

# STATE OF OHIO

## WATER MANAGEMENT PROGRAM REPORT

December 11, 2019

The following Water Management Program Report 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/agencies and contact person(s).** The lead agency for administering the Compact/Agreement is the Ohio Department of Natural Resources (“ODNR”). The authority to enforce the Compact and take appropriate actions to effectuate its purposes and intent rests with the Chief of the ODNR Division of Water Resources (“the Division”). The lead contact person is Rodney J. Tornes, Chief of the Division (phone: 614-265-6737; email: [Rodney.Tornes@dnr.state.oh](mailto:Rodney.Tornes@dnr.state.oh)). An alternative contact is Michael Hallfrisch, Manager of the Division’s Water Inventory & Planning Program (phone: 614-265-6745; email: [Mike.Hallfrisch@dnr.state.oh.us](mailto:Mike.Hallfrisch@dnr.state.oh.us)).

**2. Implementing laws, regulations, and policies.** 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 ORC §§1522.02–.40. Provisions to administer and enforce specific sections of the Compact and/or articles of the Agreement are authorized as follows: Section 3.4 of the Compact/Article 300 of the Agreement by §1522.01 and §1522.03 of the ORC; Section 4.1 of the Compact/Article 301 of the Agreement by §1522.01, §1522.03, §1521.03(B), and §§1521.15–.16 of the ORC; Sections 4.2(2), 4.2(4) & 4.2(5) of the Compact/Article 304 of the Agreement by §1522.01, §1522.03, and §1522.05 of the ORC; Section 4.3 of the Compact/Article 200 of the Agreement by §1522.01, §1522.03, and §§1522.10–.40 of the ORC; Sections 4.8, 4.9 and 4.13 of the Compact/Articles 200, 201 and 208 of the Agreement by §1522.01, §1522.03, §1522.06, and §1522.11 of the ORC; Section 4.10 of the Compact/Article 206 of the Agreement by §1522.01, §1522.03, §§1522.12–.15, §1522.17, §1522.19 and §§1522.23–.25 of the ORC; Section 4.11 of the Compact/Article 207 of the Agreement by §1522.01, §§1522.03–.04, §1522.101, §§1522.13–.131, and §1522.17 of the ORC; and Article 304 of the Agreement by §1522.01 and §1522.03 of the ORC.

The State of Ohio is in compliance with the provisions of the Compact by virtue of §§1522.02–.40 of the ORC, which became effective in their present form on October 17, 2019. The promulgation of Administrative Rules, anticipated to commence in 2020, will further aid in the administration and enforcement of the Compact by clarifying procedures and processes associated with the management and regulation of water withdrawals and diversions.

**3. Summary description of the water management program.** The Compact’s prohibition on diversions out of the Great Lakes Basin has been enforced since December 8, 2008. A permit program for new or increased diversions that meet the criteria required to qualify as exceptions to the Compact’s prohibition on diversions has been in place since September 4, 2012. A

separate permit program for diversions larger than 100,000 gallons per day both out of and into the Great Lakes Basin, enacted subsequent to the 1985 Great Lakes Charter, has been in place since 1986. A permit program for new or increased withdrawals and consumptive uses within the Great Lakes Basin pursuant to the Compact has been in place since March 3, 2013. Revisions to this permit program requiring detailed groundwater flow modeling and a water replacement process for large ground water withdrawals went into effect on October 17, 2019. A separate permit program for withdrawals resulting in new or increased consumptive uses larger than two million gallons per day, enacted subsequent to the 1985 Great Lakes Charter, has been in place since 1988. This permit program was also updated to require detailed groundwater flow modeling and a water replacement process for large groundwater withdrawals on October 17, 2019.

**Diversions & Withdrawals Subject to Regulation:**

All new or increased diversions are subject to the prohibition on new or increased diversions (Section 4.8 of the Compact) except those that qualify as exceptions to the prohibition (Section 4.9 of the Compact) under a permit program authorized by §1522.11 of the ORC. New or increased water withdrawals above established threshold quantities and not specifically exempt from regulation require a permit from the Chief of the Division under authority of §§1522.12–.13 of the ORC.

**Withdrawals Exempt from Regulation:**

Under §1522.14 of the ORC, the following are exempt from the permit requirement: [1] a new facility whose proposed withdrawal & consumptive use capacity is below the applicable threshold quantity; [2] an existing facility whose proposed increase in withdrawal & consumptive use capacity is below the applicable threshold quantity; [3] a new facility whose actual maximum daily withdrawal will be less than the applicable threshold quantity when averaged over any 90-day period (45-day period if the withdrawal is from a high quality river or stream and the drainage area at the withdrawal point is between 50 and 100 square miles); [4] an existing facility whose increase in actual maximum daily withdrawal will be less than the applicable threshold quantity when averaged over any 90-day period (45-day period if the withdrawal is from a high quality river or stream and the drainage area at the withdrawal point is between 50 and 100 square miles); [5] an existing electric generating facility that increases its consumptive use due to a requirement imposed by federal regulation that is unrelated to an increase in electricity production; [6] a facility that is making a withdrawal for purposes other than industrial use or public water supply from an impoundment collected primarily from diffused surface water sources, including a farm pond, golf course pond, nursery pond, storm water retention pond, or other private pond; [7] a facility that is making a withdrawal for purposes other than industrial use or public water supply from a river or stream to augment the water supply of an impoundment used for firefighting purposes; [8] a facility that must temporarily establish a new or increased withdrawal and consumptive use capacity as a result of an emergency (for the duration of the emergency) that, without the new or increased capacity, would result in imminent harm to human health and property; [9] a facility that is establishing a new or increased withdrawal & consumptive use capacity in compliance with an experimental use permit; [10] a facility that must temporarily establish a new or increased withdrawal & consumptive use capacity in order to respond to a humanitarian crisis (for the duration of that crisis) if the new or increased capacity is necessary to assist in the management of that crisis; [11] a major utility facility that is subject to regulation under Chapter 4906 of the ORC or a facility that is increasing its withdrawal & consumptive use capacity directly related to supplying such a major utility facility; [12] a public water system whose increase in withdrawal & consumptive use capacity is proposed and reviewed in accordance with the requirements of §1521.23 (c) and (D) of the ORC; [13] a facility that is subject to regulation under Chapter 1514 of the ORC; [14] a facility that purchases all of its water from

a public water system; and [15] a facility that is withdrawing or consumptively using water from an off-stream impoundment that has been substantially filled with an existing stream withdrawal or a new or increased stream withdrawal that is subject to a withdrawal & consumptive use permit.

New or increased withdrawals and consumptive uses subject to regulation pursuant to the Compact (i.e., §§1522.10–.40 of the ORC) include only those withdrawals and consumptive uses within the Great Lakes Basin portion of the state. New or increased withdrawals and consumptive uses subject to regulation pursuant to §§1521.23–.29 of the ORC include those withdrawals and consumptive uses from any waters of the state.

Exemptions as allowed in the Compact are also included as exemptions to permit requirements pursuant to the Compact (i.e., §§1522.10–.40 of the ORC) but are not exempt from permit requirements pursuant to §§1521.23–.29 of the ORC.

New or increased withdrawals and consumptive uses that are exempt from regulation by §1522.14 of the ORC remain subject to the permit requirement contained in §§1521.23–.29 of the ORC, which requires a permit from the director of the ODNR prior to withdrawing waters of the state that would result in a new or increased consumptive use of an average of more than two million gallons per day in any thirty-day period. The following are exempt from this permit requirement: [1] a major utility facility that is subject to regulation under Chapter 4906 of the ORC; [2] a facility that is subject to regulation under Chapter 1514 of the ORC; [3] a public water supply that was in operation on June 29, 1988 and for which no substantial changes are proposed; [4] a public water supply that encompasses only water distribution facilities; [5] a facility that is required to obtain a withdrawal & consumptive use permit under §§1522.12–.13 of the ORC.

#### **Registration & Reporting:**

All existing diversions out of the Great Lakes Basin are registered consistent with Section 4.1.3 of the Compact and are required to annually report the monthly quantity of water diverted, as required by Section 4.1.4 of the Compact. All diversions permitted under §1522.11 of the ORC would also be required to annually report the monthly quantities of water diverted. All existing withdrawals with a capacity to withdraw greater than 100,000 gallons per day are registered consistent with Section 4.1.3 of the Compact and are required to annually report the monthly quantity of water withdrawn, as required by Section 4.1.4 of the Compact. All withdrawals permitted under §§1522.12–.13 of the ORC would also be required to annually report the monthly quantities of water withdrawn. A separate registration and reporting requirement for all existing withdrawals with a capacity to withdraw greater than 100,000 gallons per day, enacted subsequent to the 1985 Great Lakes Charter and codified in §1521.16 of the ORC, has been in place since 1988. Water withdrawal registration and reporting data can be obtained from the Division's Water Inventory & Planning Program by calling (614) 265-6620 or emailing a request to [DSWC@dnr.state.oh.us](mailto:DSWC@dnr.state.oh.us).

#### **Regulation by Water Use Sector & Source Type:**

New or increased withdrawals and consumptive uses for all use sectors and all source types are subject to permit requirements pursuant to §§1522.12–.13 or §§1521.23–.29 of the ORC, except major utility facilities subject to regulation under Chapter 4906 of the ORC, facilities subject to regulation under Chapter 1514 of the ORC, and certain public water systems subject to regulation under Chapter 6109 of the ORC, which are subject to criteria identical to those in §§1521.23–.29 of the ORC.

**Quantity Thresholds for Regulation:**

All new or increased diversions that qualify for an exception to the prohibition on diversions are subject to the regulation regardless of quantity. New or increased withdrawals not otherwise exempt are subject to the permit requirement if they meet the following threshold quantities, established by §1522.12(A) of the ORC: [1] for withdrawals from Lake Erie or a recognized Lake Erie navigation channel, if the new or increased capacity for withdrawal or consumptive use is 2.5 million gallons per day or greater; [2] for withdrawals from any high quality river or stream, if the new or increased capacity for withdrawal or consumptive use is 100,000 gallons per day or greater; [3] for withdrawals from other surface water and ground water, if the new or increased capacity for withdrawal or consumptive use is 1.0 million gallons per day or greater.

**Implementation and Enforcement:**

Pursuant to §1522.03(B) of the ORC, the Chief of the Division is required to “enforce the great lakes–St. Lawrence river basin water resources compact and take appropriate actions to effectuate its purposes and intent.” Pursuant to §1522.12(A) of the ORC, the Chief of the Division is responsible for the review and consideration of permit applications for the withdrawal and consumptive use of water within the Lake Erie watershed.

The Division’s responsibilities include: collecting and analyzing water withdrawal, diversion, and consumptive use data; developing permit applications; reviewing permit application submittals; making recommendations to the Chief for enforcement action for noncompliance with the Compact and Compact-related regulations; and recommending the approval or denial of permits. The Division works closely with other state, federal and local agencies to gather information on water users in the Lake Erie Basin and to ensure that these agencies are aware of the requirements of the Compact.

Enforcement of the Compact is authorized by §§1522.20–.21 of the ORC, under which the Chief of the Division may issue an order to a person that the Chief determines has violated, is violating, or is threatening to violate any provisions of Chapter 1522 of the ORC, rules adopted under it, or permits or orders issued under it. The order shall be effective upon issuance and shall identify the facility where the violation has occurred, is occurring, or is threatened to occur, the specific violation, and actions that the owner or operator of the facility must take to comply with the order. The order shall establish a reasonable date by which the owner or operator must comply with the order. The Chief may, by order, propose to suspend or revoke a permit issued under Chapter 1522 of the ORC if the chief determines that any term or condition of the permit is being violated. The order shall identify the facility where the violation allegedly occurred, describe the nature of the violation, and prescribe what action the permittee may take to bring the facility into compliance with the permit. The Chief shall fix and specify in the order a reasonable date or time by which the permittee must comply. The order shall state that the Chief may suspend or revoke the permit if the permittee fails to comply with the order by that date or time. If on that date or time the Chief finds that the permittee has not complied with the order, the Chief may issue a new order suspending or revoking the permit.

Before issuance of a final order, the Chief shall issue a proposed order indicating the Chief’s intent to issue a final order. If the Chief receives a written objection from a person who is or will be aggrieved or adversely affected by the issuance of the final order, the Chief shall conduct an adjudication hearing with respect to the proposed order. A person who is or will be aggrieved or adversely affected by the issuance of the final order and who submitted a written objection under this division may be a party to the adjudication. Any person who is

issued a proposed order or a final order by the Chief shall be a party in any administrative or legal proceeding in which the proposed order or final order is at issue.

After the issuance of a final order, a person who is or will be aggrieved or adversely affected by the issuance of the order may appeal the order to the court of common pleas of Franklin County or the court of common pleas of the county in which the facility that is the subject of the order is located. The filing of an appeal does not automatically suspend the order that is the subject of the appeal. Upon application by the appellant, the court may suspend or stay the order, pending an immediate hearing on the appeal. If the court finds that the order was lawful and reasonable, it shall issue a written order affirming the order. If the court finds that the order was unreasonable or unlawful, it shall issue a written order vacating or modifying the order. The judgment of the court is final unless reversed, vacated, or modified on appeal.

The Ohio Attorney General, upon written request of the Chief, shall bring an action for an injunction or other appropriate legal or equitable action against any person who has violated, is violating, or is threatening to violate any provision of this chapter, any rule or order adopted or issued under it, or any term or condition of a permit issued under it. The Attorney General shall bring the action in the court of common pleas of Franklin County or the county where the applicable facility is located.

A person who violates any provision of Chapter 1522 of the ORC, any rule or order adopted or issued under it, or any term or condition of a permit issued under it is liable to the Chief for any costs incurred by the Division in investigating, mitigating, minimizing, removing, or abating the violation and conditions caused by it. Upon the request of the Chief, the Attorney General shall bring a civil action against the responsible person to recover those costs in the court of common pleas of Franklin County.

#### **4. Description of how the Standard of Review and Decision is applied.**

For application of the decision making standard for withdrawals & consumptive uses, §1522.101 of the ORC specifies that for the Ohio program “source watershed” (as used in Section 4.11 of the Compact) means the Lake Erie watershed considered as a whole.

In addition, §1522.13 of the ORC indicates that a withdrawal & consumptive use permit will be issued for a facility if the Chief of the Division determines that the facility meets all the criteria established in Section 4.11 of the Compact. It specifies that in applying Section 4.11.2 of the Compact, the Chief will require that a withdrawal or consumptive use be implemented so as to ensure that it will result in no significant individual or cumulative adverse impacts on the quality or quantity of the waters and water dependent natural resources of the Great Lakes Basin considered as a whole or of the Lake Erie source watershed considered as a whole and that as part of the evaluation, the Chief will: (1) rely on the best generally accepted scientific methods appropriate for this state derived from professionally accepted resources and practices, (2) consider the long-term mean annual inflow and outflow of the Lake Erie source watershed, and (3) consider the withdrawal and the portion of the withdrawal that is not returned to the Lake Erie source watershed. It also specifies that impacts of a withdrawal or consumptive use on the quantity or quality of waters and water dependent natural resources of more localized areas that affect less than the Great Lakes Basin considered as a whole or the Lake Erie source watershed considered as a whole shall be considered as a part of the evaluation of whether a proposed withdrawal or consumptive use is reasonable as provided in Section 4.11.5 of the Compact.

Legislation to provide additional instruction for applying the decision making standard is anticipated, and administrative rules are being developed that may also provide instruction in the application of the decision-making standard as well as the exception standard for diversions.

## **5. Overview of reporting and database of Withdrawals, Consumptive Uses & Diversions.**

Ohio has required the registration and annual reporting of water withdrawals and permitted diversions since 1990, including the location and source of the withdrawal or diversion and the purpose for which it is used. Monthly withdrawal data for each well and/or surface water intake is reported annually. Monthly diversion data for registered diversions has also been reported annually, beginning in 2013. Electronic submission is not available. Data are entered and stored in MS Access format, and can be queried as needed by the Division staff. Metering is not required; reports based on flow gauging and timing devices are also accepted, and technical assistance in generating water withdrawal and diversion reports is available. Experience has demonstrated that consumptive use quantities cannot generally be accurately measured; instead, consumptive use coefficients are employed. Data described in this section can be obtained from the Division's Water Inventory & Planning Program by calling 614-265-6620 or emailing a request to [DSWC@dnr.state.oh.us](mailto:DSWC@dnr.state.oh.us).

## **6. Attach a copy of the withdrawal application forms.**

Application forms for water diversion permits pursuant to §1522.11 of the ORC and water withdrawal & consumptive use permits pursuant to §1522.12–.13 of the ORC have been developed and are available upon request. The Water Withdrawal Facility Registration and Annual Permit forms, pursuant to §1521.16 of the ORC and Section 4.1 of the Compact, are available online at [water withdrawal facility registration forms](#).

## **7. Summary description of initiatives to support an improved scientific understanding of the waters of the Basin.**

The Division has completed county aquifer yield and pollution potential maps for the entire state, which are available online at [ground water maps](#). The Division has also undertaken river basin water quantity assessments for all the river basins within the Ohio portion of the Great Lakes Basin, which quantify the impacts of water withdrawals (from ground water, Lake Erie, and other surface water sources), consumptive uses, and diversions on streams at various streamflow levels, and provide useful information in estimating individual and cumulative impacts of Basin withdrawals, consumptive uses, and diversions. The water quantity assessments are not available online, but can be obtained from the Division's Water Inventory & Planning Program by calling 614-265-6620 or emailing a request to [DSWC@dnr.state.oh.us](mailto:DSWC@dnr.state.oh.us).

## **8. Additional information.**

Nothing additional.

# STATE OF OHIO

## WATER CONSERVATION & EFFICIENCY PROGRAM REVIEW

(December 8, 2019)

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 Rodney J. Tornes, Chief of the ODNR Division of Water Resources (“the Division”) (phone: 614-265-6737; email: [Rodney.Tornes@dnr.state.oh](mailto:Rodney.Tornes@dnr.state.oh)). An alternative contact is Michael Hallfrisch, Manager of the Division’s Water Inventory & Planning Program (phone: 614-265-6745; email: [Mike.Hallfrisch@dnr.state.oh.us](mailto:Mike.Hallfrisch@dnr.state.oh.us)).

**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 at [water conservation goals & objectives](#).

**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–.40 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. The Emergency Operations Plan-Drought Incident Annex can be viewed online at [Ohio Drought Incident Annex](#).

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	<p>A program to coordinate existing state &amp; local government water conservation programs under the leadership of the Division is underway; existing state &amp; local programs are being inventoried</p> <p>Water management plans have been completed for the Lake Erie Basin watersheds, including water resource inventory &amp; assessment, analysis of water use trends and formulation of water use forecasts, and identification of potential water shortage areas</p>
Adopt and implement supply and demand management to promote efficient use and conservation of water resources	<p>A report has been prepared for the Ohio Lake Erie Commission and ODNR by a study team from the Cleveland State University entitled "Water Resources Shaping Ohio's Future: Water Efficiency Manual for Industrial, Commercial, and Institutional Facilities". The full report can be viewed on the water conservation webpage on ODNR's Compact website at <a href="#">CSU-Full Report</a>; the Technical Report can be viewed at <a href="#">CSU-Technical Report</a>.</p> <p>Programs are being developed that encourage water conservation practices and provide incentives for water users who voluntarily implement strict conservation practices</p>
Improve monitoring and standardize data reporting among state and provincial water conservation & efficiency programs	<p>Water use information for registered withdrawals continues to be collected, analyzed, and reported for the various categories of water use</p> <p>A program is being developed to improve the measurement &amp; evaluation of water conservation practices; identify &amp; encourage programs to monitor, account for, and minimize water loss</p>
Develop science, technology, and research	<p>Opportunities for research &amp; development related to water conservation &amp; efficiency are being investigated that are consistent with the recently updated Science Strategy. The updated Science Strategy will continue to be used as a tool to aid decision making by sharing scientific activities on the local and regional levels. Research &amp; monitoring needs related to the interaction of ground water &amp; surface water are being identified</p> <p>Funding sources are being investigated to identify how recognized modeling programs can be used in water conservation planning</p>
Develop education programs and information sharing for all water users	<p>A water conservation &amp; efficiency education program is being developed to:</p> <p>Develop a website &amp; printed material conveniently accessible to the public containing information on water conservation &amp; efficiency (a water conservation webpage has been placed online on ODNR's Compact <a href="#">Water Conservation &amp; Efficiency Webpage</a>)</p> <p>Project WET (Water Education for Teachers) Educator's workshops were conducted by Ohio EPA. These workshops include water conservation as part of the curriculum.</p> <p>Develop a "Planning Guide for Water Conservation &amp; Efficiency" publication for the various water use sectors.</p>

**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.