



**MINISTRY OF ENVIRONMENT  
AND CLIMATE CHANGE  
STRATEGY  
OPERATIONAL CERTIFICATE**

**11652**

*Under the Provisions of the Environmental Management Act*, and in accordance with the approved Regional District of Central Okanagan's Liquid Waste Management Plan for Area G and Westbank,

**REGIONAL DISTRICT OF CENTRAL OKANAGAN**

**1450 KLO ROAD  
KELOWNA, BC  
V1W 3Z4**

is authorized to discharge effluent from a municipal sewage collection and treatment system located at West Kelowna, British Columbia, to Okanagan Lake, and to discharge reclaimed water to the ground by irrigation 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 operational certificate supersedes and amends all previous versions of Operational Certificate 11652 issued under the *Environmental Management Act*.

**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.

**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

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)

Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

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.

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

“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.

## **1 AUTHORIZED DISCHARGES**

### **1.1 Authorized Source**

This section applies to the discharge of effluent from the WESTSIDE REGIONAL WASTEWATER TREATMENT FACILITY. The site reference number for this discharge is E104954.

1.1.1 The maximum discharge rate is 16,800 m<sup>3</sup>/day.

1.1.2 The characteristics of the discharge must not exceed the following criteria:

- (a) Carbonaceous 5-day Biochemical Oxygen Demand (BOD<sub>5</sub>)  
Maximum: 10.0 mg/L
- (b) Total Suspended Solids (TSS)  
Maximum: 10.0 mg/L
- (c) Total Phosphorus  
Maximum: 2.0 mg/L  
Annual Average: 0.20 mg/L

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

(d) Total Nitrogen  
Maximum: 10.0 mg/L  
Annual Average: 6.0 mg/L

(e) Fecal Coliform  
Maximum: 50 CFU (or MPN)/100mL

- 1.1.3 The discharge is authorized from Authorized Works, which are a sewage collection system, a biological nutrient removal tertiary treatment plant, chemical phosphorous removal facilities, ultra-violet disinfection, effluent irrigation facilities, a deep lake effluent outfall and related appurtenances approximately located as shown on Site Plan A and B.
- 1.1.4 The wastewater collection system services the City of West Kelowna, the District of Peachland, Westbank First Nation Reserves #9 and #10 and surrounding areas.
- 1.1.5 The location of the wastewater treatment facilities from which the wastewater is discharged is legally described as Lot A, District Lot 487, ODYD, Plan 40684.
- 1.1.6 The location of the outfall easement is District Lot 487, Plan 37997 and the location of the discharge of effluent to Okanagan Lake is approximately located as shown on Site Plan B.

## 1.2 **Authorized Source**

This section applies to the discharge of effluent from a RECLAIMED WATER IRRIGATION SYSTEM. The site reference number for this discharge is E231819.

- 1.2.1 There is no maximum authorized rate of reclaimed water that may be beneficially used for irrigation, provided there is no effluent surfacing, overland flow and groundwater breakout.
- 1.2.2 The characteristics of the reclaimed water are to comply with the Municipal Wastewater Regulation.
- 1.2.3 The discharge is authorized from Authorized Works, which are reclaimed water irrigation facilities and related appurtenances required for the beneficial use of the reclaimed water.

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

- 1.2.4 The location of the area where reclaimed water may be used for irrigation is described as West Kelowna and surrounding area. Actual authorization for a specific parcel of land to be irrigated is contingent upon the submission of a "Plan of Irrigation", prepared by a Qualified Professional, of that particular parcel to the director and their approval is obtained in writing. Reclaimed water may be used to irrigate the fenced area of the wastewater treatment plant grounds. Annual report to indicate areas under irrigation.
- 1.2.5 The Operational Certificate Holder must operate the reclaimed water irrigation facilities in accordance with the procedures described in the "Municipal Wastewater Regulation Reclaimed Water Guideline July 2013" manual, as amended or updated from time to time, or by alternative procedures as authorized by the director.

A copy of the above manual is available on the Ministry web page at:  
<http://www2.gov.bc.ca/gov/content/environment/waste-management/sewage/municipal-wastewater-regulation>.

### **1.3 Authorized Source**

This section applies to the discharge of primary effluent from the PEACHLAND SEWAGE COLLECTION SYSTEM to an emergency storage settling and infiltration facility. The site reference number for this discharge is E232463.

- 1.3.1 The average authorized rate of effluent discharge from the storage and settling tanks to the infiltration facility during an emergency discharge must not exceed the average volume of sewage normally pumped from Peachland to the Westside Regional Wastewater Treatment Plant via the Okanagan Lake sewage force main.
- 1.3.2 The discharge is authorized from Authorized Works, which are sewage pumps, force main, a series of storage tanks, infiltration beds and related appurtenances.
- 1.3.3 The location of the emergency storage and infiltration facility from which the discharge originates is Lot A - KAP 46706, ODYD approximately located as shown on Site Plan C.

## **2 GENERAL REQUIREMENTS**

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

## **2.1 Maintenance of Works**

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 and any shut down periods of the Authorized Works.

## **2.2 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](mailto:EnvironmentalCompliance@gov.bc.ca) email address or as otherwise instructed by the director.

## **2.3 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.

## **2.4 Process Modification**

The director must be notified prior to implementing changes to any process that may affect the quality and/or quantity of the discharge.

## **2.5 Qualified Professionals**

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

"Qualified Professional" means an applied scientist or technologist specializing in an applied science or technology applicable to the duty or function, including,

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

if applicable and without limiting this, agrology, biology, chemistry, engineering, geology or hydrogeology and who:

- (a) 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
- (b) through suitable education, experience, accreditation and/or knowledge, may be reasonably relied on to provide advice within their area of expertise.

## **2.6 Facility Classification and Operator Certification**

- 2.6.1 The Operational Certificate Holder must have the Authorized Works classified, and the classification must be maintained, by the Environmental Operators Certification Program (EOCP).
- 2.6.2 The Operational Certificate Holder must cause the Authorized Works to be operated and maintained by persons certified within and according to the program provided by the EOCP.
- 2.6.3 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.

## **2.7 Operation and Maintenance Manual**

- 2.7.1 The Operational Certificate Holder must implement and maintain an operation and maintenance manual which is prepared by a Qualified Professional for the wastewater collection, wastewater treatment, reclaimed water utilization and wastewater disposal works. The plan is be continually updated as necessary to reflect current operations.
- 2.7.2 The Operational Certificate Holder must retain a copy of the Operation and Maintenance Manual at the municipal wastewater treatment facility and be made available for inspection by a designated officer upon request.

## **2.8 Contingency Plan**

- 2.8.1 The Operational Certificate Holder must implement a contingency plan prepared by a Qualified Professional that will address the appropriate course of action to be taken in any pre-conceived emergency. The plan must include

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

toxic substances in plant influent, chlorine and sulphur dioxide leaks or spills and any potential point of concern in the collection, treatment and disposal systems. Attention is to be given to the public safety and protection of the environment. The plan is to be continually updated as necessary to reflect current operation.

- 2.8.2 The Operational Certificate Holder must retain a copy of the Contingency Plan at the treatment facility and be made available for inspection by a director or designated officer upon request.

## **2.9 Peachland Sewage System**

- 2.9.1 The Operational Certificate Holder must implement a “Leak Preparedness Plan” should a leak be detected in the force main through Okanagan Lake. The “Leak Preparedness Plan” must outline the steps to follow during such an event and contain all necessary information regarding pumps, valves, and other appurtenances necessary to divert the flows to the emergency storage and infiltration facility, as well as necessary emergency contacts to evaluate and begin repair of the leak. Emergency contacts must include consultants who specialize in the construction and repair of HDPE underwater pipelines, as well as a list of potential pump and haul operators.
- 2.9.2 The Operational Certificate Holder must implement a protocol for testing the force main through Okanagan Lake to ensure that there are no sewage leaks into the lake. The protocol must include means for ensuring that large leaks are immediately detected. Also to be included in the protocol is a schedule for performing a static test of the force main capable of detecting even small leaks. The frequency for static testing must be a minimum of once per year. Any leaks detected must trigger implementation of the “Leak Preparedness Plan” noted above. Use of the Emergency Storage Facility is authorized for storage of sewage during force main testing and pigging provided that no discharge is made to the infiltration beds.
- 2.9.3 In the event of detection of a leak in the Peachland force main in Okanagan Lake, the Operational Certificate Holder must immediately notify the Provincial Emergency Program as required in the “Spill Reporting Regulation” and the Director, divert flows to the emergency storage and infiltration facility, and must immediately implement its “Leak Preparedness Plan”. If it is anticipated that use of the facility will exceed a period of four hours, the Operational Certificate Holder must also arrange pump-and-haul to minimize

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

the settled sewage which will actually be discharged to the infiltration beds. Within forty-eight hours of detection of the leak, the Operational Certificate Holder must submit to the Director a report outlining the nature of the leak and outlining a course of action and schedule for repair.

- 2.9.4 The Peachland Emergency Storage Facility must be provided with sufficient tankage to provide a minimum of 1 day storage before use of the infiltration facility is authorized. A section in the Annual Report must be included to outline Emergency Storage use, capacity as related to daily flows, and an updated upgrading schedule designed to maintain a minimum of 1 day storage as the community grows.

## **2.10 Treatment Plant Sludge Wasting and Disposal**

The Operational Certificate Holder must dispose of sludge wasted from the treatment plant at a site and in a manner approved by the director, or as authorized by regulation under the *Environmental Management Act*.

## **2.11 Water Management and Conservation**

The Operational Certificate Holder must establish a water conservation program to encourage a reduction in the volume of domestic, industrial, and commercial wastewater discharged to the sewage collection system and:

- (a) Report annually of efforts made to seek active cooperation from the public and industry through the water conservation program to reduce the volume of wastewater discharged to the sewer collection system, and
- (b) Report annually on the effectiveness of the water conservation program at reducing the volume of domestic, industrial, and commercial wastewater discharged to the sewage collection system.

## **2.12 Wastewater Collection System – Infiltration, Inflow and Cross Connections**

The Operational Certificate Holder must cause the sewage collection system works to be inspected and maintained so as to minimize the possibility of cross connections between the storm sewer and sanitary sewer systems, to minimize infiltration of groundwater, to minimize inflow of water from basement sump pump and roof drains, and to minimize exfiltration of the collected wastewater from the collection system to the ground. Report of efforts made to reduce infiltration, inflow and cross-connections must be included in the annual report each year.

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region



### **2.13 Sanitary Sewer Bylaw**

Subject to being declared a Sewage Control Area under section 29 of the *Environmental Management Act*, and in order to minimize the potential effect of heavy metals or other toxic materials in the effluent and/or sludge, the Operational Certificate Holder and the Corporation of Peachland must prepare, or review and if necessary update, and implement a Sanitary Sewer Bylaw to regulate the input of such wastes to the wastewater collection system. The installation of devices to process household putrescible waste for disposal to the wastewater collection system should be prohibited. The Operational Certificate Holder is responsible for enacting a suitable sampling and monitoring program in support of this bylaw.

The Operational Certificate Holder is strongly advised to seek the active cooperation of the public through a proactive public education program.

### **2.14 Odour Control**

Should objectionable odours, attributable to the operation of the wastewater treatment facility, occur beyond the property on which the facility is located, the Operational Certificate Holder must undertake measures or additional works to reduce odour to acceptable levels.

### **2.15 Fencing**

The Operational Certificate Holder must erect and maintain a fence around the wastewater treatment plant and such other areas to prevent unauthorized access.

### **2.16 Signage**

The Operational Certificate Holder must cause a suitable sign to be erected at the main entrance to the site that must have the appropriate emergency contact person(s) and phone numbers for use by the general public or others.

### **2.17 Posting of Outfall**

The Operational Certificate Holder must erect and maintain a sign along the alignment of the outfall above the high-water mark. The Operational Certificate Holder must ensure that the sign meets the following criteria:

- (a) identifies the nature of the works;
- (b) indicates the length and depth of the outfall;

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

- (c) has a surface area of is at least 1 m<sup>2</sup>;
- (d) the colours of the lettering and the background of the sign contrast sufficiently with each other; and
- (e) is located such that the wording is clearly visible from both land and water.

## **2.18 Outfall Inspection**

2.18.1 The Operational Certificate Holder must cause the outfall to be inspected by November 1, 2026, and once every five (5) years thereafter by a qualified person to ensure it is in good working condition.

2.18.2 The Operational Certificate Holder must, within 30 days after each outfall inspection required under section 2.18.1, cause a Qualified Professional to prepare and submit an outfall inspection report to the director by email at [EnvAuthorizationsReporting@gov.bc.ca](mailto:EnvAuthorizationsReporting@gov.bc.ca), or as instructed by the director.

## **2.19 Annual Average Discharge in excess of 50,000 m<sup>3</sup>/day**

Environmental Protection staff has assessed the dilution capacity of Okanagan Lake relative to both the annual average inflow, as well as the volume of the Lake itself. Dilution of the effluent as a protection measure for both ecological and human health concerns reaches a preliminary level of concern when any individual outfall into Okanagan Lake approaches or exceeds 50,000 m<sup>3</sup>/day. Accordingly, once the annual average discharge of treated effluent from the Operational Certificate Holder's outfall in excess of 50,000 m<sup>3</sup>/day, the Operational Certificate Holder must undertake a comprehensive public review of its existing Liquid Waste Management Plan to explore available options to help reduce and/or mitigate the direct discharge of treated effluent to Okanagan Lake.

# **3 MONITORING REQUIREMENTS**

## **3.1 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,

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

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>

### **3.2 Analytical Procedures**

The Operational Certificate Holder must carry out analyses in accordance with procedures described in the "British Columbia Environmental Laboratory Manual (2020)", 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-environmental-laboratory-manual>.

### **3.3 Quality Assurance**

- 3.3.1 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.
- 3.3.2 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 \(gov.bc.ca\)](https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance/bc-environmental-laboratory-manual).
- 3.3.3 The Operational Certificate Holder must collect, prepare and submit for analysis by the analytical laboratory(ies) quality control (QC) samples for each parameter. As a minimum,
  - (a) The number of QC samples should be 20% of all samples collected (environmental + QC samples) within 48 hours of each other, and
  - (b) Include duplicate, field and trip blank samples for each parameter.

### **3.4 Flow Measurement**

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

The Operational Certificate Holder must maintain a flow measuring device and record once per day the effluent volume discharged to the Okanagan Lake and the volume utilized for irrigation over a 24-hour period.

### 3.5 **Effluent Sampling and Monitoring Program**

The Operational Certificate Holder must conduct the effluent sampling and monitoring program identified in section 3.5.

Monitoring Location: Discharge to the Okanagan Lake  
Site Reference Number: E104954

Parameter	Frequency	Type
Flow	Once per day over a 24-hr period or Continuous	In-line flow meter
Carbonaceous BOD	Monthly	Composite
COD	Weekly	Composite
TSS	Monthly	Composite
Fecal Coliforms	Monthly	Composite
E. Coli	Monthly	Composite
Total Phosphorus	Weekly	Composite
Ortho Phosphorus	Daily	Composite
Total Nitrogen	Weekly	Composite
Ammonia Nitrogen	Weekly	Composite
Nitrate/nitrite Nitrogen	Weekly	Composite
Organic Nitrogen	Weekly	Composite
Total Kjeldahl Nitrogen	Weekly	Composite
pH	Daily or Continuous	Composite or Meter

Composite Sample Type: The sample must consist of, at least, four grab samples collected over a 24-hour period at maximum flow and mixed to form a single sample or a flow proportional continuous sampler may be used.

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

### 3.6 **Peachland Emergency Storage and Infiltration Facility Sampling and Monitoring Program**

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

- 3.6.1 In the event that it is necessary to utilize the Peachland Emergency Infiltration Facility, the Operational Certificate Holder must collect a sample of effluent discharged from the storage tanks to the infiltration beds at maximum flow on the first day of discharge, then every second day at maximum flow until discharge to the beds stops. The EMS Site Number for these samples is E232463.
- 3.6.2 The Operational Certificate Holder must obtain analyses of the effluent sample for the following:
- (a) Total Suspended Solids (mg/L);
  - (b) Carbonaceous 5-day BOD (mg/L);
  - (c) Total Phosphorus and Ortho Phosphorus (all expressed as mg/L P);
  - (d) Total Nitrogen, Ammonia Nitrogen, Nitrate Nitrogen, Organic Nitrogen (all expressed as mg/L N);
  - (e) pH

### **3.7 Sludge Sampling and Monitoring Program**

- 3.7.1 The Operational Certificate Holder must obtain a representative sample of the sludge being produced at the treatment plant at least once every 6 months (EMS site number E231763).
- 3.7.2 The Operational Certificate Holder must obtain analyses consistent with the Organic Matter Recycling Regulation (OMMR) for Class B biosolids (Column 3 of Schedule 4, Quality Criteria) of the sludge sample for the following:
- (a) Arsenic, mg/kg;
  - (b) Cadmium, mg/kg;
  - (c) Chromium, mg/kg;
  - (d) Cobalt, mg/kg;
  - (e) Copper, mg/kg;
  - (f) Lead, mg/kg;
  - (g) Mercury, mg/kg;
  - (h) Molybdenum, mg/kg;
  - (i) Nickel, mg/kg;
  - (j) Selenium, mg/kg; and
  - (k) Zinc, mg/kg.

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

- 3.7.3 The Operational Certificate Holder may be required to conduct occasional full chemical analysis of the main cations and anions and other characteristics at the discretion of the Director.
- 3.7.4 The Operational Certificate Holder must install and maintain a system for measuring and recording the volumes of sludge produced, the location where the sludge was discharged, and the amount of sludge discharged at each location.

### **3.8 Sampling Facilities**

- 3.8.1 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 schedule specified in sections 3.4, 3.5, 3.6, and 3.7.
- 3.8.2 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.

### **3.9 Integrated Stormwater/Rainwater Management Program**

The Operational Certificate Holder must provide to the director a stormwater management planning report summarizing the Operational Certificate Holder's actions, pertaining to integrated stormwater/rainwater planning and implementation, which are consistent with the Liquid Waste Management Planning and Stormwater Planning guidance documents. The report must include, but not be limited to the following:

- (a) Inventories of the physical and biological systems to identify catchment and streams condition and identify areas at risk;
- (b) Component plans or priority actions to protect resources, resolve identified problems and accommodate land development and growth; and
- (c) An implementation program incorporating Phasing and Budgets, Community Education and provide an annual Performance and Monitoring report to the Director.

The stormwater management planning report must be submitted by April 30th of every year summarizing actions completed during the previous year. Based on the review of this report and any other information available (to the director)

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

related to the effects of the stormwater/rainwater on the receiving environment, the Director may require the Operational Certificate Holder to develop and implement a formal stormwater/rainwater management plan within a specified period.

### **3.10 Groundwater and Spray Irrigation Monitoring Program**

The Operational Certificate Holder must have a Qualified Professional assess and develop an irrigation plan for any and all sites that utilize treated effluent for irrigation purposes. The irrigation plan must clearly document appropriate agronomic loading rates for each site. Each site and irrigation plan should be reassessed every 5 years or whenever major changes to the site occur and must include auditing of irrigation duration and application rates. The first such evaluation is required within 2 years of the issuance of this operational certificate.

### **3.11 Lake Sampling and Monitoring Program**

A Lake Monitoring Program must be initiated consisting of the following components:

- 3.11.1 Establish two sampling sites, one down-current of the effluent diffuser within the initial dilution zone (EMS Site Number E231769: 49.805200; 119.638800) and the other in an appropriate location for background sampling (EMS Site Number E231770: 49.799800; 119.658100) or as acceptable to the Director. At each site collect discrete samples at depths of one metre, five metres and ten metres, then at each ten metre interval including twenty, thirty two and forty five metre depths, during March and September of each year.
- 3.11.2 Have the samples at 1, 5 and 10 metre depths analyzed by an accredited laboratory for the following:
  - (a) total and ortho phosphorus , expressed as mg/L P;
  - (b) total nitrogen, ammonia nitrogen, nitrate/nitrite nitrogen, organic nitrogen, and total Kjeldahl nitrogen, all expressed as mg/L N;
  - (c) ecoli bacteria, expressed as CFU/100 ML;
  - (d) chlorophyll a, expressed as ug/L;
  - (e) sodium and chloride expressed in mg/l;
  - (f) dissolved oxygen, expressed in mg/l;

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

- (g) temperature, expressed in degrees centigrade;
- (h) pH; and
- (i) phytoplankton taxonomy (cells/ml) to genus and species for dominant taxa and family for non-dominant taxa (1-10m composite sample).

Have the samples at 20, 32 and 45 metre depths analyzed by an accredited laboratory for the following:

- (a) total and ortho phosphorus , expressed as mg/L P;
- (b) total nitrogen, ammonia nitrogen, nitrate/nitrite nitrogen, organic nitrogen, and total Kjeldahl nitrogen, all expressed as mg/L N;
- (c) c) ecoli bacteria, expressed as CFU/100 ML;
- (d) d) sodium and chloride expressed in mg/l;
- (e) e) dissolved oxygen, expressed in mg/l;
- (f) f) temperature, expressed in degrees centigrade;
- (g) g) pH; and
- (h) h) phytoplankton taxonomy (cells/ml) to genus and species for dominant taxa and family for non-dominant taxa (20-45m composite sample).

3.11.3 Measure and record water clarity using a secchi disk and underwater viewing box at each of the above sites.

3.11.4 The Operational Certificate Holder must submit the proposed method of determining the locations to the Director for approval prior to the commencement of sampling.

3.11.5 Occasional full physical, biological, and chemical analysis of water, sediments and benthic organisms at the outfall location and at reference locations may be required at the discretion of the Director.

3.11.6 Results of the analyses must be forwarded to the Director within 30 days following receipt of the results by the Operational Certificate Holder. The results and trend analysis must also be included in the year-end report.

### **3.12 Basin-wide Collaborative Lake Monitoring Program**

The Operational Certificate Holder must participate in the development, funding and implementation of an Okanagan Lake collaborative monitoring program as per the most recent Okanagan Lake Collaborative Monitoring Agreement-

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region



Memorandum of Understanding. The monitoring program is intended to provide high quality, integrated and timely water quality information to enable sustainable environmental management of Okanagan Lake, and inform Liquid Waste Management Planning. Funding mechanisms and scope of work will be developed collaboratively with all appropriate stakeholders.

Lake monitoring required under section 3.11 of Operational Certificate 11652 is conditionally waived, subject to the Operational Certificate Holder participating in the basin-wide collaborative lake monitoring program as per the most recent Okanagan Lake Collaborative Monitoring Agreement- Memorandum of Understanding.

### **3.13 Modification of Monitoring Programs**

- (a) The monitoring programs in section 3 may only be modified with the prior written approval of the director; and
- (b) The modified monitoring program must be designed by a Qualified Professional.

## **4 REPORTING REQUIREMENTS**

The Operational Certificate Holder must collect and maintain data of analyses and flow measurements required under this authorization for inspection by an officer upon request.

### **4.1 Environmental Monitoring System (EMS) Reporting**

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.

### **4.2 Annual Report and Evaluation**

The Operational Certificate Holder must, on or before March 31<sup>st</sup> of each year, submit to the director an Annual Report for the previous calendar year prepared by a Qualified Professional that includes, but is not limited to:

- (a) A statement outlining the number of exceedances of permitted discharges that occurred during the reporting period, the dates of each such exceedance,

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

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 must indicate that no exceedance of permitted discharges occurred during the reporting period;

- (b) a review and interpretation of the monitoring data for the previous calendar year,
- (c) a graphical analysis with interpretation of any trends in monitoring results,
- (d) an evaluation of the onsite laboratory analysis, and quality and precision based on the results of the quality assurance program required herein,
- (e) an evaluation of the performance of the treatment works and identify any changes,
- (f) an implementation schedule for any alterations to the treatment and disposal works which may impact the discharge under this authorization,
- (g) an update on the efforts to reduce volume of domestic, industrial and commercial wastewater discharged to the sewage collection system stated in 2.11,
- (h) an update on the efforts to reduce infiltration, inflow and cross connections stated in 2.12,
- (i) an update on the efforts to administer the Sanitary Sewer and Storm Sewer bylaw. Include as an attachment, any amendments to the influent wastes bylaw(s) that have been made during the past year;
- (j) Records of the following:
  - (i) The volume of effluent discharged to the Okanagan Lake outfall and the volume of effluent utilized for irrigation;
  - (ii) The duration, intensity, acreage, location and type of reclaimed wastewater irrigation;
  - (iii) Withdrawal of sludge from the wastewater treatment plant, records of analyses and the location(s) used for disposal and/or utilization;
  - (iv) All nutrients reported in kilograms discharged to Okanagan Lake monthly and during the last calendar year;

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

- (v) Peachland force main mag meter readings and static testing of the force main and annually submit the data, suitably tabulated, to the Director. Include as an attachment an updated copy of the force main “Leak Preparedness Plan” highlighting any updates to the plan;
- (vi) Peachland emergency storage and infiltration facility and annually submit the data, suitably tabulated, to the Director. Include as an attachment an updated calculation of storage capacity as related to daily flows, and an updated upgrading schedule designed to maintain a minimum of 1 day storage as the community grows;
- (vii) Revised Contingency Plan, when applicable.

The Annual Report must be submitted to the director by email at [EnvAuthorizationsReporting@gov.bc.ca](mailto: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 Regional District of Central Okanagan’s website.

#### **4.3 Non-compliance Notification**

The Operational Certificate Holder must immediately notify the director by email at [EnvironmentalCompliance@gov.bc.ca](mailto: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.

#### **4.4 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](mailto:EnvironmentalCompliance@gov.bc.ca), or as otherwise instructed by the director.

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

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=076C5CA3ABD342A784CC49EC78CB&AE12>

Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)



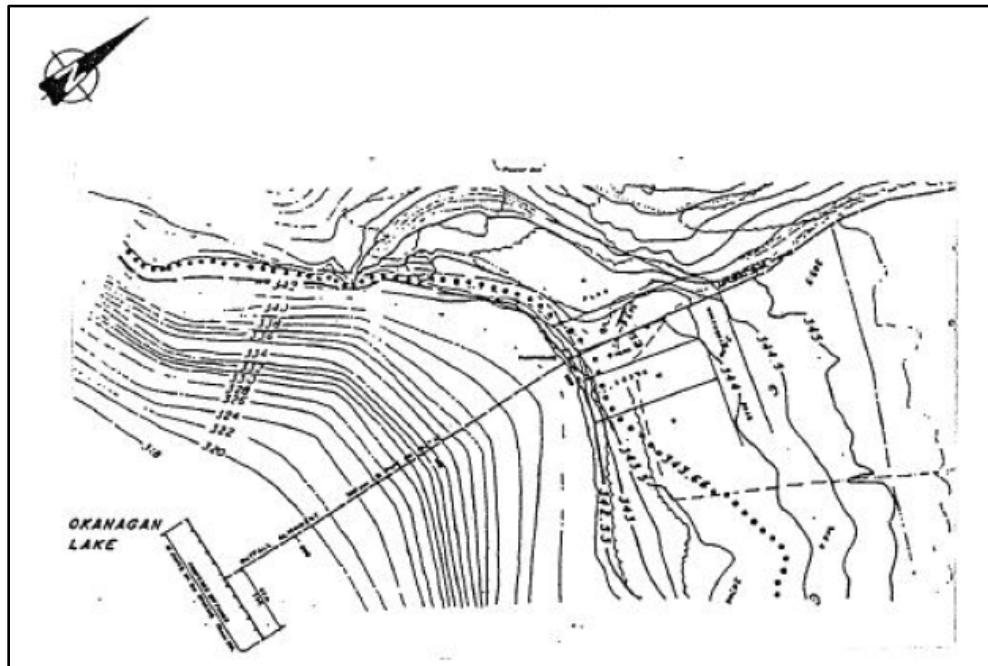
Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

Architectural floor plan of the main building at the Naval Air Station, Alameda, California. The plan shows various rooms including Secondary Classrooms, Instructional Rooms, Laboratories, and a Gymnasium. It also includes a compass rose and a north arrow.

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Operational Certificate Number: 11652

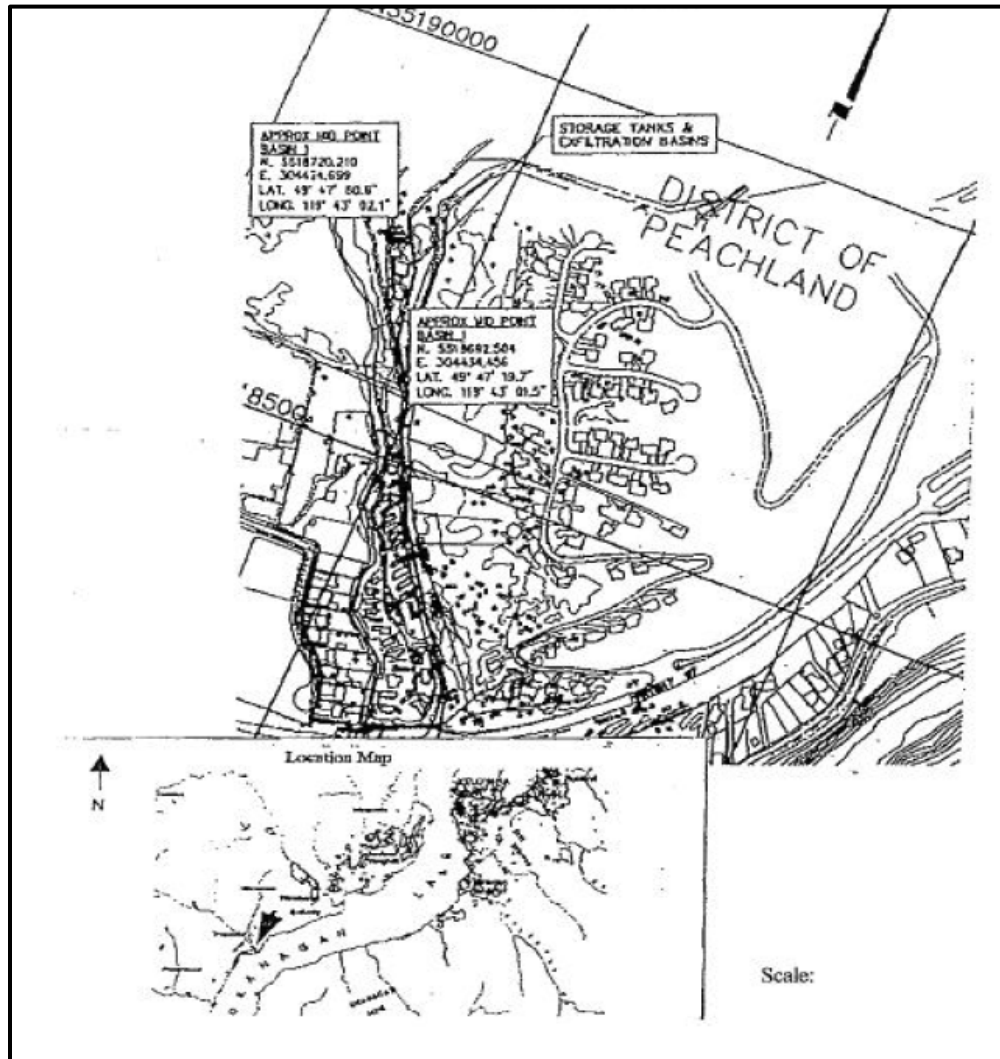
## Site Plan B



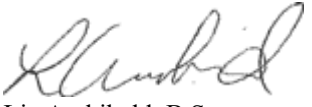
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Date amended: December 15, 2021  
(most recent)

Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

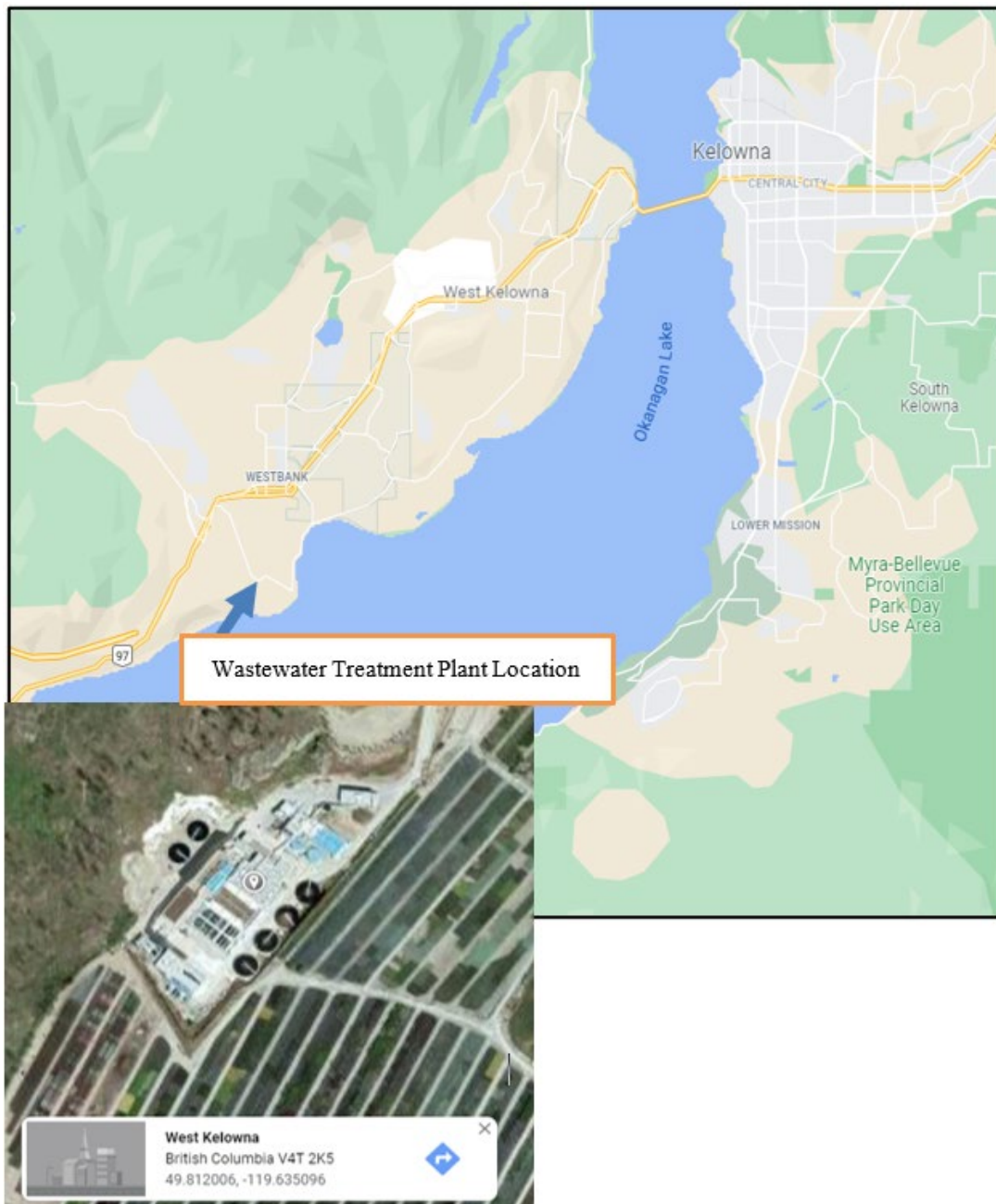
Site Plan C



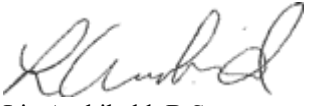
Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)

  
Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region

## Location Map



Date issued: August 28, 1992  
Date amended: December 15, 2021  
(most recent)

  
Liz Archibald, B.Sc.  
for Director, *Environmental Management Act*  
Authorizations - South Region