

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Town of Plum Coulee
PROPOSAL NAME: Wastewater Treatment Lagoon Expansion
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Wastewater Treatment Lagoon
CLIENT FILE NO.: 175.10

OVERVIEW:

On February 20, 2002, the Department received an Environment Act Proposal (EAP) on behalf of the Town of Plum Coulee to expand an existing 2-cell wastewater treatment lagoon located in SE 11 - 3 - 3 WPM. The expansion is to consist of constructing a new additional primary cell adjacent to the south dike of the existing wastewater treatment lagoon and a new additional secondary cell adjacent to the northeast dike of the existing wastewater treatment lagoon. Construction activities will also include remediation of the existing west dike and removal of accumulated sludge from the existing primary cell of the wastewater treatment lagoon. A temporary sludge drying bed will be constructed south of the new primary cell. Treated wastewater from the expanded wastewater treatment lagoon will be discharged north to Deadhorse Creek between June 15th and November 1st of any year.

The Proposal and supporting documentation, prepared by Steckley Consulting Engineers Inc., indicates that the soil liner of the lagoon will consist of a clay soil keyway that will cut off a natural silty sand zone that exists at the site. Supporting documentation indicates that clay type soils are available at the site and it is expected that the placed and compacted soils will meet provincial standards regarding hydraulic conductivity of soils used for construction of wastewater treatment lagoons.

The Department, on March 5, 2002, placed copies of the EAP report in the Public Registries located at 123 Main St. (Union Station); the Centennial Public Library (Winnipeg), the South Central Regional Library (Morden) and the Rural Municipality of Rhineland Office and provided copies of the EAP report to the Canadian Environmental Assessment Agency (CEAA), the Clean Environment Commission, and TAC members. As well, the Department placed public notifications of the EAP in the Winkler Times and the Altona Red River Valley Echo on Monday, March 11, 2002. The newspapers and TAC notifications invited responses until April 5, 2002.

On April 15, 2002 Manitoba Conservation forwarded comments that had been received from the TAC to the proponent. Additional information that would address the requests presented in the comments was requested from the proponent.

On April 15, 2002, Manitoba Conservation submitted responses from the TAC members to the appropriate Public Registries. No comments were received from the public.

On May 21, 2002, the consultant submitted a response to the TAC comments.

On June 11, 2002 the consultant's response was distributed to the TAC members who had requested additional information.

On July 19, 2002 Manitoba Conservation requested that either additional information regarding the removal and disposal of sludge from the existing cells of the wastewater treatment lagoon be provided to supplement this EAP or that a separate EAP would have to be submitted at a later date.

On September 6, 2002 the proponent responded to Manitoba Conservation's July 19, 2002 request for additional information. The additional information did not provide detail necessary for a required review of the potential environmental impacts of the sludge disposal options.

On September 11, 2002 the proponent requested that sludge removal, treatment and disposal activities be assessed under a separate approval process.

COMMENTS FROM THE PUBLIC:

There were no comments from the public.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Agriculture and Food

- *No concerns.*

Health

- *The health concerns of odor reduction, protection of groundwater and safety (fencing) appear to be addressed in the proposal.*

Disposition:

- The Licence contains Clauses that minimize odor generation, protect groundwater and incorporate safety features requirements such as fencing.

Historic Resources

- *No concerns.*

Intergovernmental Affairs

- *The Town of Plum Coulee proposes to expand the existing municipal wastewater lagoon in order to meet current and anticipated future loading requirements;*
- *The lagoon is located on the north edge of the Town, adjacent to the municipal boundary with the RM of Rhineland;*
- *Under the Town of Plum Coulee Planning Scheme, the affected area is zoned "A" Rural District;*
- *Sewage lagoons are not listed as a permitted use in this zone, but the existing lagoon has been at that location for 35 years;*
- *Aerial photography indicates that there are 3 farmyards located in a downwind direction of the proposal approximately 1.3 kilometres away; and*
- *Community Planning Services has no concerns with proposed lagoon expansion.*

Environmental Operations

- *The Town of Plum Coulee should give formal notice to the R.M. of Rhineland that this facility will no longer be available for the disposal of septage; and*
- *Proposal does not describe method of de-sludging and disposal of dried sludge. The site plan in Appendix A shows temporary drying beds which are assumed would be utilized in the de-sludging process. Disposal of the sludge at the Plum Coulee waste disposal ground would not be recommended by this office.*

Disposition:

- *The Town of Plum Coulee provided formal notice to the R.M. of Rhineland in a letter dated May 24, 2000; and*
- *The de-sludging activities that were initially proposed have been postponed until a later time.*

Sustainable Resource Management Branch

- *Deadhorse Creek is currently receiving effluent from both Morden and Winkler, as well as runoff from agricultural operations in the watershed. The accumulative impact of these facilities on the Plum River has not been assessed by the proponent. To help mitigate potential impacts a coordination of the discharge*

- schedules for the three wastewater facilities may minimize impacts on the downstream quality of the Plum River;*
- It is stated in the Plum Coulee Wastewater Treatment Lagoon Environment Act Assessment that the fecal coliform levels in the effluent will be < 1200 mg/l. In addition to these units being wrong the effluent quality should not exceed 200 fecal coliform/100 ml at time of discharge. If discharge occurs after June 15 it is also expected that ammonia levels would be significantly lower than the <15 mg/l reported in this same table; 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 Deadhorse Creek, Plum River and associated waterways and watersheds.*

Disposition:

- The Licence includes a Clause that requires that the Licencee coordinate discharge periods of the wastewater treatment lagoon with discharge periods of other wastewater treatment lagoons discharging to the Deadhorse Creek and Plum River;
- The Licence includes limits regarding allowable fecal and total coliform levels of effluent; and
- The Licence requires that the proponent actively participate in any future watershed based management study, plan or nutrient reduction program, approved by the Director, for the Deadhorse Creek, Plum River and associated waterways and watersheds.

Transportation and Government Services

- *No concerns.*

COMMENTS FROM FEDERAL REPRESENTATION:

Environment Canada - Environmental Protection

- *Some environmental impact information is provided in Appendix D of EIA report, but the information is somewhat limited. The expansion of the lagoon system should result in improved wastewater treatment and subsequent environmental benefits, but the report should contain additional information in order to provide a more complete assessment of the project impacts. Since Deadhorse Creek is an intermittent stream, the draft Manitoba water quality objectives are intended to apply to the downstream receiving water body (i.e., the Plum River). Information should, therefore, be provided on the potential impacts of the lagoon discharge on the Plum River.*

- *In light of concerns with nutrient discharges to the Lake Winnipeg drainage basin, the province should consider requiring proponents of any new or expanded wastewater treatment facilities to provide information on the expected nutrient discharges and an assessment of their impacts on the environment. Where appropriate, information on nutrient removal/reduction methods or technologies should also be provided. In many cases, it may be more cost effective to implement nutrient removal/reduction at the design stage.*

Disposition:

- Although the Deadhorse Creek discharges into the Plum River, the Plum River then discharges to the Red River, a distance of approximately 2.5 km downstream of Deadhorse Creek. The Plum River also receives drainage from a number of other drains other than Deadhorse Creek prior to discharging to the Red River. There is also limited water quality data available on the Plum River by which to conduct an assessment. Due to the limited reach of the Plum River impacted prior to its discharge with the Red River (2.5 km) and the limited water quality data available, the assessment of impacts focused on the Deadhorse Creek and the Red River.
- The Licence requires that the proponent actively participate in any future watershed based management study, plan or nutrient reduction program, approved by the Director, for the Deadhorse Creek, Plum River and associated waterways and watersheds.

Canadian Environmental Assessment Agency

- *The 2001 CEAA responses have indicated that application of The Canadian Environmental Assessment Act with respect to this proposal will be required. Environment Canada and Health Canada would be able to provide specialist advice in accordance with Section 12(3) of the Act.*
- *The Canada-Manitoba Infrastructure Secretariat has requested to be kept abreast of the environmental assessment activities related to this project.*

Disposition:

- The Canada-Manitoba Infrastructure Secretariat has been kept abreast of the environmental assessment activities and proposal activities in general.

PUBLIC HEARING:

A public hearing was not requested.

RECOMMENDATION:

An Environment Act Licence be issued in accordance with the attached draft. Enforcement of the Licence should be assigned to the Approvals Branch until the soil testing has been completed.

PREPARED BY:

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