

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:

McNevin Management Ltd.
705-601 Spadina Cres.
Saskatoon, SK S7K 3G8

LICENCE NUMBER: MN07-075

LICENCE TYPE: B **UNDERTAKING:** MUNICIPAL

LOCATION: Km 371 Dempster Highway

MAP CO-ORDINATES: Latitude: 66° 22' N Longitude: 136° 43' W

PURPOSE: Water Use and Deposit of Waste for the Eagle Plains Complex

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 6, 2033

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.

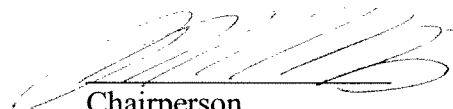
Dated this 7 day of

Approved by:

August, 2008.



Witness



Chairperson
YUKON WATER BOARD

PART A - DEFINITIONS

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

“Application” means Water Use Application MN07-075, 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.

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

“Spill Contingency Plan” means the Hazardous Material Handling and Spill Contingency Plan that was submitted as part of the Application and included in Water Use Register MN07-075 as exhibit 1.2.6, 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.

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

PART B - GENERAL CONDITIONS**Representations, Warranties and Undertakings**

1. In this licence, the Board has relied on the representations, warranties and undertakings provided by the applicant in the material filed in the Application.
2. Where there is a discrepancy between the Application and 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 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

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

McNevin Management Ltd.
705-601 Spadina Cres.
Saskatoon, SK S7K 3G8
Fax: (306) 653-0292

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

6. 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.

Other Uses

7. 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; and
 - 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

8. 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 10 days after the occurrence.
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 operation.

Fuel Storage and Transfer

11. 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

12. On or before the anniversary of the date of issuance of this licence, and for each year during which this licence is in effect, the Licensee shall submit an annual report to the Board. The report shall include the information required by the Regulation including, but not necessarily limited to:
 - a) copies of all orders, directions and correspondence relating to drinking water sampling or analysis from the Medical Health Officer or from a Health Officer,
 - b) the results of all analyses required by the monitoring program,
 - c) the results of all sampling from stations EP-1, EP-2 and EP-3, and
 - d) details of any construction activities, inspections conducted and maintenance activities conducted in regards to water use and wastewater treatment systems.

Monthly Reports

13. Records shall be maintained of all water use, including at a minimum but not necessarily limited to, the quantity of water obtained measured in cubic metres per day, the date water was obtained, the source of water and a description of the visible impacts that the withdrawal of water from the well has on the water level of the Eagle River. The Licensee shall provide the records to the Board as part of a monthly report.

Reports

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

Term of Licence

16. The term of this licence is for the period from the effective date to August 6, 2033.

PART C - OPERATING CONDITIONSDescription of Water Use and Deposit of Waste

17. The Licensee is hereby authorized to:
 - a) obtain a maximum combined quantity of 42.0 cubic metres of water per day from a well located within the bridgehead reserve and adjacent to the Eagle River or from the Eagle River; and
 - b) treat municipal wastewater generated by the Eagle Plains Complex in a mechanical treatment system; and
 - c) discharge municipal wastewater from the mechanical treatment system to a rock pit,as described in the Application, and subject to the conditions of this licence.
18. 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.
19. 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.
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 disturbed ground surfaces shall be stabilized in such a manner so as to prevent erosion and surface runoff from carrying sediment into any Watercourse.

Fencing

22. The perimeter of the mechanical wastewater treatment system, including the rock pit shall be fenced so as to exclude the public and animals.
23. The fence surrounding the mechanical wastewater treatment system, including the rock pit shall include posted warning signs to alert the public of the presence of hazards of the mechanical wastewater treatment system, including the rock pit.
24. The fence and all signs that are posted shall be maintained and repaired or replaced, as required.

Water Pumps

25. The Licensee shall provide barriers consisting of fish guards, screens, coverings or nets on all water intakes as follows:
 - a) Screens or nets shall have a minimum of 3.5 openings per centimetre and openings no greater than 3.2 millimetres along any given side.
 - b) If a punch plate or similar material is used, openings shall be no greater than 3.2 millimetres in length or width.
 - c) There shall be no less than 929 square centimetres of open screen for every 205 litres per minute being withdrawn.
 - d) The barriers shall be monitored and maintained to ensure that they function effectively at all times when water is being withdrawn.
 - e) The barriers shall be designed and installed in such a manner that the screen is submerged and a uniform flow distribution is maintained through the total screen area.
 - f) Water shall not be withdrawn when the barrier is removed for renewal, repair or inspection.
 - g) The Licensee shall cease pumping or decanting and take remedial action if there is alteration to the bed or bank of the water channel.

PART D – EFFLUENT QUALITY STANDARDS

26. No Waste discharged from the wastewater treatment system in operation for the Eagle Plains Complex shall exceed the following limits:

Parameter	Maximum Concentration in a Grab Sample Measured in mg/L
pH	6 - 9 pH Units
Total Suspended Solids	60 mg/L
BOD ₅	45 mg/L
Fats, Oils and Grease	No visible sheen
Faecal Coliforms	2,000 CFU/100mL

27. The points of compliance, for the effluent quality standards included in this licence, shall be the final point of control, prior to discharging effluent from the mechanical wastewater treatment system to the rock pit.

PART E – MONITORING PROGRAM

28. The Licensee shall comply with the following monitoring program:

a) The location of the sampling stations, as indicated in Figure 3 of Exhibit 1.2.1 of the Application, shall be as follows:

<u>Sampling Station</u>	<u>Description</u>
EP-1	Located approximately 1 kilometre directly downgradient from the site of the sewage lagoon (existing/previously existing)
EP-2	Located in a small Watercourse downstream of EP-3, and approximately 1 kilometre downstream of EP-1,
EP-3	Control station located in an adjacent Watercourse not affected by the Eagle Plains Complex or Dempster Highway.

b) Stations EP-1, EP-2 and EP-3 shall be monitored annually in the months of June and August and shall be sampled for the following parameters:

pH	conductivity
total nitrogen (as N)	nitrites and nitrates (as N)
total phosphorus (as P)	organic phosphorus (as P)
inorganic phosphorus (as P)	oil and grease
faecal coliform (no./100mL)	Total Suspended Solids (mg/L)
sulfate (mg/L)	chloride (dissolved mg/L)
BOD (mg/L)	ammonia (as N)
Total ICP metals	E. Coli
Temperature	flow

- c) Results of the sampling from stations EP-1, EP-2 and EP-3 shall be submitted to the Board within 30 days of sampling.
- d) All sampling and sample preservation shall be done according to commonly accepted methods.
- e) All analyses shall be conducted in accordance with methods prescribed in the current edition for “Standard Methods for the Examination of Water and Wastewater”.

PART F - DESIGN AND CONSTRUCTION

Design

- 29. The mechanical wastewater treatment system, including the rock pit shall be constructed in accordance with the design drawings which were sealed by a Professional Engineer, permitted to practice in Yukon and submitted as part of the Application.
- 30. Ten days prior to the commencement of construction, the Licensee shall submit to the Board final detailed design construction drawings for the mechanical wastewater treatment system, including the rock pit. 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 permitted and/or licensed to practice in Yukon. All construction shall be carried out in accordance with the final design drawings.
- 31. The Licensee shall submit as-built design drawings of the mechanical wastewater treatment system, including the rock pit, sealed by a Professional Engineer permitted and/or licensed to practice in the Yukon, to the Board within 60 days construction.
- 32. 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 permitted and/or licensed to practice in Yukon.

Construction

- 33. All works associated with the undertaking shall be maintained in good repair.
- 34. Construction and/or maintenance equipment shall be mechanically sound and free of leaks.

PART G - SITE DECOMMISSIONING AND RESTORATION

35. The Licensee shall notify the Board a minimum of 90 days prior to decommissioning the mechanical wastewater treatment system, including the rock pit.
 36. All disturbed ground surfaces shall be regraded 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.
 37. All construction materials, equipment, temporary structures and debris shall be removed from the site upon completion of the work.
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