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**Re: Comments on [Canada-Ontario Action Plan for Lake Erie](#) (EBR Registry #012-9971)**

The Great Lakes Protection Act Alliance (“Alliance”) works to help achieve the purposes of the *Great Lakes Protection Act, 2015* (“Act”), which are:

- a) To protect and restore the ecological health of the Great Lakes-St. Lawrence River Basin;  
and
- b) To create opportunities for individuals and communities to become involved in the protection and restoration of the ecological health of the Great Lakes-St. Lawrence River Basin. (s1(1), [Great Lakes Protection Act, 2015](#))

To achieve this goal, the Alliance will:

- Act as a catalyst in implementing the Act;
- Encourage utilization, by governments, individuals, communities, and public bodies, of the tools enabled in the Act; and
- Monitor and encourage government progress toward achieving the purposes of the Act.

The undersigned members of the Alliance are commenting on the proposed *Partnering in Phosphorus Control: Achieving Phosphorus Reductions in Lake Erie from Canadian Sources* (“Draft Action Plan”) to reduce phosphorus loading in Lake Erie, in order to achieve the 40 per cent phosphorus reduction target. The Draft Action Plan, once finalized, will deliver on a number of nutrient commitments made by the federal and/or provincial governments including:

1. The Canada-U.S. Great Lakes Water Quality Agreement (GLWQA), 2012;
2. The Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health (COA), 2014;
3. The Western Basin of Lake Erie Collaborative Agreement (Collaborative Agreement) with the States of Michigan and Ohio on June 13, 2015;
4. The Great Lakes Commission’s Joint Action Plan for Lake Erie with four U.S. states; and
5. The Province of Ontario’s Great Lakes Protection Act, 2015.

Because the Alliance's current mandate centres on effective implementation of the Act, our comments will primarily analyze how the proposed Draft Action Plan for Lake Erie meets our expectations for protection and restoration of the Great Lakes-St Lawrence River ecosystem under the Act. It is crucial that the final Canada-Ontario Action Plan for Lake Erie exemplifies the attributes of a robust action plan as it is the first plan for meeting a target to be created under the Act.

As described in the Act (s9(4)), the Minister of the Environment and Climate Change shall prepare a plan that sets out the actions that shall be taken to achieve a target that has been established under subsection 9(1).

The Alliance is pleased to provide comments on the Draft Action Plan, which is the first action plan proposed under the Act, and we applaud Ontario's leadership on this critical issue. We are encouraged that Canada and Ontario recognize the urgency and complexity of this issue (Draft Action Plan, p iii):

The financial, social, and ecological costs of these blooms are significant and growing, and action is urgently needed to reverse the trend.

The Alliance is also pleased to see a thorough and compelling overview of the science that informed the adoption of the 40 per cent phosphorus reduction target, and directed the proposed actions in the Draft Action Plan.

However, as-is the plan is inadequate. The plan describes actions government is already implementing, but does not adequately describe what actions are *necessary* to achieve the proposed 40 per cent phosphorus reduction target. Without significant additions and modifications to the Draft Action Plan, especially targeting non-point source and agricultural sources of phosphorus, as well as actions related to natural heritage, science and monitoring, the Alliance fears the final Action Plan will not adequately address the threat of algal blooms to Lake Erie.

Further, in its current iteration, the plan lacks most of the attributes of effective action plans including: specific and measureable actions and objectives; measureable results; clear and reasonable timelines and deadlines; accountability; and, adequate resourcing for implementation.

The Alliance welcomes the opportunity to comment on the Draft Action Plan, and is pleased with several aspects of the public consultation process to date. We expect the authors will be responsive to the feedback garnered through the consultation process, and that the final Action Plan will be significantly more comprehensive as a result.

Further comments about the proposed Draft Action Plan are detailed below.

# Expectations for Action Plans under the *Great Lakes Protection Act, 2015*

Because action plans are required for each target set under the *Great Lakes Protection Act, 2015*, it is important that this inaugural plan sets a high standard for future plans. Effective action plans have a number of key components:

1. Specific and measurable actions, and objectives
2. Measureable results
3. Clear and reasonable timelines and deadlines
4. Accountability
5. Adequate resourcing for implementation
6. Ongoing and continuous public engagement

The Alliance is expecting that the final Canada-Ontario Action Plan will contain the above-noted features of a true action plan, which are absent from the proposed Draft Action Plan.

## How the proposed Draft Action Plan measures-up

Ultimately, the final Action Plan should include a list of programs, policies and plans that are needed to meet the binational targets. It should use existing science and data to evaluate gaps in the current approach in order to identify what further work is needed to ensure we will be able meet its commitments. The current Draft Action Plan does not do this. It is mostly a list of activities that governments are either doing or can commit to at this point under current funding schemes. This makes it difficult (if not impossible) to assess whether Ontario and Canada will be able to reduce algal blooms and improve the water quality of Lake Erie.

### Specific and measurable actions and objectives:

As described in the Draft Action Plan (p 27):

The Canada-U.S. Great Lakes Water Quality Agreement sets out a number of lake-ecosystem objectives it expects the parties to achieve by reducing phosphorus loads to the Great Lakes. For Lake Erie, the relevant lake ecosystem objectives are: maintain cyanobacteria biomass at levels that do not produce concentrations of toxins that pose a threat to human or ecosystem health in the Waters of the Great Lakes; minimize the extent of hypoxic zones in the Waters of the

Great Lakes associated with excessive phosphorus loading, with particular emphasis on Lake Erie; maintain the levels of algal biomass below the level constituting a nuisance condition; and maintain algal species consistent with healthy aquatic ecosystems in the nearshore Waters of the Great Lakes.

To achieve these objectives, the proposed Draft Action Plan seeks to achieve the 2016 binational phosphorus targets, two of which are applicable in the Canadian/provincial context (Draft Action Plan, p2):

- A 40 per cent reduction from 2008 loadings in the central basin, with a new target total binational loading of 6,000 tonnes per year of total phosphorus.
- A 40 per cent reduction in spring loads of total phosphorus and soluble reactive phosphorus for priority tributaries to minimize harmful algal blooms in the nearshore areas.

We are pleased to see there is a specific commitment to establish a reduced legal effluent discharge for all municipal sewage treatment plants (Draft Action Plan, p35):

Ontario will work with municipal partners in establishing a legal effluent discharge limit of 0.5 milligrams per litre of total phosphorus for all municipal sewage treatment plants (STPs) in the Lake Erie basin that have an average daily flow capacity of 3.78 million litres or more per day.

However, we urge the authors to go a step farther and include a timeline for the implementation of the new discharge limits, and add specific commitments to address combined sewage overflows and bypass events, which are a ubiquitous issue in the Great Lakes, with multiple impacts on the health of our waters.

The binational targets identify phosphorus loading amounts for the mouths of the major tributaries flowing into Lake Erie. However, these target amounts should be sub-allocated to the smaller watersheds within each tributary system. A sub-allocation of the targets would provide a nested approach, so that loading from upstream watersheds aggregate to meet the downstream target. This framework would make it simpler to identify, quantify and prioritize nutrient sources in smaller areas. In addition, a sub-allocation would provide a framework for tracking progress at a smaller scale, allowing for swifter, more focused intervention when needed.

The sub-allocation targets would best be complemented by watershed plans to help achieve the desired loads. Solutions should be developed with a holistic, watershed approach in mind. This approach can build on the existing watershed plans developed by conservation authorities, but strengthened by evaluating each subwatershed to identify stewardship, remediation, and/or restoration projects and strategies to meet the local sub-allocated targets based on the area's unique geological characteristics and function.

## Measurable results

Effective action plans include specific actions, and expected outcomes. In this way progress toward objectives can be tracked and reported.

Comprehensive monitoring is critical to understanding current conditions, tracking progress, and guiding policy and program investments. Monitoring combined with modelling (the ability to mathematically simulate ecological impacts under different conditions) is a useful way to evaluate different nutrient reduction scenarios.

The Draft Action Plan should include the following commitments:

- Monitoring networks are capable of collecting the data necessary to identify water quality and ecosystem trends at consistent geographic scales across the Lake Erie basin.
- Jurisdictions monitor trends at similar frequencies and durations, and for the same parameters. A coordinating entity may be needed to establish common protocols and ensure data is readily-comparable, and publicly-accessible.
- Sufficient data is collected to calculate flow weighted mean concentrations, allowing for the comparison of total loads across the rivers flowing into Lake Erie.
- Tributary monitoring at river mouths and known nutrient loading “hot-spots” captures annual and spring loads of total phosphorus, soluble reactive phosphorus, and suspended sediments; and,
- Subwatershed level monitoring to identify sources, target efforts to reduce inputs, and support the sub-allocation targets described previously.

Monitoring and other efforts to improve cross-jurisdictional understanding of the problem must inform local actions, as well as a framework for tracking progress.

In its current iteration, many of the actions are broad, and expected goals or outcomes of the actions are not provided. For example (Draft Action Plan, p 34):

Ontario will work with the Lake Erie community to implement restoration of native habitats including wetlands, and riparian habitat; focusing on priority watersheds where phosphorus loadings are high and natural cover is low.

Although this action is commendable, the objective is vague. It is implicitly understood that wetlands and riparian habitat will reduce phosphorus loads in the Lake, but it is unclear by how much. It is also unclear what will determine the amount of habitat restored. If the goal is to reduce phosphorus, an acreage goal – based on nutrient retention capacity – should be included in the action plan. This combined with the above mentioned lack of discrete measurable targets makes it impossible to understand how the proposed actions will add up to the overarching phosphorus reduction targets.

## Clear and reasonable timelines, and deadlines

Under the *Great Lakes Protection Act, 2015*, Ontario has committed to a 40 per cent reduction in phosphorus entering Lake Erie by 2025 ([Decision Notice: Reducing Phosphorus to Minimize Algal Blooms](#))

[in Lake Erie, EBR Registry #012-8760](#)). The Alliance is disappointed to see that timeline conspicuously missing from the proposed Draft Action Plan. Without a timeframe for achieving the targets and objectives, it will be hard to garner the necessary political will and financial resources to act.

Further, specific actions proposed in sections 4A-E consistently lack start dates and deadlines for completion. While we understand that some actions will be ongoing, at a minimum, start dates should be included. For example (Draft Action Plan, p 37):

Ontario will support and conduct research on the use of sensor-based technology for monitoring phosphorus and associated parameters.

The above action doesn't include a proposed timeframe for the research. There is no start date or end date.

## **Accountability**

In sections 4A-E, Canada and Ontario commit to various actions to reduce phosphorus loadings in Lake Erie, ensure effective policies, programs and legislation, conduct monitoring and research, educate and raise awareness, and improve leadership and collaboration. These actions should be further delegated to responsible ministries and/or authorities.

Robust science, monitoring, and reporting will also contribute to accountability. These ongoing activities are needed to inform and track the effectiveness of policies, plans and practices, and to measure progress toward reduction targets.

As part of the current public consultation, the authors have asked stakeholders to propose actions they plan to undertake as part of the final Action Plan. If we are to ensure we meet our phosphorus reduction targets, the Action Plan must hold stakeholders accountable. This will require fair, clear and consistently enforced consequences and penalties (i.e. fines, withdrawal of funding) for non-compliance with policies and plans, as well as auditing to ensure effective and sustained implementation of BMPs, and effectiveness of publicly funded support programs.

Further, annual public reports should link the effectiveness of policies, plans and practices to progress on phosphorus loading reduction, providing data to inform adaptive management.

## **Resources**

While one of the key principles of the Draft Action Plan is economic sustainability, there is almost no mention of how the proposed actions will be resourced.

This draft Action Plan is intended to be economically sustainable, aiming to mitigate negative economic impacts where they might occur and protect the economic value of Lake Erie's water

quality and ecosystem integrity for future generations. It builds on and links existing activities, adding value and leveraging resources where possible. (Draft Action Plan, p 5)

Without sufficient resources, it will be hard, if not impossible, for both governments to deliver the actions required to meet the 40 per cent phosphorus reduction target. The Alliance was pleased to see the federal government commit up to \$70.5 million over 5 years for freshwater protection and \$43.8 million over 5 years for aquatic invasive species programs. However, while this investment is a much appreciated step in the right direction, it is not specifically for Lake Erie, and is much less than what is required to protect and restore the Great Lakes-St Lawrence River ecosystem. We are also disappointed to see no mention of the Great Lakes or freshwater in Ontario's 2017 budget announcement.

To ensure implementation can happen, we need to know what resources are required to implement each of the actions required to meet the target, that they are secured, and that the amount of resources allocated is being reviewed on a regular basis, in-line with the adaptive management approach. That could mean either allocating more or less resources in total or adjusting funding to different programs as we learn more about what is working well and what is not.

For the purposes of this Draft Action Plan, and future action plans developed under the *Great Lakes Protection Act, 2015*, we recommend modifying Table 1 (Draft Action Plan, p 30), to include timelines, responsible authorities, required resources and expected outcomes. Consider using a similar format to that used in [Ontario's Climate Change Action Plan 2016-2021](#) (pp 60-85).

## Ongoing and continuous public engagement

The Alliance supports and recommends ongoing and *meaningful* stakeholder and public engagement – in part because the actions required to improve the health of Lake Erie will demand broad engagement throughout the basin, but also because the second purpose of the Act requires it:

To create opportunities for individuals and communities to become involved in the protection and restoration of the ecological health of the Great Lakes-St. Lawrence River Basin (s1(1), [Great Lakes Protection Act, 2015](#))

Meaningful public engagement requires access to information that enables informed contributions to the process. Therefore, the Alliance supports publicly accessible current monitoring data, progress reports, and implementation/resourcing plans. Further, public engagement should be ongoing, and not just compliment or contribute to government activities. The public should inform big picture strategies for meeting targets, and contribute to the government's own programs, policies and plans.

The Alliance welcomes the opportunity to comment on the Draft Action Plan, and is pleased with several aspects of the public consultation process to date. We expect the authors will be responsive to the feedback garnered through the consultation process, and that the final Action Plan will be significantly improved as a result. It is essential that feedback collected during the current public consultation process is incorporated into the final Action Plan.

We strongly advise both levels of government to convene multi-sector meetings prior to releasing the proposed final Action Plan, and to continue to engage municipalities, NGOs, conservation authorities and other relevant stakeholders, as well as the public over the coming months. The Alliance expects that the federal and provincial governments will also meet their obligations to First Nation and Métis communities within the Basin.

If desired, we are willing to meet to discuss our submission with you.

Sincerely,

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