

PENNSYLVANIA GREAT LAKES WATER CONSERVATION AND EFFICIENCY PROGRAM REVIEW

2021 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 § 4.2.2.

1. Lead agency and contact person(s)

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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 and objectives through a mix of voluntary efforts combined with statewide 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 Compact § 4.2, 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 2021, DEP continued the process of reviewing and updating 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 used the eight Water Conservation and Efficiency Program goals as benchmarks to craft revisions adhering to the objectives, policies, and purposes of the Water Resources Planning Act. Revisions will address regional and statewide priorities; filling gaps from the previous plan and examining emerging issues. The Great Lakes Water Resources Committee, consisting of members from government, non-governmental organizations, and private industry are conducting meetings to review and update the Great Lakes Basin sections of the plan (Lake Erie and Lake Ontario-Genesee River Basins). The update to the Plan is scheduled for 2022.

In 2021, 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 2021, Pennsylvania continued participating in the U.S. Environmental Protection Agency's (EPA) collaboration under the National Water Reuse Action Plan (WRAP). Pennsylvania contributed information on projects, regulations, guidance, and policies within the state regarding potable, onsite non-potable, and other end-use applications.

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 statewide 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.

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.

In 2021, DEP was unable to continue targeted conservation and efficiency education and training to public water suppliers in Pennsylvania's Great Lakes Basin due to COVID-19. DEP is considering how to utilize online training delivery methods to increase water infrastructure management and reduce non-revenue public water use. Although, education and outreach efforts reported in previous years appear to be beneficial in the 2020 Water Year.

During the 2020 Water Year, Pennsylvania observed a significant decline in overall water use, recording the lowest daily withdrawal amounts since the inception of the Compact and Agreement. Withdrawal amounts decreased from 38.1 million gallons per day (mgd) in 2019 to 30.5 mgd in 2020, representing a year-over-year decline of 20 percent.

The change from the previous year was due to a 13 percent decrease in water use for public water supplies, from 31.4 mgd in 2019 to 27.5 mgd in 2020, in addition to the closing of a large Self-Supply Industrial facility in 2019. Much of this public water use decline is a success story. The largest public water supplier in the Pennsylvania Great Lakes Basin, the Erie City Water Authority, reduced non-revenue water loss by 3.2 mgd during the 2020 Water Year. Public water supplies accounted for 90 percent of Pennsylvania's Great Lakes water use and consisted of 83 percent of the 3.3 mgd total consumptive use.

The next largest water use sector was Self-Supplied Livestock with a total withdrawal amount of 2.4 mgd.

3. Water Conservation and Efficiency Program Overview

Pennsylvania's Water Conservation and Efficiency Program is implemented through a mix of voluntary efforts combined with statewide 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 Compact § 4.2. Such a program shall be a voluntary program, utilizing the provisions of 27 Pa.C.S. § 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

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

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 |
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| 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> |

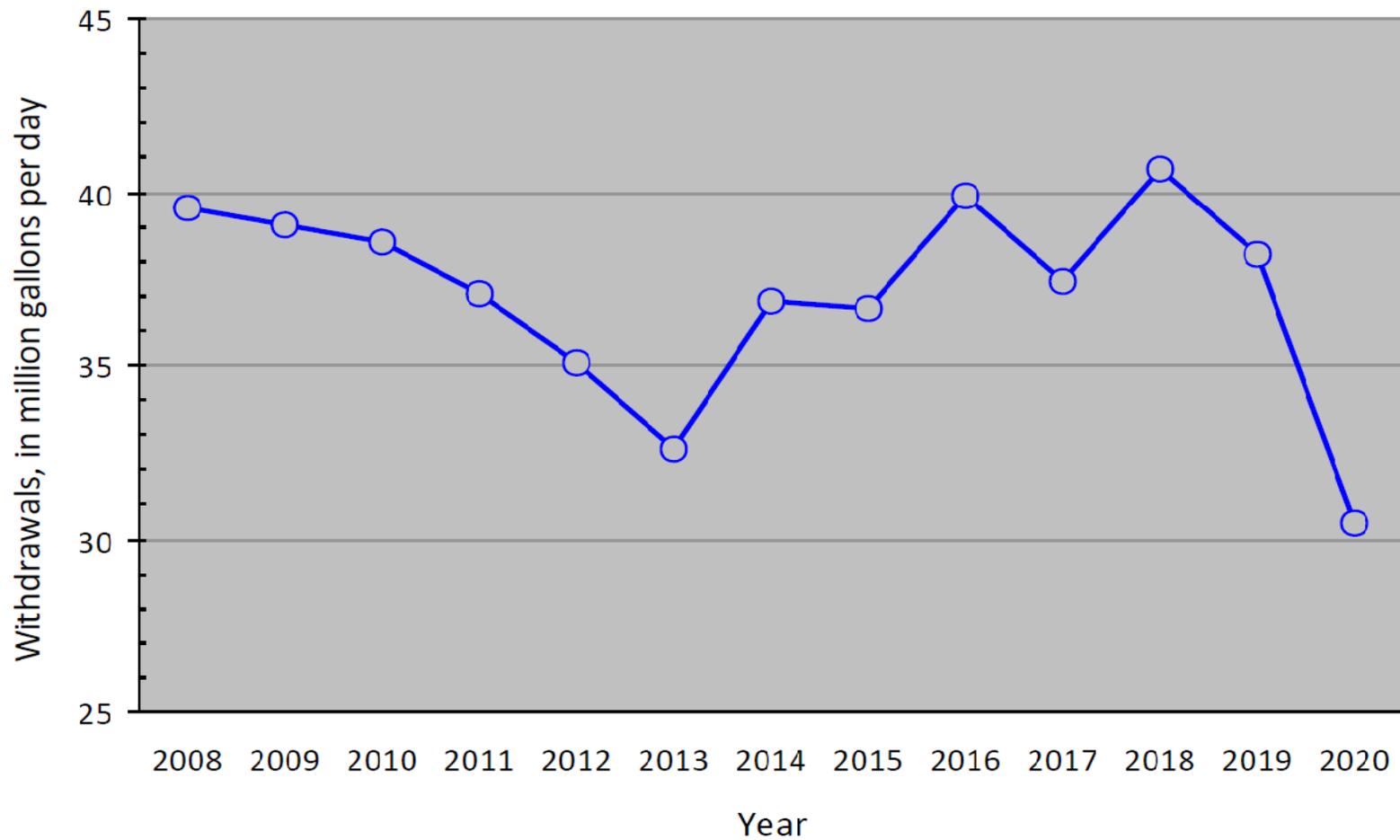
| OBJECTIVES | LEGISLATIVE OR PROGRAM CITATION |
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| | <p>(3) The Pennsylvania Public Utility Commission has provisions in the <i>Pennsylvania Code</i> for water conservation measures for public water suppliers (52 Pa. Code § 65.11) in the event of short-term 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 (52 Pa. Code § 65.20). 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>(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> |
| <p>Improve monitoring and standardize data reporting among state water conservation and efficiency programs</p> | <p>(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)).</p> |
| <p>Develop science, technology, and research</p> | <p>(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.</p> |
| <p>Develop education programs and information sharing for all water users</p> | <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. Pennsylvania is considering new ways to increase water</p> |

| OBJECTIVES | LEGISLATIVE OR PROGRAM CITATION |
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| | 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. |

5. Description of the State or Provincial Water Conservation and Efficiency Program implementation timeline and status.

- a. In 2022, DEP will examine how to extend conservation and efficiency education to public water suppliers in Pennsylvania’s Great Lakes Basin through virtual learning formats. Virtual trainings can help increase water operator participation and utility implementation to assist Pennsylvania in achieving conservation and efficiency goals through reductions in non-revenue water loss.
- b. In 2022, DEP will 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
- c. In 2022, 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 individual 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
- d. In 2022, DEP will dedicate segments of the quarterly Pennsylvania Lake Erie Environmental Forum (PA LEEF) to wise 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>

Pennsylvania Great Lakes Reported Annual Water Withdrawals: 2008-2020



Data Source: 2020 Pennsylvania Department of Environmental Protection, Chapter 110 Water Use Reporting