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GROUNDWATER

Objective

To protect Great Lakes water quality from the negative impacts of changes in the groundwater that enters the lakes.

Why is action on groundwater important?

We know groundwater has an impact on the chemical, physical and biological integrity of the Great Lakes; however, the extent of that impact is not completely understood. This presents a challenge, given the interconnected nature of the water cycle in the basin. Preventing groundwater contamination and managing impacts and stresses on groundwater quality and quantity within the Great Lakes basin are key to protecting the Great Lakes.

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

- Report, **within two years**, on relevant and available groundwater science;
- Establish science priorities and actions to manage, protect, and remediate groundwater;
- Coordinate binational groundwater activities with domestic programs to assess, protect and manage groundwater quality and understand and manage groundwater-related stresses;

Groundwater is the water stored underground in soil, sand and rock throughout the Great Lakes basin. This water constitutes an immense unseen reservoir, estimated to be equal in volume to Lake Michigan.

Groundwater...

- *affects both the quality and quantity of water in the Great Lakes;*
- *maintains water levels in streams and wetlands during dry spells;*
- *is a significant source of drinking water;*
- *provides almost half the water used in agriculture and a significant amount of the water used by industry;*
- *is vital to certain aquatic species and habitats.*

- Undertake the necessary groundwater science to:
 - identify impacts on the Great Lakes;
 - analyze contaminants, including nutrients;
 - assess information gaps and science needs;
 - analyze other factors, such as climate change, that may affect groundwater's impact on the Great Lakes.

Expected outcomes

- The restoration, protection and maintenance of groundwater in order to support a healthy Great Lakes ecosystem;
- Enhanced collaboration and coordination on priorities for science and management actions on groundwater.

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