



Water and Waste
Eaux et déchets

Environment and Climate Change
Environmental Stewardship Division
Environmental Approvals Branch
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April 23, 2025
Client File No.: 1071.10
Our File No.: S-1192
020-17-08-11-00
020-17-08-11-0N

Attention: Agnes Wittmann, Director

RE: NEWPCC UPGRADE: BIOSOLIDS FACILITIES – UPDATE TO 2016 BIOSOLIDS MASTER PLAN APPROVAL REGARDING PHOSPHOROUS RECOVERY SYSTEM

On March 10, 2016, Manitoba Conservation and Water Stewardship approved the City of Winnipeg's (City) Biosolids Master Plan, see Appendix A. This plan included the City's 30-year vision for sludge treatment and biosolids management, with the goal to maximize sustainable reuse and nutrient utilization of these materials. The Biosolids Master Plan identified integrating a struvite/phosphorus recovery technology (e.g. Ostara) as part of the NEWPCC Upgrades.

When the NEWPCC Upgrade was split into three projects, the phosphorous recovery system was initially planned as part of the Biosolids Facilities. During subsequent review, risks were identified with integrating this technology with the biosolids project. Due to the addition of ferric in the Interim Phosphorus Facility, approximately 85% of phosphorous will be unavailable to the phosphorous recovery system until the Nutrient Removal Facilities are online. Without sufficient available phosphorous, there is a risk of damaging the phosphorous removal equipment while it operates outside of its design parameters. In addition, commissioning the equipment will be extremely difficult. To mitigate these risks, the City will be implementing the phosphorous recovery system as part of Nutrient Removal Facilities project.

Further, to maximize competition on the Nutrient Removal project, the City will provide performance specifications outlining the desired outcomes of the system versus mandating a specific phosphorous recovery system. The City will continue to minimize phosphorus in the final effluent at the NEWPCC as part of the Interim Phosphorus project.

If you have any questions, please contact me at 204-986-5210 or by email at cwiebe@winnipeg.ca.





Conservation and Water Stewardship

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File: 963.20

March 10, 2016

Chris Carroll, P.Eng., MBA
Manager of Wastewater Services Division
City of Winnipeg
109 – 1199 Pacific Avenue
Winnipeg, MB R3E 3S8

Dear Chris Carroll:

Re: City of Winnipeg Biosolids Master Plan 2014

The Biosolids Master Plan submitted September 29, 2014 in accordance with Clause 4 of the letter to you dated October 2, 2012 and subsequent updates dated December 11, 2014 and January 27, 2016 are hereby acknowledged.

The Biosolids Master Plan and subsequent updates have been reviewed. It is understood that the City will continue to review the viable land application alternatives identified in the Biosolids Master Plan. Conservation and Water Stewardship expects that a land application program will be proposed to be carried out by 2017.

It is understood that the City has a 30-year vision for sludge treatment and biosolids management to maximize sustainable reuse and nutrient utilization of these materials. Thermal hydrolysis producing a low-pathogen product that should be able to be used for land application and soil manufacturing was selected as a main focus of the Biosolids Master Plan.

The City is also pursuing a struvite/phosphorus recovery technology to be integrated with the North End Water Pollution Control Centre (NEWPCC) biological nutrient reduction and sludge treatment upgrades. Sludge from the South End Water Pollution Control Centre (SEWPCC) and West End Water Pollution Control Centre (WEWPCC) will be hauled to the NEWPCC for treatment and future phosphorus recovery with the intention of maximizing nutrient recovery and reuse.

Authorization to commence with the two-year pilot for biosolids composting at Brady Road Landfill in accordance with Environment Act Licence 3081 R was provided in my May 1, 2015 letter. It is anticipated that the pilot activities will be nearing completion next year and that a resulting report of findings will be provided thereafter.

Approval of the Biosolids Master Plan is hereby provided with the following conditions:

1. Annual updates regarding the biosolids application program and the status of the Biosolids Master Plan activities be provided to Conservation and Water Stewardship by January 31 of each year in accordance with Environment Act Licence 1089E RR; and
2. A plan for land application of a portion of the biosolids produced by the City of Winnipeg will be developed for implementation in 2017.

In addition please include any relevant sludge solids and biosolids updates as part of the regular progress reports on the ongoing construction activities at the NEWPCC and the SEWPCC.

If you have any questions or would like to discuss matters pertaining to the Biosolids Master Plan, please contact Robert Boswick, Environmental Engineer, at 204-945-6030 or robert.boswick@gov.mb.ca.

Yours sincerely,

“original signed by”

Tracey Braun, M.Sc.
Director

- c. Duane Griffin, P.Eng. – Water and Waste Department, City of Winnipeg
Don Labossiere/Donna Smiley – Environmental Compliance and Enforcement, Manitoba
Conservation and Water Stewardship
Cory Switzer/Asit Dey/Robert Boswick – Environmental Approvals Branch, Manitoba
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