STATE OF MICHIGAN
OFFICE OF THE GREAT LAKES
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

KEN DEBEAUSSAERT
DIRECTOR

December 7, 2009

Mr. David Naftzger
Executive Director, Great Lakes-St. Lawrence River Basin Water Resources Council
Secretary, Great Lakes-St. Lawrence River Water Resources Regional Body
c/o Council of Great Lakes Governors
35 East Wacker Drive, Suite 1850
Chicago, Illinois 60601

Subject: Water Management Program Report and Water Conservation and Efficiency Program Report Submitted on behalf of Michigan

Dear Mr. Naftzger:

On behalf of the State of Michigan, please find enclosed a Water Management Program Report; and, a Water Conservation and Efficiency Program Report being sent pursuant to and in satisfaction of the obligations included in Section 3.4 of the Great Lakes-St. Lawrence River Basin Water Resources Compact.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Ken DeBeaussaert
Director
517-335-4056

Enclosure

cc: Peter Johnson, Program Director, Council of Great Lakes Governors

Michigan Water Management Program Review

Pursuant to the requirements of the Great Lakes – St. Lawrence River Basin Water Resources Compact, this water management program report fulfills Section 3.4.1.

I. *Lead agency/agencies and contact person(s).*

The Department of Environmental Quality (DEQ) is currently the agency responsible for Michigan's water management program. A pending executive order is slated to abolish the DEQ and the Department of Natural Resources, and form a single Department of Natural Resources and Environment who would then become the lead agency. Ken DeBeaussaert, Director of the Office of the Great Lakes, acts as the lead contact. Michigan's water management program functionally operates under the mantle of the Water Use Program (http://www.michigan.gov/deqwateruse). The Water Resources Conservation Advisory Council (http://www.michigan.gov/wrcac), consisting of a 21-member stakeholder group of executive and legislative appointees, is a collaborative forum for study and evaluation for the purpose of providing advisement on Michigan's water management programs.

II. *Citations to State/Provincial Water management program implementing laws, regulations and policies.*

The Great Lakes – St. Lawrence River Water Resources Compact is ratified, enacted into law, and entered into by Michigan under Part 342 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended and available at http://legislature.mi.gov/doc.aspx?mcl-324-34201 . The water use and withdrawal regulations are fully enumerated in Part 327, Great Lakes Preservation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (http://legislature.mi.gov/doc.aspx?mcl-451-1994-III-1-THE-GREAT-LAKES-327).

III. *Summary description of the State's or Province's Water management program scope, thresholds and implementation status.*

Michigan has had a water use reporting program in place for differing sectors of the large quantity water user community since 1995. Registered facilities annually report their monthly withdrawal volumes and an estimate of consumptive use on a form provided by the DEQ. The definition of a large quantity withdrawal (LQW) and the threshold for registration with the program has remained the same since its inception: the capacity to withdraw over 100,000 gallons per day average in any consecutive 30-day period from all sources of water in the state. In 2006, the definition of withdrawal sectors required to register was broadened to its current state. All LQWs must be registered except noncommercial wells on residential property not for lake augmentation, groundwater contamination remediation withdrawals, and hydroelectric uses. Also beginning in 2006, Michigan instituted an environmental impact standard that all new LQWs must meet in order to commence. Using fish communities as the indicator for water levels and flow regimes, a determination of no adverse impact to surface water resources as a result of the withdrawal must be achieved. Withdrawals deemed likely to cause adverse impact are restricted to a lesser amount, or are prohibited. Michigan's water management program was fully implemented in 2009 with the advent of the water withdrawal assessment process to determine the likelihood of an adverse resource impact occurring. Beginning with the online Water Withdrawal Assessment Tool (http://www.miwwat.org), which performs real-time impact assessment modeling of a proposed withdrawal, the process allows for instant authorization of withdrawals that are not likely to cause an adverse impact. LQWs projected to have an increased likelihood of adverse impact must gain

authorization through a site-specific review process conducted by DEQ staff. Approved LQWs are inventoried on a watershed-by-watershed basis, and cumulative impacts from all new withdrawals are accounted for in the assessment process.

IV. ***Description of how the provisions of the Standard of Review and Decision are applied.***

Michigan's water management program has fully implemented the provisions of the Standard of Review and Decision (http://legislature.mi.gov/doc.aspx?mcl-324-34201, section 4.11) through the various program aspects. The return of water not consumed to the source watershed is required of all new LQWs, and intrabasin transfer proposals are granted only in accordance with the Exceptions to the Prohibitions of Diversions as stipulated in the Compact (http://legislature.mi.gov/doc.aspx?mcl-324-34201, section 4.9). Through the water withdrawal assessment process, all proposed LQWs are required to ensure that no individual or cumulative adverse impacts to the source watershed will result. For all proposed LQWs requiring a permit, which includes those greater than 2 million gallons per day capacity or less in environmentally sensitive areas, employment of environmentally sound and economically feasible water conservation measures is required. Approval of a permit application is also contingent upon the proposed use being reasonable under common law principles of water law in Michigan.

V. ***Overview of State/Provincial reporting and database of Withdrawals, Consumptive Uses and Diversions.***

The foundation of Michigan's water management program is the water use reporting program and database that began taking shape in 1995. Annual water use reporting forms are mailed to each registrant, and are due back by April 1 for the previous calendar year's usage. Information required includes the amount of water withdrawn on an annual and monthly basis, the source(s) of the water supply, the use(s) of the water, the amount of consumptive use, the location in latitude and longitude coordinates for groundwater wells, and the location of any discharge or return flow resulting from the withdrawal. All reasonable methods of measurement or estimation of both the withdrawal volumes and the consumptive use rates are accepted. In addition to paper copies of the reporting forms mailed directly to the registrants, an electronic version of the form is provided online or upon request. Development of an online reporting interface is currently ongoing, which will allow for direct input by the registrant.

VI. ***Description of the State/Provincial Withdrawal application process.***

Michigan's withdrawal application process begins with the Water Withdrawal Assessment Tool (http://www.miwwat.org). All withdrawal proposals must be submitted via the online form therein.

VII. ***Summary description of the State's or Province's initiatives to support an improved scientific understanding of the Waters of the Basin and an improved understanding of the groundwater of the Basin and the role of groundwater in Basin water resource management.***

True to its place at the center of the Great Lakes Basin, Michigan has a long and prolific history of scientific research and study of the waters of the basin. Several university institutes, an active United States Geological Survey Michigan Water Science Center as well as state agency functions have all contributed greatly to an improved understanding of the waters of the basin and the uses thereof. The culmination of many years of research, data compilation and analysis is the Michigan Groundwater Inventory and Map (GWIM) Project (http://gwmap.rsgis.msu.edu). A landmark technical report and accompanying website released in 2006, GWIM serves as an encyclopedia of historical references, a repository for novel data products including an online interactive map function, and the authoritative source for scientific groundwater information in Michigan. The key component that made the GWIM

project possible is the statewide groundwater database that Michigan developed, the size and scope of which also being among the most extensive statewide data resources. With the aid of these and other data and research commitments, Michigan has been able to expand the knowledge base of its water resources, allowing for better management decisions and practices. The primary example of this is the Water Withdrawal Assessment Tool, which fulfills the purposes of the Compact to conserve and protect the waters of the Great Lakes Basin while allowing for sustainable supplies of water for the people and the economy of the Basin.