

September 4, 2019

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Re: Proposed new Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health

The Ontario Greenhouse Vegetable Growers (OGVG) are pleased to provide comments regarding the Proposed new Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health. OGVG represents approximately 200 farmers responsible for over 3,000 acres of greenhouse tomatoes, peppers and cucumbers across the province. With farmgate sales of \$946 million in 2018, a contribution of \$1.6 billion to the economy and a consistent track record of growth, the sector is a valuable economic driver for the province. Our members are committed to the health and safety of people and the environment while they grow fresh, high quality food year-round and contribute to meeting healthy eating and food security goals across the province. As leaders in the Agriculture sector in Ontario we acknowledge the problems outlined in the Canada-Ontario Agreement (COA) and are committed to provide the leadership required to resolve it.

We are encouraged by the government's effort to address the significant challenges facing the Great Lakes. In advance of the December 2019 expiration of the current COA, it is important to re-evaluate its priorities and identify opportunities to improve Great Lakes water quality as efficiently as possible. For instance, integrating Science and Innovation in each Annex instead of being its own category will streamline the COA and provide a foundation for science-based decision making. Access to healthy fresh water is critical to greenhouse farming, and we look forward to supporting the renewal process and participating in initiatives arising out of the COA. When revising the COA, we hope you will consider our comments to facilitate a business environment that supports the competitiveness of Ontario's vegetable producers, while achieving the Ontario's important economic and environmental goals.

Protecting Waters

Nutrients

Addressing nutrients to protect the Great Lakes water resources requires participation from all stakeholders on both sides of the border. It is essential to continue efforts to address harmful algal blooms, especially considering

increasing impacts and changing influences. We know that phosphorus loads need to be reduced to control excessive algae growth – leading to decreased water quality – this is a problem that no one can or should ignore.

Farmers are part of the solution: that is why OGVG has joined together with other agriculture stakeholders under Environmental Collaboration Ontario (Eco-Ag) to take a leadership role in efforts to reduce the amount of phosphorus in the Great Lakes watershed.

Much of the Ontario greenhouse vegetable sector utilizes precision fertigation techniques to maximize water and nutrient-use efficiency. Currently, 97% of the acreage we represent utilizes recirculation and/or is connected to sanitary sewers, to effectively manage water and nutrients and prevent loss to the environment. We estimate this has led to an 83% reduction of phosphorus loss on a per acre basis since 2010. OGVG is also committed to secondary assurance measures regarding its water handling practices. We assist our grower members with adhering to Environmental Compliance Approvals (ECA) and have begun rolling out a sector-specific Dye Test Protocol to demonstrate that greenhouse water handling systems are isolated from the environment and are working as intended. It is expected that this protocol will be certified by a third party in the future as part of the Protected Agriculture Stewardship initiative. This industry-led national initiative is supported by the Canadian Horticultural Council, Canadian Nursery Landscape Association, Cannabis Council of Canada, CropLife Canada, Flowers Canada Growers, and Mushrooms Canada. The aim is to reduce environmental impact through the development of national standards and auditable processes that ensure internal water handling processes are effective. Furthermore, a portion of our research budget is dedicated towards water related projects, including one aimed at improving stormwater pond environmental performance and understanding nutrient dynamics. OGVG staff continue to engage with Lake Erie Action Plan (LEAP), Agricultural Sector Working Group (ASWG) and other water working groups to learn about and disseminate best practices.

OGVG agrees with many of the proposed actions under the Nutrients Annex of the new COA, namely: implementing actions regarding the CO-LEAP; supporting intermediate assessments and report of progress regarding phosphorus and nutrients to determine progress; continuing focus on Lake Erie and Leamington Tributaries; providing access to funding programs that effectively help manage or mitigate nutrient issues, especially with a focus on Lake Erie; maintaining and increasing use of science-based and numeric reduction targets; dedicating ‘Result 4’ to focus on agricultural production and including sustainability and competitiveness considerations, access to tools, education and demonstration opportunities, and technical advice.

The one aspect missing from the proposed COA is failing to focus on areas with higher nutrient contributions to achieve results efficiently and economically.

Wastewater and Stormwater

Effective management of wastewater and stormwater is essential to mitigate environmental risk. One factor that helps Ontario agri-business effectively manage their water resources in rural Ontario is access to infrastructure such as sanitary sewers. In addition to the infrastructure itself, it is critical that new and expanded infrastructure is provided in a predictable and timely manner. OGVG members are doing their part to control upstream sources of nutrients via recirculation and various secondary assurance methods. Additionally, OGVG is undertaking a research project with the University of Windsor Great Lakes Institute for Environmental Research to determine effectiveness and best management practices regarding greenhouse stormwater pond management. As previously mentioned, the greenhouse vegetable sector’s biggest opportunity for improved wastewater and

stormwater management can be facilitated by improved access to sanitary sewer for responsible wastewater disposal.

As outlined in the draft COA agreement, OGVG agrees that investing in new and expanded stormwater management infrastructure will help businesses and allow long-term business planning. We also support innovation for phosphorus and/or water recovery and reuse. OGVG has been actively engaged with the George Barley Prize to identify applications of the innovative technological solutions being explored; we look forward to utilizing their technology or recovered phosphorus as it becomes available. OGVG will continue to work its grower membership to monitor the sector's stormwater pond performance. Accordingly, we ask that OGVG is invited to the table when the COA undertakes a review of rural stormwater and agricultural drainage management.

While it is true that storm- and wastewater management are critically important, the proposed COA does not effectively address how compliance activities might be tailored to be both efficient and provide maximum environmental benefit. Due to the unique nature of agricultural lands, a common sense approach to compliance and enforcement is required to ensure sampling results are meaningful and that best efforts are recognized as such. Within the agricultural domain there remain many factors which are beyond the control of farmers, such as weather patterns, soil types, overland and ground water flows, and nutrient contributions from native flora and fauna. There needs to be a recognition that we are all working towards a shared objective: protecting our waters. Farmers that make best efforts to do so should not be painted in the same light as those who are willful polluters, even if the regulations allow for such an interpretation. To address this concern, we recommend that a 3rd party ombudsmen be established to mediate a common sense approach to compliance and enforcement. Lastly, when undertaking an impact analysis of the various contributors to water quality, we remind you that that septic systems are a necessary alternative when sanitary sewers are not an option; switching from septic to sanitary sewers should be considered in a comprehensive impact analysis for water quality improvement opportunities.

Improving Coastal Areas

Lakewide Management

While the principles outlined in the proposed COA can be applied widely to each of the Great Lakes, we appreciate the acknowledgement that each lake is unique. This warrants science-based site-specific action plans for each of the Great Lakes.

OGVG supports the COA proposal to maintain the existing monitoring programs that assess Great Lakes' nearshore quality, especially water and sediment, as well as nuisance and harmful algae.

One aspect we felt was missing from the proposed COA was explicit mention of Conservation Authorities generally and their Source Water Protection mandate specifically, both of which help achieve lake and river desired outcomes and need continued support going forward.

Enhancing Understanding and Adaptation

Groundwater Quality

Groundwater quality is an important aspect of Ontario's water system and deserves separate consideration. Ontario's greenhouse vegetable sector is on course with its transition to water recirculation, which prevents fertigation water from entering waterways including groundwater.

OGVG agrees with the with the COA proposal to support monitoring and research activities for surface water and groundwater, including whether its relationship affects unlined greenhouse stormwater pond monitoring results. In the longer term we need coordinated research and monitoring programs to ensure farmers and their partners have more sophisticated data to develop effective programs and activities and shape good science based public policy. This will help farmers and their partners ensure that programs, funding and reduction activity can be targeted to priority watersheds and evaluate the success of new and existing nutrient management programs.

Climate Change Impacts and Resilience

Climate change appears to be affecting Ontario in many ways and the COA is poised to identify climate change impacts and resilience specific to water. There is also an opportunity to study climate change impacts on greenhouse farming and agriculture broadly. For instance, greenhouse closed environment agriculture provides agricultural resiliency in a changing climate. At this potential tipping point, it is essential to share climate change info and data with the entire Great Lakes community to assist decision makers and resource managers. Everyone must do their part.

We appreciate that the COA proposes to provide regional climate change data projections to support business planning in a changing climate. We are also encouraged by the COA planning to undertake a climate change impact assessment; we believe it should include a specific section on agriculture, which will be uniquely impacted by climate change.

Engaging Communities – From Awareness to Action

From Awareness to Action

Awareness and engagement regarding Great Lakes water quality issues is essential to achieving results. OGVG will continue to participate in working groups and activities under the LEAP. We recently presented the sector's progress regarding water and nutrient management at the Great Lakes Public Forum in Milwaukee, Wisconsin. We look forward to continuing these engagement activities under the new COA.

We were pleased that the proposed COA explicitly mentioned the continuation of implementing the LEAP, convening regular binational Great Lakes Public Forums, delivering the Great Lakes Protection Initiative, and maintaining the EcoAction Community Fund. Programs like these are essential to facilitate awareness and action to improve the Great Lakes.

Thank you for taking the time to consider our comments throughout this consultation process. Please feel free to contact OGVG to discuss this topic further.