United States Department of State

Washington, D.C. 20520

October 26, 2012

Ms. Lana Pollack
Chair, U.S. Section
International Joint Commission
2000 L Street, NW, Suite 615
Washington, DC 20440

Dear Ms. Pollack:

Thank you for the International Joint Commission's work in developing the *14th Biennial Report on Great Lakes Water Quality (Report).*

The *Report* focused on Article VI.1(a) of the Great Lakes Water Quality Agreement (Agreement), which addresses municipal sources of water pollution and the programs to abate, control, and prevent such pollution to the Great Lakes. This choice was understandable, given the significance of impacts from those sources. This letter represents the United States Government's response to the recommendations in that Report.

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

The American Recovery and Reinvestment Act (ARRA) of 2009 heavily targeted wastewater needs in the Great Lakes States. ARRA, enacted on February 17, 2009, was intended to preserve and create jobs, promote economic growth, and invest in environmental protection and infrastructure for long-term economic productivity. It included $4 billion nationally for the Clean Water State Revolving Fund (CWSRF) program, which provides funding for the construction of municipal wastewater infrastructure.

Under the CWSRF, ARRA funded projects that addressed many wastewater system needs in the Great Lakes States, including the replacement of failing equipment at publicly owned treatment works, wholesale rehabilitations of old and leaking conveyance systems, modernization of treatment processes, and correction of sewer overflows. Each state set its priorities and selected projects for funding based on public health and environmental factors, as well as the proposed projects' readiness to proceed to construction. Each state was also required to provide at least 20 percent of its ARRA funds for green projects, including green

infrastructure, energy or water efficiency, and environmentally innovative activities.

The eight Great Lakes States received over $1.4 billion in ARRA funds for clean water projects as follows:

ARRA CWSRF Funding Allocations and Projects

State	ARRA CWSRF Funding	Number of Projects
Illinois	$177,243,100	69
Indiana	$ 94, 447,500	43
Michigan	$168,509,000	67
Minnesota	$82,564,000	21
New York	$420,668,684	80
Ohio	$220,623,100	274
Pennsylvania	176,912,530	87
Wisconsin	$105,948,300	36

In addition to the one-time ARRA funding, the ongoing CWSRF program continues to provide funds for such projects. The eight states received $768,656,928 in fiscal year 2010, $537,542,000 in fiscal year 2011 and $514,484,000 in fiscal year 2012. The United States agrees that funding wastewater treatment projects is critical to the health of the Great Lakes and continues to provide funding to the CWSRF program to address these ongoing needs.

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

The US Environmental Protection Agency (EPA) has specifically initiated several programs to effectively integrate watershed management approaches to address municipal and industrial dischargers. These programs include the National Pollutant Discharge Elimination System (NPDES); the Total Maximum Daily Load (TMDL) program; the October 2009 Clean Water Act Action Plan; and the National Municipal Infrastructure Compliance and Enforcement Initiative.

Since the 1990s, permits have been developed and issued under the NPDES program on a watershed basis. States like Michigan now routinely sequence their water quality monitoring, assessment and permitting efforts on a rotating watershed schedule to support watershed scale integration. Likewise, with technical and financial assistance from EPA, states are increasingly developing TMDLs at a watershed scale to better integrate their nonpoint and point source programs to remedy water quality impairments. EPA's strategic plan supports the watershed approach and incorporates strategic measures that track water quality improvement at a watershed scale.

Since October 2009, when Administrator Jackson announced the creation of a *Clean Water Act Action Plan* enhancing the integration of permitting and enforcement resources, EPA's Regions have increased their review of state NPDES programs and state-issued permits. For example:

- Region 2 conducts full technical reviews of New York State's pollutant discharge elimination system permits for all major dischargers in the state upon original issuance or permit renewal.

- Region 5 selects state-issued NPDES permits for prioritized reviews based on the health of the watershed and the permit's ability to complement other ongoing water protection activities such as compliance initiatives. When states issue permits for new sources or reissue permits for existing permitted sources, EPA ensures that the permits include technology-based and water quality-based requirements to protect water resources. Priority issues addressed in FY 2011 and 2012 included implementing permit effluent limitations to control nutrient discharges, establishing appropriate discharge requirements for mining operations and thermal discharges, and establishing appropriate controls for municipal wet weather discharges.

- Region 5 has made a commitment to review every major permit issued by the State of Indiana within the Great Lakes basin. In addition, EPA and the Indiana Department of Environmental Management (IDEM) have coordinated wet weather mitigation strategies in the St. Joseph River Basin with combined sewer overflow (CSO) and sanitary sewer overflow (SSO) enforcement actions at South Bend, Mishawaka and Elkhart, Indiana. These coordinated actions addressed over a hundred CSO outfalls to the basin and included inspections at large concentrated animal feeding operations (CAFOs) to reduce pathogen and nutrient loadings. In addition, Region 5

and IDEM have worked together to reissue long-delayed NPDES permits to major industrial dischargers to Lake Michigan.

- EPA and the Milwaukee Metropolitan Sewerage District (MMSD) worked closely together to comprehensively address MMSD's wet weather discharges. MMSD has constructed extensive wet weather control measures, including a deep tunnel, and has reduced CSO events to 2-3 events per year. However further controls are necessary to meet water quality standards and to protect local water resources and Lake Michigan. It is expected that a reissued MMSD permit will include added CSO requirements to enhance SSO elimination work that has already been implemented through a state enforcement action.

In addition, through the *National Municipal Infrastructure Compliance and Enforcement Initiative*, EPA continues to focus on reducing discharges from combined sewer systems, sanitary sewer systems, and municipal separate storm sewer systems. Through this *Initiative*, EPA obtains cities' commitments to implement timely and affordable solutions to these problems. In recent years, the *Initiative* has resulted in agreements to remedy sewage problems with many cities in the Great Lakes Basin, including Cleveland, Ohio; Toledo, Ohio; Duluth, Minnesota; Elkhart, Indiana; and South Bend, Indiana. In addition, EPA has, either separately or in association with the US Department of Justice, initiated additional wet weather related enforcement actions in cities across the basin including Chicago, Illinois; Mishawaka, Hammond, and Gary, Indiana; Euclid, Lakewood, and Lima, Ohio; and Buffalo and Oswego, New York. We expect EPA's enforcement of the Clean Water Act will prevent over 26 million pounds of pollutants from entering the basin each year from combined and sanitary sewer system overflows, and reduce sewage discharges by over 7 billion gallons.

In recent years, EPA has begun to embrace integrated planning approaches to municipal wastewater and stormwater management. EPA committed to work with states and communities to implement and utilize integrated planning approaches to municipal wastewater and stormwater management in its October 27, 2011 memorandum "*Achieving Water Quality Through Municipal Stormwater and Wastewater Plans.*" Integrated planning will assist municipalities in achieving the human health and water quality objectives of the Clean Water Act by identifying efficiencies in implementing the sometimes overlapping and competing requirements that arise from distinct wastewater and storm water programs, including how best to make capital investments. Integrated planning can also

result in sustainable and comprehensive solutions, including green infrastructure, that protect human health, improve water quality, manage stormwater as a resource, and support other economic benefits and "quality of life" attributes that enhance the vitality of communities. EPA is currently engaging stakeholders to develop and implement an Integrated Municipal Planning Approach framework. The purpose of this framework is to provide further guidance for EPA, states and local governments in developing and implementing effective integrated plans.

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

EPA has long supported third-party efforts to improve compliance with water quality objectives in the Great Lakes, including such efforts as the use of environmental management systems and improved accountability through public participation and open records. For example, EPA encourages the use of the International Organization for Standardization (ISO) 14001 environmental management system (EMS) for wastewater utilities as a means to improve operations and performance. EPA believes that EMSs can be an effective way of achieving (but not a substitute for) regulatory program requirements, and EPA has funded the development of an EMS tool kit for use by wastewater utilities (http://www.peercenter.net/toolkit/). As appropriate, EPA will continue to encourage wastewater treatment plant operators to develop and use an EMS.

Regardless of whether a utility embraces an ISO-certified or other formal EMS, we agree that independent third-party audits strongly benefit a utility. Among other things, audits provide external validation of a facility's compliance status and the effectiveness of an EMS, as well as bringing to light other information (i.e., operational or process) that can further improves a facility's operations.

In EPA's efforts to improve accountability to the public, the NPDES program provides vigorous public participation mechanisms for individual permits and for broader program implementation measures such as the delegation of NPDES implementation to individual states. These mechanisms are widely utilized and effective in providing citizens with access to information as well as holding implementing agencies accountable for fully implementing authorized Clean Water Act programs. Currently EPA is actively addressing four citizen petitions to withdraw state programs in Minnesota, Ohio, Indiana and Illinois. Resolutions of those petitions will ensure resolution of remaining citizen concerns.

In addition, EPA has conducted a review of Wisconsin's legal authority to fully implement the NPDES program and has worked with the state to identify an aggressive schedule for making the necessary changes in state law.

Further, EPA's *Clean Water Act Action Plan* is creating a new mechanism by which environmental regulations and permits compel compliance via public accountability, self-monitoring, electronic reporting and other innovative methods which will improve efficiency and transparency.

Finally, it is important to note that when interpreting the reviews conducted on a specific wastewater treatment plant, the general use of the term "noncompliance" might be misleading with respect to actual impacts on water quality. For example, on Page 20 of the *Report*, the Niagara River Wastewater Treatment Plant was described as having "12 quarters of noncompliance." However, the *Report* did not clarify that the referenced noncompliance was based solely on administrative violations having no known impact on water quality. We suggest that future evaluations of water quality compliance should provide an appropriate level of analysis to more accurately portray the degree of actual impacts on water quality.

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

EPA agrees with the importance of encouraging the incorporation of the "green infrastructure" concept into discussions on infrastructure investments. EPA believes green infrastructure approaches have significant potential to help reduce CSOs, SSOs and urban storm water impacts in a cost-effective manner while providing a variety of environmental and community benefits. EPA has been promoting implementation of green infrastructure through technical assistance efforts and by including green infrastructure requirements, where appropriate, in permit and enforcement actions. For example, the consent decree addressing Northeast Ohio Regional Sewer District (NEORSD) CSO discharges includes green infrastructure requirements. In the years leading up to the consent decree NEORSD discharged nearly 5 billion gallons of untreated, raw sewage into Lake Erie and nearby rivers. The consent decree requires NEORSD to spend approximately $3 billion to install traditional pollution controls, including the construction of seven tunnel systems ranging from two to five miles in length that will reduce the discharges of untreated, raw sewage to approximately 537 million gallons per year. In addition, however, the consent decree requires NEORSD to

invest at least $42 million in green infrastructure to control wet weather discharges. These projects will capture an additional 44 million gallons of wet weather flow beyond what the tunnels and other traditional construction improvements will capture. EPA will continue to incorporate green infrastructure projects into municipal settlements where appropriate.

Green infrastructure became a formal part of the CWSRF with the passage of ARRA. The ARRA states: *"... to the extent there are sufficient eligible project applications, not less than 20 percent of the funds appropriated herein for the Revolving Funds shall be for projects to address green infrastructure, water or energy efficiency improvements or other environmentally innovative activities."* Projects meeting this requirement are referred to as the Green Project Reserve (GPR). GPR projects ranged from traditional efficiency improvements to more novel renewable energy and stormwater solutions. Energy efficiency projects included wastewater treatment plant upgrades with premium efficiency motors and pumps, installation of solar panels and wind turbines at wastewater treatment facilities, combined heat and power systems, and electrical system upgrades, among others. Water efficiency projects included rehabilitation of collection systems and pump stations with leaks, water treatment and conveyance upgrades for reuse facilities, rebates for upgrades to efficient fixtures, and installation of water meters. Green infrastructure projects included installation of green roofs and rain gardens, restoration of riparian buffers and wetlands, and pervious pavement applications. Innovative projects included construction of decentralized wastewater systems, the implementation by publically owned treatment works of climate change adaptation measures, and treatment facility improvements to remove nutrients from effluent and enhance biosolids recycling.

The Great Lakes States reserved $413,564,995 million in ARRA funds for green projects, as follows:

ARRA CWSRF Green Projects for the Great Lakes States

State	**ARRA CWSRF Funding Allocation**
Illinois	$40,769,501
Indiana	$22,050,100
Michigan	$34,214,330
Minnesota	$17,521,709
New York	$157,703,989

Ohio	$49,090,067
Pennsylvania	$39,631,724
Wisconsin	$52,583,575

The concept of GPR has continued to be part of the annual U.S. appropriations process and a percentage of CWSRF funds provided to states continue to be subject to a GPR. Each state then works with the communities to identify, fund, and track the individual projects.

In addition to GPR funding requirements, EPA has worked to encourage consideration of green infrastructure in other ways. In September 2010, EPA issued the *Clean Water and Drinking Water Infrastructure Sustainability Policy*. This policy promotes planning that considers the long-term sustainability of the proposed solution, which includes considering green infrastructure components. In March 2012, EPA issued *"Planning for Sustainability – A Handbook for Water and Wastewater Utilities."* This handbook describes specific steps utilities can take as part of their planning processes to ensure that infrastructure investments are sustainable, and includes the consideration of green infrastructure solutions.

The United States will continue to place a high priority on making improvements in the area of municipal sources of water pollution. As we move forward, we will take the recommendations of the *Report* into consideration.

Thank you again for your work and for the opportunity to provide input. We look forward to continue our work with you and the Canadian government in the spirit of collaboration and mutual interest that has been a hallmark of our cooperative efforts. Further, we look forward to future biennial reports being produced within the context of a newly-revised Agreement.

Sincerely,

Lee Martinez
Director
Office of Canadian Affairs