STATE OF OHIO
WATER CONSERVATION & EFFICIENCY PROGRAM REVIEW

(December 11, 2024)

The following Water Conservation & Efficiency Program Review is submitted by the State of Ohio to the Compact Council pursuant to the requirements contained in Section 3.4.1 of the Great Lakes-St. Lawrence River Basin Water Resources Compact ("the Compact") and to the Regional Body pursuant to the commitments made in Article 300 of the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement ("the Agreement').

1. Lead Agency. The lead agency for Ohio's water conservation & efficiency program is the Ohio Department of Natural Resources ("ODNR"). The lead contact person is Dena C. Barnhouse, Chief of the ODNR Division of Water Resources ("the Division") (phone: 614-265-6737; email: Dena.Barnhouse@dnr.ohio.gov). An alternative contact is Bradley J. Lodge, Manager of the Division's Water Inventory & Planning Program (phone: 614-265-6727; email: Bradley.Lodge@dnr.ohio.gov).

2. Status of Ohio Goals & Objectives. Ohio's water conservation & efficiency goals are those contained in Section 4.2.1 of the Compact. Ohio's water conservation & efficiency objectives have been developed and can be viewed online.

3. Water Conservation & Efficiency Program Overview. Ohio's implementing laws, regulations and policies are contained in the Compact, codified in §1522.01 of the Ohio Revised Code (ORC), and its state implementing provisions, codified in §§1522.02–.30 of the ORC. Specifically, §1522.05 of the ORC requires the Chief of the Division to adopt voluntary watershed-wide goals, objectives, and standards for water conservation and efficiency consistent with Section 4.2 of the Compact. In addition, §1522.17 of the ORC requires an applicant for a water withdrawal & consumptive use permit to submit a facility water conservation plan that, if it reasonably incorporates environmentally sound and economically feasible water conservation measures applicable to the facility, will be considered to be in compliance with Section 4.11.3 of the Compact. All other elements of Ohio's water conservation & efficiency program are voluntary, except those that are authorized by pre-existing statutes, regulations, or programs. The only such program that provides for mandatory use reductions is the Ohio Emergency Management Agency's Drought Contingency Plan, and then only when the Governor declares a Level Four Drought Emergency.

Ohio's water conservation & efficiency program consists of education on the value of water conservation & efficiency and promotion of voluntary conservation practices. Such efforts are undertaken individually by state agencies pursuant to general education authorities and programs, and without centralized coordination by the lead agency under the Compact.

4. Consistency with Regional Objectives.

Objective	Legislative or Program Citation
Guide programs toward long-term sustainable water use	ODNR initiated its ConServe Ohio State Park Sustainability Plan which is a call to action for park staff and visitors to implement sustainability practices across ODNR owned properties. Water conservation, including water use tracking, mitigation techniques, and updated infrastructure, is a key component of this plan. Required best management practices for manure management to improve water quality in the western Lake Erie Basin have been adopted in Ohio statute, which can be viewed online at ORC 939.08. In addition, water quality management plans have been captured in Ohio's Domestic Action Plan for Lake Erie and the H2Ohio program, and the plans are being implemented. Further, Ohio is currently working on a TMDL for the Western Lake Erie Basin. A Water Inventory and Planning Program Visibility Outreach Initiative began its campaign to raise awareness about Ohio's water use rules and regulations. Program staff are presenting at various agencies, advisory councils, and conservation districts to inform water users on the requirements of the Ohio Revised Code. The Initiative will improve the accuracy of Ohio's water use data and aid in preventing potential water use conflicts. To aid in Conservation efforts, ODNR became a member of the Alliance for Water Efficiency. The Alliance provides comprehensive information, tools, and workshops regarding water-efficient products, practices, and programs. The tools provided will support in educating water users, and train staff on current best management practices. Water sector specific drought guidance was provided to all 2100+ active registered water users in the state. Information included industry specific drought preparedness, resources for those experiencing interruption in supply, and recommended water conservation and efficiency practices to decrease impacts on other users.

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Adopt and implement supply and demand management to promote efficient use and conservation of water resources	ODNR introduced the State of Ohio Water Withdrawal Atlas on ODNR's Webpage: The Atlas concisely summarizes data collected from ODNR to assist in answering commonly asked questions regarding water use and to promote conservation focused initiatives by providing a clearer understanding of how water is used in Ohio. Understanding these factors can inform conservation solutions for the entire state as well as localized initiatives that support communities and watersheds. ODNR and the Ohio Environmental Protection Agency ("Ohio EPA") are currently designing a comprehensive Ohio Water Study to assess current water infrastructure availability and project how both population and economic growth will impact Ohio's water resources. Beginning with Central Ohio, the study will move region by region to provide a complete report for the State. Ohio EPA sponsored a bid to stand up Ohio's Water Reuse Chapter through the Water Reuse Association's national board. The board approved Ohio's charter, making Ohio the first Midwest state to join the national organization. Water Reuse Ohio establishes a collaboration with utilities, businesses, consultants, and academics to share lessons learned, best management practices, and new technologies. ODNR joined as a regulatory council member.
Improve monitoring and standardize data reporting among state and provincial water conservation & efficiency programs	Water use information for registered withdrawals continues to be collected, analyzed, and reported for the various categories of water use. A new online water-use reporting application rolled out in 2023 allowing registered facilities easy access to their reporting history and furthered the water user's ability to track their own water conservation practices. Accuracy of registrations and annual reporting has increased exponentially in just one year and will continue for years to come. An online Facility Locator is in development that will allow for water users or interested parties to view and download the location of registered facilities, and all historic water use. In 2023, ODNR announced its new citizen science program titled EnGauge Ohio that would enlist state park visitors to use their phones to record surface water data on high quality and sensitive streams throughout the state. In 2024, the Division onboarded new staff to launch a Surface Water Program within the Water Inventory and Planning Program. This new Program will spearhead efforts to better quantify the availability and improve monitoring of surface water in the State of Ohio.
Develop science, technology, and research	To further understand the "Michindoh" aquifer, ODNR enlisted USGS to complete a Geologic Characterization Study. The study will aid in producing a flow model of the "Michindoh" aquifer in the tri-state area. ODNR's Groundwater Program is completing a nearly three-year project to create new, seamless, statewide maps and datasets for Ohio of both anticipated aquifer yield and hydraulic conductivity. The new maps will contain information about primary and secondary aquifer

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	designations, the hydraulic conductivity of the primary aquifer, primary and secondary aquifer yield in gallons per minute, and information about the relative position of the primary to secondary aquifer, when present. These maps are the result of extensive data collection, compilation, and interpretation, much of which was not available when these parameters were last evaluated. This project was partially funded by the Ohio Water Development Authority (OWDA). Final maps and associated digital data will be released in January 2025. ODNR is currently installing ten new groundwater observation wells in Willaims, Defiance, and Fulton counties. This project will advance our understanding of the aquifers in northwest Ohio and provide new, high-quality data and opportunities for long-term monitoring of groundwater. In addition to the ten new groundwater observation wells, new pumping tests and geophysical logging will be performed. The data from these tests can be used for future groundwater studies, models, and as references for future drilling and withdrawals. This project was funded in part by Ohio H.B. 33 as a one-time priority project to determine the estimated storage capacity and maximum annual yield of the network of aquifers that are north of the Maumee River in Ohio. Final observation well installation will be completed in early 2025 and aquifer testing will occur in Spring 2025.
Develop education programs and information sharing for all water users	Current water conservation and efficiency education programs continue to: -Provide an online forum for submitting input from water withdrawal facility managers on best management practices and conservation and efficiency initiatives. -Provide updated material conveniently accessible to the public containing information on water conservation and efficiency; the water conservation webpage can be viewed online on ODNR's Compact webpage by selecting Water Conservation Resources. In 2024, ODNR partnered with the Ohio Department of Education and Workforce (DEW) and Ohio EPA to host a Water Management Workshop for technical teachers and professors in water quality and quantity teaching positions. The first two-day workshop is scheduled for May 2025. The H2Ohio program, launched by Governor DeWine in 2019, is a comprehensive water quality initiative that is strategically addressing water issues like harmful algal blooms (HABs) caused by phosphorus runoff, failing drinking water and wastewater infrastructure, and lead contamination. The Governor, Ohio EPA, Ohio Department of Agriculture (ODA), ODNR, the Ohio Lake Erie Commission (OLEC), and many partners are working together to invest in projects that will provide long-term economic and water quality benefits to communities and ecosystems statewide. In 2023, Governor DeWine expanded the H2Ohio initiative with a program called H2Ohio Rivers to focus on improving and maintaining the health of Ohio's large rivers. More information about the program,

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	including educational resources, can be found at the H2Ohio website. The ODNR has contracted with the Lake Erie and Aquatic Research Network (LEARN) to develop and implement the H2Ohio Wetland Monitoring Program (WMP) to assess the effectiveness of H2Ohio's natural infrastructure projects and improve the design and management of projects in the future. In 2024, H2Ohio WMP hired a Wetland Monitoring Outreach & Engagement Coordinator. The H2Ohio WMP continues to provide additional support in share data, information, and educational resources throughout their effort (website).

5. Program Implementation Timeline & Status. Ohio's water conservation & efficiency program, which does not include any mandatory conservation requirements on water users (except those who have obtained water withdrawal and consumptive use permits), is currently being implemented as indicated, with further developments underway.