



October 13, 2017

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Ms. Tracey Braun, M. Sc.
Manitoba Sustainable Development
Environmental Approvals Branch
123 Main Street, Second Floor
Winnipeg, Manitoba
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M-575.05

P&R 8.313 JRCC

via email and mail

Licence No. 3108

Client File No. 5435.10

Dear Ms. Braun,

RE: RM of Montcalm – St. Jean Baptiste Lagoon Decommissioning Plan

The RM of Montcalm is requesting approval from Manitoba Sustainable Development for a decommissioning plan of the existing St. Jean wastewater treatment lagoon located on River Lot 245, in the RM of Montcalm. This decommissioning plan is in accordance with Clause 43 of the Environment Act Licence No. 3108, for the new St. Jean Baptiste lagoon construction and operation. This decommissioning plan has been previously discussed with Bruce Webb of Manitoba Sustainable Development, to determine requirements for decommissioning.

Sludge Assessment

Assiniboine Injections Ltd. completed a sludge survey of the primary cell and storage cell on February 8, 2017 and summarized the assessment in a report, along with the ALS Environmental laboratory results. The measurements were obtained by sampling on top of the ice in each of the cells. The sludge assessment of the primary cell indicated a sludge accumulation of 8,893 m³, with a sludge thickness ranging from 0.3 m to 1.8 m. The thickest accumulation (1.8 m) of sludge was near the pipe inlet, while the average sludge thickness throughout the cell was 0.76 m. The sludge assessment of the storage cell indicated a sludge accumulation of 2,945 m³, with an even sludge thickness of 0.25 m across the cell floor.

Sludge Removal and Disposal

Once the newly constructed wastewater treatment lagoon is commissioned, the RM is proposing to drain the lagoon cells after effluent quality testing is conducted. Once the cells are drained of effluent, it is intended that the remaining sludge will be left in the cells until it is frozen during the winter months. The frozen sludge will then be excavated from the cells and hauled to the new St. Jean Baptiste wastewater treatment lagoon site located on River Lots 225 and 227, in the RM of Montcalm. As the new St. Jean Baptiste lagoon has a 3.8 m high freeboard area, it is proposed that the frozen sludge will be deposited on freeboard area within the new lagoon. If the sludge were distributed over the entire inner slope freeboard of the new lagoon cells, the sludge would have thickness of approximately 0.4 m. The sludge material will be permitted to dewater, decompose and remain on the inner slopes of the new lagoon cells for the life of the new lagoon.

Lagoon Decommissioning

The decommissioning of the existing lagoon cells will occur after all of the sludge has been removed from the lagoon cells. Decommissioning will include removal of the south dike of both the primary cell and storage cell. Soil removed from the dikes will be pushed into the cells to grade the floor of the cells towards the south, to prevent water from accumulating in the cells. The inside of the cells will then be seeded with grass and abandoned in place.



Impacts and Mitigation Measures

The land to the south of the cells is abandoned grassland with no distinct land use, therefore run off from the decommissioned cells is not expected to have any environmental or health and safety impacts on the area or community. As the sludge removal works will occur during the winter months, odours are not expected to be a nuisance to nearby residents. The contractor conducting the decommissioning works will adhere to a health and safety program while working on the site to ensure the safety of workers and the public.

Please provide approval for the proposed decommissioning plan.

If you have any questions, please contact the undersigned.

Yours truly,

JR Cousin Consultants Ltd.



Oswald Wohlgemut, M.Sc.
Environmental Scientist

Reviewed by:



David Kelly, P.Eng.
Municipal Engineer

cc: Jolene Bird, CAO, RM of Montcalm – via email