Capital News and the Kelowna Daily Courier. The published notice must:

- (a) be at least 10 centimetres in width,
- (b) be at least 100 square centimetres in area,
- (c) be entitled "ENVIRONMENTAL PROTECTION NOTICE" in a minimum type size of 12 points, and
- (d) have the text of the notice in a minimum type size of 8 points.

Proof of publication, the full pages on which the notice appeared, must be sent within thirty days after the date of publication via email to Jennifer Pape, Environmental Protection Officer (jennifer.pape@gov.bc.ca). We suggest that the notice be published as soon as possible, so that if republishing is necessary for any reason, processing will not be delayed. Failure to comply with the regulations may delay the issuing of an operational certificate.

A copy of the Public Notification regulation is available online at –
http://www.bclaws.ca/Recon/document/ID/freeside/40_202_94

As indicated on the enclosed notice, opportunity for any person to view the enclosed draft operational certificate must also be provided.

Please provide a summary of comments received by the District of Lake Country regarding the draft operational certificate by email to Jennifer Pape, Environmental Protection Officer (jennifer.pape@gov.bc.ca) within 30 days of the date the notice is published.

If you have any questions, please contact Jennifer Pape, Environmental Protection Officer at 778-974-5894 or jennifer.pape@gov.bc.ca.

Yours truly,

Bryan Vroom
for Director, *Environmental Management Act*

Enclosures:
Environmental protection notice
Draft amended operational certificate

ENVIRONMENTAL PROTECTION NOTICE

NOTICE OF INTENT TO ISSUE AN OPERATIONAL CERTIFICATE UNDER THE PROVISIONS OF THE *ENVIRONMENTAL MANAGEMENT ACT*

Take notice that the Director intends, a minimum of 30 days after the date of publication of this notice, to issue an OPERATIONAL CERTIFICATE 14651 to the District of Lake Country for the wastewater treatment facility located in Lake Country, BC.

This Operational Certificate will supersede and replace all previous versions of Operational Certificate 14651 issued under Section 28 of the *Environmental Management Act*. The certificate includes updated operational, monitoring and reporting requirements.

A copy of the draft Operational Certificate may be viewed at the District of Lake Country website at: <https://www.lakecountry.bc.ca/en/index.aspx> or by contacting the District of Lake Country office at 250-766-5650 to make viewing arrangements.

Any comments regarding the draft operational certificate must be sent to the Director, Environmental Protection, Ministry of Environment and Climate Change Strategy, 525 Superior Street, Victoria, BC V8V 1T7 (Email: jennifer.pape@gov.bc.ca) within 30 days after the last date of publication of this notice. A copy of any comments should also be sent to the District of Lake Country, 10150 Bottom Wood Lake Road, Lake Country, B.C. V4V 2M1, Tel 250-766-5650.

Dated _____



**MINISTRY OF ENVIRONMENT
AND CLIMATE CHANGE
STRATEGY**

OPERATIONAL CERTIFICATE

14651

Under the Provisions of the Environmental Management Act

DISTRICT OF LAKE COUNTRY

10150 Bottom Wood Lake Road

Lake Country, BC V4V 2M1

Is authorized to discharge effluent to the ground by infiltration from a wastewater treatment facility located in Lake Country, British Columbia, subject to the requirements listed below. Contravention of any of these requirements is a violation of the *Environmental Management Act* and may lead to prosecution.

This authorization supersedes and replaces all previous versions of Operational Certificate 14651 issued under Section 28 of the *Environmental Management Act*.

1. **AUTHORIZED DISCHARGES**

1.1 **Authorized Source**

This section applies to the discharge of effluent to ground by infiltration from the Lake Country Wastewater Treatment Plant. The Environmental Monitoring System (EMS) site reference number for this discharge is E233626.

1.1.1 Maximum Rate of Discharge

The maximum authorized rate of discharge is 2000 cubic meters per day averaged on a monthly basis.

Should an additional infiltration gallery be installed the Operational Certificate holder must notify the director. Upon notification, the maximum authorized rate of discharge is 2200 cubic meters per day averaged on a monthly basis.

1.1.2 Discharge Period

The authorized discharge period is 365 days per year.

1.1.3 Characteristics of the Discharge

The characteristics of the discharge must not exceed:

Biochemical Oxygen Demand (BOD ₅)	10 mg/L
Total Suspended Solids	20 mg/L
Ortho Phosphorus as P	
Not to exceed	1.5 mg/L
99 percentile	0.90 mg/L
90 percentile	0.60 mg/L
Annual average	0.15 mg/L
Level to strive for	0.01 mg/L

The level to strive for is the Okanagan Lake background level. The percentile values given relate to the daily values. e.g.: 99 percentile means that 99 percent of all daily values throughout the year are not to exceed 0.90 mg/L Ortho Phosphorus as P.

Soluble Nitrogen as N	
Maximum daily value	10.0 mg/L
Annual average	6.0 mg/L

(For compliance purposes Soluble Nitrogen is considered to be the sum of (NH₃ as N) + (NO₃ as N) + (NO₂ as N))

1.1.4 **Authorized Works**

The discharge is authorized from Authorized Works, which are a biological nutrient removal tertiary treatment plant, chemical phosphorous removal facilities, rapid infiltration basins and sub-surface infiltration gallery and other related appurtenances approximately located as shown on Site Plan A.

1.1.5 **Works Complete and Operational**

The Operational Certificate Holder must not discharge under this Authorization unless the Authorized Works are complete and fully operational.

1.1.6 **Location of Source and Point of Discharge**

The location of the facilities from which the discharge is authorized to originate and the point where the discharge is authorized to occur are:

Lot A Section 11 Township 20 Osoyoos Division Yale District Plan KAP67056, PID 035-811-530;

The East ½ of Section 11 Township 20 Osoyoos Division Yale District Except Plans 19644 B17161 and KAP67056, PID 013-537-334; and

Lot 1 (Plan B17161) of the East ½ of Section 11 Township 20 Osoyoos Division Yale District Except Plan 19644, PID 013-537-326.

1.1.7. **Groundwater Extraction**

The Operational Certificate holder must submit a proposal to the director, and obtain written consent, prior to the extraction of water from the aquifer into which the effluent is infiltrated.

If written consent is obtained, the extracted groundwater must be conveyed to Vernon Creek at a location and during a time period as approved by the director. In the event that adverse levels of phosphorus should be found in the extracted reclaimed water, a higher level of phosphorus removal may be specified by the director.

1.1.8 **Irrigation**

The Operational Certificate holder must obtain written consent from the director prior to onsite irrigation with reclaimed water within the fenced area of the wastewater treatment facility.

1.2 **Authorized Source**

The Operational Certificate holder must obtain written consent from the director prior to the discharge of effluent to an offsite reclaimed water irrigation system from the Lake Country Wastewater Treatment Plant. The EMS site reference number for this discharge is E233629.

2. **GENERAL REQUIREMENTS**

2.1 **Capitalized Terms**

Capitalized terms referred to in this Authorization are defined in the Glossary below. Other terms used in this Authorization have the same meaning as those defined in the *Environmental Management Act* and applicable regulations.

2.2 **General Provisions**

Where this Authorization provides that the director may require an action to be carried out, the Operational Certificate holder must carry out the action in accordance with the requirements of the director.

2.3 **Publication of Documents**

The Ministry of Environment and Climate Change Strategy publishes Regulatory Documents on its website for the purpose of research, public education and to provide transparency in the administration of environmental laws. The Operational Certificate holder acknowledges that the Province may publish any Regulatory Documents submitted by the Operational Certificate Holder, excluding information that would be exempted from disclosure if the document was disclosed pursuant to a request under section 5 of the *Freedom of Information and Protection of Privacy Act*, and the Operational Certificate holder consents to such publication by the Province.

2.4 **Maintenance of Works and Emergency Procedures**

The Operational Certificate holder must regularly inspect the Authorized Works and maintain them in good working order. If components of the Authorized Works have a manufacturer's recommended maintenance schedule, then those components must, at a minimum, be maintained in accordance with that schedule.

The Operational Certificate holder must maintain a record of inspections and maintenance of the Authorized Works and make the record available to an officer upon request.

Emergency Procedures:

In the event of an emergency or other condition which prevents normal operation of the Authorized Works or leads to an unauthorized discharge, the Operational Certificate holder must take remedial action immediately to restore the normal operation of the Authorized Works and to prevent any unauthorized discharges. The Operational Certificate holder must immediately report the emergency or other condition and the remedial action that has and will be taken to the EnvironmentalCompliance@gov.bc.ca email address or as otherwise instructed by the director.

2.5 **Bypasses**

The Operational Certificate holder must not allow any discharge authorized by this Authorization to bypass the Authorized Works, except with the prior written approval of the director.

2.6 **Process Modifications**

The Operational Certificate holder must notify the director, and obtain written consent, prior to implementing changes to any process that may affect the quality or quantity of the discharge.

2.7 **Plans - Works**

The Operational Certificate holder must ensure the plans and specifications of the works described in paragraphs 1.1.4 of the definition of Authorized Works are certified by a Qualified Professional and are submitted to the director within 30 to 60 days before beginning to discharge. The Operational Certificate holder must cause a Qualified Professional to certify that the works have been constructed in accordance with such plans and specifications before discharge commences under this Authorization.

2.8 **Odour Control**

The Operational Certificate holder must provide measures to control odour from the sewage treatment collection and plant operation by using the best available technology. Should any aspect of the operation give rise to objectionable odours, appropriate remedial measures may be required, when directed in writing by the director.

2.9 **Operation and Maintenance**

The Operational Certificate holder must develop and maintain both an Operational and Maintenance Manual for the sewage collection, sewage treatment, effluent utilization and effluent disposal works. A copy of the Operational and Maintenance Manuals must be retained at the treatment plant for inspection by the director or designate.

2.10 **Contingency Plan**

The Operational Certificate holder must prepare a Contingency Plan that will address the appropriate course of action to be taken in any preconceived emergency situation and submit a copy of the Contingency Plan to the director on or before December 31, 2021. The Contingency Plan shall include Spill Procedures including other leaks and any potential point of concern in the collection, treatment and disposal systems. Attention is to be given to public safety and the protection of the environment. The Contingency Plan is to be continually updated as necessary to reflect the current operation. Any revisions to the Contingency Plan are to be submitted to the director within 30 days.

2.11 **Sludge Management Plan**

The Operational Certificate holder must develop a Sludge Management Plan that includes the frequency of withdrawal of sludge from the wastewater treatment plant and the location(s) used for disposal and/or utilization. Any revisions to the Sludge Management Plan are to be submitted to the director within 30 days.

The Operational Certificate holder must dispose of sludge from the wastewater treatment plant at a site approved by the director, or as authorized by regulation under the *Environmental Management Act*. The Operational Certificate holder must retain records of quantities, disposal location and dates of sludge disposal and keep such records available at the facility for inspection.

2.12 **Sewage Collection System - Infiltration, Inflow and Cross Connections**

The Operational Certificate holder must inspect and maintain the sewage collection system works so as to minimize the possibility of cross connections between the storm sewer and the sanitary sewer systems, to minimize infiltration of groundwater, to minimize inflow of water from basement sump pumps and roof drains and minimize exfiltration of the collected sewage from the sewage collection system to the ground.

2.13 Domestic Wells

In the event that domestic wells should be adversely affected by the effluent discharge, the Operational Certificate holder must supply affected residents with an alternate source of domestic water.

3. SAMPLING REQUIREMENTS

3.1 Sampling Facilities

The Operational Certificate holder must install and maintain, suitable to the director, sampling facilities. The Operational Certificate holder must collect samples at each site according to the schedules specified in Sections 3.6 and 3.7. The Operational Certificate holder must take due care in sampling, storing and transporting the samples to control temperature and avoid contamination, breakage, and any other factor or influence that may compromise the integrity of the samples.

3.2 Sampling Procedures

The Operational Certificate holder must carry out sampling in accordance with the procedures described in the "British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 2013 Edition (Permittee)" or most recent edition, or by alternative procedures as authorized by the director.

A copy of the above manual is available on the Ministry web page at <https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance/bc-field-sampling-manual>.

3.3 **Analytical Procedures**

The Operational Certificate holder must carry out analyses in accordance with procedures described in the "British Columbia Laboratory Manual (2015 Permittee Edition)", or the most recent edition or by alternative procedures as authorized by the director.

A copy of the above manual is available on the Ministry web page at <https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance/bc-field-sampling-manual>.

3.4 **Quality Assurance**

a) The Operational Certificate holder must obtain from the analytical laboratory(ies) their precision, accuracy and blank data for each sample set submitted by the Operational Certificate holder and an evaluation of the data acceptability, based on criteria set by such laboratory.

b) The Operational Certificate holder must prepare and submit for analysis by the analytical laboratory(ies) blank and replicate samples that meet the minimum level of effort outlined in "British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 2013 Edition (Permittee)" or most recent edition, or by alternative procedures as authorized by the director.

c) The Operational Certificate holder must submit samples to analytical laboratory(ies) that meet the definition of a qualified laboratory under the Environmental Data Quality Assurance Regulation.

3.5 **Grab Sampling**

The Operational Certificate holder must obtain a grab sample of the influent and effluent at the frequencies outlined in Sections 3.6 and 3.7.

A proportional continuous sampler may be used, provided that prior written approval has been obtained from the director.

3.6 **Influent Analysis**
(EMS site number E233627)

The Operational Certificate holder must collect a sample once each month and obtain analysis of the sample for the following parameters:

Biochemical Oxygen Demand (BOD₅), mg/L;

Total phosphorus, mg/L P;

Total nitrogen, mg/L N; and

pH.

3.7 **Effluent Analysis**
(EMS site number E233626)

The Operational Certificate holder must collect a sample once daily during the period of maximum daily flow for subsequent in-house analysis, and once each month for verification by a qualified laboratory, and obtain analysis of the sample (s) for the following parameters:

Daily Analysis (in house)

Orthophosphorus, mg/L P;

Ammonia nitrogen and nitrate/nitrite nitrogen, mg/L N; and

pH.

Monthly Analysis (qualified laboratory)

Total suspended solids, mg/L;

Biochemical Oxygen Demand (BOD₅), mg/L;

Total and fecal coliforms, CFU/100 mL;

Total and orthophosphorus, mg/L P;

Total soluble nitrogen (ammonia and nitrate/nitrite), total nitrogen, ammonia nitrogen, nitrate/nitrite nitrogen, organic nitrogen, and total

Kjeldahl nitrogen, mg/L N;

and pH.

Occasional full chemical analysis of the main cations and anions and other characteristics may be required at the discretion of the director.

3.8 **Groundwater Monitoring Program**

3.8.1 **Groundwater Elevations**

The Operational Certificate holder must provide at least one monitoring well up-gradient, and a minimum of three monitoring wells down-gradient at hydrogeologically appropriate locations, to adequately monitor groundwater elevations surrounding the infiltration area and record once per month the groundwater elevation in each well. EMS site numbers for groundwater monitoring wells must be assigned by December 31, 2020.

3.8.2 **Groundwater Sampling**

The Operational Certificate holder must provide dedicated well sampling equipment and twice per year collect samples from all up-gradient and down-gradient monitoring wells. Domestic wells in the path of the effluent plume shall be included in the sampling program.

3.8.3 **Groundwater Analysis**

The Operational Certificate holder must collect samples and obtain analysis of the samples for the following parameters:

Total and orthophosphorus, mg/L P;
Ammonia nitrogen and (nitrate/nitrite) nitrogen, mg/L N;
pH;
Conductance, $\mu\text{mho/cm}$; and
Sodium and chloride, mg/L Na and CL.

3.8.4 **Modification of Monitoring Program**

The groundwater monitoring program in Section 3.8 may be modified with the approval of the director. The modified groundwater monitoring program must be designed by a Qualified Professional as defined in Section 7.5.

3.8.5 **Future Lake and Creek Sampling and Monitoring Program**

Based on the results of the groundwater monitoring program a lake or creek monitoring program may be required at the discretion of the director.

4. **OPERATIONAL REQUIREMENTS FOR EFFLUENT DISCHARGES**

4.1 **Flow Measurement**

The Operational Certificate holder must install, by December 31, 2020, and maintain a suitable to the director, flow measuring device, and record once per day the effluent volume discharged over 24 hours. The Operational Certificate holder must retain the records for inspection by Ministry staff.

4.2 **Infiltration Pond**

The Operational Certificate holder must operate the infiltration pond such that:

- a) there is no overflow from the infiltration pond to the surrounding environment; and
- b) surface drainage is diverted away from the infiltration pond.

The Operational Certificate holder must dispose of any residue removed from the infiltration pond in a manner authorized by the director, or as authorized by regulation under the *Environmental Management Act*.

4.3 **Facility Classification and Operator Certification**

The Operational Certificate holder must have the Authorized Works classified, and the classification must be maintained, by the Environmental Operators Certification Program (EOCP). The Operational Certificate holder must cause the Authorized Works to be operated and maintained by:

- a) persons certified within and according to the program provided by the EOCP to the satisfaction of the director; or
- b) persons who are qualified in the safe and proper operation of the facility for the protection of the environment, as demonstrated to the satisfaction of the director.

The Operational Certificate holder must notify the director of the classification level of the facility and certification levels of the operators, and changes of operators and/or operator certification levels within 30 days of any change.

5. **REPORTING REQUIREMENTS**

5.1 **Reporting**

The Operational Certificate holder must collect and maintain data of analyses and flow measurements required under this Authorization for inspection when requested by Ministry staff.

The Operational Certificate holder must ensure all monitoring data analyzed by a qualified laboratory is uploaded to the EMS database within 30 days of the date of sample collection.

5.2 **Annual Report and Evaluation**

The Operational Certificate holder must, on or before each March 31st that occurs during the term of this Authorization, submit to the director an Annual Report that is satisfactory to the director and includes, but is not limited to:

- a) a review and interpretation of the monitoring and flow data for the preceding calendar year;
- b) a graphical analysis with interpretation of any trends in monitoring results prepared by a qualified professional;

c) an evaluation of all laboratory analyses (including both in house and qualified laboratories), and quality and precision based on the results of the quality assurance program required herein;

d) an evaluation of the performance of the treatment works and identify any changes; and

e) an implementation schedule for any alterations to the treatment and disposal works which may impact the discharge under this Authorization.

The Annual Report must be submitted to the director by email at envauthorizationsreporting@gov.bc.ca or as otherwise instructed by the director. The Operational Certificate holder must make the Annual Report available to the public by posting it on the District of Lake Country's website.

6. **NON-COMPLIANCE REPORTING**

6.1 **Non-compliance Notification**

The Operational Certificate holder must immediately notify the director by email at EnvironmentalCompliance@gov.bc.ca or as otherwise instructed by the director of any non-compliance with the requirements of this Authorization and must immediately take remedial action to remedy any effects of such non-compliance.

6.2 **Non-compliance Reporting**

The Operational Certificate holder must, within 30 days of any non-compliance event, submit to the director a written report that includes, but is not necessarily limited to, the following:

a) all relevant test results obtained by the Operational Certificate holder related to the non-compliance,

b) an explanation of the most probable cause(s) of the non-compliance, and

c) a description of remedial action planned and/or taken by the Operational Certificate holder to prevent similar non-compliance(s) in the future.

The Operational Certificate holder must submit all non-compliance reporting required to be submitted under this section by email to the Ministry's Compliance Reporting Submission Mailbox (CRSM) at EnvironmentalCompliance@gov.bc.ca or as otherwise instructed by the director. For guidelines on how to report a non-compliance or for more information visit the Ministry website:

<https://www2.gov.bc.ca/gov/content?id=076C5CA3ABD342A784CC49EC78CBAE12>

6.3 **Non-compliance Reporting and Exceedances**

The Operational Certificate holder must cause each data submission required by this Authorization to include a statement outlining the number of exceedances of permitted discharges that occurred during the reporting period, the dates of each such exceedance, an explanation as to the cause of the exceedances, and a description of the measures taken by the Operational Certificate holder to rectify the cause of each such exceedance. If no exceedances occurred over the reporting period, the required statement may instead indicate that no exceedance of permitted discharges occurred during the reporting period.

6.4 **Spill Reporting**

The Operational Certificate holder must immediately report all spills to the environment (as defined in the Spill Reporting Regulation) in accordance with the Spill Reporting Regulation, which among other things, requires notification to Emergency Management BC at 1-800-663-3456.

7. **GLOSSARY**

Capitalized terms referred to in this authorization are defined in the attached Glossary. Other terms used in this authorization have the same meaning as those defined in the *Environmental Management Act* and applicable regulations.

7.1 **“Authorized Works”**

“Authorized Works” means Authorized Works as stated in Section 1.1.4;

7.2 **“BOD₅”**

“BOD₅” means the carbonaceous 5-day biochemical oxygen demand;

7.3 **"Province"**

“Province” means Her Majesty the Queen in right of British Columbia;

7.4 **"Regulatory Document"**

“Regulatory Document” means any document that the Operational Certificate holder is required to provide to the director or the Province pursuant to:

(i) this Authorization;

(ii) any regulation made under the *Environmental Management Act* that regulates the facility described in this Authorization or the discharge of waste from that facility; or

(iii) any order issued under the *Environmental Management Act* directed against the Operational Certificate holder that is related to the facility described in this Authorization or the discharge of waste from that facility;

7.5 **"Qualified Professional"**

“Qualified Professional” means an applied scientist or technologist specializing in an applied science or technology applicable to the duty or function, including, if applicable and without limiting this, agronomy, biology, chemistry, engineering, geology or hydrogeology and who:

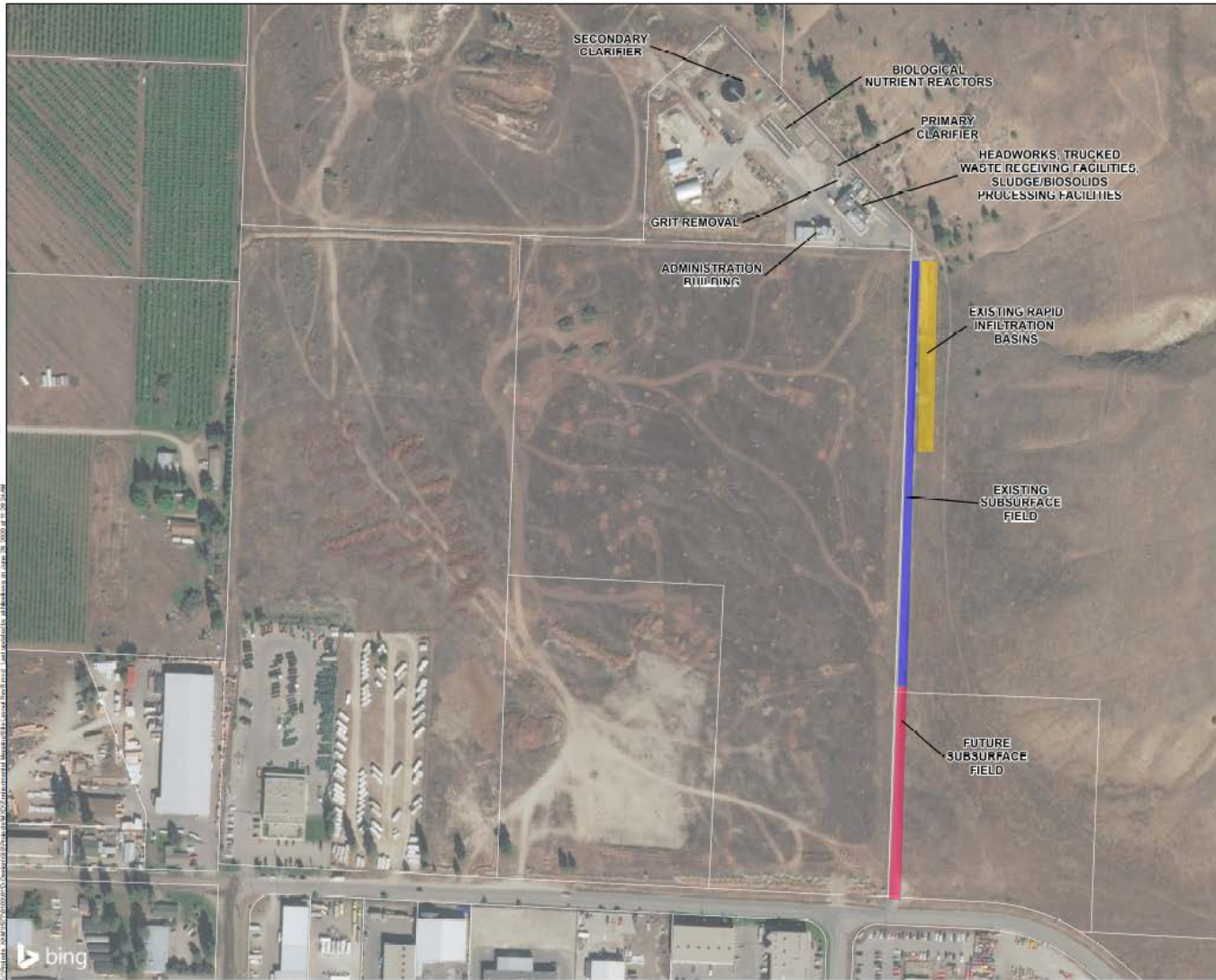
- i. is registered with the appropriate professional organization, is acting under that organization's code of ethics and is subject to disciplinary action by that organization, and
- ii. through suitable education, experience, accreditation and/or knowledge, may be reasonably relied on to provide advice within their area of expertise.

All documents submitted to the director by a Qualified Professional must be signed by the author(s).

7.6 **"Facility"**

“Facility” means the Wastewater Treatment Plant located in Lake Country, British Columbia.

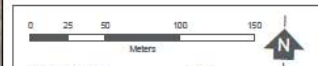
Site Plan



District of Lake Country

Site Layout

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.



Coordinate System: NAD 1983 UTM Zone 11N
 Scale: 1:2,750
 Data Sources:
 - Imagery provided by Bing
 - Parcels provided by DataBC

Project #: 1577.0103.01
 Author: CRIAK
 Checked:
 Status:
 Revision: A
 Date: 2020 / 6 / 29

