Introduction

Lake Winnipeg is the world’s 10th largest freshwater lake, with a watershed that spans two countries, four provinces, four states and over 100 Indigenous nations. It is a lake that matters to Manitoba families – it defines our province’s geography, drives our economy, shapes our cultures and supports our biodiversity.

Lake Winnipeg’s fishing and tourism industries are worth $125 million. The lake is the third-largest hydroelectric reservoir in the world, generating hundreds of millions of dollars’ of power. Lake Winnipeg’s health affects property values and businesses in shoreline municipalities. Dozens of communities, including First Nations and Metis, depend on Lake Winnipeg for their livelihoods, for clean drinking water and for a viable commercial and subsistence fishery.

Yet Lake Winnipeg is suffering from accelerated eutrophication, caused by excess phosphorus. As a result, potentially harmful algae blooms are negatively impacting water quality, tourism and recreation, subsistence and commercial fisheries, and local economies. Rightfully, Manitobans are increasingly concerned about Lake Winnipeg’s long-term health.

The interrelated watershed planning initiatives proposed by Manitoba Sustainable Development and Manitoba Agriculture provide a strong framework to improve water management for the benefit of all Manitobans. Increased water-retention capacity within the Lake Winnipeg watershed is crucial to address the challenges of eutrophication. Retaining water in both protected natural wetlands and constructed retention projects provides the co-benefits of filtering excess phosphorus to improve water quality, reducing peak flows during spring floods and increasingly severe summer storms, and mitigating the impacts of drought.

The Lake Winnipeg Foundation is pleased to provide recommendations to further strengthen these important provincial initiatives.
Watershed-based drainage and water resource management

The Lake Winnipeg Foundation (LWF) supports the Manitoba government’s commitment to protecting Manitoba’s remaining seasonal, semi-permanent and permanent wetlands (class III, IV and V wetlands) through strict regulation and improved enforcement. Natural wetland habitats provide vital ecological functions, offering a cost-effective, ready-made solution to address the overarching provincial outcomes of reduced flooding, reduced nutrient loading and climate change adaptation.

To further strengthen this new regulatory approach, LWF encourages the Manitoba government to adopt a goal of no net loss of ecological goods and services. This will:

• ensure alignment and consistency between the new drainage regulations and the stated goals of the made-in-Manitoba GROW program (see page 4);
• result in no net loss of water-retention capacity in watersheds; and,
• provide additional important co-benefits including water filtration, flood and drought mitigation, groundwater recharge, biodiversity protection and carbon storage.

Drainage of class III, IV or V wetlands must not be permitted solely for personal or corporate economic gain. Projects undergoing full licensing review must not be granted license to drain or negatively impact class III, IV or V wetlands, except where broad socio-economic circumstances necessitate alteration of these valuable habitats. In such cases, robust mitigation ratios must be in place to ensure no net loss of ecological goods and services. Mitigation ratios of up to 8:1 have been used to compensate for wetland drainage in other jurisdictions. LWF recommends a minimum mitigation ratio of 3:1 as a starting point for Manitoba’s new drainage regulations. Site-specific considerations, including geography, vegetation type, soils and landscape features, may necessitate higher mitigation ratios in some cases to ensure no net loss of ecological goods and services.

Incentives developed under the GROW program must not be used to fulfill mitigation requirements prescribed by drainage regulations. Public funds cannot be used to compensate for ongoing damage to Manitoba’s remaining natural class III, IV and V wetlands. Compensation fees covering 100% of mitigation costs must be collected from drainage proponents: this includes both the direct costs of restoration, as well as necessary human resources and technical tools for monitoring the effectiveness of the mitigation scheme in achieving the provincial outcome of no net loss of ecological goods and services.

LWF commends the Manitoba government’s commitment to improve compliance monitoring and increase focus on timely and effective enforcement of regulations. LWF recognizes the need for strong penalties that serve as a deterrent to illegal drainage.
Standards for registered projects

LWF supports a streamlined and clarified registration process for low-risk and low-impact projects. LWF provides the following comments to strengthen the proposed standards for registered projects:

- Mandatory standard #4: to guarantee no net loss of ecological goods and services in watersheds, offset requirements must be fulfilled **before** a registered project is implemented and must be in compliance with a robust mitigation scheme.

- Mandatory standard #5: this is an important – and long-overdue – standard that positions Manitoba as a leader in watershed-based resource management. Regulatory protection of class III, IV and V wetlands represents an efficient, cost-effective means of maintaining water-retention capacity, and is necessary to ensure that the made-in-Manitoba GROW program can be leveraged to achieve a net gain in ecological goods and services and measureable improvements in water quality.

- Class 3 standards: all registered tile drainage projects must include a control structure at the drainage outflow. As such, tile projects that flow directly into a water body should not be eligible for registration and must undergo a full licensing review to ensure that they will not increase sediment or nutrients to waterways. Effective buffer distances between tile drainage and class III, IV and V wetlands must be determined based on robust evidence and site-specific conditions, to maintain the ecological integrity of the wetlands.

- Class 5 standards: care should be taken to ensure that standards for water retention projects are not more onerous than those in place for drainage projects.

Demonstration of downstream impacts

Manitoba Sustainable Development rightfully acknowledges the significant impact wetland drainage is having, by increasing downstream phosphorus loading and flooding. Manitoba itself is a ‘downstream jurisdiction,’ with direct experience of the impacts of increased flow and decreased water quality as a result of upstream drainage. Manitoba’s leadership in water management can serve as an example to neighbouring jurisdictions.

The significant impacts of wetland drainage have been confirmed through scientific research, and must be considered in the context of placing greater onus on downstream landowners to demonstrate the impacts of upstream activities. Efforts to streamline the complaint review process should not deter the submission and thorough review of legitimate complaints from concerned downstream landowners and water users.
Growing Outcomes in Watersheds (GROW)

The made-in-Manitoba GROW program, supported by public funds, must be designed to ensure all Manitobans receive a net gain in ecological goods and services. The GROW program will only be effective in achieving this net gain if drainage or damage to class III, IV & V wetlands is strictly prevented under a strong regulatory regime. The principle of additionality and enhancement of environmental goods and services is critical to the success of GROW, and is only possible with a strong regulatory backstop to prevent ongoing losses.

A more focused definition of ecological goods and services will strengthen Manitoba’s GROW program. Emphasis should be placed on the non-market goods and services provided by healthy, functioning ecosystems, including water filtration, flood protection and wildlife habitat. By definition, these non-market goods and services have been externalized, whereas market goods (e.g. food) are already incentivized by existing market structures.

To achieve the greatest return on investment, the GROW program must be evidence-based and geographically targeted in agricultural areas with severely reduced water retention capacity, high phosphorus loading and/or high risk of flooding. For example, wetland loss has been significant in the flood-prone Red River Valley, which contributes 68% of the phosphorus load to Lake Winnipeg. Incentive programs in this region are likely to provide better value for money.

The GROW program must be effectively integrated with ongoing provincial water-quality monitoring, and additional resources must be provided for tailored monitoring designed specifically to measure the program’s direct ecological outcomes on the landscape. This monitoring should go beyond measuring the number of projects or the area covered, and be designed to measure program-specific reductions in phosphorus loading and flooding, as well as increases in carbon storage and biodiversity. Results of such monitoring programs must be made publicly available in a timely and accessible manner.

In the interim, as tailored monitoring of the GROW program is developed, the Lake Winnipeg Community-Based Monitoring Network (LWCBMN), co-ordinated by LWF, is generating credible phosphorus data compatible with existing provincial and federal data. LWCBMN data can be used to inform provincial watershed planning and policy initiatives, by pinpointing phosphorus hotspots and measuring the impact of best management practices at local scales. LWCBMN data is shared publicly, is readily available to provincial decision-makers, and has great potential to inform the development of a cost-effective and efficient GROW program.
Conclusion

A strong watershed-based policy framework to improve water management for the benefit of all Manitobans must:

- Protect Manitoba’s remaining threatened wetlands through strong regulation, supported by effective and timely enforcement of illegal activities;
- Use precious public funds to achieve a net gain in ecological goods and services;
- Provide targeted investment in regions with reduced water-retention capacity and/or high phosphorus loading; and,
- Demonstrate measureable ecological outcomes through tailored, program-specific monitoring that enhances existing provincial water-quality monitoring.

The Lake Winnipeg Foundation congratulates the ministers of Sustainable Development and Agriculture on their leadership in the development of this made-in-Manitoba approach.

About the Lake Winnipeg Foundation

The Lake Winnipeg Foundation (LWF) advocates for change and co-ordinates action to improve the health of Lake Winnipeg, now and for future generations.

Founded in 2005 as a volunteer coalition of concerned lake-lovers, LWF today is a leading organization working collaboratively with non-profit, academic, industry and government sectors, First Nations, and the public to restore and protect our great lake.

Guided by the expertise of our Science Advisory Council, a group of nationally recognized freshwater experts, LWF advances collaborative efforts in research, education, policy and stewardship.

LWF is the only membership-based freshwater organization in Manitoba. Our flagship initiative, the Lake Winnipeg Health Plan, identifies eight evidence-based actions to improve the health of Lake Winnipeg – providing a blueprint for cost-effective decision-making and long-term, evidence-based freshwater management.