

**YUKON WATER BOARD**

Pursuant to the *Waters Act* and *Waters Regulation*, the Yukon Water Board hereby grants a Type B water licence for a municipal undertaking to:

Government of Yukon  
P.O. Box 2703  
Whitehorse, YT Y1A 2C6

**LICENCE NUMBER:** MN02-046

**LICENCE TYPE:** B

**UNDERTAKING:** MUNICIPAL

**LOCATION:** Km 1755, Alaska Highway

**MAP CO-ORDINATES:** Latitude: 61°22'N Longitude: 139°03'W

**PURPOSE:** Burwash Landing Sewage Treatment and Disposal Facility

**EFFECTIVE DATE:** The effective date of this Licence shall be the date on which the signature of the Chairperson of the Yukon Water Board is affixed.

**EXPIRY DATE:** August 12, 2013

This Licence shall be subject to the restrictions and conditions contained herein and to the restrictions and conditions contained in the *Waters Act* and the *Waters Regulation* made thereunder.

## PART A - GENERAL CONDITIONS

### Definitions

1.
  - a) "the *Act*" means *Waters Act* and any amendments thereto.
  - b) "Application" and "Water Use Application" mean Water Use Application MN02-046, including any additional submissions and/or revisions, submitted to the Board by the Licensee, up to the date of the Board's decision.
  - c) "Board" means the Yukon Water Board.
  - d) "Inspector" means any person designated as an Inspector under the *Act*.
  - e) "Natural Boundary" means the visible high water mark of any lake, river, stream or other body of water where the presence and action of water is so common and usual and so long continued as to mark upon the soil of the bed of the lake, river, stream or other body of water a character distinct from that of the banks thereof, both in respect to vegetation and in respect to the nature of the soil itself. In addition, the best estimates of the edge of dormant or old side channels and marsh areas are considered to be Natural Boundaries.
  - f) "the *Regulation*" means the *Waters Regulation* made under the *Act*.
  - g) "Waste" means any substance as defined in Section 1 of the *Act*.
  - h) "Watercourse" means any stream, lake, pond, river, creek, spring, ravine, or swamp whether ordinarily containing water or not.
  - i) "Wetted Perimeter" means the horizontal extent of the present water level while the work is taking place.

### Representations, Warranties and Undertakings

2. The Board has relied on the representations, warranties and undertakings provided by the applicant in the material filed in the Application. Such representations, warranties and undertakings are considered by the Board to be a part of the licence, but shall be subject to, and may be modified by the conditions of the licence.

### Other Laws

3. No condition of this licence limits the application of any other federal, territorial, first nation or municipal legislation.

Correspondence

4. Where any direction, notice, order, or report under this licence is required to be in writing, it shall be given:
- (a) To the Licensee, if delivered, faxed or mailed by registered mail to the following address:

Government of Yukon  
Community Services  
Community Development Branch  
P.O. Box 2703  
Whitehorse, YT Y1A 2C6  
Fax: (867) 393-6216

and shall be deemed to have been given to the Licensee on the day it was delivered or faxed, or seven (7) days after the day it was mailed, as the case may be.

- (b) To the Board, if delivered, faxed or mailed by registered mail to the following address:

Yukon Water Board  
Suite 106, 419 Range Road  
Whitehorse, Yukon Y1A 3V1  
Fax: (867) 456-3890

and shall be deemed to have been given to the Board on the day it was delivered or faxed, or seven (7) days after the day it was mailed, as the case may be.

If normal mail service is interrupted by a strike, slowdown, force majeure or other cause, a notice sent by registered mail will not be deemed to be received until actually received and the party sending the notice shall, if possible, deliver such notice by other means in order to ensure prompt receipt thereof.

Non-Compliance

5. In the event that the Licensee fails to comply with any provision or condition of this licence, the Board may, subject to the *Act*, cancel the licence.

Deleterious Substances

6. No deleterious substances shall be deposited or allowed to be deposited into any Watercourse. This includes, but is not limited to, fuels, coolants, hydraulic fluids and lubricants.
7. Fuel, lubricants, hydraulic fluids, coolants, equipment and materials shall be stored and/or transferred a minimum of thirty (30) metres from the Natural Boundary of any Watercourse.

Other Uses

8. If, subsequent to the issuing of this licence, the Licensee uses water and/or deposits Waste in one or more ways not authorized in this licence, and the combined effect of those uses and/or deposits of Wastes, as determined by an Inspector:
- a) has no potential for significant adverse environmental effects,
  - b) does not interfere with existing rights of other water users or Waste depositors, and
  - c) satisfies the criteria set out in column 2 of Schedule 8 of the *Regulation*,

no amendment to this licence will be required for that use of water and/or deposit of Waste.

Spills and Unauthorized Discharges

9. The Licensee shall immediately contact the 24-hour Yukon Spill Report number (867) 667-7244 and implement the spill contingency plan, should a spill or an unauthorized discharge occur. A detailed written report on any such event, including but not limited to, dates, quantities, parameters, causes and other relevant details and explanations, shall be submitted to the Board not later than ten (10) days after the occurrence.
10. All personnel shall be trained in procedures to be followed in the operating plan and procedures to be followed and the equipment to be used in the containment of a spill.
11. The spill contingency plan shall be posted on site for the duration of the works.

Reports

12. Unless otherwise specified in this licence, all monitoring data and reports shall be submitted to the Board in an unbound form that is reproducible by standard photocopier and shall be accompanied by five (5) copies.
13. All monitoring data and reports shall be submitted in digital form on computer diskette using an IBM compatible format that is readable using commonly available software.

Annual Reports

14. Annual reports shall be submitted to the Board by the Licensee. The initial report shall cover the period from the effective date of this licence to December 2003 and shall be submitted to the Board on or before March 31, 2004. Subsequent reports shall cover the period from January 1 to December 31 of each year and shall be submitted to the Board on or before the following March 31<sup>st</sup>.
15. Annual reports shall include the information required by this licence and by the *Regulation*, including, but not limited to:
- a) a record of construction activities for the year reported;
  - b) data collected as required by this licence;
  - c) details of the methods, procedures and standards used in the data collection and sample testing;

- d) an analysis and interpretation of the collected data by an individual qualified to do so;
- e) a detailed record of the operation of the sewage treatment and disposal facilities, including operational difficulties;
- f) physical structure inspection reports, including recommendations for maintenance, repairs and improvements to the physical works associated with the sewage treatment and disposal facility;
- g) details of any maintenance, repairs or improvements to physical works, including details of how all recommendations from inspection reports have been addressed;
- h) the level of sludge in the treatment lagoons;
- i) the location of monitoring wells established during the year reported,
- j) details of any discharge from the wetland to the infiltration basin,
- k) the identification and a description of the location(s) of monitoring wells BL-6 and BL-7;
- l) inspection results, monitoring and surveillance data, including photographs, repairs or plans for modification; and
- m) any other information or reports required by this licence or the *Regulation*.

#### Term of Licence

- 16. The term of this licence is for the period from the effective date to August 12, 2013.
- 17. Notification, including the name and phone number of the field supervisor and a detailed construction schedule, shall be provided to the Board, in writing, ten (10) days prior to the start of construction of any structure or facility.

### **PART B – OPERATING CONDITIONS**

- 18. Subject to the conditions of this licence, the Licensee is hereby authorized to:
  - a) construct a wastewater treatment and disposal facility;
  - b) collect, store and treat sewage in the wastewater treatment facility;
  - c) discharge treated effluent from the wastewater treatment facility to the wetlands from May 15 to September 30 of each year;
  - d) discharge from the wetlands to the south infiltration basin;all as described in the Application and subject to the conditions of this licence.
- 19. Where there is a discrepancy between the Application and this licence, the conditions of this licence shall prevail.
- 20. Construction or installation of associated works authorized by this licence shall occur on property that the Licensee has the right to enter upon and use for that purpose.
- 21. The Licensee shall operate and maintain the sewage collection, sewage treatment and disposal systems in a manner that is consistent with standard municipal practices for the type of system being used.

22. Sewage may only be conveyed to the sewage treatment and disposal facility by truck or similar conveyance.
23. Operators transporting septage shall be properly trained in the transportation and handling of hazardous substances and shall follow the requirements of the Government of Yukon

Standards for Transportation of Sewage.

24. Effluent shall only be discharged from the wastewater treatment facility to the wetlands and the infiltration basin. No effluent shall be allowed to directly enter the surface waters of Copper Joe Creek.
25. The Licensee shall notify the Board at least twenty one (21) days prior to commencing any effluent discharge from the lagoon to the wetland.

Sludge Disposal

26. The Licensee shall submit to the Board, at least thirty (30) days prior to the disposal of any sludge, details of the proposed method of removal and disposal.
27. All sludge disposal areas operated by the Licensee shall be located, posted and fenced so as to adequately ensure public safety.
28. The Licensee shall monitor sludge accumulation in the lagoons annually and shall remove sludge as required to maintain lagoon effectiveness.

**PART C - DESIGN AND CONSTRUCTION**

29. The design of all structures and facilities associated with the project shall be carried out using sound engineering practices. All drawings and specifications submitted to the Board shall be sealed by a Professional Engineer licensed to practice in Yukon.
30. All construction shall be carried out in accordance with the designs, drawings and procedures submitted to the Board.
31. The sewage treatment disposal facility shall be constructed no less than 350 metres from any residence. The south infiltration basin shall be constructed no less than 70 metres from the natural boundary of Copper Joe Creek.
32. Vegetative and/or treed buffer zones shall be maintained between the sewage treatment and disposal facility and the Northwestel site and Alaska Highway as described in the Application.
33. Public access to the lagoons and sludge drying area shall be restricted by fencing and lockable gate(s). Fences shall be posted with signs warning of human health hazards associated with the facility.

34. Upon completion of construction works, disturbed work site areas shall be recontoured and revegetated with appropriate reclamation seeds and/or plants so as to ensure the establishment of stable vegetated areas.

Notices, Designs and Drawings

35. Final detailed design drawings, construction plans, procedures and specifications for any structure and facilities authorized by this licence shall be submitted to the Board at least ninety (90) days prior to the proposed date of commencement of construction of each proposed structure or facility. Structures and facilities shall include, but are not limited to, wastewater treatment facilities, impoundments, drainage works, diversions authorized by this licence or the *Regulation*.
36. Final detailed designs shall conform with the designs submitted in the Application.
37. Final as-constructed (record) drawings of any structures and facilities shall be submitted to the Board within one hundred and twenty (120) days of completion of construction of the structures.
38. During construction, where site conditions require minor design modifications to a structure or facility authorized by this licence, the Licensee shall provide written notification to the Board, in advance of implementation, of the details of the modifications or variations from the final designs and specifications previously submitted to the Board. The notice shall include an explanation of the reasons for the change and an assessment of the potential impact on the performance of the structure. The notice shall be sealed by a Professional Engineer licenced to practice in Yukon.

Operating Plan

39. Thirty (30) days prior to initiating use of the wastewater treatment and disposal facility, the Licensee shall submit to the Board an Operating Plan. The facility shall be operated in accordance with that plan.
40. The Operating Plan must include, at a minimum, the following components:
- a) Protocols for collection, transport, handling and disposal of wastewater;
  - b) Spill contingency plans and programs;
  - c) Protocols for the discharge of effluent from the storage lagoon to the wetlands;
  - d) Protocols for the discharge of the wetlands to the infiltration basin, if applicable;
  - e) Training programs;
  - f) Protocols for sludge removal, handling, drying and disposal;
  - g) Facility inspection protocols and procedures;
  - h) Protocols for completing monitoring and surveillance requirements;
  - i) Protocols for maintaining sufficient winter water levels in lagoons;
  - j) Protocols for draw-down of lagoons; and
  - k) Protocols for maintenance of facility.

**PART D – EFFLUENT QUALITY STANDARDS**

41. All effluent discharged at the overflow from the final hydraulic control structure at the downstream end of the wetlands (location BL-3), shall meet the following standards:

PARAMETER	MAXIMUM CONCENTRATION OF ANY GRAB SAMPLE
BOD <sub>5</sub>	15 mg/L
pH	6 – 9
Oil and Grease	Not detectable
Faecal Coliforms	20,000 counts/100 mL
Ammonia	5 mg/L
Non Filterable Residue	15 mg/L
Bioassay (LC <sub>50</sub> static 96 hr. bioassay)	non toxic at 100% concentration

**PART E – MONITORING AND SURVEILLANCE**

42. The Licensee shall comply with the following monitoring and surveillance program:

a) LOCATIONS OF SAMPLING STATIONS:

Station	Description
BL-2	Grab sample of effluent from storage lagoon(s) to wetlands
BL-3	Grab sample from wetland D2 discharge (at hydraulic control structure or ponded water)
BL-4	Grab sample from Copper Joe Creek upstream of the facility at station BLW-5
BL-5	Grab sample from Copper Joe Creek downstream of the facility at station BLW-6
BL-6	Groundwater well to be installed and located up gradient of wetland hydraulic control structure
BL-7	Groundwater well to be installed and located down gradient of wetland hydraulic control structure
BL-8	Groundwater well TP48-east of wetland D2, near Copper Joe Creek
BL-9	Groundwater well TP49-east of wetland D2, near Copper Joe Creek



## b) MONITORING PROGRAM:

<b>Sampling Location/Parameter</b>	<b>BL-2</b>	<b>BL-3</b>	<b>BL-4</b>	<b>BL-5</b>	<b>BL-6</b>	<b>BL-7</b>	<b>BL-8</b>	<b>BL-9</b>
Flow	D	WDi	2Di	2Di	-	-	-	-
Water Surface Elevation	-	-	-	-	2A	2A	2A	2A
ICP Total Metals	2Di	2Di	2Di	2Di	-	-	2A	2A
pH	2Di	2Di	2Di	2Di	-	-	2A	2A
BOD <sub>5</sub>	2Di	2Di	2Di	2Di	-	-	2A	2A
NFR	2Di	2Di	2Di	2Di	-	-	-	-
Oil & Grease	2Di	2Di	2Di	2Di	-	-	2A	2A
Total N	2Di	2Di	2Di	2Di	-	-	2A	2A
NH <sub>4</sub>	2Di	2Di	2Di	2Di	-	-	2A	2A
NO <sub>2</sub> /NO <sub>3</sub>	2Di	2Di	2Di	2Di	-	-	2A	2A
Dissolved Oxygen	2Di	2Di	2Di	2Di	-	-	2A	2A
Total PO <sub>4</sub>	2Di	2Di	2Di	2Di	-	-	2A	2A
Conductivity	2Di	2Di	2Di	2Di	-	-	2A	2A
Total Coliforms	2Di	2Di	2Di	2Di			2A	2A
Faecal Coliforms	2Di	2Di	2Di	2Di	-	-	2A	2A

**LEGEND:** D = Daily during discharge from lagoon, 2Di = 30 & 90 days after commencing discharge from the lagoon, WDi = Weekly if discharging from lagoon, 2A = Twice Annually in mid May and late September.

43. The Licensee shall comply with the following physical monitoring program and shall submit any data, information, or observations collected and interpretations made as part of the annual report:
- Inspect the sewage treatment facility monthly and repaired as required;
  - Monitor sludge accumulation in anaerobic lagoon annually;
  - Monitor the volume of effluent discharged from the storage lagoon to the wetlands weekly during discharge;
  - Monitor the solution level within the storage lagoon(s) monthly;
  - Monitor the volume of influent to anaerobic lagoon daily, or when deposited;
  - Monitor the D1/D2 wetland vegetation (description of changes in wetland vegetation) annually;
  - Monitor elevations of survey control points annually;
  - Monitor of Copper Joe Creek dike annually.

44. All data collection and analysis shall be conducted in accordance with the most recent edition of Standard Methods for the Examination of Water and Wastewater, prepared and published jointly by the American Water Works Association and the Water Pollution Control Federation.
45. All sewage lagoons and hydraulic control structures shall be inspected annually, by June 30, by a Professional Engineer licenced to practice in Yukon. The results of the inspection, including all problems identified, photographs taken, remedial measures proposed, and remedial measures implemented, shall be compiled in a report that shall be submitted to the Board as part of the annual report.
46. Survey control points shall be installed to monitor potential settlement of the lagoon dykes and the Licensee shall submit to the Board within ninety (90) days of construction:
- a) a plan indicating the location of all survey control points;
  - b) a description of the location for each survey control point installed.

#### **PART F - SITE DECOMMISSIONING AND RESTORATION**

47. The Licensee shall submit a decommissioning plan to the Board, ninety (90) days prior to commencing decommissioning activities. The Licensee shall not implement the plan until notified by the Board to do so.
48. As part of final decommissioning, all disturbed ground surfaces shall be re-graded in a manner which is consistent with the topography of the site and which prevents erosion and surface runoff from carrying sediment into any Watercourse. Where soil conditions permit, disturbed areas shall be re-vegetated with appropriate reclamation seeds and/or plants.
49. All wastewater treatment facility materials, equipment, temporary structures and debris shall be removed from the site as part of final decommissioning of the facility.

Dated this 03 day of September 2003 Approved:

Witness

Chairperson

YUKON WATER BOARD

**YUKON WATER BOARD**

Pursuant to the *Waters Act* and *Waters Regulation*, the Yukon Water Board hereby grants a Type B water licence for a Municipal undertaking to:

Department of National Defence  
Whitehorse Cadet Camp Training Centre  
45 Fireweed Drive  
Whitehorse YT Y1A 5T8

**APPLICATION:** MN00-035-2

**LICENCE NUMBER:** MN00-035

**AMENDMENT:** This licence shall be deemed to be amendment 2 of licence number MN00-035, including MN01-041 as amendment 1.

**LICENCE TYPE:** B **UNDERTAKING:** Municipal

**WATER MANAGEMENT AREA:** 2

**LOCATION:** Whitehorse

**MAP CO-ORDINATES:** Latitude: 60° 35' 57" N Longitude: 134° 57' 06" W

**PURPOSE:** Deposit of a waste by means of septic tanks and wastewater tanks which ex-filtrate to ground through septic fields and leach pits, as proposed in water use applications MN00-035-2, MN01-041 and MN00-035.

**EFFECTIVE DATE:** The effective date of this licence shall be the date on which the signature of the Chairperson of the Yukon Water Board is affixed.

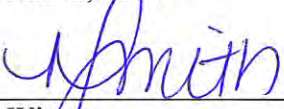
**EXPIRY DATE:** September 18, 2026

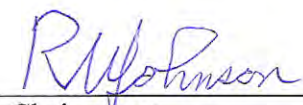
This licence shall be subject to the restrictions and conditions contained herein and to the restrictions and conditions contained in the *Waters Act* and the *Waters Regulation* made thereunder.

Dated this 19<sup>th</sup> day of

Approved by:

March, 2014

  
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Witness

  
\_\_\_\_\_  
Chairperson  
YUKON WATER BOARD

**PART A - DEFINITIONS**

“Act” means *Waters Act* and any amendments thereto.

“Application” means Water Use Applications MN00-035-2, MN01-041 and MN00-035, including any additional submissions and/or revisions submitted to the Yukon Water Board by the Licensee, up to the date of the Board’s decision.

“Board” means the Yukon Water Board.

“Groundwater Monitoring Program” means the *Groundwater Monitoring Program, Whitehorse Cadet Summer Training Center, Boyle Barracks* that was submitted as part of the Application and included in Water Use Register MN00-035-2 as exhibit 6.2, and any subsequent revisions.

“Inspector” means any person designated as an Inspector under the Act.

“Regulation” means the *Waters Regulation* made under the Act.

“Spill Contingency Plan” means the *Boyle Barracks Hazardous Materials and Spill Contingency Emergency Response Plan for the Septic Field Replacement Project* that was submitted as part of the Application and included in Water Use Register MN00-035-2 as exhibit 1.3, and any subsequent revisions.

“Waste” means any substance as defined in the Act.

“Watercourse” means any stream, lake, pond, river, creek, spring, ravine or swamp whether ordinarily containing water or not.

**PART B - GENERAL CONDITIONS**

1. The Licensee shall ensure a copy of this Licence is maintained at the site during operations at all times.

Other Laws

2. No condition of the water use licence limits the applicability of any statutory authority.
3. All construction or installation of works authorized by this licence shall occur on property that the Licensee has the right to enter upon and use for that purpose.

Correspondence

4. Where any direction, notice, order or report under this licence is required to be in writing, it shall be given:

- a) To the Licensee, if delivered, or mailed by registered mail to the following address:

Department of National Defence  
Whitehorse Cadet Camp Training Centre  
45 Fireweed Drive  
Whitehorse YT Y1A 5T8

and shall be deemed to have been given to the Licensee on the day it was delivered or or 7 days after the day it was mailed, as the case may be.

- b) To the Board, if delivered, faxed or mailed by registered mail to the following address:

Yukon Water Board  
Suite 106, 419 Range Road  
Whitehorse YT Y1A 3V1  
Fax: (867) 456-3890

and shall be deemed to have been given to the Board on the day it was delivered or faxed, or 7 days after the day it was mailed, as the case may be.

- c) The Board or the Licensee may, by notice in writing, change its address for delivery.

#### Non-Compliance

5. In the event that the Licensee fails to comply with any provision or condition of this licence, the Board may, subject to the Act, cancel the licence.
6. Except as authorized by this licence, no Waste shall enter any Watercourse as a result of any operation carried out the by the Licensee.

#### Spills and Unauthorized Discharges

7. Where a spill or an unauthorized discharge occurs, that is of a reportable quantity under the Yukon Spills Regulations, the Licensee shall immediately contact the 24-hour Yukon Spill Report number, (867) 667-7244 and implement the Spill Contingency Plan. A detailed written report on any such event including, but not limited to, dates, quantities, parameters, causes and other relevant details and explanations, shall be submitted to the Board not later than 10 days after the occurrence.
8. The Licensee shall apply the relevant procedures in the Spill Contingency Plan. The Licensee shall revise the Spill Contingency Plan annually and shall provide a summary of that review, including any revisions to the plan, as a component of the annual report.

9. The Licensee shall maintain a log book of all spill or unauthorized discharge occurrences, including spills that are less than the reportable quantities under the *Yukon Spills Regulations*. The log book shall be made available at the request of an Inspector. The log book shall include, but not necessarily be limited to the:
  - a) date and time of the spill;
  - b) substance spilt or discharged;
  - c) approximate amount spilt or discharged;
  - d) distance between the spill or discharge and the nearest Watercourse; and
  - e) remedial measures taken to contain and clean-up the spill area or to cease the unauthorized discharge.
10. The Licensee shall include a summary of all spills or unauthorized discharges that occurred during the year reported, as part of the annual report.
11. All personnel shall be trained in procedures to be followed and the equipment to be used in the containment of a spill.
12. Prior to the commencement of construction, the Licensee shall update the Spill contingency Plan and provide the updated plan to the Board.
13. The Spill Contingency Plan shall be posted on site for the duration of the works.
14. Ten days prior to construction, the Licensee shall submit material safety data sheets to the Board for all petroleum products and/or hazardous materials that are to be present during the undertaking.

#### Fuel Storage and Transfer

15. Fuel, lubricants, hydraulic fluids, coolants and similar substances shall be stored and/or transferred a minimum of 30 metres from the Natural Boundary of any Watercourse, in such a way that said substances are not deposited in waters.

#### Annual Reports

16. The Licensee shall submit annual reports to the Board. Reports shall be submitted on or before February 28 of the year following the year reported. The report shall include the information required by the Regulation including, but not necessarily limited to:
  - a) daily measurements and recordings of water consumption for the Whitehorse Cadet Summer Training Centre for the period of January 1 – December 31 of each year;
  - b) daily measurements and recordings of water consumption in Headquarters Building D-1 for the period of January 1 – December 31 of each year;
  - c) daily records of permanent staff and cadet population for the period of January 1 – December 31 of each year;
  - d) groundwater elevation data as measured in September of each year;

- e) groundwater analysis results from the samples taken in September of each year and summary of actions to be taken if results exceed Canadian Drinking Water Quality Guidelines;
- f) updated site plans showing any improvements made to the facility infrastructure, including engineering drawings of any improvements made to existing septic systems and disposal fields;
- g) details of any improvements planned for the following year;
- h) review and summary of the Spill Contingency Plan including revisions to the plan if required;
- i) summary of all spills or unauthorized discharges, and
- j) description of the disposal of any hazardous materials.

#### Reports

- 17. The Licensee shall provide to the Board one unbound, single-sided, paper copy of all reports required by this licence. All reports must be reproducible by standard photocopier.
- 18. The Licensee shall upload electronic copies of all reports required by this licence to the Yukon Water Board's online licensing registry, Waterline. Electronic copies shall be submitted in one of the following formats: MS Word, MS Excel, or Adobe .pdf format. Water quality results uploaded to Waterline must be presented in MS Excel.

### **PART C - OPERATING CONDITIONS**

#### Description of Water Use and Waste Deposit

- 19. The Licensee is hereby authorized to:
  - a) obtain 160 cubic metres of water per day, from a groundwater well; and
  - b) use groundwater for water supply; and
  - c) deposit of a waste by means of septic tanks and wastewater tanks which ex-filtrate to ground through septic fields and leach pits;

as described in the Application and subject to the conditions of this licence. Where there is a discrepancy between the Application and the terms of this licence, the terms of this licence shall prevail.

- 20. All water supply, sewage collection, sewage treatment and sewage disposal systems shall be maintained in good repair and in a manner which is consistent with generally accepted practices for the types of systems being used.

#### Waste Substances

- 21. Waste substances shall be used, transported, stored or disposed of in such a manner that they are not deposited in or allowed to be deposited into any watercourse or on any surrounding land.

22. At a minimum, all septic tanks shall be pumped out at least once during each year.

#### **PART D – MONITORING AND SURVEILLANCE**

23. The Licensee shall implement the Groundwater Monitoring Program.
24. All data collection shall be conducted in accordance to a nationally recognized sampling protocol (e.g. CCME Protocols Manual for Water Quality Sampling in Canada, 2011).

#### **PART E – PLANS, DESIGNS AND CONSTRUCTION**

##### Plans and Designs

25. The Licensee shall submit an updated Groundwater Monitoring Program as part of the February 28, 2015 annual report that includes as-constructed details of new groundwater monitoring wells, GPS coordinates of all wells, and updated site plans showing the as-built septic system at Headquarters Building D-1 and all groundwater monitoring well locations.
26. The Licensee shall submit as-built drawings of the constructed septic system at Headquarters Building D-1, as well as a final commissioning report and soil testing results sealed by a Professional Engineering licensed to practice in the Yukon, as part of the February 28, 2015 annual report.
27. The Licensee shall submit a copy of the Standard Operating Procedures for the Whitehorse Cadet Camp's new and existing septic systems as part of the February 28, 2015 annual report

##### Construction

28. All works associated with the undertaking shall be maintained in good repair.
29. Construction and/or maintenance equipment shall be mechanically sound and free of leaks.
30. All disturbed ground surfaces shall be stabilized in such a manner so as to prevent erosion and surface runoff.

##### Minor Modifications

31. Where site conditions require modifications to any drawings for water use or Waste related structures previously submitted to the Board, the Licensee shall submit to the Board a minimum of 10 days prior to the commencement of the construction schedule:
- a) written details of the modifications proposed to be made to the specifications and quality assurance/quality control procedures previously submitted to the Board as part of the Application,
  - b) a written detailed construction schedule and the name and contact number(s) of the operator; and



- c) an explanation for the change, including an assessment of the potential impact on the performance of the works.

#### **PART F - SITE DECOMMISSIONING AND RESTORATION**

- 32. Any ground surfaces disturbed as a result of the installation of any structures, facilities and appurtenances authorized by this licence shall be re-graded in a manner which is consistent with the topography of the site and which prevents erosion and surface runoff from carrying sediment into any water course. Where soil conditions permit, disturbed area shall be re-vegetated with appropriate reclamation seeds and/or plants.
  - 33. In the event of decommissioning of any part of the undertaking, all structures, facilities and appurtenances authorized by this licence and relating to the part of the undertaking shall be either removed or left in a stable condition that does not present a risk to people or the environment.
  - 34. All hazardous materials shall be disposed of in accordance with the provisions of the Special Waste Regulations of the Environment Act of the Yukon Territory and shall include a description of the disposal as part of the annual report.
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## YUKON WATER BOARD

Pursuant to the *Waters Act* and *Regulation*, the Yukon Water Board, hereinafter referred to as the Board, hereby grants to

Town of Watson Lake  
PO Box 590  
Watson Lake, Yukon  
Y0A 1C0  
Email: [cao@watsonlake.ca](mailto:cao@watsonlake.ca)

hereinafter called the Licensee, the right to use water and deposit a waste subject to the restrictions and conditions contained in the *Waters Act* and *Regulation* made thereunder and subject to and in accordance with the conditions specified in this licence.

**Licence Number:** MN03-050, Amendment 3

**Water Management Area:** 01 Liard

**Licence Type:** A

**Nature of Undertaking:** Municipal

**Location:** Groundwater Wells at the Liard River at Watson Lake

**Latitude:** 60° 04' 03" N

**Longitude:** 128° 42' 03" W

**Purpose:** To obtain, store and alter a flow of water, and to deposit a waste.

**Original Effective Date:** June 10, 2004

**Amendment Effective Date:** The effective date of this amendment shall be the date on which the signature of the Chairperson of the Yukon Water Board is affixed.

**Expiry Date of Licence:** June 30, 2019

**Approved**

This \_\_\_\_\_ day of March, 2019

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Minister, Executive Council Office

MN03-050, Town of Watson Lake  
Amendment 3

Page 2 of 13

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**Issued by the Yukon Water Board**

This \_\_\_\_\_ day of March, 2019

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Chairperson, Yukon Water Board

**PART A - GENERAL CONDITIONS**Definitions

“Act” means the *Waters Act* and any amendments thereto.

“Application” means Water Licence Application MN03-050, MN07-073, MN03-050-2, MN03-050-3, and any additional submissions and/or revisions submitted to the Board by the Licensee up to the date of the Board’s decision to issue this licence.

“Board” means the Yukon Water Board.

“Inspector” means any person designated as an inspector under the *Act*,

“Regulation” means the *Waters Regulation*.

“Sludge Management Plan” means the *Sludge Management Plan 2018* that was submitted as part of the Application and included in the water licence register MN03-050-3 as exhibit 1.8, and any subsequent revisions.

“Spill Contingency Plan” means the *Spill Prevention and Response Plan* that was submitted as part of the Application and included in register MN03-050-3 as exhibit 1.7, and any subsequent revisions.

“Spring Freshet” means the time of year, generally in the spring, when the snowpack that has accumulated during the winter melts.

“Waste” means any substance defined in the *Act*.

Representations, Warranties and Undertakings

1. The Board has relied on the representations, warranties and undertakings provided by the Licensee in the material filed in the Application. Such representations, warranties and undertakings are considered by the Board to be a part of the licence, but shall be subject to, and may be modified by, the conditions of the licence.
2. Where there is a discrepancy between the Application and the conditions of this licence, the conditions of this licence shall prevail.

Other Laws

3. No condition of this licence limits the application of any other federal, territorial, First Nation or municipal legislation.

4. All work authorized by this licence shall occur on property that the Licensee has the right to enter upon and use for that purpose.

#### Correspondence

5. Where any direction, notice, order, or report under this licence is required to be in writing, it shall be given
  - a) to the Licensee by e-mail or mailed by registered mail and shall be deemed to have been given to the Licensee on the day it was delivered, faxed or e-mailed or 7 days after the day it was mailed as the case may be;
  - b) to the Board, if delivered, faxed, e-mailed or mailed by registered mail to the following address:

Yukon Water Board  
Suite 106, 419 Range Road  
Whitehorse, Yukon Y1A 3V1  
Fax: (867) 456-3890  
E-mail: ywb@yukonwaterboard.ca

and shall be deemed to have been given to the Board on the day it was delivered, faxed, or e-mailed, or seven days after the day it was mailed, as the case may be.

- c) The Board or the Licensee may, by notice in writing, change its address for delivery.

#### Non-Compliance

6. In the event that the Licensee fails to comply with any condition of this licence, the Board may, subject to the *Act*, cancel the licence.

#### Deleterious Substances

7. Subject to the conditions of this licence, deleterious substances shall be used, transported, stored and disposed of in such a manner that they are not deposited in, or allowed to be deposited in, any waters.

#### Minor Modifications

8. Where site conditions require modifications to any drawings for water use or Waste related structures previously submitted to the Board, and as determined in conjunction with an Inspector, the Licensee shall submit to the Board a minimum of 10 days prior to the commencement of the construction schedule:
  - a) written details of the modifications proposed to be made to the specifications and quality assurance/quality control procedures previously submitted to the Board as part of the Application,

- b) a written detailed construction schedule and the name and contact number(s) of the operator; and
- c) an explanation for the change, including an assessment of the potential impact on the performance of the works.

#### Reports

- 9. The Licensee shall provide to the Board one unbound, single-sided, paper copy of all reports required by this licence. All reports must be reproducible by standard photocopier.
- 10. The Licensee shall upload electronic copies of all reports required by this licence to the Yukon Water Board's online licensing registry, Waterline. Electronic copies shall be submitted in one of the following formats: MS Word, MS Excel, or Adobe .pdf format.
- 11. Water quality results must be uploaded to Waterline in the format outlined in the most recent version of Yukon's "Laboratory Data Submission Standards for Water Quality". This guide is available on the Yukon Water Board website.

#### Annual Reports

- 12. Annual reports shall be submitted to the Board by the Licensee. The reports shall cover the period from January 1 to December 31 of each year and shall be submitted to the Board on or before February 28 of the following year.
- 13. Annual reports shall include the information required by this licence and by the *Regulation*, including, but not necessarily limited to the following:
  - a) summaries of all data generated as a result of the monitoring requirements of this Licence, including analysis and interpretation by a qualified individual or firm and a discussion of any variances from base line conditions or from previous years' data;
  - b) The results of the annual physical inspection of all water retaining structures, including all problems identified, remedial measures proposed, and remedial measures implemented as required by clause 41; and
  - c) Details of sludge management as required by this licence.

#### Monthly Reports

- 14. Unless otherwise specified in this licence, the Licensee shall forward to the Board a copy of all data collected as part of the monitoring programs of this licence. The data shall be forwarded to the Board no more than 45 days after the conclusion of the month in which that data was collected.



Spills and Unauthorized Discharges

15. The Licensee shall keep its Spill Contingency Plan current and shall submit any revisions to the plan to the Board within ten days of the revision.
16. The Licensee shall immediately contact the 24-hour Yukon Spill Report telephone number (867) 667-7244 and implement the most recent spill contingency plan that has been filed with the Board, should a spill or an unauthorized discharge occur. A detailed written report on any such event, including but not limited to, dates, quantities, parameters, causes and other relevant details and explanations, shall be delivered to the Board not later than ten days after its occurrence.

Hazardous Materials Storage

17. A complete inventory of chemicals, fuels, oils, lubricants and other hazardous materials relating to the water uses authorized by this licence shall be maintained by the Licensee.
18. Hazardous materials, except for those required to operate and maintain equipment relating to the water uses authorized by this licence, shall be stored or transferred a minimum of thirty metres from any watercourse.

**PART B - OPERATING CONDITIONS**

19. Subject to the terms of this licence, the Licensee is hereby authorized to:
  - a) obtain water, at a rate not exceeding 1,590 m<sup>3</sup>/day, from three groundwater wells located in the vicinity of the water supply pump house at Hyland and 6<sup>th</sup> Streets;
  - b) treat, store and convey the water via a reservoir and distribution system;
  - c) use the water for municipal purposes;
  - d) collect and convey wastewater via a wastewater collection system;
  - e) store and treat the wastewater in a lagoon treatment facility;
  - f) discharge treated wastewater containing Waste by exfiltration from the lagoon facility;
  - g) deposit a waste, in the form of sediment only, from settled groundwater from the reservoir and lift station excavation sites into Wye Lake;
  - h) construct, operate and maintain sludge drying beds; and
  - i) construct a new sewage receiving station,

as described in the Application, and subject to the terms and conditions of this licence. Where there is a discrepancy between the Application and this licence, the terms of this licence shall prevail.

20. Except as authorized by this licence, no Waste shall enter any watercourse as a result of any operation carried out by the Licensee.
21. All water supply, wastewater collection and treatment systems, sludge management system and associated operational equipment shall be maintained in good repair and in a manner that is consistent with generally accepted municipal practices for the types of systems being used.
22. All wastewater that is collected, with the exception of groundwater from the excavation sites, shall be directed to the wastewater treatment facility.
23. The wastewater treatment facility shall be operated in such a manner that a continuous flow of wastewater is maintained from the four cell anaerobic lagoon to the long-term storage lagoon.
24. All groundwater removed from the sewage lift station and reservoir expansion excavation sites shall be settled prior to discharge to Wye Lake.

#### Sludge Drying and Disposal

25. The *Sludge Management Plan* shall be updated to reflect the conditions of this licence and submitted to the Yukon Water Board by May 31, 2019. Sludge management shall be done in accordance with the *Sludge Management Plan*. Where a discrepancy exists between the *Sludge Management Plan* and the licence, the licence shall prevail.
26. The Licensee is authorized to use a polymer such as Flo Polymer CT 4300 to facilitate the dewatering of sludge. Alternative polymers may be utilized, provided they are of equal or less ecological toxicity as Flo Polymer CT 4300. The Licensee must submit Safety Data Sheets to the Board prior to the use of alternative types of polymers.
27. Drainage water collecting in the sump (WL-12) from the drying sludge shall be tested in accordance to Schedule A of this licence. If the quality of the drain water exceeds the standards in clause 30 a), the water must be directed back to the primary lagoon cells.
28. Dried sludge shall be tested and disposed of in a manner that meets the requirements of applicable legislation including, but not limited to, the *Environment Act* and associated regulations.
29. All sludge disposal areas shall be located, fenced and posted with warning signage to prevent unauthorised entry and to protect public safety.



**PART C - EFFLUENT QUALITY STANDARDS**Wastewater Lagoons

- 30 a) Treated wastewater contained in the long-term storage lagoon shall meet the following standards measured from a composite sample collected as described below:

Parameter	Maximum Concentration
BOD <sub>5</sub>	45 mg/l
Suspended Solids	60 mg/l
pH	6-9 units
Oil and Grease	5 mg/l
Fecal Coliforms	20,000 counts/100 ml
Ammonia	3 mg/l

- b) The composite sample shall be collected by dividing the long-term storage lagoon into three sections of approximately equal area. Samples shall be collected at mid depth at the approximate centre of each section and shall be combined for testing.

Groundwater Discharge to Wye Lake

31. The Licensee shall ensure that no waste discharged from the mobile settling tanks to Wye Lake exceeds the background turbidity of Wye Lake.
32. Background turbidity shall be determined by measuring turbidity in Wye Lake at a point outside any zone of influence of the discharge.

**PART D - DESIGN AND CONSTRUCTION**Design

33. Ten days prior to the commencement of construction, the Licensee shall submit to the Board final detailed design construction drawings for the sewage receiving station, sludge drying beds, and associated infrastructure. The final detailed design drawings must be consistent with the drawings which were submitted as part of the Application and sealed by a Professional Engineer licensed to practice in Yukon. All construction shall be carried out in accordance with the final design drawings.
34. Within 60 days of completion of the construction of the sewage receiving station, sludge drying beds, and associated infrastructure, the Licensee shall submit to the Board, record drawings of the above-described infrastructure, sealed by a Professional Engineer licensed to practice in the Yukon.

35. Where site conditions require minor modifications to the designs submitted to the Board, the Licensee shall notify the Board, a minimum of 10 days in advance, of the details of the modifications or variations from final detailed design, specifications and quality assurance/quality control procedures previously submitted to the Board, provide a detailed construction schedule and the name and contact number(s) of the construction superintendent. The notice shall be in writing and must include an explanation of the reasons for the change and an assessment of the potential impact on the performance of the works. The notice shall be sealed by a Professional Engineer licensed to practice in Yukon.

#### Construction

36. All works associated with the undertaking shall be maintained in good repair.
37. Construction and/or maintenance equipment shall be mechanically sound and free of leaks.
38. Granular bedding and backfill material shall consist of non-frozen material.
39. Waste substances shall be used, transported, stored or disposed of in such a manner that they are not deposited, or allowed to be deposited, into any Watercourse or on any surrounding land, unless authorized by this licence.
40. All disturbed ground surfaces shall be stabilized in such a manner so as to prevent erosion and surface runoff from carrying sediment into any Watercourse.

### **PART E - MONITORING AND SURVEILLANCE**

41. All water retaining structures and the sludge drying bed shall be inspected by September 30 of each year by a Professional Engineer licensed to practice in Yukon. The results of the inspection, including all problems identified, remedial measures proposed, and remedial measures implemented, shall be compiled in a report that shall be submitted to the Board as part of the Annual Report.
42. All data collection shall be conducted in accordance to a nationally recognized sampling protocol (e.g. CCME Protocols Manual for Water Quality Sampling in Canada, 2011).
43. The Licensee shall comply with the monitoring program attached as Schedule A to this licence.
44. Station WL-10, Wye Lake background, shall be monitored prior to and daily during discharge of settled groundwater.
45. Water in the mobile settling facilities will be measured for turbidity prior to release of settled groundwater to Wye Lake.

#### **PART F- DECOMMISSIONING**

46. In the event of decommissioning of any part of the undertaking, all structures, facilities and appurtenances authorized by this license shall either be removed or left in a stable condition that does not present a risk to people or the environment. Prior to the commencement of any decommissioning work, the Licensee shall submit to the Board a final plan for the reclamation of the project site. The plan shall be designed to ensure long-term stability, maintenance and/or replacement of any structures remaining after closure, minimize and/or mitigate environmental impacts, and provide for ongoing monitoring.

#### **PART G – WATER LEVEL CONTROL SYSTEM**

47. The Licensee may construct a water level control system, consisting of an in ground pipe, for the purpose of transferring overflow from First Wye Lake into Second Wye Lake, as proposed in water use application MN07-073.
48. As-constructed (record) drawings of the water level control system shall be submitted to the Board within 90 days of the completion of construction, and shall be sealed by a Professional Engineer licensed to practice in the Yukon.



**SCHEDULE A - MONITORING SCHEDULE**

## a) LOCATIONS OF MONITORING STATIONS

Station	Description	Latitude	Longitude
WL-1	Pumped water supply.	60.06753	128.69828
WL-3	Effluent in anaerobic lagoon.	60.04675	128.71901
WL-4a	Stormwater discharge outfall from 8 <sup>th</sup> Street to Wye Lake.	60.06355	128.7050
WL-4b	Stormwater discharge outfall from Adela Trail to Wye Lake.	60.062778	128.70389
WL-5	Long-term storage lagoon composite sample.	60.04259	128.71327
WL-6	Inflow to anaerobic lagoon.	60.06545	128.70606
WL-7	Discharge from anaerobic lagoon to long-term storage lagoon.		
WL-8	Staff gauge in long-term storage lagoon.	60.04314	128.71835
WL-9	Sludge elevation in each cell of the anaerobic lagoon.	60.04619	128.71835
WL-10	Wye Lake background		
WL-11	Settled groundwater effluent from mobile settling tanks.		
WL-12	Drainage water in collection sump within sludge drying area.		

## b) SAMPLING FREQUENCIES AND PARAMETERS

Monitoring Location	WL-1	WL-3	WL-4a	WL-4b	WL-5	WL-6	WL-7	WL-8	WL-9	WL-10	WL-11	WL-12
Parameter												
Flow (m <sup>3</sup> /s)	D					D	D					
Water Level (m)								M				
Sludge Surface Elevation (m)									A			
pH		2A	M*	M*	2A							v
BOD <sub>5</sub> (mg/L)		2A	M*	M*	2A							v
TSS (mg/L)		2A	M*	M*	2A							v
Total Phosphorus (mg/L)		2A	M*	M*	2A							
Oil and Grease (mg/L)		2A	M*	M*	2A							v
Fecal Coliforms (counts / 100 mL)		2A	M*	M*	2A							v
Ammonia (mg/L)					2A							v
Total Zinc (mg/L)			M*	M*								
Turbidity (NTU)										Dd	Dd; Pd	
Total ICP metals <sup>1</sup>					2A							
Total Extractable Hydrocarbons (mg/L)			M*	M*								
Hydrocarbons					2A <sup>2</sup>							

1. Metals analysis scan to include: Al, Sb, As, Ba, Be, Bi, B, Cd, Ca, Cr, Co, Cu, Fe, Li, Mg, Mo, Ni, P, K, Se, Si, Ag, Sr, S, Ti, V, Zn
2. Hydrocarbons analysis to include: LEPH, HEPH, PAH, BTEX and VPH

## c) KEY TO SAMPLING FREQUENCIES

Key	Frequency
A	Annually.
2A	Twice annually on or about April 1 and September 1.
M	Monthly.
M*	Monthly from May to November, when there is 15 mm or more precipitation over 48 hours, and one sampling event during spring freshet.
D	Daily.
Dd	Daily during discharge of settled excavation groundwater to Wye Lake.
Pd	Prior to discharge of settled excavation groundwater to Wye Lake.
V	After loading of geotubes: First 30 days: Weekly sampling with samples collected at least 5 days apart. Day 31 to 1 year: Monthly sampling >1 year: Quarterly

# YUKON WATER BOARD

Pursuant to the *Waters Act* and *Waters Regulation*, the Yukon Water Board hereby grants a Type A water licence for a municipal undertaking to:

Town of Faro  
P.O. Box 580  
Faro, YT Y0B 1K0

**APPLICATION:** MN08-078-1      **AMENDMENT:** 1

**LICENCE NUMBER:** MN08-078      **LICENCE TYPE:** A

**AMENDMENT:** This licence shall be deemed to be amendment 1 of licence number MN08-078

**WATER MANAGEMENT AREA:** 2      **UNDERTAKING:** MUNICIPAL

**LOCATION:** Pelly River at Faro, YT

**MAP CO-ORDINATES:** Latitude: 62° 13' 40" N      Longitude: 133° 22' 42" W

**PURPOSE:** To obtain, store, and return a flow of water for municipal supply, and to operate a wastewater treatment and disposal system.


**AMENDMENT EFFECTIVE DATE:** The effective date of this amendment shall be the date on which the signature of the Chairperson of the Yukon Water Board is affixed.

**EXPIRY DATE:** September 30, 2034

This licence shall be subject to the restrictions and conditions contained herein and to the restrictions and conditions contained in the *Waters Act* and the *Waters Regulation* made thereunder.

Approved this 16 day of August, 2016

  
Witness

  
Minister, Executive Council Office  
Government of Yukon

Issued this 16 day of August, 2016

  
Witness

  
Chairperson, Yukon Water Board



## PART A – DEFINITIONS

“Act” means *Waters Act* and any amendments thereto.

“Application” means Water Use Applications MN08-078 and MN08-078-1, including any additional submissions and/or revisions submitted to the Yukon Water Board by the Licensee, up to the date of the Board’s decision.

“Bi-weekly” means every second week.

“Board” means the Yukon Water Board.

“Inspector” means any person designated as an Inspector under the Act.

“Natural Boundary” means the visible high water mark of any lake, river, stream or other body of water where the presence and action of water is so common and usual and so long continued as to mark upon the soil of the bed of the lake, river, stream or other body of water a character distinct from that of the banks thereof, both in respect to vegetation and in respect to the nature of the soil itself. In addition, the best estimates of the edge of dormant or old side channels and marsh areas are considered to be Natural Boundaries.

“Regulation” means the *Waters Regulation* made under the Act.

“Spill Contingency Plan” means the *Spill Prevention and Response Plan* that was submitted as part of the Application and included in Water Use Register MN08-078-1 as exhibit 1.5, and any subsequent revisions.

“Waste” means any substance as defined in the Act.

“Watercourse” means any stream, lake, pond, river, creek, spring, ravine or swamp whether ordinarily containing water or not.



## PART B - GENERAL CONDITIONS

### Other Laws

1. No term of this licence limits the application of any statutory authority.
2. All construction or installation of works authorized by this licence shall occur on property that the Licensee has the right to enter upon and use for that purpose.

### Correspondence

3. Where any direction, notice, order or report under this licence is required to be in writing, it shall be given:
  - a) To the Licensee, when delivered or mailed by registered mail to the address on page 1 of this Licence and shall be deemed to have been given to the Licensee on the day it was delivered, or 7 days after the day it was mailed, as the case may be.
  - b) To the Board, if delivered, faxed or mailed by registered mail to the following address:

Yukon Water Board  
Suite 106, 419 Range Road  
Whitehorse, YT Y1A 3V1  
Fax: (867) 456-3890

and shall be deemed to have been given to the Board on the day it was delivered or faxed, or 7 days after the day it was mailed, as the case may be.

- c) The Board or the Licensee may, by notice in writing, change its address for delivery.

### Non-Compliance

4. In the event that the Licensee fails to comply with any provision or condition of this licence, the Board may, subject to the Act, cancel the licence.

### Spills and Unauthorized Discharges

5. Where a spill or an unauthorized discharge occurs, that is of a reportable quantity under the Yukon *Spills Regulations*, the Licensee shall immediately contact the 24-hour Yukon Spill Report number, (867) 667-7244 and implement the Spill Contingency Plan. A detailed written report on any such event including, but not limited to, dates, quantities, parameters, causes and other relevant details and explanations, shall be submitted to the Board not later than 10 days after the occurrence.

6. The Licensee shall apply the relevant procedures in the Spill Contingency Plan. The Licensee shall review the Spill Contingency Plan annually and shall provide a summary of that review, including any revisions to the plan, as a component of the annual report.
7. The Licensee shall maintain a log book of all spills or unauthorized discharge occurrences, including spills that are less than the reportable quantities under the Yukon *Spills Regulations*. The log book shall be made available at the request of an Inspector. The log book shall include, but not necessarily be limited to the:
  - a) date and time of the spill;
  - b) substance spilt or discharged;
  - c) approximate amount spilt or discharged;
  - d) distance between the spill or discharge and the nearest Watercourse;
  - e) remedial measures taken to contain and clean-up the spill area or to cease the unauthorized discharge; and
  - f) geographic coordinates of the spill.
8. The Licensee shall include a summary of all spills or unauthorized discharges that occurred during the year reported, as part of the annual report.
9. All personnel shall be trained in procedures to be followed and the equipment to be used in the containment of a spill.
10. The Spill Contingency Plan shall be posted on site for the duration of the works.
11. The Licensee shall submit material safety data sheets to the Board for all petroleum products and/or hazardous materials that are to be present during this undertaking.

#### Fuel Storage and Transfer

12. Fuel, lubricants, hydraulic fluids, coolants and similar substances shall be stored and/or transferred a minimum of 30 metres from the Natural Boundary of any Watercourse, in such a way that said substances are not deposited in or allowed to be deposited in waters.

#### Annual Reports

13. The Licensee shall submit annual reports to the Board for the period of January 1 to December 31 of each year. Annual reports are to be submitted on or before March 31 of the year following the year reported. The report shall include the information required by the Regulation including, but not necessarily limited to:
  - a) data collected according to the monitoring and surveillance requirements of this licence; and
  - b) details of the methods, procedures and standards used in the data collection and sample testing; and
  - c) an analysis and interpretation of the collected data by an individual qualified to do so; and

- d) a detailed record of the operation of the water supply, sewage collection and sewage treatment works, and sludge drying bed, including operational difficulties, non-routine maintenance work and modifications; and
- e) inspection reports, including recommendations for maintenance, repairs and improvements to the physical works associated with the water supply, sewage collection and treatment, and sludge drying facilities; and
- f) a description of repairs completed to the water supply, sewage collection and treatment, and sludge drying facilities during the previous year, and explanation of any repairs identified as required but not completed, and an identification of additional work to be undertaken in the next year; and
- g) any other information or reports required by this licence or the Regulation.

### Reports

- 14. The Licensee shall provide to the Board one unbound, single-sided, paper copy of all reports required by this licence. All reports must be reproducible by standard photocopier.
- 15. The Licensee shall upload electronic copies of all reports required by this licence to the Yukon Water Board's online licensing registry, Waterline. Electronic copies shall be submitted in one of the following formats: MS Word, MS Excel, or Adobe .pdf format. Water quality results must be uploaded to Waterline in the format outlined in the most recent version of Yukon's "Laboratory Data Submission Standards for Water Quality". This guide is available on the Yukon Water Board website.

## **PART C - OPERATING CONDITIONS**

### Description of Water Use and Waste Deposit

- 16. The Licensee is hereby authorized to:
  - a) obtain water for municipal purposes at a total maximum rate of 4,545 cubic metres per day from wells 1, 2 and 3 located near the Pelly River;
  - b) collect, store and treat sewage in the wastewater treatment facility;
  - c) construct, operate and maintain a sludge drying bed;
  - d) discharge treated effluent from the waste water treatment facility to the Pelly River from September 1 to October 31 of each year; and
  - e) maintain all associated water use and wastewater collection, storage and treatment systems

as described in the Application, and subject to the conditions of this licence. Where there is a discrepancy between the Application and this licence, the conditions of this licence shall prevail.

- 17. The Licensee shall utilize the Water and Sewer Maintenance Upgrading Plan and the Maintenance and Tracking Plan, as submitted as exhibit 1.2 of Water Use Register MN08-078. The Licensee shall update the plans to include the sludge drying bed, and submit the plans to the Board within 90 days of the effective date of this licence, and subsequently submit updated plans every fifth year prior to or on the anniversary of the effective date of this licence.

18. The Licensee shall operate and maintain the water supply, water distribution, sewage collection, sewage treatment, sewage disposal and sludge management systems in a manner which is consistent with standard municipal practices for the types of systems being used.
19. During maintenance of the siphon, the Licensee shall utilize an eductor truck to transfer effluent to the sewage lagoons unless there are unforeseen events preventing the use of the eductor truck. Under these unforeseen circumstances, the Licensee may store sewage in a temporary containment pond, as described in exhibit 1.2, section 9.3 of Water Use Register MN08-078 and subject to the conditions of this licence.
20. Effluent shall only be discharged from the wastewater treatment facility and only through the existing outfall ditch from the facility to the Pelly River.
21. Prior to cell desludging, the Licensee shall have the sludge drying bed inspected by a Professional Engineer licensed to practice in Yukon to ensure the integrity of the bed has been maintained.

#### Notification

22. The Licensee shall notify the Board at least 10 days prior to commencement of any discharge. The notice will include a confirmation that notice has also been provided to Ross River Dena Council.

#### **PART D – EFFLUENT QUALITY STANDARDS**

23. Effluent discharged from the wastewater treatment facility shall meet the following effluent quality standards at station FA-4, as described in Schedule A of this licence:

PARAMETER	MAXIMUM CONCENTRATION FOR ANY SAMPLE
CBOD <sub>5</sub>	25 mg/L
Non Filterable Residues (TSS)	25 mg/L
pH	6 - 9
Oil and Grease	5 mg/L
Fecal Coliforms	20,000 counts/100 millilitres
Total Phosphorus	5 mg/L
Acute Toxicity (LC <sub>50</sub> static 96-hr, 100% concentration)	Non-toxic

24. Any discharge to a Watercourse must meet a bioassay standard of a 96-hour at 100% LT<sub>50</sub> bioassay using rainbow trout, pH non-adjusted.