

## Dey, Asit (SD)

---

**From:** Dey, Asit (CWS)  
**Sent:** March-02-16 11:32 AM  
**To:** Yatkowski, Susanne (HCD); 'rsinclair@kgsgroup.com'; 'Slozecznic@kgsgroup.com'; Cherwonick, Greg (HCD)  
**Cc:** Burland Ross, Siobhan (CWS); 'j.rokyta@kgsgroup.com'  
**Subject:** 2016-03-02\_List of Required Additional Information\_St Laurent Lagoon\_NofA\_CEC 744\_File No 381.10  
**Attachments:** 2016-03-02\_List of Required Additional Information\_St Laurent Lagoon\_NofA\_CEC 744\_File No 381.10.pdf

Hello Rob, Stan, Greg, and Susanne:

Good morning. Please find attached my comments regarding the Sandy Bar Lagoon project.

Should you wish to contact me for further clarification, I may be reached at (204)945-2614 or at [asit.dey@gov.mb.ca](mailto:asit.dey@gov.mb.ca).

Thanks,

Regards,

Asit Dey

T: (204) 945-2614 F: (204) 945-5229

Email: [asit.dey@gov.mb.ca](mailto:asit.dey@gov.mb.ca)

-----Original Message-----

From: KGS Document Control [<mailto:j.rokyta@kgsgroup.com>] On Behalf Of Alex Beveridge

Sent: February-17-16 2:12 PM

To: Burland Ross, Siobhan (CWS)

Cc: Cherwonick, Greg (HCD); Rob Sinclair; Stan Lozecznic; Yatkowski, Susanne (HCD); KGS Document Control

Subject: KGS Group Transmittal No. 15-0321-001-0008, Notice of Alteration - Sandy Bar Road Wastewater Treatment Facility - Revised

Dear Siobhan,

Attached is a revised, draft version of the Notice of Alteration for the Sandy Bar Road Wastewater Treatment Facility. The NoA has been amended in consideration of the discussion held on January 27, 2016. The document is in draft form so that we may consider additional comments/suggestions you may have before finalizing the submission.

Please don't hesitate to contact us if you have any questions.

Regards,

Alex Beveridge

SENT BY: Josephine Rokyta [ Document Control ]

NOTE: Please confirm receipt via email.

**List of Required Additional Information**

- 1. Lagoon Capacity Issues:** The February 11, 2016 KGS report mentioned that the primary and secondary cells were designed to have capacities of 19,000 m<sup>3</sup> and 12,000 m<sup>3</sup>, in accordance with a Sewage Lagoon Data Sheet dated April 23, 1979. Another recent study dated October 20, 2014 for the same facility reported that the current capacities of the primary and secondary cells at the FSL are 20,000 m<sup>3</sup> and 14,000 m<sup>3</sup>; the FSL was 249.17m which is 0.61m lower than the top of the berm. Manitoba Conservation and Water Stewardship requires that one metre (1m) freeboard is maintained for any wastewater treatment lagoon. Therefore, the draft assessment report should account for the capacities of the primary and secondary cells at the FSL of 248.78 m (i.e., the operating depth which provides 1 m of freeboard). The capacity analysis should be further broken down to indicate that the actual hydraulic capacity of the primary cell available for storage purposes is half of the capacity of the primary cell at the FSL of 248.78 m. Please find below information on the Sandy Bar lagoon that was obtained from the October 20, 2014 report prepared by Golder Associates.

  - Top of Berm Elevation: 249.78 m;
  - The average bottom elevation of the primary cell: 247.27 m;
  - Therefore, the depth of the primary cell: 249.78-247.27=2.5m.
  - The current capacity of the primary cell at the FSL of 249.17 m (i.e., the operating depth is 0.61m lower than the top of berm): 20,000m<sup>3</sup>.
  
  - Top of Berm Elevation: 249.78 m;
  - The average bottom elevation of the secondary cell: 247.1m.
  - Therefore, the depth of the secondary cell: 2.7 m (249.78m-247.1m).
  - The current capacity of the secondary cell at the FSL of 249.17m (i.e., the operating depth is 0.61m lower than the top of berm): 14,000 m<sup>3</sup>.
- 2. Section 1.1:** The estimated yearly water requirement for senior residence was reported as 8,750 l/day; please note that it will be 7700 l/day @350l/p/d for 22 persons. Please update the estimated water use table and other calculations accordingly.
- 3. Section 1.2- Number of Days Considered for Capacity Calculations:** According to Clause No. 4 and 5 of Environment Act Licence No. 744 (EAL 744), no discharge of effluent shall take place between the 1<sup>st</sup> day of November in any one year and the 15<sup>th</sup> day of May in the following year, and between the 15<sup>th</sup> day of June and the 15<sup>th</sup> day of September in any one year. The above clauses provide a storage window of 288 days. Section 1.3 of your assessment report dated February 11, 2016 indicates that you plan to discharge during October month only, in accordance with the EAL 744. The above discharge window will provide a storage window of 319 days. Please consider the above storage window during assessment of hydraulic capacity of the wastewater treatment lagoon and the above storage window will be the basis for any upgrades or change in operating practices that the storage may require. Section 1.1 considered flow to the lagoon based on 365 days; however, there should be a section that will address the winter storage requirement and the total hydraulic flow during the winter storage period.
- 4. Section 1.2-Polishing Cell:** It was stated “by introducing a holding cell, the capacity of the facility will be increased approximate total capacity of 52,000 m<sup>3</sup>”. Please note that the total facility capacity will be the capacity of the half of the total primary cell capacity at the FSL of

## ST. LAURENT LAGOON ASSESSMENT- NOTICE OF ALTERATION – SANDY BAR ROAD WWTL

Page 2 of 2

March 2, 2016

---

248.78 m and the capacity of the secondary cell at the FSL of 248.78 m. Therefore, the section 1.2 needs to be updated to refer the actual waste water treatment capacity. The report on retention time for the wastewater facility will only be for the capacity that is available from the wastewater treatment lagoon which does not include the capacity available from the polishing cell.

5. **Flood Protection Dyke:** Please comment on the ownership status of the flood protection dykes and if the owner has any concern(s) regarding installing a valve through the flood protection dyke.
6. Please submit a complete wastewater facility classification form. Please follow the web link below to access the form.  
<http://www.gov.mb.ca/conservation/eal/pubs/index.html>
7. Please describe the operating cycles for the facility.