

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: RURAL MUNICIPALITY OF
ST. CLEMENTS

PROPOSAL NAME: RURAL MUNICIPALITY OF
ST. CLEMENTS - Class 1 Waste Disposal
Ground

CLASS OF DEVELOPMENT: CLASS 2

TYPE OF DEVELOPMENT: WASTE DISPOSAL GROUND

CLIENT FILE NO.: 3967.00

OVERVIEW:

A preliminary report of the proposed waste management facility for the R. M. of St. Clements dated April 17, 1995, was submitted to Manitoba Environment by I.D. Engineering Canada Inc., on behalf of the R. M. of St. Clements. Comments on this report were received from the members of the TAC and a summary of these comments was prepared and forwarded to the R. M. of St. Clements with a copy to I.D. Engineering Inc. The R. M. of St. Clements was advised in writing that the concerns expressed in the summary of the comments, should be addressed when a proposal is filed with the Department of Environment for the development of the waste disposal site.

Subsequently, a Proposal was filed on March 21, 1996 for the development of a waste disposal ground in the East half Section of the Rural Municipality of St. Clements, and bordered on the East by the Eastern boundary of section 29-15-7E; on the North by a line parallel to, and 50 metres South, of the North Boundary of Section 29-15-7E; on the West by a line parallel to, and 600 metres west, of the East boundary of section 29-15-7E and on the South by a line parallel to, and 1,050 metres South, of the North Boundary of Section 29-15-7E.

The proposal was advertised for Public comments, and also forwarded to members of the TAC for their comments. A summary of all comments received, was forwarded by letter dated August 6, 1996 to the Consultant for a response.

A response to the summary of comments was received from the Consultant in a Report dated October 11, 1996. This response was forwarded to the TAC members for comment.

Since most of the concerns relate to the hydrogeotechnical characteristics of the site, a meeting was convened for December 11, 1996, by the contact person for Manitoba Environment (Charles Conyette) with representatives of the Department of Natural Resources and the Consultant.

Several concerns related to the geological conditions of the site, were discussed at the meeting. The Consultant was requested to address these concerns.

A Notice of Alteration dated February 26, 1997 was submitted by the Consultant to Manitoba Environment for an alternative location of the waste disposal ground since it was found that the location in the proposal filed on March 21, 1996, was unsuitable. The hydrogeological characteristics of the alternative location were considered by the Consultant to be more suitable for the development of a waste disposal ground than those of the original location.

The Notice of Alteration was supported by a hydrogeotechnical report of the new location. The Notice of Alteration and the hydrogeotechnical report were submitted to the members of the TAC for comments.

On the advice of the members of the TAC, Manitoba Environment requested the Consultant to provide a more comprehensive report regarding the geological and hydrogeological conditions of the alternative site. The Consultant has since provided an acceptable comprehensive hydrogeotechnical report of the new location of the TAC.

OVERVIEW:

- Date of receipt of Proposal - March 21, 1996
- Date of the Proposal - February 13, 1996
- Brief Description of the Proposal

The construction of a Class 1 Waste Disposal ground in parts of Sections 21, 22, 27 and 28, Township 15, Range 7 East, for the deposit of municipal waste which will be delivered to the site in enclosed containers and emptied in landfill cells. Wastes deposited in the cells will be compacted and covered daily.

- Names of newspapers in which Proposal advertised
 - Brokenhead River Review
 - Selkirk Journal
- Public Registry Locations
 - Main Registry
 - Eco-Network
 - Selkirk Community Library
 - Centennial Public Library
- Closing Date for Public Comments
May 9, 1996
- Date when Proposal was sent to TAC and closing date for response from TAC
April 10, 1996 and May 16, 1996 respectively.

COMMENTS FROM THE PUBLIC:

Greenwood Colony Farms Ltd.

R.R #3

Beausejour, Manitoba R0E 0C0

Tel: 1-204-265 - 3315

- Requests a Public Hearing on the basis that the waste disposal ground would present a threat to the health of the hog production industry in the area. The objection is supported by a letter from the Heartland Swine Health Veterinary Services.

Leonard Kolton on behalf of 194 (approx) concerned citizens from the surrounding areas

Box 3179 R.R #3
Beausejour, Manitoba R0E 0C0
Tel: 1-204-265-3345

- Major concerns
 - low lying area subject to flooding;
 - threat to ecology of neighbouring wildlife preserves;
 - alternate sites were not discussed at earlier public information meetings; and
 - high engineering cost to make the area suitable for landfilling.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Department of Health - Rural and Northern Operations

- The location of transfer stations within the Rural Municipality of St. Clements should be identified in the Proposal.
- Inadequate information in the Proposal to determine the extent of public information and consultation process.

Department of Highways and Transportation

- The department requires the estimated gross weight of trucks anticipated to use PR 317, as well as the number of trucks per day when the waste disposal ground is in full operation and the direction of traffic flow.

Water Quality Management Branch - Department of Environment

- Requires site specific geology and flow regime in the saturated formations under the waste disposal site since the Mars Sand Hills act as a recharge zone to the area under the waste disposal site.
- Information is needed to determine whether the annual and peak volumes of surface drainage will affect the capacity of the first order drainage to the west of the waste disposal site.
- Also information is needed regarding the modifications that will be required to the existing drainage network to accommodate additional runoff from the waste disposal ground.

Department of Natural Resources

- Concern regarding the effective control of surface drainage toward the Brokenhead River which has important fisheries which require safeguards from contamination.

- The proponent should comment on the total extent of land required and confirm their long term needs. For example, the proposal involves 2560 acres with approximately 640 acres being required for site development. Final information of the exact land area requested should be identified relative to Section 2.1 and figure 3 of the site plan of the IDG Stanley report.
- On matters related to the use of Crown lands, the proponent should meet with Natural Resources (Central Region Office, Gimli) to discuss the concerns of the Department including the clearing of Crown land, the utilization of timber, and the re-routing of the existing snowmobile trail if the project is approved.
- The proponent should confirm that a vegetation inventory study will be undertaken including an account of any presence of endangered or threatened plant species. Manitoba Natural Resources should be notified of the results of this survey.
- The proponent should comment on and ensure that a suitable fire prevention and suppression plan is available. Such plans should be reviewed in co-operation with Manitoba Natural Resources regional staff.
- Significant concerns regarding the hydrogeological aspects of the proposal have been expressed by this department and are attached as Attachment No.1.

Air Quality Management Section

- No information is provided on the proposed management practices to control dust, odour and litter.
- It is stated that a methane collection system will be installed as part of the final cell closure. It has not been stated whether this system will be passive or active.
- It has been proposed to recirculate the leachate within the landfill. Such recirculation may increase gas generation rates. Information is required regarding any intent to capture or flare the landfill gas.
- At Appendix O Section 4.3.1, it is stated "compared to natural sources landfills are not known to be significant sources of carbon dioxide, methane, and VOC emissions from landfills are very low." While the natural sources of many air pollutants do exceed those of anthropogenic sources, the difficulty arises in that anthropogenic sources tend to be concentrated in a smaller area. In addition, methane is between 10 and 20 times as effective a greenhouse gas than carbon dioxide, consequently, methane emissions are of significance. Clarification of the Consultant's statement with regard to the effect of the emissions on the surrounding environment is required.
- The Consultant should be required to provide a plot of the frequency of wind direction (*i.e.*, a wind rose).

PUBLIC HEARING:

A Public Hearing is not recommended.

DISPOSITION OF COMMENTS FROM THE PUBLIC:

The principal comments from the public were the close proximity of the landfill site to a hog production industry in the area, the low lying nature of the area subject to flooding, and the threat to the ecology of the neighbouring wildlife preserves due to potential leachate generation from the landfill.

A meeting was convened by Manitoba Environment to discuss the principal concerns with representatives of Greenwood Colony Farms Ltd., and the Consultants. The following actions were taken by the Consultant to address the concerns:

- (a) locating the landfill area slightly west of the original location; and
- (b) locating the active area northward of the original location to take advantage of the thicker clay layers.

The new location for the landfill area is intended to minimize the threat to the hog industry, flooding of the waste disposal ground, and a threat to the ecology of the neighbouring wildlife reserves.

DISPOSITION OF COMMENTS FROM TAC MEMBERS:

The Consultant's responses dated October 11, 1996, June 9, 1997 and August 14, 1997, adequately addressed the concerns of the TAC members.

RECOMMENDATIONS:

1. The new site should be approved for the development of a Class 1 Waste Disposal Ground subject to certain limits, terms and conditions to be specified in a Stage 1 Licence issued for the construction of the waste disposal ground.
2. A Stage 2 Licence should be issued for the operation of the development, when an acceptable response to the requirements specified in the General Specifications of the Stage 1 Licence is received by Manitoba Environment.

ADDITIONAL COMMENTS:

Subsequent to the issue of Stage 1 Licence No.2274 S1, the Consultants (Stanley Environmental) on behalf of The Rural Municipality of St. Clements, forwarded a letter dated May 7, 1998, and a Notice of Alteration of Proposal dated June 22, 1998, to Manitoba Environment requesting a change in the design of the liner system. The change involves substituting the 1 m excavated and recompacted clay liner with a natural clay liner system.

The following actions are to be taken for the construction of the new liner design and leachate collection system:

1. Excavating the till areas to one metre below the current base of the cell and filling these areas with compacted local clay.
2. Where clay tills are located, they are to be excavated and replaced by compacted clays to a thickness of two metres.
3. After completion of action at items 1 and 2, the top 150 mm of clay will be scarified and recompacted to a proctor density of 95%.
4. Installing a 60 mil High Density Polyethylene (HDPE) liner over the base of Cell 1.
5. Installing a minimum of four monitoring wells in the shallow bedrock system spaced immediately downgradient of Cell 1, and a single background monitoring well to the south of the cell should also be installed.
6. Installation of two leachate collection sumps – one in the northwest corner and one in the southeast corner of the cell.

RECOMMENDATION:

The proposed actions in the Notice of Alteration of Proposal should be forwarded for comments from the members of the TAC who have expressed some concerns regarding the changes in the design of the liner and leachate collection systems.

DISPOSITION OF ADDITIONAL CONCERNS FROM TAC MEMBERS (THE DEPARTMENT OF NATURAL RESOURCES) REGARDING THE REVISED LINER DESIGN:

The Department of Natural resources was concerned about the depth of bedrock below the excavated level of Cell 1. Therefore, Manitoba Environment requested the consultant Stanley Consulting Group Ltd., to drill test holes to determine the depth of bedrock in Cell 1, to provide a map showing the locations of the test holes and the till surface and bedrock surface elevation contours.

At a meeting on September 23, 1998, between the representatives of the Department of Natural Resources, Manitoba Environment, the R.M of St. Clements, and the consultants Stanley Consulting Group Ltd., the consultants were requested to indicate by letter that the performance of the landfill will not be adversely affected by the construction procedures they have undertaken in Cell 1 to address the anomaly observed by the Department of Natural Resources.

This letter and supporting geotechnical information have been received and forwarded to the Department of Natural Resources for comments regarding their acceptability.

A draft Stage 2 Operating Licence has been forwarded for comments to TAC members and the consultant Stanley Consulting Group Ltd.

Manitoba Environment has reviewed the comments received, and in many cases, has made amendments to the draft Licence to address some of the concerns from TAC members and the Consultant.

RECOMMENDATION:

The Department of Natural Resources has indicated an acceptance of the consultant's letter and supporting information regarding the performance of the landfill, subject to further subsoil investigations before new cells are constructed. A Stage 2 Operating Licence may be issued to the Licencee.

PREPARED BY

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