# Environment Act Licence

Manitoba Environment



Licence No.	1590	
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Issue Date <u>SEPTEMBER 23, 1992</u>

In accordance with the Manitoba Environment Act (C.C.S.M. c. E125)

THIS LICENCE IS ISSUED TO:

### VILLAGE OF McCREARY: "the Licencee"

for the construction and operation of the Development being the operation of a wastewater collection system and the construction and operation of a wastewater treatment lagoon located in the northeast quarter of Section 3, Township 21, Range 15 WPM and with discharge of treated effluent to the roadway ditch along the municipal road allowance north to the McKinnon Drain and subject to the following specifications, limits, terms and conditions:

### **DEFINITIONS**

In this Licence,

"appurtenances" means machinery, appliances, or auxiliary structures attached to a main structure to enable it to function, but not considered an integral part of it.

"Director" means the Director, Environment Act.

"effluent" means treated wastewater flowing or pumped out of the wastewater treatment lagoon.

"five-day biochemical oxygen demand" means that part of the oxygen demand usually associated with biochemical oxidation of organic matter within 5 days at a temperature of 20°C.

"MPN Index" means the most probable number of coliform organisms in a given volume of wastewater which, in accordance with statistical theory, would yield the observed test result with the greatest frequency.

"primary cell" means the first in a series of cells of the wastewater treatment lagoon system and which is the cell that receives the untreated wastewater.

"secondary cell" means the second cell of the wastewater treatment lagoon system and which is the cell that receives partially treated wastewater from the primary cell.

### **GENERAL SPECIFICATIONS**

- l. The Licencee shall ensure that all domestic sewage generated within the Village of McCreary is directed toward the wastewater treatment lagoon.
- 2. The Licencee shall operate and maintain the wastewater treatment lagoon in such a manner that:
  - (a) the release of offensive odours is minimized;
  - (b) the organic loading, as indicated by the five day biochemical oxygen demand, to the primary cell is not in excess of 56 kilograms per hectare per day; and
  - (c) the depth of wastewater in the primary cell does not exceed 1.5 metres.
- 3. The Licencee shall arrange with the designated Environment Officer a mutually acceptable time and date for any required soil sampling between the 15th day of May and the 15th day of October of any year.
- 4. The Licencee shall install and maintain a fence around the wastewater treatment lagoon to limit access.
- 5. The Licencee shall, on or before the 31st day of August, 1993, provide to the Director "as constructed" drawings of the wastewater treatment lagoon and all appurtenances.
- 6. The Licencee shall, in case of physical or mechanical breakdown of the wastewater collection and/or treatment system:
  - (a) notify the Director immediately;
  - (b) identify the repairs required to the wastewater collection and/or treatment system;
  - (c) undertake all repairs to minimize unauthorized discharges of wastewater; and
  - (d) complete the repairs in accordance with any written instructions of the Director.

### DISCHARGE LIMITS, TERMS AND CONDITIONS

- 7. The Licencee shall not discharge effluent from the wastewater treatment lagoon:
  - (a) if the organic content of the effluent, as indicated by the five day biochemical oxygen demand, is in excess of 30 milligrams per litre;

- (b) if the fecal coliform content of the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample;
- (c) if the total coliform content of the effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample; or
- (d) between the 1st day of November of any year and the 15th day of May of the following year.

### **CONSTRUCTION SPECIFICATIONS**

- 8. The Licencee shall, prior to the construction of the dikes for the wastewater treatment lagoon, remove all organic topsoil from the area where the dikes will be constructed.
- 9. The Licencee shall, prior to the construction of the dikes for the wastewater treatment lagoon:
  - (a) remove all organic topsoil from the area where the dikes will be constructed; or
  - (b) remove all organic material for a depth of 0.3 metres and a width of 3.0 metres from the area where the dike will be built, provided all the lagoon dikes are lined with clay or other suitable material as required by Clause 10, to a minimum thickness of one metre measured perpendicular to the face of the side wall.
- 10. The Licencee shall construct the wastewater treatment lagoon system with clay or other suitable material such that all interior surfaces of the lagoon structure are underlain with a minimum of 1 metre of soil having a hydraulic conductivity of 1 x 10<sup>-7</sup> centimetres per second or less.
- 11. The Licencee shall either:
  - (a) subject undisturbed soil samples, from the completed wastewater treatment lagoon, to hydraulic conductivity tests, the number and location of samples to be specified by the designated Environment Officer up to a maximum of twenty samples; or
  - (b) where undisturbed soil samples cannot be taken, test the soil of 4 plane surfaces from the completed wastewater treatment lagoon, for hydraulic conductivity by an insitu field test method as prescribed by the designated Environment Officer.

### MONITORING AND REPORTING SPECIFICATIONS

- 12. The Licencee shall install at least three monitoring wells along the east side of the existing primary and secondary cells and shall obtain the Director's approval for the installation plans.
- 13. The Licencee shall:
  - a) collect and have analyzed any liquid collected in the monitoring wells installed pursuant to Clause 12 at a minimum frequency of once every 30 days;
  - b) have the samples analyzed for: conductivity, fluoride, sodium, nitrate-nitrogen, ammonia, total Kjeldahl nitrogen, and chloride using methods from the latest edition of Standard Methods for the Examination of Water and Wastewater or using other methods approved by the Director: and
  - c) report the results to the Director and the owners of private property along the east side of the lagoon, within 10 days of receiving the results of analyses of the samples taken.
- 14. The Licencee shall, at least 2 weeks before the third cell of the wastewater treatment lagoon is placed in operation, submit to the Director all reports and results of the tests carried out pursuant to Clause 11 for the respective cell which is to be placed into operation.
- 15. This Licence replaces Licence No. P120 which is hereby rescinded.

#### REVOCATION

If in the opinion of the Director the Licencee has exceeded or is exceeding or has or is failing to meet the specifications, limits, terms, or conditions set out herein, the Director may revoke, temporarily or permanently, this Licence.

Larry Strachan, P. Eng.

Director

**Environment Act** 

FILE: 120.10

## Manitoba



**Environment** 

**Environmental Management** 

Building 2 139 Tuxedo Avenue Winnipeg, Manitoba, CANADA R3N 0H6

**FAXED** 

File: 120.10

September 23, 1992

Mr. Les Ciapala, P. Eng. Senior Design Engineer Manitoba Water Services Board Box 1059, 2022 Currie Blvd. Brandon, MB R7A 6A3

Dear Mr. Ciapala:

Enclosed herewith is Environment Act Licence No.1590 dated September 23, 1992 issued in accordance with the Manitoba Environment Act to the Village of McCreary in connection with the construction and operation of the Development being the operation of a wastewater collection system and the construction and operation of a wastewater treatment lagoon located in the northeast quarter of Section 3, Township 21, Range 15 WPM and with discharge of treated effluent to the roadway ditch along the municipal road allowance north to the McKinnon Drain and located in the Village of McCreary, Manitoba.

In addition to the enclosed Environment Act Licence requirements, please be informed that all other applicable federal, provincial and municipal regulations and by-laws must be complied with.

For further information on the administration and application of the Licence, please feel free to contact Mr.Doug Peterson at 945-7012.

Yours truly,

Larry Strachan, P. Eng.

Director

**Environment Act** 

**Enclosure** 

cc. Distribution List



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