

# ACTION, CO-ORDINATION & COMMITMENT FOR A HEALTHY LAKE WINNIPEG

A proposal presented to the Government of Canada | February 2016



Grand Beach Provincial Park, Photo: Paul Mutch

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## **Executive Summary – A global treasure, a national responsibility**

At the centre of Canada, Lake Winnipeg is the world’s 10<sup>th</sup> largest freshwater lake, a majestic water body with a watershed that spans two countries, four provinces, four states and over 100 Indigenous nations. This great lake shapes our regional cultures, drives our provincial economy and is recognized nationally and internationally for its ecological value.

However, harmful algae blooms are increasing at an alarming rate, causing beach closures and drinking-water advisories, and threatening the communities and industries that depend on Lake Winnipeg. Algae blooms are the result of eutrophication, a condition caused by an over-abundance of phosphorus. Lake Winnipeg is now considered one of the most eutrophic large lakes in the world – international attention that underscores the need for urgent action.

Despite growing public concern, lack of co-ordinated action and investment for Lake Winnipeg remains a chronic challenge and a significant deterrent to progress.

Scientists tell us that the answer lies in Lake Winnipeg’s vast watershed – an area that is 40 times larger than the lake itself. Human activities across this area contribute excess phosphorus to waterways, while a changing climate and aquatic invasive species further exacerbate the impacts of eutrophication. Understanding these diverse factors is daunting – sustaining co-ordinated action at the watershed scale is an even more formidable task.

In June 2015, Liberal candidates Stéphane Dion, Terry Duguid and Jim Carr – all now elected – met with scientists, policy-makers and Manitoba MLA Jon Gerrard to discuss the future of Lake Winnipeg. The group recommended the establishment of a Lake Winnipeg Basin Council with clear authority and stable resources to promote action and maintain accountability.

For the past decade, the Lake Winnipeg Foundation (LWF) has addressed these needs, envisioning a clean, healthy Lake Winnipeg and watershed now and for future generations. Leveraging the leading freshwater expertise of our Science Advisory Council, alongside the commitment of our grassroots membership, LWF is nationally recognized for connecting citizens and science to generate lasting solutions to complex environmental challenges.

LWF is committed to promoting long-term adaptive management for a sustainable Lake Winnipeg, and to building the partnerships necessary to achieve this common goal. With diverse expertise, long-term commitment and increased investment, Canadians can continue to enjoy our treasured lakes and rivers, now and into the future.

Co-ordinated action and collaborative water governance requires long-term commitment from many organizations and agencies – this is a collective responsibility. This proposal outlines a clear course of action to realize our shared commitment to a healthy Lake Winnipeg, in keeping with the Canadian government’s dedication to evidence-based decision-making, stronger collaboration, open and transparent government and renewed nation-to-nation relationships with Indigenous Peoples.

Building on a proven track record of fostering collaboration and stewardship capacity in the Lake Winnipeg Basin, LWF will:

- ◆ Align action and build collaborative governance capacity through the Lake Winnipeg Basin Council (p. 4);
- ◆ Build citizen-science capacity to inform research and policy priorities (p. 5);
- ◆ Promote wetland protection and sustainable shoreline management (p. 6);
- ◆ Translate scientific expertise into accessible, action-oriented messaging to engage and mobilize citizens across the watershed (p. 7);
- ◆ Support the Lake Winnipeg Indigenous Collective in rebuilding nation-to-nation relationships (p. 8).

**Budget**

	2016	2017	2018	2019
Government of Canada	\$380,000	\$380,000	\$380,000	\$380,000
Province of Manitoba	\$160,000	\$160,000	\$160,000	\$160,000
Private donors	\$100,000	\$130,000	\$160,000	\$190,000
Foundation support	\$250,000	\$260,000	\$275,000	\$295,000
<b>Total</b>	<b>\$890,000</b>	<b>\$930,000</b>	<b>\$975,000</b>	<b>\$1,025,000</b>

**Collaborative action, integrative governance**  
**Annual federal contribution: \$75,000**

Real improvement in Lake Winnipeg’s health requires a long-term commitment to co-ordinated action, adaptive management and continuous evaluation. To date, fragmented water governance in the Lake Winnipeg Basin has resulted in piecemeal and opportunistic attempts to address eutrophication. Efforts have been hindered by a lack of stable support and inadequate attention to address competing – sometimes conflicting – interests.

A solid foundation of relationships and resources is necessary to advance innovative and holistic solutions commensurate with large, complex problems. In 2012, LWF undertook pioneering work to convene environmental organizations, researchers and policy-makers from across the watershed to build consensus towards solutions. Today, with over 25 partners, LWF is dedicated to providing strategic, scientific and administrative support to ensure Lake Winnipeg’s long-term health. We have built a comprehensive framework for action and a blueprint for strong integrative governance in the Lake Winnipeg Basin.

**Priorities**

- 1) Provide technical advice and secretariat support for the Liberal-proposed Lake Winnipeg Basin Council:
  - a. Support strong decision-making, evaluation and accountability by leveraging the expertise of LWF’s Science and Policy Advisory Councils;
  - b. Identify lessons learned and best practices from other collaborative water governance initiatives;
  - c. Engage all watershed jurisdictions to ensure decision-making and accountability mechanisms are aligned;
  - d. Advocate for necessary legislative frameworks and economic investments;
  - e. Maintain connectivity, momentum and alignment among a diverse and inclusive stakeholder network.

**Partners**

- ◆ Lake Winnipeg Research Consortium
- ◆ IISD – Experimental Lakes Area
- ◆ Red River Basin Commission
- ◆ Forum for Leadership on Water
- ◆ Manitoba Water Council
- ◆ Province of Manitoba
- ◆ Government of Canada

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## **Citizen science for evidence-based decision-making**

### **Annual federal contribution: \$75,000**

Across Canada, a growing evidence gap impacts our ability to manage our precious freshwater resources. In response, community-based monitoring (CBM) programs aim to build citizen-science capacity. Increasingly, school and community groups throughout the watershed are engaged in CBM efforts. These citizen scientists are learning about the health of our waters – and supporting solutions – as they collect water samples across the Lake Winnipeg Basin.

For ten years, LWF has funded localized CBM efforts. In October 2015, LWF convened Manitoba's CBM groups for the first time. Workshop attendees recognized the need for a CBM network, and identified LWF as the leader in co-ordinating citizen science initiatives across the Lake Winnipeg Basin. LWF's strong relationships with researchers, conservation groups, Indigenous initiatives and policy makers will enable the emerging network to generate and share a credible dataset that informs water policy development throughout the watershed.

### **Priorities**

- 1) Provide strategic leadership, co-ordination and resources to address capacity gaps:
  - a. Develop communication tools to maintain and grow the CBM network;
  - b. Engage citizen scientists as champions for water health;
  - c. Develop training opportunities in response to network needs;
  - d. Establish a community lab and subsidize phosphorus analysis;
  - e. Identify and leverage shared funding opportunities.
- 2) Ensure credible data are available to inform research and policy priorities:
  - a. Develop credible and consistent protocols for data collection and analysis;
  - b. Develop a comprehensive and accessible online portal for community-to-community data sharing;
  - c. Analyze, contextualize and share monitoring data at local, regional and national scales to support evidence-based decision-making.

### **Partners**

- ◆ Lake Winnipeg Basin Information Network, University of Manitoba
- ◆ South Central Eco-Institute
- ◆ Manitoba Conservation District Program
- ◆ Manitoba First Nations Education Resource Centre
- ◆ Living Lakes Canada

## **Wetland protection and shoreline management**

### **Annual federal contribution: \$50,000**

Wetlands play an important role in protecting water quality. Nutrient sequestration by these valuable habitats is widely recognized as an effective tool to address eutrophication. Despite this, wetlands continue to be degraded at an alarming rate, threatened by agricultural intensification and development pressure.

In 2011, LWF mapped Lake Winnipeg shorelines, identifying coastal wetlands with high ecological value. This data is now being used to engage community members, inform management decisions and promote the establishment of freshwater protected areas. Concurrently, LWF is quantifying the water-filtering capacity of Netley-Libau Marsh, one of Canada's largest coastal wetlands, in order to develop a phased restoration plan for this and other vital coastal wetlands.

### **Priorities**

- 1) Develop shoreline management guidelines for Lake Winnipeg's south basin;
  - a. Engage municipal leaders, community associations, First Nations, developers, and conservation groups to identify challenges and opportunities;
  - b. Share community-based outcomes with provincial and federal partners;
  - c. Create balanced provincial shoreline management guidelines.
- 2) Spearhead restoration initiatives in Netley-Libau Marsh (NLM) that incorporate scientific perspectives and traditional knowledge;
  - a. Develop a phased remedial action plan for NLM that is respectful of existing treaty land entitlement processes;
  - b. Build partnerships and identify and secure resources for restoration activities.
- 3) Facilitate the establishment of freshwater protected areas that safeguard Lake Winnipeg's coastal habitats;
  - a. Undertake community outreach to increase awareness of habitat values;
  - b. Draft freshwater protected area objectives and management requirements.

### **Partners**

- ◆ South Basin Mayors and Reeves
- ◆ University of Manitoba
- ◆ Brokenhead Ojibway Nation
- ◆ Peguis First Nation
- ◆ Canadian Parks and Wilderness Society

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## **Public education and engagement for action across the watershed**

**Annual federal contribution: \$70,000**

Recent media portrayals have led to widespread public perception that our lake cannot recover. Inconsistency in the way solutions are presented has left citizens concerned about what's been accomplished, what's left to do and who's responsible. There is significant risk that public confusion will lead to divestment and apathy. Yet progress in addressing Lake Winnipeg's water-quality challenges depends on strong and sustained public engagement.

LWF's co-ordinated outreach program translates scientific expertise into accessible, action-oriented messaging – building public trust and engagement. Encompassing direct engagement with students and community groups, traditional media relations, integrated digital outreach, and co-ordinated partner messaging, LWF's clear and compelling communications are advancing consistent, long-term solutions for our great lake.

### **Priorities**

- 1) Build a strong constituency of public support for sustainable water stewardship across the Lake Winnipeg Basin:
  - a. Develop shared messaging among conservation organizations;
  - b. Develop and enact a stakeholder engagement strategy;
  - c. Disseminate strategic public communications to mobilize citizens.
- 2) Develop a public report card to evaluate our collective progress:
  - a. Assess efforts to improve Lake Winnipeg's health from scientific, cultural and policy perspectives;
  - b. Report annually to the public and all partners on progress and gaps.
- 3) Attract and leverage private funding to support ongoing stewardship efforts:
  - a. Host annual public outreach and fundraising events;
  - b. Solicit private funding from individuals, corporations and foundations to ensure the stability and sustainability of efforts to protect Lake Winnipeg.

### **Partners**

- ◆ Lake Winnipeg Research Consortium
- ◆ Canadian Parks and Wilderness Society
- ◆ Ducks Unlimited Canada
- ◆ Province of Manitoba
- ◆ Government of Canada

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**Lake Winnipeg Indigenous Collective**  
**Annual federal contribution: \$110,000**

Indigenous Peoples have a sacred relationship with Lake Winnipeg. However, despite their cultural, social and economic connections to water, Indigenous Peoples remain marginalized in discussions of the health of our lakes and rivers. Genuine inclusion of Indigenous participants in collaborative governance processes must recognize their unique water rights and respect nation-to-nation relationships.

LWF acknowledges the difficult history of colonization. We also acknowledge the resilience of Indigenous nations and the value of traditional knowledge – not as a relic of history, but as a living knowledge system integral to our collective conversation. In 2014, LWF partnered with Brokenhead Ojibway Nation to bring together 14 Indigenous nations from around Lake Winnipeg. The emerging Lake Winnipeg Indigenous Collective (LWIC) is now working towards a common vision: *our sacred waters are healthy, traditional livelihoods are restored and Indigenous perspectives are influential in leading the protection and sustainability of Lake Winnipeg as a source of life for all future generations.*

**Priorities**

- 1) Ensure full representation of Indigenous perspectives to improve water stewardship:
  - a. Establish strong LWIC governance based in traditional knowledge and relationships between First Nations;
  - b. Learn from and with other Indigenous-led water initiatives.
- 2) Improve community health and well-being:
  - a. Build regional consensus on priority actions to improve water quality;
  - b. Secure partners and funders for community-based initiatives;
  - c. Develop local work plans and regional impact-measurement systems.
- 3) Build linkages between Indigenous, non-profit and research communities to lay the groundwork for inclusive and sustainable water governance for Lake Winnipeg:
  - a. Improve understanding of existing water-governance structures and gaps;
  - b. Engage with allies through established and new water-governance forums.

**Partners**

- ◆ Brokenhead Ojibway Nation
- ◆ Black River First Nation
- ◆ Norway House Cree Nation
- ◆ Peguis First Nation
- ◆ National Centre for Truth and Reconciliation
- ◆ Misipawistik Cree Nation
- ◆ Pinaymootang First Nation
- ◆ Sagkeeng First Nation





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*a clean, healthy Lake Winnipeg and watershed,  
now and for future generations*

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Lake Winnipeg Foundation  
300-207 Fort Street  
Winnipeg, MB R3C 1E2

Alexis Kanu | Executive Director  
[ed@lakewinnipegfoundation.org](mailto:ed@lakewinnipegfoundation.org)  
(204) 956-0436

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