



**Submission to the Standing Policy Committee on Water and Waste,
Riverbank Management and the Environment**

**Re: New Capital Project for Interim Chemical Phosphorus Removal for
the North End Sewage Treatment Plant**

Dr. Alexis Kanu, Executive Director, Lake Winnipeg Foundation

At the Lake Winnipeg Foundation (LWF), we're focused on phosphorus – the nutrient that causes blue-green algal blooms on Lake Winnipeg. Research at the IISD-Experimental Lakes Area has repeatedly demonstrated that reducing phosphorus alone is an effective and efficient approach to improving water quality and reducing algal blooms.

Recognizing this, accelerated phosphorus reduction at Winnipeg's North End Water Pollution Control Centre (NEWPCC) is an urgent priority of Winnipeg's City Council and of its citizens.

The Lake Winnipeg Foundation is grateful for the leadership shown by this committee back in October 2019, when it brought forward a [motion to implement accelerated phosphorus reduction at the plant](#).

That motion – passed unanimously by City Council – committed to:

- 1) Testing interim phosphorus removal options;
- 2) Implementing interim phosphorus removal within 14 months of this committee's review; and
- 3) Funding all costs of the project from within existing resources.

Today, the first step of City Council's 2019 commitment is achieved, as the testing phase is over, and we are ready to move forward with implementation.

The Lake Winnipeg Foundation fully supports immediate investment in interim phosphorus reduction. We emphasize that the budget request put forward today, of \$10.5 million, is equivalent to 0.6 per cent of the cost of full plant upgrades. This is a feasible, cost-effective solution to reduce phosphorus loading and begin addressing the ongoing environmental impact of the North End Water Pollution Control Centre.

Upon review of today's report, the Lake Winnipeg Foundation reiterates two concerns which we have raised repeatedly – most recently in October 2020, in response to the updated NEWPCC plan released jointly by the city and the province.

Firstly, the timeline for implementation of interim phosphorus removal is not consistent with City Council's direction, and must be accelerated. City Council committed to implementing interim phosphorus removal within 14 months of this committee's review. That puts us at April 2022. Yet today's report from the public service projects an implementation date of August 2023 – this is over a year late.

The timeline unanimously agreed upon by City Council in 2019 must be respected. LWF requests that the public service be directed to accelerate interim phosphorus removal, to ensure it is operational by April 2022, as promised.

Our second concern is that this report fails to commit to ongoing optimization of interim phosphorus removal, even as the factors that currently limit performance are addressed. Phosphorus reduction requires biosolids capacity. Phosphorus-removal processes concentrate phosphorus in sewage sludge, keeping it out of the liquid effluent discharged into the Red River. This increases the volume of the sludge produced. Thus, though the provincial licence limit is 1 milligram of phosphorus per litre of effluent (mg/L), the interim solution will not immediately achieve this target due to current limits to biosolids treatment capacity.

However, future opportunities exist to reduce phosphorus beyond the 23 per cent reduction projected today – and ultimately, to meet the provincial phosphorus limit by integrating the new phosphorus-removal system into the operations of the NEWPCC's new biosolids facility.

[This new biosolids facility is the city's No. 1 infrastructure priority, as presented in the 2020 Infrastructure Plan.](#) The new biosolids facility will not only enable ongoing growth in the city of Winnipeg – it can and must provide the capacity needed to optimize the interim phosphorus removal system to meet the licence limit of 1 mg/L.

LWF requests that the public service be directed to integrate the new interim phosphorus removal system into the design of the new biosolids project, such that phosphorus removal can be maximized in Phase 2 of the NEWPCC upgrades to achieve compliance with the 1 mg/L phosphorus limit.

LWF stresses the urgency of this request, as we recognize that new phosphorus removal and biosolids facilities must be integrated from the very earliest design phase – which starts this year.

The funding councillors are being asked to approve today will be the very first investment – by any level of government – that will actually contribute to protecting downstream waterways by reducing phosphorus levels in sewage effluent.

But this historic investment must also be a smart investment – it must do more, and do it faster, than is projected in today's report.

We cannot afford – and we will not accept – any more missed opportunities at the NEWPCC.

Today we ask this committee to do three things:

- 1) Approve funding for the interim phosphorus solution;
- 2) Accelerate the timeline for implementation, to ensure the solution is in place by April 2022;
- 3) Ensure the interim solution is optimized in the design and construction of the new biosolids facility, enabling the plant to meet phosphorus limits in Phase 2 of its upgrades.

Together, these three important actions will fulfill the City of Winnipeg's responsibility to the lake that bears its name – and meet the expectations of citizens across the city and the province.

The Lake Winnipeg Foundation (LWF) advocates for change and co-ordinates action to improve the health of Lake Winnipeg. Our long-term goal is to ensure policy and practices informed by evidence are implemented and enforced.

Alexis Kanu, PhD
Executive Director
alexis@lakewinnipegfoundation.org
204-956-0436

Lake Winnipeg Foundation
107-62 Hargrave St.
Winnipeg, MB R3C 1N1
lakewinnipegfoundation.org