



Conservation and Water Stewardship

Environmental Stewardship Division
Environmental Approvals Branch
123 Main Street, Suite 160, Winnipeg, Manitoba R3C 1A5
T 204 945-8321 F 204 945-5229
www.gov.mb.ca/conservation/eal

File: 3363.10

March 27, 2014

Jeff Dyck, P. Eng.
Senior Municipal Engineer
J. R. Cousin Consultants Ltd.
91A Scurfield Blvd.
Winnipeg, MB R3Y 1G4
Email: jdyck@jrcc.ca

Dear Mr. Dyck:

Re: Blue Clay Farms 98 Ltd. – Wastewater Treatment Lagoon Upgrade – Environment Act Proposal

The initial review of the Environment Act Proposal (EAP) for the upgrade of the Blue Clay Farms 98 Ltd. wastewater treatment lagoon has been completed.

The initial review has generated comments and requests for additional information. Please respond to the comments and requests from the Technical Advisory Committee presented in the attached items being:

1. Memorandum from Environmental Compliance and Enforcement Branch – Manitoba Conservation and Water Stewardship, dated January 13, 2014;
2. Email message from Office of Drinking Water – Manitoba Conservation and Water Stewardship, dated January 10, 2014;
3. Memorandum from Water Quality Management Section, Water Science and Management Branch – Manitoba Conservation and Water Stewardship, dated January 7, 2014; and
4. Email message (w/ attachments) from Water Control Works and Drainage Licensing Section – Manitoba Conservation and Water Stewardship, dated December 10, 2013.

Please address and respond to the comments and requests for additional information. Resulting responses that are specifically pertinent to the EAP review are to be directed through Manitoba Conservation and Water Stewardship's Environmental Approvals Branch. The EAP review process will continue upon receipt of your responses.

If you have any questions or would like to discuss these items, please contact me at 204-945-6030.

Yours truly,

“original signed by”

Robert Boswick, P. Eng.
Environmental Engineer

Attachments

c: Philip Tschetter, Blue Clay Farms
Don Labossiere, Director – Environmental Compliance and Enforcement, Manitoba
Conservation and Water Stewardship
Public Registries

DATE: January 13, 2014

TO: Robert Boswick
Environmental Approvals
Conservation and Water Stewardship
123 Main St Suite 160 (Box 80)
Winnipeg MB R3C 1A5

FROM: Larry Markwart / Nino Novelas
Environmental Compliance and
Enforcement
Conservation and Water Stewardship
Unit B – 284 Reimer Avenue
Steinbach MB R5G 0R5

SUBJECT: Environment Act Proposal – Blue Clay Farms 98 Ltd – Wastewater Treatment Lagoon Upgrade (Client File No. 3363.00; EA Licence # 1542)

Environmental Compliance and Enforcement (Eastern Region) has reviewed the above noted Environment Act Proposal (EAP) and requests a response from the proponent to the following items:

2.5.6 Wastewater Production:

Environmental Compliance and Enforcement Branch has received enquiries regarding the potential installation of industrial facilities at the site, such as a slaughter plant. As such, we request confirmation that the source of wastewater is only from the residential population and no other sources.

2.5.7 Lagoon Sizing Requirement:

This section of the proposal indicates that the upgraded lagoon would consist of one new primary cell and two storage cells. It is understood in the proposal that the upgrade to the lagoon would be the construction of a new storage cell.

Environmental Compliance and Enforcement requests the proponent to clarify in this section whether the upgrade would consist of a new primary cell or a new Secondary storage cell.

2.5.7.2 Storage Cells

The third paragraph on this section of the proposal suggests that if the water quality testing results are acceptable, only then will the intercell valve between the primary cell and Storage cell #1 be closed and storage cells be discharged.

Environmental Compliance and Enforcement wants to clarify with the proponent that the intercell valve between the primary cell and secondary cell must be closed at least two weeks prior to sampling of the lagoon and not when sampling results of the lagoon are acceptable.

2.5.9.2 Nutrient Management Plan:

The proponent has opted to implement a nutrient reduction strategy (Trickle Discharge) instead of a 1mg/L Phosphorus limit. It is proposed to trickle discharge the storage cells over a four week period. The proposal also suggests in section 2.5.7.2 that the lagoon only be discharged once per year, occurring in the fall.

Environmental Compliance and Enforcement Branch requests that the proponent clarify that the existing primary cell has adequate hydraulic capacity to accommodate incoming wastewater over the entire isolation, sampling and discharge period.

2.5.11 Lagoon Layout

The proposal indicates that the new Storage cell # 2 is to be constructed to the east of Storage Cell #1. However, the location of the new Storage cell # 2 is depicted south of Storage Cell #1 in the attached drawing.

Environmental Compliance and Enforcement requests the proponent to clarify in this section the actual location of the new Storage cell # 2.

Boswick, Robert (CWS)

From: Stibbard, James (CWS)
Sent: January-10-14 9:16 AM
To: Boswick, Robert (CWS)
Subject: Re: 3363.10 Blue Clay Colony WW Lagoon Expansion EAP

Mr. Boswick,

I reviewed the above noted EAP and have no concerns with it respecting drinking water safety except that the proposed effluent drainage route for the lagoon eventually drains into the Red River upstream of the raw water intake for the Morris Regional water treatment plant. In normal operation of the lagoon, this should not pose a problem, however, should a major spill of semi-treated or untreated effluent from the lagoons occur, the effluent could possibly effect the Morris water plant. Therefore, Office of Drinking Water recommends a clause be included in the Environment Act Licence for the lagoons requiring the Owner to have contact information for the Morris Regional Water Plant in his Emergency Response Plan and a requirement that the operators of the Morris Regional Water Plant be contacted in the event of a major effluent spill from the lagoons.

If you have any questions, please call.

Regards,

James Stibbard P. Eng.

Approvals Engineer

Office of Drinking Water

1007 Century Street

Winnipeg MB R3H 0W4

phone: (204) 945-5949

fax: (204) 945-1365

email: James.Stibbard@gov.mb.ca

website: www.manitoba.ca/drinkingwater

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DATE: January 7, 2014

Memorandum

TO: Rafiqul Chowdry
Environmental Approvals Branch
160-123 Main Street, Winnipeg,
MB
R3C 1A5

FROM: Joy Kennedy
Water Quality Management Section
Water Science and Management Branch
160-123 Main Street, Winnipeg, MB
R3C 1A5

Cc Elaine Page

TELEPHONE: 945-7908
FACSIMILE: 948-2357
EMAIL: joy.kennedy@gov.mb.ca

**SUBJECT: ENVIRONMENT ACT PROPOSAL FILE: BLUE CLAY FARMS 98 LTD
3363.10**

- The following effluent standards should be in place for Blue Clay Farms 98 LTD lagoon as per the *Manitoba Water Quality Standards, Objectives and Guidelines Regulation (196/2011)*.
 - BOD₅ 25 mg/L
 - Total suspended solids 25 mg/L
 - Fecal Coliforms or *Escherichia coli* 200 MPN / 100mL
 - <1 mg/L total phosphorous or demonstrated nutrient reduction strategy
- The *Manitoba Water Quality Standards, Objectives and Guidelines Regulation (196/2011)* requires new or expanding wastewater treatment facilities to meet a 1 mg/L phosphorus limit or a demonstrated nutrient reduction strategy. The current license requires the Proponent to effluent irrigate. Effluent irrigation, is a nutrient reduction strategy capable of reducing a significant percentage of phosphorous and nitrogen and has excellent nutrient reuse opportunity. As the proponent is currently land applying the effluent, it is recommended the Proponent continue effluent irrigation. If effluent irrigation is not possible in some years, then the Proponent must be required to meet a <1 mg/L phosphorus limit.
- The Water Quality Management Section is concerned with any discharges that have the potential to impact the aquatic environment and/or restrict present and future uses of the water. Therefore it is recommended that the license require the proponent to actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director.

Joy

Boswick, Robert (CWS)

From: Roberts, Dan (CWS)
Sent: December-10-13 12:51 PM
To: Boswick, Robert (CWS)
Subject: Review and comments request due Jan. 13 , 2014 - Blue Clay Farms 98 Ltd. WWTL - File: 3363.10
Attachments: Drainage Licence Application.pdf

Please advise the proponent that should their proposal involve alterations to existing outlet infrastructure, or the construction of new outlet infrastructure, these works will require licensing under the *Water Rights Act* - an application is attached for their convenience. Any inquiries in this regard may be directed to the local *Water Resource Officer*. Their contact information may be found at:

http://www.gov.mb.ca/conservation/waterstewardship/licensing/pdf/areas_of_focus_jan_23_12.pdf

Thank You,

Dan Roberts

Water Resource Officer
Water Control Works and Drainage Licensing Section
Conservation and Water Stewardship
Box 640, 201 Fourth Ave. S., Swan River, MB R0L 1Z0
Cell: (204) 281-2122, Fax: 734-3733

**Application for Licence
to Construct Water Control Works**
FORM 1: Revised: July 14, 2009



Applicant Name (s) _____
 Company Name _____ Telephone No. _____
 Mailing Address _____ Postal Code _____ Cell Phone No. _____
 Location of Residence _____ Fax No. _____ E-mail _____

A. DEFINITIONS

1) Pursuant to *The Water Rights Act*: **WATER CONTROL WORKS** are defined as any dyke, dam, surface or subsurface drain, drainage, improved natural waterway, canal, tunnel, bridge, culvert, borehole or contrivance for carrying or conducting water that (a) temporarily or permanently alters or may alter the flow or level of water, including but not limited to water in a water body, by any means, including drainage, or (b) changes or may change the location or direction of flow of water, including but not limited to water in a water body, by any means, including drainage.

2) **MINOR WATER CONTROL WORKS** (as defined by policy) are those works that meet the following criteria:

Respecting drainage, minor water control works:

- Are constructed solely on lands owned or controlled by the applicant without negative impact to other lands.
- Meet industry accepted engineering and construction standards.
- Involve excavation of organic soils only and do not lower water levels more than 30 cm (1 foot) below natural ground level.
- Are proven acceptable to municipal or provincial governments if water control works affect the location or flow of water on municipal or provincial property.
- Are proven acceptable to the landowner of lands on which they are constructed if applicant does not own the land.
- Do not occur in naturally vegetated riparian areas.
- Do not occur on Class 6 and 7 soils as defined by Canada Land Inventory (CLI) Soil Capability for Agriculture (1985).
- Do not alter the natural state of seasonal, semi-permanent or permanent marshes (Classes III, IV, V – Stewart and Kantrud marsh classification system).

Respecting dams, minor water control works:

- Are constructed solely on lands owned or controlled by the applicant without negative impact to other lands.
- Meet industry accepted engineering and construction standards.
- Are located within artificially constructed drainage channels.
- Are less than 1.5 meters in height and do not raise the spill elevation of a wetland above natural ground level.

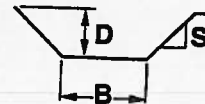
Respecting infrastructure installations, minor water control works:

- Are constructed solely on lands owned or controlled by the applicant without negative impact to other lands.
- Do not alter the natural state of seasonal, semi-permanent or permanent wetlands (Classes III, IV, V – Stewart and Kantrud marsh classification system).
- Meet industry accepted engineering and construction standards.
- Do not change the hydraulic capacity of the structure by more than 15%.
- Includes replacement of culverts at the same location and elevation as the previous culvert.

B. PHOTO/SKETCH/PLANS/DRAWING

All Water Rights Act license applications for construction of WATER CONTROL WORKS must include a photo, sketch, plan and/or drawing that incorporates:

- 1) Location of effected water bodies, maximum depths, approximate sizes, complete or partial drainage
- 2) Proposed drain location, length, depth (D), bottom width (B), and side slopes (S)
- 3) A topographic survey, if the magnitude of the project results in a request for survey information by Water Stewardship staff
- 4) Location of designated spoil sites
- 5) Flow direction of nearby watercourses
- 6) Description and location of proposed control structures and operation schedule (if applicable)
- 7) Road and culvert locations (including culvert sizes)
- 8) Legal descriptions and landowner names of surrounding/affected lands
- 9) North arrow
- 10) Industry accepted engineering and construction standards



For dam projects, except those that meet the definition of minor water control works, a copy of design drawings and decommissioning plan designed by a professional engineer registered to practice in Manitoba. Dams that have the capacity of less than 50 cubic decameters (40 acre feet) must be constructed to industry accepted engineering and construction standards but may be subject to less stringent reporting standards. Please contact either of the Manitoba Water Stewardship offices listed below for further details.

C. LOCATION of Works:

- 1) Municipality/Parish _____ 2) Conservation District (if applicable) _____
- 3) Location of water control works (include ¼ section, township and range, river lots, sub-division, or other legal description)

LEGAL SUBDIVISION	QUARTER	SECTION	TOWNSHIP	RANGE	E/W	LOT	BLOCK	PLAN

Or otherwise described as _____

- 4) Identify water body, natural waterway, or drain that water flows into (if known) _____

D. DESCRIPTION of Works:

- 1) Describe your proposal and its purpose (Please include any methods to control outflow):

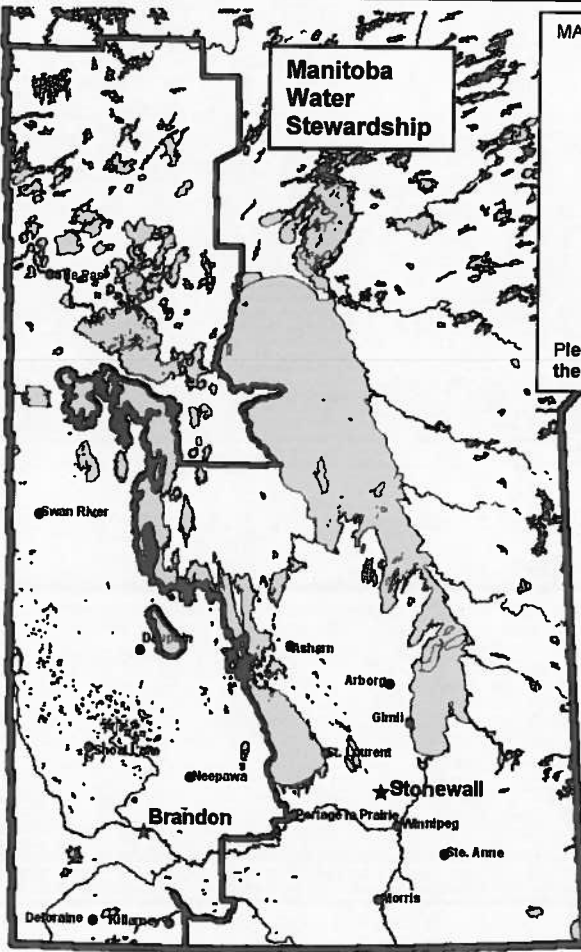
- 2) Does the proposed project meet the definition of minor water control works? Yes No
 (See definition section A)
- 3) Is a bio-security plan in place for the subject property? Yes No
- 4) Will drainage/lowering of a slough, pond or lake be undertaken? Yes No
 - a. If yes, please indicate the following:
 What is the total estimated area of water? _____ Acres _____ Hectares
- 5) Has a survey been completed for these works? Yes No
 - a. If yes, please attach a copy to this application
- 6) Provide details on sediment and erosion control plan(s). _____

E. LANDOWNER Approvals:

- 1) Proposed water control works are located on: Private Property Municipal Property Crown Land
- 2) The applicant is the: Registered Landowner Lessee Other: _____
 If lessee or other, please provide registered landowner signature of approval below.
- 3) Will the proposed water control works alter a water body or water level(s) on land you do not own or control?
- 4) Will the proposed water control works cause water to leave your land?

If yes to either questions 3 or 4, please provide evidence of impacted landowner(s) approval below.

<u>Legal Description</u>	<u>Landowner Name(s)</u> (Please Print)	<u>Signature of Approval</u>	<u>Date Signed</u>
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MAKE CHEQUES PAYABLE TO: MINISTER OF FINANCE
 FEE OF \$25.00 MUST ACCOMPANY APPLICATION
 CHEQUE AND APPLICATION CAN BE MAILED TO:

WATER CONTROL WORKS & DRAINAGE LICENSING SECTION

Box 13, 1129 Queens Avenue
 Brandon, MB R7A 1L9

OR

Box 4558, 293 Main Street
 Stonewall, MB R0C 2Z0

Please Note: Incomplete applications may be returned to the applicant unprocessed.

 Signature of Applicant

 Print Name

 Signature of Landowner (if different from Applicant)

 Print Name

 Date Signed

FOR	Date Received _____
OFFICE	Amount Received \$ _____
USE	Received By: _____
ONLY	MFO# _____