

# **Water Conservation and Efficiency Program Review**

## **State of Wisconsin**

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### **2. Status of Wisconsin's Water Conservation and Efficiency Goals and Objectives**

#### **Consistent with the Basin-wide Goals and Objectives:**

Wisconsin adopted water conservation and efficiency goals and objectives that are consistent with the Basin-wide goals and objectives. A stakeholder advisory group developed the goals and objectives during a series of meetings during 2008. In 2011 Wisconsin revised the water conservation and efficiency goals and objectives to apply statewide (voluntary conservation and efficiency measures in the Mississippi River Basin) and made slight modifications to the content. A summary of the comments and modifications are attached as Appendix 'A'. The WDNR held a public comment period prior to finalizing the revised goals and objectives. The goals and objectives (attached as Appendix 'B') can also be found on the WDNR website at:

[http://dnr.wi.gov/org/water/dwg/greatlakes/WDNR\\_Statewide\\_WCE\\_Objectives\\_2011.pdf](http://dnr.wi.gov/org/water/dwg/greatlakes/WDNR_Statewide_WCE_Objectives_2011.pdf)

### **3. Water Conservation & Efficiency Program Overview:**

The Wisconsin Legislature ratified the Great Lakes—St. Lawrence River Basin Water Resources Compact in 2007 Wisconsin Act 227. Act 227 prescribes water conservation and efficiency requirements for Wisconsin that go beyond what is required by the Compact. These requirements are codified in §281.346 (8), Wis. Stats., and Ch. NR 852, Wisconsin Administrative Code.

The Water Use Section of the WDNR's Bureau of Drinking Water and Groundwater developed a statewide water conservation and efficiency program that is based on Wisconsin's adaptation of the Great Lakes Regional Conservation and Efficiency Objectives. The program requires mandatory water conservation and efficiency measures for new or increased withdrawals in the Great Lakes Basin and for any user proposing to divert water from the Great Lakes Basin. Voluntary water conservation and efficiency measures are encouraged for existing water users in the Basin and for new and existing water users in the rest of the state. This program is implemented through administrative rules, water use permits, and guidance developed in cooperation with the Public Service Commission of Wisconsin (PSC) and the Department of Safety and Professional Services (formerly a part of the Department of Commerce). Rules implementing the program, primarily ch. NR 852 Wisconsin Administrative Code, establish the necessary components for a water conservation plan and identify water conservation and efficiency measures by sector. For withdrawals subject to the mandatory elements of the program, requirements increase as the volume of withdrawal or consumptive use increases. The program is also actively developing the voluntary side of the program through education and outreach opportunities, identifying leaders in water conservation and efficiency in each of the water use sectors, and establishing programs to improve the water use efficiency and conservation efforts in state government facilities.

In addition, water supply service area plans for public water supply systems must consider water conservation alternatives when identifying options for supplying water. These plans are required by 2026 for all public water systems in Wisconsin serving populations of 10,000 or more; and are required immediately for Great Lakes Basin public water systems serving 10,000 or more and seeking a new or increased withdrawal.

#### **4. Consistency with Regional Objectives**

As shown in the table below, the Wisconsin program is consistent with the regional objectives in the promotion of environmentally sound and economically feasible water conservation measures. More details for each objective are available at

[http://www.glsregionalbody.org/Docs/Resolutions/GLSLRWRRB\\_Resolution\\_6-Conservation-Efficiency.pdf](http://www.glsregionalbody.org/Docs/Resolutions/GLSLRWRRB_Resolution_6-Conservation-Efficiency.pdf).

OBJECTIVES	LEGISLATIVE OR PROGRAM DESCRIPTION
<ul style="list-style-type: none"> <li>○ Guide programs toward long-term sustainable water use.</li> </ul>	<ul style="list-style-type: none"> <li>○ Adoption of Water Conservation and Water Use Efficiency Administrative Rules (NR 852), 1/1/2011 <ul style="list-style-type: none"> <li>○ Water Conservation Plans and Conservation and Efficiency measures required for all new or increased withdrawals in the Great Lakes Basin, all diversions of Great Lakes water, and withdrawals with a water loss of <math>\geq 2</math> MGD</li> </ul> </li> <li>○ Water Supply Service Area Planning (S. 281.348, Wis. Stats.), rules still in development</li> </ul>
<ul style="list-style-type: none"> <li>○ Adopt and implement supply and demand management to promote efficient use and conservation of water resources.</li> </ul>	<ul style="list-style-type: none"> <li>○ Continued expansion of a statewide water conservation and efficiency information network representing all water use sectors</li> <li>○ Establishing water conservation and efficiency guidance by water use sector</li> <li>○ Developing a protocol for water conservation and efficiency plans at state government facilities</li> </ul>
<ul style="list-style-type: none"> <li>○ Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs.</li> </ul>	<ul style="list-style-type: none"> <li>○ Developed new database for water use data</li> <li>○ Developed on-line registration and reporting system, with ongoing system refinement. Over several years, the program may eliminate the option for paper reporting, requiring on-line reporting. Data quality control will improve through on-line system and automated quality checks</li> <li>○ Received grant from USEPA Exchange Network to develop an automated data flow from the WDNR water use database to the Great Lakes Commission and USGS</li> </ul>
<ul style="list-style-type: none"> <li>○ Develop science, technology and research.</li> </ul>	<ul style="list-style-type: none"> <li>○ Co-funded a project with the WI Public Service Commission titled "Water Efficiency Potential Study for Wisconsin"</li> <li>○ Funding a project examining golf course water use and water conservation and efficiency practices</li> <li>○ Funding a project titled "Ecological Limits of Hydrologic Alteration"</li> <li>○ Funding a project to develop a hydrogeologic data viewer</li> <li>○ Ongoing development of research, pilot project, or information needs</li> </ul>
<ul style="list-style-type: none"> <li>○ Develop education programs and information sharing for all water users.</li> </ul>	<ul style="list-style-type: none"> <li>○ Promotion of 2011 EPA <i>WaterSense</i> Fix-a-Leak, including webpage, promotional video, and radio ads</li> <li>○ Participation in 2011 Wisconsin DNR State Fair Park Exhibit demonstrating efficient faucet aerators, showerheads, and toilets including handouts of <i>WaterSense</i> labeled aerators, leak detection tablets, showerheads, tattoos, jar openers (aerator removal and tightening tool). Attendance at State Fair DNR Park estimated at 120,000 people.</li> <li>○ Participation in state conferences with displays and presentation for various water use sectors</li> <li>○ DNR Natural Resources Magazine Article "Water Conservation and Efficiency," June 2011, highlighting opportunities for reducing water use in home landscaping</li> <li>○ Initiated the development of a Wisconsin interagency water conservation and efficiency webpage, <a href="http://www.savewater.wi.gov">www.savewater.wi.gov</a></li> </ul>

## **5. Wisconsin Water Conservation and Efficiency Program Implementation Timeline and Status:**

<b>December 2008</b>	Completed Wisconsin adaptation of Great Lakes Water Conservation and Efficiency Objectives
<b>July 2009</b>	Hired DNR water conservation and efficiency program coordinator
<b>October 2009</b>	Completed program implementation strategy draft
<b>January 2010</b>	Began DNR administrative rule drafting
<b>January 2010</b>	Formed administrative rule advisory committee
<b>June 2010</b>	Established DNR water conservation and efficiency website
<b>January 2011</b>	Final DNR administrative rules
<b>March 2011</b>	Fix-a-Leak Week promotion on radio and web
<b>May 2011</b>	Began developing a water conservation and efficiency information network and started meeting with and touring sites of efficient water users from various water use sectors statewide
<b>June 2011</b>	Updated water conservation and efficiency goals and objectives and launched statewide scope
<b>August 2011</b>	Wisconsin State Fair water efficiency promotion
<b>September 2011</b>	Developed a water conservation and efficiency implementation plan for the biennium
<b>October 2011</b>	Began developing a Wisconsin interagency water conservation portal, <a href="http://www.savewater.wi.gov">www.savewater.wi.gov</a> , to be completed by July 2012
<b>December 2011</b>	Water use permits required for all Great Lakes Basin water withdrawals averaging 100,000 gallons-per-day or more in any 30-day period. Mandatory water conservation and efficiency requirements for users requesting a new or increased withdrawal above the 100,000 gallons-per-day threshold after 12/8/2008 is applied through the water use permits.
<b>July 2013</b>	Sector specific water conservation and efficiency guidance to be completed

Comment Summary on Wisconsin's Water Conservation and Efficiency Goals and Objectives

From May 15, 2011 through June 15, 2011, the Department held a public comment period on Wisconsin's Water Conservation and Water Use Efficiency Goals and Objectives. The Department received eight comments during this comment period, and those comments and the resulting changes made to the goals and objectives are summarized below.

1. Comment Objective 1:

- a. Water use information should be integrated with other water quality and environmental data for more holistic analytical and decision-making possibilities.
- b. Add additional information about water quality related to water quantity conservation and efficiency.

Response:

- a. and b. Objective 1 was modified to include integrating water use and water quality data where quantity and quality issues are linked.
2. Comment: Change objectives 2, 3, 4 to indicate that the role of water conservation in achieving sustainable water management will differ widely across Wisconsin. Regional conditions that affect water availability and would affect the need for conservation include the source of local supply (surface water or groundwater), storage capacity of a groundwater system, capacity of a surface water treatment facility, population density of the community, and local investment in existing water supply infrastructure.

Response: Objectives 2 and 4 were modified to incorporate this comment.

3. Comments on Objective 2:

- a. Recognize the economic development value of water supply in areas of Wisconsin where sustainable supply exceeds current demand.
- b. Add or strengthen an objective on realistic water pricing that represents the full economic and environmental costs of providing water to customers and communicate with water users and the general public the value of water.
- c. Make a new objective connecting water and energy. Coordinate the water conservation and efficiency program with existing energy efficiency programs. Connect all energy uses of water and all water uses of energy to allow for full economic, environmental, and equity cases for water conservation and efficiency and energy efficiency.
- d. Provide a homeowner incentive to improving groundwater infiltration in groundwater depletion zones, through a property tax credit for residential rain gardens of at least 10 cubic feet, of \$10 per year.

Response:

- a. Objective 2 was modified to include this language.
- b. Objective 2 was modified to include this language.
- c. Objective 2 includes reference to connecting water conservation and efficiency programs with energy efficiency programs.

- d. Objective 2 includes reference to developing incentive programs. This comment will be considered in the implementation of the goals and objectives through the statewide program.

4. Comments on Objective 3:

- a. Consider what kind of technical assistance would be possible from these programs.
- b. Consider various incentives that programs can offer.
- c. Align with the Wisconsin Water Star program and other award programs to highlight superior achievements.
- d. Integrate water conservation and efficiency into existing wellhead and source water protection programs.
- e. Integrate water conservation and efficiency into existing Operator Certification, Capacity Development, NPDES permitting, Capacity, Management, Operations and Maintenance (CMOM), Watershed planning, etc.
- f. Coordinate and partner with Wisconsin Focus on Energy.

Response: These ideas will be considered in the implementation of the Wisconsin water conservation and efficiency goals and objectives.

5. Comments on Objective 4: Leverage the US EPA WaterSense program.

Response: EPA's WaterSense program will be used in the implementation of the state's goals and objectives.

6. Comments on Objective 5: Explore and implement market-based approaches to enable economic relationships that can ensure value and provide benefit to water resources.

Response: This comment is addressed in Objective 2 and will be considered when identifying research projects to advance.

7. General Comments:

- a. Detailed plan needed that shows how the goals and objectives are to be implemented.
- b. Be careful in developing voluntary standards so to not create new mandates or a public that expects the voluntary standards should be met.

Response:

- a. WDNR will develop and share an implementation plan for the goals and objectives.
- b. This comment will be considered in developing the goals and objectives.

**Wisconsin Statewide Water Conservation and Water Use Efficiency Goals:**

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

**Wisconsin Mission:**

Sustainably manage the quantity and quality of water in the state to ensure that water is available to be used to protect and improve our health, economy and environment now and in the future.

**Wisconsin Statewide Water Conservation and Water Use Efficiency Objectives:**

**1) Improve monitoring and standardize data reporting.** Collect information that will assist with understanding Wisconsin's waters and how these waters are used, and share accurate and comparable information with the public and other states and provinces.

- a) Identify and map all streams, lakes, rivers, ponds, springs, wetlands and major groundwater systems including major recharge areas.
- b) Monitor water resources and water use patterns to identify and track regional trends. Integrate water quality information where quantity and quality issues are linked.
- c) Collect, analyze and report water use information from all user groups.
- d) Develop predictive methods for evaluating how Wisconsin's waters may be used in a sustainable fashion.
- e) Monitor the implementation of conservation and efficiency measures and other efforts to promote sustainability.
- f) Make information readily available to the public, including providing information about the waters of the state and water use on a state web site.

**2) Adopt and implement supply and demand management to promote efficient use and conservation of water resources.** Communicate how to most efficiently use Wisconsin's waters considering the local and regional conditions of water abundance or scarcity.

- a) Identify conservation and efficiency measures for different categories of water users.
- b) Coordinate water use efficiency and conservation programs within the state.
- c) Coordinate water use efficiency and conservation programs with ongoing energy efficiency programs and other efforts to reduce greenhouse gas emissions.
- d) Develop a mechanism to communicate the importance of water use efficiency and conservation practices with water users.

- e) Encourage water pricing that incorporates the full cost of providing water to consumers.
- f) Implement an incentive program for encouraging water conservation and water use efficiency.
- g) Recognize the economic development value of water supply in areas of Wisconsin where sustainable supply exceeds current demand.

**3) Guide programs toward long-term sustainable water use.** Sustain the quantity and quality of Wisconsin's waters.

- a) Use adaptive programs that are goal-based, accountable and measurable.
- b) Engage users and coordinate with agencies, tribal governments and other government officials.
- c) Develop administrative rules for new and increased uses and diversions as defined in the Great Lakes Compact.
- d) Develop specific conservation and efficiency requirements for new and increased uses and diversions as defined in the Great Lakes Compact.
- e) Fund activities associated with understanding, communicating, planning, and promoting the sustainable use of Wisconsin's waters.
- f) Periodically review the status of Wisconsin's waters, how they are used, and the effectiveness of the conservation and efficiency measures.
- g) Develop a water conservation and efficiency program for improving the sustainability of the quantity and quality of Wisconsin's waters.
- h) Develop a process for maintaining and improving the understanding, communicating, planning, and promoting of Wisconsin's waters.
- i) Develop administrative rules when necessary to implement the water conservation and efficiency program.
- j) To the extent possible, seek public input on water conservation and efficiency policies and programs affecting the management and use of Wisconsin's waters.
- k) Seek a greater understanding of tribal traditional knowledge and practices regarding the importance of water and its sustainable use.

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

Promote improved understanding of the importance of water.

- a) Improve public awareness of the importance of water conservation and efficiency, particularly in areas of the Wisconsin that are under water supply stress due to regional conditions.
- b) Emphasize educating school children, businesses, and government officials on the economic, societal, and ecological values of water, including sustainability.
- c) Seek opportunities to share traditional knowledge and practices of Wisconsin tribes.

**5) Develop science, technology and research.** Develop innovative and timely approaches to address emerging water management issues.



- a) Encourage the development of water-related industries and technologies to position Wisconsin as a global industry leader.
- b) Identify research and monitoring needs related to the interaction of groundwater and surface waters, and strategies for managing and protecting groundwater.
- c) Promote the development of systems and tools for an integrated approach to groundwater and surface water that would predict the effects of water withdrawal, management, and conservation and efficiency practices in Wisconsin.
- d) Leverage the resources of Wisconsin's research institutions to focus on problems affecting the human and natural communities of Wisconsin, including analyzing barriers to sustainable water use.
- e) Foster cooperation and sharing of resources and information among all federal, tribal, state and local agencies as well as with international partners.