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GOVERNOR

STATE OF MICHIGAN
OFFICE OF THE GREAT LAKES
LANSING



JON W. ALLAN
DIRECTOR

December 2, 2015

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
20 North Wacker Drive, Suite 2700
Chicago, Illinois 60606

Dear Mr. Naftzger:

SUBJECT: Water Management Program Report and Water Conservation and
Efficiency Program Report Submitted on behalf of the State of
Michigan

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. Please note that these reports are subject to revision and update during the course of the Compact Council and Regional Body program review process.

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

Sincerely,

Jon W. Allan
Director

Enclosure

cc: James Milne, Michigan Department of Environmental Quality
Grant Trigger, Racer Trust
Peter Johnson, Council of Great Lakes Governors

Great Lakes-St. Lawrence River Basin Water Resources Compact Water Conservation and Efficiency Program Annual Assessment

November 30, 2015

State of Michigan

This Water Conservation and Efficiency Annual Program Assessment fulfills Michigan's obligation under Section 4.2.2 of the Great Lakes-St. Lawrence River Basin Water Resources Compact (Compact) to annually assess its [water conservation and efficiency] programs in meeting the Party's goals and objectives, report to the [Compact] Council and the Regional Body and make this annual assessment available to the public.

1. Lead agency and contact persons.

The Michigan Department of Environmental Quality (MDEQ) Water Use Program is the lead agency responsible for Michigan's water conservation and efficiency program. Mr. Jon W. Allan, Director, Office of the Great Lakes is the Compact contact at 517-285-5034, allani@michigan.gov, and Mr. James F. Milne, Chief, Great Lakes Shorelands Unit, Surface Water Assessment Section, Water Resources Division, is the program contact at 517-284-5559, milnei@michigan.gov. Information about Michigan's Water Use Program, including water conservation and efficiency, is available at <http://www.michigan.gov/wateruse>.

2. Status of Michigan's water conservation and efficiency goals and objectives.

On December 8, 2010 Michigan adopted water conservation and efficiency goals and objectives consistent with the basin-wide goals and objectives adopted in Resolution #6 of the Great Lakes-St. Lawrence River Water Resources Regional Body (Appendix 1). Michigan's goals and objectives were adopted by the former Water Resources Conservation Advisory Council (WRCAC), a stakeholder forum of executive and legislative appointees that was established for collaborative study, evaluation, and advisement of Michigan's water management and water conservation and efficiency programs. The WRCAC was eliminated by executive order of the Governor in 2009 and its duties were transferred to the Natural Resources Commission until 2013 when the DEQ established the Water Use Advisory Council (WUAC). The WUAC is similar in make-up and function to the WRCAC, and was established to convene ongoing discussions and evaluation of Michigan's water management and water conservation and efficiency programs. The WUAC forum has provided valuable perspective and input to guide Michigan's efforts for program improvement. The WUAC issued a comprehensive program assessment report in December 2014 that included emphasis on Michigan's water conservation and efficiency program. The WUAC report identified areas of need and included recommendations for intensified focus and direction of resources to better meet Michigan's water conservation and efficiency goals and objectives. The MDEQ has identified priorities from the WUAC report and is implementing specific recommendations including incorporation of water conservation and efficiency recommendations into the Michigan Water Strategy. Developed at the request of Governor Rick Synder, the Water Strategy is a comprehensive 30-year vision designed to ensure Michigan's water resources support healthy ecosystems, communities, and economies for current and future generations.

Michigan's water conservation and efficiency goals and objectives are met through the program that was initiated in 2008 with the state legislation that implemented the Compact. Public comments for ways to enhance Michigan's water conservation and efficiency program

have been sought, and a major theme of these comments was the importance of a collaborative council to advise on technical issues, assist in implementation, and monitor overall progress of Michigan's program. The charge to the WUAC is inclusive of these general issues, and to provide opportunity for other public comments on the program to be aired and addressed through the proceedings of the WUAC.

3. Water Conservation and Efficiency Program Overview.

The foundation of Michigan's water conservation and efficiency program is the water withdrawal assessment required of all new or increased large quantity withdrawals (LQWs). The assessment process evaluates proposed water withdrawals relative to environmental impact standards set for conserving and protecting the water resources of the Great Lakes Basin (MCL 324.32705). Through the assessment process, the likely resource impacts of a proposed withdrawal are predicted in advance of withdrawing water, and a proposed withdrawal must meet the environmental impact standard before the withdrawal can occur (MCL 324.32706, 324.32723). To gain authorization to make a LQW, water users consider conservation and efficiency of use as a means to reduce their impact. LQWs are cumulatively tracked and accounted for against the environmental standard at a sub-watershed scale, ensuring that the water resources of the basin are conserved even at a small scale (MCL 324.32706e).

Michigan's water conservation and efficiency program goes beyond the assessment process to comprise a comprehensive program of water use management. The WUAC forum establishes an integrated framework of roles and responsibilities for governmental agencies and water users in managing Michigan's water resources. This framework creates opportunities for involvement by the public, universities, and other interested parties resulting in a latticework of shared investment in the sustainability of Michigan's lakes, streams, and groundwater.

In conjunction with annual water use reporting, all LQW owners are required to review water conservation measures applicable to their water use sector. Implementation of conservation measures is voluntary (MCL 324.32707, 324.32708). In sub-watersheds that are approaching the environmental impact standard, as a condition of approval an applicant must implement the water conservation measures they deem to be reasonable (MCL 324.32706c, 325.1004). For applications greater than 2 MGD capacity, as a condition of approval it is required that all sector or withdrawal-based conservation measures are complied with (MCL 324.32723).

4. Water conservation and efficiency program consistency with regional objectives, and promotion of Environmentally Sound and Economically Feasible Water Conservation Measures.

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

Michigan's LQW assessment process, environmental impact standard and cumulative impact tracking system have effected significant changes in the planning and development of LQWs. This process has driven the integration of long-term sustainable water use concepts into water management decisions, and has raised the awareness of water use and resource impact implications.

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

The MDEQ works with many water users and industry contractors on an individual basis throughout the assessment process to ensure withdrawals are implemented in an efficient manner that reduces the impact to water resources. Michigan's legal foundation of reasonable use common law doctrine promotes the conservation and efficient use of water when conveying to water users the principle that water is a shared, finite resource. Users are encouraged to conserve up front, rather than when required to in the event of a conflict situation when supplies are limited or overtaxed.

c. Improve monitoring and standardize data reporting within water conservation and efficiency programs.

Measurement and evaluation of water conservation and water use efficiency, and changes over time, remains difficult to track from an agency perspective. Recent improvements made to electronic data collection systems and databases are resulting in better consistency in water use data collection, and a better ability to identify trends in water use and account for variability. Michigan has entered into a cooperative agreement with the U.S. Geological Survey (USGS) Water Use and Data Research grant program to outline areas of need and identify methods to attain better quality water use data.

d. Develop science, technology and research.

Michigan is actively developing science, technology and research on an ongoing basis through the efforts of various projects by state, federal and academic institutions. Michigan has identified scientific data collection as a primary need in order to make better-informed decisions on proposed new water uses. As funding is available to further these developments, Michigan is investing in research to better understand the groundwater-surface water interaction, which is used to improve the assessment and forecast of the impact of new water uses on the resource. Having more and better quality data is imperative when conveying the need for conservation and efficient use to water users. The WUAC convened scientific and policy discussions amongst stakeholders and technical experts to evaluate Michigan's water management and water conservation and efficiency programs, and identified where improvements and updates could be made.

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

A dedicated educational program has not been developed in Michigan, although MDEQ and MDARD staff have made educational presentations and share information at various conferences and upon request to interested parties. The WUAC and its subcommittee meetings are open to the public and have provided tremendous educational opportunities for water users and water managers. Meeting notes and informational materials from the WUAC proceedings are posted on the DEQ webpage. Michigan State University Extension also convenes several informational meetings around the state with agricultural water users.

5. Water conservation and efficiency program implementation timeline and status.

All components of Michigan's water conservation and efficiency program have been implemented. The foundation of the program, the water withdrawal assessment process, has been in full effect since 2009. Sector-based water conservation measures have been

developed and are in use. The WUAC and its many outstanding contributors have provided a wealth of input and recommendations for program improvement. Michigan has committed to maintaining the WUAC, and has allocated funding for the implementation of specific program improvement recommendations. From the beginning, it has been acknowledged that the program would continually adapt and that the staff would be open to changes necessary for improvement and enhancement. Michigan has shown a strong commitment to this forward-looking approach, and remains dedicated to the betterment of the program and to upholding the ideals of the Compact.

Appendix 1

Michigan Water Conservation and Efficiency Program Water Conservation and Efficiency Goals and Objectives

GOALS

1. Ensuring improvement of the waters and water dependent natural resources;
2. Protecting and restoring the hydrologic and ecosystem integrity of the Basin;
3. Retaining the quantity of surface water and groundwater in the Basin;
4. Ensuring sustainable use of waters of the Basin; and,
5. Promoting the efficiency of use and reducing losses and waste of water.

OBJECTIVES

1. Utilize Michigan's Water Use Program and Water Withdrawal Assessment Process to guide long-term sustainable water use.
 - a. The programs will be adaptive, goal-based, accountable and measurable.
 - b. Continue to develop and implement programs openly and collaboratively, with local stakeholders, Tribes and First Nations, governments and the public.
 - c. Prepare and maintain long-term water demand forecasts.
 - d. Develop long-term strategies that incorporate water conservation and efficient water use practices.
 - e. Review and build upon existing planning efforts by considering practices and experiences from other jurisdictions.
2. Adopt and implement supply and demand management to promote efficient use and conservation of water resources.
 - a. Maximize water use efficiency and minimize waste of water.
 - b. Promote appropriate innovative technology for water reuse.
 - c. Conserve and manage existing water supplies to prevent or delay the demand for and development of additional supplies.
 - d. Provide incentives to encourage efficient water use and conservation.
 - e. Consider water conservation and efficiency in the review of proposed new or increased uses.
 - f. Promote investment in and maintenance of efficient water infrastructure.
3. Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs.
 - g. a. Improve the measurement and evaluation of water conservation and water use efficiency.
 - h. b. Encourage measures to monitor, account for, and minimize water loss.
 - i. c. Track and report program progress and effectiveness.

4. Develop science, technology and research.
 - a. Encourage the identification and sharing of innovative management practices and state of the art technologies.
 - b. Encourage research, development and implementation of water use and efficiency and water conservation technologies.
 - c. Seek a greater understanding of traditional knowledge and practices of Basin First Nations and Tribes.
 - d. Strengthen scientific understanding of the linkages between water conservation practices and ecological responses.
5. Develop education programs and information sharing for all water users.
 - a. Ensure equitable public access to water conservation and efficiency tools and information.
 - b. Inform, educate and increase awareness regarding water use, conservation and efficiency and the importance of water.
 - c. Promote the cost-saving aspect of water conservation and efficiency for both short-term and long-term economic sustainability.
 - d. Share conservation and efficiency experiences, including successes and lessons learned across the Basin.
 - e. Enhance and contribute to regional information sharing.
 - f. Encourage and increase training opportunities in collaboration with professional or other organizations in order to increase water conservation and efficiency practices and technological applications.
 - g. Ensure that conservation programs are transparent and that information is readily available.
 - h. Aid in the development and dissemination of sector-based best management practices and results achieved.
 - i. Seek opportunities for the sharing of traditional knowledge and practices of Basin First Nations and Tribes.