OVERVIEW:

On September 20, 1999, the Department received a Proposal from SEG Engineering Inc. on behalf of the Wendigo Trailer Owners Association for the construction and operation of a wastewater treatment plant to replace the lagoon that was decommissioned by Director’s Order in 1998. The wastewater treatment plant, which will be located on the northeast quarter of Section 17, Township 16, Range 12 EPM, will service 72 trailers from May 15th to October 15th of each year. The wastewater treatment plant is an extended aeration packaged sewage treatment plant. The treated wastewater will be discharged into a marshy area at the edge of the Winnipeg River.

The Proposal did not adequately address all sections of the Environment Act Proposal Form. Further information was requested from the Proponent on September 29, 1999. A response was received by the Department on December 23, 1999. Further information was requested on January 5, 2000 and received by the Department on January 7, 2000 and January 21, 2000. The Proposal was accepted on January 31, 2000.

The Department, on February 1, 2000, placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Centennial Public Library and the Brokenhead River Regional Library in Beausejour. As well, copies of the Proposal were provided to the Interdepartmental Planning Board and TAC members. The Department placed a public notification of the Proposal in the Lac du Bonnet Leader on Monday, February 7, 2000. The newspaper and TAC notification invited responses until March 2, 2000.

COMMENTS FROM THE PUBLIC:

One response was received to the public notification. The following are comments/concerns related to the proposal:

Linda Hapko – Wendigo Resort Ltd., Lac du Bonnet

As owner of the surrounding property and of the main sewer lines, lift station, manhole etc., I have several concerns:

- There are several cottages currently connected to the system but the proposal refers only to 72 trailers. It does not address all users of the system and in fact it appears that the proposal will cut off those cottages to the north and northwest.
The proposal states that the surrounding property is for cottage development only. This is not true as the property west and south of the trailer park is commercial.

I question the location of the property lines, especially the four cottage lots in the southeast. No such lot lines exist. They have not indicated the property lines over portions of lands given through the easement agreement with Wendigo Resort Ltd.

The drawings indicate that they will be installing and disconnecting lines on my property in the far westerly section.

The drawings indicate that they will be disrupting, destroying, or making use of certain portions of the main sewage system, which are owned by Wendigo Resort Ltd. If this is done they will not only be using or destroying property which is not theirs but will also leave several properties without sewage. This is not acceptable.

The drawings indicate that a discharge line will be put in place behind the four cottages mentioned in #3 above. Any digging for the line would disrupt these cottage properties to a large degree. It is also a concern that if the discharge line broke it would affect the neighboring properties. An acceptable alternative to this location would be to the other side of the road where the drainage is better and the installation of lines would be less disruptive.

The proposal indicates that it will run continuously for 24 hours a day from May 15th to Oct. 15th. My research has indicated that there is a concern in regards to both odour and noise. My current cottagers do not live out at the lake so that they can listen to the continuous hum of motors or a lingering odour 24 hours per day.

The proposal is in error when it refers to the positive impact on ground water due to the elimination of septic fields. To my knowledge there has never been nor are there currently any septic fields on this property or on my property.

The proposal indicates that the development will be detrimental to some degree to fisheries but it should also be a concern that all the cottages in the area derive their water from the same water system.

Wendigo Resort Ltd. is well aware that a solution to the sewage system is needed. However, we feel that the Association has closed its eyes to alternatives. Wendigo Resort Ltd. has made every attempt to work in co-operation with the trailer park to solve the sewage problem and has put forth several alternatives to the treatment plant. In our view they are much more cost effective and would have little or no impact on the environment. We do not feel that the Association has properly explored all their options.

Disposition:

The draft Licence includes a clause which states that the proponent is responsible for taking all necessary steps to gain lawful entry to any land, structures or buildings for which its right of entry is or may be contested, for the purpose of the construction and operation of the wastewater treatment plant and collection system.

The proponent has indicated that the wastewater treatment plant would service 72 trailers and 2 cottages. The cottages to the north will not be connected to the treatment plant.
The proponent has provided a map which indicates the location of the lands given to them through the easement agreement with Wendigo Resort Ltd.

The proponent has submitted a revised plan of the collection system, which is located entirely within the property owned by the proponent.

The proponent has indicated that the effluent discharge line will be placed on the far side of the road allowance.

The draft Licence includes clauses to ensure that the wastewater treatment plant does not cause a noise or odour nuisance.

The proponent indicated that there are no septic fields in the area.

The effluent limits in the draft Licence will ensure that the water quality in the Winnipeg River does not exceed the Manitoba Surface Water Quality Objectives due to the operation of the wastewater treatment plant.

**COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:**

**Highways and Government Services**
- No comment.

**Conservation - Natural Resources**
- The report states that the effluent will be discharged into a marshy area but the map seems to indicate that the effluent will be discharged directly into the river. The water flow along this part of the river may not be sufficient to maintain the effluent at appropriate levels of dilution. In view of this, the effluent should be filtered through the marsh before entering the river.
- The previous lagoon system received a significant volume of surface water runoff from the resort area. This surface water runoff does not appear to be accounted for in the design of the new treatment plant. If the intent is to handle the runoff by another means, Manitoba Conservation Eastern Region should be advised of the proposed manner of discharge.
- It is my understanding that Manitoba Conservation is currently negotiating a new arrangement with Wendigo Resort that will result in the termination of Wendigo’s rights to this particular parcel of land. The proponent will therefore need to obtain a permit from Manitoba Conservation Lands Branch for use of these lands.

**Disposition:**
- The proponent confirmed that effluent would be discharged into the marsh. Discharge into the marsh is a requirement of the draft Licence.
- The proponent indicated that the Rural Municipality of Lac du Bonnet has constructed a ditch to drain the surface runoff from the area.
- The new arrangement will terminate Wendigo’s right to the parcel of land proposed to be used for the outfall. The proponent has been informed of the requirement to obtain a permit for this use.
Historic Resources

- Historic Resources Branch concerns regarding this project’s potential to impact heritage resources are addressed in Section viii) Potential Impacts and Section ix) Environmental Management Practices wherein the Branch will be contacted two weeks prior to construction so that arrangements can be made for staff to monitor excavations. Therefore the Branch has no concerns with the license proposal.

Disposition:
- The draft Licence contains a clause requiring the Proponent to contact Heritage Resources Branch two weeks prior to construction to arrange for monitoring of excavations.

Intergovernmental Affairs

- No comment.

Health

- No comment.

Conservation – Environment Operations Division

- The gravity sewer is old and accepts a considerable amount of infiltration. Some areas of the trailer park are low and may be draining excess surface water into the sewer system. The licence can address this situation by requiring a review of infiltration and extraneous flow and subsequent remedial work as required. Year round infiltration has been observed and could pose a problem if the plant will be out of service for a significant portion of the year.
- A 200 MM gravity sewer is shown originating on the north side of the road and outside the trailer park. If development is allowed outside the service area the plant could become easily overloaded.
- The disinfection system is not described very well in the proposal. An October 22, 1999 letter describes chlorination/dechlorination pucks but the drawing does not show any chlorine contact tank; contact chamber is listed as optional. The specification does not mention chlorination at all.
- It is not clear whether the outfall will be closed pipe or open ditch. The outfall will pass by several cottage lots that are developed and the choice of open or closed outfall will affect the owner.

Disposition:
- The proponent indicated that a catchbasin, believed to be the source of the infiltration, would be plugged. A review of infiltration and extraneous flow is a requirement in the draft licence.
- The proponent indicated that only 72 trailers and two cottages south of the trailer park would be connected to the wastewater treatment plant. The draft Licence restricts the hydraulic and organic loading on the wastewater treatment plant to the design capacities.
• The proponent provided additional details of the chlorination system, which will include chlorination in a chlorine contact chamber, contact time of one hour and dechlorination, followed by effluent discharge. Chlorination, dechlorination and a minimum 15 minutes contact time are addressed in the draft Licence.

• The proponent confirmed the closed discharge pipe location behind the cottage lots.

**Conservation – Environment Water Quality Management**

• The Water Quality Section acknowledges that the construction of a wastewater treatment plant to service the local residents is a significant improvement over the existing facility. As such, the Section has no major concerns in terms of potential water quality impacts. The Section has the following comments:
  
  • The proposal is generally lacking in details and organization.
  
  • Calculations indicate that levels of un-ionized ammonia in the treated effluent will be below the Manitoba Surface Water Quality Objectives.
  
  • Un-ionized ammonia should be tested for on a monthly basis; therefore water temperature should be recorded along with total ammonia and pH.
  
  • The Section prefers allowing the treated effluent to diffuse through the marsh area, rather than being piped directly to the lake water. This would allow the vegetation in the marsh to absorb nutrients and other contaminants from the effluent prior to it entering the lake.
  
  • The proposal does not mention any potential impacts the treated effluent might have on the beach and docking area. Is it a concern to recreational water users in the area?

**Disposition:**

• The draft Licence restricts ammonia in the effluent to 1.0 mg/L total ammonia, as proposed.

• Parameters to be tested on a monthly basis include water temperature, as well as BOD, TSS, total and fecal coliform, pH and total ammonia.

• The proponent confirmed that effluent would be discharged into the marsh.

• The proponent indicated that the discharge of treated effluent is not a concern to the recreational water users in the area who are the residents of the WTOA.

**Canadian Environmental Assessment Agency**

• CEAA has indicated that application of The Canadian Environmental Assessment Act with respect to this proposal will not be required. However, the following federal departments provided comments:

  Environment Canada

  • If dechlorination is to be incorporated as stated, we would expect that chlorine levels in the treated effluent would be zero, not 0.5 mg/l. Chlorine disinfection should not be used without subsequent dechlorination prior to discharge to ensure effluents are not acutely lethal to fish.

  • Is the maximum ammonia in treated effluent 1.0 mg/L total or un-ionized ammonia? Although there are many factors that affect ammonia removal, it
does not seem realistic that the plant would be able to achieve 1.0 mg/L of total ammonia.

- Section ix) of the proposal states that wastewater effluent will be monitored monthly. The proposal does not state what parameters and what treatment operations are being referred to. For certain parameters and operations, the treatment system may require much more frequent (daily or weekly) monitoring to ensure proper efficiency.

- The treatment plant will be operated on a seasonal basis. The EIA does not contain an assessment of the possible impact on the receiving water of seasonal operation and the impact on variable flows throughout the week on the treatment process. Depending on the operating mode chosen, starting up the plant each year will likely result in exceedances of licence limits and/or the federal Fisheries Act over a period of several weeks each spring.

- Information is lacking for several aspects of the proposal, including potential impacts to wildlife and the fishery, proposed mitigative measures, alternatives considered, sludge disposal, etc.

Disposition:

- The maximum allowable concentration of chlorine in the effluent is 0.5 mg/L, which will meet the Manitoba Surface Water Quality Objectives.

- The plant manufacturer confirmed that the plant will be capable of treating the total ammonia and reducing it to 1.0 mg/L, provided that the liquid temperature is 10°C or higher. The wastewater plant will be in operation only between May and October of each year. The draft Licence restricts total ammonia in the effluent to 1.0 mg/L or less.

- Parameters to be tested on a monthly basis include water temperature, as well as BOD, TSS, total and fecal coliform, pH and total ammonia. The draft Licence prohibits discharge of effluent that does not meet the effluent limits for BOD, TSS, coliforms, chlorine and total ammonia.

- The proponent indicated that due to the small population of the trailer park early in the season, the plant would likely not discharge for 20 to 30 days allowing the plant to become re-acclimated. Discharged effluent must meet the effluent limits for BOD, TSS, coliforms, chlorine and total ammonia at all times.

Fisheries and Oceans Canada

- Based on the information provided, the effluent outfall is not likely to cause significant adverse effects to fish and fish habitat after taking into account the implementation of the following mitigation measures:
  - The effluent outfall should be placed at the edge of the marsh shoreline, thus allowing the marsh to act as a natural filter.
  - No work should be conducted from April 15 to June 15, 2000 near the marsh shoreline.
  - Disturbance to the bed and shoreline of the marsh should be minimized. Disturbed areas of the marsh should be stabilized using measures such as
riprap and/or seeding with vegetation to prevent erosion and sedimentation that may occur both during and after the work. All debris and temporary structures associated with placing of the effluent outfall pipe should be removed upon completion of the work.

- The deposit of deleterious substances into water frequented by fish is prohibited under the Fisheries Act. The re-fuelling and servicing of equipment should take place at least 100 m from the watercourse.

Disposition:
- The mitigation measures proposed have been incorporated into the draft Licence.

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

The Proponent should be issued a Licence to construct and operate the sewage treatment plant subject to the specifications, limits, terms and conditions of the attached draft Licence. Enforcement of the Licence should be assigned to the Approvals Branch until the treatment plant has been constructed.

PREPARED BY:

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June 14, 2000

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