

## **SUMMARY OF COMMENTS/RECOMMENDATIONS**

**PROPONENT:** Town of Altona  
**PROPOSAL NAME:** Aerated Wastewater Treatment Lagoon  
Expansion  
**CLASS OF DEVELOPMENT:** 2  
**TYPE OF DEVELOPMENT:** Wastewater Treatment Lagoon  
**CLIENT FILE NO.:** 39.40

### **OVERVIEW:**

On August 13, 2014, the Department received an Environment Act Proposal (EAP) on behalf of the Town of Altona for the alteration, expansion and operation of the aerated wastewater treatment lagoon located in NE 9-2-1 WPM in the Rural Municipality of Rhineland. The expansion includes the construction of a new aeration cell, a new storage cell, and a new office and sewage treatment building that will house aeration system blowers and disinfection and nutrient reduction components. Treated wastewater from the aerated wastewater treatment lagoon or the wastewater treatment plant may be discharged between April 16<sup>th</sup> and October 31<sup>st</sup> inclusive of any year to municipal surface ditches that flow to the Plum River that flows to the Red River. The proposal also identifies that a previously existing storage cell of the lagoon that has not been used in recent years will be converted to a storage cell for water collected in the site's existing weeping tile collection system.

The Department, on December 18, 2014, placed copies of the EAP report in the Public Registries located at the Legislative Library, 200 Vaughn St., Winnipeg; the Millennium Public Library, 4<sup>th</sup> Floor, 251 Donald St., Winnipeg; and the Online Registry, <http://www.gov.mb.ca/conservation/eal/registries/index.html>, and provided copies of the EAP report to the TAC members. As well, the Department placed public notifications of the EAP in the Altona Red River Valley Echo on Thursday, December 18, 2014. The newspaper and TAC notifications invited responses until January 19, 2015.

On February 13, 2015, Manitoba Conservation and Water Stewardship forwarded four TAC correspondence items to the proponent's consultant for response. There were no comments or requests for additional information presented by the public.

On February 13, 2015, Manitoba Conservation and Water Stewardship submitted the February 13, 2015 letter and all ten of the responses from the TAC members to the appropriate Public Registries.

In a February 19, 2015 letter, the proponent's consultant provided responses to the TAC correspondences. The letter was forwarded to the participating TAC members on March 20, 2015 as appropriate. There were no additional requests for information.

**COMMENTS FROM THE PUBLIC:**

There were no comments from the public.

**COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:**

**Environmental Services Section – Infrastructure and Transportation**

- *No concerns.*

**Office of Drinking Water – Conservation and Water Stewardship**

- *The EAP notes the treated effluent from the lagoon system will go to the Plum River, then into the Red River. The point where the Plum River enters the Red is approximately 6 miles upstream of the raw water intake for the Morris Regional Water Treatment Plant. Under normal operating conditions, the treatment process at the Morris water plant can treat the water in the Red River. However, should a major spill of semi-treated or untreated effluent occur from the Altona Lagoon, it could cause difficulty for the Morris water plant in maintaining safe treated water quality. Therefore, Office of Drinking Water recommends that contact information for the Morris Regional Water Treatment Plant be included in the emergency response plans for the Altona lagoon, with instructions that, in the event of a major spill from the lagoons, the plant operators at the Morris Regional Water Treatment Plant be notified.*

**Proponent Response – February 19, 2015:**

- We will advise Altona to include the Morris Regional Water Treatment Plant as a contact in the emergency response plan for major spills from the lagoon.

**Office of the Fire Commissioner – Family Services and Labour**

- *The Office of the Fire Commissioner (OFC) recommends that a building permit and an occupancy permit be obtained for the office & sewage treatment building. The permit applications can be obtained from the OFC at 508-401 York Ave, Winnipeg or on the OFC Website at [www.firecomm.gov.mb.ca](http://www.firecomm.gov.mb.ca).*

**Proponent Response – February 19, 2015:**

- A building and occupancy permit will be obtained from the Office of the Fire Commissioner.

**Parks and Protected Spaces Branch – Conservation and Water Stewardship**

- *No concerns.*

**Water Use Licensing Section – Conservation and Water Stewardship**

- *No concerns.*

**Water Control Works and Drainage Licensing Section – Conservation and Water Stewardship**

- *Any water control works (drains, culverts, dykes, dams, etc.) associated with this project will require licensing under the Water Rights Act – an application is attached for the proponent’s convenience. Any inquiries in this regard may be directed to the local Water Resource Officer.*

**Proponent Response – February 19, 2015:**

- There are no new drains or culverts being constructed as part of the project, however should new culverts or drains be constructed, an application would be submitted.

**Air Quality – Environmental Programs and Strategies – Conservation and Water Stewardship**

- *The proposal is not expected to have a significant impact on air quality provided that the measures cited are implemented.*
- *The odour clause is suggested to be included in the License.*

**Disposition:**

- The draft Environment Act Licence contains a clause regarding odour nuisance.

**Agriculture, Food and Rural Development**

- *No concerns.*

**Lands Branch – Conservation and Water Stewardship**

- *No comment/concern.*

**Water Science and Management Branch – Conservation and Water Stewardship**

**January 6, 2015**

- *The following effluent standards should be in place for the Town of Altona wastewater treatment facility as per the Manitoba Water Quality Standards, Objectives and Guidelines Regulation (196/2011).*
  - *BOD<sub>5</sub> 25 mg/L*
  - *TSS 25 mg/L*
  - *Fecal Coliforms 200 MPN / 100mL*
  - *Total phosphorus <1 mg/L*
- *The Proponent has requested an earlier discharge date of April 16. In Appendix C and summarized on page 5-1 of the proposal, the Proponent has supplied total ammonia as N and pH data for the effluent. In comparing the data to the ammonia tables in the Manitoba Water Quality Standards, Objectives and Guidelines Regulation (196/2011) the effluent total ammonia exceeds equation 3 on two of the sample dates, April 22 and June 2.*

Date	Total Ammonia, as N	pH	Province of Manitoba Equation 3 Objective, Total Ammonia, as N
March 26, 2014	13.2	7.5	19.890
April 22, 2014	25.4	7.6	17.032
June 2, 2014	11.5	8.2	5.727

*It is recommended that the following effluent limits for ammonia be in place for the Town of Altona wastewater treatment facility as per the Manitoba Water Quality Standards, Objectives and Guidelines Regulation (196/2011) using Equation 3 and based on effluent pH:*

Effluent pH	Effluent, Total Ammonia expressed as N, (mg/L)
6.50	48.83
6.60	46.84
6.70	44.57
6.80	42.00
6.90	39.16
7.00	36.09
7.10	32.86
7.20	29.54
7.30	26.21
7.40	22.97
7.50	19.89
7.60	17.03
7.70	14.44
7.80	12.14
7.90	10.13
8.00	8.41
8.10	6.95
8.20	5.73
8.30	4.71
8.40	3.88
8.50	3.20
8.60	2.65
8.70	2.20
8.80	1.84
8.90	1.56
9.00	1.32

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- *The Water Quality Management Section is concerned with any discharges that have the potential to impact the aquatic environment and/or restrict present and future uses of the water. Therefore it is recommended that the license require the proponent to actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director.*

Proponent Responses – February 19, 2015:

- To address the total ammonia as N being discharged from the facility, an acid feed will be installed to allow pH adjustments in the effluent. By completing the pH adjustment during times of continuous discharge, the effluent will be in compliance with Manitoba Water Quality Standards, Objectives and Guidelines Regulation (196/2011) using Equation 3 based on pH.

March 26, 2015

- *The Water Quality Management Section recommends that during discharge, the Proponent be required to collect once each day a grab sample of the effluent at the final discharge point and analyse for:*
  - *pH*
  - *temperature (field)*
  - *total ammonia (expressed as mg/L of N)*

Disposition:

- The draft Environment Act Licence contains clauses that requires that the Licencee shall, during Phase One or when discharging storage cell No. 3, No. 4, or No. 5 to the discharge route, prior to each effluent discharge campaign obtain grab samples of the effluent and have the samples analyzed for:
  - a) organic content as indicated by the five-day carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>) and expressed as milligrams per litre;
  - b) fecal coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample;
  - c) total phosphorus content expressed as milligrams per litre;
  - d) total suspended solids content expressed as milligrams per litre;
  - e) unionized ammonia expressed as nitrogen (N) expressed as milligrams per litre;
  - f) total ammonia expressed as nitrogen (N) expressed as milligrams per litre;
  - g) pH; and
  - h) temperature.
- The draft Environment Act Licence contains clauses that requires that the Licencee shall, during Phase Two operation, when discharging through the wastewater treatment building, take grab samples of effluent from the effluent monitoring station once each week and have them analyzed for:
  - a) organic content as indicated by the five-day carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>) and expressed as milligrams per litre;

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- b) have the grab samples analyzed for the fecal coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample
  - c) total phosphorus content expressed as milligrams per litre;
  - d) total suspended solids content expressed as milligrams per litre;
  - e) total ammonia expressed as nitrogen (N) as milligrams per litre;
  - f) pH; and
  - g) temperature.

**PUBLIC HEARING:**

A public hearing has not been requested.

**RECOMMENDATION:**

Issue an Environment Act Licence in accordance with the attached draft. Enforcement of the Licence clauses that relate to construction of the new cells should be assigned to the Environmental Approvals Branch until testing of the soil liner of each new cell has been completed. The Licence should be jointly enforced by the Environmental Approvals and the Environmental Compliance and Enforcement Branches as appropriate and as each Phase of the Development is implemented.

**PREPARED BY:**

Robert Boswick, P. Eng.  
Environmental Engineer  
June 15, 2015

Telephone: (204) 945-6030  
Fax: (204) 945-5229  
E-mail Address: robert.boswick@gov.mb.ca