

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Rural Municipality of Shellmouth - Boulton
PROPOSAL NAME: Inglis Wastewater Treatment Lagoon
Expansion
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Wastewater Treatment Lagoon – Waste/Scrap
CLIENT FILE NO.: 141.20

OVERVIEW:

On June 26, 2008, the Department received a Proposal from Stantec Consulting Ltd. on behalf of the Rural Municipality of Shellmouth – Boulton for the expansion and operation of the existing wastewater treatment lagoon located in the SE ¼ of Section 1-23-28 WPM in the Rural Municipality of Shellmouth – Boulton. The expansion will consist of the construction of an additional secondary cell. Treated wastewater from the lagoon will be discharged between June 16th and October 31st of any year to the adjacent creek to the south. This creek drains west to a first order drain, approximately 1 km north to Bear Creek, 3 km to the Shell River, and 5 km to the Shellmouth Reservoir.

The Department, on July 14, 2008 placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Winnipeg Millennium Public Library, the Manitoba Eco-Network, the Dauphin Public Library and the Rural Municipality of Shellmouth - Boulton office. Copies of the Proposal were also provided to the Technical Advisory Committee (TAC) members. The Department placed public notification of the Proposal in the Russell Banner on Tuesday, July 22, 2008. The newspaper and TAC notifications invited responses until August 20, 2008.

On August 26, 2008 Manitoba Conservation forwarded requests for additional information from the TAC to the proponent. The proponent's September 3, 2008 response to the requests was then provided to the participating TAC for review and comment on September 9, 2008. All additional information necessary for the review was provided in the Public Registries

COMMENTS FROM THE PUBLIC:

No responses were received from the public.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Infrastructure and Transportation

- *No concerns*

Manitoba Agriculture, Food and Rural Initiatives

- *No concerns*

Manitoba Health and Healthy Living

July 30, 2008

- *Please ensure containment design (in this case a clay liner) provides the best possible groundwater protection for the area.*
- *Please consider leachate monitoring.*
- *Please ensure:*
 - *odor control and monitoring*
 - *effluent discharge as per regulation*
 - *Please consider leachate monitoring.*
- *The need for fencing, gates and warning signs should be included in the license to ensure public safety, in case of unsupervised public access to the development.*

Proponent Response (September 3, 2008):

- The clay liner will be tested to ensure it meets hydraulic conductivity requirements.
- Leachate monitoring would be considered by the R.M.
- Odor control and monitoring will be undertaken by the R.M. Effluent discharge will be as regulation, and as outlined in the new Licence.
- A new fence and gate are part of the design. The R.M. will add a sign identifying the cell. We have no objection to Manitoba Conservation adding the above to the Licence.

Disposition:

After receiving the additional information from the proponent, no further comments were received from Manitoba Health and Healthy Living. This was assumed to indicate that the original comments were satisfied.

Manitoba Conservation – Parks and Natural Areas Branch

July 31, 2008

- *Parks and Natural Areas Branch has reviewed the above-noted proposal filed pursuant to the Environment Act. The Branch has no concerns with the project proceeding and may benefit since it will service the ski hill in Asessippi Provincial Park. I noted an apparent discrepancy regarding the exact location for the site. Page 2 gives the location of the site as Lot1, SE1-23-28W, but Figure 2.0 shows the existing lagoon as being in SW6-23-28W, thus locating the expansion in SE1-23-29W*

Proponent Response (September 3, 2008):

- We confirm that the expansion area is the southeast corner, Lot 1, SE/ 1-23-28 W

Disposition:

After receiving the additional information from the proponent, no further comments were received from Manitoba Conservation – Parks and Natural Areas Branch. This was assumed to indicate that the original comments were satisfied.

Manitoba Conservation – Environmental Operations

August 6, 2008

- *The existing cells to be assessed and necessary berm repair and protection caused by erosion to be undertaken.*
- *A truck haul dump station be provided with adequate erosion protection and spillage control.*
- *A specific Operational Manual be developed for this facility following construction, identifying the procedures for operation and maintenance of this facility. Section 3.2 of the proposal does briefly explain the discharge procedure, this should be expanded upon to include preparation for discharge, where do we acquire sample bottles, sample collection, sample preservation, sample submission procedure for isolation etc etc. In addition lagoon inspection, cell / berm maintenance procedures should be explained.*

Proponent Response (September 3, 2008):

- A cash allowance sum in the tender will be set aside to assess and repair the existing berms and eroded areas.
- The existing truck haul dump station will be assessed and repaired as described in Part 1 above.
- An Operations Manual as proposed will be provided.

Disposition:

After receiving the additional information from the proponent, no further comments were received from Manitoba Conservation – Environmental Operations. This was assumed to indicate that the original comments were satisfied.

Manitoba Conservation – Environmental Services

- *No concerns*

Manitoba Conservation - Sustainable Resource & Policy Management Branch

- *No concerns*

Manitoba Water Stewardship – Planning and Coordination Branch

August 19, 2008

- *The Water Rights Act indicates that no person shall control water or construct, establish or maintain any “water control works” unless he or she holds a valid licence to do so. “Water control works” are defined as any dyke, dam, surface or subsurface drain, drainage, improved natural waterway, canal, tunnel, bridge, culvert borehole or contrivance for carrying or conducting water, that temporarily or permanently alters or may alter the flow or level of water, including but not limited to water in a water body, by any means, including drainage, OR changes or may change the location or direction of flow of water, including but not limited to water in a water body, by any means, including drainage. If the proposal in question advocates any of these activities, application for a Water Rights Licence to Construct Water Control Works is required.*

- *The proponent needs to be informed that if proposal in question advocates any construction activities, erosion and sediment control measures should be implemented until all of the sites have stabilized.*
- *The Lake Winnipeg Stewardship Board has recommended that all small wastewater treatment facilities, including municipal lagoons, should meet a phosphorus limit of 1.0 mg/L. The proposed phosphorus limit of 1.0 mg/L is consistent with efforts underway across Manitoba and in upstream jurisdictions to reduce nutrient loads to Lake Winnipeg and its watershed. It is desirable to recycle these nutrients on land, rather than releasing them to waterways. In the Lake Winnipeg Stewardship Board's December 2006 report to the Minister of Water Stewardship, the Board provides several strategies on how nutrient reduction could be achieved for small wastewater treatment facilities (see recommendations 14-20) including effluent irrigation.*
- *Trickle discharge (at least two (2) weeks) will provide time for the nutrient rich effluent to be assimilated in the drainage path, prior to reaching the Shellmouth Reservoir. Note that the proponent is proposing to design the outlet to permit a discharge period of one (1) week once in summer and once in fall. The discharge period should be lengthened to at least two (2) weeks or more.*
- *It is unclear from the drawing received how close the proposed secondary cell is to Bear Creek. Pursuant to the Nutrient Management Regulation (MR 62/2008) under the Water Protection Act, a Nutrient Buffer Zone of 3 to 8 meters (8 meters if land is not covered in permanent vegetation) is established from the high water mark or top of the outer most bank of river (whichever is further from the water). Under the Nutrient Management Regulation (MR. 62/2008), no person shall apply a substance containing nitrogen or phosphorus to land within the Nutrient Buffer Zone.*
- *The Department 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, the Department recommends that an Environment Act licence require the proponent to actively participate in any future watershed based management study, and/or nutrient reduction program, approved by the Director, Water Science and Management Branch, Manitoba Water Stewardship, for all downstream waterways.*

Proponent Response (September 3, 2008):

- We will discuss the project with the appropriate stakeholders to identify whether a Water Rights Licence is required. if it is, the R.M. will obtain the Licence.
- Erosion and sediment control measures are in place.
- The phosphorus level recommendations will be a goal of the R.M.
- Trickle discharge of two weeks will be used if the treated effluent is nutrient rich.
- Bear Creek is approximately 1 km from the point of treated wastewater discharge.
- The R.M. agrees to participate in any future watershed based management study and / or a funded nutrient reduction program.

Water Stewardship Comments (October 7, 2008):

- *In response to the proponent's consultant letter, Section D, Item No. 4.:*
 - *The Department recommends that an Environment Act Licence include trickle discharge for at least two weeks to provide time for the "nutrient rich" effluent to be assimilated in the drainage path, prior to reaching the Shellmouth Reservoir.*
 - *"Nutrient rich" shall be defined as total phosphorus > 1.0 mg/L*

Disposition:

- The draft Licence includes a Clause that requires the Licencee to actively participate in any future watershed based management study, plan and/or nutrient reduction program, approved by the Director, for the Shell River and/or associated waterways and watersheds.
- The draft Licence requires the Licencee to include trickle discharge for at least two weeks to provide time for the "nutrient rich" (total phosphorus > 1.0 mg/L) effluent to be assimilated in the drainage path, prior to reaching the Shellmouth Reservoir.

Manitoba Culture, Heritage, Tourism and Sport – Historic Resources Branch

- *No concerns*

Manitoba Conservation – Pollution Prevention Branch

August 20, 2008

- *Odour will be generated during the spring thaw (anaerobic process during the winter). However, the nearest residence based on the report is in excess of 300 meters from the project site. The new location is farther from the residences than the existing facility. This is an expansion of the existing lagoon serving the community hence odour problems may not be a concern. However, the template on odour clause still applies.*

Disposition:

The draft Licence requires the Licencee to operate the lagoon in a manner that minimizes offensive odours.

COMMENTS FROM FEDERAL REPRESENTATION:

Canadian Environmental Assessment Agency(CEEA)

July 8, 2008

- *Following a review by all federal departments with a potential interest in the proposed development, the application of the Canadian Environmental Assessment Act (CEAA) will not be required.*

Fisheries and Oceans Canada

August 12, 2008

To reduce potential impacts to fish and fish habitat we are recommending the following mitigation measures be included into your plans:

- No instream work should be conducted between April 1 and June 15 of any given year.
- All reasonable efforts should be made to minimize the duration of in stream work, and minimize the amount of sediment generated during construction.
- The amount of vegetation removed adjacent to the watercourse, if any, is minimized.
- Clean and appropriately sized rock should be used for riprap and any granular fill used for backfill is clean. The effluent outlet should be adequately protected with rip-raping to prevent erosion and scour around the outlet during effluent discharge. The following measures should be incorporated when using replacement rock to stabilize the outlet:
 - Place appropriately-sized, clean rocks onto the creek bed only by hand or using machinery operating outside the water.
 - Do not obtain rocks from below the ordinary high water mark of any water body.
 - The use of acid-containing rocks, such as sulphide-producing materials commonly obtained from metal mines or poor quality limestone rocks, such as those that fracture and break down quickly when exposed to the elements, should be avoided.
 - Where possible, install rock at a slope similar to the stream bank to maintain a uniform stream profile and natural stream alignment. Otherwise, install the rock at the closest slope required to ensure that it is stable.
- Operate machinery from outside of the water and in a manner that minimizes disturbance to the bank of the watercourse:
 - Machinery is to arrive on site in a clean condition and is to be maintained free of fluid leaks.
 - Wash, refuel and service machinery and store fuel and other materials for the machinery away from the water to prevent deleterious substances from entering the water.
 - Keep an emergency spill kit on site in case of fluid leaks or spills from machinery.
- Stabilize any waste materials removed from the work site, above the ordinary high water mark, to prevent them from entering any water body. Spoil piles could be contained with silt fence, flattened, covered with biodegradable mats or tarps, and/or planted with preferably native grass or shrubs.
- Vegetate any disturbed areas by planting and seeding preferably native trees, shrubs or grasses and cover such areas with mulch or biodegradable erosion control blankets to prevent soil erosion and to help seeds germinate. If there is insufficient time in the growing season remaining for the seeds to germinate, stabilize the site (e.g., cover

exposed areas with erosion control 'blankets to keep the soil in place and prevent erosion) and then vegetate the following spring.

- Maintain effective sediment and erosion control measures until complete re-vegetation of disturbed areas is achieved.

Proponent Response (September 3, 2008):

- We concur with all the mitigation measures requested and will incorporate them into the construction process.

Disposition:

After receiving the additional information from the proponent, no further comments were received from Fisheries and Oceans Canada. This was assumed to indicate that the original comments were satisfied.

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

The Proponent should be issued a Licence for the expansion and operation of the wastewater treatment lagoon in accordance with the specifications, terms and conditions of the attached draft Licence. Enforcement of the Licence should be assigned to the Environmental Assessment and Licensing Branch until the liner testing has been completed and the Development is commissioned.

PREPARED BY:

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