



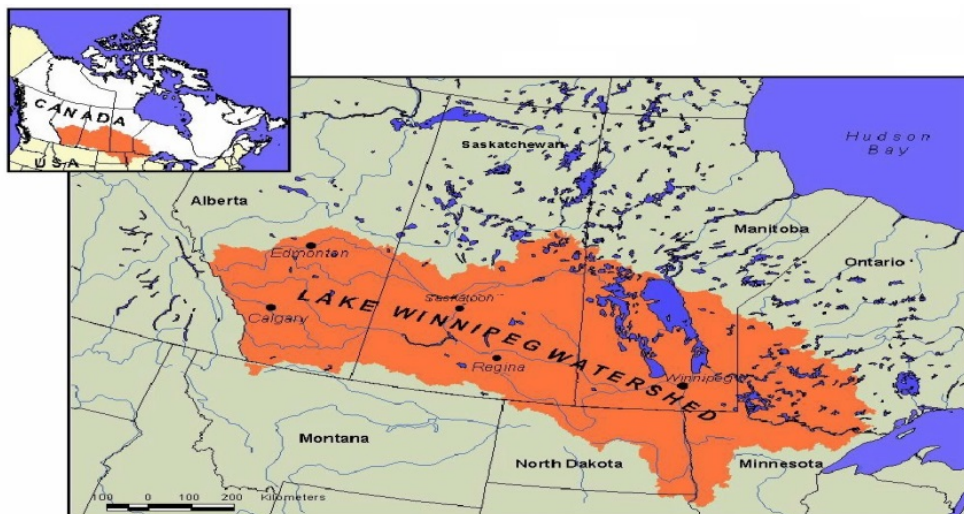
## Evaluation Summary

### Lake Winnipeg Basin Initiative

Audit and Evaluation Branch

#### About the Program

- Lake Winnipeg is the world's 10<sup>th</sup> largest freshwater lake. It is fed by a vast basin covering 960 thousand square kilometers extending over four provinces and four states. Water quality has deteriorated in the lake over time, due to excessive amounts of nutrients from multiple sources. The Lake Winnipeg Basin Initiative (LWBI) aims to contribute to restoring the ecological health of Lake Winnipeg, reduce pollution from sources such as agriculture, industry and wastewater, and improve water quality for fisheries and recreation.
- The program was first launched in 2008 with \$18 million in funding for a five year period. The program was renewed in 2012 for a second five year phase, with an additional \$18 million in funding.
- Environment and Climate Change Canada's (ECCC's) program activities are organized within three key pillars:
  1. Science: Focuses on filling priority knowledge gaps, and identifying ways to monitor and measure results and assess the effectiveness of efforts to clean up the lake.
  2. Stewardship – the Lake Winnipeg Basin Stewardship Fund (LWBSF): Provides funding to community groups and stakeholders for cost-shared projects that focus on reducing nutrient loads. Since 2012, 48 projects totaling approximately \$4.4M have been approved.
  3. Transboundary Partnerships: Includes collaborative work with other governments (provincial, state, federal) and organizations within the watershed, including working closely with the Province of Manitoba and with domestic and international water management boards.





## What the Evaluation Found

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### Relevance

- The basin is an important and complex watershed with significant water quality challenges related to excessive nutrients that have a negative impact on the ecosystem and economy. There is a need to address these issues and better understand emerging issues impacting the lake's water quality and its response to interventions.
- Water quality is an area of shared federal, provincial and territorial responsibility. ECCC's involvement in Lake Winnipeg is consistent with the transboundary nature of the basin and its national importance as a large and significant freshwater body.

### Performance

- ECCC science activities have contributed to the development and application of predictive modelling of nutrients in the Lake Winnipeg Basin to support work by the Province of Manitoba on understanding optimal nutrient reduction scenarios in key tributaries. Progress is being made toward an improved understanding of strategies for reducing nutrients in the basin, but more evidence is required to identify actions that will have the greatest impact and to improve the dissemination of research findings and water quality data.
- The LWBSF is well-known among stakeholder groups in the Lake Winnipeg Basin and there is a strong demand for funding to conduct high quality projects. Measures are in place to prioritize funding to projects which, based on available knowledge, are likely to have the greatest impact. Estimates of total phosphorous reductions from LWBSF funded projects are substantially greater in the second phase of the program than in Phase I and are on track to meet program targets. It should be noted, though, that the level of nutrient reductions delivered by these projects is extremely small in relation to total estimated phosphorous loads, with total reductions delivered over five years estimated at less than 1% of the annual nutrient loads entering the lake.
- ECCC's leadership and participation in the LWBI has fostered high levels of collaboration and coordination among stakeholders participating in each of the program's three pillars. The LWBI leads or participates in multiple governance structures and the roles and responsibilities of various players are clear.
- Engagement of indigenous groups in governance structures in the basin is in the early stages, but more could be done to ensure their consistent and coordinated participation in these forums, as well as in the delivery of LWBSF projects.
- With respect to long-term results, insufficient data are available to assess the status of the ecological health of Lake Winnipeg, due largely to the fact that development of State of the Lake Indicators remains in the early stages and is delayed from target timelines established by Manitoba and ECCC. There is widespread agreement, however, that the ecological integrity of the lake and the basin has not improved significantly based on efforts to date and the impact of factors such as invasive species, weather events/seasonal flooding linked to climate change and recirculation of nutrients released from lake sediment.
- The LWBI is a well-managed program employing a number of practices that contribute to efficiency and funding applicants are generally satisfied with ECCC's delivery of the program.



- A performance measurement framework has been developed, is diligently populated and is used to monitor and inform decision-making about the program. However, in the context of current activities, the program's logic model does not reflect a realistic progression from near term to final outcomes that is likely to result in restoration of the lake's ecological health.

## Recommendations

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The following recommendations are directed to the Assistant Deputy Minister, Strategic Policy Branch who accepts all of the recommendations and has developed appropriate management action plans in response.

Recommendations
1. Focus efforts on expanding the base of knowledge and improving dissemination to stakeholders regarding: i) the nutrient management practices likely to have the greatest impact; and ii) the impacts of emerging factors such as invasive species, climate change and nutrient cycling.
2. Review the program's design and expected outcomes to ensure they are consistent and demonstrate that the program's activities make a reasonable contribution to achieving final outcomes.
3. Strengthen efforts to engage Indigenous groups and communities in stewardship and partnership activities.
4. Build on and advance early efforts to develop State of the Lake Indicators with the Province of Manitoba.

## About the Evaluation

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The evaluation was conducted by ECCC's Audit and Evaluation Branch between January and December 2016. The following data collection methodologies were used to address the evaluation issues and questions: a document review; thirty interviews with internal and external stakeholders; a review of the final reports from projects funded by the program that were completed as of March 31, 2016 (twenty-nine in total); an on-line survey of funding applicants, including both those who received funding and those who were not funded; and three case studies.