

PART E – MONITORING AND SURVEILLANCE

25. The Licensee shall comply with the monitoring and surveillance requirements specified in Schedule A of this licence.
26. All data collection and analyses 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.
27. Annually, the Licensee shall carry out a physical inspection of the water supply and wastewater treatment facilities. The inspection shall be carried out by a Professional Engineer licensed to practice in Yukon. The engineer shall submit a report assessing the condition and performance of the facility, and presenting recommendations for any necessary maintenance, repairs or modifications. The report shall be submitted to the Board as part of the annual report.
28. The Licensee shall compile data relating to the surveillance network program into the annual report.

PART F - DESIGN AND CONSTRUCTION

29. At a minimum of 10 days prior to the commencement of construction, the Licensee shall submit to the Board final detailed design construction drawings for the sludge drying bed. 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.
30. Within 60 days of completion of construction for each structure, the Licensee shall submit to the Board, as-built design drawings for the completed structure, sealed by a Professional Engineer licensed to practice in Yukon.
31. 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.
32. Notification, including the name and phone number of the construction supervisor, shall be provided to the Board, in writing, 10 days prior to the start of construction.

PART G - SITE DECOMMISSIONING AND RESTORATION

33. The Licensee shall submit a final decommissioning plan for any water and sewer related structures authorized by this licence to the Board in the form of an application to amend licence MN08-078. This application shall be submitted, a minimum of 6 months prior to the decommissioning of any water and sewer related structures.
- a) details of any residual activities required to be carried out prior to final decommissioning and removal of any structures on this site, associated timelines and supporting rationale; and
 - b) details pertaining to the final remediation of the site.

Details pertaining to the development of the plan shall be provided to the Board as part of the annual report.

34. Subject to any required assessments, authorizations or approvals, the Licensee shall implement the plan required by this licence.

SCHEDULE A**MONITORING AND SURVEILLANCE REQUIREMENTS****I. LOCATIONS OF SAMPLING STATIONS**

Station	Description
FA-1	Raw water supply entering intake works
FA-3	Influent to sewage lagoon
FA-4	Effluent discharge from sewage lagoon
FA-5	Effluent transfer from cell #3 to cell #4
FA-6	Pelly River 100 m downstream of discharge channel

2. MONITORING SCHEDULE

a) The Licensee shall comply with the sampling program set out in Table A-1.

TABLE A-1

Station/Analysis	FA-1	FA-3	FA-4	FA-5	FA-6
Faecal Coliforms	-		M, BW	A	M, BW
Dissolved Oxygen	-		M, BW	A	M, BW
Specific Conductance	-		M, BW	A	M, BW
Conductivity	-		M, BW	A	M, BW
Temperature	-		M, BW	A	M, BW
CBOD ₅	-		M, BW	A	M, BW
Non Filterable Residues (TSS)	-		M, BW	A	M, BW
pH	-		M, BW	A	M, BW
Oil and Grease	-		M, BW	A	M, BW
Ammonia	-		M, BW	A	M, BW
Total Phosphorus	-		M, BW	A	M, BW
Acute Toxicity (96-hr, LC50 bioassay)	-	-	M, BW	-	-
Flow Rate	D	D	D ₁	-	-

Legend: D = Daily

D₁ = Daily when discharging (September 1 to October 31)

A = Once per year when flowing

M = If discharge occurs over the period of one month or less, one sample shall be taken during the last half of the discharge

BW = If discharge occurs over a period of more than one month, one sample shall be taken Bi-weekly (once every second week) and sampling events shall be at least 5 days apart

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: MN08-078-2 **AMENDMENT:** 2

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

AMENDMENT: This licence shall be deemed to be amendment 2 of licence number MN08-078

WATER MANAGEMENT AREA: 02 Yukon **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.

ORIGINAL LICENCE EFFECTIVE DATE: October 20, 2009

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 20 day of June, 2017



Witness



Minister, Executive Council Office
Government of Yukon

Issued this 20th day of June, 2017



Witness



Chairperson, Yukon Water Board

PART A – DEFINITIONS

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

“Application” means Water Use Applications MN08-078, MN08-078-1, and MN08-078-2, 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 MN08-078-2 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 CONDITIONSOther 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 3, 4 and 5, 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;
 - e) maintain all associated water use and wastewater collection, storage and treatment systems; and
 - f) decommission wells # 1 and # 2

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 ₅	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 ₅₀ static 96-hr, 100% concentration)	Non-toxic

24. Any discharge to a Watercourse must meet a bioassay standard of a 96-hour at 100% LT₅₀ bioassay using rainbow trout, pH non-adjusted.

PART E – MONITORING AND SURVEILLANCE

25. The Licensee shall comply with the monitoring and surveillance requirements specified in Schedule A of this licence.
26. All data collection and analyses 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.
27. Annually, the Licensee shall carry out a physical inspection of the water supply and wastewater treatment facilities. The inspection shall be carried out by a Professional Engineer licensed to practice in Yukon. The engineer shall submit a report assessing the condition and performance of the facility, and presenting recommendations for any necessary maintenance, repairs or modifications. The report shall be submitted to the Board as part of the annual report.
28. The Licensee shall compile data relating to the surveillance network program into the annual report.

PART F - DESIGN AND CONSTRUCTION

29. At a minimum of 10 days prior to the commencement of construction, the Licensee shall submit to the Board final detailed design construction drawings for the sludge drying bed. 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.
30. Within 60 days of completion of construction for each structure, the Licensee shall submit to the Board, as-built design drawings for the completed structure, sealed by a Professional Engineer licensed to practice in Yukon.
31. 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.
32. Notification, including the name and phone number of the construction supervisor, shall be provided to the Board, in writing, 10 days prior to the start of construction.

PART G - SITE DECOMMISSIONING AND RESTORATION

33. The Licensee shall submit a final decommissioning plan for any water and sewer related structures authorized by this licence to the Board in the form of an application to amend licence MN08-078. This application shall be submitted, a minimum of 6 months prior to the decommissioning of any water and sewer related structures.
 - a) details of any residual activities required to be carried out prior to final decommissioning and removal of any structures on this site, associated timelines and supporting rationale; and
 - b) details pertaining to the final remediation of the site.

Details pertaining to the development of the plan shall be provided to the Board as part of the annual report.

34. Subject to any required assessments, authorizations or approvals, the Licensee shall implement the plan required by this licence.

SCHEDULE A**MONITORING AND SURVEILLANCE REQUIREMENTS**

1. LOCATIONS OF SAMPLING STATIONS

Station	Description
FA-1	Raw water supply entering intake works
FA-3	Influent to sewage lagoon
FA-4	Effluent discharge from sewage lagoon
FA-5	Effluent transfer from cell #3 to cell #4
FA-6	Pelly River 100 m downstream of discharge channel

2. MONITORING SCHEDULE

a) The Licensee shall comply with the sampling program set out in Table A-1.

TABLE A-1

Station/Analysis	FA-1	FA-3	FA-4	FA-5	FA-6
Faecal Coliforms	-		M, BW	A	M, BW
Dissolved Oxygen	-		M, BW	A	M, BW
Specific Conductance	-		M, BW	A	M, BW
Conductivity	-		M, BW	A	M, BW
Temperature	-		M, BW	A	M, BW
CBOD ₅	-		M, BW	A	M, BW
Non Filterable Residues (TSS)	-		M, BW	A	M, BW
pH	-		M, BW	A	M, BW
Oil and Grease	-		M, BW	A	M, BW
Ammonia	-		M, BW	A	M, BW
Total Phosphorus	-		M, BW	A	M, BW
Acute Toxicity (96-hr, LC50 bioassay)	-	-	M, BW	-	-
Flow Rate	D	D	D ₁	-	-

Legend: D = Daily

D₁ = Daily when discharging (September 1 to October 31)

A = Once per year when flowing

M = If discharge occurs over the period of one month or less, one sample shall be taken during the last half of the discharge

BW = If discharge occurs over a period of more than one month, one sample shall be taken Bi-weekly (once every second week) and sampling events shall be at least 5 days apart

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:

Village of Mayo
Box 160
Mayo YT Y0B 1M0

APPLICATION: MN10-055-2 **AMENDMENT:** 2
LICENCE NUMBER: MN10-055 **LICENCE TYPE:** A
WATER MANAGEMENT AREA: 2

LOCATION: Village of Mayo, Yukon

MAP CO-ORDINATES: Wells: Latitude: 63° 35' 44" N Longitude: 135° 53' 56" W
 Lagoon: Latitude: 63° 35' 46" N Longitude: 135° 55' 00" W

PURPOSE: Maintain and operate a municipal water facility and wastewater treatment facility.


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

EXPIRY DATE: November 1, 2030

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 17th day of March, 2014.

Witness


 Minister, Executive Council Office
 Government of Yukon

Issued this 18th day of March, 2014.

Witness


 Chairperson
 Yukon Water Board

PART A - DEFINITIONS

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

“Application” means Water Use Applications MN10-055, MN11-045 and MN10-055-2, 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.

“CWW#1a” means Cold Water Well #1a, as depicted in exhibit 1.2 of Water Use Register MN10-055-2.

“CWW#1 means Cold Water Well #1, as depicted in exhibit 1.2 of Water Use Register MN10-055-2.

“CWW#2 means Cold Water Well #2, as depicted in exhibit 1.2 of Water Use Register MN10-055-2.

“CWW#3 means Cold Water Well #3, as depicted in exhibit 1.2 of Water Use Register MN10-055-2.

“CWW#4 means Cold Water Well #4, as depicted in exhibit 1.2 of Water Use Register MN10-055-2.

“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 Contingency Response Plan* that was submitted as part of the Application and included in Water Use Register MN10-055-2 as part of 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.

“WWW#1” and “WWW#2” means Warm Water Well #1 and Warm Water Well #2, respectively, as depicted in exhibit 1.3 of Water Use Application MN11-045.

“Wetted Perimeter” means the horizontal extent of the present water level while the work is taking place.

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 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, faxed or mailed by registered mail to the following address:

Village of Mayo
Box 160
Mayo YT Y0B 1M0
Fax: (867) 996-2907

and shall be deemed to have been given to the Licensee on the day it was delivered or faxed, 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.

Spills and Unauthorized Discharges

6. 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.
7. 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.
8. 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.
9. The Licensee shall include a summary of all spills or unauthorized discharges that occurred during the year reported, as part of the annual report.
10. All personnel shall be trained in procedures to be followed and the equipment to be used in the containment of a spill.
11. Prior to the commencement of construction, the Licensee shall update the Spill Contingency Plan and provide the updated plan to the Board.
12. The Spill Contingency Plan shall be posted on site for the duration of the works.

Fuel Storage and Transfer

13. Fuel, lubricants, hydraulic fluids, coolants and similar substances, with the exception of the fuel tank located next to the Water Treatment Plant building, 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

14. The Licensee shall submit annual reports to the Board. Annual reports shall cover the period from January 1 to December 31 of each year this licence is in effect and shall be submitted to the Board on or before March 31 of the following year. The report shall include the information required by the Regulation including, but not necessarily limited to:
- a) data collected according to the requirements of Schedule A of this licence;
 - b) the requirements outlined in Part E of this licence;
 - c) the inspection results, including photographs, repairs or plans for modification required by the physical monitoring program;
 - d) a detailed record of any major maintenance work carried out or planned to be carried out that could have an impact on water;
 - e) 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 baseline conditions or from previous years' data;
 - f) details of the methods, procedures, and standards used in the collection and sample testing;
 - g) a detailed record of the operation of water supply and sewage treatment works, including operational difficulties, significant maintenance work, and modifications;
 - h) copies of all orders, directions and correspondence relating to drinking water sampling or analysis from the Medical Health Officer or from a Health Officer; and,
 - i) any other information or reports required by this licence or the Regulations.

Reports

15. 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.
16. 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 CONDITIONSDescription of Water Use and Waste Deposit

17. The Licensee is hereby authorized to:
- a) obtain and distribute water for municipal purposes at a maximum combined rate of 3,500 cubic metres per day from the following sources:
 - i. cold water supply wells, identified as CWW#1a, CWW#2, CWW#3 and CWW#4 and the existing cold water supply well, identified as CWW#1 at a combined rate not exceeding 2,000 cubic metres per day; and
 - ii. water from two existing warm water wells, identified as WWW#1 and WWW#2, at a combined rate not exceeding 1,300 cubic metres per day; and
 - iii. an additional 200 cubic metres a day from any of the identified wells or combination thereof;

- b) collect, store, treat, and dispose of sewage at an existing wastewater treatment and disposal facility;
- c) perform upgrades to the municipal water supply system and water treatment plant;
- d) construct and use a Rock Pit for the purpose of discharging wastewater from disinfecting water supply wells and water pipes, and
- e) decommission cold water supply well, CWW#1, no later than two years after the start-up of the upgraded water treatment plant,

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.

- 18. The Licensee shall operate and maintain the water supply, water distribution, sewage collection, sewage treatment and solid Waste disposal systems in a manner which is consistent with standard municipal practices.
- 19. The Licensee shall notify the Board not less than 60 days prior to the commencement of any surface discharge from the wastewater treatment and disposal facility.
- 20. Should a rupture of the sewage forcemain occur where it crosses the Mayo River, the Licensee shall immediately stop the flow of sewage and shall install a temporary bypass. The Licensee shall not permit any sewage to discharge to the Mayo River or into any other Watercourse.
- 21. Notification, including the name and phone number of the field supervisor, shall be provided to the Board, in writing, 10 days prior to the start of construction associated with maintenance.

PART D – EFFLUENT QUALITY STANDARDS

- 22. Groundwater samples collected from sampling stations T-4 and T-5, as described in Schedule A, shall meet the following effluent discharge standards:

Parameter	Maximum Concentration for any Sample
CBOD ₅	25 mg/L
pH	6 - 9
Oil and grease	5 mg/L
<i>Escherichia coli</i>	2,000 cfu/L

- 23. Prior to discharging to the Rock Pit from the de-chlorinator, the Licensee shall sample for total residual chlorine and shall meet the following effluent discharge standard:

Parameter	Maximum Concentration for any Sample
Total residual chlorine	0.02 mg/L

24. Surface discharge from the wastewater treatment and disposal facility at sampling station T-7 as described in Schedule A, shall meet the following effluent discharge standards:

Parameter	Maximum Concentration for any Sample
CBOD ₅	25 mg/L
pH	6 - 9
Oil and grease	5 mg/L
<i>Escherichia coli</i>	2,000 cfu/L
Suspended Solids	25 mg/L
Bioassay* (LC ₅₀ static 96 hour bioassay – 100% concentration)	Non-toxic
Toxic substances	Nil
Total residual chlorine	0.02 mg/L

*bioassay using rainbow trout, pH non-adjusted – reference method EPS 1/RM/13

PART E – MONITORING AND SURVEILLANCE

25. The Licensee shall comply with the monitoring and surveillance requirements specified in Schedule A of this licence.
26. 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).
27. Laboratory analyses shall be performed by a laboratory accredited under the International Organization for Standardization ISO/IEC 17025:2005 standard and the accreditation must include the actual tests being performed by the laboratory.
28. Sampling stations T-1a, T-1b, T-1c, T-1d, T-1e, T-3, T-4, T-5, T-6a, T6-b and T-7 shall be sampled as specified in Schedule A. Samples taken from station T-7 shall be four-hour composites.
29. The effluent level in the infiltration lagoon shall be measured and recorded every two weeks.
30. The sludge levels in the anaerobic and infiltration lagoons shall be measured and recorded annually.
31. Annually, the Licensee shall carry out a physical inspection of the wastewater treatment and disposal facility. The inspection shall be carried out by a Professional Engineer licensed to practice in Yukon. The engineer shall submit a report assessing the condition and performance of the facility, and presenting recommendations for any necessary maintenance, repairs or modifications.

PART D - DESIGN AND CONSTRUCTIONDesign

32. Ten days prior to the commencement of construction of all proposed structures and upgrades to structures, the Licensee shall submit to the Board final detailed design construction drawings. 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.
33. Within 60 days of the completion of the proposed construction activities and upgrades to the systems and structures, the Licensee shall submit to the Board, as-built design drawings of all the structures, sealed by a Professional Engineer licensed to practice in the Yukon.

Minor Modifications

34. 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.

Construction

35. All works associated with the undertaking shall be maintained in good repair.
36. Construction and/or maintenance equipment shall be mechanically sound and free of leaks.
37. Granular bedding and backfill material shall consist of non-frozen material.
38. All water withdrawn, if any, from the trenches shall be deposited into a constructed sump and/or a natural depression.
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. Except as authorized by this licence, no Waste shall enter any Watercourse as a result of any operation carried out by the Licensee.
41. 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 G - SITE DECOMMISSIONING AND RESTORATION

42. The Licensee shall develop a decommissioning plan for the closure of the municipal water facility and wastewater treatment facility, and submit the plan to the Board 1 year prior to the commencement of decommissioning activities. The plan shall include, but not necessarily be limited to a schedule and cost for completion of decommissioning and reclamation activities. As part of each annual report, the Licensee shall report on the status of the decommissioning plan.
 43. During the term of the licence, the Licensee shall submit to the Board a plan for the proposed decommissioning of any water supply well.
 44. 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 plant species that are native in Yukon.
 45. All construction materials, equipment, temporary structures and debris shall be removed from the site upon completion of the work.
 46. Subject to any required assessments, authorizations or approvals, the Licensee shall implement the plans required by this section of this licence.
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SCHEDULE A - MONITORING AND SURVEILLANCE REQUIREMENTS

1. LOCATIONS OF SAMPLING STATIONS

Sampling Station	Description
T-1a	Raw water supply at CWW#1
T-1b	Raw water supply at CWW#2
T-1c	Raw water supply at CWW#1a
T-1d	Raw water supply at CWW#3
T-1e	Raw water supply at CWW#4
T-3	Raw sewage influent to sewage lagoon at lift station
T-4	Treated effluent at westerly monitoring well located approximately 100 metres from lagoon
T-5	Treated effluent at easterly monitoring well located approximately 100 metres from lagoon
T-6a	Water supply at WWW#1
T-6b	Water supply at WWW#2
T-7	Discharge from wastewater treatment lagoon at emergency overflow structure, if discharge occurs

2. SAMPLING AND MONITORING SCHEDULE

Analysis	Stations										
	T-1a	T-1b	T-1c	T-1d	T-1e	T-3	T-4	T-5	T-6a	T-6b	T-7
<i>Escherichia coli</i>	-	-	-	-	-	-	Q	Q	-	-	B
Total Coliforms	-	-	-	-	-	-	Q	Q	-	-	B
Dissolved Oxygen	-	-	-	-	-	-	Q	Q	-	-	B
Specific Conductance	-	-	-	-	-	-	Q	Q	-	-	B
Temperature	-	-	-	-	-	-	Q	Q	-	-	B
BOD ₅	-	-	-	-	-	-	Q	Q	-	-	B
Suspended Solids	-	-	-	-	-	-	Q	Q	-	-	B
pH	-	-	-	-	-	-	Q	Q	-	-	B
Oil and grease	-	-	-	-	-	-	Q	Q	-	-	B
Ammonia	-	-	-	-	-	-	Q	Q	-	-	B
Total Phosphorus	-	-	-	-	-	-	-	-	-	-	B
Total Residual Chlorine	-	-	-	-	-	-	-	-	-	-	B
Bioassay (LC ₅₀ static 96 hour bioassay – 100% concentration)	-	-	-	-	-	-	-	-	-	-	B
Flow Rate	D	D	D	D	D	D	-	-	D	D	D

LEGEND

D = Daily
 Q = Quarterly
 B = Once per year during discharge period

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:

Government of Yukon
P.O. Box 2703
Whitehorse YT Y1A 2C6
Fax: (867) 393-6379

APPLICATION: MN10-082-5 **AMENDMENT:** 4
LICENCE NUMBER: MN10-082 **LICENCE TYPE:** A
AMENDMENT: This Licence shall be deemed to be amendment 4 of licence number MN10-082

WATER MANAGEMENT AREA: 02 Yukon **UNDERTAKING:** Municipal
LOCATION: Carcross, YT
MAP CO-ORDINATES: Latitude: 60° 12' 05" N Longitude: 134° 43' 20" W

PURPOSE: To allow for the operation and maintenance of the Carcross Wastewater Treatment Facility, including collection, treatment, and disposal of municipal wastewater and construction of an additional storage lagoon, expanded SRI area and an outhouse receiving cell.

ORIGINAL LICENCE EFFECTIVE DATE: October 14, 2011

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

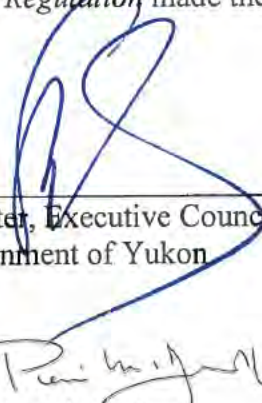
EXPIRY DATE: August 3, 2036

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 April, 2020




Witness




Minister, Executive Council Office
Government of Yukon

Issued this 17 day of April, 2020



Digitally Signed
Witness



Digitally Signed
Chairperson, Yukon Water Board

PART A – DEFINITIONS

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

“Application” means Water Licence Application MN10-082, MN10-082-2, MN10-082-3, MN10-082-4 and MN10-082-5, 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.

“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.

“Operation and Maintenance Manual” means the *Operation and Maintenance Manual Carcross Wastewater Treatment Facility (2019)* that was submitted as part of the Application and included in Register MN10-082-5 as exhibit 1.3, and any subsequent revisions.

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

“Spill Contingency Plan” means the *Spill Contingency Plan* that was submitted as part of the Application and included in Register MN10-082 as exhibit 1.6, and any subsequent revisions.

“Sludge Management Plan” means the *Carcross Waste Treatment Facility Sludge Management Plan (April 2016)*, that is included in Register MN10-082-3 as exhibit 1.4, and any subsequent revisions.

“SRI” means the Slow Rate Infiltration Area as described in the Register MN10-082-5, exhibit 1.2.

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

“Watercourse” means a natural watercourse, body of water or water supply, whether usually containing water or not, and includes groundwater, springs, swamps, and gulches.

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 must 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, faxed 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 faxed, 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, YT 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, e-mailed 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 must 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, must be submitted to the Board not later than 10 days after the occurrence.

6. The Licensee must apply the relevant procedures in the Spill Contingency Plan. The Licensee must review the Spill Contingency Plan annually and must provide a summary of that review, including any revisions to the plan, as a component of the annual report.
7. The Licensee must 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 must be made available at the request of an Inspector. The log book must 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 must include a summary of all spills or unauthorized discharges that occurred during the year reported, as part of the annual report.
9. All personnel must be trained in procedures to be followed and the equipment to be used in the containment of a spill.
10. Prior to the commencement of construction, the Licensee must update the Spill Contingency Plan and provide the updated plan to the Board.
11. The Spill Contingency Plan must be posted on site for the duration of the works.
12. Ten days prior to construction, the Licensee must 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

13. Fuel, lubricants, hydraulic fluids, coolants and similar substances must 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

14. The Licensee must 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 must include the information required by the Regulation including, but not necessarily limited to:
- a) A description of the water use operations carried out during the year reported.
 - b) The hours of pumping for each day.
 - c) Any reclamation to the site.
 - d) Any inspection reports regarding the slope stability.
 - e) The results of all analyses required by the monitoring program.
 - f) The results of the sampling from stations: CC-3a, CC-3b, CC-4d, CC-5, CC-6, CC-7, CC-8, NW-1, CC-10, NW-2, NW-3, NW-4, SCp-1 and SCp-2.
 - g) The inspection results, including photographs, repairs or plans for modification required by the physical monitoring program.
 - h) A detailed record of any major maintenance work carried out or planned to be carried out that could have an impact on water.
 - i) 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 baseline conditions or from previous years' data.
 - j) Details of any work carried out or planned to be carried out under the Operation and Maintenance Manual.
 - k) Details of any work carried out or planned to be carried out under the Sludge Management Plan.

Monthly Reports

15. Unless otherwise specified in this Licence, the Licensee must forward to the Board a copy of all data collected as part of the monitoring programs of this Licence no more than 30 days after the conclusion of the month in which that data was collected.
16. The Licensee must submit to the Board, monthly reports that provide an update on the progress of designs and schedule for the upgrades to the wastewater treatment facility.

Reports

17. The Licensee must 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 must upload electronic copies of all reports required by this Licence to the Yukon Water Board's online licensing registry, Waterline. Electronic copies must 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

19. The Licensee is hereby authorized to:
- a) construct and maintain upgrades for a wastewater treatment and disposal facility, which includes an additional storage lagoon, expanded SRI area and an outhouse receiving cell;
 - b) collect, store and treat sewage in the wastewater treatment facility;
 - c) discharge treated effluent from the wastewater treatment facility to the designated SRI area, from June 15 to September 30 of each year; and
 - d) discharge no greater than 30,948 cubic meters of treated effluent between June 15 and September 30.
- as described in the application, and subject to the conditions of this Licence.
20. Where there is a discrepancy between the Application and this Licence, the conditions of this Licence shall prevail.
21. The Licensee must operate and maintain sewage collection, sewage treatment and solid waste disposal systems in a manner which is consistent with standard municipal practices for the types of systems being used.
22. Operators transporting septage must be properly trained in the transportation and handling of hazardous substances.
23. Effluent must only be discharged from the wastewater treatment facility through the SRI system and no effluent shall be allowed to directly enter any surface waters, including the wetlands of the Watson River.
24. The Licensee must determine a discharge flow regime based on monthly evapotranspiration rates and monitoring of the SRI area. Monitoring and monthly pumping rates must accord to those described in exhibit 1.2 of Register MN10-082-5.

Notification

25. The Licensee must notify the Board at least 21 days prior to commencing any effluent discharge.

PART D – PLANS

Operating Plan

26. The wastewater treatment facility, as authorized by this Licence, must be operated in accordance with the Operation and Maintenance Manual and the Sludge Management Plan.