2019-08-06 WSP Project No. 191-02990-00

Bruce Webb, P.Eng.
Manitoba Sustainable Development
Environmental Approvals
1007 Century Street
Winnipeg, MB R3H 0W4

Subject: RM of Ste. Anne Wastewater Treatment Lagoon - Licence Compliance
Client ref.: 4095.10 – EAL No. 2849 R

Dear Mr. Webb:

The following letter and enclosed Report are submitted on behalf of the Rural Municipality of Ste. Anne (RM) to satisfy the requirements of Clauses 6 and 7 of their current Environment Act Licence (EAL).

BACKGROUND

The RM has an existing two-cell wastewater treatment lagoon, originally constructed in 1997. In 2006, J. R. Cousin Consultants Ltd. (JRCC) completed a Wastewater Management Study that looked at a regional lagoon concept for the RM, which included the LUD of Richer and piped services along PR 207. An Environment Act Proposal (EAP) was submitted in 2007, and on September 23, 2008 the Province issued EAL No. 2849. However, the proposed lagoon expansion never materialized, essentially leaving the RM without a relevant EAL because the new Licence lacked transition clauses.

In 2015, a new EAL was issued by Manitoba Sustainable Development (MSD) to remedy the situation. WSP Canada Inc. (WSP) was subsequently retained by the RM to fulfill the requirements of Clauses 6 and 7 of that EAL. Specifically, Clause 6 details the need for an engineering report that either confirms or updates the lagoon organic and hydraulic loadings proposed in the JRCC EAP submission. If the updated loadings resulted in a revision to the lagoon expansion plan, new drawings were to be submitted to MSD to satisfy Clause 7.

LICENCE COMPLIANCE

The enclosed WSP Report entitled *Lagoon Assessment & Expansion Options Final Report* (dated March 19, 2019) reviews the current and proposed lagoon loadings and provides two (2) expansion options for the RM's consideration. This Report satisfies the requirements of Clause 6.

Of the two (2) options proposed, the RM has elected to modify Option 1 (see Appendix A of the Report) to better suit the available land. The drawing (enclosed) details the proposed expansion layout. This drawing satisfies the requirements of Clause 7.

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wsp.com

In brief, the proposed development is to include the following:

- Construction of a new facultative primary cell.
- Conversion of the existing primary cell into a secondary cell.
- Construction of a new wetland cell (functional design by Native Plant Solutions) to meet the phosphorus limit requirement.
- Inter-cell piping and new discharge structure.
- A new dual truck dump station.

WATER QUALITY SAMPLING

The construction of a wetland cell will prompt inclusion of the associated sampling clauses in the revised EAL. Since the wetland cell is strictly used for phosphorous polishing, proposed are sampling parameters, locations and frequencies to suit. Table 1 (enclosed) outlines the requested sampling.

CLOSING

In closing, the RM is now in full compliance with the existing EAL, satisfying the outstanding requirements of Clauses 6 and 7. We await further correspondence on the matter and we request the opportunity to review a draft version of the EAL. We anticipate that construction will occur in the year 2020.

Kind regards,

Jason Bunn, P.Eng.
Engineer, Wastewater Infrastructure

JB/al

cc: Jennifer Blatz, CAO – RM of Ste. Anne
Kevin Medeiros, Operations Manager – RM of Ste. Anne
Lisette Ross, M.Sc., PBiol. – Native Plant Solutions

Encl.

Notice of Alteration Form

Manitoba
Sustainable Development

Client File No. : 4095.10	Environment Act Licence No. : 2849 R

Legal name of the Licencee: Rural Municipality of Ste. Anne

Name of the development: Lagoon and Wetland Cell Expansion

Category and Type of development per *Classes of Development Regulation*:

Waste Treatment and Storage — Wastewater treatment lagoons

Licencee Contact Person:

Mailing address of the Licencee:

City: Ste. Anne Province: Manitoba Postal Code: R5H 1R1

Phone Number: (204) 422-5929 Fax: (204) 422-9723 Email: cao@rmofsteanne.com

Name of proponent contact person for purposes of the environmental assessment (e.g. consultant):

Jason Bunn, P. Eng.

Phone: (204) 477-6650 Fax:	Mailing address: 1600 Buffalo Place, Winnipeg, MB R3T 6B8

Email address: jason.bunn@wsp.com

Short Description of Alteration *(max 90 characters)*:

Submission to satisfy Clause 6 & 7 of EAL 2849R for the RM of Ste. Anne lagoon.

Alteration fee attached: Yes: ☑ No: ☐

If No, please explain:

Date: 2019-08-06	Signature: Printed name: Jason Bunn

A complete Notice of Alteration **(NoA)** consists of the following components:

- ☑ **Cover letter**
- ☑ **Notice of Alteration Form**
- ☑ **2 hard copies and 1 electronic copy of the NoA detailed report** (see "Information Bulletin - Alteration to Developments with Environment Act Licences")
- ☑ **$500 Application fee, if applicable** (Cheque, payable to the Minister of Finance)

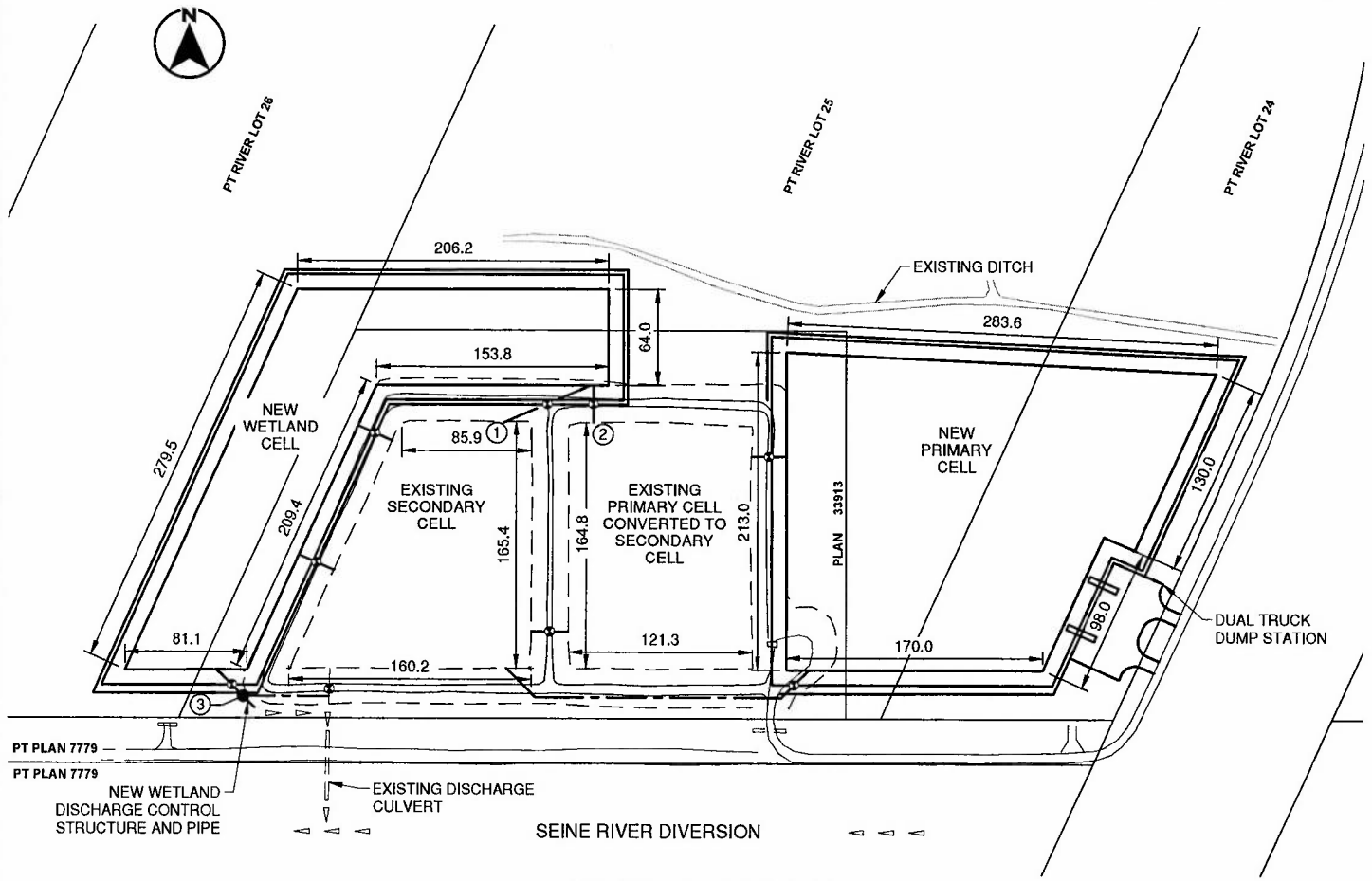
Submit the complete NoA to:

Director
Environmental Approvals Branch
Manitoba Sustainable Development
1007 Century Street
Winnipeg, Manitoba R3H 0W4

For more information:

Phone: (204) 945-8321
Fax: (204) 945-5229
http://www.gov.mb.ca/sd/eal

Note: Per Section 14(3) of the Environment Act, Major Notices of Alteration must be filed through *submission of an Environment Act Proposal Form* (see "Information Bulletin – Environment Act Proposal Report Guidelines")



NEW PRIMARY CELL SURFACE AREA = 5.30 ha
NEW PRIMARY CELL STORAGE VOLUME = 37,625 m^3
CONVERTED SECONDARY CELL STORAGE VOLUME = 26,340 m^3
EXISTING SECONDARY CELL STORAGE VOLUME = 27,100 m^3
TOTAL STORAGE VOLUME = 91,065 m^3
NEW WETLAND CELL BOTTOM AREA = 2.96 ha

PROPOSED SAMPLING LOCATIONS

1. EXISTING SECONDARY CELL
2. CONVERTED SECONDARY CELL
3. WETLAND CELL

PRELIMINARY
NOT FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
WSP Canada Inc.
No. 5750 Date: August 6, 2019

PROVINCE OF MANITOBA
2019 - 08 - 06
J.S. BUNN
Member
23969
REGISTERED PROFESSIONAL ENGINEER

PROJECT NO:	DATE:
191-02990-00	2019/08/06
ORIGINAL SCALE: NTS	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.
DESIGNED BY: JSB / DRAWN BY: VAA	25mm
CHECKED BY: JSB / APPROVED BY: JSB	

WSP
1600 BUFFALO PLACE
WINNIPEG, MANITOBA CANADA
R3T 6B8
TEL: 204-477-6650 | FAX: 204-474-2864 | WWW.WSP.COM

CLIENT:
RM OF STE. ANNE

CLIENT REF. #

PROJECT:
RM OF STE. ANNE
LAGOON & WETLAND
CELL EXPANSION

TITLE:
PROPOSED
SITE PLAN

wsp

Table 1: Proposed water quality sampling criteria for the RM of Ste. Anne Wastewater Treatment Lagoon and Wetland Cell Expansion

Parameter	Location	First Year of Discharge	Long-Term Monitoring
Total phosphorous	Wetland outlet	-prior to discharge -weekly, during continuous summer discharge	-prior to discharge -every 2 weeks during continuous summer discharge
Unionized ammonia	Secondary cell	-prior to discharge -monthly, during continuous summer discharge	-prior to discharge -monthly, during continuous summer discharge
Carbonaceous biochemical oxygen demand			
Total suspended solids			
Fecal coliforms			
Total coliforms			-not applicable
Escherichia coli			
Total ammonia nitrogen			
Nitrate + nitrite			
Total Kjeldahl Nitrogen			
Dissolved phosphorous			
Biochemical oxygen demand			
Acute toxicity		-prior to discharge -quarterly, during continuous summer discharge	
Chronic toxicity			