Great Lakes Action Plan 2030

**Great Lakes
St. Lawrence Collaborative**

**Great Lakes Legislative Caucus
September 13, 2019**

Great Lakes Collaborative

- Launched October 2018, to be completed by Spring 2020
- Expert Panel led by Co-Chairs
  - Gord Miller, former Ontario Environmental Commissioner
  - Jean Cinq-Mars, former Sustainability Commissioner of Quebec
- Received funding from Environment & Climate Change Canada
- Two phases: 1) Great Lakes and 2) St. Lawrence
- Over 75 stakeholder directly involved, over 200 consulted through webinars, summit
- Inspired by U.S. Great Lakes Restoration Initiative - over $2 billion in federal funding since 2008
- Website: https://westbrookpa.com/GLSLCollab/

Why an Action Plan to protect the Great Lakes?

- Action Plan 2030 is a strategy to tackle complex problems facing the Great Lakes region in the 21st century.

- By targeting sources of pollution having greatest impact, and supporting communities most at risk, Action Plan 2030 proposes more precise interventions using new kinds of collaboration, technologies and big data.

15 Key Actions in 4 Areas

A. Protect shoreline communities: Create five Priority Shoreline Resiliency Zones , hardest hit by extreme flooding and erosion associated with climate change; provide government support and financing.

B. Reduce Our Exposure to Toxics: Actively identify, investigate and respond to human and environmental exposure to mixtures of toxics and other harmful pollutants.

C. Accelerate Nutrients Reduction: Use GIS platforms and Big data to identify nutrient hotspots; work with landowners, municipalities, Indigenous communities, to reduce nutrient runoff causing harmful algal blooms.

D. Make Contaminated Beaches Clean and Safe: Identify beaches with chronic bacteriological contamination problems; require action to clean up the source of contamination, including untreated sewage.

Protect Shoreline Communities from Climate Change impacts

Climate Change and Shoreline communities

- Great lakes shoreline communities face unique climate change impacts, fluctuating water levels, increased wave and wind energy, causing flooding, erosion, damaging natural and built infrastructure, properties.

- In 2017 and 2019, a number of Great Lakes communities declared states of emergency from water levels, flooding.

Climate: Overview of Recommendations

Desired outcome: to identify shoreline communities that are most vulnerable to high water levels and prepare them to be 'climate resilient' and 'climate ready'.

Key actions:
- Designate 5 Shoreline Resiliency Priority Zones, provide funding and technical assistance.
- Create a Great Lakes specific climate information portal
- Greater investment in flood plain mapping, monitoring/ modelling data, LIDAR.
- Provide technical guidance and funding to support actions by any shoreline municipality and Indigenous community to address shoreline hazards from climate change.

Five Proposed Shoreline Priority Zones- for discussion

North Central Lake Superior

Lake Superior

SE Georgian Bay

Georgian Bay

Lake Huron

Lake Michigan

Central Lake Ontario

Lake Ontario

Central Lake Huron

Lake Erie

Central Lake Erie

Reduce Our Exposure to Toxics and Other Harmful Pollutants

Toxics Exposure

- Well established evaluation of individual legacy chemicals under CEPA
- EU focus on exposure to chemical mixtures.
- UN Rapporteur concluded that Canada takes too long to respond to First Nations exposure to pollution, e.g. Grassy Narrows, Aamjiwnaang
- Concentration of chemicals in products of concern,e.g. triclosan, alkylphenols, PFOS.

Toxics: Overview of Recommendations

Desired outcome: identify and act more quickly to prevent and reduce environmental and human exposure to chemical mixtures in the Great Lakes region.

Key Actions:

- Establish targeted 'exposure and effects' environmental and human health biomonitoring program in Great Lakes region that will provide early detection of effects from harmful pollutants where expect to find them.

- Reduce exposure, through effective communication and involvement of at-risk individuals and communities, and drive appropriate responses by enforcement officials, regulators, those responsible for release.

- Create a Chemical Substitution Strategy that supports substitution or elimination of toxic chemicals and harmful pollutants in products and processes in Great Lakes region.

Accelerate Nutrients Reduction

Nutrients and Algal Blooms

- Nutrient loss from agricultural/urban runoff to get worse with climate change.

- Chesapeake Bay experience: Scatter gun approach less effective than targeted interventions.

- Precision conservation: use of GIS platforms and agricultural data in Mid West to identify lands that contribute the most P, provide advice on conservation pratices .
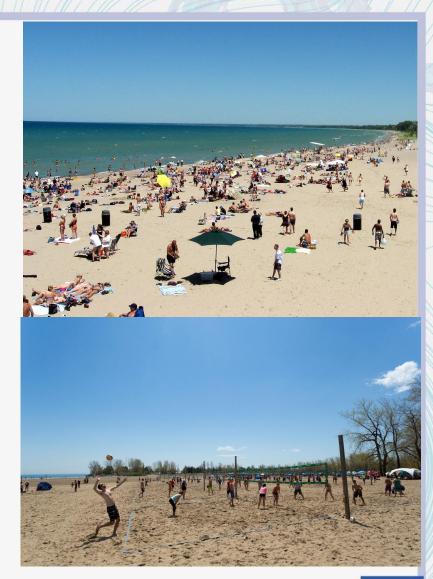
Nutrient Recommendations 2

- Create 'Water Quality and Nutrient Management Centre' to support nutrient management through precision conservation, GIS platform, urban stormwater optimization.

- Designate a network of extension workers with standardized training to provide consistent technical advice on phosphorus loss reduction.

- Where urban areas are significant contributors of phosphorus loading, require municipalities to develop urban stormwater optimization plan.

Make Contaminated Beaches Clean and Safe

Beaches and Bacteriological Contamination

- Ontario Great Lakes beaches have good track record in preventing waterborne disease outbreaks.
- No central tracking of beach quality in Ontario like in US, EU.
- Estimated 15-20% of beaches, or 120 beaches, have chronic problems, caused by untreated sewage or other sources of faecal contamination that go unaddressed.
- Need more accessible, timely information for public, modernized testing and reporting methods.

Beaches: Overview of Recommendations

Desired outcome: to ensure that ALL Great Lakes beaches are clean and protect public health by moving to a risk-based, centrally monitored pollution reduction and prevention approach.

Key actions:

- Target beaches with chronic bacteriological contamination and require action to track down and address the persistent sources of bacteriological contamination, with funding support.
- Modernize guidelines on the use of new techniques and technologies that allow for more time-sensitive monitoring, assessment and reporting of beach quality.
- Create a centralized portal to communicate beach quality information, making beach quality categorization, testing and survey results easily accessible to the public.

Conclusion

- Great Lakes are a globally-significant asset, with significant regional economic and ecosystem benefits, and so require significant, long term investments.
- The Governments of Canada and Ontario should invest in and implement Action Plan 2030, a ten year strategy to protect the Great Lakes and those who live by them.

Contact

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