

**Ontario Sheep Marketing Agency
Comments on the Proposed Binational Phosphorous Load Reduction Targets
Of the Great Lakes Water Quality Agreement Nutrients Annex Subcommittee**

The Ontario Sheep Marketing Agency (OSMA) is a producer organization representing all aspects of the sheep industry in Ontario. Established in 1985 under the Ontario Farm Products Marketing Act, OSMA's mission is to enhance producer returns and provide consumers with premium lamb and sheep products by encouraging Ontario sheep producers to provide quality, year-round product through advocacy, market development, industry capacity and organizational capacity. OSMA represents over 3,000 sheep producers who contributed over \$300 million to the Ontario economy in 2014.

OSMA appreciates Environment Canada's open approach in seeking industry input and is pleased to provide comments on such an important policy as Great Lakes water quality protection and recognizes Lake Erie as a vital resource for the Great Lakes Region. Many of Ontario's food producers raise their families and make their living in the vicinity of Lake Erie. Many depend on Lake Erie for drinking water for themselves and for their livestock. Many more depend on the Lake for recreation, as do other Ontarians; we are all invested in the Lake's health. Ontario's food producers are stewards of the land, and have shown their commitment to environmental stewardship, through participation in various initiatives including the development of Nutrient Management Strategies and implementation of Environmental Farm Plans.

It has been noted that the recent accelerating decline in the health of Lake Erie is linked to the rising proportion of dissolved reactive phosphorous in the Lake. This phosphorous comes from many sources, including the atmosphere, urban areas and agricultural operations. Reducing phosphorous loading into Lake Erie to 40% of 2008 levels, as well as lowering the Lake's phosphorous concentration has been identified as a target to reduce nuisance and toxic algal blooms and to minimize hypoxia.

Our understanding is that phosphorous losses from agricultural fields can be divided into three categories:

1. Flash losses of soluble phosphorous soon after application of fertilizer or manure
2. Slow leak losses of soluble phosphorus
3. Erosion events

Phosphorous is valued as a crop nutrient required for food production and only a very small proportion of the amount applied to soil is lost to surface water. Regardless, farmers are committed to finding ways to prevent phosphorous, along with other essential crop inputs, from escaping into surface waters.

Ontario food producers have been working for decades on decreasing all types of phosphorous losses from fields by employing best management practices (BMPs) such as no-till or reduced till to limit erosion events and soil testing prior to applying fertilizer to minimize potential losses. **The Ontario Ministry of Food and Rural Affairs (OMAFRA) indicates that fertilizer sales of phosphate tonnage decreased by over 30% between 1981 and 2011.** OMAFRA also notes that the volume of manure produced between 1976 and 2011 decreased by over 42%.

In terms of meeting the target 40% phosphorous reduction, we can support the four joint actions having agricultural importance as proposed by the Lake Erie Nutrient Targets (LENT) Working Group in the June 2015 document 'An Interim Joint Action Plan for Lake Erie':

- i. Manage nutrient applications on frozen snow covered ground

- ii. Adopt “4 Rs Nutrient Stewardship Certification Program” or other comprehensive nutrient management programs
- iii. Encourage investments in green infrastructure for urban storm water and agricultural runoff, including ecological buffers for rivers, streams and wetlands
- iv. Promote and pilot innovative nutrient reduction initiatives in the western Lake Erie basin

It should be noted that Ontario farmers have taken tremendous care in decreasing nutrient losses from fields over the last decades and yet, the health of Lake Erie is still declining. As such, the reduction of phosphorous load flowing into Lake Erie must be recognized as a complex issue that is shared by multiple jurisdictions. OSMA would like to better understand the proportion of the problem that is attributable to current on-farm practices, to past practices that have resulted in legacy phosphorus, and to non-agricultural phosphorous sources.

When establishing reduction targets, an important question that needs to be considered is whether the targets represent equitable standards and expectations from farmers, independent of which jurisdiction they farm in. The key challenge will be how to balance the variation in nutrient stewardship standards across jurisdictions with the need for meaningful targets for all jurisdictions. One jurisdiction cannot be held accountable for actions taken or not taken in the other jurisdiction.

OSMA also supports the following:

- Government support for the development and implementation of other programs to support good nutrient management practices in the urban and rural, non-farm sectors is also a necessity.
- Develop standard soil P tests for both total phosphorous (TP) and dissolved reactive phosphorous (DRP). Make the standard test obligatory for soil test labs.
- Develop science-informed, practical BMPs for managing the impact of severe rainfall.
- Review current OMAFRA phosphorous application recommendations to ensure they are calibrated for the current climate, weather conditions and tillage practices.
- Work with Livestock Feed Regulators to review current recommendations for livestock feed rations to identify measures that will reduce P levels in animal manure.
- Use an adaptive approach to implementation, by focusing on the western basin of Lake Erie and specifically the streams and rivers discharging in to the basin.
- Adopt a precautionary approach by focusing efforts on the worst first, while at the same time limiting the effort in some areas and situations based on the principle of proportionality.
- Embrace a multi-barrier approach that incorporates a set of practices that complement each other by creating a cumulative reduction of phosphorous losses to the environment.
- Use an incentive-based, voluntary approach with a substantial extension effort in those watersheds discharging to the western basin. Develop partnerships with farm organizations including general farm organizations, commodity-specific organizations, farm environmental organizations, and organizations representing farm input suppliers.
- Ensure early adopters are not punished. Farmers that have already adopted measures for phosphorous loss reduction should be given credit for their good management.

OSMA looks forward to an on-going dialogue with the province around this complex issue, and we would like to underscore the need for careful reflection regarding the metrics that will be used to measure progress.



We would like to thank Environment Canada for the opportunity to provide comments on the targets proposed by the Great Lakes Water Quality Agreement Nutrients Annex Subcommittee.

OSMA
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