

January 7, 2010

**Great Lakes-St. Lawrence River Water Resources Regional Body  
Great Lakes-St. Lawrence River Basin Water Resources Council  
JOINT DECLARATION OF FINDING**

Water Management Program Review  
Water Conservation and Efficiency Program Review  
State of Michigan

**PURPOSE**

Pursuant to Section 3.4 of the Great Lakes-St. Lawrence River Basin Water Resources Compact (“Compact”), each Party State must submit a report to the Great Lakes-St. Lawrence River Water Resources Regional Body (Regional Body) and the Great Lakes—St. Lawrence River Basin Water Resources Council (Compact Council) on actions taken by that State to meet the provisions of the Agreement and Compact. Following the review of such reports, the Compact Council, in cooperation with the Provinces, shall determine if that State’s program meets or exceeds the provisions of the Compact; does not meet the provisions of the Compact; or, would meet the provisions of the Compact if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Compact.

Pursuant to Article 300 of the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”), each Party State and Province must submit a report to the Great Lakes-St. Lawrence River Water Resources Regional Body (Regional Body) on actions taken by the State or Province on actions taken by that State or Province to meet the provisions of the Agreement. Following the review of such reports, the Regional Body shall determine if that State or Province’s program meets or exceeds the provisions of the Agreement; does not meet the provisions of the Agreement; or, would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement. However, and as noted below, Article 300 of the Agreement has not come into force as of this date, so all such submissions to date and subsequent Declarations of Findings issued pursuant to this Article are recognized as voluntary, and shall not be implied to indicate that Article 300 of the Agreement has come into force.

**STIPULATIONS**

***Entry into Force of the Agreement and Compact***

1. The Agreement was signed by the Great Lakes Governors and Premiers on December 13, 2005. Pursuant to Article 709 of the Agreement, the terms of the Agreement do not come into force unless and until all Parties to the Agreement notify all other Parties that measures have been enacted into law, except for the following terms that came into force on December 13, 2005:
  - a. Preamble
  - b. Chapter 1
  - c. Article 202
  - d. Article 208

January 7, 2010

- e. Article 302
- f. Article 303
- g. Article 304
- h. Chapter 4
- i. Chapter 6
- j. Chapter 7

To date, no such notification has been given, and the remaining terms of the Agreement have not come into force, except as described in Regional Body Resolution #8 (Attachment "A").

2. The effective date of the Compact is December 8, 2008. Therefore, pursuant to MI PA 190 2008, the Compact and all terms contained therein became enforceable State law in the State of Michigan on **December 8, 2008**.

***Relevant Actions Taken by the Regional Body and Compact Council***

1. Pursuant to Article 304, Paragraph 1 of the Agreement, the Regional Body must identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by **December 13, 2007**. The Regional Body adopted Basin-wide Water conservation and efficiency objectives in fulfillment of this provision on **December 13, 2007**.
2. Pursuant to Section 4.2. of the Compact, the Compact Council must adopt Basin-wide conservation and efficiency objectives. The Compact Council adopted Basin-wide conservation and efficiency objectives on **December 8, 2008**.

***Provisions of the Agreement or Compact that must be met by the State of Michigan to date***

1. Pursuant to Section 4.12.2 of the Compact, the Baseline for determining a New or Increased Diversion, Consumptive Use or Withdrawal was set as of **December 8, 2008**. The corresponding provision in the Agreement (Article 207, Paragraph 1) has not yet come into force.
2. Pursuant to Section 4.8 of the Compact, all New or Increased Diversions are prohibited, with exceptions as described in Section 4.9, and exemptions as described in Section 4.13, as of **December 8, 2008**. The corresponding provisions of the Agreement (Article 200, Article 201, and Article 208) have not yet come into force.
3. Pursuant to Section 4.12.2. of the Compact, each State must submit a list of Baseline Diversions, Consumptive Uses and Withdrawals to the Regional Body and Compact Council by **December 8, 2009**. The corresponding provision of the Agreement (Article 207, Paragraph 1) has not yet come into force.
4. Pursuant to Section 3.4.1 of the Compact, each State must submit a report to the Regional Body and the Compact Council detailing its Water management and conservation and efficiency programs pursuant to the Compact by **December 8, 2009**.

January 7, 2010

The corresponding provision of the Agreement (Article 300) has not yet come into force.

***Provisions of the Agreement and Compact that must be met by the State of Michigan by a future date***

5. Pursuant to Section 4.2.2 of the Compact, consistent with the Basin-wide goals and objectives adopted by the Regional Body and the Compact Council, each State must establish Water conservation and efficiency goals and objectives by **December 8, 2010**. The corresponding provision of the Agreement (Article 304, Paragraph 2) will come into force at a date currently uncertain.
6. Pursuant to Sections 4.2.2, 4.2.4 and 4.2.5 of the Compact, each State must establish a Water Conservation and Efficiency program for all water users that is consistent with the Basin-wide goals and objectives as well as State goals and objectives by **December 8, 2010**. The corresponding provision of the Agreement (Article 304, Paragraphs 2, 4 and 5) will come into force at a date currently uncertain.
7. Pursuant to Section 4.1 of the Compact, each State must develop and maintain a Water resources inventory for the collection, interpretation, storage, retrieval exchange, and dissemination of information concerning the Water resources of the State, including, but not limited to, information on the location, type, quantity, and use of those resources and the location, type, and quantity of Withdrawals, Diversions and Consumptive Uses **by December 8, 2013**. The corresponding provision of the Agreement (Article 301) will come into force at a date currently uncertain.
8. Pursuant to Section 4.10.1 of the Compact, each State must create a program for the management and regulation of New or Increased Withdrawals and Consumptive Uses by adopting and implementing measures consistent with the decision-making standard of the Compact (see Section 4.11) **by December 8, 2013**. The corresponding provision of the Agreement (Article 206, Paragraph 1) will come into force at a date currently uncertain.
9. Pursuant to Section 4.10.2 of the Compact, each State must set threshold levels that comply with Section 4.10.1 of the Compact **by December 8, 2018**. Any State that fails to do so shall apply a threshold for management and regulation of all New or Increased Withdrawals of 100,000 gallons per day or greater average in any 90 day period. The corresponding provision of the Agreement (Article 206, Paragraph 2) will come into force at a date currently uncertain.

***FINDING ON STATE OF MICHIGAN'S WATER MANAGEMENT AND CONSERVATION AND EFFICIENCY PROGRAMS***

The Regional Body and the Compact Council have received the State of Michigan's report on its Water management and conservation and efficiency programs, which are

January 7, 2010

attached hereto as Attachments “B” and “C”, respectively. Upon review of said submissions, the terms of the Agreement and Compact, as well as other actions taken by the State of Michigan as described above, the Regional Body and Compact Council find the following:

***Provisions of the Agreement or Compact that must be met by the State of Michigan to date***

1. Because the Compact is law in the State of Michigan, pursuant to section 4.12.2 of the Compact the Baselines for determining a New or Increased Diversion, Consumptive Use or Withdrawal in the State of Michigan was set on **December 8, 2008**.
2. Pursuant to Sections 4.8 and 4.9 of the Compact, the prohibition on Diversions and corresponding exceptions to such prohibition came into effect in the State of Michigan **on December 8, 2008**.
3. Pursuant to Section 4.12.2 of the Compact, the State of Michigan submitted its list<sup>1</sup> of Diversions, Consumptive Uses and Withdrawals that existed as of December 8, 2008, to the Regional Body **by December 8, 2009**.
4. Pursuant to Section 3.4.1 of the Compact, the State of Michigan submitted a report on its water management and conservation and efficiency programs, which are attached hereto as Attachments “B” and “C”, respectively, to the Regional Body and Compact Council **by December 8, 2009**.

***Provisions of the Agreement and Compact that must be met by the State of Michigan by a future date***

5. The Regional Body and the Compact Council find that neither the Compact nor the Agreement requires the adoption or implementation of water conservation and efficiency goals and objectives at this time.
6. The Regional Body and the Compact Council find that neither the Compact nor the Agreement requires adoption or implementation of a water conservation and efficiency program at this time.
7. The Regional Body and the Compact Council find that neither the Compact nor the Agreement requires the adoption or implementation of a water resources inventory program at this time.
8. The Regional Body and the Compact Council find that neither the Compact nor the Agreement requires the adoption or implementation of a water management program at this time.
9. The Regional Body and the Compact Council find that neither the Compact nor the Agreement requires the adoption or implementation of a threshold for determining

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<sup>1</sup> This list is subject to future correction or revision.

January 7, 2010

which Withdrawals of Water will be subject to management and regulation pursuant to the Compact and Agreement at this time.

THEREFORE, the Regional Body and the Compact Council, after reviewing the Water Management Program report from the State of Michigan, finds that such program meets or exceeds the current requirements of the Agreement and Compact.

FURTHERMORE, the Regional Body and the Compact Council, after reviewing the Water Conservation and Efficiency Program report submitted by the State of Michigan, finds that such program meets or exceeds the current requirements of the Agreement and Compact.

***Issued by the Great Lakes-St. Lawrence River Water Resources Regional Body and the Great Lakes—St. Lawrence River Basin Water Resources Council on January 7, 2010.***

# ATTACHMENT “A”

**GREAT LAKES—ST. LAWRENCE RIVER WATER RESOURCES REGIONAL  
BODY**

**RESOLUTION #8—ENTRY INTO FORCE OF CHAPTER 5 OF THE  
AGREEMENT (REGIONAL REVIEW)**

WHEREAS, on December 13, 2005, the Governors of the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio and Wisconsin, the Commonwealth of Pennsylvania, and the Premiers of Ontario and Québec signed the *Great Lakes—St. Lawrence River Basin Sustainable Water Resources Agreement* (“Agreement”); and,

WHEREAS, Chapter 7 of the Agreement came into force on December 13, 2005, pursuant to Article 709 paragraph 1j of the Agreement; and,

WHEREAS, pursuant to Article 709, Paragraph 2j of the Agreement, Chapter 5 of the Agreement will come into force “60 days after the last Party [State or Province] has notified the others that it has completed the Measures necessary to implement” specific provisions of the Agreement as described in Article 709, Paragraph 2 of the Agreement; and,

WHEREAS, the Parties to the Agreement have neither completed all the Measures as described in Article 709, Paragraph 2, nor have they notified the other Parties that they have completed such Measures; and,

WHEREAS, the Great Lakes—St. Lawrence River Basin Water Resources Compact (Compact) became effective on December 8, 2008; and,

WHEREAS, the Compact requires Regional Review to be performed from time to time to properly implement the terms of the Compact; and,

WHEREAS, Article 705 of the Agreement states that “Each Party shall, from the date of execution of this Agreement, exercise its best efforts to refrain from taking any action that would defeat the objectives of this Agreement;” and,

WHEREAS, the inability to engage in Regional Review would hinder the ability of the States to implement the Compact, which would in turn defeat the objectives of the Agreement.

NOW THEREFORE BE IT RESOLVED that the members of the Regional Body declare that Chapter 5 of the Agreement shall come into force immediately as of December 8, 2008, with regard to any requirements for Regional Review that may arise in respect of proposals from the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio and Wisconsin, and the Commonwealth of Pennsylvania as they implement the Compact.

BE IT FURTHER RESOLVED that in accordance with Paragraph 5 of Article 709 of the Agreement, the terms, agreements and review processes contained in the Great Lakes Charter of 1985 (Charter) shall remain in full force and effect, except for those instances where Regional Review may take place in respect of diversion proposals from the States as they implement the Compact. In such instances, Regional Review shall replace prior notice and consultation requirements and activities in the Charter. The Regional Body shall be used for all prior notice and consultation activities under the Charter where they continue to apply.

BE IT FINALLY RESOLVED that Chapter 5 of the Agreement shall come into force with regard to any requirements for Regional Review that may arise in respect of proposals from the Provinces of Ontario and Quebec once each province has notified the other Parties that they have completed the measures needed to implement the prohibition of diversions and the management and regulation of exceptions. Once notice has been provided, Regional Review shall replace prior notice and consultation requirements under the Charter for diversion proposals in that Province.

***Adopted by the Great Lakes-St. Lawrence River Water Resources Regional Body on  
December 8, 2008.***

# ATTACHMENT “B”



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,

A handwritten signature in black ink, appearing to read "Ken DeBeaussiaert", written over a horizontal line.

Ken DeBeaussiaert  
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.

# ATTACHMENT “C”



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,

A handwritten signature in black ink, appearing to read "Ken DeBeaussiaert", written over a horizontal line.

Ken DeBeaussiaert  
Director  
517-335-4056

Enclosure

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

## Michigan Water Conservation and Efficiency Program Review

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

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

The Department of Environmental Quality (DEQ) is currently the lead agency responsible for Michigan's water conservation and efficiency 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 conservation and efficiency 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 conservation and efficiency programs.

### ***II. Status of the State or Province's Water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives. If developed, include State or Provincial goals and objectives or link to electronic version.***

Michigan is developing water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives as adopted by the Great Lakes – St. Lawrence River Basin Water Resources Council. Contained in the Michigan Water Use Conservation and Efficiency Initiative draft document, the goals and objectives are ready for public notice and comment and are recommended to subsequently be adopted. The document can be found in Attachment B of the Findings and Recommendations report at the following website:

[http://www.michigan.gov/documents/dnr/WRCAC\\_November\\_2009\\_report\\_301194\\_7.pdf](http://www.michigan.gov/documents/dnr/WRCAC_November_2009_report_301194_7.pdf)

### ***III. Water Conservation and Efficiency Program Overview.***

Michigan's water conservation and efficiency program is based in law 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-324-32708a>). Further conservation and efficiency program implementation measures are made in reference to the registration of withdrawals in watersheds that are approaching adverse impact thresholds (<http://legislature.mi.gov/doc.aspx?mcl-324-32706c>, subsection (4)); in the future requirements of all registered water users (<http://legislature.mi.gov/doc.aspx?mcl-324-32707>, subsection (1) (j)); in the requirements of registered farms (<http://legislature.mi.gov/doc.aspx?mcl-324-32708>, subsection (1)(h)); and in the administration of permit-level withdrawal authorizations (<http://legislature.mi.gov/doc.aspx?mcl-324-32723>, subsection (6)(e)). Michigan has prepared generic water conservation measures applicable to all large quantity water users based on recommendations from representative trade associations, and made them available to the public at [http://www.michigan.gov/documents/deq/deq-wb-dwehs-wateruse-genericconsmeas\\_273138\\_7.pdf](http://www.michigan.gov/documents/deq/deq-wb-dwehs-wateruse-genericconsmeas_273138_7.pdf). Water conservation measures for individual sectors have also been accepted and posted online at [http://www.michigan.gov/deq/0,1607,7-135-3313\\_3684\\_45331-190105--\\_00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_3684_45331-190105--_00.html). Beginning in 2010, all registrants must review applicable water conservation measures, while farms are currently required to report their water conservation practices and an implementation plan for

those practices. In environmentally sensitive areas that are approaching adverse impact thresholds, all registrants utilizing the same water source are required to review and consider implementing applicable water conservation measures. Additionally, an applicant that proposes a withdrawal that will push a watershed near the adverse impact threshold must implement water conservation measures that they consider to be reasonable as a condition of withdrawal approval. For proposed withdrawals requiring a permit application, as a condition of approval applicants are required to certify they are in compliance with applicable water conservation measures developed for their sector or specific withdrawal.

Michigan's water conservation and efficiency program is consistent with the regional objectives adopted under Resolution #6 of the Great Lakes – St. Lawrence River Basin Water Resources Regional Body. Each objective is outlined below:

***Guide programs toward long-term sustainable water use.***

A concerted effort in Michigan has effected monumental changes in the management of its water resources in the years following the drafting of the Compact, with the express purpose of preserving water resources within acceptable, sustainable levels. Most notably are new environmental impact standards imposed upon all new large quantity withdrawals, with mechanisms put in place for the pre-assessment of proposals, the accountability of each new water use and its cumulative effect with others, and for mitigation of projected adverse impact through conservation and efficiency programs. With input and buy-in from virtually all stakeholder groups, regulation changes have been put in place and have also contributed to an increased awareness and an apparent shift in philosophy regarding resource management and use.

***Adopt and implement supply and demand management to promote efficient use and conservation of water resources.***

Michigan addresses this issue through market-driven approaches such as rate structuring for public water supply utilities, through Farm Bill conservation programs and extension education for the agricultural community, and cost-benefit analysis as part of best management practices for other sectors. It is hoped that Michigan could do more to provide incentives to encourage efficient water use beyond the recommendations developed and being offered.

***Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs.***

Through the interaction of the Water Resources Conservation Advisory Council and its represented member associations, discussions are underway concerning the means to improve the measurement and minimization of water loss and inefficiency. The current approach looks at the efficiency of existing systems prior to permitting expansion, with the hope of including conservation and efficiency reviews in the day-to-day operations of large quantity water users. It is recognized that Michigan would benefit from the opportunity to learn from other state's and province's experiences in a conference format, or an otherwise organized forum.

***Develop science, technology and research.***

As a testament to its leading-edge scientific research and technological advancement, Michigan is a Council of State Governments 2009 Innovations Award winner for its water withdrawal assessment process. At the center of the assessment process is a complex analytical model of the effects of a water withdrawal on nearby surface water resources, but done in real-time and easily run by general members of

the water user community. Michigan is investing significant time and resources to increase understanding of sustainability indicators for other hydrologic features such as lakes and wetlands, and also efforts are ongoing to refine and improve the current system focused on stream flows.

***Develop education programs and information sharing for all water users.***

Initial efforts have begun in Michigan to develop water conservation and efficiency information and to make available to all water users. Water Resources Assessment and Education Committees are being formed with the assistance of the DEQ, with the goal of providing education materials and gaining better understanding to make recommendations regarding long-term water resources planning by use of conservation measures, drought management activities, and other topics as identified.

***IV. Description of how the State or Province promotes Environmentally Sound and Economically Feasible Water Conservation Measures.***

Promotion of environmentally sound and economically feasible water conservation measures is done primarily through the regulated community of large quantity water users in Michigan. All registrants of Michigan's water management program will be required to review applicable conservation measures, and consideration of conservation measures will be required of certain new withdrawals and other existing withdrawals in environmentally sensitive areas. In the event that DEQ determines an adverse resource impact is occurring or likely to occur as a result of existing or approved withdrawals, DEQ will notify the water users committee or convene a meeting if there are none formed to attempt to facilitate an agreement on shared voluntary measures that would avert adverse resource impacts.

***V. Description of the State or Provincial Water conservation and efficiency program implementation timeline and status.***

Michigan water conservation and efficiency program implementation is underway with groundwork laid including the development of generic and sector-specific water conservation measures. Various aspects of the program have come into effect at different times, with the last legislative timeline to come into effect in 2010 when all registered water users will be required to review environmentally sound and economically feasible water conservation measures as part of their operational procedures. Although no timeline is given, adoption of conservation and efficiency goals and objectives consistent with those of the Great Lakes – St. Lawrence River Basin Water Resources Council appears imminent.