



CLIMATE CHANGE IMPACTS

Objective

To enhance the long-term effectiveness of management strategies for restoring and protecting Great Lakes water quality by understanding and considering climate change impacts.

This annex of the Canada–United States Great Lakes Water Quality Agreement (GLWQA) commits Canada and the United States to coordinate science, strategies and actions in order to address climate change impacts within the Great Lakes basin.

Why is action on climate change impacts important?

Climate change impacts are being observed in the Great Lakes basin. Some of the most evident impacts include warming temperatures, changing precipitation patterns, decreased ice coverage and lower than average water levels. However, climate change may also impact physical, chemical and biological processes in the Great Lakes, and these impacts are less well understood. Understanding how climate change will affect runoff and erosion patterns, wetland development, and other processes will allow us to make more informed management decisions in the lakes.

Commitment to key activities within the 2012 Great Lakes Water Quality Agreement

- Develop and improve regional-scale climate models. Link them to Great Lakes chemical, physical and biological models, in order to better understand and predict the impacts of climate change on Great Lakes water quality;
- Enhance monitoring of relevant climate and Great Lakes variables to validate model predictions and understand current climate changes and their impacts;
- Develop and improve tools to understand and predict the impacts, risks and vulnerabilities associated with climate change;
- Coordinate binational climate change science and share information that Great Lakes resource managers need to proactively address climate change impacts.

Expected outcomes

- Enhanced understanding of the climate change implications for the Great Lakes;
- Enhanced long-term effectiveness of management strategies for the restoration and protection of Great Lakes water quality.

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