



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF WATER MANAGEMENT

November 22, 2013

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, IL 60601

Re: Water Conservation and Efficiency Program Report Submitted on behalf of the
Commonwealth of Pennsylvania

Dear Mr. Naftzger:

On behalf of the Commonwealth of Pennsylvania, please find enclosed 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 contact Andrew Zemba by e-mail at azemba@pa.gov or by telephone at 717.772.4785.

Sincerely,

Kelly J. Heffner
Deputy Secretary for
Water Management

cc: D. Jostenski, IWO
L. Boughton, NWRO
R. Lybrook, NWRO
A. Zemba, IWO

Pennsylvania 2013 Water Conservation and Efficiency Program Review

The following information summarizes Pennsylvania's efforts regarding its Water Conservation and Efficiency Program, and is being submitted by the Commonwealth to the Regional Body and Compact Council pursuant to the requirements in the Agreement Article 304 and the Compact Section 4.2.2.

1. Lead Agency and Contacts

Lead Agency: Pennsylvania Department of Environmental Protection (DEP)

Lead Contacts:

- Andrew Zemba, Director, Interstate Waters Office, (717) 772-4785
- David Jostenski, Assistant Director, Interstate Waters Office, (717)772-5659

2. Status of the State or Province's Water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives.

Pennsylvania continues to achieve its Water Conservation and Efficiency Goals/Objectives through a mix of voluntary efforts combined with state-wide regulatory requirements.

Pennsylvania's Act 43 of 2008 (32 P.S. Section 817.25) authorized the Commonwealth to join the Compact and established that the Water Conservation and Efficiency Program, required under Section 4.2 of the Compact, shall be a voluntary program. As part of its State Water Planning Program, Pennsylvania has eight key goals that support the Basin-wide and regional objectives of the Compact. Pennsylvania's water conservation and efficiency goals are articulated in our State Water Planning Program, (27 Pa.C.S 3120(a).)

As reported in prior updates, the eight goals are:

1. Establish guidelines for developing voluntary water use reduction in Critical Water Planning Areas.
2. Identify and compile principles, practices, and technologies to assist all water users in conserving water.
3. Identify and compile principles, practices, and technologies to encourage groundwater recharge.
4. Develop a statewide program to promote voluntary reduction of water loss.
5. Establish a voluntary statewide conservation program for all users.
6. Develop educational programs for households, industry, and other water users.
7. Facilitate Governor's Water Conservation and Efficiency Award Program.

8. Establish voluntary water use reduction goals for all users.

Regarding goals one through three, Pennsylvania is currently developing plans for two Critical Water Planning Areas (outside the Great Lakes Basin). As these plans are developed, the information will be used to help implement the first three goals. No CWPAs have been identified in the Great Lakes Basin at this time; however, the planning efforts currently underway in other basins are pilot projects that will help solidify the process, should the need to designate a CWPA in the Great Lakes basin arise in the future.

To help achieve all eight goals, Pennsylvania had been focusing its efforts on developing a Water Resources Technical Assistance Center (WRTAC), which is also required by Commonwealth Act 220 (State Water Planning Act). As previously reported in 2012, budget pressures have reduced the availability of funds to continue the effort as originally planned to create a new Water Resources Technical Assistance Center. Pennsylvania is now considering alternatives to help achieve our water conservation and efficiency goals, such as partnering with other entities to increase participation in leak detection and water auditing programs by public water suppliers for efficiency purposes.

To implement goal six in 2013, DEP partnered with PA Sea Grant, and the Erie Times News to publish a series of articles in the News In Education section regarding Water Conservation, and the importance of conservation efforts in the Lake Erie watershed. These articles were printed in the Erie Times News on October 15, 2013, October 22, 2013, and October 29, 2013. These newspapers are distributed to students in their classrooms throughout the Lake Erie watershed, and they are accompanied by lesson plans that correspond with the newspaper articles. The newspapers are distributed to over 16,000 students in 75 schools throughout the northwest region of Pennsylvania, as well as Erie Times News subscribers throughout the world.

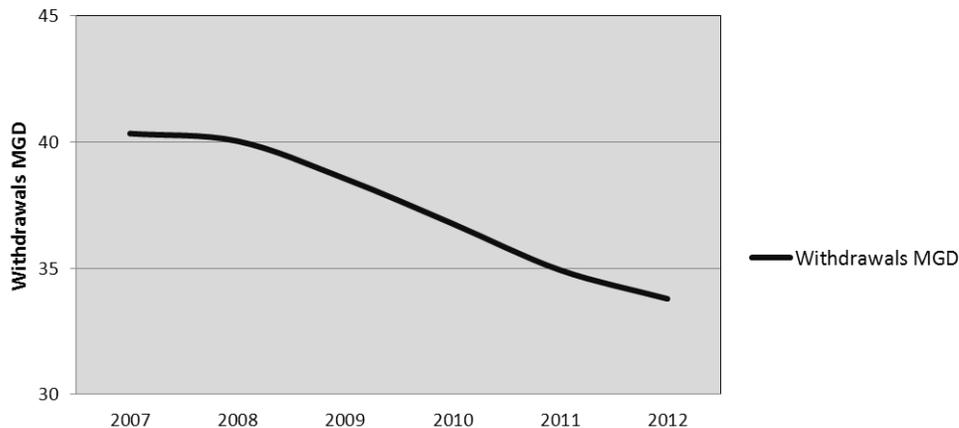
Penn State University has Federal designation and support from USGS as the state's official water resources research center. A possible initiative under consideration is working with Penn State University through Penn State Agricultural Extension offices, Pennsylvania Sea Grant, and the Water Resources Research Center to develop an outreach and educational program for the Great Lakes basin. Such an outreach and education program would build on an existing water conservation-based website through Penn State University Agricultural Extension offices <http://extension.psu.edu/water/conservation>.

Pennsylvania has several regulatory programs, administered by the Department and the Public Utility Commission, that support the objectives of water use reduction, water loss reduction, and overall water conservation. These regulatory programs are established on a state-wide basis, independent of the Great Lakes Compact, and are implemented on an on-going basis. The programs, which primarily involve Public Water Supply Agencies and water users

who withdraw 10,000 gallons of water per day or more on a 30 day average, are discussed in further detail in Section 4 of this paper. A chart showing withdrawals, diversions, and consumptive use in Pennsylvania's portion of the Great Lakes watershed is attached at the end of this report (Source: Great Lakes Commission based on data supplied by PA DEP).

In 2013, the Department initiated development of an electronic web-based Drought Emergency Application for use by golf courses, public water suppliers and athletic field operators who must submit plans for water use to the Department in meeting regulations under the Pennsylvania Emergency Management Agency towards conserving water and ending non-essential water uses during drought emergency declarations. This system will allow submission of electronic plans via the Department's website, and it will generate notifications to known entities to provide information, guidance, and requirements during a drought emergency. Implementation of this new system is planned for 2014.

PA Great Lakes Reported Water Withdrawals



3. Water Conservation and Efficiency Program Overview.

Pennsylvania's Water Conservation and Efficiency Program is implemented through a mix of voluntary efforts combined with state-wide regulatory requirements. Pennsylvania's Act 43 authorizes the use of a voluntary water conservation and efficiency program. As part of its State Water Planning Program, Pennsylvania has eight key goals that support the Basin-wide and regional objectives of the Compact. In addition, regulatory programs that support and complement water conservation and efficiency goals and objectives are already in place through other statewide laws and policies of the Commonwealth. The majority of water use in Pennsylvania's Great Lakes basin is attributable to Public Water Supplies. Public water supply agencies throughout the

Commonwealth are required to obtain a water allocation permit for surface water sources, with approvals of systems metering, use justification, drought management, and water conservation and efficient use elements included in the permitting process that implements the Water Rights Act, (P.L. 842 No. 365), 32 P.S. SS 63, et seq..

Pennsylvania regulatory programs with citations and summaries include the following:

The Great Lakes-St. Lawrence River Basin Water Resources Compact—32 P.S. Section 817.21 et seq. Section 5 (Powers and Duties of department) of that PA statute, 32 P.S. Section 817.25, states, inter alia, that, “The department shall have the power and duty to”: (2) Administer and implement within the basin a water conservation and efficiency program required under section 4.2 of the Compact. Such a program shall be a voluntary program, utilizing the provisions of 27 Pa.C.S. Section 3120 (relating to water conservation).”

Water Resources Planning Act of 2002 (P.L. 1776, No. 220), 27 Pa.C.S. 3101 et. sq. Act 220 authorizes DEP to build capacity to the water use reporting system to develop a program for water users to record their voluntary water conservation and efficiency efforts.
http://www.portal.state.pa.us/portal/server.pt/community/state_water_plan/18721

Water Rights Act, P.L. 842 (Act No. 365) Pennsylvania Surface Water Allocation Program—under this act, public water supply agencies must obtain Water Allocation Permits from the DEP to acquire rights to use surface water sources in Pennsylvania. Included in the review of permit applications, the DEP considers the conservation, development, and use to the best advantage of existing sources of water supply. Permits generally contain requirements to implement water conservation programs, adopt drought contingency plans and submit annual permit compliance reports.
http://www.depweb.state.pa.us/portal/server.pt/community/water_allocation/10632

4. A description of how Pennsylvania promotes Environmentally Sound and Economically Feasible Water Conservation Measures consistent with the regional objectives follows:

OBJECTIVES	LEGISLATIVE OR PROGRAM CITATION
Guide programs toward long term sustainable water use	Water Rights Act, P.L. 842 (Act No. 365)—under this act, public water supply agencies must obtain Water Allocation Permits from DEP to acquire rights to surface water in PA.

	<p>In its review of the permit applications, DEP considers water conservation and use of existing water supplies.</p> <p>Act 220 of 2002 (State Water Plan) authorizes DEP to build capacity to the water use reporting system to develop a program for water users to record their voluntary water conservation and efficiency efforts.</p> <p>PA Public Utilities Commission (PUC) has provisions in the PA Code for water conservation measures for public water suppliers (65.11 PA Code) in the event of short term water supply deficiencies. In addition, Public Water Suppliers are to encourage customers to implement cost-effective water conservation measures. Rates for water utilities are set with consideration for the following factors: customer education, efficient plumbing fixtures, leak detection, water audits for large non-residential customers, unaccounted for water, and metering (65.20 PA Code). This section also requires public water suppliers to file mandatory conservation contingency plans.</p>
<p>Adopt and implement supply and demand management to promote efficient use and conservation of water resources</p>	<p>A Department regulation, which establishes water withdrawal and use registration, monitoring, record-keeping and reporting requirements at <u>25 Pa. Code Chapter 110</u>, became effective upon its publication in the Pennsylvania Bulletin on November 15, 2008.</p> <p>This regulation requires water users who withdraw 10,000 gallons or who purchase water through interconnection in excess of 100,000 gallons of water per day or more on a 30 day average to report their water use to DEP.</p>
<p>Improve monitoring and standardize data reporting among State water conservation and efficiency programs</p>	<p>Pennsylvania participates in the Great Lakes Regional Water Use Database process. Currently this process is administered by the Great Lakes Commission in consultation with the Council of Great Lakes Governors, to meet the goal of standardizing data reporting among the Jurisdictions. A reporting requirement has been imposed in the Commonwealth on all water uses over 10,000 gallons per day; and any water use for oil and gas development requires submission of a water management plan.</p>
<p>Develop science, technology and research</p>	<p>PA DEP plans to continue to seek the assistance of Pennsylvania Sea Grant and Penn State University to focus on developing science, technology, and research in the Great Lakes Basin.</p>

<p>Develop education programs and information sharing for all water users</p>	<p>Water Resources Planning Act of 2002 (P.L. 1776, No. 220), 27 Pa.C.S. 3101 et. sq. Act 220 authorizes DEP to build capacity to the water use reporting system to develop a program for water users to record their voluntary water conservation and efficiency efforts.</p> <p>Pennsylvania is considering new ways to increase water conservation and efficiency awareness and enhance commitments made in Resolution 5 of the Compact Council and Resolution 6 of the Regional Body. PA DEP plans to continue to seek the assistance of Pennsylvania Sea Grant and Penn State University to increase the level of water conservation and efficiency outreach and education in the Great Lakes basin and promote an existing Penn State Extension website for water conservation and continue to publish articles in the Erie Times News In Education series regarding Water Conservation, particularly as it applies to the Lake Erie watershed.</p>
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5. Description of the State or Provincial Water conservation and efficiency program implementation timeline and status.

Sections 3 and 4 of this paper describe elements of the program that are implemented on an ongoing basis. In addition, Pennsylvania is considering new ways to increase water conservation and efficiency awareness and enhance commitments made in Resolution 5 of the Compact Council and Resolution 6 of the Regional Body. In 2013, PA DEP, PA Sea Grant, and the Erie Times News published a series of articles in the News in Education section regarding Water Conservation, and the importance of conservation efforts in the Lake Erie watershed. In 2014, PA DEP plans to seek additional assistance from Pennsylvania Sea Grant and Pennsylvania State University (Penn State) to increase the level of water conservation and efficiency outreach and education in the Great Lakes basin. This will likely be a multi-year project.

Penn State University has Federal designation and support from USGS as the state’s official water resources research center. A possible initiative under consideration is working with Penn State University through Penn State Agricultural Extension offices, Pennsylvania Sea Grant, and the Water Resources Research Center to develop an outreach and educational program for the Great Lakes basin. Such an outreach and education program will build on an existing water conservation-based website through Penn State University Agricultural Extension offices <http://extension.psu.edu/water/conservation>.

JURISDICTION REPORT - Pennsylvania

Withdrawals, Diversions and Consumptive Uses Units: Mgal(US)/d
Data Year: 2012

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Erie							
	Public Water Supply	26.78		2.68	26.67		2.67
	Self-Supply Commercial and Institutional	0.02		0.00			
	Self-Supply Industrial	5.42		0.54	5.34		0.53
	Self-Supply Irrigation	0.13		0.12	0.13		0.12
	Self-Supply Livestock	1.31		1.05	1.31		1.05
	Total:	33.66		4.39	33.45		4.37
Lake Ontario							
	Public Water Supply	0.13		0.01	0.08		0.01
	Total:	0.13		0.01	0.08		0.01
	Grand Total:	33.79		4.40	33.53		4.38

Note: Values as shown submitted to Great Lakes Commission and should be considered preliminary until publication.

Consumptive use: that portion of water withdrawn or withheld from the Great Lakes basin and assumed to be lost or otherwise not returned to the Great Lakes basin due to evapotranspiration, incorporation into products or other processes

Diversión: a transfer of Water from the basin into another watershed, or from the watershed of one of the Great Lakes into that of another by any means of transfer, including but not limited to a pipeline, canal, tunnel, aqueduct, channel, modification of the direction of a watercourse, a tanker ship, tanker truck or rail tanker but does not apply to water that is used in the basin or Great Lakes watershed to manufacture or produce a product that is then transferred out of the basin or watershed (Agreement Article 103; Compact Section 1.2)

Intrabasin transfer: a transfer of water from the watershed of one of the Great Lakes into the watershed of another Great Lake (Agreement Article 103; Compact Section 1.2)

Mgd: million gallons per day

Principal facility: facilities withdrawing in excess of the Great Lakes Charter uniform trigger level of 100,000 U.S. gallons/day (380,000 liters/day) average over a 30-day period. A principal facility is determined by its total withdrawal (or consumption) from all sources combined (Great Lakes surface water, other surface water, and groundwater). The combined withdrawals (or consumption) of separate wells or operations undertaken by the same facility or company will be evaluated separately for the purpose of determining principal facility status unless those operations are covered under the same registration (or permit) or are physically contiguous. Principal facilities are a subset of all facilities in the database.

Withdrawal amount: water removed or taken from surface or groundwater (including hydroelectric use)