Plan released for phosphorus removal at Winnipeg's North End sewage plant

News
LWF
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A plan outlining next steps for both interim phosphorus reduction and full upgrades at Winnipeg's North End sewage treatment plant was released today.

The plan was developed by a project steering committee for the North End Water Pollution Control Centre (NEWPCC), which includes representatives from both the city and the province.

The NEWPCC is the largest of Winnipeg's three wastewater treatment facilities and the single largest point source of phosphorus to Lake Winnipeg. Excess amounts of phosphorus in freshwater ecosystems drive the growth of potentially toxic algae. Currently, the NEWPCC is not meeting the requirements of its provincial operating licence, which states phosphorus levels in the facility's effluent must not exceed one milligram per litre.

Today's plan addresses two separate objectives: 1) the implementation of interim phosphorus removal at the NEWPCC, and 2) a full upgrade of the plant, a much larger project that has been broken down into three separate projects.

Timelines have been projected for both objectives. The project steering committee has reached consensus for the work that is being conducted in 2020; work happening after that will still need to be discussed and reviewed.

Within this plan are two opportunities to reduce phosphorus at the NEWPCC.

Opportunity 1: Interim phosphorus removal within the existing plant infrastructure

In 2020, three possible interim phosphorus-removal options will be evaluated. None of the options being tested are expected to enable the NEWPCC to meet the 1 mg/L phosphorus requirement and no cost estimates have yet been provided; these are some of the questions which need to be answered over the coming year.

Once testing is complete, a recommended course of action will be submitted for provincial and city approval. According to the plan released today, approval and design of phosphorus reduction technology at the NEWPCC are estimated to start in late 2021. The interim phosphorus-removal solution at the NEWPCC is not projected to be completed until 2024.

This estimated timeline reflects outstanding questions about the operational impacts of sludge from Winnipeg's South End sewage treatment plant.

Sludge is produced as a by-product of wastewater treatment. South end sludge is currently processed at the NEWPCC but the south end plant is in the process of being upgraded, which will affect the phosphorus concentration of the sludge it produces. Completion of the south end upgrade is currently estimated to happen by the end of 2021. It is unclear whether or not any interim solution can begin prior to that date.

Opportunity 2: Completion of a new biosolids facility as part of the full NEWPCC upgrade

The full NEWPCC upgrade is a significant capital project that is estimated to cost $1.8 billion to complete. Due to cost and complexity, the upgrade was divided into three projects in order to help the process move forward.

Phase 2 of the three-part project is the construction of a new biosolids facility to increase capacity to manage sludge. This project will enable any interim phosphorus solution in place to operate to its maximum effectiveness, which should result in the NEWPCC meeting the 1 mg/L requirement. The biosolids facility project is estimated to cost $553 million.

Today's plan notes that design work for the biosolids facility will begin in 2020. Construction of a new biosolids facility is not projected to be completed until 2028.

What’s next

A project advisory committee was also formed in December 2019, tasked with providing ongoing advice to the project steering committee. LWF is a member of this advisory committee, as are our partners at the International Institute for Sustainable Development (IISD) and the Lake Winnipeg Indigenous Collective.

Both committees will continue to meet regularly. Additionally, monthly progress reports will be submitted to Manitoba Conservation and Climate, and shared publicly on the Manitoba Public Registry website. This represents a commitment to increased transparency and accountability.

Opportunities to advance the schedule of both objectives will be reviewed regularly, and timelines will be re-submitted by the project steering committee for review by July 31, 2020.

Improving Winnipeg wastewater treatment will help protect Lake Winnipeg. We know that citizens expect action – and much work remains.

LWF is committed working collaboratively with the city, the province and other stakeholders. Going forward, our goals include:

- identifying and championing opportunities to accelerate completion timelines for both interim phosphorus removal and a new biosolids facility;
- ensuring interim phosphorus removal achieves a meaningful reduction in phosphorus levels at the NEWPCC; and
- making certain that interim phosphorus removal is completed within the timeframe directed by Winnipeg City Council in October 2019, i.e., once a solution is identified, it must be implemented within 14 months.

Thank you to all our members and supporters who have joined us in advocating for improvements to Winnipeg’s sewage. Your voices are making a difference.

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