

September 16, 2014

Manitoba Conservation
Suite #160 - 123 Main Street
Winnipeg, MB R3C 1A5

Attention: Bruce Webb, P.Eng.

Reference: Oakland Colony Wastewater Treatment Lagoon - File: 5704.00

Subject: Revised Sizing of Secondary Cell

Dear Bruce:

We write to advise on the status of construction of the Oakland Colony lagoon. The contractor has completed the majority of the earth moving as of Sept 10, 2014. They are currently installing the inter-cell and discharge piping, gas venting and dewatering systems within the lagoon. We understand that the liner is scheduled to be installed early October but will advise on the date once it has been confirmed.

We have been conducting periodic site reviews as well as density testing throughout the duration of the construction. During an inspection on September 16, 2014 we detected an area on the north berm of the primary cell that is not currently constructed to the specified 97% proctor. We are currently working with the contractor to determine the most feasible method to rectify the situation and will be conducting some additional density testing this week.

During the September 16, 2014 field review we also conducted a survey to prepare as-built drawings which has identified that the secondary cell has been constructed incorrectly. We have since determined that the owner did not forward the revised drawings to the contractor and that the cell has been constructed to a previous revision. The result is that the floor dimensions of the secondary cell are 106.0 m x 34.8 m, where the design drawings showed 129.3 m x 34.8 m. The result is that the capacity of the lagoon is reduced from the design capacity of 150 people to 114 people.

We have reviewed the current sizing with Oakland Colony who has requested that we seek approval for the smaller secondary cell with the reduced capacity. We note that the revised capacity of the lagoon is 7209.4 m³, which is equivalent to 114 people. We have used a maximum live storage of 1.5m, dead space of 0.3m, usable storage of 1.2 m and a side slope of 5:1 in performing these calculations. It is our opinion this is an acceptable option for Oakland Colony, as the current population is less than 20 and the anticipated population growth will not likely see an excess of 100 people for 35 plus years.

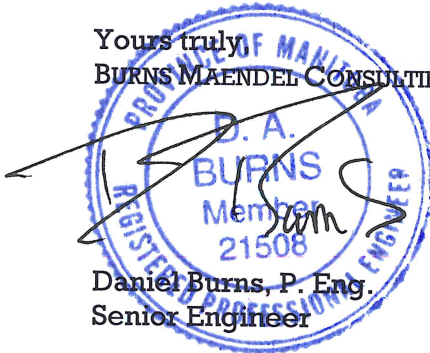


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Moving forward, should the capacity become an issue in the future, a third cell can be added to the existing faculty to handle the increased hydraulic loading.

Please review the above and advise if the reduce size of the lagoon is acceptable to your department. If you have any questions or require any additional clarification do not hesitate to contact me directly.

Yours truly,
BURNS MAENDEL CONSULTING ENGINEERS LTD.



Daniel Burns, P. Eng.
Senior Engineer

Cc: Gerald Waldner – Oakland Colony