

## SUMMARY OF COMMENTS/RECOMMENDATIONS

**PROPOSER:** Rural Municipality of Lansdowne  
**PROPOSAL NAME:** Arden Wastewater Treatment Lagoon  
**CLASS OF DEVELOPMENT:** 2  
**TYPE OF DEVELOPMENT:** Wastewater Treatment Lagoon  
**CLIENT FILE NO.:** 4915.00

### OVERVIEW:

On November 8, 2002, the Department received an Environment Act Proposal (EAP) on behalf of the Rural Municipality of Lansdowne for the construction and operation of a wastewater treatment lagoon located in SW 18 - 15 - 13WPM to serve the Community of Arden. Effluent from the wastewater treatment lagoon would be discharged to a drainage ditch that would flow north-northwest to Pembroke Drain that flows east and empties to the Big Grass River that flows south and empties to the Whitemud River. Effluent would be discharged between June 15<sup>th</sup> and November 1<sup>st</sup> of any year.

On December 9, 2002, the Department requested that the consultant provide additional supporting information prior to commencing review of the EAP.

On February 14, 2003, the Department received the additional supporting information.

The proposal and supporting documentation prepared by Stantec Consulting Ltd., identified clay soils at the proposed site. The supporting documentation indicated that the clay soil is expected to meet provincial standards regarding hydraulic conductivity of soils used for construction of wastewater treatment lagoons.

The Department, on March 5, 2003, placed copies of the EAP report in the Public Registries located at 123 Main St. (Union Station); the Centennial Public Library, Manitoba Eco-Network, Western Manitoba Regional Library and the Rural Municipality of Lansdowne and provided copies of the EAP report to the Canadian Environmental Assessment Agency, the Clean Environment Commission, and TAC members. As well, the Department placed public notifications of the EAP in the Neepawa Press on Monday, March 10, 2003 and in the Portage Herald Leader on Tuesday, March 11, 2003. The newspapers and TAC notifications invited responses until April 13, 2003.

On May 7, 2003, Manitoba Conservation submitted responses from the public and TAC members to the appropriate Public Registries. Five TAC responses and four letters from the public were received. The Department of Fisheries and Oceans Canada (DFO) requested additional information while Agriculture and Agri-Food Canada, Prairie Farm Rehabilitation Administration, DFO and Environmental Protection Canada offered to provide specialist advice.

On May 7, 2003, a letter, summarizing directly related items of interest presented by the TAC, federal government representation and public and requesting comments on these items of interest, was sent to the proponent's consultant. On August 21, 2003 Manitoba Conservation received a response to the request.

On August 26, 2003 the response material was distributed to TAC, federal government representation and public representation for review and comment. Intergovernmental Affairs was the only TAC representative that provided additional comments. The comments relate to the need for the RM of Lansdowne to issue a conditional use permit and the necessary variations. In addition, four September, 2003 letters from public representations identified continuing concerns. The concerns identified by the public can be addressed through standard limits, terms and conditions as well as through specific monitoring and reporting requirements of an Environment Act Licence.

On February 12, 2004 DFO provided a letter to the proponent requesting additional information that would allow them to determine whether the project will result in the harmful alteration, disruption or destruction of fish habitat. Where practical, the concerns identified by DFO can be addressed through limits, terms and conditions as well as through specific monitoring and reporting requirements of an Environment Act Licence.

**COMMENTS FROM THE PUBLIC:**

Following Initial Advertisement:

<u>Name</u>	<u>Address</u>	<u>Date</u>	<u>Comment(s)</u>
Campbell, Larry and Jo-Anne	Box 148 Arden, MB R0J 0B0	03/03/26	<ul style="list-style-type: none"> <li>• Identifying that they are against the proposed lagoon;</li> <li>• Expressing concerns about the effectiveness of the drainage route, odours, mosquito control and potential associated viruses and lowered property values.</li> </ul>
Block, Herb and Ruth	213 Dufferin Rd. Arden, MB R0J 0B0	03/04/07	<ul style="list-style-type: none"> <li>• Suggesting that proposed site is not a suitable location;</li> <li>• Expressing concerns about mosquito control and potential associated viruses, odours, drainage route and potential for impacts on vegetation during construction.</li> </ul>
Jackson, Terry and Jean	213 Dufferin Rd. Arden, MB R0J 0B0		
Kolesar, Ray	Box 157 Arden, MB R0J 0B0	03/04/08 (rec'd)	<ul style="list-style-type: none"> <li>• Expressing concerns with respect to:               <ul style="list-style-type: none"> <li>- groundwater contamination;</li> <li>- surface water contamination;</li> <li>- drainage through the private property;</li> <li>- drainage into natural fish habitat;</li> </ul> </li> </ul>

<u>Name</u>	<u>Address</u>	<u>Date</u>	<u>Comment(s)</u>
			<ul style="list-style-type: none"> <li>- type of effluent treatment;</li> <li>- odours and air quality; and</li> <li>- devaluation of property.</li> </ul>
Gabor, Shane	Box 3049 Stonewall, MB R0C 2Z0	03/04/14	<ul style="list-style-type: none"> <li>• Expressing concerns with respect to:               <ul style="list-style-type: none"> <li>- groundwater and surface water pollution hazard;</li> <li>- efficiency of proposed drainage route;</li> <li>- soil characteristics and the ability of the soils to provide a soil liner that meets standard requirements;</li> </ul> </li> <li>• Requesting that a groundwater monitoring program, including specific details and parameters, be developed to assess water quality along the discharge route, at the site and along the Pembroke Drain; and</li> <li>• Suggesting that the proponent be required to notify the owner of the property adjacent to the lagoon and discharge route a minimum of one week prior to lagoon discharge.</li> </ul>

Proponent Responses – August 19, 2003

Regarding Comments from Campbell, Larry and Jo-Anne:

- The lagoon will be constructed in accordance with Manitoba Conservation's guidelines for wastewater lagoon construction. Hydraulic conductivity, effluent quality and minimum building setback requirements are all addressed in these guidelines; and
- The natural drain is very flat and will require minimal re-grading to facilitate positive drainage from the proposed lagoon to Pembroke Drain.

Regarding Comments from Block, Herb and Ruth and Jackson, Terry and Jean:

- The lagoon will be constructed in accordance with Manitoba Conservation's guidelines for minimum setback requirements to existing residences;
- The wastewater forcemain will be installed by trenchless methods in sensitive areas, such as those overgrown with fruit trees; and
- Three sites were considered in the feasibility study and this site was deemed to be the most suitable.

Regarding Comments from Kolesar, Ray:

- Groundwater will be monitored in accordance with the terms of the Licence;

- The lagoon will be constructed and effluent discharged in accordance with Manitoba Conservation's guidelines;
- The treated effluent will be "scrubbed" through the natural wetland and further oxidized along the 28 km drainage route to the Whitemud River; and
- The RM of Lansdowne has a written agreement with the owners of the property north of the lagoon site.

Regarding Comments from Gabor, Shane:

- Drainage improvements through Boughton's Slough will be part of the detailed design stage of this project;
- The lagoon will be constructed in accordance with Manitoba Conservation's standard for hydraulic conductivity. A synthetic or bentonite liner may be required if enough suitable clay cannot be found on site; and
- Treated effluent will be tested prior to discharge and shall conform to Manitoba Conservation's guidelines. Additional testing and monitoring will be done in accordance with the terms of the Licence.

Following Review of Supplementary Information:

<u>Name</u>	<u>Address</u>	<u>Date</u>	<u>Comment(s)</u>
Campbell, Larry and Jo-Anne	Box 148 Arden, MB R0J 0B0	03/09/08	<ul style="list-style-type: none"> <li>• Expressing concerns regarding odours and general operation as well as potential soil, surface water and groundwater impacts;</li> <li>• Indicating that mosquito control concerns were not addressed.</li> </ul>
Block, Herb and Ruth	213 Dufferin Rd. Arden, MB R0J 0B0	03/09/11	<ul style="list-style-type: none"> <li>• Suggesting original concerns were not addressed;</li> <li>• Expressing concerns about virus associated with mosquitoes decreased property value due to lagoon proximity.</li> </ul>
Jackson, Terry and Jean	213 Dufferin Rd. Arden, MB R0J 0B0		
Kolesar, Ray	Box 157 Arden, MB R0J 0B0	03/09/11	<ul style="list-style-type: none"> <li>• Expressing concern regarding impacts on fish and aquatic life; and</li> <li>• Suggesting site is natural pasture habitat, not general cropland.</li> </ul>
Gabor, Shane	Box 3049 Stonewall, MB R0C 2Z0	03/04/14	<ul style="list-style-type: none"> <li>• Suggesting original concerns were not adequately addressed;</li> <li>• Reiterating original concerns with respect to:               <ul style="list-style-type: none"> <li>- groundwater and surface water pollution hazard;</li> </ul> </li> </ul>

<u>Name</u>	<u>Address</u>	<u>Date</u>	<u>Comment(s)</u>
			<ul style="list-style-type: none"> <li>- efficiency of proposed drainage route;</li> <li>- soil characteristics and the ability of the soils to provide a soil liner that meets standard requirements;</li> <li>• Identifying nitrate levels in waters as a concern.</li> <li>• Requesting that proponent provide one week notice to land owner prior to effluent discharge and that results of effluent analyses be provided to land owner.</li> </ul>

Disposition:

- Limits, terms and conditions of the draft Environment Act Licence provide operating criteria regarding organic load, odours, containment and quality of treated wastewater that are conventional for standard lagoons in Manitoba;
- The proposed lagoon liner design consists of placed and compacted clay type soil that will form a 1 metre thick liner having a hydraulic conductivity that satisfies design objectives for standard wastewater treatment lagoons in Manitoba. The consultant identified the possibility that a synthetic or bentonite type liner will be used if the soil liner design cannot be achieved. A Notice of Alteration would have to be submitted by the proponent to allow any such liner design alteration to be assessed or approved;
- Discharge from the lagoon is permissible between June 15<sup>th</sup> and October 31<sup>st</sup> of any year;
- The wastewater must be held until June 15 to allow for the reduction in ammonia levels to meet criteria set out in Manitoba Water Quality Standards, Objectives, and Guidelines – Manitoba Conservation Report 2002-11;
- The draft Environment Act Licence contains a clause that requires the proponent to obtain an easement, prior to lagoon construction, for the private land between the discharge valve of the lagoon and Pembroke Drain that will be used for lagoon discharge;
- The draft Environment Act Licence contains a clause that requires the proponent to improve and maintain the component of the discharge route from the discharge pipe of the secondary cell to Pembroke Drain such that, during periods when the lagoon is discharging, flow of treated effluent to Pembroke Drain will be continuous and unobstructed;
- The draft Environment Act Licence contains clauses that require the proponent to propose groundwater and surface water quality investigations and monitoring plans; and
- The draft Environment Act Licence contains clauses that require the proponent to provide one-week notice to the owner of the land around the lagoon and the

immediate discharge route prior to effluent discharge and that results of effluent analyses are also provided to the owner.

### **COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:**

#### **Agriculture and Food**

- *No concerns.*

#### **Health**

- *Please monitor for groundwater contamination by regular sampling of nearby residential or community wells; and*
- *Please ensure;*
  - *prevention of pollutants or contaminated wastewaters from entering sewage disposal and municipal ditch systems;*
  - *odor control and monitoring;*
  - *gasoline and diesel regulations if applicable; and*
  - *effluent discharge as per the Environment Act practice.*

#### **Proponent Responses – August 19, 2003:**

- Groundwater will be monitored in accordance with the terms of the Licence; and
- The lagoon will be constructed and operated in accordance with Manitoba Conservation guidelines.

#### **Disposition:**

- Limits, terms and conditions of the draft Environment Act Licence provide construction requirements and standard operating criteria regarding monitoring and controlling effluent discharges that are conventional for standard lagoons in Manitoba.

#### **Historic Resources**

- *An archaeological site is recorded in SW 18 – 15 – 13 WPM. The Branch's Impact Assessment Archaeologist will examine this area when scheduling permits to determine the condition and significance of the archaeological deposit. In the event that significant heritage resources are present, the proponent will be contacted and a mutually acceptable heritage resources management strategy can be implemented.*
- *In the interim it is recommended that the application be allowed to proceed subject to Branch findings.*

#### **Proponent Response – August 19, 2003:**

- The Historic Resources Branch indicated in an August 14, 2003 telephone conversation that the proposed lagoon site has been disturbed previously and that no mitigation is required.

### Intergovernmental Affairs

- *Please be advised that our office has a minor land use concern with the proposed lagoon site no. 2 found in the S.W. 1/4 Sec. 18-Twp. 15- Rge. 13 W. The site may not be located far enough from Arden. We do not wish to make a formal objection as the Department of Conservation may not find our concern a valid environmental issue or a concern with your regulations in this case and the Council can approve it using their existing Zoning By-law;*
- *This land is found in the "AG80" - Agricultural General Zone. The sewage lagoon use is a conditional use which means that it must go through a public hearing and Council can deny the use or approve it with or without conditions. The site area must be a minimum of 5 acres and the site width must be a minimum of 500 feet with a front yard of 125 feet and a side and rear yard of 100 feet minimums or as varied by Council. The proposal does not identify a site area to be subdivided from the quarter section although there is some accessory information suggesting that Wheat City Concrete will sell 5 acres from their 1/4 section.*
- *The site of the lagoon itself appears to be over 1000 feet from the closest dwelling, but it is within 1500 feet of the easterly developed portion of Arden and well within 1500 feet of the land designated as "GD" General Development Area where future urban use could take place. However, this proposed lagoon site is located to the east of Arden near the existing solid waste disposal facility, in an area where future urban development would probably not locate within at least 1000 feet from the lagoon but still be able to use the existing lot pattern.*
- *There is a section in the existing Zoning By-law that reads as follows:*
  - *"New habitable buildings shall not be located within 1500 feet of an active or abandoned sanitary landfill site and dwelling units shall not be located within 1000 feet from a sewage lagoon or as recommended by the Department of Conservation."*
- *Given this section it appears that if Conservation recommends approval of this use at this site then the R.M. of Lansdowne could approve it as a conditional use providing a 5 acre site is obtained for this use.*

### Proponent Response – August 19, 2003:

- The RM of Lansdowne will re-zone or issue a variance to construct the lagoon at the proposed location.

### Sustainable Resource Management Branch

- *Before this discharge route is approved, the ability of the natural wetland to assimilate the effluent flows must be determined. In this assessment both the nutrient load and the SAR load should be considered. The proponent should consult with Ducks Unlimited staff and other wildlife specialists in this regard and also to determine the value/importance of this wetland to local wildlife. Should the wetland not be capable of handling this discharge, it may be advisable that the effluent bypass the marsh and go directly to the Pembroke Drain; and*

- *The proponent should be required to actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director, for the adjacent natural wetland, the Pembroke Drain, the Whitemud River, Lake Manitoba and associated waterways and watersheds.*

Proponent Responses – August 19, 2003:

- Minor drainage improvements will be required to facilitate positive drainage from the proposed lagoon to Pembroke Drain. A representative from the Whitemud Watershed Conservation District familiar with Boughton's Slough advised us, in an August 14, 2003 telephone conversation, that he was unaware of any particular importance to wildlife associated with that portion of the slough on the north side of Pembroke Drain;
- Ducks Unlimited biologist, Dwayne Hudd, advised us the week of August 11, 2003 that he was unfamiliar with Boughton's Slough. However, it is Ducks Unlimited's position that wetlands should not be relied on as a sole source of treatment for sewage effluent. The proposed lagoon will discharge effluent in accordance with Manitoba Conservation's guidelines and the existing wetland is only a small portion of the entire discharge route;
- Water levels in Boughton's Slough and downstream of the lagoon will be considered prior to discharge of treated effluent, as required by the terms of the Licence; and
- The RM of Lansdowne will participate in any future watershed based plans, studies and/or nutrient reduction programs as required by the terms of the Licence.

Transportation & Government Services

- *No major concerns; and*
- *Based on the information provided, we assume the additional flow will not impact the hydraulic capacity of the existing culverts located on our Department Roads. However, it should be noted that any increased capacity that may be required is the responsibility of the applicant.*

Proponent Responses – August 19, 2003:

- Effluent will be discharged in a controlled manner and with consideration to downstream water levels. Any drainage improvements required will be the responsibility of the RM of Lansdowne.

Canadian Environmental Assessment Agency

- *CEAA responses have indicated that application of The Canadian Environmental Assessment Act with respect to this proposal will be required.*

Proponent Responses:

- Silt fencing will be required during drainage improvements in Boughton's Slough;
- Effluent will be discharged twice a year between June 16 and November 1 of any year; and



- An Environmental Screening Report as required for funding under the Canada – Manitoba Infrastructure Program was prepared.

Disposition:

- Where practical, the concerns identified by DFO have been addressed through limits, terms and conditions as well as through specific monitoring and reporting requirements of the draft Environment Act Licence.

**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 should be assigned to the Approvals Branch until the soil testing has been completed.

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