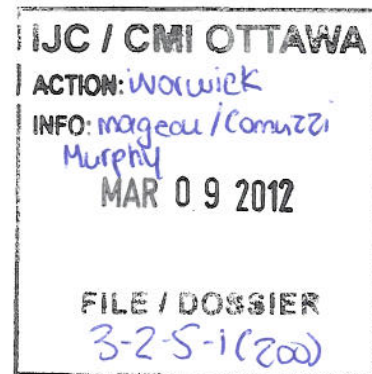




March 6, 2012

The Honourable Joseph Comuzzi
Chair, Canadian Section
International Joint Commission
Canada and the United States
234 Laurier Avenue West, 22nd Floor
Ottawa, Ontario K1P 6K6

Ms Lana Pollack, Chair
United States Section
International Joint Commission
2401 Pennsylvania Avenue, NW, Fourth Floor
Washington, DC 20440



Dear Chair Comuzzi and Chair Pollack:

The Government of Canada appreciates the recommendations made in the International Joint Commission's 14th Biennial Report on Great Lakes Water Quality. The report's focus on municipal sources of pollution (including wastewater treatment effluents, combined sewer overflows, bypasses and separate storm sewer discharges) into Great Lakes waters, under Article VI Section 1(a) of the Great Lakes Water Quality Agreement, is one of significant importance and the recommendations made in the Biennial Report will be taken into consideration as we continue to build on successes already made in this sector.

I apologize for the unusual delay in responding to the report, which was due to our desire to consult with multiple agencies and to provide a considered response.

Canada is strongly committed to ensuring a healthy and sustainable Great Lakes Basin Ecosystem. I am pleased to convey our response to the 14th Biennial Report recommendations below, which reflects input and collaboration from Environment Canada, Infrastructure Canada, and the Ontario Ministry of the Environment.

-
1. Ensure that the economic-stimulus measures now being developed address wastewater system needs in the Great Lakes Basin.

...2/

Canada's Economic Action Plan (EAP) was introduced by the Government of Canada to fight the effects of the global recession by providing significant stimulus to safeguard jobs and protect families, while making important productive investments to contribute to Canada's long-term economic prosperity.

Two key measures introduced under the EAP, the Infrastructure Stimulus Fund (\$4 billion) and the Green Infrastructure Fund (\$1 billion), included wastewater treatment infrastructure as an eligible category of investment. Under the Infrastructure Stimulus Fund, Canada has committed a total of nearly \$500 million in funding in support of over 600 wastewater infrastructure projects located in the Great Lakes and St. Lawrence watersheds. Further, under the Green Infrastructure Fund, Canada has committed \$198.5 million to 6 projects in the Great Lakes basin. This includes \$174.5 million committed towards upgrading four wastewater treatment plants located in three Areas of Concern: St. Lawrence River, Hamilton Harbour and Nipigon Bay. These projects will help to reduce the negative impacts of wastewater effluent on human health and the environment. These projects have been supported jointly with provincial and municipal governments.

In addition, Ontario has passed the Water Opportunities and Water Conservation Act, 2010, which builds on Ontario's expertise in water protection services and technology. Supporting water innovation and economic development will also complement Great Lakes protection goals. The act: makes Ontario a leader in the development and sale of water conservation and treatment technologies; encourages sustainable infrastructure and conservation planning using made-in-Ontario technologies to solve water, wastewater and stormwater infrastructure challenges; and, encourages all Ontarians to use water more wisely.

We would also like to take the opportunity of this letter to provide an update regarding the implementation of the proposed Wastewater System Effluent Regulations. In February 2009, the Canadian Council of Ministers of the Environment (CCME) endorsed the Canada-wide Strategy for the Management of Municipal Wastewater Effluent which facilitates the development of a harmonized regulatory framework for the management of wastewater effluent in Canada. The CCME Strategy was negotiated with the stated intention that the federal government would use it as the foundation for federal regulations.

The proposed Wastewater Systems Effluent Regulations, published in the Canada Gazette in March 2010, include baseline standards for effluent quality deposited from wastewater systems. These effluent standards require secondary wastewater treatment or equivalent. Bilateral federal-provincial agreements for implementation of the regulations will also be negotiated as part of implementing the CCME Strategy. These agreements will provide for one-window reporting mechanisms and will outline roles and responsibilities for compliance promotion, inspection and enforcement activities for the regulations. Final regulations are targeted for early 2012.

2. More effectively link watershed management with the permitting process for municipal and industrial dischargers.

In issuing Certificates of Approval for wastewater discharges under the Ontario Water Resources Act, Ontario currently applies an approach that considers the assimilative capacity of the receiving water body to determine the treatment needs and limits. Although not formally a watershed management approach, the review focuses on the area impacted by the potential discharge. The local water quality and hydrology is assessed and limits are set in the approval towards protecting the local water body.

Ontario has significantly advanced watershed management, and watershed-based approaches, as demonstrated in recent initiatives described further below. It anticipates that watershed protection would also be an integral part of any future water and wastewater policy renewal.

The Ontario Clean Water Act, 2006 established a program through which local communities are protecting their sources of municipal drinking water through watershed-based drinking water source protection plans developed by Source Protection Committees (committees). A key step in this process has been the development of watershed-based, science-based assessment reports that have identified vulnerable areas for/and identified threats to drinking water sources. A tremendously important element of this work has been its organization along watershed boundaries, the technical support provided by watershed-based conservation authorities and the leadership and involvement of local committees organized by watersheds.

The assessment reports (now drafted for all major watersheds in Ontario) evaluate point and non-point sources of contamination that are a potential threat because they might pollute the water in the future, or are a realized threat causing an issue currently. The assessments also include a tiered approach to the identification of water quantity issues for watersheds and drinking water systems, as well as evaluating vulnerable aquifers and groundwater recharge areas.

The committees are now drafting water protection policies to manage existing and future threats to these key vulnerable areas and their drinking water sources. Such policies, once implemented, will confer benefits beyond strictly drinking water supplies to the broader ecosystem as well. This approach to evaluation of realized threats (issues) addresses the cumulative effects of multiple threats (pollutant sources) to source water and will lead to policies to address these impacts. In their deliberations, the committees also consider uncertainty, and when making their policy choices to sustain Ontario's drinking water sources, will consider not only the precautionary principle but also the impacts of climate change and future population growth.

Under the Ontario Clean Water Act, 2006 municipal and industrial discharges to the Great Lakes are identified as drinking water threats. The process to identify drinking

water threats is inherently precautionary as it assumes that there are no risk reduction measures in place (the quantitative scores for threats are worst-case) when determining if they pose a risk to drinking water.

Where a municipal or industrial discharge has been identified as a significant drinking water threat, the committees must develop a policy intended to mitigate or even eliminate the threat and its risk. Specifically, policies must be developed for the source protection plan to ensure that the significant drinking water threats cease to be significant. There are a variety of policy tools available for the committees to select from. A key tool will be a requirement that all provincially issued Certificates of Approval conform to the committees' policies so as to ensure the risk to drinking water is not significant. This will lead to the opening and amendment of these instruments to come into compliance with policies of the source protection plan at a schedule as developed by the committee and approved by the Minister of the Environment.

A significant offshoot of the source protection program has been the advancement of watershed characterizations and aggregation of information from Ontario's 36 conservation authorities. This information will position the authorities to better work with municipalities at a sub-watershed level to minimize the impacts of land-use changes and development in the coming years.

Ontario is also advancing watershed-based protection and management within the Lake Simcoe watershed, which is within the Great Lakes Basin (it is part of the Trent Severn Waterway connecting Lake Ontario to Georgian Bay and southern Ontario's largest body of water excluding the Great Lakes). The purpose of Ontario's Lake Simcoe Protection Act, 2008 is to protect and restore the ecological health of the Lake Simcoe watershed. This legislation, the first of its kind in Ontario, enshrined watershed protection in law and provided the authority for the development of the Lake Simcoe Protection Plan, which is a comprehensive plan to protect and restore the lake's watershed and address the issue of phosphorus levels in the lake, including establishing a phosphorus loading target.

The Lake Simcoe Protection Plan also sets out strategic actions for the development of subwatershed evaluations for priority Lake Simcoe subwatersheds and required the development of a Phosphorous Reduction Strategy (PRS). The PRS is a strategic road map for reducing phosphorus from priority sources and has helped establish long-term total phosphorus loading caps for each of the sewage treatment plants within the Lake Simcoe watershed.

Through the Federal Action Plan on Clean Water, the Government of Canada is contributing to the reduction of phosphorous into Lake Simcoe and assisting in the achievement of phosphorus load reduction targets in Lake Simcoe. In 2007, the Government of Canada announced \$30 million of funding over five years. Since 2008, approximately 160 locally-led projects involving municipalities, the Government of

Ontario, conservation groups and universities have been funded to reduce phosphorus discharges to Lake Simcoe from agricultural, rural and urban sources. In addition, Ontario has committed \$20 million over four years (2008-12) for initiatives to protect the Lake Simcoe watershed and is leading initiatives to reduce phosphorus loads, pollutants and other nutrients of concern in Lake Simcoe and its watershed through scientific research, monitoring, stewardship, and regulatory and policy initiatives.

3. Make use of third-party audits to improve compliance with water-quality standards or objectives in the Great Lakes.

Audited Environmental Management Systems like ISO 14001 are a valuable tool for facilities to initiate their own assessment and improve environmental performance. Ontario has an active risk-based inspection program to assess and abate non-compliance. Environmental management systems can play a role in the Ontario Ministry of Environment's compliance program. For example, these systems are taken into account during inspections as one of the factors (mechanisms) a facility has in place to assist with achieving compliance.

Ontario does encourage third-party and self audits. For example, they are a requirement for consideration under the Ontario Environmental Leaders Program, which recognizes companies that go the extra mile to help preserve and reduce their impact upon the environment.

In addition, within the Great Lakes Basin, the Regional Municipality of Durham, the City of Richmond Hill in York Region, and the City of Hamilton have municipal treatment plants that are registered to ISO 14001. There are other cities in Canada, such as the City of Ottawa, the City of Calgary, and the City of Edmonton, which also have facilities that are ISO 14001 registered.

Numerous cities have contracted the Ontario Clean Water Agency (OCWA) to operate, maintain, and manage their wastewater treatment plants. OCWA has developed and continues to maintain its own comprehensive Quality & Environmental Management System (QEMS). This system ensures that their clients' facilities are being operated in an efficient, safe and environmentally responsible manner and includes programs for identifying and mitigating risks that may affect the facilities OCWA operates.

4. Encourage the adoption of "green infrastructure" to complement traditional infrastructure investments.

Canada recognizes the importance of complementing traditional infrastructure with different types of green infrastructure in addressing water quality and quantity issues. Examples of different types of "green infrastructure" projects that have been supported through Canada's Economic Action Plan include tree planting, retention ponds, improved surface and road drainage surface water diversions as well as wastewater treatment

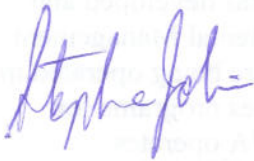
lagoons to provide a few examples.

The Ontario Ministry of the Environment's (MOE) existing 2003 Stormwater Management Planning and Design Manual recognizes that lot level controls, such as green infrastructure, can play an important role in infrastructure strategies. The MOE has completed an Environmental Bill of Rights Policy review of municipal stormwater management in light of climate change. The policy review recognizes that best practices such as Low Impact Development present opportunities to incorporate green infrastructure into stormwater management practices. The MOE proposes to enhance the current manual with supplemental technical guidance as new science and approaches emerge.

The MOE together with Environment Canada regularly contribute to or support programs on the ground such as the Toronto and Region Conservation Authority's Sustainable Technologies Evaluation Program (STEP). As part of the Remedial Action Plan for the Toronto and Region Area of Concern, STEP supports implementation of sustainable technologies and practices, such as reducing stormwater and achieving a water balance approach using bioretention areas, constructed wetlands, permeable pavement, infiltration trenches, and green roofs.

Canada appreciates the valuable work of the Commission and advice to the Parties related to restoring and protecting the Great Lakes. Through Canada's close collaboration with the Commission and the United States Government, significant environmental progress has been achieved in the Great Lakes Basin. We are confident that this close working relationship will continue to support environmental progress in the years ahead under a new, amended Great Lakes Water Quality Agreement.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Stéphane Jobin', is written over a faint, illegible background.

Stéphane Jobin
Director
U.S. Transboundary Affairs Division