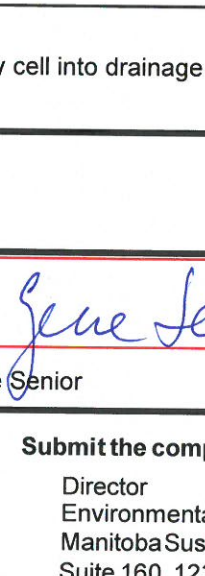


Notice of Alteration Form



Client File No. : 5800.00	Environment Act Licence No. : 3178
Legal name of the Licencee: R.M. of Alexander	
Name of the development: R.M. of Alexander Wastewater Lagoon	
Category and Type of development per Classes of Development Regulation: Waste Treatment and Storage Wastewater treatment lagoons	
Licencee Contact Person: Travis Parsons	
Mailing address of the Licencee: Unit #1A - 2010 Currie Blvd.	
City: Brandon	Province: MB Postal Code: R7B 4E7
Phone Number: (204) 726-6085 Fax: (204) 726-7196 Email: Travis.Parsons2@gov.mb.ca	
Name of proponent contact person for purposes of the environmental assessment (e.g. consultant): Gene Senior	
Phone: (204) 896-1209	Mailing address: 3rd Floor, 865 Waverley Street
Fax: (204) 896-0754	Winnipeg, Manitoba
Email address: gsenior@kgsgroup.com	
Short Description of Alteration (max 90 characters): Change design so effluent discharges from Secondary cell into drainage swale.	
Alteration fee attached: Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>	
If No, please explain: Alteration requested by Province.	
Date: 2017-09-12	Signature: 
	Printed name: Gene Senior
<p>A complete Notice of Alteration (NoA) consists of the following components:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Cover letter <input checked="" type="checkbox"/> Notice of Alteration Form <input checked="" type="checkbox"/> 4 hard copies and 1 electronic copy of the NOA detailed report (see "Information Bulletin - Alteration to Developments with Environment Act Licences") <input type="checkbox"/> \$500 Application fee, if applicable (Cheque, payable to the Minister of Finance) 	<p>Submit the complete NOA to:</p> <p>Director Environmental Approvals Branch Manitoba Sustainable Development Suite 160, 123 Main Street Winnipeg, Manitoba R3C 1A5</p> <p>For more information:</p> <p>Phone: (204) 945-8321 Fax: (204) 945-5229 http://www.gov.mb.ca/sd/eal</p>



September 6, 2017

File No. 16-0429-003

3rd Floor
865 Waverley Street
Winnipeg,
Manitoba
R3T 5P4
204.896.1209
fax: 204.896.0754
www.kgsgroup.com

Environmental Approvals Branch
Manitoba Sustainable Development
Suite 160, 123 Main Street
Winnipeg, Manitoba
R3C 1A5

ATTENTION: Ms. Tracey Braun
Director

RE: Environmental Act Proposal
Notice of Alteration
R.M. of Alexander Wastewater Lagoon - File 5800.00

Dear Ms. Braun:

On behalf of the Manitoba Water Services Board and the Rural Municipality (R.M.) of Alexander, KGS Group has prepared this letter to update you on changes to the development proposed in the Environment Act Proposal (EAP) dated October 20, 2015. The development was granted Environment Act License No. 3178 by Manitoba Sustainable Development (MSD) on April 19, 2016 for construction and operation of the development, a wastewater treatment lagoon, in accordance with the EAP filed under *The Environment Act* with additional information provided on February 12, 2016. The proposed development is located on the north side of Provincial Road (PR) 313 about 15 km west of Pointe du Bois in NE 9-16-13E and will treat truck hauled wastewater originating in the Bird River and Pointe du Bois areas.

The site was previously used as a clay borrow area by Manitoba Hydro for the Pointe du Bois Spillway Replacement Project. Additional excavation and shaping of the borrow area will be done to construct a two-cell wastewater treatment lagoon, with an associated solids separation cell and two small sludge drying cells. The EAP proposed that treated effluent from the facility would be discharged once annually on adjacent forested land which drains toward Rice Creek, a tributary of the Lee River. After concerns were raised regarding the land application of treated effluent, it was proposed that the effluent would be discharged into a large wetland area approximately 1.5 km south of PR 313. Additional concerns were raised by local stakeholders that the project would have potential to disturb heritage resources in

the area south of PR 313. For both the forest and wetland discharge options, as well as these new changes, it was proposed that treated effluent would meet the Manitoba Water Quality Standards, Objectives, and Guidelines (MWQSOG) – Tier 1 Water Quality Standards for discharge to a surface water body prior to discharge. Proposed changes to the project are described in the following paragraphs for inclusion in MSD project file 5800.00.

Proposed Changes

Since the License was granted, several minor design changes have occurred due to the continued use of the project site as a clay borrow by Manitoba Hydro for the Pointe du Bois Spillway Replacement Project. The solids removal cell has been increased in size to approximately 1,650 m² and it is proposed to divide the cell in two to allow more efficient solids removal (Figure 1). The Primary Cell design is now a slightly different shape as shown in Figure 1 and the size has increased being approximately 7,870 m². The proposed increase of the project footprint is entirely within the areas previously disturbed so there will be no additional impacts associated with clearing or construction activities.

Supplemental aeration of the Primary and Secondary cells was proposed in the original EAP to provide an additional level of organics breakdown. The aeration will no longer be required due to the additional volume in the solids removal cell and the significantly increased Primary Cell volume and associated longer treatment period. The changes to the solids removal cell and Primary Cell are viewed as having a positive effect on the project as they will serve to increase the overall wastewater treatment efficiency of the lagoon.

In addition to the changes noted above, revisions are proposed for the wastewater discharge location. Environment Act Licence No. 3178 includes a figure which shows the location and design of the lagoon and the proposed discharge area, approximately 1.5 km south of PR 313. In response to stakeholder concern relating to the potential for heritage resources to be located south of PR 313, the location of the treated effluent discharge has been changed. It is now proposed that the effluent follow a conventional discharge pathway to Rice Creek. Existing site drainage constructed by Manitoba Hydro to manage off-site flows includes a drainage ditch north of the Secondary Cell that drains toward a two-cell settling pond in the northwest corner of the site. Treated effluent will be discharged to the existing drainage ditch north of the Secondary Cell and treated water will then flow west along the ditch and discharge into the existing two-cell settling pond (Appendix A: Photo 1). The bottom of the settling pond is at elevation 264 m and the slope of the sides are designed at 2H:1V to an elevation of 268 m (Photo 2). Treated water will flow north through the settling ponds and discharge to the north, over a rock-lined overflow weir (crest at elevation 267.0 m), and into a natural drainage swale (Photo 3). The drainage swale (Photo 4) drains into Rice Creek, approximately 150 m north of the settling pond discharge (Photo 5).

The lagoon design criteria described in the EAP will not change and the treated effluent will meet the Manitoba Water Quality Standards, Objectives and Guidelines (MWQSOG) – Tier 1 Water Quality Standards for discharge to a surface water body. The proposed minor changes to the lagoon design and discharge location will not change the assessment of effects presented in the original EAP.

Should you require any additional information or have any questions regarding the Notice of Alteration, please contact the undersigned at 204-896-1209.

Yours truly,

A handwritten signature in blue ink, appearing to read "Gene Senior". The signature is fluid and cursive, with the first name "Gene" being more prominent than the last name "Senior".

Gene Senior, M.A.
Environmental Scientist

GS/jr

cc: Scott Spicer, Chief Administrative Officer, R.M. of Alexander
Travis Parsons, Manitoba Water Services Board



Photo 1 – South settling pond, northward view toward Rice Creek.



Photo 2 – North settling pond, southward view toward access road.



Photo 3 – Rock lined natural drainage swale north of the settling ponds.

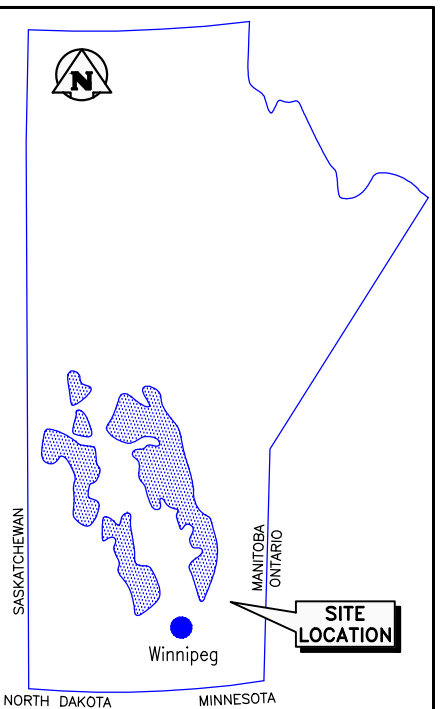
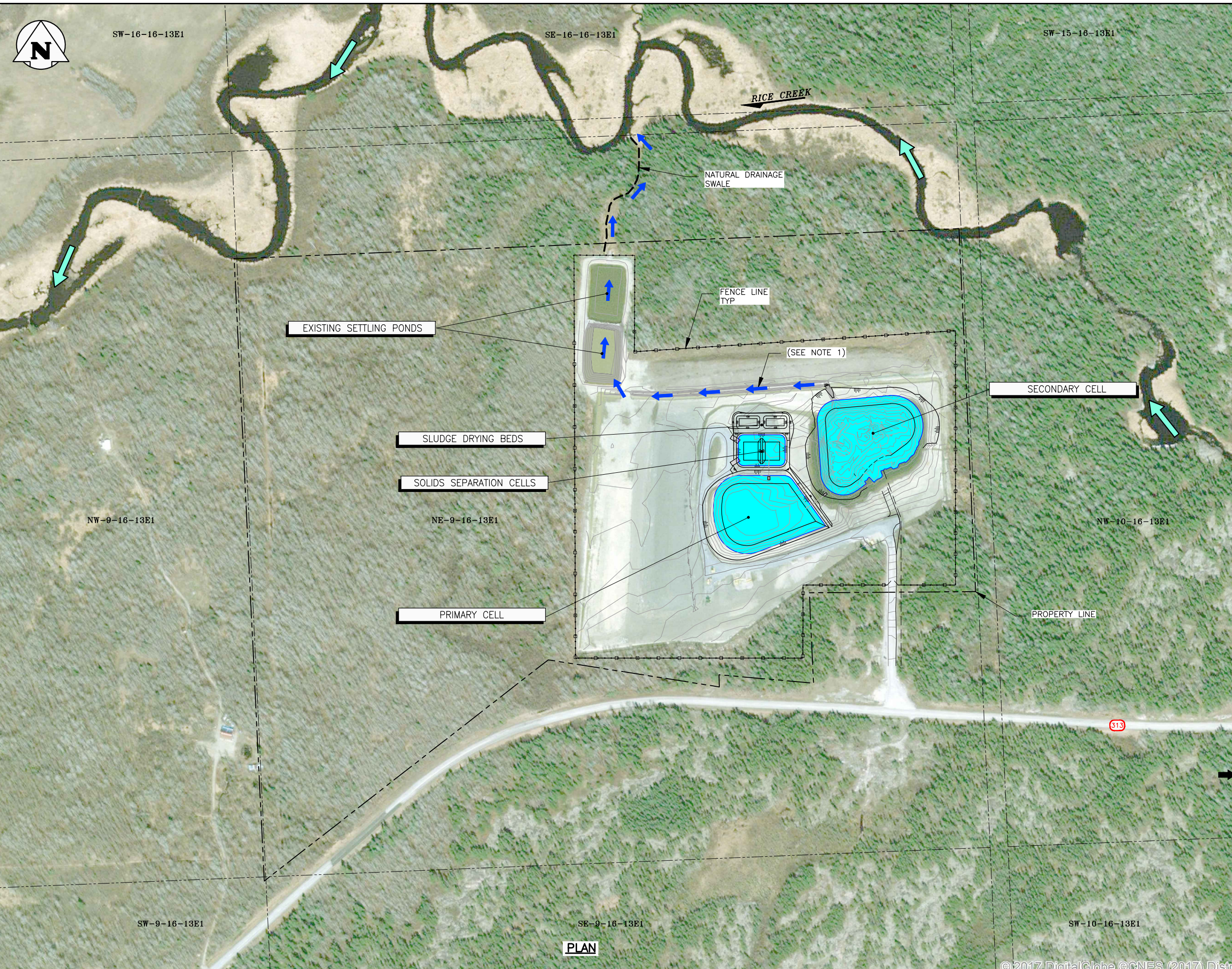


Photo 4 – Natural drainage swale north of settling ponds.



Photo 5 – Rice Creek approximately 150 m north of settling pond discharge.

File name: \\k-file-1\p-d\p-4\p-16-0429-003\Projects\2016\16-0429-003\DWG\Env\Enviro_Report\16-0429-003_F01 - Tab\F01 Plotted By: kgjlord 17/09/07 [Thu 1:36pm]
 11"x17" PLOT SCALE: 1"=2'



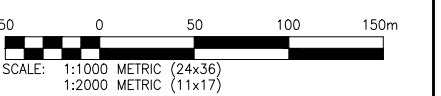
KEY MAP

LEGEND:

- GEODETIC CONTOURS (m)
- - - QUARTER SECTIONS

NOTES:

- TREATED WATER RELEASED TO RICE CREEK VIA EXISTING DITCHING AS REQUIRED.
- BING IMAGERY IS DATED AS 2016.



A	17/09/07	ISSUED WITH NOTICE OF ALTERATION	GS	SFM
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY	DESIGN CHECK

REVISIONS / ISSUE

KGS GROUP CONSULTING ENGINEERS

RM OF ALEXANDER

WASTEWATER TREATMENT LAGOON
 RM OF ALEXANDER, MB

PROPOSED LAGOON PLAN

SEPTEMBER 2017 **FIGURE 01** REV: **A**

PLAN

© 2017 DigitalGlobe © CNES (2017) Distri