



Conservation and Water Stewardship

Climate Change and Environmental Protection Division
Environmental Approvals Branch
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www.gov.mb.ca/conservation/eal

File: 651.20

November 18, 2013

Tim Stratton, P.Eng.
Project Manager
Stantec Consulting Ltd.
905 Waverley Street
Winnipeg, MB R3T 5P4

Dear Mr. Stratton:

Re: Stephenfield Provincial Park Wastewater Treatment Lagoon Upgrades - Environment Act Proposal

The review of *The Environment Act* Proposal (EAP) regarding the Stephenfield Provincial Park Wastewater Treatment Lagoon Upgrades is continuing.

The review has generated supplementary comments and requests for additional information by the Technical Advisory Committee (TAC). Please address and provide response to the comments and requests for additional information from the TAC presented in the attached items being:

1. Memorandum from Water Quality Management Section, Water Science and Management Branch – Manitoba Conservation and Water Stewardship, dated November 8, 2013.

Please address and respond to the comments and requests for additional information as soon as possible. The EAP review process will continue upon receipt of your response.

If you have any questions, please contact me at (204) 945-2614 or by e-mail at Rafiqul.Chowdhury@gov.mb.ca.

Yours truly,
“originally signed by”

Rafiqul Chowdhury, M.Eng., P.Eng
Environmental Engineer

Attachment

- c. Donna Smiley, Provincial Manager, Environmental Compliance and Enforcement Branch
Public Registries



DATE: November 18, 2013

Memorandum

TO: Rafiqul Chowdhury
Environmental Approvals Branch
160-123 Main Street, Winnipeg,
MB
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FROM: Joy Kennedy
Water Quality Management Section
Water Science and Management Branch
160-123 Main Street, Winnipeg, MB
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Cc Elaine Page

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**SUBJECT: ENVIRONMENT ACT PROPOSAL FILE: 651.20 STEPHENFIELD
PROVINCIAL PARK WASTEWATER TREATMENT LAGOON
UPGRADE**

- The *Manitoba Water Quality Standards, Objectives and Guidelines Regulation* (196/2011) requires new or expanding wastewater treatment facilities to meet < 1 mg/L phosphorus limit or a demonstrated nutrient reduction strategy. The *Manitoba Water Quality Standards, Objectives and Guidelines Regulation* also requires facilities owned by the provincial government to meet <1 mg/L phosphorus.
- Can the proponent please assess effluent irrigation / land application of the effluent?

The proponent has proposed to release effluent into the Stephenfield Reservoir using ALUM to meet a < 1 mg/L phosphorus limit. However, using a nutrient reduction strategy such as effluent irrigation / land application method can be another way to mitigate the effects of effluent on the Stephenfield Reservoir and equivalent to meeting <1 mg/L phosphorus limit.

The Stephenfield Reservoir is designated a vulnerable waterbody in the *Nutrient Management Regulation* (62/2008). In addition, it is usually considered more cost effective to protect source water than treat it for potability. From the Stephenfield Lake Watershed Management Plan: "*Stephenfield Lake often experiences heavy summer algae blooms that negatively affect recreation and require expensive treatment for potable water supply at the Stephenfield Lake water treatment plant.*" (Reference:

http://www.gov.mb.ca/waterstewardship/reports/watershed/stephenfield_wmp_2005-06.pdf).

Furthermore, an Environment Act proposal should include an assessment of nutrient reduction strategies. These strategies should include but are not limited to:

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- Effluent irrigation / land application
 - Alternative lagoon design, operation and storage capacity including trickle discharge and vegetation harvesting
 - Constructed wetlands
 - Chemical treatment