

# **PENNSYLVANIA GREAT LAKES WATER CONSERVATION AND EFFICIENCY PROGRAM REVIEW**

2020 Report

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 contact person(s)**

Pennsylvania Department of Environmental Protection (DEP):

- Timothy Bruno, Manager, Great Lakes Program (717) 798-6001
- Michael Hill, Professional Geologist, Planning and Conservation Division (717) 787-0630

## **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. § 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 at 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 (currently facilitated through the Governor's Awards for Environmental Excellence).
8. Establish voluntary water use reduction goals for all users.

In 2020, DEP began the process to review and update the State Water Plan in accordance with the Water Resources Planning Act (Act 220 of 2002, P.L. 1776, No. 220, 27 Pa.C.S. §§ 3101 et. seq.). The update will use the eight Water Conservation and Efficiency Program goals in determining whether the current plan reflects the objectives, policies and purposes of the Water Resources Planning Act and the revisions necessary to address regional and state-wide priorities, filling gaps from the previous plan, and examining emerging issues. The Great Lakes Basin sections will receive an update through this process (Lake Erie and Lake Ontario-Genesee River Basins).

In 2020, DEP continued a partnership with Pennsylvania Sea Grant and Pennsylvania State University to update the Pennsylvania Lake Erie Water and Land Technical Resources website (WALTeR). This website provides a portal to DEP partner agencies and organizations that focus on land and water issues in the Pennsylvania Lake Erie basin. WALTeR provides access to pertinent spatial data, water conservation and efficiency information, materials, and outreach programs. It can be accessed at <https://pawalter.psu.edu/>.

In September 2020, Pennsylvania participated with 34 other states in the 2020 State Summit on Water Reuse that convened state water regulators to share and learn about a range of water reuse issues. It was planned in collaboration with the U.S. Environmental Protection Agency (EPA), WaterReuse Association, and a number of U.S. water administration associations to enhance state collaboration under the National Water Reuse Action Plan (WRAP). Pennsylvania contributed to an EPA Region 3 Water Reuse Profile that identified water reuse drivers and barriers within Region 3 and identified specific activities of the jurisdictions.

Pennsylvania has several regulatory programs, administered by DEP 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 report. 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 DEP).

As previously reported, DEP implements an electronic Drought Emergency Application for use by golf courses, public water suppliers and athletic field operators who must submit plans for water use to DEP in meeting regulations under the Pennsylvania Emergency Management Agency towards conserving water and ending non-essential water uses during drought emergency declarations. This system allows submission of electronic plans via DEP's website, and it generates notifications to known entities to provide information, guidance, and requirements during a drought emergency.

During the 2019 Water Year, Pennsylvania observed a decline in overall water use, and water withdrawal amounts decreased by approximately 6 percent from 40.6 million gallons per day (mgd) in 2018 to 38.1 mgd in 2019. While this represents a year-over-year decline, the 2019 water use totals are consistent with Pennsylvania's 12-year running average. Approximately 31.4 mgd, or 82 percent of the total 2019 water use amount was dedicated to Public Water Supply purposes. The next largest sector was Self-Supplied Industrial with a total withdrawal amount of 3.6 mgd followed by Self-Supplied Livestock use of 2.7 mgd. The estimated total Consumptive Use was 3.9 mgd, with Public Water Supplies accounting for 79 percent of the total consumptive loss.

### **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 of 2008 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. Most 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 (Act 365 of 1939, 32 P.S. §§ 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. §§ 817.21 et seq.) — Specifically, 32 P.S. § 817.25 states that DEP, “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 (Act 220 of 2002, 27 Pa.C.S. §§ 3101 et. seq.)* — Act 220 of 2002 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.

[www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2002&sessInd=0&act=220](http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2002&sessInd=0&act=220)

*Water Rights Act (Act 365 of 1939) Pennsylvania Surface Water Allocation Program* — Under this act, public water supply agencies must obtain Water Allocation Permits from DEP to acquire rights to use surface water sources in Pennsylvania. Included in the review of permit applications, 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.

[www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=1939&sessInd=0&act=365](http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=1939&sessInd=0&act=365)

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

Pennsylvania promotes water conservation measures through coordinated laws and regulations that respect the low overall water use and geographic scope of the Great Lakes Basin in Pennsylvania, but also recognizes the importance of using water wisely and the ability to scale programs should overall resource demands increase in the future.

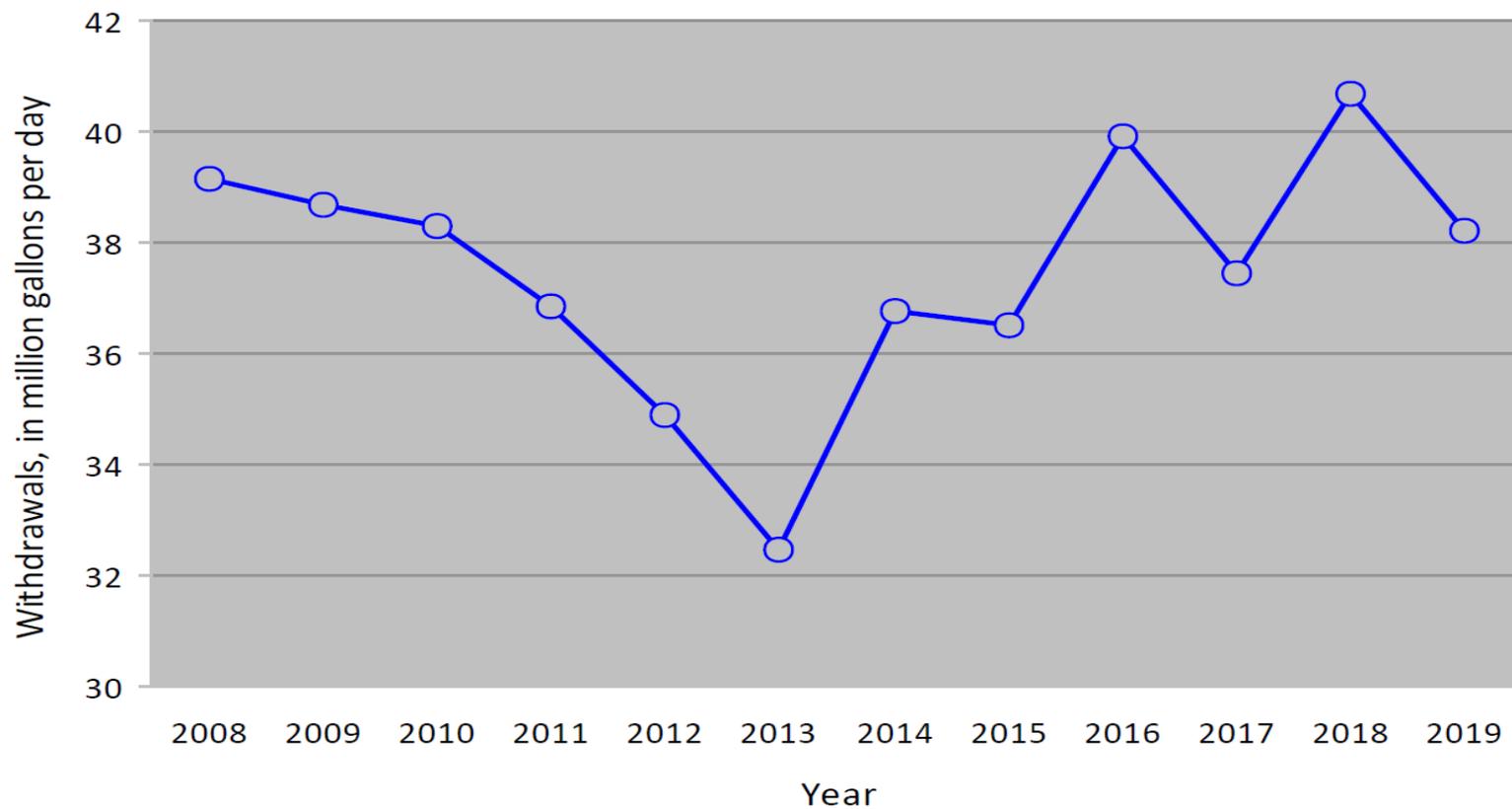
OBJECTIVES	LEGISLATIVE OR PROGRAM CITATION
Guide programs toward long-term sustainable water use	<p>(1) Water Rights Act, 32 P.S. §§ 636-637 — Under this act, public water supply agencies must obtain Water Allocation permits from DEP to acquire rights to surface water in PA. In its review of the permit applications, DEP considers water conservation and use of existing water supplies.</p> <p>(2) Water Resources and Planning Act (Act 220 of 2002), 27 Pa.C.S. §§ 3117; 3120, authorizes DEP to build capacity of the water use reporting system to develop a program for water users to record their voluntary water conservation and efficiency efforts.</p> <p>(3) The Pennsylvania Public Utility Commission has provisions in the <i>Pennsylvania Code</i> for water conservation measures for public water suppliers (52 Pa. Code § 65.11) 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</p>

OBJECTIVES	LEGISLATIVE OR PROGRAM CITATION
	(52 Pa. Code § 65.20). This section also requires public water suppliers to file mandatory conservation contingency plans.
Adopt and implement supply and demand management to promote efficient use and conservation of water resources	<p>(4) A DEP regulation, which establishes water withdrawal and use registration, monitoring, record-keeping and reporting requirements at 25 Pa. Code §§ 110.201 and 110.301, became effective upon its publication in the <i>Pennsylvania Bulletin</i> on November 15, 2008.</p> <p>This regulation requires water users who withdraw in excess of 10,000 gallons per day on a 30-day average 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. <i>See also</i>, Water Resources and Planning Act (Act 220 of 2002), 27 Pa.C.S. § 3118.</p>
Improve monitoring and standardize data reporting among State water conservation and efficiency programs	(5) 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 (27 Pa.C.S. § 3117). A reporting requirement has been imposed in the Commonwealth on all water uses over 10,000 gallons per day on a 30-day average (27 Pa. C.S. § 3118; 25 Pa. Code §§ 110.201 and 110.301); and any water use for oil and gas development requires submission of a water management plan (58 Pa.C.S. § 3211(m)).
Develop science, technology, and research	(6) DEP plans to continue to seek the assistance of Pennsylvania Sea Grant and The Pennsylvania State University to focus on developing science, technology, and research in the Great Lakes Basin.
Develop education programs and information sharing for all water users	<p>(7) Water Resources Planning Act (Act 220 of 2002), 27 Pa.C.S. §§ 3117; 3120, authorizes DEP to build capacity of 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. DEP plans to continue to seek the assistance of Pennsylvania Sea Grant and The Pennsylvania State University to increase the level of water conservation and efficiency outreach and education through partnerships within the local and regional communities.</p>

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

- a. In 2021, DEP seeks to continue an initiative that extends conservation and efficiency education and training to public water suppliers in PA's Great Lakes Basin and surrounding area. Trainings increase specific system-level understandings of water infrastructure management and help Pennsylvania meet its conservation and efficiency goals through reductions in leakage and increased efficiencies by public water suppliers.
- b. In 2021, DEP looks to conclude the work of the Great Lakes Water Resources Regional Committee and recommend revisions to the Great Lakes Basin (Lake Erie and Genesee River) sections of the Pennsylvania State Water Plan. The Committee is aiding in the collection and dissemination of data, prioritization of resource availability and protection, and the formation of water use policies in the Basin. Progress and updates can be followed at [www.dep.pa.gov/Business/Water/PlanningConservation/StateWaterPlan](http://www.dep.pa.gov/Business/Water/PlanningConservation/StateWaterPlan)
- c. In 2021, DEP will continue the evaluation of water conservation and efficiency successes through the current Governor's Award for Environmental Excellence. This award is open to any Pennsylvania business, farm, government agency, educational institution, non-profit organization, and individuals that has created or participated in the development of a project that promotes environmental stewardship and economic development in the state. Information on the award may be found at [www.dep.pa.gov/About/Awards/EnvironmentalExcellence](http://www.dep.pa.gov/About/Awards/EnvironmentalExcellence)
- d. In 2021 through 2022, DEP will dedicate segments of the semi-annual Pennsylvania Lake Erie Environmental Forum (PA LEEF) to water use in Pennsylvania and potential conservation and efficiency program initiatives. PA LEEF is a cooperative program between DEP and Pennsylvania Sea Grant that provides an opportunity for members of the public to learn about Great Lakes activities. More information about future PA LEEF meetings, as well as videos and presentations from previous meetings can be found at <http://seagrants.psu.edu/topics/watershed-planning-and-monitoring/projects/pennsylvania-lake-erie-environmental-forum-pa-leef>

### PA Great Lakes Reported Annual Water Withdrawals: 2008-2019



Data Source: 2019 Pennsylvania Department of Environmental Protection, Chapter 110 Water Use Reporting