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**Great Lakes-St. Lawrence River Water Resources Regional Body
Great Lakes-St. Lawrence River Basin Water Resources Council**

RESOLUTION NO. 2025-1

ADOPTING JOINT DECLARATION OF FINDING

For the Water Management Program Review and
Water Conservation and Efficiency Program Review
State of Illinois

I. BACKGROUND AND PURPOSE

The Compact

A. The Great Lakes-St. Lawrence River Basin Water Resources Compact (“Compact”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin and the Commonwealth of Pennsylvania, and was effective on December 8, 2008.

B. Section 3.4 of the Compact requires each Party State to submit a report to the Great Lakes-St. Lawrence River Basin Water Resources Council (“Compact Council”) and the Great Lakes-St. Lawrence River Water Resources Regional Body (“Regional Body”) on actions taken by that State to meet the provisions of the Agreement and Compact regarding that Party State’s Water management and conservation and efficiency programs.

C. Following the Compact Council’s review of such reports in cooperation with the Provinces pursuant to Section 3.4 of the Compact, the Council shall determine whether that State’s programs (1) meet or exceed the provisions of the Compact; or (2) do not meet the provisions of the Compact and, if not, recommend options to assist the jurisdiction in meeting the provisions of the Compact.

D. Section 4.2 of the Compact requires the Compact Council in cooperation with the Provinces to adopt Basin-wide conservation and efficiency objectives, which were adopted by the Compact Council on December 8, 2008. Section 4.2.2 of the Compact requires each Party State to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a Water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State’s goals and objectives.

E. While certain provisions of the Compact do not apply to the State of Illinois (see Section 4.14 of the Compact), Illinois is subject to the requirements of Section 4.2 of the Compact, entitled “Water Conservation and Efficiency Programs.”

The Agreement

F. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”) is by, between and among the States of Illinois, Indiana, Michigan,

Minnesota, New York, Ohio, and Wisconsin, the Commonwealth of Pennsylvania, the Province of Ontario, and the Government of Québec, and certain provisions of the Agreement began to more fully come into force on March 8, 2015.

G. Article 300 of the Agreement requires each Party State and Province to submit a report to the Regional Body on actions taken by the State or Province to meet the provisions of the Agreement regarding that State's or Province's Water management and conservation and efficiency programs.

H. Following the Regional Body's review of such reports pursuant to Article 300 of the Agreement, the Regional Body shall determine if that State or Province's programs (1) meet or exceed the provisions of the Agreement; (2) do not meet the provisions of the Agreement; or (3) would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement.

I. Article 304, Paragraph 1 of the Agreement requires the Regional Body to identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by December 13, 2007, which were adopted by the Regional Body on December 13, 2007. Article 304, Paragraph 2 of the Agreement requires each Party State and Province to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State's or Province's goals and objectives.

J. While certain provisions of the Agreement do not apply to the State of Illinois, which is governed by the United States Supreme Court Decree in *Wisconsin, et al., v. Illinois, et al.*, Illinois is subject to the requirements of Article 300 of the Agreement, entitled "Water Management Program Review," and Article 304 of the Agreement, entitled "Water Conservation and Efficiency Program."

II. SUBMISSIONS BY STATE OF ILLINOIS

A. To the Compact Council. The Compact Council has received the State of Illinois' report on its Water management and conservation and efficiency programs under the Compact, which is attached to this Resolution as Attachment A.

B. To the Regional Body. The Regional Body has received the State of Illinois' report on its Water management and conservation and efficiency programs under the Agreement, which is attached to this Resolution as Attachment A.

III. DECLARATION OF FINDING

Upon review of the submissions of the State of Illinois, the terms of the Compact and the Agreement, the Compact Council and Regional Body find as follows:

- A. Based on the report submitted by the State of Illinois, the Water Management Program presented by the State of Illinois meets or exceeds the current requirements of the Compact and the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

- B. Based on the report submitted by the State of Illinois, the Water Conservation and Efficiency Program presented by the State of Illinois meets or exceeds the current requirements of the Compact and the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

ATTACHMENT A

Water Management and Conservation and Efficiency Programs—
Report to the Compact Council and Regional Body
Dated December 11, 2024



Five Year Review of Illinois' Water Management and Conservation and Efficiency Programs - Report to the Compact Council and Regional Body

December 11, 2024

Lead Agencies and Contact Person:

Illinois Department of Natural Resources, Office of Water Resources
Loren Wobig, Director
Loren.wobig@illinois.gov

Water Management Program Report

The construction (circa 1900) of the Chicago Area Waterway System (CAWS) resulted in the reversal of the direction of flow of the Chicago and Calumet Rivers away from Lake Michigan. This project created a diverted watershed area of around 673 square miles, leaving a very small (around 75 square miles) area in Illinois that still drains to Lake Michigan. In both the diverted watershed and the watershed that still drains to Lake Michigan in Illinois, Lake Michigan water is the predominant water supply source.

No regional organization, municipality, political subdivision, agency or instrumentality, or any other organization, association or individual desiring to use water from Lake Michigan shall divert or use any such water unless it has previously obtained from the IDNR/OWR a valid allocation permit. In addition, since January 1, 2010, the State Water Survey's water use inventory program has required all high capacity (100,000 gpd or greater) surface intakes and groundwater wells to annually report water withdrawn to the State Water Survey.

Laws and Regulations

A U.S. Supreme Court Decree [Wisconsin v. Illinois, 388 U.S. 426 (1967), as modified, 449 U.S. 48 (1980)] limits Illinois' diversion of Lake Michigan water to an annual average of 3200 cubic feet per second (cfs) or 2.1 billion gallons per day. The Illinois law regulating this diversion is the "LEVEL OF LAKE MICHIGAN ACT" (615 ILCS 50). The Department of Natural Resources, Office of Water Resources (IDNR/OWR) implements this law using its Part 3730 Rules "ALLOCATION OF WATER FROM LAKE MICHIGAN". These rules can be found at <http://www.dnr.illinois.gov/adrules/documents/17-3730.pdf>.

The Illinois State Water Survey (ISWS) operates a surface and groundwater use reporting program. The “WATER USE ACT OF 1983” (525 ILCS 45/1) as amended by Public Act 096-0222, effective January 1, 2010 requires high capacity well owners and high capacity intake owners, defined as a withdrawal in excess of 100,000 gallons per day (gpd) to participate in the State Water Survey’s Water Inventory Program.

Together these two statutes and the programs that implement them ensure that Illinois collects all the water withdrawal and diversion data needed to demonstrate compliance with the water use reporting protocols required under the Compact and Agreement (Compact Section 3.4/Agreement Article 300, and Compact Section 4.3/Agreement Article 301). In addition, the Level of Lake Michigan Act and implementing rules provide the necessary authority to establish a water conservation and efficiency program for all diverters of Lake Michigan water (Compact Sections 4.2(2), 4.2(4) and 4.2(5)/Agreement Article 304). Per Compact Section 4.14/Agreement Article 207(paragraphs 10-14), Compact Sections 4.3, 4.8, 4.9, 4.10, 4.11 and 4.13/Agreement Articles 200, 201, 206, 207 and 208 do not apply to Illinois and its’ water management program.

Allocation Process

Illinois’ Lake Michigan water allocation process consists of the following key elements:

- Applicants evaluate water supply options. Northeastern Illinois has three primary water supply sources – Lake Michigan, deep aquifer groundwater and shallow aquifer groundwater (and very limited other surface water supply). The administrative rules designate applicants who demonstrate that Lake Michigan water is the most cost-effective water supply source as a high priority.
- Evaluate water demands throughout the entire forecast period. This can include the use of a regression equation that utilizes historical water use and three primary variables – population, household size and employment. Applicants also develop their own water demand forecast. The forecast period currently extends out to the year 2050.
- Hold formal allocation hearings for all applicants. This process is administrative in nature, and a formal record is established for all applicants. The IDNR/OWR’s decision is based on the record.
- Allocation permits are based on an annual average use for a given year, along with conditions/requirements that promote efficient use of the Lake Michigan water allocated.
- This process includes provisions for adjustments in water allocations. For most public water supplies, the primary data (population and employment projections) used to develop long-term demand forecasts carries a high degree of uncertainty. The allocation program needs to be flexible to accommodate shifts in water demand as time goes on and conditions change.
- All applicants must submit annual water use audit reports to monitor compliance with allocation limits and track compliance with the Department’s standard on water loss.

Lake Michigan water allocation applicants are divided into the following categories:

- **Category IA** – Applicants whose primary water needs are residential, commercial or industrial and whose future or continued use of Lake Michigan water is the most economical source of supply.
- **Category IB** – Applicants whose primary water demands are residential, commercial and industrial and whose use of Lake Michigan water would reduce regional use of the deep aquifer.
- **Category IIA** – Applicants whose primary water demands are for the minimum flows necessary to meet navigation requirements and minimum discretionary dilution flows necessary to maintain the CAWS in a reasonably satisfactory sanitary condition.
- **Category IIB** – Applicants whose water demands are for the minimum discretionary dilution flows necessary to meet water quality standards in the CAWS.
- **Category III** – Applicants whose water demands do not fall into Categories IA, IB, IIA, or IIB. Category III applicants do not qualify for an allocation of water from Lake Michigan.

In determining priorities within Categories IA and IB, the IDNR/OWR considers the following items:

- Adequacy of supply from sources other than Lake Michigan.
- Economics of alternative supplies.
- For new applicants, priority will be given to allocations for domestic purposes.
- For new applicants, the allocation of Lake Michigan water will be made with the goal of reducing the withdrawals from the Cambrian-Ordovician Aquifer (deep aquifer).

In determining priorities within Categories IIA and IIB, the Department will consider the following items:

- A limitation of 220 cubic feet per second for discretionary dilution for water quality purposes in the CAWS.
- The need to meet navigation requirements in the CAWS.
- The minimum discretionary diversion needed to meet water quality standards in the CAWS in a reasonable satisfactory sanitary condition.

The IDNR/OWR will normally make allocations to meet the full water needs of any category as determined by the Department before any water is allocated to applicants in categories of a lower priority.

In determining the amount of water available for allocations to Categories IA, IB, IIA and IIB, the Department will consider the amount of water that must be reserved for storm water runoff, lockage and leakage and a reserve for future increases in demands and storm water runoff.

Sectors

- 1) **Public Water Supply:** All public water supplies which use Lake Michigan as their water supply are required to have a Lake Michigan water allocation permit, regardless of the amount needed (i.e. there is no minimum threshold). Currently,

there are 217 public water supply systems using Lake Michigan water as their source of supply, serving over 7 million Illinois residents. In Calendar Year 2023, public water supply systems in Illinois withdrew and diverted approximately 780 million gallons per day (mgd).

There are no public water supplies within the Lake Michigan watershed utilizing a groundwater supply. If there were, and they withdrew at least 100,000 gpd, they would be required to report this water use to the ISWS.

- 2) Self-Supply Commercial and Institutional: Like public water supply, any self-supply commercial or institutional user requires a Lake Michigan water allocation permit if they are diverting Lake Michigan water. Currently there is only one active Lake Michigan water allocation permit in this sector, with an average water use of less than 10,000 gpd. There is also a military facility that withdraws and diverts Lake Michigan water (2023 reported use was 1.768 mgd). As a federal facility which directly withdraws Lake Michigan water, they are not covered by the U.S. Supreme Court Decree and are not included as an Illinois diversion.

There was no reported self-supply commercial/institutional users within the Lake Michigan basin that withdraw groundwater.

- 3) Self-Supply Irrigation (Lake): There are no Lake Michigan water allocation permits issued for this water use sector (irrigation water use is not a diversion). The ISWS collects data from one self-supply irrigation water user using Lake Michigan water for irrigation. In 2023 they reported a use of 0 gallons/day.

Self-Supply Irrigation (Ground): The ISWS collects data from two self-supply irrigation water users using ground water from the Lake Michigan Basin for irrigation. In 2023 they reported a total use of 78,000 gallons/day.

- 4) Self-Supply Livestock: There are no self-supplied livestock facilities in the Lake Michigan watershed either utilizing groundwater or Lake Michigan water.
- 5) Self-Supply Industrial: Requires a Lake Michigan water allocation permit if they are diverting Lake Michigan water. There is only 1 permit issued in this sector. They reported a 2023 diversion of 0.535 million gallons per day (mgd).

The ISWS lists 3 industries withdrawing Lake Michigan water for cooling/consumptive use. Total withdrawal in 2023 was 33.700 mgd.

- 6) Self-Supply Thermoelectric Power Production (once through cooling): This water use sector, by definition, does not result in a diversion; hence no Lake Michigan water allocation permit is required. The ISWS data base list includes 3 power facilities that withdraw Lake Michigan water for once-through cooling. One facility is offline from the previous 2019 Program Review. Total withdrawal in 2023 was now 22.530 mgd after a large coal power plant has been decommissioned.
- 7) Self-Supply Thermoelectric Power Production (recirculated cooling): There are no self-supply thermoelectric power production facilities that utilize recirculated cooling in the Lake Michigan watershed.

- 8) Off-Stream Hydroelectric Power Production: There are no off-stream hydroelectric facilities within the Lake Michigan drainage basin in Illinois.
- 9) In-Stream Hydroelectric Power Production: There are no in-stream hydroelectric facilities within the Lake Michigan drainage basin in Illinois.
- 10)
Other: The Metropolitan Water Reclamation District of Greater Chicago has a Lake Michigan water allocation to divert Lake Michigan water to maintain navigation and water quality in the CAWS. Water is diverted into the CAWS at three lakefront locations. In 2022 a total of 179.189 mgd was withdrawn and diverted into the CAWS for these purposes. Water is also diverted into the CAWS to operate two lakefront locks. These locks are operated by the U.S. Army Corps of Engineers and thus don't have a Lake Michigan water allocation permit. However, this water is included in Illinois' allowable diversion. In 2022 the amount of Lake Michigan water diverted to operate the two lakefront locks was 158.055 mgd.

Reporting and Database

All Lake Michigan water allocation permittees are required to submit annual reports (LMO-2 Report) accounting for how Lake Michigan water is used within a public water supply system. In addition, all permittees with an intake structure on Lake Michigan or who are the first Illinois user of water diverted from Lake Michigan outside Illinois must report their water use both annually and monthly (LMO-3 Report) to the IDNR/OWR. The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) submits monthly (LMO-6) reports for Lake Michigan water they divert for maintaining the Sanitary and Ship Canal. The IDNR/OWR maintains a database which stores this information going back to 1989 and has hard copies going back to the 1970s. The IDNR/OWR produces an annual report which summarizes water use by all permittees. This is distributed to all Lake Michigan water allocation holders with an annual newsletter. All pumpage numbers provided on the LMO-2 and LMO-3 reports are metered numbers. The MWRDGC diverts water into the Sanitary and Ship Canal using sluice gates and by opening the Chicago River Controlling Works and the O'Brien Locks. Therefore, the numbers they report on their LMO-6 reports are not metered but calculated.

For many years, the ISWS has maintained a voluntary reporting program for surface and ground water use. On January 1, 2010, that program became mandatory for all surface and groundwater withdrawals averaging 100,000 gallons/day or greater. The ISWS has its information in a database.

Initiatives

The ISWS and the IDNR/OWR have also been involved with the Chicago Metropolitan Agency for Planning in their ongoing work on the "Northeastern Illinois Regional Water Supply Plan".

Water Conservation and Efficiency Program Review

A. Program Legal Basis

The U.S. Supreme Court Decree [Wisconsin v. Illinois, 449 U.S. 48 (1980)] that limits Illinois' diversion of Lake Michigan water also contains language directing Illinois to implement a water conservation program. The Level of Lake Michigan Act [615 ILCS 50] incorporates the Decree language which states that:

“all feasible means reasonably available to the State and its municipalities, political subdivisions, agencies and instrumentalities shall be employed to conserve and manage the water resources of the region and the use of water therein in accordance with the best modern scientific knowledge and engineering practice.” [615 ILCS 50/5)]

This is the operative judicial and statutory language that directs the Illinois Department of Natural Resources (Department) to develop and implement a water management and conservation program covering all permittees of Lake Michigan water.

B. Program Objectives

Illinois' first report to the Compact Council and Regional Body (dated December 8, 2009) reviewed the water conservation requirements that all domestic users of Lake Michigan water must comply with as a condition of receiving a Lake Michigan water allocation permit. In 2010, the Department developed and posted on our website Illinois' Lake Michigan Water Conservation Goals and Objectives, as required by the Compact and the Regional Agreement.

<http://www.dnr.illinois.gov/WaterResources/Pages/LakeMichiganWaterAllocation.aspx>

The Department's water conservation and efficiency program objectives are:

- Enforce the adoption of standards that require the efficient use and conservation of Lake Michigan water by the end user (homeowner, business/industry).
- Establish standards for good water system management and leakage control by the owner/operator of a water supply system.
- Ensure that Lake Michigan water diverted directly into the Chicago Waterway system for various purposes is kept to a minimum.
- Collect water use data annually; monitor changes in water use patterns. Encourage public water supply systems to evaluate the effectiveness of their conservation efforts.
- Prepare and maintain long-term water demand forecasts.
- Promote the adoption of water rate structures that encourage conservation and water efficiency.
- Encourage water suppliers to invest in water infrastructure and the use of innovative technology to improve water systems management.
- Encourage research, development and implementation of water efficient technologies. Develop linkages with organizations such as USEPA's WaterSense Program, the Alliance for Water Efficiency and others, to keep abreast of the latest conservation technologies.
- Inform, educate and increase awareness regarding water use, conservation and efficiency via newsletters and other such means of communication.
- Work with our Lake Michigan water allocation permittees and our Great Lakes basin partners to enhance information sharing.

C. Program Activity – Updated Administrative Rules

On November 18, 2014 the Department's updated Part 3730 administrative rules "ALLOCATION OF WATER FROM LAKE MICHIGAN" took effect.

The updated Lake Michigan water allocation rules will improve Illinois' water conservation and efficiency program. Here is a very brief summary of the substantive changes to the rules.

- Since 1977 the Department has had an 'Unaccounted-For-Flow' standard for all domestic Lake Michigan water supplies. This standard will be replaced with a 'Non-Revenue Water' standard, which will allow public water supplies to utilize the water audit methodology recommended by the American Water Works Association (AWWA M36 water audit methodology), and to better track the value of water loss.
- Water systems not in compliance with the non-revenue standard will be required to prepare and submit a water system improvement plan.
- Local/Municipal plumbing codes/ordinances will be updated to require that new and replacement plumbing fixtures be a labeled WaterSense product.
- The classification system has been revised so that a water applicant that utilizes deep aquifer groundwater is a higher priority use than the use of water from Lake Michigan to meet navigation requirements and minimum discretionary dilution flows necessary to maintain the CAWS in a reasonably satisfactory sanitary condition.
- Additional guidelines for lawn sprinkling have also been included, as well as recommendations for sub-metering in new multi-family building construction where practicable and feasible and setting water rates to reflect full cost pricing.

D. Program Activity – Develop Linkages with other Conservation Organizations

Over the past 5 years the Department's has developed several new partnerships with other groups/organizations to further our water conservation program efforts. These include:

- Becoming a USEPA 'WaterSense Partner' and updating our rules to require the use of 'Water Sense' labeled plumbing fixtures in our standard for water efficient plumbing fixtures.
- Working with regional organizations such as the Chicago Metropolitan Agency for Planning, the Northwest Water Planning Alliance, the Northeastern Illinois Regional Water Supply Planning Group, the Center for Neighborhood Technology and the Metropolitan Planning Council to further our outreach to communities in the areas of water supply planning, drought management, water loss control and sustainable water resource management.
- Work with the AWWA - Illinois Section to develop and hold water loss control workshops in Northeast Illinois.

E. Program Activity – Water Rate Survey

The Department recommends that Lake Michigan water providers adopt water rate structures that 1) are based on metered water use, 2) discourage excessive water use,

and 3) reflect the full cost of water, including the long-term cost to properly maintain and operate the water supply distribution system in such a manner as to keep system losses to a minimum.

Our long-term practice has been to undertake a water rate survey of all Lake Michigan water providers every 5 years. Our last water rate survey was published in 2020. Our next 5-year water rate survey will be in 2025.

F. Program Activity – Water Use and Water Loss Monitoring

Throughout the last 5 years we have continued to collect, analyze and regulate the reported water loss of all our domestic Lake Michigan water suppliers. In Water Year 2015 (October 1, 2014 – September 30, 2015) the Department modified its LMO-2 form to reflect the AWWA's Water Loss Audit Software which measures water loss in the form of Non-Revenue Water (NRW). Since Water Year (WY) 2015 the Department's regulatory threshold for NRW to Water Supplied is 12%, reducing to 10% in WY 2019. All Category IA and IB permittees that exceed the Department's NRW threshold are required to submit a Water System Improvement Plan that outlines actions the permittee plans to undertake, along with a timeframe, to reduce NRW to less than the Department's threshold. In WY 2022 about 43% of permittees had a percent NRW at or above 10%.

G. Program Activity – Control of Direct Diversion into Chicago Waterway System

The total amount of Lake Michigan water diverted into the Chicago Waterway System for discretionary diversion and navigation makeup flow was 186.29 cubic feet per second (cfs) in water year 2022. At the end of the 2022 water year, the five-year running average of these two components of direct diversion stands at 190.786, or 64.124 cfs below the combined allocation (255 cfs) for these two components of direct diversion. The Metropolitan Water Reclamation District of Greater Chicago (MWRD) holds the Lake Michigan water allocation for both discretionary diversion and navigation makeup.

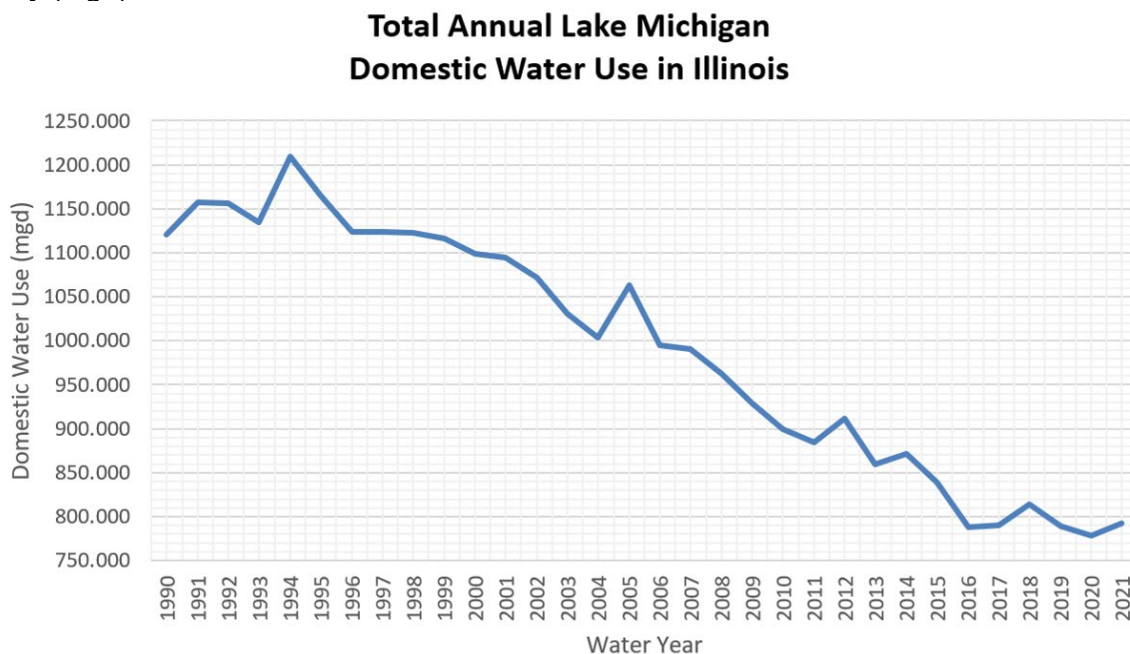
The other primary use of Lake Michigan water diverted directly into the Chicago Waterway System is to operate the navigation locks at the mouth of the Chicago River and on the Calumet River. Both lock facilities are operated and maintained by the U.S. Army Corps of Engineers. Illinois does not have any control over the amount of water diverted for lockage or for leakage through these structures, although this water is included in the accounting for Illinois' diversion under the U.S. Supreme Court Decree. Lake Michigan water levels have a significant impact on the amount of water diverted for the operation of the navigation locks.

H. Project Activity – Status of Water Demand Forecasts and Water Use

In 2023, the Department completed a comprehensive water reallocation for all our water supply permittees. As part of this reallocation, water demand forecasts for each year, out to the year 2050, were developed and ultimately included in the Department's updated Lake Michigan water reallocations. A primary reason for this long timeframe is to ensure that the Department's water allocation program is sustainable over the foreseeable future and will continue to keep Illinois' total diversion below the authorized U.S. Supreme Court Decree limit of 3200 cfs. This re-allocation will help the Department and its permittees better conserve and monitor water usage for the coming decades.

Over the last 5 years, the Department has issued a total of nine new requests for Lake Michigan water allocations.

Water use summaries for the 2010 through 2017 Water Years are on our website: <http://www.dnr.illinois.gov/WaterResources/Pages/LakeMichiganWaterAllocation.aspx>. This information was obtained from the Annual Water Use Audit Reports (LMO-2). In Water Year 2022 total domestic Lake Michigan water use was 785.66 million gallons per day (mgd).



This table clearly shows the long-term decline in total domestic use of Lake Michigan water. While the drought years of 1994, 2005 and 2012 are clearly visible, this downward trend in water use that has occurred over the last 20 years is significant, a 330 mgd reduction since 1992. In 2023 the annual precipitation was 33.73 inches, approximately 1 inch less than 2022 figures.

I. Project Activity - Water Infrastructure

The City of Chicago provides potable water to more than 100 suburban communities and more than 5.4 million people. continued to pursue several initiatives to upgrade their

water, wastewater and stormwater infrastructure. In 2020 the City of Chicago reported the installation of new ultrasonic meters for installation and has had success across the City approximately 15,000 new water meters and proposes to replace an additional 15,000 meters in 2018. Over the next 10 years, the City of Chicago is aiming to replace 900 miles of water main or about 20% of its 4,400 miles of water main, coupled with its lead pipe replacement program

There are many other Lake Michigan communities that have also developed or are working on conservation/sustainability initiatives. The northeastern Illinois region has several organizations, including the ISAWWA (Illinois region) who work with local government to help them become more sustainable. These initiatives are also moving outside the Lake Michigan water service region.

Conclusion

Illinois has had a Lake Michigan water conservation and efficiency program for over 30 years. Our program is consistent with and fully supports the Great Lakes-St. Lawrence River Basin Water Conservation and Efficiency Objectives. The unique nature of Illinois' Lake Michigan water use, and diversion as allowed under a U.S. Supreme Court Decree has resulted in a water conservation and efficiency program that is implemented primarily as a regulatory program, with additional measures, such as conservation pricing, conservation education and information sharing, implemented through a non-regulatory effort.

**Great Lakes-St. Lawrence River Water Resources Regional Body
Great Lakes-St. Lawrence River Basin Water Resources Council**

RESOLUTION NO. 2025-2

ADOPTING JOINT DECLARATION OF FINDING

For the Water Management Program Review and
Water Conservation and Efficiency Program Review
State of Indiana

I. BACKGROUND AND PURPOSE

The Compact

A. The Great Lakes-St. Lawrence River Basin Water Resources Compact (“Compact”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin and the Commonwealth of Pennsylvania, and was effective on December 8, 2008.

B. Section 3.4 of the Compact requires each Party State to submit a report to the Great Lakes-St. Lawrence River Basin Water Resources Council (“Compact Council”) and the Great Lakes-St. Lawrence River Water Resources Regional Body (“Regional Body”) on actions taken by that State to meet the provisions of the Agreement and Compact regarding that Party State’s Water management and conservation and efficiency programs.

C. Following the Compact Council’s review of such reports in cooperation with the Provinces pursuant to Section 3.4 of the Compact, the Council shall determine whether that State’s programs: (1) meet or exceed the provisions of the Compact; or (2) do not meet the provisions of the Compact and, if not, recommend options to assist the jurisdiction in meeting the provisions of the Compact.

D. Section 4.2 of the Compact requires the Compact Council in cooperation with the Provinces to adopt Basin-wide conservation and efficiency objectives, which were adopted by the Compact Council on December 8, 2008. Section 4.2.2 of the Compact requires each Party State to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a Water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State’s goals and objectives.

The Agreement

E. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin, the Commonwealth of Pennsylvania, the Province of Ontario, and the Government of Québec, and certain provisions of the Agreement began to more fully come into force on March 8, 2015.

F. Article 300 of the Agreement requires each Party State and Province to submit a report to the Regional Body on actions taken by the State or Province to meet the provisions of the Agreement regarding that State's or Province's Water management and conservation and efficiency programs.

G. Following the Regional Body's review of such reports pursuant to Article 300 of the Agreement, the Regional Body shall determine if that State or Province's programs: (1) meet or exceed the provisions of the Agreement; (2) do not meet the provisions of the Agreement; or (3) would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement.

H. Article 304, Paragraph 1 of the Agreement requires the Regional Body to identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by December 13, 2007, which were adopted by the Regional Body on December 13, 2007. Article 304, Paragraph 2 of the Agreement requires each Party State and Province to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State's or Province's goals and objectives.

II. SUBMISSIONS BY STATE OF INDIANA

A. To the Compact Council. The Compact Council has received the State of Indiana's report on its Water management and conservation and efficiency programs under the Compact, which is attached to this Resolution as Attachment A.

B. To the Regional Body. The Regional Body has received the State of Indiana's report on its Water management and conservation and efficiency programs under the Agreement, which is attached to this Resolution as Attachment A.

III. DECLARATION OF FINDING

Upon review of the submissions of the State of Indiana, the terms of the Compact and the Agreement, the Compact Council and Regional Body find as follows:

- A. Based on the report submitted by the State of Indiana, the Water Management Program presented by the State of Indiana meets or exceeds the current requirements of the Compact and the Agreement.
- B. Based on the report submitted by the State of Indiana, the Water Conservation and Efficiency Program presented by the State of Indiana meets or exceeds the current requirements of the Compact and the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

ATTACHMENT A

Water Management and Conservation and Efficiency Programs—
Report to the Compact Council and Regional Body
Dated December 13, 2024

State of Indiana
Water Management Program Review
December 13, 2024

The State of Indiana submits the following Five Year Water Management Program Review to the Regional Body and Compact Council pursuant to the requirements in the Agreement Article 300 and Section 3.4 of the Great Lakes-St. Lawrence River Basin Water Resources Compact. The State of Indiana believes its measures for the management and regulation of new or increased withdrawals and consumptive uses within the Great Lakes Basin are consistent with the Decision Making Standard set forth in Section 4.11 of Indiana's implementation of the Great Lakes Compact under IC 14-25-15.

1) Lead Agency and Contact Persons

Indiana Department of Natural Resources; Ryan Mueller, Deputy Director, IDNR.

2) Water Management Program Implementing Laws, Rules, Regulations and Policies

The following statutory provisions, Rules and Policies will be applicable to the Water Management Program in the State of Indiana:

- Great Lakes-St. Lawrence River Basin Water Resources Compact under [IC 14-25-15](#): The State of Indiana's implementation of the Interstate agreement on the use of water resources in the Great Lakes-St Lawrence River Basin.
- Great Lakes Basin Water Management [Rule 312 IAC 6.2](#): Assists with the implementation of the Great Lakes-St. Lawrence River Basin Water Resources Compact (IC 14-25-15) for the registration and permitting of water withdrawal facilities; a voluntary conservation and efficiency program for water withdrawal facilities; and mandatory conservation and efficiency programs for new and increased withdrawals, diversions and consumptive uses. Rule 312 IAC 6.2 is applicable to the Water Management and Regulation provisions set forth in Article 4 of the Compact.
- Water Resource Management Act under [IC 14-25-7](#): Section 13 requires that an inventory of the water resource in Indiana be conducted and include an assessment of the following: 1) The capabilities of streams to support instream and withdrawal uses and of aquifers to support withdrawal uses; 2) Low stream flow characteristics; 3) Existing uses and projections of beneficial use requirements; 4) The potential in watersheds for managing flood water for beneficial uses; 5) Potential sources and amounts of surplus water for transfers; 6) Other assessment and information considered necessary to properly define water resource availability. Section 14 Allows for the determination and establishment of minimum flows of streams and minimum level of groundwater in aquifers. Section 15 requires that every person who owns a significant water withdrawal facility (SWWF) shall register it within three (3) months after the facility is

completed. A "significant water withdrawal facility" is defined in the act to mean "the water withdrawal facilities of a person that, in the aggregate from all sources and by all methods, has the capability of withdrawing more than one hundred thousand (100,000) gallons of ground water, surface water, or ground and surface water combined in one (1) day". Owners of a SWWF must also report annual water use within three (3) months after the end of each calendar year. Approved methods of measuring the amount of water withdrawn by a SWWF are specified in the [Nonrule Policy Document Information Bulletin #40](#). Water withdrawals from temporary construction dewatering operations must also be reported in accordance with IC 14-25-7. IC 14-25-7 is applicable to the Water Management and Regulation provisions set forth in Sections 4.1 and 4.2 of the Compact.

- Sale of Water under [IC 14-25-2](#) and [Rule 312 IAC 6.3](#): Conservation planning required in application for the sale of water from reservoir financed fully or in part by the State. IC 14-25-2 and 312 IAC 6.3 are applicable to the Water Management and Regulation provisions set forth in Section 4.2 of the Compact.
- Emergency Regulation of Ground Water Rights under [IC 14-25-4](#) and [Rule 312 IAC 12](#): Owners of small capacity water wells are protected against the impacts of high capacity groundwater pumping if it substantially lowers water levels, resulting in the failure of a small capacity well. Restrictions of high capacity pumping can occur when it is believed that discharge exceeds the recharge capability of the source aquifer. IC 14-25-4 and 312 IAC 12 are applicable to the Water Management and Regulation provisions set forth in Section 4.1 of the Compact.
- Emergency Regulation of Surface Water Rights under [IC 14-25-5](#) and [Rule 312 IAC 11.5](#): Freshwater lake owners are protected against the impacts of high capacity pumping if it substantially lowers the level of the freshwater lake, resulting in significant environmental harm to the lake or adjacent property. Restriction of high capacity pumping can be required in order to restore lake level. IC 14-25-5 and 312 IAC 11.5 are applicable to the Water Management and Regulation provisions set forth in Section 4.1 of the Compact.
- Water Well Drillers and Pump Installer Licensing under [IC 25-39](#) and [Rule 312 IAC 13](#): Requires licensing of water well drillers and water well pump installers and the submittal of water well records providing information regarding geology and ground water availability. [Water well records](#) are made available to the public on the IDNR, Division of Water webpage. IC 25-39 and 312 IAC 13 are applicable to the Water Management and Regulation provisions set forth in Section 4.1 of the Compact.
- Indiana's Water Management Policy: Developed by Indiana's Water Shortage Task Force under IC 14-25-14 (since repealed) declaring that *"Indiana's water resources are public goods that generate benefits for all citizens of the State. The wise use of water through environmentally sound and economically feasible water*

management practices is essential to maximize the benefits obtained from water resources and sustain them for future generations. To achieve these goals, Indiana promotes the following:

- 1) Public Education and outreach that identifies appropriate water management practices and water conservation methods;*
- 2) Appropriate water pricing and incentives;*
- 3) Identification and dissemination of water management practices, such as demand and supply analyses, that will increase water use efficiency;*
- 4) The application and sharing of available science and research regarding water management, water conservation, and water use efficiency; and*
- 5) Funding of a water management and water use efficiency program by user fees established by legislative directive.*

The State of Indiana's Water Management Policy is applicable to the Water Management and Regulation provisions set forth in Section 4.2 of the Compact.

3) Summary Description of the State of Indiana's Water Management Program Scope and Thresholds

- Reports on the [Water Resource Availability in the Great Lakes Basin](#) within the State of Indiana (St. Joseph River Basin-1987; Lake Michigan River Basin-1994; Maumee River Basin-1996) have been completed by the IDNR, Division of Water. The reports were completed in accordance with the Water Resource Management Act (IC 14-25-7) requiring that an inventory of the water resource (groundwater and surface water) in Indiana be conducted and include an assessment of the following: 1) The capabilities of streams to support instream and withdrawal uses and of aquifers to support withdrawal uses; 2) Low stream flow characteristics; 3) Existing uses and projections of beneficial use requirements; 4) The potential in watersheds for managing flood water for beneficial uses; 5) Potential sources and amounts of surplus water for transfers; 6) Other assessment and information considered necessary to properly define water resource availability. Section 14 Allows for the determination and establishment of minimum flows of streams and minimum level of groundwater in aquifers.
- [Maps of Unconsolidated and Consolidated Aquifer Systems](#) of all counties located within the Great Lakes Basin in Indiana have been completed by the Department of Natural Resource, Division of Water, and are available on the IDNR webpage.
- [Maps of the Potentiometric Surface of Bedrock and Unconsolidated Aquifers](#) of all counties located in the Great Lakes Basin in Indiana have been completed by the Department of Natural Resources, Division of Water, and are available on the IDNR webpage.

- [Indiana's Water Shortage Plan](#) (updated in 2009 by Water Shortage Task Force) provides an effective and systematic plan to assess and manage the State's water resources during a water shortage or potential water shortage to respond, to the maximum extent practicable, to the needs of its water users while protecting its environment. State of Indiana Water Shortage Plan Implementation Guide completed in 2024 in cooperation with the Indiana Dept. of Homeland Security, Indiana Dept. of Environmental Management and Indiana Dept. of Natural Resources.
- [Significant Water Withdrawal Facilities](#) (SWWF) shall be registered within three (3) months after the facility is completed in accordance with IC 14-25-7. Owners of a SWWF must also report annual water use within three (3) months after the end of each calendar year. Approved methods of measuring the amount of water withdrawn by a SWWF are specified in the Nonrule Policy Document Information Bulletin #40. Water withdrawals from temporary construction dewatering operations must also be reported. Water use data, identified as ground water or surface water, is reported in the following categories:
 - Agricultural and Irrigation (IR)—Crop and golf course irrigation, farm field drainage, agricultural services, etc;
 - Industry (IN)—Process water, cooling water, mineral extraction (except coal), quarry dewatering, waste assimilation;
 - Public Supply (PS)—Public water supply, drinking water and sanitary facilities;
 - Energy Production (EP)—Power generation, cooling water, coal mining, geothermal, oil recovery;
 - Rural Use (RU)—Watering of livestock, barn facilities, fisheries, etc.; and
 - Miscellaneous (MI)—Fire protection, amusement parks, construction dewatering, dust control, pollution abatement, hydrostatic testing, recreational field drainage, etc.
- In accordance with Section 7 of Indiana's implementation of the Great Lakes-St. Lawrence River Basin Water Resources Compact ([IC 14-25-15](#)), a person must obtain a permit from the IDNR for a daily withdrawal in excess of any of the following, calculated on average over any 90 day period: 1) five million (5,000,000) gallons from Lake Michigan surface water; 2) one hundred thousand (100,000) gallons from a salmonid stream; or 3) one million (1,000,000) gallons from any other surface water or groundwater source. Section 8 of the statute provides an exemption from the permit requirements if a withdrawal does not exceed the amount of baseline status determination. Forms for the "Notification of Sale or Transfer Of Baseline Volume Of Significant Water Withdrawal Facility (SWWF) Within the Great Lakes Basin of Indiana" and the "Application For Individual Permit For A New Water Withdrawal Within the Great Lakes Basin of Indiana" were developed by the DNR in 2018 and 2019 and are available online at <https://www.in.gov/dnr/water/division-of-water-forms>.

- [Rule 312 IAC 6.2](#) assists with the implementation of the Great Lakes-St. Lawrence River Basin Water Resources Compact (IC 14-25-15) for the registration and permitting of water withdrawal facilities; a voluntary conservation and efficiency program for water withdrawal facilities; mandatory conservation and efficiency programs for new and increased withdrawals; an exception to the prohibition on diversions for a straddling community, a community within a straddling county, and an intra-basin transfer; and the regulation of consumptive uses.
- 4) Application of the Decision Making and Exception Standards for Withdrawals, Consumptive Uses and Diversions**
- [Rule 312 IAC 6.2](#) assists with the implementation of the Great Lakes-St. Lawrence River Basin Water Resources Compact (IC 14-25-15) for the registration and permitting of water withdrawal facilities; a voluntary conservation and efficiency program for water withdrawal facilities; mandatory conservation and efficiency programs for new and increased withdrawals; an exception to the prohibition on diversions for a straddling community, a community within a straddling county, and an intra-basin transfer; and the regulation of consumptive uses. Provisions of 312 IAC 6.2 provide for compliance to the Decision Making and Exception Standards specified for new or increased withdrawals and consumptive uses under the Compact.
- 5) Overview of the State of Indiana's Reporting and Database of Withdrawals, Consumptive Uses and Diversions**
- Annual reports of withdrawals are required from the owner of each significant water withdrawal facility (SWWF) in accordance with [IC 14-25-7-15](#). The DNR provides hard copy report forms to each facility previously reporting by hard copy and provides email notification to facilities previously submitting data electronically. Annual water use data must be submitted by March 31st of the following year. Approved methods of measuring withdrawals are specified in NRC Bulletin #40. Upon receipt by hard copy or electronic submittal, annual water use reports are reviewed for accuracy and subsequently entered into a database. Digital data is reviewed by edit reports and corrections are made when necessary. Previous three years of reported SWWF annual water use available for review at [DNR: Significant Water Withdrawal Facility Data](#)
- 6) State of Indiana's Initiatives to Support an Improved Scientific Understanding of the Waters of the Great Lakes Basin**
- [Maps of Unconsolidated and Consolidated Aquifer Systems](#) of all counties located within the Great Lakes Basin in Indiana have been completed by the DNR, Division of Water and are available on the Division of Water's webpage.
 - [Maps of the Potentiometric Surface of Bedrock and Unconsolidated Aquifers](#) of all counties located within the Great Lakes Basin in Indiana have been completed by the DNR, Division of Water and are available on the Division of Water's webpage.

- [Reports on the Water Resource Availability in the Great Lakes Basin](#) within the State of Indiana (St. Joseph River Basin-1987; Lake Michigan River Basin-1994; Maumee River Basin-1996) have been completed by the DNR, Division of Water. The reports were completed in accordance with the Water Resource Management Act (IC 14-25-7) requiring that an inventory of the water resource (groundwater and surface water) in Indiana be conducted and include an assessment of the following: 1) The capabilities of streams to support instream and withdrawal uses and of aquifers to support withdrawal uses; 2) Low stream flow characteristics; 3) Existing uses and projections of beneficial use requirements; 4) The potential in watersheds for managing flood water for beneficial uses; 5) Potential sources and amounts of surplus water for transfers; 6) Other assessment and information considered necessary to properly define water resource availability. Section 14 allows for the determination and establishment of minimum flows of streams and minimum level of groundwater in aquifers.
- [Indiana's Voluntary Monitoring Network](#) (VMN) authorized under HEA 319 in 2015 currently includes 58 ground water monitoring wells throughout the state, and 11 wells located within the Great Lakes Basin in Indiana. The monitoring well network is maintained and operated by the DNR, Division of Water with water level data posted by the USGS. Siting of VMN observation wells is based upon past water rights issues or the potential for groundwater discharge to exceed the recharge capability of the source aquifer.

**Great Lakes-St. Lawrence River Water Resources Regional Body
Great Lakes-St. Lawrence River Basin Water Resources Council**

RESOLUTION NO. 2025-3

ADOPTING JOINT DECLARATION OF FINDING

For the Water Management Program Review and
Water Conservation and Efficiency Program Review
State of Michigan

I. BACKGROUND AND PURPOSE

The Compact

A. The Great Lakes-St. Lawrence River Basin Water Resources Compact (“Compact”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin and the Commonwealth of Pennsylvania, and was effective on December 8, 2008.

B. Section 3.4 of the Compact requires each Party State to submit a report to the Great Lakes-St. Lawrence River Basin Water Resources Council (“Compact Council”) and the Great Lakes-St. Lawrence River Water Resources Regional Body (“Regional Body”) on actions taken by that State to meet the provisions of the Agreement and Compact regarding that Party State’s Water management and conservation and efficiency programs.

C. Following the Compact Council’s review of such reports in cooperation with the Provinces pursuant to Section 3.4 of the Compact, the Council shall determine whether that State’s programs: (1) meet or exceed the provisions of the Compact; or (2) do not meet the provisions of the Compact and, if not, recommend options to assist the jurisdiction in meeting the provisions of the Compact.

D. Section 4.2 of the Compact requires the Compact Council in cooperation with the Provinces to adopt Basin-wide conservation and efficiency objectives, which were adopted by the Compact Council on December 8, 2008. Section 4.2.2 of the Compact requires each Party State to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a Water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State’s goals and objectives.

The Agreement

E. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin, the Commonwealth of Pennsylvania, the Province of Ontario, and the Government of Québec, and certain provisions of the Agreement began to more fully come into force on March 8, 2015.

F. Article 300 of the Agreement requires each Party State and Province to submit a report to the Regional Body on actions taken by the State or Province to meet the provisions of the Agreement regarding that State's or Province's Water management and conservation and efficiency programs.

G. Following the Regional Body's review of such reports pursuant to Article 300 of the Agreement, the Regional Body shall determine if that State or Province's programs: (1) meet or exceed the provisions of the Agreement; (2) do not meet the provisions of the Agreement; or (3) would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement.

H. Article 304, Paragraph 1 of the Agreement requires the Regional Body to identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by December 13, 2007, which were adopted by the Regional Body on December 13, 2007. Article 304, Paragraph 2 of the Agreement requires each Party State and Province to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State's or Province's goals and objectives.

II. SUBMISSIONS BY STATE OF MICHIGAN

A. To the Compact Council. The Compact Council has received the State of Michigan's report on its Water management and conservation and efficiency programs under the Compact, which is attached to this Resolution as Attachment A.

B. To the Regional Body. The Regional Body has received the State of Michigan's report on its Water management and conservation and efficiency programs under the Agreement, which is attached to this Resolution as Attachment A.

III. DECLARATION OF FINDING

Upon review of the submissions of the State of Michigan, the terms of the Compact and the Agreement, the Compact Council and Regional Body find as follows:

- A. Based on the report submitted by the State of Michigan, the Water Management Program presented by the State of Michigan meets or exceeds the current requirements of the Compact and the Agreement.
- B. Based on the report submitted by the State of Michigan, the Water Conservation and Efficiency Program presented by the State of Michigan meets or exceeds the current requirements of the Compact and the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

ATTACHMENT A

Water Management and Conservation and Efficiency Programs—
Report to the Compact Council and Regional Body
Dated December 11, 2024



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
EXECUTIVE OFFICE



PHILLIP D. ROOS
DIRECTOR

December 11, 2024

VIA EMAIL

David Naftzger, Executive Director
Great Lakes St. Lawrence River Basin Water Resources Council
Secretary, Great Lakes St. Lawrence River Water Resources Regional Body
309 E. Rand Road, #167
Arlington Heights, Illinois 60004

Dear Mr. Naftzger:

SUBJECT: 2024 Five-Year Program Review Report

On behalf of the State of Michigan, enclosed is the 2024 Five-Year Program Review Report 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 and in Article 300 of the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement. Please note that these reports are subject to revision and update during the Compact Council and Regional Body program review process.

If you have any questions, please do not hesitate to contact me.

Sincerely,

James Clift
Deputy Director

Enclosure

cc: Peter Johnson, Conference of the Great Lakes St. Lawrence
Governors and Premiers
Phillip D. Roos, Director, EGLE
Emily Finnell, Great Lakes Senior Advisor and Strategist, EGLE
Jim Milne, EGLE

State of Michigan
Great Lakes-St. Lawrence River Basin Water Resources Compact
2024 Five-Year Program Review Report

This report fulfills the State of Michigan's obligation under Section 3.4 of the Great Lakes-St. Lawrence River Basin Water Resources Compact (Compact), and under Article 300 of the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (Agreement).

General Information

1. Lead agency/agencies, contact person(s), and contact information.

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) is the lead agency responsible for Michigan's water management and water conservation and efficiency programs.

Compact Contact: James Clift, Deputy Director, Executive Office;
517-284-6871, CliftJ@Michigan.gov.

Program Contact: James F. Milne, Supervisor, Water Use Assessment Unit,
Groundwater and Geological Services Section, Geologic Resources Management
Division; 517-285-3253, MilneJ@Michigan.gov.

2. Laws, statutes, rules, regulations, executive orders, administrative orders, or other similarly enforceable documents that establish or implement programs meeting the requirements of the Compact.

The Compact is enacted into law in Michigan under Part 342, Great Lakes St. Lawrence River Basin Water Resources Compact, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

Additional legislation enabling specific aspects of Michigan's water management and water conservation and efficiency programs is enacted in:

- Part 327, Great Lakes Preservation, of the NREPA, 1994 PA 451, as amended;
- The Safe Drinking Water Act, 1976 PA 399, as amended; and
- The Safe Drinking Water Act Administrative Rules.

Specific provisions from the Compact and Agreement for water management and water conservation and efficiency program elements and their corresponding legal citations are provided below:

- a. Compact Section 3.4/Agreement Article 300.**
Michigan Compiled Laws (MCL) 324.34201

- b. Compact Section 4.1/Agreement Article 301.**
MCL 324.34201, 324.32702, 324.32705, 324.32707, 324.32708, 324.32710, 325.1004, Michigan Administrative Rules 325.11502, 325.11504
 - c. Compact Sections 4.2(2), 4.2(4) and 4.2(5)/Agreement Article 304.**
MCL 324.34201, 324.32707, 324.32708a, 324.32723, 325.1004
 - d. Compact Section 4.3/Agreement Article 200.**
MCL 324.34201, 324.32704a, 324.32705, 324.32706a-e, 324.32723, 325.1004
 - e. Compact Section 4.8, 4.9 and 4.13/Agreement Articles 200, 201, and 208.**
MCL 324.34201, 324.32701, 324.32702, 324.32703, 324.32703a, 324.32704, 324.32704a, 324.32727
 - f. Compact Section 4.10/Agreement Article 206.**
MCL 324.34201, 324.32704a, 324.32705, 324.32706a-e, 324.32723, 325.1004
 - g. Compact Section 4.11/Agreement Article 207.**
MCL 324.34201, 324.32723
- 3. Major changes from Michigan's 2019 Five-Year Program Review Report.**
No changes since 2019.

Water Management Program Report

1. Water management program scope and thresholds.

Michigan's Water Use Program was established in 2008 to ensure Michigan continues to meet its obligations under the Compact and the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement. The program uses an online assessment tool to estimate the impact of proposed withdrawal by modelling the relationships between groundwater withdrawals, nearby stream flows, and fish populations. The purpose of the Water Use Program is to help Michigan fulfill its duty under MCL 324.32702 to effectively manage the waters of the state for the use and enjoyment of present and future residents and for the protection of the environment.

Michigan's water management program includes registration and water use reporting requirements for virtually all large quantity withdrawals¹ (LQWs), as well as an authorization process for new or increased LQWs which requires that an environmental impact standard must be met prior to registration.²

LQWs include all water withdrawals with the capacity to withdraw over 100,000 gallons per day (gpd) average in any consecutive 30-day period.³ New or increased LQWs > 100,000 gpd that cannot be authorized by the on-line Water Withdrawal Assessment Tool must be authorized by a site-specific review or an alternative analysis of the proposed LQW.⁴ New or increased LQWs > 2,000,000 gpd (2 MGD) require a permit.⁵ Exceptions to the registration and reporting requirements include

¹ MCL 324.32705, 324.32707, 324.32708, 324.32723

² MCL 324.32706

³ MCL 324.32701

⁴ MCL 324.32706c

⁵ MCL 324.32723

LQWs undertaken for groundwater contamination remediation, small residential properties, and hydroelectric power generation.⁶

Registered LQW facilities annually report their monthly withdrawal volumes, consumptive use, and return flow discharge information on forms provided by EGLE or the Michigan Department of Agriculture and Rural Development (MDARD).⁷ Before new or increased LQWs can begin operating, they must be authorized based on an assessment of their predicted, cumulative impact along with other new LQWs to nearby river or stream flows. Large quantity withdrawals that are likely to exceed this environmental standard are restricted to a lesser amount, or they may be prohibited in order to protect local streamflow.⁸ Michigan's management of withdrawals and water resources at the sub-watershed level ensures the protection of the waters of the Great Lakes Basin.

The [Water Use Advisory Council](#) (WUAC), established under Part 328, Aquifer Protection, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), continues to play an integral part of the program as it provides a platform for raising water withdrawal related issues and establishes an integrated framework of roles and responsibilities for all stakeholders in managing Michigan's water resources. This framework creates opportunities for the public, university researchers, industry professionals, advocacy groups, and other interested parties to be involved and to work directly with state agency personnel to set policy and shape the program's direction. This promotes better understanding and cooperation to the benefit of the program, and results in shared investment in the management and sustainability of Michigan's streams, lakes, wetlands, and groundwater.

2. Management of Water Withdrawals by:

- a. Sector (public water supply, commercial and institutional, irrigation, livestock, industrial, electric power production (once-through and recirculated cooling), hydroelectric power production (off-stream and in-stream), voluntary, and other);**

With the exception of hydroelectric power generation, LQWs in all the above-mentioned water use sectors are subject to the Michigan water management program. Off-stream and in-stream hydroelectric water uses are exempt from management under Michigan law.⁹ All sectors are managed in essentially the same way, and the specific sector of water use is captured in the annual water use reporting.

- b. Water source (groundwater, Great Lakes-St. Lawrence River surface water, and other surface water);**

⁶ MCL 324.32727

⁷ MCL 324.32707, 324.32708

⁸ MCL 324.32706

⁹ MCL 324.32727

Large quantity withdrawals from all water sources including groundwater, the Great Lakes and their connecting waters, and other surface water are subject to the Michigan water management program. The specific water source is captured in the annual water use reporting. New LQWs are assessed based on the environmental impact to their source if they are from the Great Lakes or other surface water, or to nearby rivers or streams if the source is groundwater.¹⁰

c. Quantity (regulatory thresholds, volumes, rates, and reporting requirements);

The Michigan water management program regulates the quantity, volume, and/or rate of new or increased LQWs by tracking their cumulative impact to river and stream flows at a sub-watershed scale, or to fish populations or other uses of the lake for a direct withdrawal from a lake. The environmental impact standard is scaled to the size of the impacted stream or river and is dependent on its ecological classification. The regulatory limits are, therefore, variable across sub-watersheds¹¹ but are all based on the capacity of each system to support withdrawals. When the cumulative impact to a sub-watershed reaches the environmental impact standard limit, new or increased LQWs are restricted to a lesser amount, or they may be prohibited in order to preserve the local water resources.¹² Large quantity withdrawals that withdraw less than 1,500,000 gallons of water in a given year are not required to report specific water use volumes, but they are required to file an annual report stating the water usage was less than 1,500,000 gallons.¹³

d. Location (Statewide/Province-wide or Great Lakes-St. Lawrence River Basin);

The Michigan water management program applies statewide.

e. Any specific exemptions as allowed in the Agreement and the Compact.

Michigan law includes exemptions from its water management program for LQWs undertaken for groundwater contamination remediation, small residential properties, and hydroelectric power generation.¹⁴ Large quantity withdrawals utilized solely for fire suppression are exempt from the environmental impact standard, but they are required to register and report their annual water use.¹⁵

3. Application of the Standard of Review and Decision.

a. Decision Making Standard for Withdrawals and Consumptive Uses.

¹⁰ MCL 324.32706, 324.32723, 325.1004

¹¹ MCL 324.32701

¹² MCL 324.32706b, 324.32723

¹³ MCL 324.32707

¹⁴ MCL 324.32727

¹⁵ MCL 324.32721

MCL 324.32723: The Michigan water management program applies the Compact's Standard of Review and Decision to all new or increased withdrawals greater than two million gallons per day (MGD) capacity. An application for these withdrawals requires each criterion of the Decision-Making Standard to be addressed by the applicant and is evaluated by EGLE during the application review. Most criteria are evaluated on a scientific basis, with the exception of 4.11.5.c (the balance between economic development, social development, and environmental protection for the existing and proposed LQWs). For this criterion some deference is granted to the weight of public comments received on the proposed withdrawal to aid in EGLE's evaluation.

In addition to the Compact's Standard of Review and Decision, EGLE must also determine whether permit applications are reasonable under Michigan's common law for water uses. Michigan uses the "reasonable use balancing test" that evaluates: the purpose of the proposed use; the suitability of the proposed use to the location; the extent and amount of harm caused by the proposed use; the extent, duration, necessity, and application of the use, including any effects on the quantity, quality, and level of the water; and any other factor relevant under the circumstances of the particular case.

Large quantity withdrawals subject to Michigan's water management program, but less than two MGD capacity are required to meet an environmental impact standard. They are not evaluated by the Decision-Making Standard criteria.

b. Exception Standard for Diversions.

MCL 324.32701: The Michigan water management program applies the Exception Standard and evaluates each criterion for any proposed Diversion. Under Michigan law, a diversion does not include the supply of ballast for vessels; use in a noncommercial project on a short-term basis for firefighting, humanitarian, or emergency response purposes; a transfer of water from a Great Lakes watershed to the watershed of its connecting waterways; or a transfer of water out of the Great Lakes Basin in a container 5.7 gallons or less.

4. Reporting and database of Withdrawals, Consumptive Uses, and Diversions.

Michigan's water management program requires annual water use reporting for virtually all LQWs. Separate databases of withdrawals, consumptive uses, and diversions are maintained by the agencies responsible for each branch of the Michigan water management program: EGLE's Community Water Supply Program for public water supplies, MDARD for agricultural water uses, and EGLE's Water Use Program for all other LQWs. Most large quantity withdrawal owners submit annual reports directly to EGLE's or MDARD's databases using an online reporting system, while a limited number of withdrawal owners instead utilize forms provided by the agencies. EGLE's Water Use Program staff compiles the annual water use reporting data for community water supplies, agricultural water uses, and all other water uses under EGLE's jurisdiction and submits the annual water use data to the Great Lakes Commission and others upon request. All methods of measurement of water use volumes are approved, as are acceptable estimation methods in lieu of a

measurement device. A separate database is also maintained by the EGLE's Water Use Program to track the cumulative impact of new or increased LQWs relative to the environmental impact standard for each sub-watershed in the state.¹⁶

Regional notice is only required under the Compact when a proposed consumptive use (or the consumptive use portion of a proposed LQW) exceeds five million gallons per day (five MGD).

5. Withdrawal application forms.

Michigan's water management program utilizes an online application, the Water Withdrawal Assessment Tool (WWAT) to process all applications for new or increased LQWs up to two MGD capacity. Also, MCL 324.32706c provides for a site-specific review by EGLE or an alternative analysis of the proposed withdrawal submitted by a qualified hydrologist or hydrogeologist for any proposed withdrawals that cannot be authorized by the WWAT. A water withdrawal permit is required for new or increased LQWs greater than two MGD capacity. Information about all withdrawal application avenues can be found at <https://www.michigan.gov/wateruse>.

6. Initiatives to support an improved scientific understanding of the Waters of the Basin and an improved understanding of the groundwater of the Basin and the role of groundwater in Basin water resource management.

a. WUAC Recommendations.

The WUAC reports biennially to the Michigan Legislature, EGLE, MDARD, and the Michigan Department of Natural Resources (DNR). The WUAC will release its latest biennial report in December 2024. The first [biennial report](#) to the Legislature was released in December 2020 and its second biennial report in December 2022. The Council's recommendations have the potential to advance and improve data collection, modeling, research, and refine administration of the water withdrawal assessment process and Michigan's water conservation and efficiency program. Michigan's Quality of Life Agencies (EGLE, MDARD, and DNR) prioritize the recommendations in the Water Use Advisory Council's biennial reports and are implementing key recommendations with funding appropriated by the Michigan Legislature.

b. Temperature Logging Sensor Studies and Research to Water Withdrawal on Fish Communities.

The DNR, Fisheries Division, deploys temperature loggers to study stream temperatures and conducts fish population surveys in Michigan's lakes and streams. The DNR, through its Partnership for Ecosystem Research and Management (PERM) with Michigan State University (MSU), supports studies to evaluate the impacts of climate and the effects of cumulative withdrawal in a stream network. The project, titled "*Improving Michigan's Water Withdrawal Assessment Tool (WWAT)*," has the following objectives: 1) Conduct

¹⁶ MCL 324.32706e

downstream accounting research; and 2) Evaluate streamflow depletion effects downstream through a stream network. The research is funded by the DNR, and by the United States Geological Survey (USGS) through the Institute for Water Research. Work in 2023 focused on characterizing changes in stream flow over time and associating patterns in stream flow with patterns in precipitation for select watersheds. Michigan's legislature appropriated funding to implement the 2024 WUAC recommendations, which includes funding for downstream streamflow accounting and depletion research.

c. USGS Monitoring Partnerships.

EGLE and the USGS have a joint funding agreement for operating stream gages and monitoring wells, as well as collecting miscellaneous stream flow measurements. Recent USGS work focused on characterizing changes in stream flow over time and associating patterns in stream flow with patterns in precipitation for select watersheds. EGLE and the USGS have joint funding agreements for operating stream gages and monitoring wells, as well as collecting miscellaneous stream flow measurements. Michigan's Legislature appropriated additional funding to provide continued long-term funding for stream gages, miscellaneous flow measurements, and monitoring wells. USGS staff members from the Ohio-Kentucky-Indiana and the Upper Midwest Water Science Centers are developing a groundwater model for the Michindoh Aquifer (a glacial aquifer underlying portions of Michigan, Indiana, and Ohio). EGLE Remediation and Redevelopment Division, Geological Services Section, drilled five vertically nested monitoring wells at two different locations in Hillsdale County, Michigan, within the predicted zone of influence for AquaBounty's well field in Pioneer, Ohio. The USGS installed transducers in the monitoring wells to record groundwater elevation data. EGLE's Geologic Resources Management Division (GRMD) may use additional funding sources to drill additional vertically nested monitoring wells at a third location in Michigan within AquaBounty's predicted zone of influence. That drilling would not happen until 2025.

EGLE received a grant from USGS to become a new data provider to the USGS' National Ground Water Monitoring Network (NGWMN). This is a two-year grant where EGLE will identify unimpacted monitoring wells that will be added to the NGWMN, create links between EGLE's groundwater database(s) and the NGWMN, and collect groundwater elevation data.

d. Groundwater Modeling Study

EGLE Water Resources Division (WRD) staff are reviewing available data to identify depleted watersheds where EGLE WRD staff can create their own groundwater models.

e. Geologic and Groundwater Research

The \$3.0 million appropriation from 2022 has given the Michigan Geological Survey (MGS) the ability to hire and/or contract 15 staff and develop a comprehensive mapping program. The annual funding is used to leverage 50%

matching USGS federal mapping funds and provide the staff to complete and publish the maps. The new mapping products published using the latest technological advances and tools provide improved information that communities, stakeholders, policymakers, and others can use to make decisions about resource use, management, and protection. More specifically, selected areas have been mapped in three dimensions (3D), providing detailed subsurface geology associated with MGS drilling results to assess water and other natural resources providing a new understanding of geological resources and discovery of previously unidentified groundwater resources.

In collaboration with EGLE and DNR, high-priority counties have been identified for mapping. In 2024, the MGS focused on Muskegon County, in addition to drilling in Allegan County. Barry, Cass, Calhoun and Ottawa Counties mapped in 2022 and 2023. The Allegan County effort has involved participating on the Allegan County Groundwater Work Group, which aims at developing a countywide Source Water Protection Program. New wells have been drilled and incorporated into the monitoring network, focusing on high-growth areas to monitor water levels, with plans to include these wells in the NGWMN.

The MGS is also collaborating with the DNR on a \$5 million, five-year project to map sands and gravels across Michigan. These materials are valuable resources for infrastructure, construction, and other uses. The identification of sand and gravel deposits also plays a critical role in groundwater protection, as these areas often have increased permeability, which can allow contaminants to more easily reach source water aquifers. This project will help improve the understanding of Michigan's subsurface and contribute to both economic development and environmental protection.

In 2024, the high-resolution geologic maps for Allegan, Ottawa, and Kalamazoo Counties were made available for public use. These maps are accessible to all citizens and come with technical reports that present additional data on groundwater gradients, depth to bedrock, water well locations, and the source of water—whether bedrock or glacial. The reports also highlight potential sand and gravel resources near surface materials. The MGS has compiled this information using well borings, drill cores, and roto sonic holes, with most drilling extending from the surface to bedrock. Monitoring wells equipped with dataloggers to measure water levels have been installed in select drill holes in Ottawa and Allegan counties to observe the groundwater system and provide the data to the NGWMN.

MGS continues to actively engage with citizens, stakeholders, and Michigan state agencies through presentations and outreach to identify areas or regions that require reliable geologic data to support natural resource management. The Muskegon County mapping project is a key focus, along with the identification of future drilling locations in Kent and Montcalm counties. Other areas of the state are being reviewed to assess the need for geologic data in support of scientific decisions.

The MGS is also collaborating with the DNR and the U.S. Forest Service to map a location on Forest Service land near Peacock, Michigan, with a focus on identifying aggregate resources. In terms of public engagement, the MGS has expanded its outreach efforts through a series of YouTube videos explaining geologic areas of interest in Michigan. These videos cover topics such as drilling operations, water resources, and introductory geology lessons specific to the state. Since launching the channel, the MGS has reached nearly 50,000 users, and it will continue to produce and release new content to inform and engage the public. User feedback is encouraged to help guide future content.

The discovery of per- and polyfluoroalkyl substances (PFAS) at various locations across Michigan has necessitated expedited geologic and aquifer mapping. The MGS was contracted by the Michigan PFAS Action Response Team (MPART) to assist with these efforts. As part of this contract, MGS has prepared geologic and aquifer mapping packages for over 30 PFAS sites and compiled well data for more than 40 sites. Additionally, MGS has worked to correct and complete digital records in Wellogig, the state's well drilling record database which accounts for the largest source of geologic and groundwater point data with over one million well records. MGS has corrected or inputted over 870,000 well records as of December 2024.

Water Conservation and Efficiency Program Report

1. Water conservation and efficiency goals and objectives.

Michigan adopted goals and objectives consistent with the basin-wide conservation and efficiency goals and objectives set forth in Section 4.2(1) of the Compact on December 8, 2010 (Appendix 1). These goals and objectives were developed by the former Water Resources Conservation Advisory Council, a stakeholder forum of executive and legislative appointees that was established for collaborative study, evaluation, and advisement for Michigan's water management and water conservation and efficiency programs. Michigan's water conservation and efficiency goals and objectives continue to be met through the water conservation and efficiency program that was initiated with the adoption of the Compact.

The WUAC plays an integral part in Michigan's water management and water conservation and efficiency program. The WUAC collaboratively studies, evaluates, and provides advice regarding Michigan's water management, conservation, and efficiency programs. It also assists on technical issues, implementation, and monitoring overall progress of Michigan's water use and water conservation and efficiency program. This process promotes better understanding and cooperation to the benefit of the program and results in shared investment in the management and sustainability of Michigan's streams, lakes, wetlands, and groundwater.

Michigan's water conservation and efficiency goals and objectives continue to be met through the program that was initiated with the adoption of the Compact. Public comments on how to enhance Michigan's water conservation and efficiency program are being addressed through the proceedings of the WUAC and its committees.

Michigan continues to implement the [Michigan Water Strategy](#), an all-inclusive vision and blueprint to ensure Michigan's water resources continue to support healthy ecosystems, communities, and economies for current and future generations. Current state policy initiatives are focused on climate, energy, and water infrastructure investments which have resulted in more opportunities to guide programs toward sustainable water use. In addition, EGLE continues efforts with an interagency workgroup to create a collaborative strategy for statewide Great Lakes education and outreach programming focused on water stewardship. Appendix 2 provides a full list of water conservation and efficiency recommendations from the Water Strategy, as well as a link to the WUAC water conservation and efficiency recommendations.

2. Water Conservation and Efficiency Program Overview.

Michigan's water conservation and efficiency program is founded on the water withdrawal assessment requirement that applies to all new or increased large quantity withdrawals (LQWs).¹⁷ The assessment process evaluates proposed water withdrawals relative to environmental impact standards set for conserving and protecting the water resources of the Great Lakes Basin. The likely resource impacts of a proposed withdrawal must meet the environmental impact standard and be authorized by EGLE before the withdrawal can begin.¹⁸ Large quantity withdrawals are cumulatively tracked and accounted for against the environmental standard at a sub-watershed scale, ensuring that the water resources of the basin are conserved even at a small scale.

Michigan's water conservation and efficiency program goes beyond the assessment process to comprise a comprehensive program of water use management. This program establishes an integrated framework of roles and responsibilities for private and public water users and governmental agencies in managing Michigan's water resources. Further, this framework creates opportunities for involvement by the public (e.g., local committees and volunteer efforts such as stream monitoring); universities (e.g., research and technical assistance); and other interested parties resulting in a latticework of shared investment in the sustainability of Michigan's lakes, streams, and groundwater.

In conjunction with annual water use reporting that is required for LQW, owners are required to review water conservation measures applicable to their water use sector. Implementation of conservation measures is voluntary.¹⁹ In sub-watersheds that are approaching the environmental impact standard, as a condition of approval an applicant must implement the water conservation measures they deem to be reasonable.²⁰ As a condition for approval of applications with a capacity greater than

¹⁷ MCL 324.32705

¹⁸ MCL 324.32706, 324.32723

¹⁹ MCL 324.32707, 324.32708

²⁰ MCL 324.32706c, 325.1004

two MGD, the applicant must comply with sector or withdrawal-based water conservation measures.²¹

3. Water conservation and efficiency program consistency with regional objectives, and promotion of Environmentally Sound and Economically Feasible Water Conservation Measures.

a. Guide programs toward long-term, sustainable water use.

Michigan continues to guide programs toward long-term water sustainability through the implementation of its water withdrawal assessment program. Michigan's LQW assessment process, environmental impact standard, and cumulative impact tracking system have effected significant changes in the planning and development of LQWs. This process has driven the integration of long-term sustainable water use concepts into water management decisions and has raised the awareness of water use and resource impact implications. The LQW assessment process is designed to be adaptive and able to respond to changing environmental conditions. Additional hydrologic data is continually being collected and combined with refined models to inform LQW assessment methods and policies to support better decision making and ensure long-term sustainable water use.

Additionally, the WUAC works collaboratively to continuously assess and improve the program based on new science, data, advancements in modeling and new technology. The WUAC created the Water Conservation and Efficiency Committee (WCEC) as a standing committee under the WUAC. The WCEC advises and makes recommendations to the WUAC on opportunities to improve and enhance Michigan's water conservation and efficiency program and support sustainable water use. The WCEC is working with state, academic, industry, and utility partners on projects and programs that advance water conservation and efficiency within Michigan's water sectors through best practices, improve public education on Great Lakes water conservation; accounting and measuring water and energy savings from water infrastructure improvements; and building public private partnerships with energy utilities to promote technical assistance and residential programs.

As part of the recommendations included in the WUAC 2020 biennial report, EGLE's Office of the Great Lakes (OGL) awarded a grant for a project to identify innovations and technological advancements in water conservation best practices that can benefit Michigan's water sectors. The project is ongoing, led by the Alliance for Water Efficiency, and is working on summarizing existing Michigan water sectors' processes to review and/or change water conservation best management practices (BMPs). The project includes research on technological advancements in water sector water

²¹ MCL 324.32723

conservation BMPs and their impacts within the business and industry sectors in other Great Lakes states and provinces and other innovative jurisdictions. This grant is co-funded by the Michigan Great Lakes Protection Fund (MGLPF) and funding appropriated by the Michigan Legislature to EGLE through the American Rescue Plan Act to support implementation of the 2020 WUAC recommendations.

In addition, EGLE is building more capacity to deliver existing education programs and trainings on water efficiency for the agricultural sector including animal industries. Funding appropriated by the Michigan's Legislature to support implementation of the 2020 WUAC recommendations is providing support for two educators that were hired in 2024 through a contract between EGLE, MDARD, and Michigan State University Extension. The Legislature appropriated funds to implement the 2022 WUAC recommendations in the Fiscal Year 2024 budget. EGLE management is currently identifying funding priorities to address the 2020 WUAC recommendations.

EGLE is utilizing the Michigan Clean Diesel Program to replace diesel equipment, vehicles, and engines with zero tailpipe emission, hybrid, or alternative fuel vehicles, engines, or equipment. One of the types of equipment targeted are diesel agricultural irrigation pumps. Pumps replaced as part of this program will deliver carbon emissions reductions and improve efficiency of water usage.

Current state policy initiatives are focused on climate, energy, and water infrastructure investments which have resulted in more opportunities to guide programs toward sustainable water use. Efforts are ongoing by many actors across the state to implement Michigan's Water Strategy, the 30-year roadmap to ensure the viability and sustainability of Michigan's water resources for current and future generations. For example, in 2022, EGLE formed an interagency work group to develop a concept for creating a collaborative statewide Great Lakes education and outreach program focused on water stewardship. The group continued its work in 2023 and sought input from external partners delivering on-the-ground programming to refine the program concept and funding opportunity to address highest priority needs. Creation of a statewide education and outreach program on water conservation was also recommended in the WUAC's December 12, 2014, report.

b. Adopt and implement supply and demand management to promote efficient use and conservation of water resources.

EGLE works with many water users and industry contractors through the assessment process on an individual basis to help implement withdrawals in an efficient manner that reduces the impact to water resources.²² This assessment process incorporates both supply-side management of the water resources using a specialized database that tracks cumulative impact of

²² MCL 324.32708, 324.32708a

withdrawals at the sub-watershed level, and demand-side management by notifying all affected water users when withdrawal limits begin to be approached in an area. Michigan's common law reasonable use doctrine is the legal foundation underlying the assessment process, and also promotes the conservation and efficient use of water in its own way when conveying to water users that water is a shared, finite resource under this doctrine. Users are encouraged to conserve up front, rather than when required to in the event of a conflict situation when supplies are limited or overtaxed. The LQW assessment process is designed to be adaptive and able to respond to changing environmental conditions.

c. Improve monitoring and standardize data reporting within water conservation and efficiency programs.

EGLE and MDARD collect annual water use reporting which includes reporting of water conservation and efficiency best practices. Some water use sectors (e.g., industry, public water supply) have better capabilities for accurate water use reporting since they meter their withdrawals and discharges. Measurement and evaluation of water conservation and water use efficiency, and changes over time, remain difficult to track from an agency perspective based on water use reporting data alone. Ongoing improvements to electronic data collection systems and databases and use of new tools are resulting in better consistency in water use data collection, and a better ability to identify trends in water use and account for variability. EGLE compliance staff continue to work on a case-by-case basis with property owners, well drillers, consultants, and other interested parties to bring newly discovered unauthorized LQWs and other violations of Part 327 into compliance.

State and federal agencies, research institutions, and stakeholders continue to assess available groundwater data and develop strategies for effective data integration to advance coordinated water monitoring programs and improve decision making. EGLE has prioritized investments in staff and resources to improve its technology and database management. Currently, data has been collected and is frequently compartmentalized to meet the needs of narrowly defined programs. Therefore, existing data is found in many locations and formats. Typically, the data is housed by categories of surface water (quantity and quality), groundwater (water levels, aquifer properties, and quality), geologic data (stratigraphy), climate data (precipitation, temperature, and evapotranspiration).

EGLE and the Michigan Department of Technology, Management, and Budget (DTMB) hired EarthSoft as its contractor to adapt its Environmental Quality Information System (EQulS) database for EGLE's new Groundwater Data Management System. EGLE and DTMB staff are meeting on an ongoing basis with EarthSoft's EQulS development team. This will be a multi-phase project that will take several years to complete. The initial phases will include uploading data that is already in electronic format. Hard copy data will have to be scanned and uploaded in subsequent phases. Initial phases will focus on groundwater data, but future phases will expand to include other

environmental media (e.g., soils, surface water, sediment). The data management system will accept data submitted by both EGLE staff and external users (e.g., consultants, regulated parties, researchers). The EQuIS system will be linked to a Geographic Information System (GIS) environment to display data, as well as to external databases (e.g., EPA, USGS) so that EGLE can pull data directly from EQuIS for its use in reporting to federal agencies (e.g., Environmental Protection Agency, EPA; United States Geological Survey, USGS).

The WUAC's recommendation to create an Integrated Water Management Database (MIWMD) is being implemented. The purpose of the MIWMD would be to increase the effectiveness and efficiency of all water related programs in Michigan by making all these data easily accessible and in a common geospatial format. The MIWMD will eventually be incorporated into the EQuIS data management system. The MIWMD project was combined with the Michigan Hydrologic Framework (MHF) project into a single grant project that is being administered by Michigan State University.

The MHF will facilitate the creation of models to support statewide sustainable water management of both surface water and groundwater. The MHF recognizes the critical importance of accessing a wide range of water-related data. The MHF will be linked to the EGLE Groundwater Data Management System. Michigan State University, with the USGS Upper Midwest Water Science Center as its subcontractor, is administering the MHF project.

The WUAC recommendations are consistent with Michigan's Water Strategy, which also includes a recommendation to create a coordinated strategy for groundwater data collection, including a data management system. Such data is a critical measurement and indicator of the effects of water use and the effects of water conservation and efficiency practices. The Michigan legislature appropriated \$1.2 million in Fiscal Year 2025 to support implementation of new recommendations included in the 2022 WUAC biennial report.

Other efforts to improve data collection include the work of the Michigan Infrastructure Council and the Michigan Water Asset Management Council. Both Councils were created in statute to develop and direct implementation of a statewide strategy to standardize and streamline data collection, storage, and analysis related to infrastructure. EGLE provided financial support for asset management planning for water utilities through grants under its Drinking Water Asset Management program from 2020 to 2023. EGLE also provided support with the Stormwater, Asset Management, and Wastewater Program (SAW) grants and technical assistance, which ended in 2020.

d. Develop science, technology, and research.

Michigan is actively developing science, technology, and research on an ongoing basis through the efforts of various projects by state, federal, and academic institutions. Significant investments have been made as funding is

available to further these developments. The WUAC convenes scientific and policy discussions amongst stakeholders and technical experts to evaluate Michigan's water management and water conservation and efficiency programs and to identify where improvements could be made.

Michigan is funding several research projects in high water use areas to better understand the groundwater-surface water interaction. This data will be used to improve the assessment and forecasting of new water uses' impact on the resource through increased use of site-specific data and more localized regional models. Increasing and improving the quality of data is imperative to effectively promote proactive conservation and efficient use to water users before shortage issues occur. The initiatives undertaken to support a scientific understanding of the Waters of the Basin and an improved understanding of the groundwater of the Basin and the role of groundwater in Basin water resource management, as part of Michigan's Water Management Program, develop new science to support this section of the Water Conservation and Efficiency Program.

The Michigan Great Lakes Protection Fund exists as a dedicated funding program to support research to improve scientific understanding of Great Lakes issues. The fund is administered by the Michigan Office of the Great Lakes.

e. Develop education programs and information sharing for all water users.

Michigan has several new and ongoing outreach and education programs that provide information about water conservation and efficiency and promote water stewardship principles and practices. Efforts are also ongoing to promote water stewardship through effective statewide communication strategies to improve the public's understanding of their impact on water resources and actions and behaviors that support responsible water use.

Presentations, Conferences, Webinars, and Trainings.

EGLE and MDARD staff make educational presentations at meetings and various conferences as well as share information upon request, to a variety of interested parties. The WUAC and its subcommittee meetings are open to the public and provide educational opportunities and information sharing for water users and water managers about Michigan's ongoing program implementation. Meeting notes and informational materials from the WUAC proceedings are posted on an EGLE webpage.

EGLE continues to increase public awareness of water use information and access to data by publishing additional water use data online, holding public information meetings, and utilizing various media outlets. In addition, EGLE provides webinars, conferences, training, and information for businesses and industry to support enhanced water conservation and efficiency.

Outreach for Agricultural Irrigators.

MSU Extension convenes meetings and on-site trainings around the state with agricultural water users to share information about conservation practices for irrigation.

Fix a Leak Week.

EGLE's Office of the Clean Water Public Advocate promotes the United States Environmental Protection Agency's (USEPA) Fix a Leak Week each March. Fixing leaks can save money, energy, and reduce health risks for individuals and communities. During this week, EGLE encourages Michiganders to find and fix household leaks, shares educational and how-to materials, and promotes water conservation resources available to Michigan residents.

Source Water Protection and Drinking Water Conference.

EGLE hosted a webinar series on Source Water Protection topics in partnership with Michigan State University's Institute of Water Research and Michigan Rural Water Association (MRWA). The series titled "Drinking Water: Protecting MI Source," hosted three webinars as of October 2023. The series kicked off on May 23, 2023, with a presentation titled "Healthy Forests Protect Drinking Water" featuring the Forests to MI Faucet Michigan Department of Natural Resources initiative discussing how this program promotes clean source water. The second webinar in the series, "Drops of Resilience: Empowering Communities through Source Water Plans," featuring MRWA's Source Water Protection Specialist presenting on the development and implementation of source water protection plans. The third webinar hosted to date, "Blooming Waters: Understanding Harmful Algal Blooms and Safe Drinking Water," featured EGLE's Water Resources and Drinking Water and Environmental Health divisions' experts on cyanotoxins and sampling efforts around the state to identify them in the source water at community water supplies across Michigan. The events have been attended by steadily increasing audiences of more than 300 attendees by community water supplies, watershed organizations, local public health staff, consultants, the public and others to learn more about important topics related to source water protection. Future webinars will continue to feature current and relevant topics with case studies and examples of how source water programs are working in other states.

Building on the success of the 2023 Source Water Protection webinar series and to commemorate the 50th anniversary of the Safe Drinking Water Act, EGLE hosted the Great Lakes Drinking Water Conference in September 2024. This event aimed to showcase the achievements and challenges of the past 50 years while looking ahead to the possibilities of the next half-century. Conference participants heard presentations of case studies, research, and lessons learned in areas such as source water protection, drinking water

system operations, and the vision for the next 50 years to protect and enhance drinking water quality for future generations.

Michigan Water School.

MSU Institute of Water Research, MSU Extension, and Michigan Sea Grant continue to offer the Michigan Water School now available in an online module series. This program is focused on educating local appointed and elected officials and staff about critical, relevant information needed to understand Michigan's water resources to support sound water management decisions. The program includes modules on water quantity, water quality, water finance and planning, and water policy issues. Topics covered include the Blue Economy, fiscal benefits of water management, incorporating water into local planning and placemaking, resources to help address water problems, water policy at the federal, tribal, state, and local levels.

From Students to Stewards Initiative.

In 2020, EGLE launched an initiative to integrate water literacy principles in K-12 school curriculum, in partnership with the Michigan Departments of Labor and Economic Opportunity, Education, and Natural Resources, along with numerous community partners. This effort, called the From Students to Stewards Initiative, is intended to develop a life-long culture of stewardship by integrating Great Lakes and freshwater literacy principles into standards-based school curricula through place-based, authentic-experience approaches to improve stewardship behavior and provide an engaging context to motivate school performance. This initiative will teach STEM concepts using place-based, problem-based, and project-based approaches with a focus on Great Lakes literacy principles to foster the next generation of water stewards, leaders, skilled workers, and decision makers needed to solve complex water issues in a changing world. Six Michigan school districts participated in Phase 1 of the program to integrate water literacy principles and place-based education into school curricula and their continuous improvement plans. The program includes a toolkit and roadmap that other schools can use to develop their own Great Lakes-based curriculum to cultivate the next generation of water stewards.

EGLE secured additional funding from the USEPA Great Lakes Restoration Initiative (GLRI) to implement Phase 2 of the From Students to Stewards Initiative in the 2022 and 2023 academic years. Phase 2 supported grants to 16 schools; interaction between Phase 1 and 2 cohorts, and additional program evaluation. A total of 22 schools have participated in the program.

EGLE received additional GLRI funding to implement Phase 3 of the From Students to Stewards Initiative in 2024 and 2025. The project will extend learning beyond the classroom by providing a funding opportunity for student-

led, community-based water stewardship projects that address local issues; by developing and sharing a comprehensive freshwater education program database that connects teachers, classrooms, and partners to educational programming, community resources, and water-focused career pathways; and by providing funding to cover field trip travel expenses for hands-on Great Lakes learning experiences on and around bodies of water in Michigan.

Great Lakes Fresh Water Week.

EGLE and its partners host an annual Great Lakes and Fresh Water Week to celebrate Michigan's water resources, encourage Michigan residents to experience water resources, become educated about water resources, and take action to become water stewards. Recent efforts have also focused on becoming water champions, water conservation, connections between water and wellness, the importance of water and Manoomin to tribes, and building the water workforce.

Water Conservation Webinar.

EGLE hosted a webinar about in-home water conservation in August 2023. The webinar featured presentations about the USEPA's Water Sense program, indoor water fixtures, home irrigation and water-efficient landscaping, especially in the context of climate change.

EGLE Classroom.

EGLE helps educators, youth, and families access resources they need to learn about Michigan's environment, EGLE's work to protect it, and what they can do to participate in that work through EGLE Classroom. Operated by EGLE's Environmental Education program, EGLE Classroom provides Michigan-based environmental curriculum, free hands-on resources to classrooms, professional development opportunities for educators, and video lessons on Michigan's environment and environmental careers. EGLE Classroom also administers the Michigan Green Schools certification program and hosts an annual Earth Day educational event. To view EGLE's environmental education opportunities or to borrow a hands-on activity from the [Environmental Education Lending Station](https://www.michigan.gov/EGLEclassroom), visit [Michigan.gov/EGLEclassroom](https://www.michigan.gov/EGLEclassroom) and follow #EGLEClassroom on social media.

Integrated Assessments for Sustainability.

EGLE's Sustainability Section provides a variety of on-site, direct assistance services to help businesses and communities meet their sustainability goals. Benefits of the integrated assessments include an increase of efficiencies and cost savings, elimination/minimization of waste streams, conservation of energy and water resources, and mitigation of risks and the potential for noncompliance.

EGLE also holds a Sustainability Webinar series promoting sustainability practices targeted toward businesses and industries in the water sector. EGLE has reinstated its program formerly known as RETAP (Retired Engineer Technical Assistance Program) with a new program called Retired Engineers, Scientists, Technicians, Administrators, Researchers, and Teachers (RESTART). RESTART provides assistance to institutions, government agencies and businesses with 500 or fewer full-time employees with on-site energy and sustainability assessments.

Forest to Mi Faucet.

The DNR has launched an initiative called Forest to Mi Faucet to showcase connections between forests and drinking water. The DNR Forest Stewardship Program is leading twenty partners in connecting conservation groups to municipal water utilities and educating woodland owners about the relationships between forests and drinking water. Forest to Mi Faucet will plant 80,000 trees to maintain or enhance water quality benefits in urban and rural areas.

The project builds on the federal Forests to Faucets 2.0 analysis of priority watersheds for protecting surface drinking water. The analysis, detailed [in an interactive story map](#), identifies watersheds with potential for forest protection or restoration.

Forest to Mi Faucet has six components:

1. Help 15+ municipal water utilities implement their source water protection plans.
2. Protect forests in important watersheds through conservation easements, nature preserves, etc.
3. Manage forests better with forest certification and Master Loggers using best management practices.
4. Expand forests by planting trees in strategic urban and rural riparian zones to reduce pollution runoff. Partners have planted 61,000 trees in the first two years.
5. Ecological restoration of forests for water quality with prescribed fire and reducing invasive species.
6. Educate landowners and the public about connections between forests and their drinking water.

The goal of Forest to Mi Faucet is to build the foundation for a program to provide payment for ecosystem services where forest owners are compensated for practices that provide clean water. Forest to Mi Faucet is funded by United States Department of Agriculture, Forest Service. All partners are equal opportunity providers and employers. More information is at Michigan.gov/ForestToMiFaucet.

4. Water conservation and efficiency program implementation timeline and status.

All components of Michigan's water conservation and efficiency program have been implemented. The foundation of the program, the water withdrawal assessment process, has been fully in effect since July 2009. Sector-based water conservation measures have been developed and are in use. Additional state funding resources have recently been allocated to bolster program areas of need. From the beginning, it has been acknowledged that the program would continually adapt and that the staff would be open to changes necessary for improvement and enhancement. Michigan has shown strong commitment to this forward-looking approach and seeks to remain vigilant for the betterment of the program and to uphold the ideals of the Compact.

APPENDIX 1: MICHIGAN WATER CONSERVATION AND EFFICIENCY PROGRAM

Water Conservation and Efficiency Goals and Objectives

Goals

1. Ensuring improvement of the waters and water dependent natural resources.
2. Protecting and restoring the hydrologic and ecosystem integrity of the Basin;
3. Retaining the quantity of surface water and groundwater in the Basin;
4. Ensuring sustainable use of waters of the Basin; and,
5. Promoting the efficiency of use and reducing losses and waste of water.

Objectives

1. Utilize Michigan's Water Use Program and Water Withdrawal Assessment Process to guide long-term sustainable water use.
 - a. The programs will be adaptive, goal-based, accountable, and measurable.
 - b. Continue to develop and implement programs openly and collaboratively with local stakeholders, Tribes and First Nations, governments, and the public.
 - c. Prepare and maintain long-term water demand forecasts.
 - d. Develop long-term strategies that incorporate water conservation and efficient water use practices.
 - e. Review and build upon existing planning efforts by considering practices and experiences from other jurisdictions.
2. Adopt and implement supply and demand management to promote efficient use and conservation of water resources.
 - a. Maximize water use efficiency and minimize waste of water.
 - b. Promote appropriate innovative technology for water reuse.
 - c. Conserve and manage existing water supplies to prevent or delay the demand for and development of additional supplies.
 - d. Provide incentives to encourage efficient water use and conservation.
 - e. Consider water conservation and efficiency in the review of proposed new or increased uses.

- f. Promote investment in and maintenance of efficient water infrastructure.
- 3. Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs.
 - a. Improve the measurement and evaluation of water conservation and water use efficiency.
 - b. Encourage measures to monitor, account for, and minimize water loss.
 - c. Track and report program progress and effectiveness.
- 4. Develop science, technology, and research.
 - a. Encourage the identification and sharing of innovative management practices and state of the art technologies.
 - b. Encourage research, development, and implementation of water use and efficiency and water conservation technologies.
 - c. Seek a greater understanding of traditional knowledge and practices of Basin First Nations and Tribes.
 - d. Strengthen scientific understanding of the linkages between water conservation practices and ecological responses.
- 5. Develop education programs and information sharing for all water users.
 - a. Ensure equitable public access to water conservation and efficiency tools and information.
 - b. Inform, educate, and increase awareness regarding water use, conservation, and efficiency and the importance of water.
 - c. Promote the cost-saving aspect of water conservation and efficiency for both short- and long-term economic sustainability.
 - d. Share conservation and efficiency experiences, including successes and lessons learned across the Basin.
 - e. Enhance and contribute to regional information sharing.
 - f. Encourage and increase training opportunities in collaboration with professional or other organizations to increase water conservation and efficiency practices and technological applications.
 - g. Ensure that conservation programs are transparent, and that information is readily available.

- h. Aid in the development and dissemination of sector-based best management practices and results achieved.
- i. Seek opportunities for the sharing of traditional knowledge and practices of Basin First Nations and Tribes.

APPENDIX 2: WATER CONSERVATION AND EFFICIENCY RECOMMENDATIONS FROM MICHIGAN'S WATER STRATEGY

Goal 1: Michigan citizens are stewards of clean water and healthy aquatic ecosystems.

Recommendations:

1-2: The State, working with stakeholders, will develop a public outreach campaign that highlights stewardship practices and encourages actions that sustain water resources.

Goal 2: Michigan's aquatic ecosystems are healthy and functional.

Recommendations:

2-8: Incorporate planning for wet weather extremes, droughts, and increased seasonal variability of precipitation into state, regional, and community planning to mitigate impacts to ecological, economic, social, and cultural resources.

2-11: The State, working with tribal governments and stakeholders, will establish new partnerships to develop innovative strategies to enhance wetland restoration and green infrastructure efforts in Michigan. The Tribes will work with the State to elevate the recognition, protection, and restoration of native wild rice stands throughout the state.

2-14: Refine and improve the water withdrawal assessment process and model to ensure sustainable use of water resources and that high priority is given to incorporating existing and new data to better represent local and regional water resources and surface water/groundwater interactions.

2-15: Provide technical and financial support to communities and their partners to plan and implement green infrastructure techniques and low-impact development while preserving natural spaces that contribute to water quality, including application of these techniques in the design of new developments, redevelopments, and road projects to ensure storm water management, improved hydrology, and overall water quality.

2-16: Modernize road and highway planning and infrastructure and integrate with watershed planning to effectively accommodate storm water runoff and infiltration needs, thereby reducing the costs and impacts of flooding.

2-17: Enhance financial and technical support of local stakeholder efforts to develop and implement watershed management plans to restore impaired waters, protect high quality waters, and develop and utilize local water resource assets.

Goal 3: Michigan communities use water as a strategic asset for community and economic development.

Recommendations:

3-1: Emphasize water resources as assets in state, regional, and community planning efforts to provide appropriate, sustainable protection and to fully leverage community-based economic opportunities.

Goal 5: Michigan has a strategic focus on water technology and innovation to grow sustainable water-based economies.

Recommendations:

5-3: Establish voluntary water efficiency targets for all major water sectors to reduce water use impacts and costs.

5-4: Promote innovative technologies that reduce cost and water loss or convert waste products to usable materials.

5-5: Develop a water conservation and reuse strategy for the State, local governments, and public and private facilities that incorporates the use of green infrastructure, grey water systems, and energy production that includes recognition programs.

5-6: Fund a pilot project, through a competitive bid process, for the initiation and evaluation of a new model for wastewater management. This pilot program will assess the opportunities and barriers to creating a “Water Resources Utility of the Future” focused on:

- Reclaiming and reusing water
- Extracting and finding commercial uses for nutrients and other constituents
- Capturing waste heat and latent energy in biosolids and liquid streams
- Generating renewable energy using its land and other assets
- Using green infrastructure to manage storm water and improve urban quality of life

5-7: Define measures of agriculture water conservation and establish voluntary targets for utilizing best management practices (BMPs) that reflect conformance with the Irrigation Water Use Generally Accepted Agricultural and Management Practices in areas of existing or potential water stress.

5-8: Enhance voluntary water conservation measures through technology and outreach for agriculture to optimize water use while reducing impacts and costs.

Goal 8: Michigan has integrated outcome-based monitoring systems that support critical water-based decisions.

Recommendations:

8-1: Develop a coordinated, comprehensive monitoring strategy for groundwater quantity and quality, including a data management system.

8-2: Secure a long-term, sustainable funding source for groundwater and surface water quality and quantity monitoring that is continually improved with new technologies.

8-3: Implement a pilot decision-support framework that includes monitoring, data and information, and analytical tools. This framework will assess ecological, economic, social, and cultural values and outcomes at local and regional watershed scales.

Goal 9: Michigan has the governance tools to address water challenges and provide clean water and healthy aquatic ecosystems.

Recommendations:

9-3: Uphold the Great Lakes Compact and Agreement by actively participating in the Great Lakes-St. Lawrence River Regional Body and Great Lakes-St. Lawrence River Compact Council including financial support of these entities entrusted to govern the Compact and Agreement.

9-4: State and Tribal governments will meet on an ongoing basis to discuss and develop strategies to support management of Michigan's shared water resources. The State and Tribal governments will jointly develop agendas reflecting the priorities of all parties involved.

APPENDIX 3: SUMMARY OF PUBLIC OUTREACH ACTIVITIES AND COMMENTS RECEIVED

In addition to the internal contribution and review from Michigan agencies and requirements in compliance with the Compact, EGLE conducted the following activities to include Tribal government perspective and public comments into this five-year review report:

- Distribute draft five-year review report to Michigan federally-recognized Tribes (April 2024).
- Hold preliminary meeting with Tribes to gather early input, explain five-year review process and provide Great Lakes Compact education (May-June 2024).
- Present the report for a 45-day public comment period (July-August 2024).
- Hold Government to Government consultation with Michigan federally-recognized Tribes (September 2024).

Comments received touched on the Compact's role in protecting inland lakes, new water uses and their impacts, the definition of adverse impacts and the Prairie River reclassification.

**Great Lakes-St. Lawrence River Water Resources Regional Body
Great Lakes-St. Lawrence River Basin Water Resources Council**

RESOLUTION NO. 2025-4

ADOPTING JOINT DECLARATION OF FINDING

For the Water Management Program Review and
Water Conservation and Efficiency Program Review
State of Minnesota

I. BACKGROUND AND PURPOSE

The Compact

A. The Great Lakes-St. Lawrence River Basin Water Resources Compact (“Compact”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin and the Commonwealth of Pennsylvania, and was effective on December 8, 2008.

B. Section 3.4 of the Compact requires each Party State to submit a report to the Great Lakes-St. Lawrence River Basin Water Resources Council (“Compact Council”) and the Great Lakes-St. Lawrence River Water Resources Regional Body (“Regional Body”) on actions taken by that State to meet the provisions of the Agreement and Compact regarding that Party State’s Water management and conservation and efficiency programs.

C. Following the Compact Council’s review of such reports in cooperation with the Provinces pursuant to Section 3.4 of the Compact, the Council shall determine whether that State’s programs: (1) meet or exceed the provisions of the Compact; or (2) do not meet the provisions of the Compact and, if not, recommend options to assist the jurisdiction in meeting the provisions of the Compact.

D. Section 4.2 of the Compact requires the Compact Council in cooperation with the Provinces to adopt Basin-wide conservation and efficiency objectives, which were adopted by the Compact Council on December 8, 2008. Section 4.2.2 of the Compact requires each Party State to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a Water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State’s goals and objectives.

The Agreement

E. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin, the Commonwealth of Pennsylvania, the Province of Ontario, and the Government of Québec, and certain provisions of the Agreement began to more fully come into force on March 8, 2015.

F. Article 300 of the Agreement requires each Party State and Province to submit a report to the Regional Body on actions taken by the State or Province to meet the provisions of the Agreement regarding that State's or Province's Water management and conservation and efficiency programs.

G. Following the Regional Body's review of such reports pursuant to Article 300 of the Agreement, the Regional Body shall determine if that State or Province's programs: (1) meet or exceed the provisions of the Agreement; (2) do not meet the provisions of the Agreement; or (3) would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement.

H. Article 304, Paragraph 1 of the Agreement requires the Regional Body to identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by December 13, 2007, which were adopted by the Regional Body on December 13, 2007. Article 304, Paragraph 2 of the Agreement requires each Party State and Province to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State's or Province's goals and objectives.

II. SUBMISSIONS BY STATE OF MINNESOTA

A. To the Compact Council. The Compact Council has received the State of Minnesota's report on its Water management and conservation and efficiency programs under the Compact, which is attached to this Resolution as Attachment A.

B. To the Regional Body. The Regional Body has received the State of Minnesota's report on its Water management and conservation and efficiency programs under the Agreement, which is attached to this Resolution as Attachment A.

III. DECLARATION OF FINDING

Upon review of the submissions of the State of Minnesota, the terms of the Compact and the Agreement, the Compact Council and Regional Body find as follows:

- A. Based on the report submitted by the State of Minnesota, the Water Management Program presented by the State of Minnesota meets or exceeds the current requirements of the Compact and the Agreement.
- B. Based on the report submitted by the State of Minnesota, the Water Conservation and Efficiency Program presented by the State of Minnesota meets or exceeds the current requirements of the Compact and the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

ATTACHMENT A

Water Management and Conservation and Efficiency Programs—
Report to the Compact Council and Regional Body
Dated December 10, 2024

Minnesota's Great Lakes Water Management Program Five Year Review 2019-2024

GENERAL INFORMATION

1. *Lead agency/agencies and contact person(s) and contact information.*

Minnesota Department of Natural Resources (DNR), [Division of Ecological and Water Resources](#) (EWR)

- Jess Richards, Assistant Commissioner- Ecological and Water Resources and Lands and Minerals
- Randall Doneen, Manager, Conservation Assistance and Regulation Section
- Claudia Hochstein, Water Conservation Consultant

2. *Identify all laws, statutes, rules, regulations, executive orders, administrative orders or other similarly enforceable documents (collectively, "Laws") that establish or implement programs meeting the requirements of the following provisions of the Compact or Agreement.*

- a. Water conservation program required: [Minn. Stat. 103G.101](#)
- b. Statutes guiding water diversion and water appropriation: requiring permits and monitoring; requiring water supply plans for public water suppliers serving over 1,000 people; establishing a statewide drought plan; creating a sustainability standard; and providing for penalties and enforcement: [Minn. Stat. 103G.255-103G.315](#)
- c. Great Lakes- St. Lawrence River Basin Water Resources Compact: [Minn. Stat. 103G.801](#)
- d. Permit, inspection, and monitoring fees: [Minnesota Rules 6115.0010-6115.0120](#)
- e. Water appropriation and use permits: [Minn. Rules 6115.0600-6115.0810](#)

3. *Identify any changes from the 2014 report, highlighting in particular major changes from 2014 throughout the response. If there are no changes, please indicate accordingly.*

Changes include additional research and implementation funds through the Legislative-Citizen Commission for Minnesota Resources and Clean Water Legacy Funds, plans to include more comprehensive water conservation requirements in Water Supply Plans, and a longer record of use and conservation reporting through the Minnesota Conservation Reporting System.

Minn Stat. 103G has been changed since the last report to create sustainable diversion limits, increase summer surcharge fees for water use, and expanded the Minnesota DNR's ability to issue administrative penalty orders for water appropriation permit violations.

WATER MANAGEMENT PROGRAM REPORT

1. Water management

A water appropriation permit from the DNR is required for groundwater and surface water withdrawals that exceed 10,000 gallons per day or one million gallons per year. Those proposing to use groundwater are required to receive preliminary approval from DNR before well construction. Permit requirements apply statewide to all water use sectors. Permit holders annually report monthly water use volumes to the DNR.

2. Describe specifically how Water Withdrawals in the State or Province are managed by:

- a. **Sector:** All water use sectors are subject to water use permitting and annual reporting requirements. Water appropriation permits specify the authorized source of water, withdrawal rates, annual water volumes, allowable uses, and withdrawal exclusion dates. Permit applications are evaluated to determine adequacy of water supplies, natural resource impacts, impacts on other users, and water conservation practices. Permits are permissive only and subject to modification, suspension or termination for violation of permit terms or to protect public interests and natural resources. Self-supply domestic uses for less than 25 persons for general residential purposes and agricultural drainage that does not impact Public Waters are exempt from permit requirements. Permits have not been required for in-stream uses for run-of-the-river hydroelectric power production where the water is not removed from its source.
- b. **Water source:** Permit requirements apply to “waters of the state”, which include surface and underground waters. Applications and permits identify the source of water and the withdrawal location. Separate applications are required for each source of water (groundwater, water basin, watercourse).
- c. **Quantity:** Permits are required for water withdrawals that exceed 10,000 gallons per day or one million gallons per year. Authorized water volumes and withdrawal rates are specified on permits. Permit holders submit an annual report of water use that includes monthly volumes.
- d. **Location:** Water management is a statewide program under the authority of the DNR. Withdrawal proposals are evaluated in accordance with the law, by location and by water source in order to assess individual and cumulative impacts. Permits identify authorized withdrawal locations. [*Minn Stat. 103G.271 subd. 4b.*](#) limits the distance water can be moved from the point of appropriation via bulk transfer (e.g., pipeline, truck, rail-car) to no more than 50 miles for all appropriators other than public water suppliers, who may distribute water up to 100 miles away.
- e. **Specific exemptions as allowed in the Agreement and Compact:** Transportation and emergency use exemptions in the Agreement and Compact are exempt from permit requirements or are covered by a general permit.

3. *Description of how the provisions of the Standard of Review and Decision are applied. The description should include information on how each criterion of the Decision Making Standard and Exception Standard is addressed.*

- a. **Decision Making Standard for Withdrawals, Consumptive Uses:** Statutes and rules cited under General Information, Item 2 define the standards for review and decisions on Water use proposals. All applications must consider alternatives, including conservation, and are evaluated for impacts to natural resources and other water users. Minnesota's existing program and regulations meet or exceed the Standard of Review.
- b. **Exception Standard for Diversions:** Diversions are subject to provisions in the Compact, which has been codified in [Minn. Stat. 103G.801](#) and the provisions in [Minn. Stat. 103G.265](#).

4. *Overview of State/Provincial reporting and database of Withdrawals, Consumptive Uses and Diversions:*

Water appropriation permittees must provide an annual report of their water use, split into monthly water volumes. Failure to report can result in permit termination, so annual compliance is high. The majority of permittees report through the [Minnesota Permitting and Reporting System \(MPARS\)](#), which is an online application.

[Minn. Stat. 103G.281](#) requires any high-capacity appropriator to use a flow meter to measure the quantity of water appropriated within the degree of accuracy required by rule (10%). The statute also allows the DNR to designate other methods for measuring use. Generally, this would be using timing devices and the pump rate of the installation.

Public water suppliers serving over 1,000 people have an additional requirement ([Minn Stat.103G.291](#)) to report water accounting factors including the number of connections and the amount of use by customer category and the volume of "unaccounted" water.

MPARS is also a database where DNR stores the water use information, and data is downloadable from https://www.dnr.state.mn.us/waters/watermgmt_section/appropriations/wateruse.html. MN DNR reports consumptive use data to the Great Lakes Commission using factors that estimate water losses by sector.

5. *Include a web link to the State or Province's Withdrawal application form(s). In addition, include a section on web access to additional information on the program, link to any application forms and links to tools for improving the management of water resources or sharing information about water withdrawals.*

Applications happen in ([MPARS](#)). The following pages include information about MPARS and tools for water resource management:

- MN DNR's Water Conservation webpage, including links to resources for different sectors:

https://www.dnr.state.mn.us/waters/watermgmt_section/appropriations/conservation.html

- Metropolitan Council's Water Conservation Toolbox:
<https://metro council.org/Wastewater-Water/Planning/Water-Supply-Planning/Conservation-and-Efficiency/Toolbox.aspx>
- Minnesota Water Conservation Reporting System:
https://www.dnr.state.mn.us/waters/watermgmt_section/appropriations/water-conservation-reporting-system.html.

[Minnesota Rules 6115.600-6115.0810](#) outline the process and standards for reviewing and approving water appropriation permits.

6. *Summary description of the State's or Province's initiatives to support an improved scientific understanding of the Waters of the Basin and an improved understanding of the groundwater of the Basin and the role of groundwater in Basin water resource management. A description of State or Provincial initiatives or mechanisms to support an improved understanding of individual or cumulative impacts of Withdrawals, Consumptive Uses and Diversions on the Basin ecosystem should also be provided.*

The framework for improved scientific understanding and sustainable management of Minnesota's water resources is centered in three program areas: mapping; monitoring; and managing. DNR has drafted a [strategic plan](#) for improving its groundwater management. The DNR completed three pilot groundwater management area plans, all of which are outside of the Great Lakes Basin. While outside of the basin, the lessons learned from implementation allows the DNR to address groundwater-related management challenges anywhere they may arise in the state.

There are several mining operations within the Basin and along the Basin boundary, and much of the geology has been mapped. Ambient and permit-required monitoring networks provide data on groundwater levels, surface water levels and flows, precipitation, and water use that are used to evaluate individual and cumulative impacts. Statutes and rules provide for the establishment of resource protection limits including, safe yields for groundwater, protection elevations for water basins, and protected flows for watercourses. Water supply plans and permits must address potential resource impacts and are subject to modification.

Potential well owners must request a preliminary well construction assessment from DNR before constructing a well that will need a water use permit. DNR provides information on water resources in the area; the likelihood that their project could receive a water use permit; and resource concerns, additional monitoring, and aquifer testing that they may be required to perform at their expense during the water use permit application process. The potential well owner can then make an informed decision on whether to invest in a well and other equipment.

WATER CONSERVATION AND EFFICIENCY PROGRAM REPORT

1. *Status of the State or Province's Water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives. If developed, include State or Provincial goals and objectives or link to electronic version.*

Minnesota's water conservation goals and objectives are the same as those in the Compact. The goals are codified in [Minn. Stat. 103G.801](#). Minnesota's rules, laws and policies, as outlined in this document, address all of these goals and objectives; however, we continue to develop additional management tools to respond to increasing water resource management challenges and growth in our region.

2. *Water Conservation and Efficiency Program Overview.*

- a. **Citations to State/Provincial Water Conservation and Efficiency Program implementing laws, regulations and policies.**

We cite the laws, regulations, and policies within the summary of the Program. However, *Minn. Stat.* 103G.101 requires the Department of Natural Resources to develop a water resources conservation program for the state. The program must include conservation, allocation, and development of waters of the state for the best interests of the people. Further, the program must guide issuance for use and appropriation of waters of the state.

- b. **Summary description of the State's or Province's Water Conservation and Efficiency Program including what elements are voluntary and mandatory:**

- i. **Mandatory**

- **Permits:** A water appropriation (use or withdrawal) permit is required for all users withdrawing more than 10,000 gallons of water per day or 1 million gallons per year. The efficient use of water is required through the permitting process ([Minn. R., part 6115.0770](#)). Applicants may be required to provide alternatives to proposed actions, including conservation measures to improve water use efficiencies and reduce water demand [[Minn. Stat. 103G.301](#), subd. 1 (b)(3).]
- **Accuracy:** Water users must measure water volumes appropriated within 10% accuracy. Flow meters are required but other methods, such as timers or electrical use meters, can be approved for smaller water users.
- **Demand reduction measures:** Public water suppliers serving more than 1,000 people are required to prepare a [Water Supply Plan](#) every ten years that is approved by the DNR. In these plans, suppliers identify water demand projections, development plans, water sources, and demand reduction and conservation measures. The 2016-2018 plan template has a stronger emphasis on water conservation and efficiency. All Water Supply Plans for public water utilities along Lake Superior and from the inland communities within the basin were due October 15, 2018. We are currently developing the next generation of

water supply plans, which will continue the emphasis on water conservation and efficiency, and provide a clearer set of goals and accountability for public water suppliers.

Low Flow Suspensions: Surface water use can be and has been suspended during low flow periods in Minnesota, to protect downstream water needs and resources. [Published procedures](#) lay out when surface water users will be suspended. The DNR considers suspension of surface water appropriation permits within 81 watersheds when the average daily flow has been at or below Q90 in the respective major watershed Minnesota for 120 hours. Decisions about suspensions consider, but are not limited to, whether the use is consumptive, the priority of the use, and the extent to which the use is contributing to the flow in the watershed. Ecologically-based low flow or water level thresholds can be and have been developed for some surface waters.

ii. Voluntary

- The Water Conservation Reporting system is voluntary, with all municipalities (large and small), commercial, industrial, and institutional, and irrigators and agricultural users asked to report their conservation efforts.
- Most public water suppliers provide water conservation information to customers on their webpage, through newsletters and other outreach and educational materials.
- Cities are encouraged to become U.S. EPA WaterSense Partners.
- *Minnesota Statutes* require demand reduction measures for new public water supply wells or increased water volumes.
- Some local governments have collaborated with private industry to offer water-saving fixtures and other items such as soil moisture sensors.
- *Minnesota Statutes* encourage the reuse of non-consumptive water and the evaluation of reuse options as part of applications for water appropriation permits for dewatering activities.
- On the DNR webpage, public water suppliers and residents are referred to [the water conservation toolbox developed by the Metropolitan Council](#), in cooperation with the DNR, which contains water conservation tips and resources for individual water users and program guidance for public water suppliers.

3. Objectives

For each of the regional objectives, identify how the State/Provincial program is consistent with the regional objective, and a description of how the State or Province promotes Environmentally Sound and Economically Feasible Water Conservation Measures. More details for each objective are available at

http://www.glsregionalbody.org/Docs/Resolutions/GLSLRWRRB_Resolution_6-Conservation-Efficiency.pdf.

OBJECTIVES	LEGISLATIVE OR PROGRAM CITATION
Guide programs toward long-term sustainable water use.	The Minnesota Department of Natural Resources Division of Ecological and Water Resources' 10-year strategic plan includes the goal: "Minnesota water resources will be managed and used sustainably, and the water quality will be improved and protected." Relevant strategies to accomplish our water resources goal include: • Collecting, analyzing and sharing important data on the status and trends of Minnesota's waters and their use to support decision-making, permitting and awareness. • Engaging water users and other stakeholders to address challenges and opportunities in water use, watershed function and impaired waters. • Using a systems-based approach for water management and conservation. • Ensuring our permitting responsibilities are carried out efficiently, effectively and consistently with regulatory authority.
Adopt and implement supply and demand management to promote efficient use and conservation of water resources.	• Public water suppliers serving over 1000 customers must have demand reduction measures including a conservation rate structure or a uniform rate structure with a conservation program that achieves demand reduction. These demand reduction measures are used in the water supply plan review process and determining any approval for increases in appropriation or new water supply wells. • Public water supply authorities must also adopt and enforce conservation restrictions within their jurisdiction to limit lawn sprinkling, vehicle washing, golf course and park irrigation, and other nonessential uses in the event of a critical water deficiency (<i>Minn Stat.</i> 103G.291) • Water supply plans also require public water suppliers serving over 1,000 people to plan for conservation activities, education, and messaging. (<i>Minn Stat.</i> 103G.291) • Permit reviews for new appropriations or amended appropriations require review of conservation activities. Permits include a requirement to use conservation measures. • Between the law and the internal strategic policy, all DNR water appropriations work ensures that permitting, compliance, and technical assistance lead to long-term sustainable water use.

Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs.	Minn. Stat. 103G.281 Subd. 1-3 require water appropriators to measure and keep records of their water use, which they must then report to the DNR each year. The DNR requires reporting through the Minnesota Permitting and Reporting System (MPARS). DNR regularly improves MPARS through work orders. Using MPARS allows Minnesota to require standardized data entry and to retrieve data for reporting to the Compact Council. Within the Lake Superior Basin, the DNR has 32 active stream gages and 23 active DNR observation wells.
Develop science, technology and research.	Multiple state agencies including the Department of Natural Resources, the Pollution Control Agency, and the Board of Natural Resources have continued work to remediate Areas of Concern around the Duluth Harbor. Minnesota's Legislative-Citizen Commission on Minnesota Resources continues to invest in water research affecting the Great Lakes. Topics include climate change, PFAS contamination and removal, microplastics in Lake Superior, surface and groundwater monitoring, groundwater mapping, and other emerging topics. Laws of Minnesota 2024, chapter 83 Laws of Minnesota 2024, chapter 106, article 2 Laws of Minnesota, 2023, chapter 40, article 2 Laws of Minnesota 2023, chapter 60 Laws of Minnesota 2021, 1st Spec. Sess., chapter 1, article 2 Laws of Minnesota 2021, 1st Spec. Sess., chapter 6
Develop education programs and information sharing for all water users.	The DNR provides many opportunities for education and information sharing across the state to help connect Minnesotans to not just the Great Lakes, but all bodies of water across the state. Whether as the lead agency or a partner, the DNR actively works to improve education and outreach in alignment with the Compact objectives. • We are Water MN is the premier water education program for the DNR. A joint effort with the Minnesota Humanities Center, the exhibit deepens connections between the humanities and water. The exhibit travels around the state, creating place-based connections to water and helping individuals, communities, and organizations make more relevant choices about water. • Minnesota Project WET trains classroom and other educators in hands-on, interactive lessons that are focused on water and encourage critical thinking. By providing training, materials,

	and support to these educators, MN Project WET works to improve Minnesotans' understanding of our water resources. Educators from the Basin have participated in these lessons. • The DNR, Minnesota Rural Water Association and other organizations help promote conservation with presentations at workshops and other events. Sources of water conservation information are available through DNR's website. • Minnesota's Lake Superior Coastal Program is a voluntary federal-state partnership dedicated to the comprehensive management of our coastal resources. The Program provides technical and financial resources for local communities in the Lake Superior coastal area. • DNR's website devotes a page for Great Lakes Compact information and links. • The Minnesota DNR is a Promotional Partner in EPA's WaterSense Program, which seeks to promote water efficiency and water efficient products. • The Minnesota Technical Assistance Program (MnTAP) is an outreach program at the University of Minnesota that helps Minnesota businesses develop and implement industry-tailored solutions that prevent pollution at the source, maximize efficient use of resources, and reduce energy use and cost to improve public health and the environment. • The DNR refers water suppliers and water users to the Metropolitan Council website's Water Conservation Toolbox. The toolbox provides tips and resources for residents, businesses, suppliers, communities, and learners. The DNR continues to work with the Metropolitan Council and other partners on water conservation education efforts.

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

The DNR launched the Minnesota Water Conservation Reporting System in January 2018 to encourage water appropriation permittees to identify and implement water conservation and efficiency efforts in their operations. This web-based tool is required for municipal/public water suppliers serving over 1,000 people. It is optional for all other water appropriators. The system allows the DNR to identify trends in conservation and note particularly successful water conservation practices. Municipal users are also able to view reports from other water suppliers to compare or get ideas. Additionally, water accounting measures within the system can alert users or the DNR to a potential leak or other problems in a treatment or distribution system.

Minnesota has a number of water conservation measures that are currently in place and integrated with the water appropriation permit program; we continue to explore ways to expand our water conservation efforts. Public water suppliers serving over 1,000 people must have conservation rate structures. Water supply plans for public water suppliers serving 1,000 people

or more must be updated and approved every ten years, and include plans for demand reduction, conservation practices, and education and outreach. We are in the planning process to develop new and improved water conservation, monitoring and management standards to incorporate into public water supply plans that are due for updates by 2028.

We are also looking for ways to expand support for water supply planning that includes small community public water suppliers, as well as developing incentives for commercial and agricultural water efficiency.

PUBLIC INPUT

The Draft Five-Year Review was available to the other Compact states and posted on the DNR's Great Lakes Compact Council webpage along with contact information for the coordinator and an invitation to provide feedback. The DNR did not receive any feedback on the draft Five-Year Review.

**Great Lakes-St. Lawrence River Water Resources Regional Body
Great Lakes-St. Lawrence River Basin Water Resources Council**

RESOLUTION NO. 2025-5

ADOPTING JOINT DECLARATION OF FINDING

For the Water Management Program Review and
Water Conservation and Efficiency Program Review
State of New York

I. BACKGROUND AND PURPOSE

The Compact

A. The Great Lakes-St. Lawrence River Basin Water Resources Compact (“Compact”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin and the Commonwealth of Pennsylvania, and was effective on December 8, 2008.

B. Section 3.4 of the Compact requires each Party State to submit a report to the Great Lakes-St. Lawrence River Basin Water Resources Council (“Compact Council”) and the Great Lakes-St. Lawrence River Water Resources Regional Body (“Regional Body”) on actions taken by that State to meet the provisions of the Agreement and Compact regarding that Party State’s Water management and conservation and efficiency programs.

C. Following the Compact Council’s review of such reports in cooperation with the Provinces pursuant to Section 3.4 of the Compact, the Council shall determine whether that State’s programs: (1) meet or exceed the provisions of the Compact; or (2) do not meet the provisions of the Compact and, if not, recommend options to assist the jurisdiction in meeting the provisions of the Compact.

D. Section 4.2 of the Compact requires the Compact Council in cooperation with the Provinces to adopt Basin-wide conservation and efficiency objectives, which were adopted by the Compact Council on December 8, 2008. Section 4.2.2 of the Compact requires each Party State to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a Water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State’s goals and objectives.

The Agreement

E. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin, the Commonwealth of Pennsylvania, the Province of Ontario, and the Government of Québec, and certain provisions of the Agreement began to more fully come into force on March 8, 2015.

F. Article 300 of the Agreement requires each Party State and Province to submit a report to the Regional Body on actions taken by the State or Province to meet the provisions of the Agreement regarding that State's or Province's Water management and conservation and efficiency programs.

G. Following the Regional Body's review of such reports pursuant to Article 300 of the Agreement, the Regional Body shall determine if that State or Province's programs: (1) meet or exceed the provisions of the Agreement; (2) do not meet the provisions of the Agreement; or (3) would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement.

H. Article 304, Paragraph 1 of the Agreement requires the Regional Body to identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by December 13, 2007, which were adopted by the Regional Body on December 13, 2007. Article 304, Paragraph 2 of the Agreement requires each Party State and Province to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State's or Province's goals and objectives.

II. SUBMISSIONS BY STATE OF NEW YORK

A. To the Compact Council. The Compact Council has received the State of New York's report on its Water management and conservation and efficiency programs under the Compact, which is attached to this Resolution as Attachment A.

B. To the Regional Body. The Regional Body has received the State of New York's report on its Water management and conservation and efficiency programs under the Agreement, which is attached to this Resolution as Attachment A.

III. DECLARATION OF FINDING

Upon review of the submissions of the State of New York, the terms of the Compact and the Agreement, the Compact Council and Regional Body find as follows:

- A. Based on the report submitted by the State of New York, the Water Management Program presented by the State of New York meets or exceeds the current requirements of the Compact and the Agreement.
- B. Based on the report submitted by the State of New York, the Water Conservation and Efficiency Program presented by the State of New York meets or exceeds the current requirements of the Compact and the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

ATTACHMENT A

Water Management and Conservation and Efficiency Programs—
Report to the Compact Council and Regional Body
Dated November 26, 2024

QUESTIONNAIRE FOR PRELIMINARY SUBMITTALS BY STATES AND PROVINCES

This Questionnaire is provided as a guide to assist the States and Provinces in gathering the information necessary to prepare their Five-Year Reports and to enable the Compact Council and Regional Body to undertake their required review, declaration of findings and recommendations under the Compact and the Agreement.

General Information

1. Lead agency/agencies and contact person(s) and contact information.

Lead agency: NYS Department of Environmental Conservation (NYSDEC)

Contact person(s):

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2. Identify all laws, statutes, rules, regulations, executive orders, administrative orders or other similarly enforceable documents (collectively, “Laws”) that establish or implement programs meeting the requirements of the following provisions of the Compact or Agreement. In particular, ensure that all such citations address the following sections and articles of the Compact and Agreement. Include a brief lay person description for each section of the program and weblink for more information (registration, reporting, diversion, decision making standard for water use permits, water conservation program, science and research, etc.)

Weblinks:

Statute: New York State Environmental Conservation Law (ECL) Article 15 Title 15:
<https://codes.findlaw.com/ny/environmental-conservation-law/>

Regulation: 6 New York Codes Rules and Regulations (NYCRR) Part 601:
[https://govt.westlaw.com/nycrr/Browse/Home/NewYork/UnofficialNewYorkCodesRulesandRegulations?guid=If8c9ea40b5a011dda0a4e17826ebc834&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/nycrr/Browse/Home/NewYork/UnofficialNewYorkCodesRulesandRegulations?guid=If8c9ea40b5a011dda0a4e17826ebc834&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default))

a. Compact Section 3.4/Agreement Article 300

Statute:

- New York State Environmental Conservation Law (NYS ECL) §21-1001: adopts Compact into New York State's Environmental Conservation Law;
- NYS ECL §15-1501: sets forth New York's statewide water withdrawal permit program and water conservation and efficiency program with specified goals.

Regulation:

- 6 NYCRR §601(1): provides that 6 NYCRR Part 601 implements New York's obligation under the Compact to create a regulatory program for water withdrawals in the Great Lakes St. Lawrence River Basin (Basin) pursuant to NYS ECL 21, title 10;
- 6 NYCRR §601.5: provides annual reporting requirements for water withdrawals;
- 6 NYCRR §601.10(k): requires applicants for water withdrawal permits to submit a project justification that shows, among other things, why increased water conservation and efficiency measures cannot negate or reduce the need for the proposed water withdrawal;
- 6 NYCRR §601.10(n): provides that diversions of any quantity out of the Basin are prohibited by the Compact, subject to limited exceptions and that an applicant for an exception must provide NYS DEC with information in a timely manner to respond to requests by the Council and Regional Body;
- 6 NYCRR §601.11(c): requires, among other things, that in making a determination to grant or deny a water withdrawal permit or to grant a permit with exceptions, NYS DEC determine whether the need for all or part of the proposed water withdrawal cannot reasonably be avoided through the efficient use and conservation of existing water supplies;
- 6 NYCRR §601.11(d): states that when a proposed water withdrawal for public water supply also constitutes a diversion out of the Basin that is subject to the Compact, NYS DEC will determine whether all withdrawn water that is not lost to reasonable consumptive use will be returned to the Basin.

b. Compact Section 4.1/Agreement Article 301

Statute:

- NYS ECL §21-1001: adopts Compact into New York State's Environmental Conservation Law;
- NYS ECL §15-1501(4): directs NYS DEC to promulgate regulations regarding monitoring, reporting and recordkeeping requirements for water withdrawals equal to or greater than the threshold volume;
- NYS ECL §15-1502(14): establishes regulatory threshold volume of water for potable and non-potable withdrawals subject to permit and registration/reporting consistent with Compact;
- NYS ECL §15-1501(6): sets forth the annual water withdrawal reporting requirement;

- NYS ECL §15-1503(4): authorizes NYS DEC to set permit conditions, including reporting requirements;
- NYS ECL §15-1504: establishes water withdrawal requirements for agricultural withdrawals;
- NYS ECL §15-1505(6): prohibits diversions from the Basin with limited exceptions when in compliance with the Compact.

Regulation:

- 6 NYCRR §601.1: states that 6 NYCRR Part 601 implements New York’s obligations under the Compact;
- 6 NYCRR §601.5: implements statewide annual water withdrawal reporting requirements;
- 6 NYCRR §601.12: set forth provisions of water withdrawal permits, including a requirement that the permittee comply with all terms and conditions of the permit;
- 6 NYCRR §601.17: describes statewide requirements for annual registration of agricultural withdrawals;
- 6 NYCRR §601.18(j): prohibits diversions from the Basin with limited exceptions when in compliance with the Compact;
- 6 NYCRR §601.20(a)(1): requires water withdrawal permittees statewide to comply with all monitoring, recording and reporting requirements specified in the permit.

c. Compact Sections 4.2(2), 4.2(4) and 4.2(5)/Agreement Article 304

Statute:

- NYS ECL §21-1001: adopts Compact into New York State’s Environmental Conservation Law;
- NYS ECL §15-1501(6): mandates annual reporting of water conservation measures;
- NYS ECL §15-1501(8): sets forth New York's statewide water conservation and efficiency program with specified goals;
- NYS ECL §15-1503(1)(f): delineates elements of mandatory water conservation program that incorporates environmentally sound and economically feasible water conservation measures;
- NYS ECL §15-1503(2): sets forth determinations for NYS DEC to make when deciding whether or not to issue a water withdrawal permit, including whether all or part of the proposed withdrawal cannot be reasonably avoided through the efficient use and conservation of existing water supplies and whether the proposed withdrawal incorporates environmentally sound and economically feasible water conservation measures.

Regulation:

- 6 NYCRR §601.5(5): mandates annual reporting of consumptive use;
- 6 NYCRR §601.7(e): establishes 10-year term for permits and incorporates a requirement for environmentally sound and economically feasible water conservation measures;
- 6 NYCRR §601.10(e): requires permit applications to include an engineer's report that, among other things, evaluates all practicable alternatives to a proposed source, including analysis of increased water conservation measures as a means to reduce or eliminate the need for the proposed source;
- 6 NYCRR §601.10(f): describes required measures and use of statewide reporting form for a water conservation plan;
- 6 NYCRR §601.10(k)(2): requires permit applications to include a project justification showing why increased water conservation or efficiency measures cannot negate or reduce the need for the proposed water withdrawal;
- 6 NYCRR §601.10(k)(4): requires permit applications to include a project justification showing why the proposed water conservation measures are environmentally sound and economically feasible;
- 6 NYCRR §601.11(c): sets forth determinations for NYS DEC to make when granting or denying a permit application, including, but not limited to, determining whether the need for all or part of the proposed withdrawal cannot reasonably be avoided through the efficient use and conservation of existing water supplies and whether the proposed water withdrawal will be implemented in a manner that incorporates environmentally sound and economically feasible water conservation measures;
- 6 NYCRR §601.11(d): states that when a proposed water withdrawal for public water supply also constitutes a diversion out of the Basin that is subject to the Compact, NYS DEC will determine whether all withdrawn water that is not lost to reasonable consumptive use will be returned to the Basin;
- 6 NYCRR §601.12(g): provides that if a withdrawal originates within the jurisdiction of a compact basin commission, the withdrawal must comply with applicable water withdrawal standards or requirements of that compact basin commission.

d. Compact Section 4.3/Agreement Article 200

Statute:

- NYS ECL §21-1001: adopts Compact into New York State's Environmental Conservation Law; Questionnaire—Page 5
- NYS ECL §15-1503: describes authority to regulate new and increased withdrawals by permit;

- NYS ECL §15-1504: outlines authority to manage existing agricultural withdrawals by registration and provides an exemption from reporting requirements for registered withdrawals;
- NYS ECL §15-1505(6): delineates the prohibition on diversions from the Basin subject to exceptions in compliance with the Compact.

Regulation:

- 6 NYCRR §601.4(a): implements prohibition on diversions consistent with Compact;
- 6 NYCRR §§601.6 through 601.10: delineates water withdrawal permit requirements;
- 6 NYCRR §601.10(n): sets forth the prohibition on diversions from the Basin other than in accordance with exceptions in compliance with the Compact;
- 6 NYCRR §601.16(a)(6): authorizes NYS DEC to deny a permit application that has not been approved by the Council;
- 6 NYCRR §601.16(b)(6): authorizes NYS DEC to suspend or revoke a water withdrawal permit if the permittee is out of compliance with the requirements of the Compact or any other compact basin commission;
- 6 NYCRR §§601.19 and 610.20: set forth monitoring, recording and reporting requirements.

e. Compact Section 4.8, 4.9 and 4.13/Agreement Articles 200, 201 and 208

Statute:

- NYS ECL §21-1001: adopts Compact into New York State's Environmental Conservation Law;
- NYS ECL §15-1501(7): provides exemptions from water withdrawal permits consistent with the Compact;
- NYS ECL §15-1505(6): prohibits diversions, subject to exceptions in compliance with the Compact.

Regulation:

- 6 NYCRR §601.4(a): implements the prohibition on withdrawals and diversions that are not in compliance with the Compact;
- 6 NYCRR §601.9: establishes permit exemptions;
- 6 NYCRR §601.10(n): implements prohibition on any new or increased diversions, subject to exceptions in compliance with the Compact;
- 6 NYCRR §601.11(d): establishes return flow requirement for all unused water if diverted from the Basin;

- 6 NYCRR §601.18(j): prohibits interbasin diversions unless an exception is authorized in compliance with the Compact.

f. Compact Section 4.10/Agreement Article 206

Statute:

- NYS ECL §21-1001: adopts Compact into New York State’s Environmental Conservation Law;
- NYS ECL §15-1502(14): defines threshold volume for management and regulation;
- NYS ECL §15-1503: authorizes regulatory permit program.

Regulation:

- 6 NYCRR §601.2(p): defines threshold volume in regulations;
- 6 NYCRR Part 601: sets forth implementing measures consistent with the Compact.

g. Compact Section 4.11/Agreement Article 207

Statute:

- NYS ECL §21-1001: adopts Compact into New York State’s Environmental Conservation Law;
- NYS ECL §15-1503(2): sets forth the decision-making standard, consistent with the Compact;

Regulation:

- 6 NYCRR §601.2: provides definitions consistent with Compact;
- 6 NYCRR §601.5: implements mandatory reporting requirements for water withdrawals;
- 6 NYCRR §601.10(k): incorporates elements of decision-making standard into permit application process;
- 6 NYCRR §601.11: implements process for taking action on permit applications.

h. Agreement Article 304

Statute:

- NYS ECL §21-1001: adopts Compact into New York State’s Environmental Conservation Law;
- NYS ECL §15-1501(6): mandates annual reporting of water conservation measures for all permitted withdrawals;
- NYS ECL §15-1501(8): establishes goals of water conservation and efficiency program;
- NYS ECL §15-1503(1)(f): delineates elements of mandatory water conservation program.

Regulation:

- 6 NYCRR §601.5(a)(5): provides for annual reporting of consumptive use;

- 6 NYCRR §601.7(e): establishes 10-year term for permits and incorporates requirement for environmentally sound and economically feasible water conservation measures;
- 6 NYCRR §601.10(f): describes required measures and use of statewide reporting form for water conservation plan.

3. Identify any changes from the 2019 report, highlighting in particular major changes from 2019 throughout the response. If there are no changes, please indicate accordingly.

NYS ECL §15-0314 was amended to raise standards for water-efficient plumbing and appliances to align with federal standards issued by the Environmental Protection Agency (EPA). The law took effect January 1, 2022.

A new online reporting tool called nForm was made available to permittees and registrants for water withdrawal annual reporting. This online reporting tool has been developed to increase compliance, enhance submittal quality, and to streamline the data QA/QC process.

Updated Water Withdrawal and Water Well location and withdrawal data have been posted to DEC InfoLocator (<https://giservices.dec.ny.gov/gis/dil/>), data.ny.gov (<https://data.ny.gov/browse?category=Energy+%26+Environment&utf8=%E2%9C%93>) and the NYS GIS Clearinghouse (<https://data.gis.ny.gov/>).

NYS DEC has initiated the rulemaking process for revisions to 6 NYCRR Part 601 (Water Withdrawal) and Part 602 (Long Island Well) regulations in an effort to improve regulation, clarity, consistency, and efficiency. The regulations will maintain their continued compliance with the Great Lakes Compact.

Water Management Program Report

1. Summary description of the State's or Province's Water management program scope and thresholds, including the current status of program implementation and a description of which New or Increased Withdrawals, Consumptive Uses and Diversions are subject to the program. The summary should include information on registration (if applicable), management and regulation, and reporting elements of the program.

New York State was among the first states to adopt the Compact into state Environmental Conservation Law (NYS ECL) on March 4, 2008. The NYS ECL was updated in 2011 to further protect New York's waters, incorporating the obligations of the Compact into a statewide regime, by requiring a NYS DEC permit for any type of water withdrawal system having the maximum capacity to withdraw 100,000 gallons per day (gpd) or more of surface water or groundwater. By basing the threshold on system capacity of at least 100,000 gpd rather than volume withdrawn, New York's threshold encompasses a greater number of withdrawals and consumptive uses. Previously, this law applied only to public water supplies. The law covers the following areas:

- Non-agricultural water withdrawal reporting and permitting
- Agricultural water withdrawal reporting, registration, and permitting

- Water well contractor program
- Drought information
- Scientifically sound and economically feasible water conservation and efficiency plans including a Water Conservation Manual and Certification Information For NYS Water Saving Plumbing Fixtures law
- Interbasin diversions and registration including the Compact's prohibition and exceptions for diversions.

Because the law expanded management and regulation of water withdrawals to a broader number of facilities having existing permits or registrations and to all new or increased withdrawals, it established two types of permits:

- "New Permits" are required before a new water withdrawal system, or an increase in taking at an existing system, can be put into operation; or if the facility did not previously report its withdrawal above the threshold volume. Some currently operating facilities that previously did not require a permit may fall under the "New Permits" definition.
- "Initial Permits" were required of any type of existing water withdrawal having the capacity to withdraw 100,000 gallons per day or more where the withdrawal was previously reported. Consequently, a large number of existing water withdrawals that were not previously required to obtain permits needed to do so. In order to manage permitting of all these existing facilities in a coordinated fashion, the regulations contained a 5-year schedule for application submissions to DEC, beginning with the largest (greater or equal to 100 million gallons per day) due in 2013 and the smallest by February 15, 2017. The Initial Permit Program has been successfully concluded. The law also requires statewide registration and reporting of existing (in existence before February 15, 2012) agricultural withdrawals that are greater than 100,000 gpd (30-day average) and major basin water diversions of greater than 1,000,000 gpd. The law became effective on February 15, 2012 and final implementing regulations became effective on April 1, 2013.

In addition, all water withdrawal permits require annual reporting of the following information:

- The water source, the location of the water source and the source capacity;
- The amount of water withdrawn for the calendar year including the average and peak withdrawals;
- A description of the use of the water withdrawn;
- The estimated amounts of water returned, if any, the locations of such returns, and the method of such returns;
- The actual or estimated average monthly and annual volumes and rates of water lost or consumptively used from the withdrawal;
- The water conservation and efficiency measures undertaken during the reporting period; and
- Any water user that purchased water from the facility during the previous year.

2. Describe specifically how Water Withdrawals in the State or Province are managed by:

- a. Sector (public water supply, self-supply commercial and institutional, self-supply irrigation, self-supply livestock, self-supply industrial, self-supply thermoelectric**

power production (once-through cooling), self-supply thermoelectric power production (recirculated cooling), off-stream hydroelectric power production, in-stream hydroelectric power production (voluntary), and other self-supply;

As described above, NYS DEC's Division of Water regulates by permit and registration all water withdrawals (with some exceptions) statewide with a capacity greater than or equal to 100,000 gpd for all use sectors and all agricultural facilities that withdraw an average of 100,000 gpd (30-day average).

A typical permit application must include, but is not limited to:

- General and Detailed Maps
- Contract Plans
- Engineer's Report
- Water Conservation Program
- Latest Annual Water Reporting Form
- Project Justification
- Compliance with the Compact

In making its decision to grant or deny a permit or to grant a new permit with conditions, the Department shall determine whether:

- the proposed water withdrawal takes proper consideration of other sources of water supply that are or may become available;
- the quantity of supply will be adequate for the proposed use;
- the proposed project is just and equitable to all affected municipalities and their inhabitants with regard to their present and future needs for sources of potable water supply;
- the need for all or part of the proposed water withdrawal cannot be reasonably avoided through the efficient use and conservation of existing water supplies;
- the proposed water withdrawal is limited to quantities that are considered reasonable for the purposes for which the water use is proposed;
- the proposed water withdrawal will be implemented in a manner to ensure it will result in no significant individual or cumulative adverse impacts on the quantity or quality of the water source and water dependent natural resources, including aquatic life, this determination may include an evaluation of whether all withdrawn water that is not lost to reasonable consumptive use will be returned to its source New York major drainage basin;
- the proposed water withdrawal will be implemented in a manner that incorporates environmentally sound and economically feasible water conservation measures; and
- the proposed water withdrawal will be implemented in a manner that is consistent with applicable municipal, state, and federal laws as well as regional interstate and international agreements.

Permit exemptions, listed 6 NYCRR §601.9 and paragraph (e), below, include an exemption for withdrawals by hydropower facilities operating under a valid Federal Energy Regulating Commission license. Such facilities are subject to the requirements of a 401 Water Quality Certification which may include conditions such as the incorporation of conservation releases to

protect downstream habitat. The Division annually monitors and reports water use by this sector to the Great Lakes Commission for incorporation into the Great Lakes Regional Water Use Database.

b. Water source (groundwater, surface water (Great Lakes-St. Lawrence River), surface water other than Great Lakes-St. Lawrence River);

New York specifically considers the source of all water withdrawals (groundwater, surface water (Great Lakes-St. Lawrence River), surface water other than Great Lakes-St. Lawrence River) from “waters of the state”. All water withdrawal applications for new or increased withdrawals must submit hydrological data to confirm dependable ground or surface water supply yields while adequately protecting water levels and in-stream flows for habitat. Such applications must include, among other things:

- a general description of the project and the engineering features of the existing or proposed water withdrawal system;
- a listing of all existing sources of water supply, including wells, surface withdrawals, and any purchases, sales or transfers of water;
- the general character and extent and essential design features of proposed controlling, diverting or regulatory works;
- the proposed instantaneous and maximum daily rates of withdrawal; the existing and projected daily average, daily maximum, and 30-day maximum water demands of the water withdrawal system;
- for groundwater sources: well drilling logs, monitoring well locations and pump test data and analyses of results; and
- for surface water sources: information on rainfall, stream flows and classifications, contributing watershed size, location of the nearby USGS stream gages, other upstream water withdrawals, safe yield analyses or passby flow

c. Quantity (regulatory thresholds, volumes, rates, and reporting requirements);

New York specifically considers the quantity of all water withdrawn (regulatory thresholds, volumes, rates, and reporting requirements) during the permit application review process.

Any person who is engaged in, or proposes to engage in, the construction, operation or maintenance of a water withdrawal system that withdraws water of a volume equal to or greater than the threshold volume must obtain a permit or agricultural registration. ‘Threshold volume’ means the withdrawal of water of a volume of one hundred thousand gallons or more per day, determined by the limiting maximum capacity of the water withdrawal system; except that for withdrawals for agricultural purposes the threshold volume shall mean the withdrawal of water of a volume in excess of an average of one hundred thousand gallons per day in any consecutive thirty-day period.

An annual report must be submitted on a form available from NYS DEC, based on the water withdrawals for the previous calendar year, and shall include all information requested by the Division of Water. See response in item 1 of the Water Management Program Report section,

above, for reporting requirement details. Monthly and annual volumes are reported, and the Division has the authority to request more detailed information on a case-by-case basis.

d. Location (Statewide/Province-wide or Great Lakes-St. Lawrence River Basin); and

Permitting and registration requirements are applicable statewide and throughout New York State's portion of the Great Lakes-St. Lawrence River Basin.

e. Any specific exemptions as allowed in the Agreement and the Compact.

All New York State exemptions are compliant with the Compact and Agreement. A complete listing of these exemptions can be found at: <https://dec.ny.gov/environmental-protection/water/water-quantity/water-withdrawal-permits-reporting/permits>

The following exemptions are valid statewide and within the Basin:

- Withdrawals for agricultural purposes that have been registered or their annual water usage reported pursuant to the requirements of ECL 15, title 16 or title 33 as of February 15, 2012;
- Withdrawals of hydropower facilities operating under a valid Federal Energy Regulating Commission license;
- Withdrawals from the New York State Canal System, as defined by Subdivision 1 of Section 2 of the Canal Law, that are used by the New York State Canal Corporation for purposes authorized by law;
- Closed loop, standing column or similar non-extractive geothermal systems;
- On-site water withdrawal systems for approved inactive hazardous waste remedial site programs conducted pursuant to state or federal court order or state or federal government agency agreement or order;
- Withdrawals used for fire suppression or other public emergency purposes;
- The extension of supply or distributing mains or pipes within a previously-approved water service area that remains within the amount authorized in a water supply permit or water withdrawal permit for the purpose of supplying potable water;
- The reconstruction of facilities in an existing water withdrawal system when the capacity of such system is in no way altered (reconstruction does not include constructing an adjacent withdrawal structure);
- The construction of filtration or other treatment facilities that will not in any way alter the amount of water which can be made available from the present source of supply;
- Water withdrawals to supply ballast water necessary for lawful and normal vessel activity;
- Water withdrawal directly related to routine maintenance and emergency repairs of dams;
- Temporary water withdrawals for the purposes of construction, dewatering, hydrostatic testing, or aquifer testing, where the volume withdrawn is less than an average of 100,000 gallons per day in any consecutive thirty-day consecutive period (3 million gallons during a 30-day period).

***Note:* Address all sectors and sources in your descriptions even if one or more sector or source is not currently managed by your State or Province.**

3. Description of how the provisions of the Standard of Review and Decision are applied. The description should include information on how each criterion of the Decision Making Standard and Exception Standard is addressed.

a. Decision Making Standard for Withdrawals, Consumptive Uses.

NYS ECL 15-1503 specifies the requirements of an application for a water withdrawal permit and the criteria that must be met. These criteria include consideration of other sources of supply, the implementation of water conservation measures, limiting the withdrawal to a reasonable usage and protection against adverse environmental impacts on the quality and quantity of the water source.

Furthermore, 6 NYCRR Part 617 implements the New York's State Environmental Quality Review Act (SEQR) (NYS ECL 8) and specifically states in 6 NYCRR §617.1(d) that:

"[i]t was the intention of the Legislature that the protection and enhancement of the environment, human and community resources should be given appropriate weight with social and economic considerations in determining public policy, and that those factors be considered together in reaching decisions on proposed activities. Accordingly, it is the intention of this Part that a suitable balance of social, economic and environmental factors be incorporated into the planning and decision-making processes of state, regional and local agencies."

In addition, 6 NYCRR §601.11(c) specifically addresses Section 4.11 of the Compact by requiring that:

- the proposed water withdrawal takes proper consideration of other sources of water supply that are or may become available;
- the quantity of supply will be adequate for the proposed use.
- the proposed project is just and equitable to all affected municipalities and their inhabitants with regard to their present and future needs for sources of potable water supply;
- the need for all or part of the proposed water withdrawal cannot reasonably be avoided through the efficient use and conservation of existing water supplies
- the proposed water withdrawal is limited to quantities that are considered reasonable for the purposes for which the water use is proposed;
- the proposed water withdrawal will be implemented in a manner to ensure it will result in no significant individual or cumulative adverse impacts on the quantity or quality of the water source and water dependent natural resources, including aquatic life; this determination may include an evaluation of whether all withdrawn water that is not lost to reasonable consumptive use will be returned to its source New York major drainage basin;
- the proposed water withdrawal will be implemented in a manner that incorporates environmentally sound and economically feasible water conservation measures; and
- the proposed water withdrawal will be implemented in a manner that is consistent with applicable municipal, state and federal laws as well as regional interstate and international agreements.

New York has issued two policy documents in the Division of Water's Technical and Operational Guidance Series (TOGS) that provide guidance for consistent implementation of the standards for issuance.

- TOGS 3.2.1 Processing Water Withdrawal Permit Applications (issued May 25, 2017) provides procedures for staff to follow in the review of water withdrawal permit applications filed in accordance with NYS ECL §15-1501 and 6 NYCRR Part 601. It provides updated guidance on the amended statute, its applicability, and its implementation within the revised regulatory framework. (See https://extapps.dec.ny.gov/docs/water_pdf/togs321.pdf)
- TOGS 1.3.12 Incorporation of Flow-Related Conditions in Water Withdrawal Permits (issued April 12, 2017) describes the policies and procedures for incorporating flow-related conditions when issuing Water Withdrawal Permits. In particular, the policy addresses the procedures that should be followed to ensure that the proposed water withdrawal will be implemented in a manner to ensure it will result in no significant individual or cumulative adverse impacts on the quantity or quality of the water source and water dependent natural resources, including aquatic life. See https://extapps.dec.ny.gov/docs/water_pdf/flowtogsfinal.pdf

b. Exception Standard for Diversions.

NYS ECL 15-1505(6) states that diversions from the Basin are prohibited except for limited public water supply projects that are in compliance with the Compact. 6 NYCRR §601.10(n) also sets forth this prohibition.

4. Overview of State/Provincial reporting and database of Withdrawals, Consumptive Uses and Diversions including implementation status and database elements and capabilities, and reporting mechanisms (e.g., electronic submission, etc.). The overview should include methods of measurement (e.g., flow volume or rate meters, flow gauging, timing devices, etc.) approved by the State/Province for measuring Water volumes.

6 NYCRR §601.5 requires any individual or legal entity whatsoever submit an annual water withdrawal report to the NYS DEC's Division of Water if its water withdrawal system has a capacity to withdraw 100,000 gpd or more. These reports include withdrawal locations, average and peak day amounts, the usage sector, the location and amounts of water returned and the resulting consumptive losses. <https://dec.ny.gov/environmental-protection/water/water-quantity/water-withdrawal-permits-reporting/annual-water-withdrawal-reporting-non-agricultural> . Annual reports may be submitted electronically or in hardcopy.

The annual report shall be submitted on a form available from NYS DEC, based on the water withdrawals for the previous calendar year, and shall include all information requested by NYS DEC including, but not be limited to, the following:

- the water source, the location of the water source and the source capacity if known;
- the amount of water withdrawn for the reporting period, including the average and peak withdrawals, for monthly or other intervals specified by NYS DEC;

- a description of the use of the water withdrawn;
- the estimated amounts of water returned, if any, the locations of such returns, and the method of such returns;
- the actual or estimated average monthly and annual volumes and rates of water lost or consumptively used from the withdrawal; and
- the water conservation and efficiency measures undertaken during the reporting period.

The NYS DEC's Division of Water, in turn, annually reports water use by sector to the Great Lakes Commission for incorporation into the Great Lakes Regional Water Use Database.

The NYS DEC's Division of Water maintains internal databases of Water Withdrawal Permits, annual reports, and water wells. All permitted and registered water withdrawals are included within the NYS GIS Clearinghouse and NYS DEC InfoLocator and are available to the public at <https://gisservices.dec.ny.gov/gis/dil/>. With more than 50 data layers available, NYS DEC InfoLocator application shows both environmental quality monitoring and natural resource information together in one place.

- 5. Include a web link to the State or Province's Withdrawal application form(s). In addition, include a section on web access to additional information on the program, link to any application forms and links to tools for improving the management of water resources or sharing information about water withdrawals.**

Copies of the related regulations, policies, and manuals with the various permit application forms, annual reporting form, and related forms can be found on NYS DEC's public website at: <https://dec.ny.gov/environmental-protection/water/water-quantity/forms-tools-for-water-withdrawal-permit-applications>. Additional information on water withdrawals, conservation, interbasin diversions, water wells, drought management, and NYS DEC's Water Management Programs can be found on NYS DEC's public website at <https://dec.ny.gov/environmental-protection/water/water-quantity> and pages linked therefrom.

- 6. Summary description of the State's or Province's initiatives to support an improved scientific understanding of the Waters of the Basin and an improved understanding of the groundwater of the Basin and the role of groundwater in Basin water resource management. A description of State or Provincial initiatives or mechanisms to support an improved understanding of individual or cumulative impacts of Withdrawals, Consumptive Uses and Diversions on the Basin ecosystem should also be provided.**

New York State is working to improve the scientific basis for water management on numerous programmatic levels. Examples include:

- Across New York's portion of the Basin, stakeholders are working collaboratively under the Great Lakes Action Agenda that includes the goal, "Conserve Great Lakes water supplies in a manner that recognizes the renewable but finite supply of waters of the Basin for the long-term sustainable use and enjoyment of the public." A cross-cutting objective to implementing this goal is to enhance coordinated science, monitoring and information management. Opportunities for

water users, researchers and other stakeholders to annually pursue competitive small grants for related scientific research, demonstration and applications are now available through New York Sea Grant. (See <https://dec.ny.gov/nature/waterbodies/lakes-rivers/great-lakes/action-agenda>)

- New York has established the Climate Smart Communities Guide to Local Action that contains overviews of possible community actions, how-to's, and case studies to help communities adapt to the risks posed by climate change. Many of these risks affect vulnerable water supplies, water conveyance infrastructure systems and increased water demands especially during drought periods. A clearinghouse of climate and water-based scientific materials, methods and technologies has been developed to assist local communities in adaptation planning. (See <https://climatesmart.ny.gov/> and <https://climatesmart.ny.gov/actions-certification/actions/>)
- New York is also promoting ecosystem-based management approaches for more informed decision-making processes regarding groundwater withdrawals. In partnership with the U.S. Geological Survey's New York Water Science Center, an innovative aquifer quantity and quality characterization study focusing on the very high quality and threatened Tug Hill Aquifer near eastern Lake Ontario was conducted to test aquifer vulnerabilities and re-charge capabilities. USGS published the results from this study as a Scientific Investigations Report (SIR) titled: *Geohydrology and water quality of the northern and central parts of the Tug Hill glacial aquifer, Jefferson and Oswego Counties, north-central New York* in 2022. The SIR is available online here: <https://www.usgs.gov/publications/geohydrology-and-water-quality-northern-and-central-parts-tug-hill-glacial-aquifer>
- New York State is improving the scientific understanding of the groundwater resources of the Basin in cooperation with the USGS. Detailed aquifer mapping projects have been recently completed in the following Basin locations: Fairport Lyons Glacial Drainage Channel Aquifer (Wayne, Ontario, and Seneca Counties) – Published March 2022 and available online here: <https://pubs.usgs.gov/publication/sir20215086>; Owasco Inlet Valley (Cayuga and Tompkins Counties) – Published June 2023 and available online here: <https://pubs.usgs.gov/publication/sir20235031>. Detailed aquifer mapping projects are ongoing in the following Basin locations: Malone (Franklin County); and Springville (Erie, Cattaraugus, and Wyoming Counties).
- New York State continues its partnership with USGS in the operation and expansion of a statewide groundwater monitoring network. The USGS continues to collect, process, and disseminate groundwater level data from the Cooperative Network that currently includes 107 observation wells statewide. As part of the network expansion, bedrock wells in Monroe, Erie, and Yates Counties have been added to the network since 2014. USGS is currently investigating potential bedrock wells in Wayne and Washington Counties.
- All water withdrawal applications for new or increased groundwater withdrawals require the submittal of a 72-hour pumping test. Each test is assessed for potential impacts to other water users and the surrounding resources. 6 NYCRR §601.11(c) states that in making its decision to grant or deny a permit or to grant a permit with conditions, NYS DEC shall determine whether the proposed water withdrawal will be implemented in a manner to ensure it will result in no significant individual or cumulative adverse impacts on the quantity or quality of the water

source and water dependent natural resources, including aquatic life; this determination may include an evaluation of whether all withdrawn water that is not lost to reasonable consumptive use will be returned to its source New York major drainage basin.

- Water conservation and efficient use measures and methods vary considerably between different types of users, facilities, seasons, and locations. New York believes no “one size fits all” water conservation plan can apply universally. Consequently, the NYS DEC has devised an innovative guidance to assist potable and non-potable water permit applicants in developing their water conservation plans through an online tool that seeks to match possible methods to water uses. As permitted water users gain experience with the water conservation and efficient use methods, the tools can be adapted to enhance efficiency and effectiveness of future plans. (See <https://dec.ny.gov/environmental-protection/water/water-quantity/water-withdrawal-permits-reporting/water-conservation-requirements>)

- In 2018, New York State experts and local stakeholders collaboratively developed Harmful Algal Bloom (HAB) Action Plans for 12 priority lakes that are vulnerable to HABs. The waterbodies are valuable recreational waterbodies and/or critical sources of drinking water. Each action plan supports an improved scientific understanding of the Waters of the Basin by documenting trends in water quality, identifying contributing factors fueling HABs, and providing actions that can be taken to reduce the controllable sources of pollution that contribute to algal blooms. In addition, NYS DEC gave priority scoring for several key grant programs for waters with completed HABs Action Plans. In the Great Lakes Basin, Action Plans have been developed for Cayuga Lake, Conesus Lake, Honeoye Lake, Owasco Lake, Skaneateles Lake, Lake Champlain, and Lake George. (See NYS’s Clean Water Planning page for links to all HABs Action Plans: <https://dec.ny.gov/environmental-protection/water/water-quality/clean-water-plans>).

7. Additional information.

N/A

Water Conservation and Efficiency Program Report

1. Status of the State or Province’s Water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives. If developed, include State or Provincial goals and objectives or link to electronic version.

Since 1989, New York State has required all public water supply systems statewide to develop and submit water conservation programs when applying for new or increased water withdrawals. Each conservation program must specifically address:

- Source and customer metering;
- System water auditing to identify water losses and inefficiencies;
- System leakage and repair, and;
- Water use reduction particularly during the summer and drought conditions.

Based upon these programs, water withdrawal permits implement environmentally sound and economically feasible water conservation practices.

In 2011, New York's program was expanded to cover other sectors of water withdrawal in addition to public water supply. Again, water conservation programs are required to discuss and implement the best management practices for water conservation and reuse measures that apply to that sector of usage. These programs, in turn, lead to permit conditions in each water withdrawal approval.

In March of each year, water withdrawers are required to submit an annual report for the previous calendar year that includes a discussion and questions regarding compliance and progress with water conservation programs and conditions.

2. Water Conservation and Efficiency Program Overview.

a. Citations to State/Provincial Water Conservation and Efficiency Program implementing laws, regulations and policies.

The Water Withdrawal, Conservation and Drought program pages reference the Water Resources Law, which is part of NYS ECL 15, Title 15, and is derived from the Compact.

- Water Conservation: <https://dec.ny.gov/environmental-protection/water/water-quantity/water-use-conservation>

- Water Withdrawal: <https://dec.ny.gov/environmental-protection/water/water-quantity/water-withdrawal-permits-reporting>

- Drought: <https://dec.ny.gov/environmental-protection/water/water-quantity/drought>

NYS ECL §15-0314 was amended to raise standards for water-efficient plumbing and appliances to align with federal standards issued by the Environmental Protection Agency (EPA). The law took effect January 1, 2022.

b. Summary description of the State's or Province's Water Conservation and Efficiency Program including what elements are voluntary and mandatory.

All applications for water withdrawal permits require a Water Conservation Program that demonstrates an applicant's water conservation and efficiency measures. These must be environmentally sound, economically feasible and minimize inefficiencies and water losses.

Such measures must include but are not limited to: source and customer metering; frequent system water auditing; system leak detection and repair; recycling and reuse, and reductions during drought. (See <https://dec.ny.gov/environmental-protection/water/water-quantity/water-withdrawal-permits-reporting/water-conservation-requirements>)

3. For each of the regional objectives, identify how the State/Provincial program is consistent with the regional objective, and a description of how the State or Province

promotes Environmentally Sound and Economically Feasible Water Conservation Measures. More details for each objective are available at http://www.glsregionalbody.org/Docs/Resolutions/GLSLRWRRB_Resolution_6Conservation-Efficiency.pdf and can be provided in the table below.

OBJECTIVES	LEGISLATIVE OR PROGRAM CITATION
➤ Guide programs toward long-term sustainable water use.	NYS ECL §15-1501(8) requires the NYS DEC to establish a water conservation and efficiency program based on the Compact’s five water conservation goals to assure consistency; NYS ECL §15-1503(2) enacts the Compact’s decision-making criteria for permit approval, including implementation in a manner that incorporates environmentally sound and economically feasible water conservation measures; and NYS ECL §15-1503(3) requires the DEC to publish a water conservation manual. Guidance (TOGS 3.2.1) for consistent implementation of these statutes was issued May 25, 2017 (See https://extapps.dec.ny.gov/docs/water_pdf/togs321.pdf) Flow-related guidance (TOGS 1.3.12) considering pass-by flows and reservoir releases to ensure that water withdrawals will result in no significant or cumulative adverse impacts to the quantity and quality of the water source and water dependent natural resources was issued April 12, 2017. (See https://extapps.dec.ny.gov/docs/water_pdf/flowtogsfinal.pdf)
➤ Adopt and implement supply and demand management to promote efficient use and conservation of water resources.	- An additional Water Conservation Manual (NYS ECL §1501(8)), was developed by DEC to address various components of this objective which will be incorporated into conservation plans developed by all new non-potable water permit applicants. - Water conservation plans are required to provide annual water audit data which compares produced water to metered usage. - All water withdrawal permit applications for new or increased groundwater withdrawals must submit the results of a 72-hour pumping test. - All water withdrawal applications for new or increased surface withdrawals must submit hydrological data to confirm dependable water supply yields while adequately protecting water levels and in-stream flows for habitat. - All water withdrawal permits include conditions requiring metering, leak detection and repair, water audits, and maintaining water use records. Demand management is implemented through Department regulations (6 NYCRR Part 601). All water withdrawal applications must demonstrate that the requested withdrawal quantity is reasonable for the proposed use and that the need for the proposed water withdrawal cannot be met or reduced by increased water conservation or efficiency.

	NYS ECL §15-0314 was amended to raise standards for water-efficient plumbing and appliances to align with federal standards issued by the Environmental Protection Agency (EPA). The law took effect January 1, 2022.
➤ Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs.	All water withdrawers with the capacity to withdraw 100,000 gallons per day or more and all agricultural facilities with registered withdrawals are required to report their water withdrawals, sources, source capacities, current conservation practices, and types of use on an annual basis. Standard reporting forms for the submittal of this data have been developed and reports may now be submitted through our online nForm web portal. Submitted data undergoes internal QA/QC before being finalized. Information required is consistent with guidance developed by Compact Council/Regional Body. The Department manages approximately 750 actively reporting facilities within the Great Lakes Basin and has routinely achieved 100% compliance in required annual reporting. New York's Great Lakes Action Agenda, an ecosystem-based management strategy for protecting, restoring and conserving natural resources, includes a goal to "Conserve Great Lakes Water Supplies" with nine specific priority actions designed to focus state policies, programs and ongoing funding opportunities. (See https://dec.ny.gov/nature/waterbodies/lakes-rivers/great-lakes/action-agenda)
➤ Develop science, technology and research.	In developing an additional Water Conservation Manual for non-potable uses, the DEC has worked to identify best management practices (BMPs) and state of the art technologies for consideration by various water user categories. This manual will continue to be updated as additional technologies and efficiencies are learned through consultation with entities such as AWWA. New York's Great Lakes Action Agenda, an ecosystem-based management strategy for protecting, restoring and conserving natural resources, includes a goal to "Conserve Great Lakes Water Supplies" with nine specific priority actions designed to focus state policies, programs and ongoing funding opportunities. (See https://dec.ny.gov/nature/waterbodies/lakes-rivers/great-lakes/action-agenda)
➤ Develop education programs and information	NYS DEC's current public guidance information is available on NYS DEC's website:

sharing for all water users.	- Annual Water Withdrawal Reporting: https://dec.ny.gov/environmental-protection/water/water-quantity/water-withdrawal-permits-reporting/annual-water-withdrawal-reporting-non-agricultural - Water Conservation Tips for the Public: https://dec.ny.gov/environmental-protection/water/water-quantity/water-use-conservation The Water Conservation Manuals have been designed specifically to enhance public understanding and user access to best management practices for assisting various water users in developing their required plans. The manuals currently used to develop these plans can be found at: https://dec.ny.gov/environmental-protection/water/water-quantity/water-withdrawal-permits-reporting/water-conservation-requirements Application guidance is available for all water users on the Department's website: - TOGS 3.2.1 (Processing Water Withdrawal Permit Applications): https://extapps.dec.ny.gov/docs/water_pdf/togs321.pdf - TOGS 1.3.12 (Incorporation of Flow-Related Conditions in Water Withdrawal Permits): https://extapps.dec.ny.gov/docs/water_pdf/flowtogsfinal.pdf All permitted and registered water withdrawals are included in NYSDEC InfoLocator: https://gisservices.dec.ny.gov/gis/dil/ and on data.ny.gov https://data.ny.gov/Energy-Environment/Water-Withdrawals-by-Facility-Beginning-2009/94ue-tysy/about_data Basic water well information collected since 2000 for over 130,000 wells is available on NYSDEC InfoLocator (https://gisservices.dec.ny.gov/gis/dil/), at the NYS GIS Clearinghouse (https://data.gis.ny.gov/datasets/54bf2a4e4bf24f2eb6ceab77b367cdd2/explore), and through data.ny.gov at https://data.ny.gov/Energy-Environment/Water-Wells-Beginning-2000/6gke-uhe4/about_data Annual Reporting Forms are now publicly available on DEC's InfoLocator web GIS tool: https://gisservices.dec.ny.gov/gis/dil/

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

NYS DEC's Division of Water currently regulates by permit or registration all water withdrawal systems with the capacity to withdraw 100,000 gallons per day or more within the Basin. Since 1989, NYS ECL §15-1503 has required the submittal of a water conservation plan with each new

application for a permit for a public water supply system. The main objective of the plans is to promote implementation of the most environmentally sound and economically feasible water conservation measures. Components of these plans must include, at a minimum, 1) customer and source metering, 2) water auditing, 3) leak detection and repair and 4) outdoor water use management.

Amendments to NYS ECL §15-1501, et seq. were passed into law in 2011 and became effective on February 15, 2012. The new law extended NYS DEC's permitting and registration authority throughout the state and includes registration of existing agricultural withdrawals that are greater than 100,000 gpd (30-day average) and of major basin water diversions outside of the Basin of greater than 1,000,000 gpd. Implementing regulations (6 NYCRR Part 601) took effect on April 1, 2013 that included a five-year schedule, completed in 2017, to permit all existing withdrawals that meet the threshold volume. The statute and regulations strengthen the existing water conservation and efficient use provisions by including two objectives in addition to those stated above: (1) recycling and reuse, and (2) reductions during drought.

- On May 25, 2017, NYS DEC issued Technical & Operational Guidance Series (TOGS) 3.2.1 to promote consistent implementation of these statutes and regulations. (See https://extapps.dec.ny.gov/docs/water_pdf/togs321.pdf)

- On April 12, 2017, the NYS DEC issued Technical & Operational Guidance Series (TOGS) 1.3.12 that includes procedures to ensure that water withdrawals will result in no significant or cumulative adverse impacts to the quantity and quality of the water source and water dependent natural resources. (See https://extapps.dec.ny.gov/docs/water_pdf/flowtogsfinal.pdf)

In the final report, please provide an overview of any public outreach activities undertaken, as well as a summary of any comments received, and changes made in response to comments received.

A draft copy of this report was posted publicly for input from September 2024 through October 2024 on the Department webpage and the Department's "Great Lakes News, Funding, and Events" and "MakingWaves" email listservs. No public comments were received.

NYS DEC Division of Water conducted multiple outreach efforts throughout this five-year report period. Starting in 2020, multiple virtual and in-person outreach sessions were held with the agricultural regulated community and agricultural industry leaders to promote awareness of water withdrawal permitting, registration, and reporting requirements. The community and industry leaders expressed their need for improved permitting guidance from the Department. In response, the Department's agricultural water withdrawal webpages were updated: <https://dec.ny.gov/environmental-protection/water/water-quantity/agricultural-water-withdrawals>

From 2022 through 2023, the Department conducted virtual discussions with ski industry leaders to promote awareness of the water withdrawal permitting process and to provide information on Technical & Operational Guidance Series (TOGS) 1.3.12 low flow procedures. Ski industry leaders provided comment on the industry's reliance on stream withdrawals and the impacts of

climate change and lack of natural snowfall on New York ski operations. In response, program staff developed permitting strategies designed to collect streamflow information and to develop permits that allow for ski facility's continued operation while protecting aquatic habitat.

Discussions and outreach with the regulated community and industry groups culminated in the initiation of a 6 NYCRR Part 601 rulemaking intended to improve regulation clarity, efficiency, and consistency. A virtual public outreach session describing the proposed rulemaking was held in October of 2022. The proposed rulemaking will be publicly posted on the Department's Environmental Notice Bulletin later in 2024. The rulemaking will be posted for a 60-day comment period followed by a virtual public hearing.

In 2022 the Department created the Office of Indian Nation Affairs (OINA). The office works to address environmental concerns, cultural resources, and advance shared knowledge through consultation with State and Federally recognized Indian Nations. The Department's Commissioner Policy (CP) 42 requires contact, cooperation, and consultation with Indian Nations during certain application reviews or rulemakings. More information can be found at this location: <https://dec.ny.gov/about/dei/indian-nation-affairs>

The Division routinely provides reminders of annual report deadlines and regularly assists permittees improve the quality, accuracy, and timeliness of their reports. Additional outreach activities have been focused on increasing the volume and variety of water management information available to the public on the Department's website. Specific examples have been cited above.

The Department utilizes several tools to share information with the public including our Environmental Notice Bulletin (ENB) and Making Waves newsletter. The ENB is used to let the public know about projects or regulations being proposed each week. The ENB can be accessed at this location: <https://dec.ny.gov/news/environmental-notice-bulletin> Making Waves is used to broadcast information about water issues in New York State. Users can sign up for Making Waves at this location: <https://dec.ny.gov/environmental-protection/water>

For decades, the Department has published Conservationist Magazine which features stories and information about the protection of New York State's air, water, forests, fish, and wildlife. More information about Conservationist Magazine can be found at this location: <https://dec.ny.gov/news/conservationist-magazine>

Department staff routinely engage with stakeholders, industry groups, and permittees on focused topics when needed.

**Great Lakes-St. Lawrence River Water Resources Regional Body
Great Lakes-St. Lawrence River Basin Water Resources Council**

RESOLUTION NO. 2025-6

ADOPTING JOINT DECLARATION OF FINDING

For the Water Management Program Review and
Water Conservation and Efficiency Program Review
State of Ohio

I. BACKGROUND AND PURPOSE

The Compact

A. The Great Lakes-St. Lawrence River Basin Water Resources Compact (“Compact”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin and the Commonwealth of Pennsylvania, and was effective on December 8, 2008.

B. Section 3.4 of the Compact requires each Party State to submit a report to the Great Lakes-St. Lawrence River Basin Water Resources Council (“Compact Council”) and the Great Lakes-St. Lawrence River Water Resources Regional Body (“Regional Body”) on actions taken by that State to meet the provisions of the Agreement and Compact regarding that Party State’s Water management and conservation and efficiency programs.

C. Following the Compact Council’s review of such reports in cooperation with the Provinces pursuant to Section 3.4 of the Compact, the Council shall determine whether that State’s programs: (1) meet or exceed the provisions of the Compact; or (2) do not meet the provisions of the Compact and, if not, recommend options to assist the jurisdiction in meeting the provisions of the Compact.

D. Section 4.2 of the Compact requires the Compact Council in cooperation with the Provinces to adopt Basin-wide conservation and efficiency objectives, which were adopted by the Compact Council on December 8, 2008. Section 4.2.2 of the Compact requires each Party State to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a Water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State’s goals and objectives.

The Agreement

E. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin, the Commonwealth of Pennsylvania, the Province of Ontario, and the Government of Québec, and certain provisions of the Agreement began to more fully come into force on March 8, 2015.

F. Article 300 of the Agreement requires each Party State and Province to submit a report to the Regional Body on actions taken by the State or Province to meet the provisions of the Agreement regarding that State's or Province's Water management and conservation and efficiency programs.

G. Following the Regional Body's review of such reports pursuant to Article 300 of the Agreement, the Regional Body shall determine if that State or Province's programs: (1) meet or exceed the provisions of the Agreement; (2) do not meet the provisions of the Agreement; or (3) would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement.

H. Article 304, Paragraph 1 of the Agreement requires the Regional Body to identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by December 13, 2007, which were adopted by the Regional Body on December 13, 2007. Article 304, Paragraph 2 of the Agreement requires each Party State and Province to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State's or Province's goals and objectives.

II. SUBMISSIONS BY STATE OF OHIO

A. To the Compact Council. The Compact Council has received the State of Ohio's report on its Water management and conservation and efficiency programs under the Compact, which is attached to this Resolution as Attachment A.

B. To the Regional Body. The Regional Body has received the State of Ohio's report on its Water management and conservation and efficiency programs under the Agreement, which is attached to this Resolution as Attachment A.

III. DECLARATION OF FINDING

Upon review of the submissions of the State of Ohio, the terms of the Compact and the Agreement, the Compact Council and Regional Body find as follows:

- A. Based on the report submitted by the State of Ohio, the Water Management Program presented by the State of Ohio meets or exceeds the current requirements of the Compact and the Agreement.
- B. Based on the report submitted by the State of Ohio, the Water Conservation and Efficiency Program presented by the State of Ohio meets or exceeds the current requirements of the Compact and the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

ATTACHMENT A

Water Management and Conservation and Efficiency Programs—
Report to the Compact Council and Regional Body
Dated December 11, 2024

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.

Objective	Legislative or Program Citation
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

Objective	Legislative or Program Citation
	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,

Objective	Legislative or Program Citation
	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.

STATE OF OHIO

WATER MANAGEMENT PROGRAM REPORT

August 13, 2024

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 Dena C. Barnhouse, Chief of the Division (phone: 614-265-6723; 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. 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–.30 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–.30 of the ORC, which became effective in their present form on October 17, 2019.

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–.30 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–.30 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 WIPP@dnr.ohio.gov.

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 WIPP@dnr.ohio.gov.

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 electronic Water Withdrawal Facility Registration and Annual Report forms, pursuant to §1521.16 of the ORC and Section 4.1 of the Compact, are available on the Program website.

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

The Division has county-by-county groundwater resources and pollution potential maps available online at [ground water maps](#). These are being superseded by statewide, seamless products. In 2018, the Division of Geological Survey secured funding from the Ohio Water Development Authority (OWDA) to update and standardize the county-based pollution potential maps into a statewide, seamless Groundwater Vulnerability Map. The new map was published in 2022 and is available online on the [Ohio Geology Interactive Map](#). The map utilizes a modified DRASTIC model, which evaluates an area's overall vulnerability to groundwater contamination using seven key parameters to produce a vulnerability index. In 2021, the Division of Geological Survey was granted funding from the ODWA to update and standardize the county Groundwater Resources maps into a statewide, seamless Aquifer Yield Map. Work for this project is ongoing and is expected to be completed at the end of 2024, with publication in early 2025. Accompanying the statewide Aquifer Yield Map will be maps of primary and secondary aquifer as well as aquifer hydraulic conductivity.

A detailed analysis of water demand by county and/or watershed can be found using the [State of Ohio Water Withdrawal Atlas](#). Updated annually, the Atlas provides water use trends dating back to 1990. Withdrawals specific to the Lake Erie Watershed are also provided in the "Additional Downloads" section of the webpage.

In 2024, funds were secured to drill an additional ten new observation wells in the Western Lake Erie basin to better monitor groundwater in the northwest region of Ohio.

8. Additional information.

Nothing additional.

**Great Lakes-St. Lawrence River Water Resources Regional Body
Great Lakes-St. Lawrence River Basin Water Resources Council**

RESOLUTION NO. 2025-7

ADOPTING JOINT DECLARATION OF FINDING

For the Water Management Program Review and
Water Conservation and Efficiency Program Review
Commonwealth of Pennsylvania

I. BACKGROUND AND PURPOSE

The Compact

A. The Great Lakes-St. Lawrence River Basin Water Resources Compact (“Compact”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin and the Commonwealth of Pennsylvania, and was effective on December 8, 2008.

B. Section 3.4 of the Compact requires each Party State to submit a report to the Great Lakes-St. Lawrence River Basin Water Resources Council (“Compact Council”) and the Great Lakes-St. Lawrence River Water Resources Regional Body (“Regional Body”) on actions taken by that State to meet the provisions of the Agreement and Compact regarding that Party State’s Water management and conservation and efficiency programs.

C. Following the Compact Council’s review of such reports in cooperation with the Provinces pursuant to Section 3.4 of the Compact, the Council shall determine whether that State’s programs: (1) meet or exceed the provisions of the Compact; or (2) do not meet the provisions of the Compact and, if not, recommend options to assist the jurisdiction in meeting the provisions of the Compact.

D. Section 4.2 of the Compact requires the Compact Council in cooperation with the Provinces to adopt Basin-wide conservation and efficiency objectives, which were adopted by the Compact Council on December 8, 2008. Section 4.2.2 of the Compact requires each Party State to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a Water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State’s goals and objectives.

The Agreement

E. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin, the Commonwealth of Pennsylvania, the Province of Ontario, and the Government of Québec, and certain provisions of the Agreement began to more fully come into force on March 8, 2015.

F. Article 300 of the Agreement requires each Party State and Province to submit a report to the Regional Body on actions taken by the State or Province to meet the provisions of the Agreement regarding that State's or Province's Water management and conservation and efficiency programs.

G. Following the Regional Body's review of such reports pursuant to Article 300 of the Agreement, the Regional Body shall determine if that State or Province's programs: (1) meet or exceed the provisions of the Agreement; (2) do not meet the provisions of the Agreement; or (3) would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement.

H. Article 304, Paragraph 1 of the Agreement requires the Regional Body to identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by December 13, 2007, which were adopted by the Regional Body on December 13, 2007. Article 304, Paragraph 2 of the Agreement requires each Party State and Province to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State's or Province's goals and objectives.

II. SUBMISSIONS BY COMMONWEALTH OF PENNSYLVANIA

A. To the Compact Council. The Compact Council has received the Commonwealth of Pennsylvania's report on its Water management and conservation and efficiency programs under the Compact, which is attached to this Resolution as Attachment A.

B. To the Regional Body. The Regional Body has received the Commonwealth of Pennsylvania's report on its Water management and conservation and efficiency programs under the Agreement, which is attached to this Resolution as Attachment A.

III. DECLARATION OF FINDING

Upon review of the submissions of the Commonwealth of Pennsylvania, the terms of the Compact and the Agreement, the Compact Council and Regional Body find as follows:

- A. Based on the report submitted by the Commonwealth of Pennsylvania, the Water Management Program presented by the Commonwealth of Pennsylvania meets or exceeds the current requirements of the Compact and the Agreement.
- B. Based on the report submitted by the Commonwealth of Pennsylvania, the Water Conservation and Efficiency Program presented by the Commonwealth of Pennsylvania meets or exceeds the current requirements of the Compact and the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

ATTACHMENT A

Water Management and Conservation and Efficiency Programs—
Report to the Compact Council and Regional Body
Dated December 5, 2024

PENNSYLVANIA GREAT LAKES WATER MANAGEMENT PROGRAM
Five Year Report
(2019-2024)

The following information is included in the report submitted by the Commonwealth of Pennsylvania to the Regional Body and Compact Council pursuant to the requirements in the Agreement Articles 200, 201, 206-208, 300, 301, and 304 and the Compact Sections 3.4, 4.1-11, and 4.13.

GENERAL INFORMATION

1. Lead agency/agencies and contact person(s):

Pennsylvania Department of Environmental Protection (DEP):

- Timothy Bruno, Coordinator, Great Lakes Program, Interstate Water Resources Management Division, 717.798.6001
- Susan Weaver, Program Manager, Interstate Water Resources Management Division, 717.783.8055

2. Citations to Pennsylvania's Water Management Program implementing laws, regulations and policies that establish or implement programs meeting the requirements of provisions of the Compact and Agreement:

a. Laws and Regulations

COMPACT	AGREEMENT	IMPLEMENTING LAWS
Compact Section 3.4	Agreement Article 300	• The Great Lakes-St. Lawrence River Basin Water Resources Compact of 2008 (P.L. No. 526, No. 43), ("Act 43") 32 P.S. § 817.22.3.4.
Compact Section 4.1	Agreement Article 301	• Act 43, 32 P.S §§ 817.22.4.1;817.25(1) • The Water Resources Planning Act of 2002 (P.L. 1776, No. 220), ("Act 220") 27 Pa.C.S. §§ 3117-3118. • 25 Pa. Code §§ 110.201- 110.402.

Compact Sections 4.2(2), 4.2(4), and 4.2(5)	Agreement Article 304	• Act 43, 32 P.S §§ 817.22.4.2.2; 817.22.4.4; 817.22.4.5; 817.25(2). • Act 220, 27 Pa.C.S. §§ 3111-3112; 3115-3116. • The Pennsylvania Safe Drinking Water Act of 1984 (“Safe Drinking Water Act”) (P.L. 206, No. 43), 35 P.S. § 721.7. 25 Pa. Code § 109.603. • The Dam Safety and Encroachments Act of 1978 (P.L. 1375, No. 325), (“Dam Safety Act”) 32 P.S. § 2. 25 Pa. Code §§ 105.15; 105.113. • The Emergency Management Services Code of 1978 (P.L. 1332, No. 323), (“EMS Code”) 35 Pa.C.S. § 7313. • 4 Pa. Code §§ 118.4-118.5; 119.2; 119.4; 120.3-120.5.
Compact Section 4.3	Agreement Article 200	• Act 43, 32 P.S § 817.22.4.3. • The Water Rights Act of 1939 (P.L. 842, No. 365), (“Water Rights Act”) 32 P.S. §§636-637. • The Pennsylvania Clean Streams Law of 1937 (P.L. 1987, No. 396), as amended (“Clean Streams Law”) 35 P.S. §§ 691.402; 691.611. • The Pennsylvania Oil and Gas Act (“Oil and Gas Act”) (P.L. 87, No. 13), 58 Pa.C.S. §3211(m).
Compact Sections 4.8, 4.9 and 4.13	Agreement Article 200, 201 and 208	• Act 43, 32 P.S §§ 817.22.4.8-817.22.4.9; 817.22.4.13. • Water Rights Act, 32 P.S. §§ 636-637. • Clean Streams Law, 35 P.S. § 691.611.

Compact Section 4.10	Agreement Article 206	• Act 43, 32 P.S §§ 817.22.4.10. • Act 220, 27 Pa.C.S. § 3118. 25 Pa. Code §§ 110.201-110.402. • Water Rights Act, 32 P.S. §§ 636-637. • Clean Streams Law, 35 P.S. §§ 691.401-691.402; 691.611. • Oil and Gas Act, 58 Pa.C.S. § 3211(m). • Dam Safety Act, 32 P.S. §§ 6-7; 9.
Compact Section 4.11	Agreement Article 207	• Act 43, 32 P.S §§ 817.22.4.11; 817.24(3). • Act 220, 27 Pa.C.S. § 3120. • Safe Drinking Water Act, 35 P.S. § 721.7.

b. Policies

- i. Susquehanna River Basin Commission's (SRBC's) *Guidelines for Using and Determining Passby Flows and Conservation Releases for Surface-Water and Ground-Water Withdrawal Approvals* (SRBC Policy No. 2003-01). This policy is being applied by DEP statewide. However, policy based on research by The Nature Conservancy (TNC) is being implemented by SRBC during low-flow conditions in the Susquehanna River basin, and similar policies based on TNC's study are under development in other basins, including the Great Lakes.
- ii. DEP *Water Quality Antidegradation Implementation Guidance* (DEP document 391-0300-002) states that it is the policy of DEP to protect the existing uses of all surface waters, and the existing quality of High Quality (HQ) and Exceptional Value (EV) waters.
- iii. DEP *Public Water Supply Manual - Part II, Community System Design Standards* (DEP document 383-2125-108).
- iv. DEP *Aquifer Testing Guidance for Public Water Systems* (DEP document 394-2125-001) establishes guidelines for aquifer testing for new or expanded Public Water Systems and replaces the corresponding procedures included in Part II of the Public Water Supply Manual pertaining to aquifer testing guidance.
- v. DEP *Guidelines for Identification of Critical Water Planning Areas* (DEP document 392-2130-014) provides for identification of Critical Water Planning Areas (CWPAs) as part of the State Water Plan. It defines a CWPA as a significant hydrologic unit where existing or future demands exceed or threaten to exceed the safe yield of available water resources.

WATER MANAGEMENT PROGRAM REPORT

1. Summary description of the State's or Province's water management program scope and thresholds, including current status of program implementation and a description of which New or Increased Withdrawals, Consumptive Uses and Diversions are subject to the program.

DEP's Water Management Program implements the *Great Lakes–St. Lawrence River Basin Water Resources Compact (Compact)* and the *Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement (Agreement)*. The Water Management Program is responsible for guiding sustainable water use policy throughout the Commonwealth, though special practices and reporting for the Great Lakes Basin are incorporated into the general practices of the Program. The information included in this report is specific to the Great Lakes Basin.

Pennsylvania accomplishes water management activities through several statutes, regulations, and supporting case law. The Water Rights Act of 1939 provides a broad,

contextual basis for water quantity management, governing the acquisition of water rights by public water supply agencies to divert water from rivers, streams, natural lakes, and ponds, and/or other surface waters within the Commonwealth in the interest of securing an adequate and safe supply of water for the public. Section 3 of this statute assures that acquisitions of water rights for diversions made by public water supply agencies allow for existing and future needs of the agencies as well as other entities requiring the procurement and use of water.

The Water Resources Planning Act of 2002 (Act 220) and its implementing regulations, 25 Pa. Code Chapter 110 (Chapter 110), establish registration, monitoring, recordkeeping and reporting requirements for purposes of obtaining accurate information to guide existing and future planning for water resources. Act 220 and Chapter 110 provide the contemporary framework for water management in Pennsylvania and created the Pennsylvania State Water Plan and avenues for registration and reporting of water withdrawals for all public water supply agencies, hydropower facilities, and other entities withdrawing greater than an average rate of 10,000 gallons per day.

Act 43 of 2008, implementing the Great Lakes–St. Lawrence River Basin Water Resources Compact in Pennsylvania, establishes the threshold for management and regulation as follows: any new or increased withdrawal from the basin in an amount that equals or exceeds 100,000 gallons per day averaged over any 90-day period; any new or increased consumptive use of water withdrawn from the basin in an amount which equals or exceeds 5,000,000 gallons per day averaged over any 90-day period; or any new or increased diversion of water from the basin.

Water Use Registration and Reporting

Act 220, Chapter 110, and Act 43 of 2008 set the registration and reporting requirements for water withdrawals, consumptive uses, and diversions in Pennsylvania.

Registration

Chapter 110, Subchapter B, Section 110.201 requires the following persons to register with DEP within 30 days following the initiation of a water withdrawal or withdrawal use:

- Each owner of a public water supply agency.
- Each owner of a hydropower facility.
- Each person whose total withdrawal from a point of withdrawal, or from multiple points of withdrawal operated as a system either concurrently or sequentially, within a watershed exceeds an average rate of 10,000 gallons per day in any 30-day period.
- Each person who obtains water through an interconnection with another person in an amount that exceeds an average rate of 100,000 gallons per day in any 30-day period.

- Within an area designated as a critical water planning area, each person who obtains water through interconnection with another person in an amount that exceeds an average rate of 10,000 gallons per day in any 30-day period.

Registrants are required to supply the following information by submitting their registration online through the web portal

<https://greenport.pa.gov/WaterSourceRegistration/RegLookup>. A separate online submission is required for each source of water.

- Registrant identification and description information.
- For each source: Name, description, location, amount of water withdrawn or obtained through interconnection with another person, or instream hydropower use.

Reporting

Chapter 110, Subchapter C, 110.304 states that each person subject to registration in Chapter 110.201 shall provide an annual report to DEP describing water use during the previous calendar year. Reports include industry-specific information as well as:

- The amount of consumptive and non-consumptive uses reported as monthly totals and number of days used.
- Locations and amounts of any waters returned or discharged reported as annual total.
- Amounts of water transferred between public water supply agencies by means of interconnections reported as monthly totals and number of days used.

All Chapter 110 and Water Management Plan (required for oil and gas operators) reporting is accomplished through an online data submission portal, DEP Greenport (<https://greenport.pa.gov/>). Public water suppliers are required to report by March 31 following the report year, and all other registrants are required to report by June 30.

Withdrawals

‘Withdrawal’ is defined in Act 43 of 2008, Article I as “the taking of water from surface water or groundwater.” Act 43 of 2008, Section 6 sets the threshold for management and regulation as follows: any new or increased withdrawal from the basin in an amount that equals or exceeds 100,000 gallons per day averaged over any 90-day period; any new or increased consumptive use of water withdrawn from the basin in an amount which equals or exceeds 5,000,000 gallons per day averaged over any 90-day period; or any new or increased diversion of water from the basin.

The permitting of withdrawals is accomplished through multiple DEP permitting programs that focus on the type of activity and industry proposing the withdrawal. Public water supplies are governed by the Pennsylvania Safe Drinking Water Act which requires stringent source water quality standards and provides guidelines on water

quantity, either surface or ground water, through the DEP *Public Water Supply Manual - Part II, Community System Design Standards*, Section III: Source Development and Construction (DEP document 383-2125-108) and the DEP *Aquifer Testing Guidance for Public Water Systems* (DEP document 394-2125-001).

Water withdrawals associated with unconventional oil and natural gas well drilling and development activities are subject to approval requirements of Section 3211(m) of Pennsylvania's 2012 Oil and Gas Act and its implementing regulation in 25 Pa. Code Chapter 78a which requires the creation and approval of a Water Management Plan and quarterly reporting of daily withdrawals and purchases. Operators may also report daily use values on a monthly basis to allow for greater flexibility in reporting,

Certain activities that involve surface water withdrawals and intake structures may require permitting through Pennsylvania's Dam Safety and Encroachments Act of 1978 and its implementing regulations in 25 Pa. Code Chapter 105.

Consumptive Use

'Consumptive Use' is defined in Act 43 of 2008, Article I as "that portion of the Water Withdrawn or withheld from the Basin that is lost or otherwise not returned to the Basin due to evaporation incorporation into Products, or other processes." Water withdrawal registrants under Act 220 and 25 Pa. Code §110.304 are required to report the amounts of consumptive and non-consumptive uses by a means or method accurate to within 10% of actual flow or through established scientific means as defined by Chapter 110.501.

Diversions

'Diversion' is defined in Act 43 of 2008, Article I as "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 water course, a tanker ship, tanker truck or rail tanker but does not apply to Water that is used in the Basin or a Great Lake watershed to manufacture or produce a Product that is then transferred out of the Basin or watershed." Currently in Pennsylvania, there are no existing or proposed diversions. Any proposed diversion would be reviewed through existing water withdrawal permitting programs.

2. Specific description of how water withdrawals in Pennsylvania are managed by sector, water source, quantity, and location.

Water withdrawals in Pennsylvania are regulated in a varying manner depending on sector, source, quantity and location.

a. Regulation by Sector

Under the registration process of 25 Pa. Code §§ 110.201-110.206, withdrawal sources in the Great Lakes-St. Lawrence River Basin are assigned codes within Pennsylvania's

Water Use Data System (WUDS) that identifies a source use (sector) type consistent with Great Lakes-St. Lawrence River Regional Water Use Database. Other data collected include, but are not limited to, facility type and client-level information related to ownership and location.

Public water supply (statewide)

Under the authority and provisions of Pennsylvania's Water Rights Act, 32 P.S. §§ 636-637, public water suppliers obtain water rights from DEP for all surface water withdrawals, with no rate or volume thresholds, through the application of and approval of water allocation permits. Public water suppliers are also regulated by the Pennsylvania Safe Drinking Water Act, 35 P.S. § 721.7. Public water suppliers are also subject to registration, recordkeeping, monitoring, and reporting requirements as described in 25 Pa. Code §§ 110.201-110.402.

Gas well development in unconventional formations (statewide)

Under Pennsylvania's Oil & Gas Act, 58 Pa.C.S. § 3211(m) and its implementing regulation in 25 Pa. Code Chapter 78a, any person withdrawing or using water from a water source in the Commonwealth, for drilling or completing an unconventional gas well, are to obtain approval of a Water Management Plan from DEP prior to the withdrawal or use of water, with no quantity or rate minimums. Water Management Plan approvals identify the maximum rate and volume of water that may be withdrawn, and if applicable, passby flow conditions. Holders of these approvals are required to measure water withdrawals and purchases using continuous-recording devices or flow meters. Daily records of withdrawal volumes, in-stream flow measurements or water source purchases, or both, are submitted quarterly.

Other sectors

The management and regulation of all other sectors within the Great Lakes-St. Lawrence River Basin (e.g., mineral, industrial, agricultural, commercial, and electric) fall under the provisions of Act 43, 32 P.S. §§ 817.22.4.10, including: any new or increased withdrawal from the basin in an amount that equals or exceeds 100,000 gallons per day averaged over any 90-day period; any new or increased consumptive use of water withdrawn from the basin in an amount which equals or exceeds 5,000,000 gallons per day averaged over any 90-day period; or any new or increased diversion of water from the basin.

As with public water supply and oil and gas operations, water withdrawals for other sectors are subject to the registration, recordkeeping, monitoring, and reporting requirements of 25 Pa. Code §§ 110.201-100.402.

b. Regulation by Water Source

Groundwater:

Groundwater withdrawals are managed and regulated within the Great Lakes-St. Lawrence River Basin under the provisions of Act 43, 32 P.S. §§ 817.22.4.10, including: any new or increased withdrawal from the basin in an amount that equals or exceeds 100,000 gallons per day averaged over any 90-day period; any new or increased consumptive use of water withdrawn from the basin in an amount which equals or exceeds 5,000,000 gallons per day averaged over any 90-day period; or any new or increased diversion of water from the basin.

Groundwater withdrawals for public water suppliers, with no minimum thresholds, are regulated under the authority of the Pennsylvania Safe Drinking Water Act, 35 P.S. § 721.7, the DEP *Water Supply Manual - Part II, Community System Standards*, and the registration, recordkeeping, monitoring, and reporting requirements of 25 Pa. Code §§ 110.201-110.402.

Groundwater withdrawals for unconventional gas well development are regulated under Pennsylvania's Oil and Gas Act, 58 Pa.C.S. § 3211(m), requiring DEP approval of Water Management Plans developed by unconventional gas well operators. Holders of these approvals generally follow the recordkeeping, monitoring, and reporting procedures of 25 Pa. Code §§ 110.201-110.402.

Withdrawals for groundwater withdrawals by other sectors (e.g., mineral, industrial, agricultural, commercial, and electric) are subject to the registration, recordkeeping, monitoring, and reporting requirements of 25 Pa. Code §§ 110.201-110.402.

Surface Water:

In the Great Lakes Basin portion of Pennsylvania, all surface water withdrawals by public water suppliers are regulated under the Water Rights Act, 32 P.S. §§ 636-637 and, for all withdrawals of 10,000 gallons per day or more over a 30-day average, under 25 Pa. Code §§ 110.201-110.402.

Surface water withdrawals for unconventional gas well development are regulated under Pennsylvania's Oil and Gas Act, 58 Pa.C.S. § 3211(m), requiring DEP approval of Water Management Plans developed by unconventional gas well operators. Holders of these approvals generally follow the recordkeeping, monitoring, and reporting procedures of 25 Pa. Code §§ 110.201-110.402.

c. Regulation by Quantity

Withdrawals are managed and regulated within the Great Lakes-St. Lawrence River Basin under Act 43, 32 P.S. §§ 817.22.4.10, including: any new or increased withdrawal from the basin in an amount that equals or exceeds 100,000 gallons per day averaged over any 90-day period; any new or increased consumptive use of water withdrawn from the basin in an amount which equals or exceeds 5,000,000 gallons per

day averaged over any 90-day period; or any new or increased diversion of water from the basin.

Act 220, 27 Pa.C.S. § 3118, and its implementing regulations at 25 Pa. Code §§ 110.201-110.402 require registration, reporting, and recordkeeping for water withdrawals if an owner of a public water supply agency, hydropower facility, or any person whose total withdrawal exceeds an average rate of 10,000 gallons per day in any 30-day period or exceeds an average rate of 100,000 gallons per day in any 30-day period if obtaining water through interconnection with another person. Reports are to be submitted to DEP yearly. Depending on the sector, different user-specific contents are required in these reports.

d. Regulation by Location

In Pennsylvania, regulation of water withdrawals varies somewhat between withdrawals and uses within and outside of the Great Lakes-St. Lawrence River Basin. While all the provisions of Act 220, 27 Pa.C.S. § 3118, 25 Pa. Code §§ 110.1-110.603, the Oil and Gas Act, 58 Pa.C.S. § 3211(m), and 25 Pa. Code § 78a.69 apply statewide, the provisions of Act 43 regarding the prohibition of new or increased diversions, new or increased withdrawals, and consumptive uses apply only within Pennsylvania's portion of the Great Lakes-St. Lawrence River Basin.

e. Exemptions as allowed in the Agreement and Compact

Act 43, 32 P.S §§ 817.22.4.9 and 817.22.4.13 provide for the full exemptions allowed in the Agreement and Compact.

i. Section 4.9 Exceptions to the prohibition of diversions

- Provisions for certain transfers of water to areas within “straddling communities”; and
- Provisions for certain transfers of water to communities within a “straddling county”.

ii. Section 4.13 Exemptions

- To supply vehicles, including vessels and aircraft, whether for the needs of the persons or animals being transported or for ballast or other needs related to the operation of the vehicles.
- To use in non-commercial project on a short-term basis for firefighting, humanitarian, or emergency response purposes.

3. Description of how the provisions of the Standard of Review and Decision are applied, including information on how each criterion of the Decision-Making Standard and Exception Standard is addressed.

The Standard of Review and Decision was codified in Pennsylvania in Act 43 of 2008 and is applied when DEP permits or regulates water withdrawals within the Great Lakes-

St. Lawrence River Basin in accordance with the statutes, regulations, and/or policies described in the General Information section above. No additional standards have been incorporated in the withdrawal review process in Pennsylvania.

a. Decision making standard for withdrawals, consumptive uses.

Section 4.11 of Act 43 details the requirements for proposals subject to the threshold level for management and regulations of all new or increased withdrawals of 100,000 gallons per day or greater average in any 90-day period.

- i. All water withdrawn shall be returned, either naturally or after use, to the source watershed less an allowance for consumptive use;
- ii. The withdrawal or consumptive use will be implemented to ensure that the proposal will result in no significant individual or cumulative adverse impacts to the quantity or quality of the waters and water dependent natural resources and the applicable source watershed;
- iii. The withdrawal or consumptive use will be implemented to incorporate environmentally sound and economically feasible water conservation measures;
- iv. The withdrawal or consumptive use will be implemented to ensure that it is in compliance with all applicable municipal, State and Federal laws as well as regional interstate and international agreements, including the Boundary Waters Treaty of 1909;
- v. The proposed use is reasonable, based upon consideration of factors including efficiency, balance between economic development, social development and environmental protection, supply potential of the water source, and adverse impacts expected to be caused by the proposed withdrawal.

b. Exception standard for diversions

- i. Section 4.8 of Act 43 provides for the prohibition of new or increased diversions with Section 4.9 providing an exception standard for proposals subject to management and regulation under the Act as previously described above in item 2.e.
- ii. The following diversion proposals are subject to more stringent standards as well as separate review and approval by the eight Great Lakes states who are members of the Compact Council and review by the Regional Body composed of the Compact Council members plus representatives of the Canadian provinces of Ontario and Quebec, in accordance with the Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement and the Compact:
 - Proposals to divert Great Lakes water to a community within a county that straddles the Great Lakes Basin; and

- Proposals to transfer water from the basin of one Great Lake to that of another that result in more than 5,000,000 gallons per day consumptive use.

4. Overview of Pennsylvania’s reporting and database of Withdrawals, Consumptive Uses, and Diversions including implementation status and database elements and capabilities and reporting mechanisms as well as methods of measurement.

Pennsylvania’s water withdrawal and use requirements are outlined in 25 Pa. Code §§ 110.1-110.603.

a. § 110.201.

Registration of a water source is required of: (1) each owner of a public water supply agency, with no minimum threshold; (2) each owner of a hydropower facility, with no minimum threshold; (3) each person whose total withdrawals exceeds an average rate of 10,000 gallons per day in any 30-day period; (4) each person who obtains water through interconnection with another person that exceeds an average rate of 100,000 gallons per day; and (5) each person within an area designated as a critical water planning area who obtains water through interconnection with another person that exceeds 10,000 gallons per day.

- Registration is accomplished through submission of forms that identify ownership, source, use type, sector, location, source details, and measurement of water. Once accepted, the registration information is retained within the Commonwealth’s Water Use Data Management System (WUDS). From this information, consumptive use coefficients are applied by sector based on published values or computed using a balancing equation when discharge volume is reported at a facility.

b. § 110.302-110.305.

Each person subject to the registration under § 110.201 is required to submit a report of their withdrawals or purchases. This is accomplished electronically through the DEP Greenport, a web-based application, <https://www.depgreenport.state.pa.us>.

- Monthly water withdrawals and use are reported on an annual basis by March 31 for public water suppliers and June 30 for all sectors except for public water suppliers. Public water suppliers with surface water sources report daily withdrawal values on a monthly basis and unconventional gas operator sources report daily withdrawal values on a quarterly basis.

c. § 110.401-110.402

Each person subject to registration and reporting is to retain supporting data for at least five years.

d. § 110.501-110.503

A public water supplier is to measure its withdrawals and transfers by means of a continuous recording device or flow meter accurate to within 5% of actual flow. A hydropower facility is to measure its withdrawals or in-stream uses by continuous recording device, by flow meter, or by calculation based on electrical generation or turbine flow rates accurate to within 5% of actual flow. Each person whose total withdrawals equals or exceeds an average rate of 50,000 gallons per day in any 30-day period or obtains water by interconnection in excess of an average of 100,000 gallons per day in any 30-day period is to measure or calculate: (1) withdrawals and interconnection flows by a continuous recording device or meter accurate to within 5% of actual flow; and (2) consumptive use by means accurate to within 10% of actual flow. DEP may grant exceptions if standards are not technically feasible or economically practical. Withdrawals and uses are to be recorded daily with water obtained by interconnection recorded on a weekly basis. Voluntary registrants may record monthly. Provision is made for more accurate measurement or calculations in Critical Water Planning Areas designated through State Water Plan planning processes.

5. Application Form(s) and related regulations, policies, and manuals

Water allocation permit form and instructions for public water supply surface water withdrawals

<http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4042>

Water withdrawal registration and use forms and instructions of all withdrawals under 25 Pa. Code Chapter 110

<https://greenport.pa.gov/WaterSourceRegistration/RegLookup>

Water Management Plan form and instructions for unconventional gas water withdrawals

<http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=3908>

Public Water Supply Permit Applications

<http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=3928>

25 Pa. Code Chapter 110

<http://www.pabulletin.com/secure/data/vol38/38-46/2057.html>

The Water Resources Planning Act of 2002 (Act 220)

<https://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2002&sessInd=0&act=220>

Act 43, the Great Lakes-St. Lawrence River Basin Water Resources Compact

<http://www.legis.state.pa.us/WU01/LI/LI/US/HTM/2008/0/0043..HTM>

Water Rights Act of 1939

<http://www.legis.state.pa.us/WU01/LI/LI/US/PDF/1939/0/0365..PDF>

Oil and Gas Act, 58 Pa.C.S. § 3211(m)

<http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/OilGasReports/2012/act13.pdf>

25 Pa. Code Chapter 78a

<https://www.pacode.com/secure/data/025/chapter78a/chap78atoc.html>

DEP Public Water Supply Manual

<https://greenport.pa.gov/elibrary/GetDocument?docId=1419665&DocName=PUBLIC%20WATER%20SUPPLY%20MANUAL%20-%20PART%20II%20COMMUNITY%20SYSTEM%20DESIGN%20STANDARDS.PDF%20%20%3Cspan%20style%3D%22color%3Agreen%3B%22%3EAS%20OF%20APRIL%2012%2C%202014%2C%20THE%20AQUIFER%20TESTING%20GUIDELINES%20WITHIN%20THIS%20MANUAL%20ARE%20REPLACED%20BY%3C%2Fspan%3E%20%3Cspan%20style%3D%22color%3Ablue%3B%22%3E%3C%2Fspan%3E>

DEP Aquifer Testing Guidance for Public Water Systems

<http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4643>

DEP Guidelines for Identification of Critical Water Planning Areas

<http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4670>

6. Summary description of the State’s or Province’s initiatives to support an improved scientific understanding of the Waters of the Basin and an improved understanding of the groundwater of the Basin and the role of groundwater in Basin water resource management including a description of initiatives or mechanisms to support an improved understanding of individual or cumulative impacts of withdrawals, consumptive uses and diversions of the Basin.

- a. Pennsylvania completed the Pennsylvania Lake Erie Integrated Water Resources Management Plan in coordination with Pennsylvania Sea Grant, Erie County Conservation District, and the Regional Science Consortium at Presque Isle. Released in December 2015, this document consolidated much of the scientific data and attributes associated with Pennsylvania tributaries in the Lake Erie Basin. It is available for viewing and download at:
<https://pawalter.psu.edu/sites/default/files/resources/PALE%20IWRM%20Plan%20%282015%29.pdf>
- b. In 2018, Pennsylvania and Pennsylvania Sea Grant launched the Water and Land Technical Resource website as a “one-stop, web-based center” to access and integrate Pennsylvania Great Lakes related information, data, services, and guidance. The website underwent a significant refresh in 2020 to include an improved interactive geospatial mapping application that allows the viewing and downloading of watershed, water quality, and land use data and reports to help water management understanding and inform policy decision-making. The wide array of topics, digital information, and historical documents and reports are available for viewing and download at:
<https://pawalter.psu.edu/>
- c. DEP implemented a series of trainings in 2016 specifically developed for public water supply operators within the Lake Erie Basin that focused on reducing system-wide public drinking water losses. These trainings educated over 50 Lake Erie Basin water supply operators, and topics included: In-depth Training in Water Loss Auditing using the American Water Works Association’s Free Water Audit Software; Controlling Water Utility Apparent Losses in Customer Metering and Billing Operations; and Fundamentals of Leakage and Pressure Management for Water Utilities. DEP continues to update and deliver these courses across the Commonwealth and has trained hundreds of operators since inception.

WATER CONSERVATION AND EFFICIENCY PROGRAM REPORT

The following information summarizes Pennsylvania’s efforts regarding the Commonwealth’s Water Conservation and Efficiency Program. This information 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. 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.

Pennsylvania continues to achieve reductions in overall Great Lakes water use. In Water Year 2023, the total Pennsylvania Great Lakes Basin withdrawal amount was 28.0 mgal/d, an 8.2 percent decrease from Water Year 2022 and the lowest overall water withdrawn since the inception of the Compact and Agreement. The reduction was accounted for by a 7.5 percent decrease in public water supply use and an 18 percent decrease in water use for self-supply livestock, both associated with normal fluctuations. The majority (25.2 mgal/d or 89.7 percent) of the total withdrawn for 2023 was used for public water supply purposes, followed by self-supplied livestock, with a total withdrawal amount of 2.4 mgal/day, and self-supplied irrigation use of 0.4 mgal/day. The estimated total consumptive use was 3.0 mgal/d, mostly accounted for by public water supply at 83.7 percent of the total.

2. 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, 32 P.S. §§ 636-637) 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

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

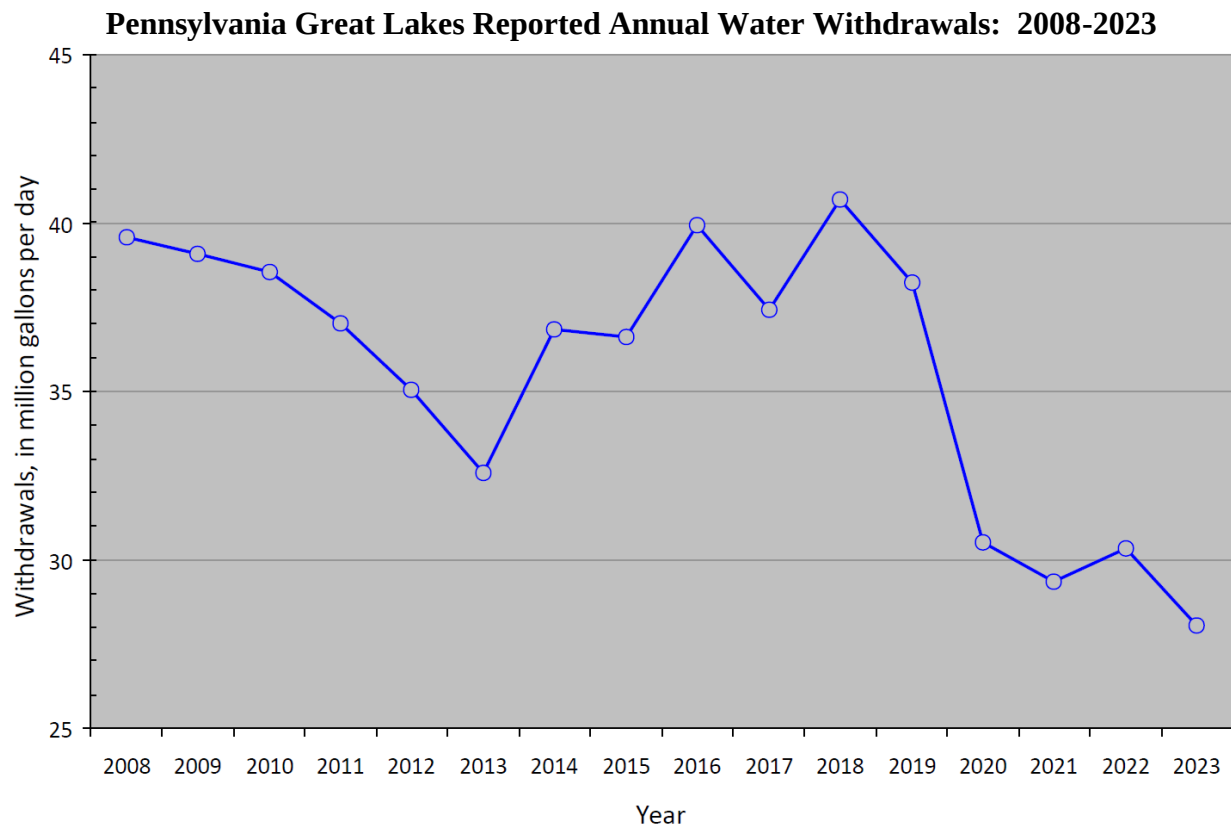
OBJECTIVES	LEGISLATIVE OR PROGRAM CITATION
Guide programs toward long-term sustainable water use	(1) Water Rights Act, 32 P.S. §§ 636-637 — Under this act, public water supply agencies must obtain Water Allocation permits from DEP to acquire rights to surface water in PA. In its review of the permit applications, DEP considers water conservation and use of existing water supplies. (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. (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.
Adopt and implement supply and demand management to promote efficient use and conservation of water resources	(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. 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.
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

OBJECTIVES	LEGISLATIVE OR PROGRAM CITATION
	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, The Pennsylvania State University, and other regional higher education institutions and to focus on developing science, technology, and research in the Great Lakes Basin.
Develop education programs and information sharing for all water users	(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 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.

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

- a. In 2025-2029, DEP will continue offering opportunities for conservation and efficiency education to public water suppliers in Pennsylvania's Great Lakes Basin. 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 2025-2029, DEP will continue to convene the Great Lakes Water Resources Regional Committee of the State Water Plan to maintain organizational structure and receive information regarding activities in the Pennsylvania Great Lakes Basin (Lake Erie and Genesee River). Progress can be followed at:
www.dep.pa.gov/Business/Water/PlanningConservation/StateWaterPlan
- c. In 2025-2029, 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:
<https://www.dep.pa.gov/About/Awards/EnvironmentalExcellence/Pages/default.aspx>

- d. In 2025 and future years, DEP will dedicate segments of the 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: <https://seagrant.psu.edu/outreach/pa-leef/>



END OF REPORT

**Great Lakes-St. Lawrence River Water Resources Regional Body
Great Lakes-St. Lawrence River Basin Water Resources Council**

RESOLUTION NO. 2025-8

ADOPTING JOINT DECLARATION OF FINDING

For the Water Management Program Review and
Water Conservation and Efficiency Program Review
State of Wisconsin

I. BACKGROUND AND PURPOSE

The Compact

A. The Great Lakes-St. Lawrence River Basin Water Resources Compact (“Compact”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin and the Commonwealth of Pennsylvania, and was effective on December 8, 2008.

B. Section 3.4 of the Compact requires each Party State to submit a report to the Great Lakes-St. Lawrence River Basin Water Resources Council (“Compact Council”) and the Great Lakes-St. Lawrence River Water Resources Regional Body (“Regional Body”) on actions taken by that State to meet the provisions of the Agreement and Compact regarding that Party State’s Water management and conservation and efficiency programs.

C. Following the Compact Council’s review of such reports in cooperation with the Provinces pursuant to Section 3.4 of the Compact, the Council shall determine whether that State’s programs: (1) meet or exceed the provisions of the Compact; or (2) do not meet the provisions of the Compact and, if not, recommend options to assist the jurisdiction in meeting the provisions of the Compact.

D. Section 4.2 of the Compact requires the Compact Council in cooperation with the Provinces to adopt Basin-wide conservation and efficiency objectives, which were adopted by the Compact Council on December 8, 2008. Section 4.2.2 of the Compact requires each Party State to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a Water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State’s goals and objectives.

The Agreement

E. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin, the Commonwealth of Pennsylvania, the Province of Ontario, and the Government of Québec, and certain provisions of the Agreement began to more fully come into force on March 8, 2015.

F. Article 300 of the Agreement requires each Party State and Province to submit a report to the Regional Body on actions taken by the State or Province to meet the provisions of the Agreement regarding that State's or Province's Water management and conservation and efficiency programs.

G. Following the Regional Body's review of such reports pursuant to Article 300 of the Agreement, the Regional Body shall determine if that State or Province's programs: (1) meet or exceed the provisions of the Agreement; (2) do not meet the provisions of the Agreement; or (3) would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement.

H. Article 304, Paragraph 1 of the Agreement requires the Regional Body to identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by December 13, 2007, which were adopted by the Regional Body on December 13, 2007. Article 304, Paragraph 2 of the Agreement requires each Party State and Province to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State's or Province's goals and objectives.

II. SUBMISSIONS BY STATE OF WISCONSIN

A. To the Compact Council. The Compact Council has received the State of Wisconsin's report on its Water management and conservation and efficiency programs under the Compact, which is attached to this Resolution as Attachment A.

B. To the Regional Body. The Regional Body has received the State of Wisconsin's report on its Water management and conservation and efficiency programs under the Agreement, which is attached to this Resolution as Attachment A.

III. DECLARATION OF FINDING

Upon review of the submissions of the State of Wisconsin, the terms of the Compact and the Agreement, the Compact Council and Regional Body find as follows:

- A. Based on the report submitted by the State of Wisconsin, the Water Management Program presented by the State of Wisconsin meets or exceeds the current requirements of the Compact and the Agreement.
- B. Based on the report submitted by the State of Wisconsin, the Water Conservation and Efficiency Program presented by the State of Wisconsin meets or exceeds the current requirements of the Compact and the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

ATTACHMENT A

Water Management and Conservation and Efficiency Programs—
Report to the Compact Council and Regional Body
Dated December 11, 2024

WISCONSIN DEPARTMENT OF NATURAL RESOURCES WATER MANAGEMENT AND CONSERVATION AND EFFICIENCY PROGRAM REVIEW

December 11, 2024

General Information

1. Lead agency/agencies and contact person(s) and contact information.

Lead agency: State of Wisconsin Department of Natural Resources (WDNR)

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2. Identify all laws, statutes, rules, regulations, executive orders, administrative orders or other similarly enforceable documents (collectively, “Laws”) that establish or implement programs meeting the requirements of the following provisions of the Compact or Agreement. In particular, ensure that all such citations address the following sections and articles of the Compact and Agreement. Include a brief lay person description for each section of the program and weblink for more information (registration, reporting, diversion, decision making standard for water use permits, water conservation program, science and research, etc.)

The Wisconsin Legislature ratified the *Great Lakes–St. Lawrence River Basin Water Resources Compact* (Compact) in 2007 Wisconsin Act 227. Section 281.346 of the Wisconsin Statutes details Wisconsin’s program for managing and regulating new or increased water withdrawals, diversions and consumptive uses consistent with the provisions of the Compact. There have been some changes to Wisconsin’s laws related to Compact implementation since 2007 Act 227. All relevant changes are noted below. Additional detail is provided in the table below.

COMPACT	AGREEMENT	IMPLEMENTING LAWS AND ADMINISTRATIVE CODES*
Compact Section 3.4	Agreement Article 300	§281.343(3)(d); §281.346(11)
Compact Section 4.1	Agreement Article 301	§281.343(4); §281.346(3); §281.346(11); NR 856
Compact Sections 4.2(2), 4.2(4), and	Agreement Article 304	§281.343(4b)(b), (d) & (e); §281.346(8) and (11)(d); NR 852

Compact Section 4.3	Agreement Article 200	§281.343(4d); §281.346; NR 850; NR 852; NR 856; NR 860
Compact Sections 4.8, 4.9, and 4.13	Agreement Articles 200, 201 and 208	§281.343(4m), (4n) and (4v); §281.346(4), (5m), (6) and (7); NR 851; NR 852; NR 854; NR 856
Compact Section 4.10	Agreement Article 206	§281.343(4p); §281.346 (4m), (4s), (5), (5e) and (5m); NR 860
Compact Section 4.11	Agreement Article 207	§281.343(4r); §281.346(6); NR 860

*NR references refer to chapters or sections of the Wisconsin Administrative Code; § references refer to sections of the Wisconsin Statutes.

Registration: Water withdrawers must register a water withdrawal if the water supply system (e.g. high capacity well or surface water intake pipe) has the capacity to withdraw at least 100,000 gallons per day (70 gallons per minute) (including from the Great Lakes basin) in any 30-day period. The two exemptions to this requirement are: withdrawals to supply vehicles for the needs of the persons or animals being transported or for ballast or other needs related to the operation of the vehicles and temporary withdrawals for fire-fighting, humanitarian or emergency response purposes. Ch. NR 856, Wis. Adm. Code;
<https://dnr.wi.gov/topic/WaterUse/registration.html>

Reporting: Registered withdrawers are required to measure or estimate the volume of water they withdraw every month and report that information annually to the WDNR. Even if water is not withdrawn during the previous year, a withdrawal report is still required. Reporting is required for: all high capacity well properties (statewide); permitted (Chapter 30, Wis. Stats.) surface water withdrawals (statewide); properties with a Water Use Permit (Great Lakes basin); and any properties that withdrew an average of 100,000 gallons per day or more in any 30-day period. Ch. NR 856, Wis. Adm. Code;
<https://dnr.wi.gov/topic/WaterUse/report.html>

Water Use Permits: Since December 8, 2011, WDNR requires water use permits in the [Great Lakes Basin](#) (Lake Superior or Lake Michigan) for properties that plan to withdraw water at an average of 100,000 gallons per day or more in any 30-day period. There are two types of water use permits:

- **Water Use General Permit** - Required for withdrawals that average 100,000 gallons per day or more in any 30-day period but do not equal at least 1,000,000 gallons per day for 30 consecutive days.
- **Water Use Individual Permit** - Required for withdrawals that equal at least 1,000,000 gallons per day for 30 consecutive days.

Applicants must receive a water use permit prior to withdrawing water. There are no Water Use Permit application fees. § 281.346(4m), (4s), (5), Wis. Stat.; Ch. NR 860, Wis. Adm. Code; <https://dnr.wi.gov/topic/WaterUse/permits.html>

Water Conservation and Efficiency: Wisconsin implements a water conservation and efficiency program in line with the Wisconsin and Great Lakes basin-wide water conservation and efficiency goals and objectives. The water conservation and efficiency program is implemented by the WDNR, in cooperation with the Public Service Commission of Wisconsin, and the Wisconsin Department of Safety and Professional Services. Wisconsin provides [annual reports](#) on its water conservation and efficiency program to the Compact Council and Regional Body. § 281.346(8), Wis. Stat.; Ch. NR 852, Wis. Adm. Code; <https://dnr.wi.gov/topic/WaterUse/conservation.html>

Diversions: The Great Lakes Compact and Agreement ban diversions of Great Lakes water with limited exceptions. These exceptions allow a “straddling community” or “community in a straddling county” to apply to divert water (i.e., to move water out of the Great Lakes basin). “Straddling community” refers to communities that straddle the Great Lakes basin boundary. These are communities that lie partly within the Great Lakes basin and partly outside of the Great Lakes basin. Examples of straddling communities in Wisconsin are the City of New Berlin, Village of Mount Pleasant, and the Village of Somers. “Community in a straddling county” refers to communities that are wholly outside of the Great Lakes basin but located in a county that straddles the Great Lakes basin boundary. An example of this type of community is the City of Waukesha. § 281.346(4), Wis. Stat.; Ch. NR 851, Wis. Adm. Code; <https://dnr.wi.gov/topic/WaterUse/compact.html>

Other: Wisconsin summarizes water use reporting data annually and [reports](#) are available on the WDNR’s website. Additionally, Wisconsin annually provides aggregate water use data to the Great Lakes Commission to include in the Great Lakes Commission’s Great Lakes [water use report](#). Wisconsin also provides an on-line search tool of [water withdrawal sources](#).

3. Identify any changes from the 2019 report, highlighting in particular major changes from 2019 throughout the response. If there are no changes, please indicate accordingly.

Wisconsin promulgated two rules related to implementing the Great Lakes Compact. These rules include Ch. NR 851, Wis. Adm. Code, Management of Great Lakes Diversions and Ch. NR 854, Wis. Adm. Code, Water Supply Service Area Plans, which went into effect July 1, 2024. The Management of Great Lakes Diversions administrative code defines the application requirements and the DNR’s review processes for Great Lakes diversions. The Water Supply Service Area Plans administrative code contains the water supply service area plan requirements and procedures for public water supply systems to follow when preparing water supply service area plans. These plans are required for most diversion applications. No other statutory or administrative code changes have occurred since 2019.

The high capacity well application review process has changed since 2019. These applications relate to implementation of the Compact as they are the review mechanism for impacts from high-capacity wells on waters of the state, including waters in the Great Lakes Basin. In July 2021, the Wisconsin Supreme Court issued a decision in *Clean Wisconsin v. Wisconsin Department of Natural Resources*, 2021 WI 72, affirming the WDNR’s constitutional duty and statutory authority to consider environmental effects on the waters of the state when reviewing high capacity well applications. This decision affirmed the court’s

previous ruling in *Lake Beulah Management District v. Wisconsin Department of Natural Resources*, 2011 WI 54. In accordance with the *Clean Wisconsin* decision, the WDNR high capacity well application review process considers environmental impacts to the waters of the state when reviewing a proposed high capacity well application, makes a fact-specific determination for each application, and considers sufficient concrete, scientific evidence of potential harm to waters of the state.

Water Management Program Report

- 1. Summary description of the State's or Province's Water management program scope and thresholds, including the current status of program implementation and a description of which New or Increased Withdrawals, Consumptive Uses and Diversions are subject to the program. The summary should include information on registration (if applicable), management and regulation, and reporting elements of the program.**

Water Use Program Management: The Water Use Program at WDNR was created to implement the Compact and *Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement* (Agreement) and to focus on sustainable and efficient water use. Wisconsin's Compact-implementing legislation (2007 Wisconsin Act 227) and related regulatory and case law provide the foundation for the Water Use Program. While most of the program applies statewide, there are specific requirements for water users in the Great Lakes Basin. Information related to the Water Use Program is available on the WDNR website: <http://dnr.wi.gov/topic/wateruse/>.

The Water Use Program is focused on achieving Wisconsin's goal, as described in [the state's water conservation and efficiency goals and objections](#), to:

“Sustainably manage the quantity and quality of water in the state to ensure that water is available to be used to protect and improve our health, economy and environment now and into the future.”

Water Use Program components include:

- Documenting and monitoring water use through registration and reporting;
- Implementing the Compact through water use permitting and regulating diversions of Great Lakes Basin waters;
- Helping communities plan water supply needs;
- Reviewing the construction and environmental impact of high capacity wells;
- Building a statewide water conservation and efficiency program;
- Developing and maintaining a statewide water resources inventory, including a better understanding of water loss and consumptive use in Wisconsin; and
- Providing information to the public on water withdrawal sources in Wisconsin, applications for new high capacity wells, and opportunities for public participation on significant Compact related proposals.

Statewide water use registration and reporting

Section 281.346(3), Wis. Stat., and Chapter NR 856, Wis. Adm. Code, requires people to register water withdrawals and report of water withdrawal data annually to the WDNR to support management of the state's water resources.

Registration

Any person who proposes to begin a new or increased withdrawal from waters of the state using a water supply system¹ with the capacity to withdraw 100,000 gallons per day (~ 70 gallons per minute) or more in any 30-day period, must register the withdrawal with the WDNR. Examples of water supply systems that may fall under this category include:

- All high capacity well properties;²
- Permitted (Wis. Stat. Chapter 30) surface water withdrawals;
- Any other properties statewide on which there is a water supply system with the capacity to withdraw an average of 100,000 gallons per day or more in any 30-day period from surface water or groundwater.

Prior to the effective date of the Compact, December 8, 2008, any approved and permitted water supply systems with a capacity to withdraw at least 100,000 gallons per day through several programs were automatically registered with the WDNR. Following implementation of the Compact, all new or increased withdrawals that meet the withdrawal threshold must register with the WDNR prior to withdrawing groundwater or surface water. This is typically done in conjunction with other approval or permitting procedures. As of 2024, WDNR has approximately 15,400 registered withdrawal sources statewide, of which, approximately 14,300 are wells and 1,100 are surface water sources. The public may search for water withdrawal locations through WDNR's [water quantity data viewer](#).

Reporting

In addition to registering water withdrawals, persons who make withdrawals from the waters of the state that average 100,000 gallons per day or more in any 30-day period must annually report to the WDNR the monthly volumes of the withdrawal.³

Owners with registered withdrawals must measure or estimate their monthly withdrawal volumes and report the previous calendar years' monthly water use by March 1 of each year. Methods for measuring water for reporting purposes are outlined in s. NR 856.31, Wis. Adm. Code. Owners report on-line or through mailed copies. Reporting response rate is

¹ "Water supply system," when not preceded by "public," means one of the following: 1. Except as provided in subd. 2., the equipment handling water from the point of intake of the water to the first point at which the water is used. 2. For a system for providing a public water supply, the equipment from the point of intake of the water to the first point at which the water is distributed. Wis. Stat. § 281.346(1)(wp).

² Section NR 812.07(51), Wis. Adm. Code, defines "high capacity property" as "one property on which a high capacity well system exists or is to be constructed." Further, s. NR 812.07(53) defines "high capacity well system" as "one or more wells, drillholes or mine shafts used or to be used to withdraw water for any purpose on one property, if the total pumping or flowing capacity of all wells, drillholes or mine shafts on one property is 70 or more gallons per minute based on the pump curve at the lowest system pressure setting, or based on the flow rate from a flowing well or wells."

³ Pursuant to Wis. Stat. s. 281.346 and Ch. NR 820, Wis. Adm. Code, high capacity well owners must annually report withdrawals to the WDNR, regardless of withdrawal volume. Further, under Ch. NR 860, Wis. Adm. Code, water use permittees must also annually report withdrawals, regardless of volume.

consistently around 92%. These reports are stored in a database and analyzed for errors and inconsistencies.

Wisconsin summarizes water use reporting data annually and [reports](#) are available on the WDNR's website. Water use information is available to the public by source or aggregated through the WDNR's online [water withdrawal data portal](#) and geospatially through the [water quantity data viewer](#). Water use data are provided upon request to governmental partners, researchers, businesses and private individuals.

The Regional Body and Compact Council Water Use Reporting Protocols require that States and Provinces report aggregate water use to the Great Lakes Commission annually to include in the Great Lakes Water Use report. Wisconsin provides this information annually by the specified August 15 deadline.

Water Use Permitting

Sections 281.346(4m), (4s), and (5), and Chapter NR 860, Wis. Adm. Code, establish the process, requirements and criteria for implementing water use permitting. A water use permit is required before persons may withdraw water in quantities that average 100,000 gallons per day or more in any 30-day period from groundwater or surface water (including streams, rivers, inland lakes, Lake Michigan, and Lake Superior) in the Great Lakes basin.

WDNR approved coverage for 912 water withdrawals to operate under Water Use General Permit No. 1 and 309 water withdrawal to operate under Water Use General Permit No. 2. WDNR has issued 326 Individual Water Use Permits. The General Permits will be reissued in 2036 and individual permits are valid for 10 years. In 2021 WDNR reviewed and reissued all active Individual Water Use Permits.

Water use permits for pre-existing withdrawals

In Wisconsin, water use permitting requirements began on December 8, 2011. WDNR issued automatic coverage under Water Use General Permit No. 1 to persons in the Great Lakes Basin with the capacity to withdraw an average of 100,000 gallons per day or more, but less than 1 million gallons per day, in any 30-day period. WDNR issued automatic Water Use Individual Permits to persons with a water supply system or systems on one property or a public water supply system having approval to withdraw at least 1 million gallons of water per day for any 30 consecutive days.

The automatic permits included a baseline, set at the maximum hydraulic capacity of the most restrictive component of the water supply system or a withdrawal limit contained in a permit or approval as of December 8, 2008. Wis. Stat. § 281.346(4e). (For baselines, see Wis. Stat. § 281.346(2)(e)). The automatic permits issued in December 2011 also included an authorized withdrawal amount, which was based on the maximum hydraulic capacity of the most restrictive component of the water supply system or a withdrawal limit contained in an approval or other permit. If a person proposes to modify their authorized withdrawal amount before December 8, 2021 so that it equals 1 million gallons per day or more over

the baseline for any 30 consecutive days, the withdrawal had to meet the State Decision-Making Standard (Wis. Stat. § 281.346(5)(f)1.). If a person proposes to modify the withdrawal before December 8, 2021, so that it equals 10 million gallons per day or more over the baseline for any 30 consecutive days, the withdrawal had to meet the Compact Decision-Making Standard (Wis. Stat. § 281.346(5)(f)2.).

Water use permits for new or increased withdrawals in the Great Lakes Basin

After December 8, 2011, persons proposing new withdrawals averaging 100,000 gallons per day or more in any 30-day period or proposing to increase an existing withdrawal so that it will equal 100,000 gallons per day or more in any 30-day period (but will not equal at least 1 million gallons per day for any 30 consecutive days) must apply for and receive coverage under the Water Use General Permit No. 2. Persons proposing Great Lakes basin withdrawals that will equal at least 1 million gallons per day for any 30 consecutive days must apply for an Individual Water Use Permit and the state decision-making standard and conservation and efficiency measures apply.

If a person proposes to increase a withdrawal above the withdrawal amount authorized in an existing permit, the person must apply to modify the permit and implement water conservation and water use efficiency measures related to the new or increased source. Beginning December 8, 2011, coverage under the Water Use General Permit No. 2 is accompanied by a notice of coverage (NOC) letter that includes: an authorized withdrawal amount, requirements for reporting water use, and a copy of the required water conservation and efficiency measures.

Public notice and comment are required for each individual water use permit application. Any interested party may also request a public hearing on an individual water use permit. If a new general permit is proposed by WDNR, public notice and comment on the proposed general permit is also required.

Persons receiving coverage under Water Use General Permit⁴ must satisfy the following requirements:

- Meet water conservation requirements in Wis. Adm. Code ch. NR 852;
- Ensure the water withdrawal is consistent with an approved water supply service area plan, if a plan is required; and
- Receive all necessary permits or approvals for the withdrawal under Wis. Stat. §§ 30.12, 30.18, 281.34, 281.35, 283.31, and 281.41, or § 281.17, 2001 Stats.
 - WDNR may only issue an individual permit if all the following requirements are satisfied:
- The person withdrawing water will meet water conservation requirements in Wis. Adm. Code ch. NR 852;
- The water withdrawal is consistent with an approved water supply service area plan, if a

⁴ These are the permit requirement for General Permit 2 – which is applicable for proposed new or increased water withdrawals. General Permit 1 applied to withdrawer that existed at the time of the Compact ratification and General permit 3 applies to temporary construction dewatering.

- plan is required;
- The person withdrawing water has all necessary permits or approvals for the withdrawal under Wis. Stat. §§ 30.12, 30.18, 281.34, 281.35, 283.31, and 281.41, or §. 281.17, 2001 Stats.;
- The withdrawal meets the state decision-making standard or compact decision-making standard, if applicable; and
- If applicable, WDNR has provided notice to the Regional Body and if required, WDNR has considered the Regional Review declaration.

Wisconsin's water use permits reference several other water management regulations. Most proposed water withdrawals are reviewed based on these additional regulations.

Statute Section	Subject	Standards
30.12	Structure and deposits in navigable waters	- Establishes standards for general permits and individual permits - Establishes exemptions from permit requirements
30.18	Withdrawal of water from lakes and streams	- Applies to withdrawals of any amount for maintaining flow or lake level, and for agriculture or irrigation - Withdrawals may not injure public rights
281.34	Groundwater withdrawals	- Applies to withdrawal of 100,000 gallons per day or more - Approval conditions or denials may be necessary to avoid significant adverse impacts for withdrawals that: fall within a groundwater protection area, impact a spring, result in 95% water loss, impact a municipal well, impact groundwater quality or quantity.
281.41	Wastewater Treatment Plant Plans	- Requires plan and specification approval for reviewable projects

Water Loss and Consumptive Use

“Consumptive Use” is “a use of water that results in the loss of or failure to return some or all of the water to the basin from which the water is withdrawn due to evaporation, incorporation into products, or other processes.” § 281.346(1)(e), Wis. Stat. WDNR uses consumptive use coefficients, as outlined in ch. NR 142, Wis. Adm. Code, to calculate consumptive use. WDNR estimates consumptive uses on an annual basis, based on water use coefficients and reporting data. Site specific data for consumptive use may be

submitted to the department by the withdrawer. WDNR also refers to tables within United States Geological Survey (USGS) publications SIR 2007-5197 and Fact Sheet 2008-3032 for consumptive use coefficient information.

In addition to the water use permits, water loss approvals are required statewide for new or increased withdrawals from groundwater or surface water that will result in a water loss averaging more than 2 million gallons per day in any 30-day period. § 281.35, Wis. Stat. WDNR must determine the following in order to issue a water loss approval:

- No public water rights in navigable water will be adversely affected;
- The proposed withdrawal does not conflict with any applicable plan for future uses of the waters of the state;
- The applicant's current water use and proposed plans incorporate reasonable conservation practices;
- The proposed withdrawal and uses will not have a significant adverse impact on the environment and ecosystem of the Great Lakes basin or the upper Mississippi River basin;
- The proposed withdrawal and uses are consistent with the protection of public health, safety and welfare and will not be detrimental to the public interest; and
- The proposed withdrawal will not have a significant detrimental effect on the quantity and quality of waters of the state.

In addition, if the proposed withdrawal will result in an interbasin diversion and water loss applies, WDNR must determine all of the following:

- Each state or province to which the water will be diverted has developed and is implementing a plan to manage and conserve its own water quantity resources, and that further development of its water resources is impracticable or would have a substantial adverse economic, social or environmental impact;
- It will not impair the ability of the Great Lakes basin or upper Mississippi River basin to meet its own water needs;
- The interbasin diversion alone, or in combination with other water losses, will not have a significant adverse impact on lake levels, water use, the environment or the ecosystem of the Great Lakes basin or upper Mississippi River basin; and
- The proposed withdrawal is consistent with all applicable federal, regional and interstate water resources plans.

Persons with water loss approvals must annually report water loss to WDNR. WDNR publishes a public notice upon receipt of a complete water loss application.

Diversions

A "diversion" is "a transfer of water from the Great Lakes basin into a watershed outside the Great Lakes basin, or from the watershed of one of the Great Lakes into that of another, by any means of transfer, including a pipeline, canal, tunnel, aqueduct, channel, modification of the direction of a water course, tanker ship, tanker truck, or rail tanker except that the "diversion" does not include any of the following:

- The transfer of a product produced in the Great Lakes basin or in the watershed of one of the Great Lakes, using waters of the Great Lakes basin, out of the Great Lakes basin, or out of that watershed.
- The transmission of water within a line that extends outside the Great Lakes basin as it conveys water from one point to another within the Great Lakes basin if no water is used outside the Great Lakes basin.
- The transfer of bottled water from the Great Lakes basin in containers of 5.7 gallons or less.” § 281.346(1)(h), Wis. Stat.

WDNR issued grandfathered diversion approvals to water supply systems that diverted water prior to December 8, 2008. For the diversion approvals that returned water to the Great Lakes basin, the authorized diversion amount identified in the approval was based on the amount of water necessary to provide water for public water supply purposes within a sewer service territory that provides for the return of wastewater to the Great Lakes basin and that is specified in the sewer service area provisions of an area-wide water quality management plan approved by WDNR before December 31, 2007. The approved diversion amounts for these public water systems were based on approved sewer service areas, and population and related water supply service projections for build-out conditions in those communities. *See* § 281.344(3e) and (3m), Wis. Stat. For diversion approvals that discharge wastewater to the Mississippi River basin, the diversion amount was based on the maximum hydraulic capacity of the most restrictive component of the water supply system. *See* § 281.343(4t)(b), Wis. Stat.

Relevant provisions of the Compact and s. 281.346(4), Wis. Stat., govern diversions in the state. No person may begin a diversion, unless as authorized under s. 281.346(4), Wis. Stat., and no person may increase the amount of a diversion over the diversion amount specified in an approval under that subsection without prior approval from WDNR. For each diversion application, WDNR is required to provide public notice, offer a public comment period, and hold a public hearing if requested. WDNR is required to provide access to information on diversion applications. To facilitate public access to information on diversion applications, WDNR has provided a webpage for each diversion application and posted all official correspondence between WDNR and the applicant on these webpages. WDNR has an electronic subscription for members of the public interested in Great Lakes Compact issues. Public notices related to diversion applications are also provided via email to the Great Lakes Compact issues electronic subscription list. The list currently has more than 7,500 subscribers.

WDNR has approved three straddling community diversion applications since 2008, including the City of [New Berlin \(approved in 2009\)](#), the [City of Racine](#) (approved in 2018), and the [Village of Somers](#) (approved in 2022). All straddling community diversion are required to return their treated wastewater to the Great Lakes less an allowance for consumptive use.

In 2012 and 2013, WDNR approved intrabasin transfers for Enbridge to conduct hydrostatic testing of pipeline segments between Superior, WI and Sarnia, ON and between Superior, WI and Mokena, IL. WDNR required that all water was discharged into

Lake Huron and Lake Michigan. WDNR notified the Regional Body of these intrabasin transfers through email correspondence.

WDNR has approved one community in a straddling county diversion application since 2008. WDNR issued the City of Waukesha a diversion approval in 2021 after the City of Waukesha received approval from the Compact Council in 2016 and obtained all necessary federal and state approvals and permits to implement the diversion. The City of Waukesha began diverting water in 2023, and WDNR submitted its first annual report on the diversion to the Compact Council in August 2024. The City of Waukesha is required by condition of approval to return approximately 100% of the volume of diverted water to the Great Lakes Basin.

2. Describe specifically how Water Withdrawals in the State are managed by:

a. Sector

Each withdrawal source and property is assigned a [water use code](#). Water use codes that represent specific sectors are assigned based on the purpose for which most of the water is used. For the most part, water withdrawals in Wisconsin are not regulated by sector but are regulated based on water source, quantity, and location. There are a few exceptions: 1) surface water withdrawals of any amount from a stream for the purposes of agriculture or irrigation are regulated under s. 30.18, Wis. Stat.; 2) water conservation and efficiency requirements differ among sectors under ch. NR 852, Wis. Adm. Code; and 3) the public water supply sector is subject to a separate set of requirements⁵ and is also regulated by the Public Service Commission of Wisconsin.

b. Water source

i. Surface water withdrawals (Lake Michigan, Lake Superior, and other surface waters)

Surface water withdrawals are required to register if the water system has the capacity to withdraw 100,000 gallons per day. Surface water withdrawals with the capacity to withdraw 100,000 gallons per day are required to report withdrawals over 100,000 gallons per day. Surface water withdrawals are also managed under s. 30.18, Wis. Stat. WDNR regulates surface water withdrawals of any amount from streams for purposes of agriculture or irrigation (§ 30.18(2)(a)2., Wis. Stat.); withdrawals of any amount from a stream to maintain or restore lake levels or stream flows (§ 30.18(2)(a)1., Wis. Stat.); and withdrawals from a stream or lake resulting in a water loss of more than 2 million gallons per day in any 30-day period (§ 30.18(2)(b), Wis. Stat.). An individual permit is required for withdrawals falling into any of the categories above. WDNR evaluates permit applications to ensure that the proposed withdrawals do not injure public rights in navigable waters and either withdraw only surplus water or have the consent of all possibly adversely affected riparian owners. § 30.18(5), Wis. Stat.

ii. Groundwater withdrawals

⁵ Including chs. NR 809, 810 and 811, Wis. Adm. Code.

Groundwater withdrawals are required to register if the water system has the capacity to withdraw 100,000 gallons per day. Groundwater withdrawal sources with the capacity to withdraw 100,000 gallons per day are required to report water withdrawals of any volume. Groundwater withdrawals are further regulated under ch. 281, Wis. Stat., chs. NR 812 and 820, Wis. Adm. Code, and related case law. All public and private wells, except those community water system wells that are subject to separate regulations, are subject to ch. NR 812, Wis. Adm. Code regulations that govern their location and provide standards and requirements for well construction, pump installation, and water treatment. High capacity wells are those with a capacity of more than 100,000 gallons per day from one or more wells on a system or contiguous property. As part of the high capacity well application process, WDNR is required to undertake an environmental review if the proposed well may impact a spring with a normal flow of 1 cubic foot per second; is in a groundwater protection area (i.e., is within 1,200 feet of a trout stream or outstanding or exceptional resource water); or will have a water loss of more than 95 percent of the amount withdrawn. *See* Wis. Stat. § 281.34(4) and (5). Additionally, WDNR conducts a case-by-case analysis of all high capacity well applications that considers the needs of the property and the environmental effects that the proposed high capacity well may have on the waters of the state, individually and combined with existing environmental impacts. A complete description of the review process can be found at <https://dnr.wisconsin.gov/topic/Wells/HighCap>

c. Quantity

Water withdrawals are required to register if the water system has the capacity to withdraw 100,000 gallons per day. Groundwater withdrawal sources with the capacity to withdraw 100,000 gallons per day are required to report water withdrawals of any volume. Surface water withdrawals with the capacity to withdraw 100,000 gallons per day are required to report withdrawals over 100,000 gallons per day.

New or increased water withdrawals in the Great Lake Basin proposing to withdraw between 100,000 gallons per day and 1,000,000 gallons per day for 30 consecutive days are required to receive coverage under a general water use permit. New or increased water withdrawals in the Great Lakes Basin proposing to withdraw 1,000,000 gallons per day for 30 consecutive days or more are required to obtain an individual water use permit and are subject to the state decision-making standard. New or increased water withdrawals in the Great Lakes Basin proposing to withdraw 10,000,000 gallons per day for 30 consecutive days are subject to the Compact decision-making standard.

d. Location

The primary geographical distinction affecting water withdrawal management in Wisconsin is that between withdrawals and uses in the Great Lakes basin (Lake Michigan and Lake Superior basins) and withdrawals and uses outside of the basin (i.e., in the Upper Mississippi River basin). Regulations specific to the Great Lakes basin include: water use permits, mandatory conservation and efficiency plans, diversion prohibitions, and regional notification and review procedures. These additional Great Lakes requirements are discussed below.

e. Any specific exemptions as allowed in the Agreement and the Compact

The scope and thresholds for the water management program are described above.

Wisconsin's Compact-implementing legislation does not include any specific exemptions to the water management program.

3. Description of how the provisions of the Standard of Review and Decision are applied. The description should include information on how each criterion of the Decision-Making Standard and Exception Standard is addressed.

a. State decision-making standard

Under s. 281.346(5), Wis. Stat., WDNR may not approve an application for a new withdrawal that will equal at least 1 million gallons per day for any 30 consecutive days, or for an existing withdrawal that is not covered by a general permit that is proposed to be modified so that it will equal at least 1 million gallons per day for any 30 consecutive days, unless the withdrawal meets the state decision-making standard.

To meet the state decision-making standard, applicants for a new or increased withdrawal must attach documentation describing how the withdrawal will be implemented such that the following criteria, listed in s. 281.346(5m), Wis. Stat., are met:

- The amount of the withdrawal or increase in the withdrawal is needed to meet the projected needs of the person who will use the water.
- For an increase in a withdrawal, cost-effective conservation practices have been implemented for existing uses of the water, consistent with ch. NR 852, Wis. Adm. Code.
- The applicant has assessed other potential water sources for cost-effectiveness and environmental effects.
- Cost-effective conservation practices will be implemented to ensure efficient use of the water;
- One of the following applies:
 - o No significant adverse environmental impacts to waters of the state will result;
 - o If the withdrawal is from a surface water body, the withdrawal will not result in the violation of water quality standards under s. 281.15, Wis. Stat., or impair fish populations;
 - o WDNR has issued a permit under s. 30.18, Wis. Stat., for the new or increased withdrawal or has issued a permit under s. 30.12, Wis. Stat., for a structure that will be used for the new or increased withdrawal; or
 - o WDNR has issued an approval under § 281.34, Wis. Stat., or § 281.17, 2001 Stats., for the new or increased withdrawal.

Under s. NR 860.31(3)(a)12., Wis. Adm. Code, an applicant for an individual water use permit that is subject to the state decision-making standard must submit to WDNR

additional information and documentation including:

- Documentation that the proposed withdrawal amount is needed to meet the applicant's projected needs;
- Documentation of compliance with the applicable provisions of ch. NR 852, Wis. Adm. Code (Water Conservation & Water Use Efficiency);
- An alternatives analysis comparing other potential water sources for cost-effectiveness and environmental effects;
- A description of the baseline conditions of the source including hydrologic flow, water quality, and for surface water sources, habitat of the source (not required if there is a permit or approval under ss. 30.12, 30.18, or 281.34, Wis. Stat.); and an assessment of the potential impacts of the withdrawal on the waters of the state (not required if there is a permit or approval under ss. 30.12, 30.18, or 281.34, Wis. Stat.).

An applicant must comply with all the above state decision-making standard requirements prior to the proposed withdrawal.

Since December 8, 2011, the WDNR has reviewed and approved one application for an individual permit and the WDNR has reissued two water loss approval in the Lake Michigan basin.

b. *Compact decision-making standard*

Under Wis. Stat. s. 281.346(5), WDNR may not approve an application for a new withdrawal that will equal at least 10 million gallons per day for any 30 consecutive days, or for an existing withdrawal that is not covered by a general permit and that is proposed to be modified so that it will equal at least 10 million gallons per day for any 30 consecutive days, unless the withdrawal meets the Compact decision-making standard.

However, the state decision-making standards apply if the person proposing a new or increased withdrawal to which the Compact decision-making standard would otherwise apply, demonstrates using procedures in s. 142.06, Wis. Adm. Code, that the water loss would average less than 5 million gallons per day in every 90-day period. § 281.346(5)(f), Wis. Stat.

To meet the Compact decision-making standard, an applicant must demonstrate the following, as required by s. 281.346(6), Wis. Stat.:

- All of the water withdrawn from the Great Lakes basin will be returned to the source watershed, less an allowance for consumptive use;
- The withdrawal will result in no significant adverse individual impacts or cumulative impacts to the quantity or quality of the waters of the Great Lakes basin, to water dependent natural resources, to the source watershed, or, if the withdrawal is from a stream tributary to one of the Great Lakes, to the watershed of that stream;
- The withdrawal will be implemented in a way that incorporates environmentally

sound and economically feasible water conservation measures;

- The withdrawal will be in compliance with all applicable local, state, and federal laws and interstate and international agreements, including the Boundary Waters Treaty of 1909; and
- The proposed use of the water is reasonable, based on a consideration of all of the following:
 - Whether the proposed withdrawal is planned in a way that provides for efficient use of the water and will avoid or minimize the waste of water;
 - If the proposal would result in an increased water loss, whether efficient use is made of existing water supplies;
 - The balance of the effects of the proposed withdrawal and use, and other existing or planned withdrawals and water uses from the water source, on economic development, social development, and environmental protection;
 - The supply potential of the water source, considering quantity, quality, reliability, and safe yield of hydrologically interconnected water sources;
 - The probable degree and duration of any adverse impacts caused or expected to be caused by the proposed withdrawal and use, under foreseeable conditions, to other lawful consumptive uses or nonconsumptive uses of water or to the quantity or quality of the waters of the Great Lakes basin and water dependent natural resources, and the proposed plans and arrangements for avoidance or mitigation of those impacts; and
 - Any provisions for restoration of hydrologic conditions and functions of the source watershed or, if the withdrawal is from the stream tributary to one of the Great Lakes, of the watershed of that stream.

Under s. NR 860.31(3)(a)13., Wis. Adm. Code, an applicant for an individual water use permit that is subject to the compact decision-making standard must submit to WDNR additional information and documentation including:

- An assessment of the potential impacts of the withdrawal on the waters of the state and water dependent natural resources including wetlands, and possible modeling of anticipated hydrologic impacts or water quality evaluation to determine if the withdrawal or return flow will meet established water quality standards;
- Documentation of compliance with the applicable provisions of ch. NR 852, Wis. Adm. Code;
- Documentation of compliance with all applicable local, state, and federal laws, rules, and regulations, and interstate and international agreements, including the Boundary Waters Treaty of 1909;

- An analysis of the efficiency of the proposed water use, and if there is an expected increase in water loss, an analysis of the efficiency of the use of existing water supplies. The analysis shall include a comparison of the proposed water use intensity with the water use intensity of similar facilities or operations. The analysis may include information from the water conservation plan prepared in compliance with s. NR 852.07, Wis. Adm. Code;
- An analysis of the impacts of the withdrawal over the next ten years on economic development, social development, and environmental protection taking into consideration other existing and planned withdrawals from the same source.
- The supply potential of the water source including quality, quantity, and reliability taking into consideration interconnected water sources and water dependent natural resources; and
- A description of mitigation measures that will be implemented to prevent or eliminate significant impacts.

Applicants must comply with all the above Compact decision-making standard requirements prior to the proposed withdrawal. Since the effective date of the Compact, no permit applications have been submitted in Wisconsin that required compliance with the Compact decision-making standard.

c. Exception standard for diversions

The Exception Standard for Diversions that has been integrated into Wisconsin's Compact-implementing legislation mirrors the Exception Standard in the Compact and Agreement with a few additions:

1. The proposal for a diversion must be consistent with an approved water supply service area plan under s. 281.348, Wis. Stat., that covers the public water supply system, unless the proposal is to provide water to a straddling community that includes a designated electronics and information technology manufacturing zone. § 281.346(4)(c)2m. and (e)1.em., Wis. Stat.
2. The place at which the water is returned to the source watershed must be as close as practicable to the place from which it is withdrawn, unless that place is not economically feasible, not environmentally sound, or not in the interest of public health. § 281.346(4)(f)3m., Wis. Stat.
3. If the water will be returned to the source watershed through a stream tributary to one of the Great Lakes, the physical, chemical, and biological integrity of the receiving water will be protected and sustained, considering the state of the receiving water before the proposal is implemented and considering both low and high flow conditions and potential adverse impacts due to changes in temperature and nutrient loadings. § 281.346(4)(f)4m., Wis. Stat.
4. Wisconsin has defined "reasonable water supply alternative" to mean "a water supply alternative that is similar in cost to, and as environmentally sustainable and protective of public health as, the proposed new or increased diversion and that does

not have greater adverse environmental impacts than the proposed new or increased diversion.” § 281.346(1)(ps), Wis. Stat.

4. Overview of State reporting and database of Withdrawals, Consumptive Uses and Diversions including implementation status and database elements and capabilities, and reporting mechanisms (e.g., electronic submission, etc.). The overview should include methods of measurement (e.g., flow volume or rate meters, flow gauging, timing devices, etc.) approved by the State/Province for measuring Water volumes.

Registered water users must annually report monthly withdrawal amounts for each calendar year by March 1 of the following year. § NR 856.30(2), Wis. Adm. Code. Each report contains monthly withdrawal amounts, the primary use of the water and the method used to measure or estimate the water use, consistent with requirements for reporting to the Great Lakes Commission (GLC). See § NR 856.30(2), Wis. Adm. Code. Registered withdrawers can report water use through a web-based application or using paper forms which are entered into the WDNR’s Water Use database.

In accordance with ss. NR 812.39(2), NR 820.13 and NR 856.31(1), wells with a pumping capacity of 100,000 gallon per day (70 gallons per minute) or more shall be equipped with a means of accurately measuring water withdrawal, typically an hour meter or totalizing flow meter. Unless otherwise specified in approval conditions, wells with a pumping capacity of less than 100,000 gallons per day (70 gallons per minute) may either be equipped with means of measuring water withdrawals or water use may be estimated using a method approved by WDNR. Surface water withdrawals are measured by totalizing flow meters or estimated using the [measurement instructions](#) provided to water use reporters. Other methods can be used if approved by WDNR if none of the existing methods is sufficient. § NR 856.31(1)(a)5. and (b)6., Wis. Adm. Code. WDNR provides [measurement instructions](#) to water use reporters.

Information about the primary use of the withdrawn water enables WDNR to assign water use codes. Water use codes are detailed codes specifying public water supply uses (municipal systems, community water systems, non-transient, non-community systems, transient, non- community systems and K-12 schools), industrial uses, commercial and institutional uses, power generation, irrigation, other agricultural uses, domestic supply and fire protection. Each WDNR water use fits under a more general Great Lakes Commission water sector for annual reporting to the Great Lakes Commission. A list of the water use codes can be found in the [Water Withdrawal Report Guidance](#).

WDNR has determined water loss coefficients for each water use code based on various sources such as USGS published values, ch. NR 142, Wis. Adm. Code, or assumed general practices.

In addition to reporting monthly withdrawal data to WDNR, persons with approved Great Lakes basin diversions are required to report the monthly volumes diverted and the volume returned to the Great Lakes basin. Withdrawal, diversion, and return flow volumes are tracked and reported to the Great Lakes Commission annually.

All water use data is housed in a dedicated geographic information system database that is updated by WDNR staff through a web-based application. Water use data is used to support WDNR decision-making and serves as the basis for annual withdrawal report summaries and sector specific studies. Water use data is available to the public through the [Water Quantity Data Viewer](#) and the [Water Withdrawal Query Tool](#). Governmental partners, university researchers, businesses and private individuals may also request data to be delivered in tabular or spatial formats.

- 5. Include a web link to the State or Province’s Withdrawal application form(s). In addition, include a section on web access to additional information on the program, link to any application forms and links to tools for improving the management of water resources or sharing information about water withdrawals.**

Throughout this document, WDNR has provided links to water use program web pages, applications, tools and program information related to water withdrawals.

- 6. Summary description of the State’s or Province’s initiatives to support an improved scientific understanding of the Waters of the Basin and an improved understanding of the groundwater of the Basin and the role of groundwater in Basin water resource management. A description of State or Provincial initiatives or mechanisms to support an improved understanding of individual or cumulative impacts of Withdrawals, Consumptive Uses and Diversions on the Basin ecosystem should also be provided.**

WDNR has supported a variety of projects to improve the understanding or management of groundwater and surface water quantity in Wisconsin. WDNR has continued or developed the following projects in the past 5 years:

- Wisconsin’s Long-Term Groundwater Level Monitoring Network –WDNR partners with the USGS and the Wisconsin Geological and Natural History Survey (WGNHS) to continue [monitoring water levels](#) in aquifers across Wisconsin with a network of approximately 100 monitoring wells. Data collected from this network are used for monitoring local water resources, assessing aquifer response to drought or flooding, calibrating groundwater flow models, and measuring the effect of pumping on groundwater levels.
- WDNR continues to maintain the [Water Quantity Data Viewer](#) and the [Water Withdrawal Query Tool](#) for the public to search water withdrawal data and related water quantity monitoring data. The WDNR’s water quantity data view shows the location and water levels associated with the statewide groundwater monitoring network.
- Following on the 2019 [Wisconsin Springs Inventory](#) of approximately 400 springs with flows greater than 0.25 cfs, WDNR continues to revisit and identify additional springs across the state. In addition, eight reference springs are monitored quarterly to develop a long-term record on spring flow variability and water chemistry. A summary of the springs inventory has also been published in a [final report](#).
- [Central Sands Lakes Study](#) – The Wisconsin legislature instructed WDNR to

evaluate and model the hydrology of Pleasant Lake, Plainfield Lake and Long Lake to determine whether existing and potential groundwater withdrawals are causing or are likely to cause a significant reduction of the lakes' water levels below their average seasonal levels. This area of Wisconsin straddles the Great Lakes Basin divide. The three-year study, in partnership with USGS, WGNHS, and the University of Wisconsin, found significant impacts to two of the three study lakes. WDNR issued findings and recommendations to state legislators in June 2021.

The study included a calibrated groundwater flow model of the designated study area that simulates the water budget associated with the three lakes and to evaluate their interactions with groundwater withdrawals. As part of the study, WDNR partnered with University of Wisconsin and the agricultural community to directly measure evapotranspiration, a critical component to consumptive use. The approach for determining significant impacts to the three lakes may be applicable throughout the Great Lakes basin for determining impacts to surface waters based on groundwater withdrawals.

WDNR developed several story maps in the past five years to communicate about Wisconsin Water Use and Management. These include:

- [A Decade of Wisconsin Water Withdrawals](#)
- [Wisconsin Groundwater](#)
- [Working Together to Collect Wisconsin Water Quantity Data](#)

Water Conservation and Efficiency Program Report

1. Status of the State or Province's Water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives. If developed, include State or Provincial goals and objectives or link to electronic version.

Wisconsin adopted water conservation and efficiency goals and objectives that are consistent with the Basin-wide goals and objectives. The goals and objectives, which were first adopted in 2008 and most recently revised in 2011, can be found on the Department website at: [Wisconsin Statewide Water Conservation and Water Use Efficiency Goals](#) WDNR reviews these goals and objectives every five years.

2. Water Conservation and Efficiency Program Overview

1. *Citations to State Water Conservation and Efficiency Program implementing laws, regulations, and policies.*

The Wisconsin Legislature ratified the Great Lakes—St. Lawrence River Basin Water Resources Compact (Compact) in 2007 Wisconsin Act 227. Wisconsin adopted additional water conservation and efficiency requirements that go beyond the minimum required by the Compact. These requirements are codified in s. 281.346(8), Wis. Stat., and ch. NR 852, Wis. Adm. Code. For Tier 1,⁶ these requirements include programs such as water use audits,

⁶ Ch. NR 852, Wis. Adm. Code, includes a three-tier process for water conservation and efficiency requirements, depending on the type of withdrawal, diversion, or water loss.

leak detection and repair programs, information and education programs, source measurement. For Tier 2, additional requirements are dependent on the water sector. For Tier 3, an analysis and implementation of all cost-effective water conservation and efficiency measures must be implemented.

2. *Summary description of Wisconsin's Water Conservation and Efficiency Program including what elements are voluntary and mandatory.*

The Water Use Section of WDNR's Bureau of Drinking Water and Groundwater developed a statewide water conservation and efficiency program that is based on Wisconsin's adaptation of the Great Lakes Regional Conservation and Efficiency Objectives. The program requires mandatory water conservation and efficiency measures for new or increased withdrawals in the Great Lakes Basin, for any new or increased diversions from the Great Lakes Basin, and for any new or increased withdrawals—statewide—that will result in a water loss averaging more than 2 million gallons per day in any 30-day period. Voluntary water conservation and efficiency measures are encouraged for all existing water users throughout the state. Water conservation measures are required through municipal water systems through the Public Service Commission of Wisconsin water loss control program. This program includes requirements to meter all sales, maintain and verify the accuracy of meters, identify and repair leaks in the distribution system, control water usage from hydrants, maintain records of system pumpage and consumption and conduct an annual water audit.

The conservation and efficiency program is implemented through administrative rules, water use permits, and guidance developed in cooperation with the Public Service Commission of Wisconsin and the Wisconsin Department of Safety and Professional Services. Rules implementing the program, primarily ch. NR 852, Wis. Adm. Code, outline the necessary conservation and efficiency measures. Under ch. NR 852, Wis. Adm. Code, conservation and efficiency measures vary depending on the withdrawal amount and calculated water loss:

- For new or increased Great Lakes basin withdrawals averaging 100,000 gallons per day or more in any 30-day period but less than 1 million gallons for any 30 consecutive days, Tier 1 water conservation and efficiency requirements apply. § NR 852.04, Wis. Adm. Code, including Table 1.
- For new or increased Great Lakes basin withdrawals equaling 1 million gallons per day or more for any 30 consecutive days, Tier 1 (see above) and Tier 2 water conservation and efficiency requirements apply. § NR 852.05, Wis. Adm. Code, including Table 2.
- For new or increased withdrawals (statewide) resulting in a water loss averaging more than 2 million gallons per day in any 30-day period; or for new or increased Great Lakes diversions, in addition to Tier 1 and Tier 2 requirements, Tier 3 water conservation and efficiency requirements are required—including an analysis to determine whether additional cost-effective conservation and efficiency measures are available (other than those in Tier 1 and Tier 2). § NR 852.06, Wis. Adm. Code.

The Public Service Commission of Wisconsin also relies on administrative rules (chs. PSC

184 and PSC 185, Wis. Adm. Code) for authorizing and monitoring voluntary water conservation programs for municipal water systems. For other withdrawals subject to mandatory water conservation and efficiency, requirements increase as the volume of withdrawal increases.

In addition, water supply service area plans for public water supply systems must consider water conservation alternatives when identifying options for supplying water. These plans are required by 2026 for all public water systems in Wisconsin serving populations of 10,000 or more. Plans are required immediately for any Great Lakes Basin public water systems serving populations of 10,000 or more that are seeking a new or increased withdrawal, and for applicants for diversions of Great Lakes water, except that a water supply service area plan is not required for a proposed diversion to a straddling community that includes an electronics and manufacturing technology zone.

- 3. For each of the regional objectives, identify how the State/Provincial program is consistent with the regional objective, and a description of how the State or Province promotes Environmentally Sound and Economically Feasible Water Conservation Measures. More details for each objective are available at http://www.glsregionalbody.org/Docs/Resolutions/GLSLRWRRB_Resolution_6-Conservation-Efficiency.pdf and can be provided in the table below.**

As shown in the table below, the Wisconsin program is consistent with the regional objectives in the promotion of environmentally sound and economically feasible water conservation measures.

OBJECTIVES	LEGISLATIVE OR PROGRAM DESCRIPTION
Guide programs toward long- term sustainable water use.	▪ Adoption of Water Conservation and Water Use Efficiency Rules. ch. NR 852, Wis. Adm. Code (1/1/2011). ▪ Mandatory water conservation plans and conservation and efficiency measures for new or increased Great Lakes Basin withdrawals, all diversions of Great Lakes water, and withdrawals with a water loss of more than 2 million gallons per day. ▪ Water Supply Service Area Planning. § 281.348, Wis. Stat.; ch. NR 854, Wis. Adm. Code.
Adopt and implement supply and demand management to promote efficient use and conservation of water resources.	▪ The Public Service Commission of Wisconsin rules include requirements for all public water utilities to meter customer water use, test meter accuracy, conduct annual water audits, and identify and repair leaks. ▪ Required water conservation plans are in place for approximately 200 water use permittees. ▪ Drought management and conservation webpage.

Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs.	▪ Developed a new database for water use data. ▪ Developed an on-line registration and reporting system, with ongoing system refinement. On-line reporting is available for all registered water users and reporting forms are mailed to those who choose not to report on-line. On- line system automated quality checks continue to improve reporting quality. ▪ Water use data by source and aggregated is available on the WDNR water use webpage. ▪ WDNR is implementing a USGS Water Use data and research grant 2023-2025 to improve water use data quality and pilot developing a water supply service area geographical information systems layer.
Develop science, technology, and research.	▪ Co-funded a project with the Public Service Commission of Wisconsin titled “Water Efficiency Potential Study for Wisconsin,” which was completed in late 2011. ▪ Funded a project titled “Ecological Limits of Hydrologic Alteration” focused on understanding stress to fish populations due to reduced stream flows. ▪ Funded a project to develop a hydrogeologic data viewer for Wisconsin hydrogeologic data. ▪ Funded a “proof-of-concept” hydrological model to optimize stream flow, withdrawals and crop rotations in a small watershed in central Wisconsin. ▪ Funded a project entitled “Impacts of potato and maize management and climate change on groundwater recharge across the Central Sands” to better understand impacts of groundwater dependent agro-ecosystems. ▪ Funded a project to compile groundwater and lake level data for Wisconsin and develop statistical models to understand linkages between groundwater, climate and water levels of seepage lakes. ▪ Conducting a study authorized by the Wisconsin legislature to evaluate and model the potential impacts of groundwater withdrawals on three specific lakes in Central Sands region of Wisconsin. ▪ Evaluated remote sensing evapotranspiration models for use in Wisconsin and evaluated differences in evapotranspiration rates relative to agricultural practices. ▪ Partially installation and operation of eddy covariance towers to directly measure evapotranspiration. ▪ Ongoing delivery of spatial water use data to governmental and university partners for use in modeling projects and scientific research. ▪ Funded a pilot groundwater flow model that allows for incorporation of management objectives in a groundwater stress area of Wisconsin. ▪ Updated inventory of 400 springs in Wisconsin with flows greater than 0.25 cubic feet per second. Recently published by the Wisconsin Geological and Natural History Survey – An inventory of Springs in Wisconsin. ▪ Worked with the USGS Upper Midwest Water Science Center to develop Python tools for streamflow depletion and aquifer drawdown analysis that allows for more flexibility and efficiency in high-capacity well application reviews.

Develop education programs and information sharing for all water users.	▪ Promotion of EPA <i>WaterSense</i> Fix-a-Leak, including webpage, promotional video, social media posts. ▪ Initiated a program of water use benchmarks for geographic and sector specific withdrawals. ▪ Promoting irrigation conservation at Farm Technology Days. This includes promotion of irrigation scheduling tools developed by the University of Wisconsin.

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

Wisconsin completed its Water Conservation and Efficiency Goals and Objectives in 2008 and updated these Goals and Objects for statewide application in 2011. Wisconsin’s administrative rules for Water Conservation and Efficiency, ch. NR 852, Wis. Adm. Code, became effective in January 2011. A Water Conservation and Efficiency webpage is available at the [WDNR website](#) and at the [Public Service Commission of Wisconsin website](#). Wisconsin promotes “Fix a Leak Week” annually. Water conservation plan requirements are integrated into the water use permit review and issuance process.

5. Consultation with Wisconsin federally recognized Tribes and public comment period

Wisconsin DNR accepted comments on the draft Wisconsin Water Management and Water Conservation and Efficiency Program Review between October 3, 2024 and November 15, 2024. Wisconsin offered a virtual meeting with federally recognized Tribes in Wisconsin on October 30, 2024 to discuss the draft program review. Comments received are incorporated into this revised draft.

Appendix A

Comment and Response to the 5-year water management program review

Comment: Require rain barrels in every home and business in Waukesha before increasing diversion.

Response: Comment noted. Waukesha is required to have a [water conservation and efficiency plan](#) that they report on annually and revise every 10 years that meets the requirements of Wisconsin's Water Conservation and Efficiency Rule (Wis. Admin. Code ch. NR 852). The Rule requires implementation of the following water conservation and efficiency measures: water audits, leak detection and repair program, information and education outreach, source measurement, distribution system pressure management, residential demand management programs, commercial and industrial demand management programs, evaluation of water reuse, and implementation of water conservation and efficiency measures that are environmentally sound and cost effective.

Comment: Wisconsin water conservation goals and objectives are lacking.

Response: Comment noted.

Comment: Concerns over impacts to the Root River from the City of Waukesha wastewater discharge of treated effluent such as phosphorus, chloride, total suspended solids, pharmaceuticals, pathogens, micro-plastics, personal care products and flooding. The Environmental Impact Statement for the City of Waukesha diversion should be rewritten.

Response: The City of Waukesha's wastewater discharge to the Root River must meet the limits and conditions of their [Wisconsin Pollution Discharge Elimination System permit](#). Additionally the City of Waukesha is required to [conduct monitoring](#) of the Root River for flow, water quality and biological impacts for a minimum of 10 years from the start of the diversion.

Comment: Commentor provided article "A Test of the Great Lakes Compact: Environmental Justice and the Waukesha Diversion Return flow plan" – Cornell Policy Review. Commentor provided an annotated bibliography of articles discussing the impacts of wastewater effluent on impaired waters.

Response: Comment noted.

Comment: No additional diversion should be approved.

Response: Comment noted.

Comment: Current communities that have received diversion approvals under the Great Lakes Compact should submit annual plans for water conservation.

Response: The Cities of New Berlin, Racine, Waukesha, and the Village of Somers are all required to annually submit a report to the DNR on the implementation of the conditions of their approval. These reports include information on the implementation of their required water conservation and efficiency plans. These reports are available at the DNR Water Use webpage on the [Great Lakes Compact](#).

Comment: Caps should be placed on existing diversions so that no additional water is diverted.

Response: All diversion approvals include a maximum diversion amount.

Comment: Concern over water use permit and water loss approval thresholds and potential for incentivizing withdrawing water from a river rather than a Great Lake.

Response: Water Use Permits apply to any withdrawal in the Great Lakes Basin from groundwater, inland surface water or the Great Lakes. In addition to water use permits, water loss approvals are required for projects with consumptive uses of 2 million gallons per day or more.

Comment: Concern that there is a “state decision-making standard” and a “Compact decision-making standard” for different water volume thresholds.

Response: These standards and application of the standards are specified in Wis. Stat. § 281.346 (5) and (6). The department has received applications for water use permits requiring review under the state decision making standard for fewer than 20 permits and has not received any applications that meet the criteria for a review under the compact decision making standard. The thresholds for applying the compact decision making standard vary significantly in approach among the states.

Comment: The bullets on page 15 of the 5-year water management program review are confusing and should be rewritten.

Response: These bullets are the exact wording in Wis. Stat. § 281.346 (6) and the Great Lakes Compact and are included as written in statute and the Compact.

Comment: The commentor opposes the exemption of a water supply service area plan requirement for an electronics and information technology manufacturing zone.

Response: Comment noted. This is a statutory exemption included in the Wis. Stat. 281.346 (4) (c) 2m., and any changes would need to come through the legislative process.

Comment: “...When a permit is granted and the conditions change (who is using the water, to what end, and job creation) that the Department should have a way to reexamine a water diversion approval...”

Response: A diversion approval is issued to an applicant with the requirement that the applicant complies with all terms and conditions of the diversion approval. If circumstances change, a person with an approved diversion may request an amendment of the diversion under the requirements in Wis. Admin. Code ch. 851. Additionally, the department may take enforcement action for violations of terms of the diversion approval conditions.

Comment: Concern that “if the ‘state of the receiving water’ is poor that it is not required that the physical, chemical, and biological integrity of that stream should be protected.”

Response: All wastewater discharges are required to be treated to meet the conditions of their WPDES permit.

Comment: Commentor states that they do not agree with the Department’s interpretation of the Compact definition of “public water supply purposes” and that a diversion approval should be only for diverted water being served to residential uses.

Response: Comment noted.

Appendix B - Public Comments

From: [Lou Davit](#)
To: [DNR Compact Program Review](#)
Subject: Water diversion efficiency
Date: Wednesday, October 23, 2024 1:19:33 PM

**CAUTION: This email originated from outside the organization.
Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Gentlemen

10/23/24

I would strongly encourage the requirement of rain barrels by every home and business in Waukesha before increased diversion of Lake Michigan water.

Lou Davit 4508 N. Woodburn St. Shorewood, WI

From: [David Fulwiler](#)
To: [DNR Compact Program Review](#)
Subject: These DNR proposals are lacking
Date: Tuesday, October 15, 2024 9:28:12 PM
Attachments: [A Test of the Great Lakes Compact Environmental Justice and the Waukesha Diversion Return Flow Plan.pdf](#)
Importance: High

**CAUTION: This email originated from outside the organization.
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Dear Department of Natural Resources,

The states water use, conservation and efficiency goals are in my opinion lacking. This lack of diligence and scientific rigor in pursuing an outcome that comes closest to the Great Lakes Compact's (GLC) intent is obvious. the implemented plan endangers much of the investment made by the City of Racine in beautifying their cities portion of the Root River and harbor.

Many down stream have a great number of things that they stand to loose. The root River was already impaired for phosphorus according to the Department of Natural Resources (DNR). The water coming from Waukesha's Waste Water Treatment plant "will not return to Lake Michigan with out increased amounts of contaminants and nutrients: an increase in phosphorus loading, higher concentrations of chloride, higher concentrations of total suspended solids , pharmaceuticals, higher concentrations of residual pathogens, and other emerging contaminants like micro-plastics and and personal care products. " Reports Dr. Dr. Sandra McClellan in a peer reviewed article 'A Test of the Great Lakes Compact: Environmental justice and the Waukesha Water Diversion Plan' ". in the Cornell Policy Review. <https://www.cornellpolicyreview.com/waukesha-diversion/>

All of the modeling for how the diversion will respond to flooding and increases in the amount of effluent due to what we may receive in heavy rains as a result of climate change are not taken into account in the 2019 Environmental Impact Statement (EIS).

The entire EIS needs to be redone using updated models including the latest data on how climate change influences this water returning to Lake Michigan via the Root River. The effluent is not all that clean and when it is put into the Root River which the DNR says is already impaired for phosphorus? That's a losing idea.

I haven't the time to include the rest of my thoughts on this issue but I am including an annotated bibliography of items that show the dangers surrounding putting effluent into an impaired (for phosphorus) river.

Much of the Root River I grew up next to and played around and in would go dry, with large pools of standing water. That still happens today. Will there be deadly algae blooms in the pools of effluent filled water. Because this program began under the Scott Walker Administration it never had a chance to be done correctly and scientifically.

Look at all the potential vectors for contamination that the Waukesha Waste Water Treatment Plant does not clean up. This annotated bibliography from scientific journals points to some of

the questions that should have been asked about and were not. Where is the 21st century modeling and question asking that should have been done and was not? What should have been done and wasn't. I think many of the questions for a new and accurate EIS lay in this bibliography.

Why wasn't the School of Fresh Water sciences asked to participate in this instead of UW-Parkside that in no way has the brain power or special focus that the UW-M School of Freshwater Sciences has? It seems like the city of Waukesha avoids UW-M.

The attached document from the school of fresh water sciences I would like to include for the record.

"Trout enjoy water that contains methamphetamine" – could this lead to them loitering around sewage pipes? British Broadcasting Service: London, U.K. July 18, 2021 <https://www.bbc.com/future/article/20210716-why-fish-are-becoming-addicted-to-illegal-drugs>

United Nations World Drug Report of 2021
<https://www.unodc.org/unodc/en/data-and-analysis/wdr2021.html>

The Guardian: Manchester U.K. July 1, 2020 "Water firms discharged raw sewage into England's rivers 200,000 times in 2019"
<https://www.theguardian.com/environment/2020/jul/01/water-firms-raw-sewage-england-rivers>

Journal of Experimental Biology: Czech Republic July 6, 2021
"Methamphetamine pollution elicits addiction in wild fish"
<https://journals.biologists.com/jeb/article-lookup/doi/10.1242/jeb.242145>

United Nations World Drug Report: New York, N.Y. 2015-17;
https://www.unodc.org/wdr2017/press/WDR17_Fact_sheet.pdf

Progress in Neurobiology: January 10, 2021 "Using zebrafish (Danio rerio) models to understand the critical role of social interactions in mental health and wellbeing"
<https://www.sciencedirect.com/science/article/pii/S0301008221000071>

Aquatic Toxicology: June 14, 2014 Vol. 151; "Effects of chronic, parental pharmaceutical exposure on zebrafish (Danio rerio) offspring"
<https://www.sciencedirect.com/science/article/abs/pii/S0166445X14000265>

Environmental International: August 2019 Vol. 129; "Biomonitoring of pesticides, pharmaceuticals and illicit drugs in a freshwater invertebrate to estimate toxic or effect pressure"
<https://www.sciencedirect.com/science/article/pii/S0160412019307160>

Chemistry and Ecology: October 18 1993, Vol. 8 " Estrogenic Effects of Effluents from Sewage Treatment Works"
<https://www.tandfonline.com/doi/abs/10.1080/02757549408038554>

Environmental Science & Technology: April 14, 2021, American Chemical

Society (C) 2021 "The Role of Behavioral Ecotoxicology in Environmental Protection" <https://pubs.acs.org/doi/10.1021/acs.est.0c06493>

Chemosphere: May 2017 Vol. 175, PP 401-410 "An evaluation of behavioural endpoints: The pharmaceutical pollutant fluoxetine decreases aggression across multiple contexts in round goby (*Neogobius melanostomus*)" <https://www.sciencedirect.com/science/article/abs/pii/S0045653517302370?via%3Dihub>

Aquatic Toxicology: September 2010 Vol. 99 Issue 3, "Anti-depressants make amphipods see the light Author links open overlay panel" <https://www.sciencedirect.com/science/article/abs/pii/S0166445X10002122>

National Library of Medicine, National Center for Biotechnology Information, National Institutes of Health: 2013 February; "Dilute concentrations of a psychiatric drug alter behavior of fish from natural populations" <https://pubmed.ncbi.nlm.nih.gov/23413353/>

Nature: May 23, 2012 Vol. 485, 441 "The Hidden costs of flexible fertility", Abstract: "Urgent public debate is needed over a European proposal to regulate environmental levels of the active ingredient in birth-control pills, say Richard Owen and Susan Jobling." <https://www.nature.com/articles/485441a#citeas>

This article originally appeared on The Conversation, and is republished under a Creative Commons licence. <https://theconversation.com/fish-hooked-on-meth-the-consequences-of-freshwater-pollution-163756>

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David Fulwiler
Milwaukee, Wisconsin
This email is digitally signed
to ensure data integrity

"Things that are equal to the
same thing are equal to each
other" -Euclid's first axiom

Source: Todd Bragstad/Biz Journals

Written by: Grace Barlow, Jose Basaldua, Leah Holloway and Angeline Koch

Edited by: Eghosa Asemota

The Great Lakes Compact, a legal contract between the states of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin, was created in conjunction with a similar legal agreement between the Canadian Provinces of Ontario and Quebec. This document, also referred to as the Compact, was signed into law in 2008 and outlines how states and provinces within the Great Lakes Basin will collectively manage the use of the Great Lakes' water supply. While the Compact has a wide range of goals, special emphasis is placed on ensuring that the Great Lakes' water remains within the natural basin boundaries and that it is used sustainably and responsibly.¹¹

As the authors of the Compact carefully crafted this document over seven years, they kept watch over a particular situation developing in southeast Wisconsin. The drafters believed, with good reason, that the City of Waukesha would present the first major test of the Compact. They were right. The ink on the Compact was barely dry before Waukesha, which lies just outside the Lake Michigan Basin, submitted its application to the Wisconsin Department of Natural Resources (WDNR) for a diversion of Lake Michigan water. After an eight-year battle, Waukesha received approval for their request to divert Great Lakes water to its municipality. However, Waukesha's gain is not without negative impacts to other communities. Parties involved in the decision-making process gave little to no consideration to the environmental justice implications of the diversion, despite expending hundreds of thousands of dollars for environmental and legal analysis during an eight year application process. This paper will outline the driving reasons behind the current state of the Waukesha diversion plan and analyze the environmental justice concerns for communities in Southeastern Wisconsin. The analysis will utilize two frameworks, Systems Thinking and Schlosberg's Dimensions of Environmental Justice, and will focus particularly on the impacts of Waukesha's return flow plan through the Root River. This case study describes how Waukesha changed its plan to return its wastewater from a river that flows through a largely White, middle class community, to one that flows through a largely minority, lower income community, after protest from the middle class community. The case study also identifies intervention points where Waukesha could make changes to minimize the impact of the diversion on certain communities and be a positive model for how Great Lakes Compact diversions could be done equitably in the future.

Dimensions and Systems Thinking

There are two frameworks for analyzing environmental justice issues: Systems Thinking and the Dimensions of Environmental Justice. These frameworks allow for a thorough examination of the environmental justice issues and provide methods to analyze potential intervention points and mitigate any injustices found. Systems Thinking, also referred to as DSRP, uses a holistic approach to ensure that all relevant pieces of a problem are considered. DSRP breaks problems down into four main components: distinctions, systems, relationships, and perspectives.^[2] This framework helps users to address multifaceted problems by approaching the problem from different angle which allows for a more effective assessment of potential solutions and stakeholders. The *distinction* rule of DSRP states that “any ‘idea’ or ‘thing’ can be distinguished from other ‘ideas’ or ‘things’ within the system.” This is achieved by designating specific ideas as “identities.”^[3] The *system* rule is defined as “any idea or thing that can be split into parts or lumped into a whole” and helps identify what aspects of a problem may be separated from the rest.^[4] The relationship and perspective rules take both the identities and systems defined by the *distinction* and *system* rules and relate them to each other, other system components, and relevant perspectives. DSRP is a helpful tool for working through environmental justice issues, where unconscious biases and marginalization are often central to the problem. For this discussion of environmental injustices and the Waukesha Diversion, a DSRP map (Figure One) was created to aid the analysis.

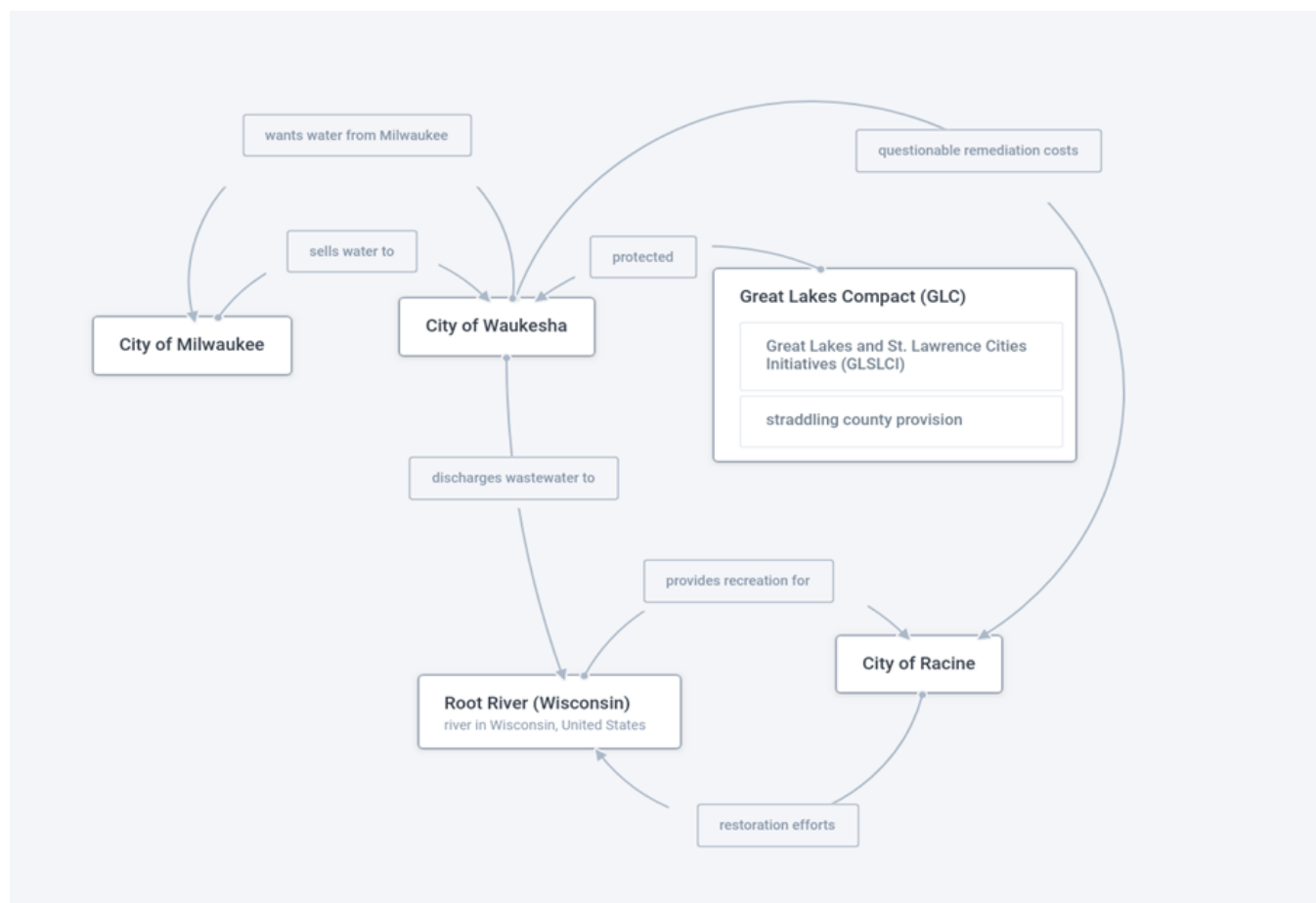


Figure 1: A DSRP/ Systems Thinking Map of the Waukesha Diversion Case

The DSRP map illustrates the important distinctions and the systems they create for the Waukesha diversion case. The map also portrays the relationships between Waukesha and Milwaukee as a transaction. Waukesha will obtain Lake Michigan’s water from the City of Milwaukee but has yet to finalize a route for returning used or treated wastewater to Lake Michigan. Initially, engineering consultants determined that the return flow from Waukesha

to Lake Michigan should be routed via Underwood Creek. After the return flow plan was published to the community, Waukesha changed its return flow route from Underwood Creek to the Root River, which flows through the City of Racine. The Racine community enjoys a long standing commitment to the ecological health of the Root River which winds through their city. Residents recreate on the river, have businesses that are connected to the river, and are vested in the river's ecological health and integrity. These areas of interest will be expanded further in later sections of this discussion, including an analysis of Waukesha's commitments regarding the level of water quality of the discharge effluent and Waukesha's potential lack of accountability for environmental impacts.

The second framework for analyzing environmental justice issues, "The Dimensions of Environmental Justice," is derived from David Schlosberg's 2004 essay "Reconceiving Environmental Justice: Global Movements and Political Theories." Schlosberg expanded the idea of environmental justice that traditionally looked at whether pollution was distributed equitably among racial and economic demographics to include the ideas of recognition and participation. In his paper, Schlosberg argued that part of the problem of traditional environmental injustice theory is the lack of recognition of differences among communities based on race, ethnicity, or economic status.^[5] An unacknowledged, marginalized community includes various forms of degradation and devaluation at both the individual and cultural level.^[6] While it is important to recognize that environmental injustices are often centered around unequal distribution of pollution with marginalized groups bearing the brunt of pollution, uneven access to environmental resources, or environmental policy that focuses solely on addressing uneven distribution of pollution, is not adequate to restore justice. Instead, when looking to address and analyze issues of environmental justice, the decision-making process should recognize and prioritize the participation of marginalized groups.

Distributional justice observes the apportionment of environmental burdens and benefits throughout society. Unfortunately, many impoverished communities and communities of color in the U.S. are allotted a disproportionate share of society's environmental burdens. One burden shouldered disproportionately by impoverished communities is the disposal of wastewater into their local waterways. The release of untreated wastewater has the very serious potential of contaminating and poisoning the public and of destroying local ecosystems.^[7] The situation can be made worse if an affected community relies heavily on local ecosystem services for sustenance and economic support. Not having a strong voice and not being allowed to participate in the decision-making process often results in distributive injustice. Communities of color and impoverished communities have lower property values as compared to middle-class communities with a White majority. As such, it costs less for industries to buy land in communities with depressed land value. In addition,

industries can set up operations with little to no opposition by residents who often have less access to information and are not often equipped to organize an opposition. In turn, these communities are exposed to a disproportionate amount of environmental pollution, including untreated wastewater. This situation was analyzed in a 2016 study in southern Texas that focused on the disproportional location of fracking wastewater disposal wells.^[8] The study found that most wells were located in closer proximity to residents of color and living in poverty than near non-Hispanic White communities.^[9]

The theory that recognition deepens the understanding and full impact of distributive injustice also establishes “the direct link between a lack of respect and recognition and a decline in a person’s membership and participation in the greater community, including the political and institutional order.”^[10] The dimensions of an environmental justice analytical framework provides an in-depth analysis for the potential environmental justice concerns raised by the Waukesha diversion plan.

Before addressing Waukesha’s need for a Lake Michigan diversion and the analysis of environmental justice issues, it is important to understand the legal basis and policy of the Great Lakes Compact and related Wisconsin Department of Natural Resource statutes. The main legislative components of the Compact include a ban on future diversions and a requirement that each participating state or province develop a water management program based on elements required by the Compact.^[11] The ban on future diversions provides that no community outside of the natural basin boundaries of the Great Lakes may move water out of the basin. However, because the political and the geological basin boundaries do not perfectly align, the Compact outlines two exceptions for communities that may apply for a diversion of the Great Lakes’ water. Communities whose political boundaries lie partly within the basin, such as New Berlin, Wisconsin, are referred to as “straddling communities.” Communities that are located in a county whose border lies partially on the basin line, such as Waukesha, Wisconsin, are referred to as “communities within straddling counties.” While both may apply for a diversion, the type of community plays a role in determining to which requirements a community must adhere. Both the Great Lakes Compact and the Wisconsin Department of Natural Resources outline requirements, summarized in Figure Two, for diversion approval. Requirements for communities within straddling counties, such as Waukesha, are more stringent.

Straddling Community

Per the Great Lakes Compact:

- Application must be from a public water supply system for public supply use.
- Community must put a water conservation plan into effect in order to maximize the amount of water returning to the basin.
- Community must return all water taken from the basin, save for consumptive use allowances, and minimize entrance of out of basin water.
- Wastewater will be treated to meet applicable permit requirements.

Community Within a Straddling County

- Must meet all above Great Lakes Compact requirements.
- Must prove that the community is without adequate water supply and that there is no adequate alternative for water supply.
- Must undergo formal technical review, regional review and approval, and receive approval from the Great Lakes Council to ensure that diversion will not have adverse ecological effects.

Per Wisconsin DNR Straddling County Requirements:

- Plans for use must be consistent with an approved water supply area service plan.
- Must meet wastewater return flow criteria: 1) water must be returned to the source watershed as close as practicable to where water is withdrawn, unless the applicant can demonstrate it is not economically feasible, environmentally sound, or not in the interest of public health, and 2) if water will be returned to the source watershed through a tributary, the biological, chemical, and physical, integrity of the water will be protected and sustained considering both low and high flow conditions.

Figure 2: Great Lakes Compact and Wisconsin Department of Natural Resource Requirements ¹¹²¹

The Great Lakes Compact and WDNR statutes are important components, vital to understanding the environmental justice issues surrounding the diversion. These requirements are the current framework for any community looking to access the Great Lakes' water, of which Waukesha is the first with a contentious application. The diversion requirements, whether they be from the Compact itself or from the WDNR, provide proponents and opponents of the diversion, the basis on which to argue the permissibility of Waukesha's request. This provides an interesting element to the discussion as both sides use the statutes and requirements to bolster arguments about the need to access safe drinking water, or their worry that the diversion will have negative ecological impacts on the Lake Michigan watershed and open the door for future diversions.

In particular, the WDNR requirement regarding the treatment and water quality standards of the return flow water- and the biological, chemical, and physical integrity of any waters

receiving this return flow water- is important to the Waukesha Diversion discussion. In the application, Waukesha stated that their withdrawal would not have negative environmental impacts on the biological, physical, and chemical integrity of the Root River, Lake Michigan, or other waters in the basin, and that their return flow “will be treated to meet applicable water quality standards” and “provide more, and higher-quality, functional in-stream habitat improvements to the biological integrity of the Great Lakes tributary receiving return flow.”^[13] The City has maintained this position in subsequent documents throughout the diversion process, with this stance being a major point of contention between Waukesha and opposing voices.

The Need for a New Source of Water in Waukesha

Another largely contested part of Waukesha’s application revolved around the Compact requirement for a community within a straddling county to demonstrate that it is “without adequate water supply and that there is no adequate alternative for water supply.”^[14] Waukesha, Wisconsin is a suburb of Milwaukee that sits seventeen miles west of Lake Michigan, and one and a half miles outside of the Great Lakes Basin. Waukesha has a population of just over 72,000, making it the seventh largest municipality in the state.^[15] It is seventy-eight percent White, twelve percent Hispanic, four percent Asian, four percent Black and two percent other.^[16] Its median household income is \$59,500, which is slightly higher than Wisconsin as a whole, and Waukesha has an eleven percent poverty rate.^[17]

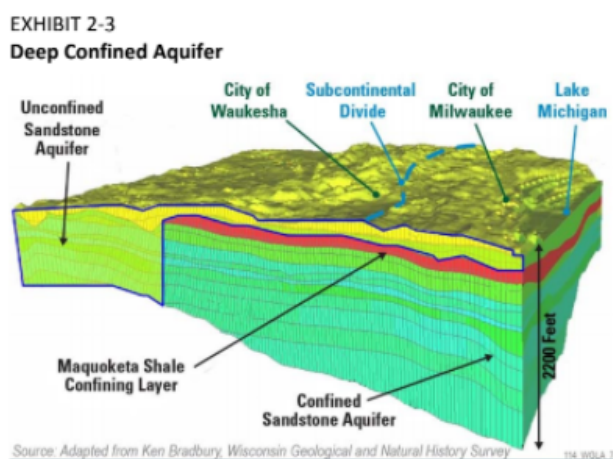


Figure 3: Geological Map of the Confined Aquifer

Currently, Waukesha uses seven deep wells in the St. Peter confined sandstone aquifer (Figure Three) that extend beneath Waukesha all the way east to Lake Michigan, and three

shallow wells in the Troy Bedrock Valley aquifer to the west, to obtain its public water supply.^[18] Some of the deep wells are over seventy-five years old, and draw water from up to 1000 feet below the surface; the shallow wells are newer, most of which are less than twenty years old, and were put online to help mitigate Waukesha's increasing radium problem.^[19]

As the population of the western Milwaukee suburbs began to grow, water withdrawals increased. Soon, more water was being drawn from the St. Peter Aquifer than could be replenished by annual precipitation, and water levels in the aquifer began to drop. Natural sources of radium became more concentrated the more the aquifer was drawn down, and this began to contaminate the region's drinking water supplies.^[20] In 2000, the U.S. Environmental Protection Agency (EPA) announced more stringent radium regulations in order to protect citizens from this known carcinogen in their drinking water. Waukesha's water had more than three times the allowable standard.^[21] Waukesha's initial response was to sue the EPA and discourage implementation of reduced radium restrictions.^[22] When that failed, Waukesha decided to dig wells in the Troy Bedrock Valley to dilute the water supply enough to reduce radium concentration. While these wells helped reduce the levels of radium in drinking water supplies, Waukesha still does not consistently meet the standard for radium concentration in its public drinking water supply, especially during periods of high water use.^[23] As such, Waukesha turned east toward Lake Michigan for relief.

Local environmental organizations hired the engineering firm GZA GeoEnvironmental to look at alternatives to a Lake Michigan diversion, including solutions neighboring communities employed to mitigate radium contaminated drinking water. GZA took into account not only Waukesha's trouble with radium, but also their concern that it did not have enough water capacity in their existing wells to meet the current and future needs of citizens and industry.^[24] One solution that GZA analyzed was a treatment system called "Water Remediation Technology (WRT) Z-88." Neighboring Wisconsin cities of Brookfield and Pewaukee, as well as six municipalities in Illinois and six additional American cities, use WRT.^[25] GZA opines that this system, in addition to digging two new wells to replace ones that Waukesha has already or plans to shut down soon, can solve all of Waukesha's water supply challenges for half the cost of diverting water from Lake Michigan. The current estimated cost of a diversion is \$334 million.^[26] Waukesha did not consider including different treatment alternatives, such as WRT, as part of the alternative options in its application for diversion. Instead, each of the options was a different source of water or combination of sources.^[27]

After more than a decade, Waukesha approaches a quickly looming EPA 2018 deadline to bring its public water supply system into year-round compliance. Now that its application

for a diversion from the Great Lakes has been approved, Waukesha is able to move forward with its preferred solution of a diversion. In accordance with the rules set forth by the Compact, Waukesha must return the water it borrows to Lake Michigan. The route they have chosen for this return flow is the Root River, which is where our environmental justice analysis is focused.

Environmental Justice Considerations of Waukesha’s Return Flow Plan via the Root River

The Root River flows southeast from New Berlin through the community of Racine before flowing into Lake Michigan. While treated wastewater discharging into a river can present challenges to any community through which the river flows, there are several features of the community of Racine and the Root River Basin that make Waukesha’s decision to return its wastewater via the Root River, as opposed to Underwood Creek, uniquely concerning from an environmental justice standpoint.

In 2016, the Great Lakes - St. Lawrence River Basin Water Resources Compact Council (“Compact Council”) granted a diversion of water from Lake Michigan to the City of Waukesha despite strenuous objections based on social and environmental justice grounds advanced by the ACLU of Wisconsin, the Sierra Club, the Milwaukee Inner City Congregations Allied for Hope, and the NAACP-Milwaukee Branch. These organizations argued that granting a diversion would contribute to Waukesha’s unchecked suburban sprawl to the detriment of communities of color residing in the City of Milwaukee who historically have lacked access to jobs and housing in Waukesha. The State of Wisconsin and the Wisconsin Department of Natural Resources endorsed the diversion application. Shortly after the Compact Council granted the diversion, the Great Lakes and St. Lawrence Cities Initiative (“Cities Initiative”) filed a petition asking the Compact Council to review the decision. In support of the review request, the Cities Initiative offered several reasons why the diversion should not have been granted or, in the alternative, should be modified. However, none of these reasons touched on environmental justice considerations. After reviewing briefs by the Cities Initiative and the City of Waukesha, and hearing oral arguments, the Compact Council unanimously denied the Cities Initiative’s request to reopen or modify the decision to grant the diversion.

While these environmental justice objections are not insignificant to a broader analysis of whether a diversion should be granted, because the Compact Council granted the diversion, the next most pressing environmental justice consideration surrounds the selection of the river through which Waukesha’s treated wastewater effluent will be returned to Lake

Michigan, i.e., its “return flow plan.” As stated above, the current plan provides that Waukesha’s treated wastewater will be returned to Lake Michigan via the Root River, which flows through the City of Racine, and not through the City of Wauwatosa via the Underwood Creek, as initially proposed. The communities of Wauwatosa and Racine are very different, such that an analysis of the decision to route the return flow through Racine, through the dimensions of environmental justice, is appropriate. The return of Waukesha’s treated wastewater via either river imposes significant environmental and economic risks to the surrounding community.

In May 2010, Waukesha initially committed to return 100 percent of Lake Michigan water (minus consumptive use) to Lake Michigan via Underwood Creek, which flows into the Menomonee River through the City of Wauwatosa near West Bluemound Road. However, after strenuous objections by the City of Wauwatosa, Waukesha amended its application and requested that its effluent be discharged back to Lake Michigan via the Root River. The effluent will be treated at the City of Waukesha sewerage treatment plant prior to discharge into the Root River. The proposed discharge point along the Root River is planned for at S. 60th St. in Franklin. Water treatment will include removal of chemical phosphorus, chloride, suspended solids, and organic materials; tertiary filtration; and ultraviolet light disinfection. The proposed phosphorus limits are below the water quality standard for the Root River. The City of Waukesha will be returning up to ten million gallons of treated effluent per day into the Root River. Based on prior review of Waukesha’s plan by the Wisconsin Department of Natural Resources and the Compact Council, the proposed quality of wastewater returned via the Root River by Waukesha will meet federal and state requirements.

In denying the Cities Initiative petition for review, the Compact Council concluded that the Cities Initiative failed to detail how the return flow, which must comply with federal and state water quality standards, would result in significant impacts on the basin, which is the standard of review required in the Compact. The Council’s conclusion seemingly ignores the scientists at UWM School of Freshwater Science and the City of Racine Dept. of Public Health, who have opined that there will be adverse environmental impacts on the Root River. While there are meaningful concerns about water quantity impacts to the Root River (flooding, erosion, sediment mixing), the most significant issue presented by the return flow plan relates to water quality. Specifically, the concentration of pathogens, pharmaceuticals, and other emerging contaminants that are not currently regulated and not treated via sewerage treatment facilities, will have a negative impact on the Root River. In addition, there are valid concerns about Waukesha’s ability to meet the proposed phosphorus and chloride standards, and Waukesha’s lack of financial liability for any negative impact for its failure to do so.

The WDNR identified elevated phosphorus and chloride levels in their Environmental Impact Statement and Technical Review of Waukesha's diversion plan.^[28] According to federal and state standards, discharge into the Root River cannot exceed a phosphorous standard of 0.075 mg/L or a chloride limit of 400 mg/L. Waukesha's discharge will be permitted (through the Wisconsin Pollutant Discharge Elimination System) and required to meet these standards. However, reports compiled by the WDNR provide that Waukesha cannot meet the recommended chloride limit of 400 mg/L. In addition, consultants for Waukesha stated that Waukesha will not be able to meet the phosphorus standards consistently.^[29] Excess phosphorus is a concern because it can speed up the process of eutrophication in a body of water, which in turn decreases ecosystem productivity. The inability to meet phosphorus standards consistently presents a significant challenge for downstream communities like the City of Racine. Furthermore, the Root River is already listed on Wisconsin's Impaired Waters list as the upper sections of the river (the Root River canal and the West Branch of the canal) currently have excessive phosphorus levels, decreasing dissolved oxygen levels below what is necessary to support aquatic life.^[30] Additional phosphorus inputs into the ecosystem will only exacerbate eutrophic conditions and increase the difficulty of implementing a remediation plan or Total Maximum Daily Load (TMDL) for the waterway.

In addition to increased nutrient and chloride levels within the Root River, Waukesha's discharge increases the likelihood of additional pathogens being introduced to the river. While Waukesha's return flow will meet state wastewater treatment effluent standards, there is still the potential for pathogens to persist beyond the wastewater treatment process. Wisconsin wastewater effluent standards are partially regulated using total coliform counts and fecal coliform counts, known as bacterial indicators.^[31] Bacterial indicators are conventional for wastewater treatment standards, however, research over the past several decades has demonstrated that these indicators do not adequately reflect the pathogenic contamination of wastewater.^[32] Total coliform and fecal coliform counts do not indicate the presence of other categories of pathogens that do not stem from fecal contamination. Further, pathogenic contamination does not always follow a proportional relationship to the level of indicator bacteria present in the water.^[33] Pathogenic concentrations have the potential to be high in wastewater, despite meeting effluent fecal and total coliform standards, as pathogens can persist beyond the reduction and inactivation methods used in treatment centers. This presents an environmental and public health risk as surface water containing wastewater discharge may pass the bacterial indicator standard, yet still contain harmful pathogens.

Concerns Remain after Granting Waukesha's Application for Diversion

Contrary to Waukesha's contention and the opinion of the Compact Council, there are several significant concerns with Waukesha's return flow plan. First, while the City of Waukesha contends that the return flow will benefit the Root River by adding volume during times of low flow, Waukesha fails to acknowledge that during times of low flow, seventy five to ninety percent of the water in the Root River will be "treated" wastewater effluent: effluent which has not been treated for residual pathogens, microplastics, pharmaceuticals or other emerging contaminants.^[24] This increased level of contamination will pose human health risks as well as risks to the riparian ecosystem. Waukesha also contends that the increase in flow to the Root River will improve Great Lakes fisheries. Waukesha, however, fails to appreciate the presence of unregulated contaminants in the return flow that will cause harm to fish and other organisms, including the people that recreate in and around the Root River.

Second, Dr. Sandra McLellan, a research professor at the UWM School of Freshwater Science specializing in environmental health, argues that the Waukesha effluent will contain increased amounts of contaminants and nutrients: an increase in phosphorus loading, higher concentrations of chloride, higher concentrations of total suspended solids, pharmaceuticals, higher concentrations of residual pathogens, and other emerging contaminants like microplastics and personal care products.^[35] The quantity of these contaminants, Dr. McLellan stated, will have a profound impact on the quality of water in the Root River (and the near shore area of Lake Michigan) on which people regularly kayak, boat, and fish. In addition to impacts on human health, it is believed that many of these contaminants will have a negative impact on the health of the aquatic ecosystem. For instance, scientists at the School of Freshwater Science, including Dr. Rebecca Klaper, are studying the impact the diabetes drug, metformin, is having on fish in Lake Michigan. Other studies are documenting the impact microplastics and microfibers are having on fish and other wildlife that consume these micro-contaminants. Neither the City of Waukesha nor the Compact Council meaningfully addressed concerns about emerging contaminants.

Another significant concern is whether Waukesha, after it sets high phosphorus and chloride standards in the WPDES permit in order to secure approval, will subsequently seek a variance arguing that it is not technically feasible to meet the limits in the permit. Nothing in the Compact Council's decision prohibits Waukesha from seeking such a variance. Therefore, Waukesha's unwillingness to recognize the concerns of the community through which it intends to send its wastewater effluent, will be compounded by further reducing the quality of the effluent with a subsequent variance.

In addition, there is no requirement that Waukesha monitor the Root River, pre- or post-diversion, for the emerging contaminants as previously outlined. Waukesha's Water Utility contracted with the University of Wisconsin-Parkside to begin monitoring the Root River's water quality and biological conditions, including fish health. However, the monitoring excludes analysis for emerging contaminants, e.g., residual pathogens, microplastics or any pharmaceuticals. Likewise, the post diversion monitoring required by the Compact Council (set for a minimum of ten years) does not include emerging contaminants. Therefore, key components for assessing the water quality of the Root River will not be monitored. As outlined by Dr. McLellan, monitoring only for certain contaminants, such as *E. coli* and phosphorus but not residual pathogens, does not provide an accurate or comprehensive assessment of water quality.^[36]

Furthermore, without accurate data, it will be difficult to assess whether the City of Waukesha's return flow has a negative impact, significant or otherwise, on the Root River. The Compact Council did give passing reference to the concern about emerging contaminants by pointing out that it did require the City of Waukesha to develop a comprehensive pharmaceutical and personal care products recycling program, to reduce the quantity of these products entering the City of Waukesha's wastewater, but the Council stopped short of requiring the City of Waukesha to monitor for contaminants not otherwise required to be monitored by federal or state law. Lastly, Waukesha is not required by the Compact Council to pay for any negative local, regional, or cumulative impact caused by its return flow. If the return flow does have a negative impact on human health, fisheries, or aquatic life, there is no provision in Waukesha's plan to pay for the damage, leaving the City of Racine to bear the economic burden.

In light of the considerations outlined above, it is clear why the City of Wauwatosa vigorously objected to Waukesha's initial plan to discharge its treated sewage via Underwood Creek (Figure Four). Clearly, the community of Wauwatosa understood that Waukesha's plan to distribute its wastewater effluent was not as simple or "clean" as alleged by Waukesha in its return flow plan. What is unclear is what motivated Waukesha to amend its diversion plan, to request that its treated wastewater be discharged through the community of Racine via the Root River instead of through Wauwatosa via Underwood Creek, especially since it costs less and crosses fewer streams than discharging to the Root River. According to Waukesha's 2010 application, the return flow through Underwood Creek had the lowest estimated capital cost of \$56M with an annual operations and maintenance cost of about \$120,000, as compared to the estimated costs for return flow via the Root River which were about \$76M with an annual operating and maintenance cost of \$145,000.^[37]

Return Flow Alignment to Root River (river shown only downstream of the return flow)

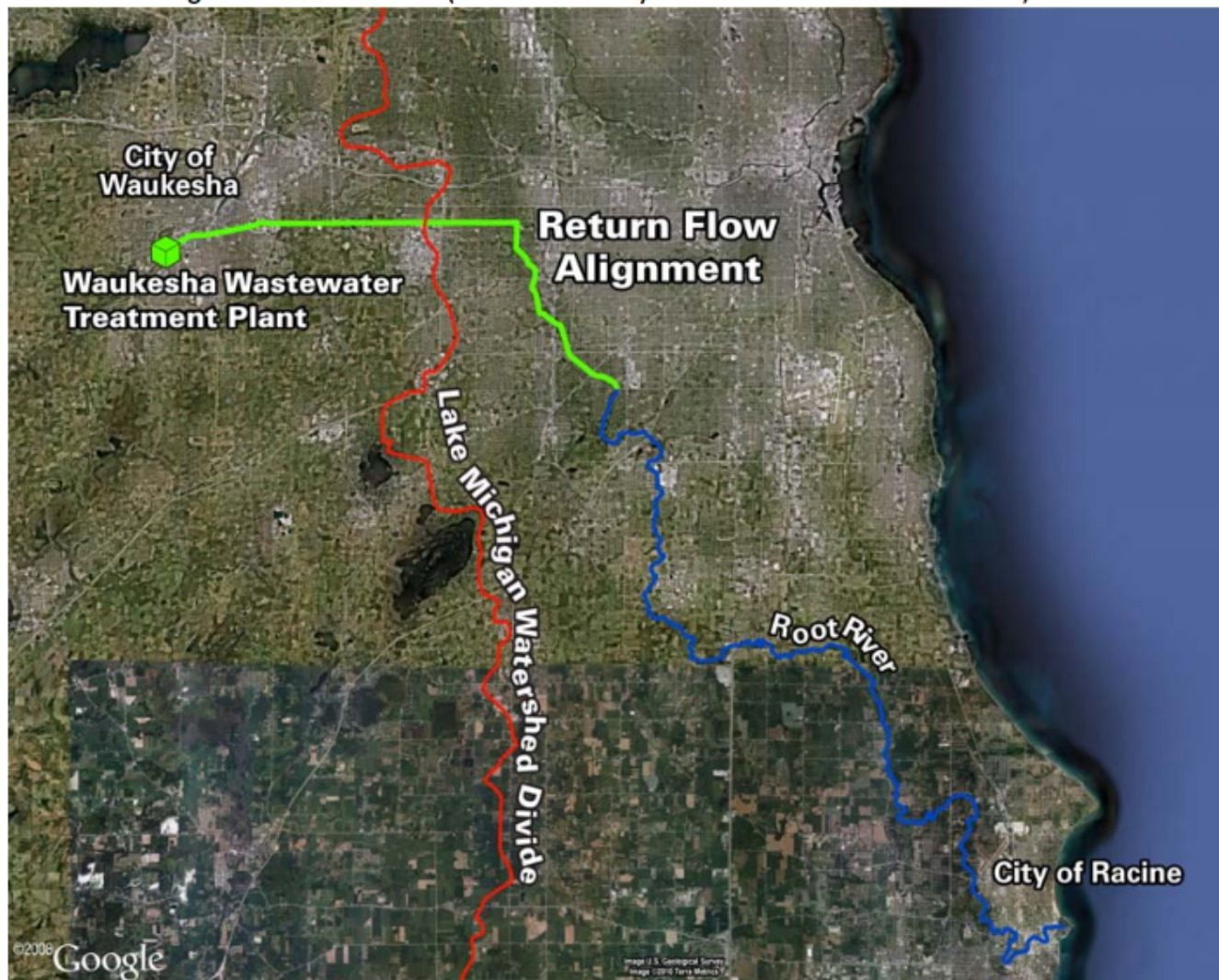




Figure 4: Maps Showing Return Flow Paths Through Underwood Creek and the Root River

A Tale of Two Communities

As mentioned above, the demographics of Racine and Wauwatosa are distinct. According to the latest demographic information from July 2016, the overwhelming majority of Wauwatosa residents are employed (seventy-one percent) and enjoy a median household income of \$70,000 with a median property value of \$220,000.^[38] By contrast, the median value of a home in Racine is \$110,000, the median household income is \$41,000, and sixty-four percent are employed with twenty-two percent living in poverty, as seen in Figure Five.^[39]

2016	Wauwatosa	Racine
Population:	47,000	77,000
High School Graduates	97%	82%
Bachelor's Degree or Higher:	60%	18%
Employed:	71%	64%
Median Household Income:	\$70,000	\$41,000
Persons in Poverty:	6.30%	22%
Median Property Value:	\$220,000	\$110,000
Home Ownership:	63%	52%
Caucasian:	87%	52%

Figure 5: Wauwatosa and Racine Census Information Comparison (United States Census Bureau, 2017)

The last few miles of the Root River through the City of Racine includes popular fishing spots and an area that the City plans to revitalize. The City is working with developers on a sixty-five million dollar plan to redevelop an aged steam engine plant along the Root River waterfront as a mixed-use building with apartments and retail shops. In addition, the City spent the last fifteen years cleaning up North Beach. Racine officials and residents voiced concerns about the viability of these projects and the continued clean-up of North Beach to Waukesha's planners, only to have them be rebuffed. The City of Waukesha rejects any concern by saying that the treated wastewater will be clean and that it will comply with all Federal and State laws. However as outlined above, the Federal and State standards do not adequately address issues of water quality like viruses and pharmaceuticals. In summary, Waukesha went from sending its treated wastewater through a middle class, predominantly White community, to discharging its treated effluent through an economically depressed community with a much higher population of minority residents.

Waukesha Planners Failed to Recognize the Concerns of the Community of Racine When Selecting a Route

Waukesha's decision to change return flow routes after the citizens of Wauwatosa objected, failed to recognize and value the concerns of the citizens of Racine to the same degree that it did the citizens of Wauwatosa. Waukesha fails to recognize the concerns of Racine in repeating the pat response that the return flow effluent will be in compliance with state and federal laws, ignoring their concerns about other contaminants and potential negative economic impact. The City of Waukesha maintains a website dedicated to its diversion plan but the website does not include any information about the environmental justice implications of its return flow plan on Racine.^[40] While there is a section about "myth" and "facts," none of the sections include a response to Racine's concern that its citizens will be fishing and swimming in Waukesha's wastewater. In addition to a lack of recognition, the citizens of Racine have not been provided the opportunity to participate meaningfully in the process of selecting a return flow route.

Over the past several years that Waukesha planned its diversion and return flow routes, Waukesha and the WDNR held only one meeting in Racine. It is possible that the City of Racine officials held meetings and that possibly some residents of Racine travelled to a meeting outside Racine or submitted an online comment, however, the fact remains that Racine residents have not been afforded the chance to participate meaningfully in the planning process. On March 23, 2018, the Waukesha Water Utility submitted to the WDNR

its 3-140 D2 Waukesha Great Lakes Water Supply Program WDNR Supplemental Environmental Impact Report-Redacted (SEIR). According to the SEIR, the WDNR conducted several meetings with affected communities, including two sets of public hearings and two public comment periods prior to submitting the Lake Michigan Diversion Application to the Compact Council in January 2016. The WDNR held three public “scoping” meetings on July 26, 27, and 28, 2011, in Pewaukee, Wauwatosa, and Sturtevant. The WDNR prepared a draft Environmental Impact Statement and invited the public to comment on it between June 25 and August 28, 2015. Comments were also received at three public hearings on August 17 and 18, 2015, in Waukesha, Milwaukee, and Racine. Meaningful efforts at recognition and participation would include holding more meetings with the residents of Racine to discuss their concerns, allowing a representative from Racine to participate in the decision-making process, and being amenable to offering solutions to Racine’s concerns about water quality and economic impacts. Waukesha would like people to empathize and support their quest for a sustainable source of drinking water but seem reluctant to recognize and validate the concerns of other communities affected by that quest.

Waukesha has the opportunity to improve its image and its return flow plan by addressing the environmental justice implications its plans have on the Racine community. Figure Six shows some potential points of interjection in the DSRP map created for this analysis. The WDNR can collaborate with Waukesha, Milwaukee, and Racine, and facilitate discussions about potential economic and environmental impacts from the diversion. The discussions can then be used by the WDNR to create stronger regulations that should not be a problem for Waukesha adherence. Further discussions will make Waukesha a stronger participant in monitoring the Root River as regulations are adapted to the new terms. Additional groups, such as the UWM School of Freshwater Science and the City of Racine Dept. of Public Health, will be included as consultants in creating new regulations, establishing a collaborative monitoring and remediation program, and experimenting with filtration methods. One concern over the treated wastewater is the additional input of emerging contaminants and residual pathogens. Waukesha can fix this concern by becoming a test candidate for new filtration technologies created to filter emerging contaminants. New regulations and standards can strongly motivate the research and development of new filtering methods. In addition, Waukesha should consider setting up a fund to help Racine pay for the damages likely to be caused by flooding and erosion resulting from the increased flow rate in the Root River. By taking these steps, Waukesha could become a model city for requesting and accomplishing the first major diversion that challenged the Great Lakes Compact, the very document created to prevent transfers outside of the basin.



| 18

Conclusion

As outlined above, there is no question that Waukesha's plan to return its wastewater to Lake Michigan via the Root River will introduce unregulated contaminants to the river and lake which will cause harm to those ecosystems and people who rely on them for drinking water, sustenance fishing, and recreation. It can be argued that Waukesha's plan to return the water used by its majority White, affluent residents, via a river that flows through a predominantly non-White, working class town, unfairly distributes health and economic risks to the City of Racine. In response, Waukesha's statement that its wastewater discharge will meet federal regulations rings hollow. In addition, Racine residents may lose access to the river, and local businesses dependent on the river may see a drop in customers and profit.⁽⁴¹⁾ These are all potential burdens suffered by Racine without any attendant benefits. The burden imposed on Racine residents will not be shared by the residents of Waukesha, as there is no requirement by the Compact Agreement or the WDNR approval that the City of Waukesha pay for any economic or ecological damage caused by the return flow. While Waukesha has already gained the permission it needs to divert water from the Great Lakes Basin, the plan to return the water via the Root River has not been finalized. In light of these serious concerns regarding the injustices imposed on the Racine community, it is recommend that Waukesha either select a different return flow route, or make a financial commitment to assist Racine in mitigating and/or remediating any damage caused by flooding or erosion. At a minimum, the WDNR should require the City of Waukesha to devise a plan that reduces the amount of contaminants sent to the water treatment facility, and require the sewage treatment facility to improve wastewater treatment and testing systems to reduce the amount of microplastics, pharmaceuticals, and other unregulated contaminants being discharged to the Root River.

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The authors of this paper are all masters students within the School of Freshwater Science at the University of Wisconsin-Milwaukee. This article was prepared for a class focusing on Environmental Justice and the use of Systems Thinking to solve multifaceted problems.

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From: [Lucia Petrie](#)
To: [DNR Compact Program Review](#)
Subject: Compact
Date: Tuesday, October 08, 2024 11:31:08 AM

CAUTION: This email originated from outside the organization.

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The Great Lakes Compact is a comprehensive agreement to insure water remains in the Great Lakes. It is essential that no additional exceptions are made. In fact, I submit that communities that are current exceptions to the Compact must submit annual plans for water conservation. And I believe that a cap must be placed on these diversions so that no additional water is diverted.

From: cheryl_nenn@milwaukeekeeper.org
To: [DNR Compact Program Review](#)
Subject: MRK Comments on Water Management and Water Conservation and Efficiency Program Review
Date: Friday, November 15, 2024 6:13:06 PM

**CAUTION: This email originated from outside the organization.
Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Shaili—

I have a few quick comments and questions on the Water Management and Water Conservation and Efficiency Program Review document, which is open for comment through today.

Per the Compact, the DNR requires permits for water use greater than 100,000 MGD or 1,000,000 MGD, and regional approval is required over 10 Million MGD. But I noted that for water loss approvals from surface waters, that permits aren't required until water loss averages more than 2 million gallons per day statewide. That seems concerning to me, as I would think impacts on inland creeks/lakes would be more significant than impacts on the Great Lakes, and it also just sends a conflicting message or may incentivize a utility or company to seek water from a river versus the lake, because they wouldn't need a permit. Does that make sense?

On page 9, when stating conditions for an inter-basin transfer, would impacts on water levels of streams be looked at (as ecosystem impacts)? Because only lake levels are mentioned—presumably for the Great Lakes.

I was also not aware of the condition (on page 14 of PDF) that states that the “state decision-making standard” would be applied instead of the “Compact decision-making standard”, where normally the latter would apply, if the entity applying shows that water loss would average less than 5 MGD over a 90 day period, versus averaging 10 MGD in a 30 day period. How many entities are in this bucket so to speak? And are other states managing these types of water uses in the same way? I understand the distinction but I'm not sure if that is a decision that WI should make in isolation because it is different than the Compact language.

On page 15, under the definitions of “reasonable use” for diversions, I find the bullets under “considerations” confusing as written b/c some are seeming written in the permissive and others in the restrictive tense. I think it would be clearer if written in a “thou shall not” type of frame. The second bullet is weirdly written in particular, like it's a reasonable use if “the proposal would result in an increased water loss”.

On page 16, under the exception standard for diversions section, I am opposed to number 1 language that states: “The proposal for a diversion must be consistent with an approved water supply service area plan under s. 281.348, Wis. Stat., that covers the public water supply system, unless the proposal is to provide water to a straddling community that includes a designated

electronics and information technology manufacturing zone. § 281.346(4)(c)2m. and (e)1.em., Wis. Stat.” That clearly was put in place for the sole purpose of allowing a water diversion for Foxconn, and I don’t see any distinction of why the electronics or information technology users should get special consideration. We do contend as well that when a diversion is granted, and conditions substantially change (who is using the water, and to what end, as well as socioeconomic considerations like jobs created), that the Department should have a way to reexamine a water diversion approval, and that these permits should not be permanent or evergreen to ensure that permittees don’t pull a “bait and switch.”

On page 16, under the third exception, I bristle at the part that states “considering the state of the receiving water before” in this paragraph:

“the physical, chemical, and biological integrity of the receiving water will be protected and sustained, considering the state of the receiving water before the proposal is implemented and considering both low and high flow conditions and potential adverse impacts due to changes in temperature and nutrient loadings.” I understand the intent of providing more detail, and wanting to know if there would be impacts based on a baseline condition for a stream. But as written, it also could be interpreted that if the “state of the receiving water” is poor, that it is not required that the physical, chemical, and biological integrity of that stream should be protected. I don’t think that is your intent. I also think factors like bacteria/pathogens are just as important as temperature and nutrients, especially when return flows, like the case with Waukesha, convert a stream to “effluent dominated” post-diversion.

And for the record, we still don’t agree with the Department’s interpretation that an exception to the prohibition on diversions should be granted if the entity seeking the water predominantly provides water for residential uses, when its clear the water being diverted is going to an industry, or fueling sprawl. In the case of the Foxconn diversion, people were forced from their homes and farms for that project, which has largely fallen apart. And now several of the areas in question are going to be redeveloped as subdivisions, which seems highly unfair to the Wisconsinites that lost their homes and had to move, compensated or not. Also, every city that is a water supplier along Lake Michigan can claim that they are predominantly serving residential uses (due to decline of industry), and if the “use” of the diverted water is not considered, I fear that it degrades the spirit and intent of the Compact that water should be provided for predominantly residential water uses and only when there is no reasonable water supply alternative.

Best,

Cheryl

Cheryl Nenn (she/her)

Riverkeeper

[Milwaukee Riverkeeper](#)

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Great Lakes-St. Lawrence River Water Resources Regional Body

RESOLUTION NO. 2025-9

ADOPTING DECLARATION OF FINDING

For the Water Management Program Review and
Water Conservation and Efficiency Program Review
Province of Ontario

I. BACKGROUND AND PURPOSE

A. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin, the Commonwealth of Pennsylvania, the Province of Ontario, and the Government of Québec, and certain provisions of the Agreement began to more fully come into force on March 8, 2015.

B. Article 300 of the Agreement requires each Party State and Province to submit a report to the Regional Body on actions taken by the State or Province to meet the provisions of the Agreement regarding that State’s or Province’s Water management and conservation and efficiency programs.

C. Following the Regional Body’s review of such reports pursuant to Article 300 of the Agreement, the Regional Body shall determine if that State or Province’s programs: (1) meet or exceed the provisions of the Agreement; or (2) do not meet the provisions of the Agreement; or (3) would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement.

D. Article 304, Paragraph 1 of the Agreement requires the Regional Body to identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by December 13, 2007, which were adopted by the Regional Body on December 13, 2007. Article 304, Paragraph 2 of the Agreement requires each Party State and Province to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State’s and Province’s goals and objectives.

II. SUBMISSIONS BY PROVINCE OF ONTARIO

The Regional Body has received the Province of Ontario’s report on its Water management and conservation and efficiency programs under the Agreement, which is attached to this Resolution as Attachment A.

III. DECLARATION OF FINDING

Upon review of the submissions of the Province of Ontario and the terms of the Agreement, the Regional Body finds that:

- A. Based on the report submitted by the Province of Ontario, the Water Management Program presented by the Province of Ontario meets or exceeds the current requirements of the Agreement.
- B. Based on the report submitted by the Province of Ontario, the Water Conservation and Efficiency Program presented by the Province of Ontario meets or exceeds the current requirements the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

ATTACHMENT A

Water Management and Conservation and Efficiency Programs—
Report to the Regional Body
Dated December 11, 2024

Province of Ontario Ontario Water Management Program Report

The following information is submitted by the Province of Ontario to the Great Lakes Regional Body Secretariat in response to the Questionnaire for Preliminary Submittals by States and Provinces, in fulfillment of the five-year review of Ontario's Water Management Programs, pursuant to the requirements in Article 300 of the *Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement* (Agreement).

General Information

1. Lead agencies and contact(s):

The Ontario Ministry of Natural Resources (MNR) and the Ontario Ministry of the Environment, Conservation and Parks (MECP) share primary responsibility for water management at the provincial level. Generally, MNR is responsible for certain aspects of Provincial water quantity management, including the administration of the *Great Lakes – St. Lawrence River Basin Sustainable Water Resources Agreement* (Agreement). MECP is responsible for water quality management and for the Permit to Take Water and the Water Taking Registration Programs.

Key Contacts:

Jennifer Keyes, Director
Development and Hazard Policy Branch
Ontario Ministry of Natural Resources

Leo Luong, Director
Great Lakes and Inland Waters Branch
Ontario Ministry of the Environment, Conservation and Parks

2. Provincial water management program implementing laws, regulations and policies –

The commitments of the Agreement are implemented in Ontario primarily through the Permit to Take Water Program under the *Ontario Water Resources Act* (OWRA), with contributions from a number of additional statutes, regulations and policies, as highlighted in the following table. A description of Ontario's key legislative and policy tools for water management follows the table.

Agreement Commitments (Articles)	<i>Ontario Water Resources Act</i> , Water Taking and Transfer Regulation (O. Reg. 387/04)	Additional Legislation, Regulation, Policy
Prohibition of diversions, regulation of exceptions based on Exception Standard (Article 200, 201).	☐ Ban on diversions out of Ontario's major water basins, including the Great Lakes Basin (OWRA s. 34.3).	☐ <i>Environmental Assessment Act</i> - Technical Bulletin provides guidance for municipalities undertaking water, wastewater projects to meet Agreement standards, criteria for class EA

	☐ Regulation of intra-basin transfers (OWRA s. 34.5-34.11; O. Reg 387/04). ☐ Environmental Compliance Approvals required for sewage works (return flow) (OWRA s. 53).	projects involving an intra-basin transfer. ☐ <i>Lakes and Rivers Improvement Act</i> – regulation of works forwarding, holding back, diverting water (location, design approval). ☐ Quality of return flow/effluent regulated under <i>Environmental Protection Act</i> , <i>Clean Water Act</i> , <i>Environmental Assessment Act</i> , Provincial Water Quality Objectives. ☐ <i>Clean Water Act</i> provides for the completion of water quality and quantity risk assessments, water budgets.
Regional review of significant diversion exceptions (Article 204).	☐ Regional review for significant intrabasin transfers (OWRA s. 34.6, 34.1).	☐ <i>Environmental Bill of Rights</i> provides for public consultation on water taking proposals.
Management, regulation of withdrawals, consumptive uses based on Decision-Making Standard (Article 200, par 3; 203; 206).	☐ Permitting criteria reflect Agreement Decision Making Standard (OWRA s.34; O. Reg. 387/04). ☐ Environmental Compliance Approvals required for sewage works (return flow) (OWRA s. 53).	☐ Quality of return flow/effluent regulated under <i>Environmental Protection Act</i> , <i>Clean Water Act</i> , <i>Environmental Assessment Act</i> , Provincial Water Quality Objectives. ☐ <i>Clean Water Act</i> provides for the completion of water quality and quantity risk assessments, water budgets. ☐ Provincial Planning Statement and Provincial Plans under the <i>Planning Act</i> currently provide for the minimizing of negative impacts and require planning for efficient, sustainable water use and conservation as part of planning and development decisions.
Prior Notice and Comment for significant consumptive uses (Article 205).	☐ Prior Notice and Comment required for significant consumptive uses by regulation (s. 6; O. Reg. 387/04).	☐ <i>Environmental Assessment Act</i> - Technical Bulletin provides guidance for municipalities undertaking water, wastewater projects to meet Agreement requirements for class EA projects. ☐ <i>Environmental Bill of Rights</i> provides for public consultation on water taking proposals.
Applicability, determining new/ increased diversions, consumptive uses, withdrawals (e.g. foundation for baseline setting, Agreement exemptions, regulation of bottled water) (Article 207, 208).	☐ Exemptions from permitting for: livestock watering, household use, unless a new or increased transfer is established; firefighting or emergency purposes, wetland conservation; a weir that was constructed prior to March 29, 2016; passive and/or active instream diversions for construction purposes (OWRA s. 34); And constructing or operating a dam	☐ As of March 29, 2016, certain routine and low risk water takings that meet the criteria in O. Reg. 63/16 under the <i>Environmental Protection Act</i> must be registered in the Environmental Activity and Sector Registry instead of requiring a Permit to Take Water.

	associated with the production of electricity. ☐ Exceptions to Ontario ban on diversions/transfers out of major water basins (OWRA s. 34.3). ☐ Regulation of bottled water under PTTW program; water bottling companies need to have the support of their local host municipality for new or increased groundwater takings in their community. ☐ Setting of a baseline for current water transfers (OWRA s. 34.8; O. Reg. 387/04).	
Review, possible amendment of standards based on periodic cumulative impact assessments (Article 209).	☐ Posting of cumulative impact assessments for public input, ON government response (OWRA s. 34.6).	
Judicial Review (standing to other Parties to seek judicial review of Ontario decision under Agreement) (Article 210).	☐ Reciprocating jurisdictions entitled to hearing of Environmental Review Tribunal with respect to specified decisions (OWRA s. 34.9-34.10, O. Reg. 387/04). ☐ Reciprocating jurisdictions entitled to seek judicial review of specified decisions (OWRA s. 34.9, 34.11, O. Reg. 387/04).	
Submission of water management, conservation program reviews every 5 years (Article 300).	☐ Program reviews submitted voluntarily.	
Conservation goals, objectives, programs, annual assessment of conservation programs (Article 304). (Note: see Water Conservation & Efficiency Program Report for further description of contributing legislation, policies, programs).	☐ Water conservation among the criteria considered in making decisions on a Permit to Take Water (OWRA O. Reg. 387/04). ☐ Permit application requires applicant to identify existing conservation measures. ☐ Annual Conservation Program Assessment, 5-year program reviews submitted voluntarily.	☐ <i>Water Opportunities Act</i>, 2010 sets out a framework for water efficiency, conservation (e.g. Building Code requires regular review of water conservation standards, expand scope of Building Code Conservation Advisory Council). ☐ Ontario Water Conservation and Efficiency Goals, Objectives completed 2012. ☐ Broader water and ecosystem conservation commitments supported by a wide range of legislation, regulation, policies and programs e.g. Planning Act-Provincial Planning Statement, Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, Ontario's Great Lakes Strategy.

Information Management commitments (mandatory reporting by water users, annual reporting of water use data to regional database) (Article 301).	☐ O. Reg 387/04 requires annual reporting of water use by permit holders. ☐ O. Reg. 63/16 under the <i>Environmental Protection Act</i> requires annual reporting of water takings for activities registered in the Environmental Activity and Sector Registry.	

The primary provincial legislative and policy tools that contribute to Agreement implementation are listed below. Federal legislation and management activities may also apply (e.g. Fisheries Act) but are not outlined in this report.

The *Ontario Water Resources Act* (OWRA) provides for the conservation, protection and management of Ontario's waters and for their efficient and sustainable use. The Act provides the authority for the Permit to Take Water Program administered by the MECP. Essentially, and subject to limited exceptions, any person who takes more than 50,000 litres of water in any day by means of a well, intake, or other works (a taking includes the diversion of water) is required to obtain a Permit to Take Water from the MECP Director. In 2007 the OWRA was amended through the *Safeguarding and Sustaining Ontario's Water Act* (SSOWA) to incorporate key provisions of the Agreement. Some amendments came into force immediately (e.g. ban on out of basin diversions/transfers), others required supporting regulations before they could be brought into force (e.g. regulation of intra-basin transfers, consumptive uses in accordance with the Agreement). All remaining provisions of the Act came into force on of January 1, 2015.

- *Ontario Water Resources Act*, R.S.O. 1990, c. O.40: <https://www.ontario.ca/laws/statute/90o40> *Safeguarding and Sustaining Ontario's Water Act*, S.O. 2007, c.12 – Bill 198: <https://www.ontario.ca/laws/statute/s07012>

The *Water Taking and Transfer Regulation* under the OWRA outlines matters that the MECP must consider when deciding upon an application for a Permit to Take Water. This regulation operationalizes key Agreement commitments (e.g. ban on intra-basin transfer and regulation of exceptions; application of decision-making standard, prior notice and comment process that is required by the Agreement for very large withdrawals, consumptive uses).

- Ontario Regulation 387/04 (Water Taking and Transfer): <https://www.ontario.ca/laws/regulation/040387>

The *Permit to Take Water Manual* (April 2005) sets out the decision-making process generally followed by the MECP when evaluating a proposed or existing water taking.

- *Permit to Take Water Manual* (April 2005): <https://archive.org/details/permittotakewa4932ontauoft>

Other supporting Permit to Take Water application policies and guidance materials are outlined in section 5 of the Water Management Program report.

The Lakes and Rivers Improvement Act, 1990 (LRIA), administered by the MNR, provides for the management, preservation and use of Ontario's lakes and rivers and the land under them, the protection of public rights and riparian interests, the management of fish and wildlife dependent on lakes and rivers, protection of natural amenities and the protection of people and property by ensuring that dams and diversions are suitably located, constructed and maintained.

- *Lakes and Rivers Improvement Act*, R.S.O. 1990, c. L.3:
<https://www.ontario.ca/laws/statute/90l03>
- Ontario Regulation 454/96 (Construction):
<https://www.ontario.ca/laws/regulation/960454>

The Clean Water Act, 2006, administered by the MECP, protects existing and future sources of Ontario's drinking water. A key component of the legislation is the preparation of locally developed, science-based risk assessment reports (quality and quantity risks) and source protection plans.

- *The Clean Water Act*, 2006, R. S.O. 2006, c. 22:
<https://www.ontario.ca/laws/statute/06c22>

The Ontario *Environmental Assessment Act*, 1990 (EA Act) provides for two types of environmental assessment planning and approval processes:

Comprehensive Environmental Assessments (EA) are carried out by proponents for specific types of projects (e.g. large landfills, certain waterfront projects) and submitted to the Minister of the Environment, Conservation and Parks for review and approval.

There are also several streamlined EA processes as outlined in regulations and Class Environmental Assessments for project types that have fewer environmental impacts. Projects proceeding through a streamlined EA process are considered approved as long as they successfully complete the process that applies to them (e.g. Municipal Engineers Association Class EA for Municipal Infrastructure projects, including water and wastewater projects).

- *Ontario Environmental Assessment Act*, R.S.O. 1990, c. E.18:
<https://www.ontario.ca/laws/statute/90e18>

Water Opportunities and Water Conservation Act, 2010 was passed on November 29th, 2010. The Act contains five schedules. Schedule 1 enacts a stand-alone Act, the *Water Opportunities Act*, 2010. Schedules 2 to 5 amend existing legislation in respect of water conservation and other matters. The Act builds upon Ontario's expertise in clean water technology and sets out a framework to make the province a North American leader in water innovation to help address global water challenges. Among other things, the Act sets the framework to encourage Ontarians to use water more efficiently by creating and implementing innovative approaches to protect water resources for current and future generations.

- *Water Opportunities and Water Conservation Act*, S.O. 2010, c. 19:
<https://www.ontario.ca/laws/statute/s10019>
- *Water Opportunities Act*, S.O. 2010, c. 19, Sched. 1:
<https://www.ontario.ca/laws/statute/10w19>

The *Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health* (COA) is the principal mechanism through which Ontario and Canada coordinate their work to address their respective and shared commitments to restore, protect and conserve the Great Lakes. In 2021, Ontario and Canada signed the ninth COA, effective from June 1, 2021 until May 31, 2026. This agreement marks 50 years of collaborative Great Lakes work between both governments since the first COA was signed in 1971. COA continues to build on Great Lakes restoration progress. Commitments in the most recent agreement are advancing new and ongoing actions to address a number of key areas, such as preventing toxic and nuisance algae, improving wastewater and stormwater management, reducing plastic pollution and excess road salt, restoring native species and habitats, and increasing resilience to climate change.

Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, 2021: <https://www.ontario.ca/document/canada-ontario-great-lakes-agreement> The *Provincial Planning Statement* (PPS, 2024), under the authority of Section 3 of the *Planning Act*, administered by the Ministry of Municipal Affairs and Housing, provides policy direction on matters relating to land use planning that are of provincial interest, including protecting and restoring water quality and quantity, promoting efficient and sustainable use of water resources, including practices for water conservation and sustaining water quality, and protection from water-related natural hazards. Planning authorities that have authority to make decisions under the *Planning Act* must ensure their decisions are consistent with the Provincial Planning Statement, as well as designated provincial plans.

- *Provincial Planning Statement*: <https://www.ontario.ca/page/provincial-planning-statement-2024>

Currently, the Greenbelt Plan works to provide a framework to accommodate growth in the region. The Greenbelt Plan outlines where urbanization should not occur in order to provide protections for agricultural and ecologically sensitive lands. The Greenbelt Plan requires municipalities to consider the Great Lakes Strategy, targets and goals of the *Great Lakes Protection Act*, 2015, and any applicable Great Lakes agreements as part of watershed planning and coastal or waterfront planning initiatives.

- *Greenbelt Plan, 2017 (as of December 2023)*:
<https://www.ontario.ca/document/greenbelt-plan>

Water Management (1994, update 1998) establishes the Policies, Guidelines and Provincial Water Quality Objectives of the MECP and is based on the guiding principles related to the protection, preservation, and sustainability of the province's water resources for future generations. To effectively implement these principles, ecosystem and watershed management, how pollutants are controlled, and the inter-relationship of air, water and land management are all important considerations.

- *Water Management (1994, update 1998):* <https://www.ontario.ca/page/water-management-policies-guidelines-provincial-water-quality-objectives>

Ontario's Great Lakes Strategy, released in December 2012, provides a roadmap for how Ontario will focus action to protect the Great Lakes. The Strategy summarizes environmental conditions of the Great Lakes and Ontario's actions taken to date and identifies priorities for future action. Priorities for future action are described with respect to the six Great Lakes goals of engaging and empowering communities; protecting water for human and ecological health; improving wetlands, beaches, shorelines and coastal areas; protecting habitats and species; enhancing understanding and adaptation; and ensuring environmentally sustainable economic opportunities and innovation.

- *Ontario's Great Lakes Strategy, 2012:* <https://www.ontario.ca/page/ontarios-great-lakes-strategy>

3. Changes identified from the 2019 report

Water Management Programs Overview (Five-Year Review)

The information is limited to the provincial water management programs which contribute to the achievement of Ontario's Agreement commitments.

1. Summary description of Ontario's Water Management Program scope and thresholds –

The focus of the following summary is on the water taking and transfer regulation elements of Ontario's water management programs.

Water Taking and Transfer Regulation Overview

The *Ontario Water Resources Act* and its companion regulations are directed at the protection of the quality and quantity of Ontario's surface and groundwater resources. The purpose of the Act is to provide for the conservation, protection and management of Ontario's waters and for their efficient and sustainable use, in order to promote Ontario's long-term environmental, social and economic well-being. The legislation provides for:

- prohibitions related to the discharging of pollutants to surface or groundwater and the regulation of discharges from sewage works; and
- a permit system that governs the taking of surface or groundwater (>50,000 litres per day [over 13,000 U.S. Gallons per day]).

Water Quality (return flow) – Section 53 of the *Ontario Water Resources Act*, requires MECP approval to establish, alter extend or replace new or existing sewage works. Environmental Compliance Approvals are issued for approved works. Sewage works means any works for the collection, transmission, treatment and disposal of sewage or any part of any such works. Sewage includes drainage, storm water, commercial wastes and industrial wastes and any such other matter or substance that is specified by regulation.

It is the responsibility of the proponent to assess the assimilative capacity of the receiver and determine the actual and potential uses of the intended receiver of the effluent from the

proposed works and derive from this analysis the effluent quality and discharge regimen criteria for the proposed works. Terms and conditions of the approval deal with the criteria for operation and performance of the sewage works, requirements for monitoring and recording of specific indicators of the environmental impact of the works, reporting on incidents, and provision of contingencies to prevent and deal with accidental spills or upsets.

Water Takings – Section 34 of the *Ontario Water Resources Act*, prohibits water takings over 50,000 litres per day without a permit subject to some specified exceptions. Water use reporting is required: permit holders are required to report annually the amounts of their daily water takings.

Exemptions from the requirement to obtain a permit include water takings for ordinary household purposes, watering of livestock or poultry and firefighting purposes. If a new or increased transfer of water of 379,000 litres (100,000 U.S. gallons) per day or more is established for household purposes or watering of livestock or poultry, a permit would be required. In 2016, the Water Taking and Transfer Regulation was amended also to exempt water takings for wetland conservation, a weir that was constructed prior to March 29, 2016 and passive and/or active in-stream diversions for construction purposes from the requirement to obtain a Permit to Take Water. In 2019, the *Ontario Water Resources Act* was amended to exempt waterpower facilities from the need to have a Permit to Take Water. Waterpower facilities continue to be regulated under the *Lakes and Rivers Improvement Act*, which is administered by MNR.

Enhancements to Ontario's Water Quantity Management Framework

The province completed a review of the state of water resources in key areas of Ontario and the effect water takings have on these resources. The review included examining water quantity-related policies and programs as they apply to water takers across the province, including water bottlers taking groundwater, as well as enhancing our understanding of how we can manage water takings to ensure we have sustainable water resources in the face of changing climate and continued population growth.

The province's review found that the government's current approach to managing water takings is effective. This included a panel of the Professional Geoscientists Ontario who reviewed and validated the government's findings that water takings for water bottling are managed sustainably in Ontario under existing legislation, regulation, and guidance. The review also identified opportunities to improve how water takings are managed in parts of Ontario where water availability is or could become a concern. All reports associated with the review are available at: "[Updating Ontario's Water Quantity Management Framework](#)."

Based on the findings of the review, the province made enhancements to its water taking framework, which came into effect on April 1, 2021. These changes include:

- requiring water bottling companies to have the support of their local host municipality for new or increased groundwater takings in their community.
- establishing priorities on how water should be shared among water users when there are competing demands for water. For example, restrictions on water

- taking could be applied during a drought. MECP has published [guidance](#) to support the implementation of the new priorities of water use policy.
- putting in place a new, more flexible approach for the ministry and water users to better assess and manage multiple water takings in areas where water sustainability is a concern. The ministry has published [guidance](#) to support the implementation of the new area-based water quantity management policy.
 - making water taking data available to the public to increase transparency of how Ontario manages water resources. [Actual volumes of water taken](#) by permitted water takers was made available to the public starting in July 2022.

Also in 2016, the government passed Ontario Regulation 63/16, Registrations under Part II.2 of the Act – Water Taking, under the *Environmental Protection Act*, requiring that as of March 29, 2016, water takings that meet the criteria in the regulation must be registered in the Environmental Activity and Sector Registry (EASR) instead of requiring a permit to take water. The EASR is an online self-registration system implemented by the MECP. The following water takings are prescribed activities under Ontario Regulation 63/16:

- short-term pumping tests (groundwater field experiments) conducted to obtain aquifer information that meet specified criteria about the water taking (greater than 50,000 L/day and less than 5,000,000 L/day) and taking time (seven or less days of taking within a 30-day period);
- surface water takings that are more than 50,000 L/day and are for highway and transit project purposes that meet specified criteria about the purpose, rate or location of the water taking; and
- construction site dewatering involving takings of more than 50,000 L/day and less than 400,000L/day of groundwater from each dewatered work area and its area of influence at the site.

Restriction:

- The taking of water must not involve transferring water out of the Great Lakes – St. Lawrence River Basin, the Nelson River Basin, or the Hudson Bay Basin, or transferring water from one Great Lake watershed to another.
- The volume of water taken daily shall be reported to the MECP on or before March 31 in each year, for each location from which water was taken in the previous calendar year. If no water is taken, then a “no taking” report must be entered. The water takings shall be reported online through the Regulatory Self-Reporting System (RSRS).

Water withdrawals from [all Ontario water sources](#), including withdrawals from the Great Lakes, other surface waters, and groundwater, are regulated in Ontario.

Dams and water diversions are also regulated through the *Lakes and Rivers Improvement Act*, which regulates works forwarding, holding back or diverting water and is administered through the MNR.

Water Withdrawals and Consumptive Uses

Considerations – In making decisions on an application for a Permit to Take Water the following factors are considered:

- Protection of the natural functions of the ecosystem – e.g. potential impact of the natural variability of water flow or water levels, minimum stream flow, habitat that depends on water flow or water levels, interrelationships between groundwater and surface water, and the potential to restore source watershed hydrologic conditions and functions.
- Water availability – e.g. impact on water balance and sustainable aquifer yield, existing water uses, low water conditions, adversely impacting the sustainability of water resources in an area, any planned municipal use approved under the *Environmental Assessment Act* or under a Municipal Official Plan.
- Issues related to the use of water – e.g. whether water conservation is implemented in accordance with best water management standards for the relevant sector, the purpose for the water use including the amount of water lost through consumptive use, the manner and location to which the water will be returned, and other issues, including compliance with the *Boundary Waters Treaty* and the *International Boundary Waters Treaty Act of Canada*.

Water Taking Risk Classification – To assist in the evaluation of proposed water takings, permit applications are classified based on their potential risk to the environment or potential to interfere with other water users.

- Category 1 proposals have a lower risk of causing adverse environmental impacts or interference. They meet the following criteria:
 - Renewal of a previously issued permit that will expire, to allow the continuance of an existing taking with no changes and for which no past interference or impact problems have been reported.
 - Groundwater takings from dugout ponds not connected to or receiving water from surface water; the dugouts must satisfy depth and separation distance from other water sources.
 - Surface water takings from small ponds that collect only surface run-off or takings from a Great Lake or connecting channel less than 1 million litres (260,000 US gallons) per day.
- Category 2 and Category 3 proposals have a greater potential to cause adverse environmental impact or interference.
 - Applications for Category 2 takings require accreditation by a qualified person.
 - Applications for Category 3 takings are required to be supported by a detailed ecological/hydrological/hydrogeological study prepared by a qualified person. Among the water takings classified as a Category 3 are new or increased withdrawals from the Great Lakes or connecting channels which exceed 19 million litres per day consumptive use (5 million U.S. gallons per day), the threshold which triggers obligations under the Agreement.

Public Involvement – In Ontario, notifications of permit applications are required to be posted to the Environmental Registry of Ontario for public review and comment for a minimum of 30-days unless exempted from the registry posting requirement (e.g. exceptions include: proposals for which an equivalent public consultation process has been

provided, such as through an Environmental Assessment process, water takings that are less than one year, and agricultural irrigation, unless a new or increased water transfer is proposed). As well, municipalities and conservation authorities are given notice of Environmental Registry postings for permit proposals within their area of jurisdiction. The proponent of a water taking has the right to appeal the MECP decision on their permit application. In addition, the public may seek leave to appeal MECP decisions on proposals that are subject to registry posting.

Water Use Reporting – Ontario's *Water Taking and Transfer Regulation* requires every permit and water-taking EASR registration holder to collect and record data on the volume of water taken daily and to report the previous year's data to the MECP before March 31 of the following year. This requirement applies to all permitted water takers in Ontario. Water use data are submitted and stored on the internet-based Water Taking Reporting System or Regulatory Self Reporting System established to facilitate compliance and to inform provincial water management.

Great Lakes – St. Lawrence River Basin Sustainable Water Resources Agreement (Agreement) – Ontario's *Water Taking and Transfer Regulation* requires that Ontario's obligations under the Agreement be met when considering a permit application. More specifically, this requirement relates to the need to ensure that Prior Notice and an opportunity to comment on the proposal is provided to Great Lakes jurisdictions before a decision is made for new or increased consumptive uses of Great Lakes – St. Lawrence River Basin water of over 19 million litres (5 million U.S. gallons) per day average over any 90-day period. In keeping with Agreement Article 205, comments will be considered from the other parties to the Agreement that address whether the proposal is consistent with the Decision-Making Standard established under Article 203 of the Agreement. A detailed analysis of how the provisions of the Decision-Making Standard are applied is provided under question 3 of the questionnaire.

To meet this requirement, estimated consumptive use associated with proposed new or increased water takings are screened using generally accepted consumptive use coefficients for 34 water use sectors/activities, developed through an MNR commissioned study in 2009. Proposed uses that may exceed the Agreement threshold are encouraged to conduct a site-specific consumptive use evaluation to confirm whether Prior Notice is required. Additional guidance will be provided as required to assist in determining the amount of water lost through consumptive use.

In determining whether a proposed new or increased water taking from the Great Lakes – St. Lawrence River Basin would result in a consumptive use of water in an amount that triggers obligations to provide Prior Notice and an opportunity to comment under Article 205 of the Agreement, consideration is given to:

- The baseline of the existing water withdrawal approval limits, as per the Agreement; and
- The volume of the proposed new or increased water taking and the associated consumptive use, including the amount of any related water taking supplying the same facility or common distribution system, approved within the ten years prior to the application.

Water Diversions, Transfers

Ban on Out of Basin Diversions/Transfers – In 1999, Ontario introduced a regulation under the *Ontario Water Resources Act* banning water diversions/transfers out of the province's three major water basins (Great Lakes – St. Lawrence River Basin, Hudson Bay Basin, and Nelson River Basin). This ban was elevated to legislation (i.e. placed into the *Ontario Water Resources Act*) through the *Safeguarding and Sustaining Ontario's Water Act*, 2007. The only exceptions to Ontario's ban on diversions are for transfers of water in containers 20 litres or less, water incorporated into a product that is transferred out of the basin, water required for the operation of a vehicle or vessel, water for firefighting or other emergency purposes, existing transfers commenced before January 1, 1998, and the transfer of water pursuant to the order of the Lieutenant Governor in Council dated October 2, 1913 respecting the Greater Winnipeg Water District. Therefore, in Ontario there are no exceptions to the ban on diversions for straddling communities or straddling counties.

Intra-Basin Transfers – The intra-basin transfer commitments of the Agreement is integrated into Permit to Take Water decision-making through the *Ontario Water Resources Act* which includes a ban on intra-basin water transfers from one Great Lake watershed to another and the regulation of exceptions, consistent with the straddling community and intra-basin transfer provisions of the Agreement and the Exception Standard criteria. A detailed analysis of how the provisions of the Exception Standard criteria are applied is provided under question 3 of the questionnaire.

In keeping with the Agreement, the intra-basin transfer provisions apply to new or increased transfers 379,000 litres (100,000 U.S. gallons) per day or more, average in any 90-day period, termed "the threshold amount" in the legislation. Permits for transfers involving a consumptive use of 19 million litres (5 million U.S. gallons) per day or more will be issued by the Minister of the Environment, Conservation and Parks (as opposed to a Director delegated authority under the *Ontario Water Resources Act*) following Regional Review, taking into consideration the declaration of finding issued by the Regional Body.

The legislation encourages municipal water uses that transfer 379,000 litres (100,000 U.S. gallons) of water per day or more to return water to the source Great Lake watershed and requires any new or increased transfers involving a consumptive use of 19 million litres (5 million U.S. gallons) per day or more to return water to the source Great Lake watershed, in keeping with the Agreement.

The legislative framework for regulating new or increased intra-basin transfers of water is outlined in the following table – all thresholds are based on a 90-day running average:

19+ MLD Consumptive Use	• Meets exception criteria, including return flow to source GL watershed. • No feasible alternatives to transfer, including conservation. • Proposal undergoes Regional Review & the Minister considers the Declaration of Finding by Regional Body before making a decision.

379,000+ L/Day (Consumptive Use less than 19 MLD)	Municipal Drinking Water Systems: Meets exception criteria, including return flow to source Great Lake watershed	All Uses (including Municipal Drinking Water Systems if return flow to source watershed cannot be met): - Meets exception criteria, except return flow may be to another Great Lake watershed – if demonstrated that it is not feasible, environmentally sound or cost effective to return water to the source Great Lake watershed. - No feasible, environmentally sound, cost-effective alternatives to transfer, including conservation. - Ontario gives prior notice to other Parties to the Agreement.
50,000 L/Day to 379,000 L/Day	Subject to Permit to Take Water requirements; not prohibited.	

In determining whether a proposed new or increased intra-basin transfer requires regulation under the above framework, consideration will be given to:

- The volume of water deemed to currently be transferred (baseline), according to approval limits, as per the Agreement;
- Whether the proposed transfer is from a Great Lakes watershed to the watershed of a downstream connecting channel of that Great Lake (exempt);
- Whether the proposed transfer is from the watershed of a downstream connecting channel of a Great Lake to the watershed of that Great Lake (exempt);
- Whether the proposed transfer involves water taken from a location within 10 kilometres (approximately 6 miles) of the point at which Lake Ontario flows into the St. Lawrence River and transferred to the St. Lawrence River watershed or the Lake Ontario watershed (exempt); and
- The volumes of any new or increased water transfers by the permit holder between the same Great Lakes watersheds to which the application relates that were approved within the ten years prior to the application.

In determining whether a proposed new or increased intra-basin transfer triggers the 19 million litre per day consumptive use threshold, estimated consumptive use associated with proposed new or increased water transfers will be screened using generally accepted consumptive use coefficients for 34 water use sectors/activities, developed through an MNR commissioned study in 2009. Proposals that may exceed the Agreement threshold will be encouraged to conduct a site-specific consumptive use evaluation to confirm whether Regional Review is required. Additional guidance will be provided as required to assist in determining the amount of water lost through consumptive use.

2. Description of how Ontario manages Water Withdrawals by sector, water source, quantity and location

Permitted water takings are managed by sector, source, quantity and location.

Sector:

The following table identifies the existing general purpose and specific purpose water taking categories under the Permit to Take Water program. Any sector-specific management requirements are noted.

Sector	Description	Management
ALL Sectors		Permit to Take Water required for water takings over 50,000 litres per day by ALL water use sectors, with the exception of ordinary household purposes and watering of livestock or poultry (unless a new or increased intra-basin transfer 379,000 litres per day or more is proposed), firefighting purposes, wetland conservation, a weir that was constructed prior to March 29, 2016 passive and/or active in-stream diversions for construction purposes, and waterpower facilities.
Agriculture	Irrigation of (includes frost protection): field and pasture crop; fruit orchard; market garden/flowers; nursery; sod farm; tender fruits; tobacco	
Commercial	Aquaculture, bottled water, golf course irrigation, mall/business; snowmaking	- As of April 2021, water bottling companies need to have the support of their local host municipality for new or increased groundwater takings in their community. - As of December 2019, waterpower facilities are exempt from the requirement to have a Permit to Take Water; however, they continue to be subject to streamlined EA processes and regulated under the LRIA. - Bottled water transported in containers 20 litres or less are exempt from the prohibition of water transfers. - Effective August 1, 2017, water bottling companies that take groundwater and are required to have a permit under the Ontario Water Resources Act must pay an additional fee of \$500 per million litres.
Construction	Dredging, road building, dewatering	As of March 29, 2016, water takings (such as road construction and construction site dewatering projects) that meet the criteria in O. Reg. 63/16 under the <i>Environmental Protection Act</i> must be registered in the Environmental Activity and Sector Registry.
Dewatering	Pits and quarries	
Industrial	Aggregate washing, brewing/soft drinks, cooling water, food processing, manufacturing; pipeline testing; power generation	As of 2019, waterpower facilities are exempt from the requirement to have a Permit to Take Water; however, they continue to be subject to streamlined EA processes and regulated under the LRIA.
Recreation	Aesthetic, fish pond	
Remediation	Groundwater	
Water Supply	Campground, communal, municipal	

Miscellaneous	Dam/reservoir, heat pump, pump test	As of April 19, 2021, water takings for pumping tests that meet the criteria in O.Reg. 63/16 under the <i>Environmental Protection Act</i> must be registered in the Environmental Activity and Sector Registry.
Each sector has the option of identifying 'other', with a requirement to specify use		

Source:

Water takings are also categorized according to the source – as surface water or ground water and by name of the source (e.g. watercourse name and tributary). Permits are required for water takings over 50,000 litres per day from a lake, stream, river, pond or groundwater.

To assist in evaluating proposed water takings, applications are classified based on their potential risk to the environment or potential to interfere with other water users. The table below outlines how applications are classified for groundwater and surface water takings. Applications for Category 2 takings would require a scoped hydrogeological (groundwater) or hydrological/ecological study (surface water), and applications for Category 3 takings would require a detailed hydrogeological (groundwater) or hydrological/ecological study due to their potential for greater environmental risk.

Classification Criteria for Categories for Groundwater and Surface Water Takings	
Groundwater	Surface Water
Category 1	Category 1
Renewal (same or lesser amount, same purpose, same location, same source, no past interference/ impacts, and no scientific study required as part of renewal).	Renewal (same or lesser amount, same purpose, same location, same source, no past interference/ impacts, and no scientific study required as part of renewal).
Ponds (e.g. irrigation and agriculture) - Not connected to nor receiving water from surface water; and <4m deep and >100m from the nearest stream or wetland; or <7m deep and >250m from the nearest stream or wetland.	Ponds <1,500 cubic metres in volume that collect runoff and that are not drawing from groundwater, watercourses, wetlands, other lakes or ponds.
	Great Lakes or connecting channel takings <1,000,000 litres/day.
Category 2	Category 2
Short-term, non-recurring taking less than 7 days (e.g. pumping test or hydrostatic test).	Great Lakes or connecting channels taking less than 19 million litres per day.
	Takings from sources with previous assessments (i.e. further to a previous study and implementing previously established controls).
	River and Streams (3rd order or higher order) taking ,5% of 7Q20.
	Transitional Permits where the Director previously required upgrades/modifications to water taking.

	Takings and Returns where water is removed for a short time only and water is returned to a nearby point with no significant change to water quantity or quality (i.e. for cooling, hydrostatic testing, hydraulic lake dredging).
	Lakes and Ponds takings < 1,000,000 L/day twice per week or less from water bodies >10ha in size that are not on-stream and not part of the headwaters of any watercourse. More frequent takings require supporting studies.
Category 3	Category 3
All groundwater takings that do not meet Category 1 or Category 2 criteria.	All surface water takings that do not meet Category 1 or Category 2 criteria and new takings from 1st or 2nd order watercourses, wetlands, intermittent streams, new onstream reservoirs, impoundments and ponds, groundwater sources that potentially affect surface waters.

Quantity:

When granted, a Permit to Take Water imposes terms and conditions that limit the amount of water the person can take by specifying a maximum rate for the water taking (litres per minute), duration (hours per day), and amount (litres per day).

In support of the Agreement, thresholds requiring regulation of new or increased intra-basin transfers in accordance with Agreement criteria and standards, and thresholds for consumptive uses requiring prior notice with Great Lakes jurisdictions are based on the average consumptive use in any 90-day period (rolling 90-day average).

Proposed water taking volumes are assessed against a series of considerations relating to the protection of natural ecosystem functions, water availability, the use of water (i.e. water conservation measures, the need and purpose for the water, the amount of water that may be lost through consumptive use), the return of water after use and other interests.

The risk classification criteria (i.e., Category 1, 2, or 3) for permits also reflect the quantity of water requested. For example, new or increased takings above 19 million litres/day from the Great Lakes or connecting channels are classified as a Category 3 taking, requiring more rigorous analysis than smaller takings.

Location:

The locations of takings are identified by their geographic coordinates (Datum NAD83) including UTM zone, easting and northing. An interactive map of all active Ontario permits can be found at <https://www.ontario.ca/page/map-permits-take-water>. An interactive map of registrations on the Environmental Activity and Sector Registry can be found at: <https://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/GoSearch.action?search=basic&lang=en>.

To assist in meeting the requirements of the Agreement a Great Lakes Watershed locator map tool is also available and can be accessed at <https://www.ontario.ca/page/great-lakes-watershed-locator>.

3. Description of how the provisions of the Standard of Review and Decision are applied. The description should include information on how each criterion of the Decision- Making Standard and Exception Standard is addressed.

The tables below highlight how the criteria of the Agreement Decision-Making Standard and Exception Standard are being implemented through the Permit to Take Water Program under the *Ontario Water Resources Act*.

In addition to the Permit to Take Water Program under the *Ontario Water Resources Act*, implementation of Agreement standards is also supported by other Ontario statutes, policies and programs, including, for example:

- Environmental impact assessment under the ***Environmental Assessment Act***, which provides for the completion of comprehensive assessments or streamlined/class assessments, such as the Class Environmental Assessment for Municipal Water and Wastewater Treatment projects. The municipal class environmental assessment references compliance with the *Ontario Water Resources Act* and the Agreement and a 2009 Technical Bulletin further guides municipalities in meeting the Agreement in conducting environmental assessments for projects involving an intra-basin transfer or large consumptive use of Great Lakes – St. Lawrence River Basin water;
- Completion of water budgets and water quantity risk assessments to support the development of Drinking Water Source Protection plans under the ***Clean Water Act***;
- Location and design approval for works forwarding, holding back, or diverting water in accordance with the ***Lakes and Rivers Improvement Act***;
- Promotion of water conservation under the ***Water Opportunities Act***.

a. Decision-Making Standard (Water Withdrawals, Consumptive Uses)

Decision-Making Standard Criteria Article 203	Permit to Take Water Program (PTTW) (<i>Ontario Water Resources Act</i> , As Amended by the Safeguarding & Sustaining <i>Ontario's Water Act</i> , 2005, Water Taking and Transfer Regulation O. Reg. 387/04)
General	Under the OWRA a Permit to Take Water is required for water takings over 50,000 litres/day (over 13,000 U.S. gallons/day) (s. 34) with some exceptions. The criteria which form the foundation for issuing permits to take water in Ontario (which are enshrined in the Water Taking and Transfer Regulation O. Reg 387/04) (s.4) meet the Decision-Making Standard criteria of the Agreement (Article 203) and comply with the Prior Notice provisions (Article 205) of the Agreement for new or increased consumptive uses 19 million litres (5 million U.S. gallons) per day or more (s. 6). The OWRA also provides a permitting Director with authority to set additional terms and conditions on a permit e.g. limiting use, related to the return of water after use (location, quantity, quality), and the conservation of water including a conservation audit and/or plan.
1. Return flow to source watershed	OWRA requires separate Environmental Compliance Approval (ECA) for wastewater discharge. No explicit requirement to return water to source Great Lake watershed, although most water uses do not remove water from a Great Lake watershed.

	MECP considers issues related to return flow (e.g., manner of return, quality, location) when reviewing and issuing permits. In addition to regulation-making authority, OWRA amendments (s. 34.1 (9), (10) provide a permitting Director with authority to set additional terms and conditions on a permit governing the return of water after use (location, quantity, quality). Issues related to the return of water after use (i.e., manner returned, location of return) and the amount of water that may be lost through consumptive use have been added to permitting considerations in the regulation.
2. No significant adverse impacts	The regulation requires the permitting Director to consider issues related to protecting the natural functions of the ecosystem, water availability (e.g. water balance and sustainable aquifer yield, existing or planned uses of water, low water conditions or whether taking is from a ground or surface source of supply that the Director has determined to be under stress (s. 4(2), par. 1,2). PTTW Directors may also impose terms and conditions related to mitigating adverse impacts related to the water taking. PTTW Manual: Consideration of cumulative impacts of water takings is a principle of the PTTW program & water takings are classified into 3 categories according to the risk of environmental impact, with Category 3 takings subject to greater rigour including submission of supporting scientific studies. New or increased water takings from the Great Lakes or connecting channels that exceed 19 million litres 5 million U.S. gallons per day are Category 3 takings. The OWRA (s. 34.1 (9), (10)) provides a permitting Director with authority to set additional terms and conditions on a permit limiting use, governing the return of water after use or requiring implementation of measures to prevent or remedy interference with other uses.
3. Conservation measures	The regulation requires the permitting Director to consider whether water conservation is, or will be implemented, based on best management standards & practices of the sector (s. 4(2), par. 3i). Director may set terms and conditions on a permit requiring implementation of conservation measures, limiting use, related to the conservation of water including a conservation audit and/or plan.
4. Compliance with applicable laws, agreements, treaties	PTTW Directors will not issue a permit if an application is not in compliance with other laws (e.g. PTTW issuance follows other processes, e.g. completion of an environmental assessment under the <i>Environmental Assessment Act</i>). The regulation (s. 6) requires that Ontario's obligations under the Agreement are complied with (i.e. Prior Notice to Agreement Parties and an opportunity to comment for new or increased consumptive uses 19 million litres-5 million U.S. gallons per day or more). The regulation also require consideration of whether a proposed water taking is in compliance with the Boundary Waters Treaty or the <i>International Boundary Waters Treaty Act of Canada</i> (s. 4 (4ii)). The regulation also requires compliance with the Prior Notice commitments of the Agreement for new or increased consumptive uses 19 million litres/day (5 million U.S. gallons/day) or more.

5. Reasonable use, with consideration of:	The purpose of the OWRA is to “...provide for the conservation, protection and management of Ontario’s waters and for their efficient and sustainable use, in order to promote Ontario’s long-term environmental, social and economic well-being.”
a. Planned to provide for efficient use b. Efficient use of existing supply c. Balance between economic, social development, environmental, protection d. Supply potential of water source (quantity, quality, reliability, safe yield) e. Degree, duration of any adverse impacts & their avoidance/mitigation f. Restoration of hydrologic conditions, functions of source watershed	The regulation requires the permitting Director to consider issues related to protecting the natural functions of the ecosystem, water availability (e.g. water balance and sustainable aquifer yield, existing or planned uses of water, low water conditions or whether taking is from a ground or surface source of supply that the Director has determined to be under stress), and issues related to the use of water (e.g. water conservation measures, plan and/or audit), purpose, reasonable prospect that water will be used in the near future, return flow, among other matters (s. 4(2), par. 1, 2, 3). Together, these considerations are consistent with the “reasonable use” considerations of the Agreement. The PTTW Manual provides further guidance on balancing these interests, e.g., through considerations and guidance in evaluating PTTW from surface water and groundwater sources, assessing the water balance and sustainability, addressing low water conditions, and addressing aquatic habitat. The regulation includes consideration of the potential to restore hydrologic conditions and functions of the source watershed, the amount of water that may be lost through consumptive use, issues related to the return of water after use, and compliance with the Boundary Waters Treaty and the <i>International Boundary Waters Treaty Act of Canada</i> to the matters a permitting Director shall consider when reviewing a PTTW application.

b. Exception Standard (Water Diversions, Transfers)

Exception Standard Criteria Article 201, par. 4	Permit to Take Water Program (PTTW) (Ontario Water Resources Act, as Amended by the Safeguarding & Sustaining Ontario’s Water Act, 2005, Water Taking and Transfer Regulation O. Reg. 387/04)
General	Under the OWRA a Permit to Take Water is required for water takings over 50,000 litres/day (over 13,000 U.S. gallons/day) (s. 34). Water transfers out of the Great Lakes – St. Lawrence River Basin, or Ontario’s other major water basins, are prohibited (s. 34.3). Ontario has no exception to the ban for straddling communities or straddling counties. Therefore, Ontario is fully implementing the minimum standards in Article 201, par. 1, 3, 4 as they pertain to diversions out of the Great Lakes – St. Lawrence River Basin. Amendments to the OWRA passed in 2007 provide for the regulation of new or increased intrabasin transfers 379,000 litres/day or more, consistent with the criteria in Article 201 par. 1, 2, 4. (OWRA s.34.4-34.11), and provides authority to make regulations to support these provisions. The regulation provides further support to the regulation of intra-basin transfers (e.g. definition of Great Lakes watersheds and connecting channels, exemptions, determination of consumptive use amounts, setting the baseline for existing transfers). The legislation also requires that permit applications for large transfers (i.e. with consumptive use of 19 million litres [5 million U.S. gallons] per day or more) are to be referred to the Minister of the Environment, Conservation and Parks, who shall notify the Regional Body of the proposal and consider any Declaration of

	Finding issued by the Regional Body following Regional Review of the proposal.(s. 34.1 (12-14).
1. Efficient use, conservation of existing supplies	The regulation requires the permitting Director to consider whether water conservation is being implemented, based on best management standards & practices of the sector. (s. 4(2), par. 3i). Director may set conditions on a permit requiring implementation of conservation measures. Exception Standard criteria explicitly referenced in OWRA s. 34.6(3) for new or increased intra-basin transfers 379,000 litres/day or more. The OWRA (s.34.7) provides a permitting Director with authority to set additional conditions on a permit to regulate a transfer (e.g., governing return of water after use, the use and conservation of transferred water, monitoring and reporting).
2. Limited to reasonable quantities for proposed purpose	The regulation requires the permitting Director to consider issues related to protecting the natural functions of the ecosystem, water availability and the use of water (e.g. water conservation measures, plan and/or audit, the priorities of water use). (s. 4(2), par. 1,2, 3). Together, these considerations are consistent with the “reasonable use” considerations of the Agreement. The PTTW Manual provides further guidance on balancing these interests. Exception Standard criteria explicitly referenced in OWRA s. 34.6(3) for new or increased intra-basin transfers 379,000 litres/day or more. The OWRA (s. 34.7) provides a permitting Director with authority to set additional terms and conditions on a permit to regulate a transfer (e.g., governing return of water after use, the use and conservation of transferred water, monitoring and reporting).
3. Return flow to source watershed (no water from outside basin except if part of combined system, treated to prevent invasive species)	OWRA requires separate Environmental Compliance Approval (ECA) for wastewater discharge. The legislative framework encourages return flow for municipal transfers below the 19 million litres/day consumptive use threshold. All transfer proposals above the threshold require return flow to the source Great Lakes watershed. (s. 34.6). Exception Standard criteria explicitly referenced in OWRA s. 34.6(3) for new or increased intra-basin transfers 379,000 litres/day or more. The OWRA (s.34.7) also provides a permitting Director with authority to set additional terms and conditions on a permit to regulate a transfer (e.g., governing return of water after use, the use and conservation of transferred water, monitoring and reporting). The regulation also includes consideration of issues related to the return of water after use to the matters considered by a permitting Director.
4. No significant adverse impacts	The regulation requires the permitting Director to consider issues related to protecting the natural functions of the ecosystem, water availability (e.g. water balance and sustainable aquifer yield, existing or planned uses of water, low water conditions or whether the taking is adversely impacting the sustainability of water resources in an area. (s. 4(2), par. 1,2). PTTW Directors may also impose terms and conditions on a permit. OWRA (s.34.7) provides a permitting Director with authority to set additional terms and conditions on a permit to regulate a transfer (e.g., governing return of water after use, the use and conservation of transferred water, monitoring and reporting).

	PTTW Manual: Consideration of cumulative impacts of water takings is a principle of the PTTW program & water takings are classified into 3 categories according to the risk of environmental impact, with Category 3 takings subject to greater rigour including submission of supporting scientific studies. Water transfers from the Great Lakes or connecting channels 19 million litres -5 million U.S. gallons per day or more fall under Category 3. Exception Standard criteria explicitly referenced in OWRA s. 34.6(3) for new or increased intra-basin transfers 379,000 litres/day or more.
5. Conservation measures	The regulation requires the permitting Director to consider whether water conservation is, or will be implemented, based on best management standards & practices of the sector (s. 4(2), par. 3i). PTTW Directors may set conditions on a permit requiring implementation of conservation measures. OWRA amendments (s. 34.7) also provide a permitting Director with authority to set additional terms and conditions on a permit to regulate a transfer (e.g., governing return of water after use, the use and conservation of transferred water, monitoring and reporting). Exception Standard criteria explicitly referenced in OWRA s. 34.6(3) for new or increased intra-basin transfers 379,000 litres/day or more.
6. Compliance with applicable laws, agreements, treaties	PTTW Directors will not issue a permit if an application is not in compliance with other laws (e.g., PTTW issuance follows other processes, e.g. completion of an environmental assessment process under the <i>Environmental Assessment Act</i>). Exception Standard criteria explicitly referenced in OWRA s. 34.6(3) for new or increased intra-basin transfers 379,000 litres/day or more, including compliance with the <i>Boundary Waters Treaty</i> and the <i>International Boundary Waters Treaty Act</i> (Canada). New or increased intra-basin transfers are regulated in accordance with OWRA s. 34.4-34.8 and s. 34.1 (12-14) which reflect the Agreement.
7. All applicable criteria	OWRA s. 34.6 (2) sets out the criteria that must be met for new or increased intra-basin transfers 379,000 litres/day or more, consistent with Article 201, par. 2 of the Agreement. Some provisions of par. 1 pertaining to straddling communities are also reflected (e.g. return flow for smaller transfers encouraged). The Act also provides authority to make regulations to support these provisions. The regulation further supports to the management of intra-basin transfers (e.g. definition of Great Lakes watersheds and connecting channels, exemptions, determination of consumptive use amounts, setting the baseline for existing transfers). The OWRA (s. 34.7) provides a permitting Director with authority to set additional terms and conditions on a permit to regulate a transfer (e.g., governing return of water after use, the use and conservation of transferred water, monitoring and reporting).

4. Overview of Provincial reporting and database of Withdrawals, Consumptive Uses and Diversions

Annual Submission to Great Lakes Regional Water Use Database
(<https://waterusedata.glc.org/>)

Provincial reporting of aggregated annual withdrawals, consumptive uses and diversions to the Great Lakes Commission's *Regional Water Use Database* is coordinated by the MNR with the support of the MECP.

To estimate water withdrawals and consumptive use in its annual data submissions, Ontario incorporates aggregated annual water withdrawal information primarily obtained from its Permit to Take Water program (see next section for more information). Estimates of consumptive water use are based on a comprehensive set of coefficients which can be found at https://waterusedata.glc.org/data_about_cuc.php. Aggregated withdrawal values reported for the hydropower sector were augmented by historical information collected through owner and operator surveys.

Water User Reporting under Ontario's Water Taking and Transfer Regulation

By regulation, permit to take water holders province-wide are required annually to report daily water taking volumes, electronically to the provincial *Water Taking Reporting System* or *Regulatory Self Reporting System* through an internet-based interface (<https://www.lrcsde.lrc.gov.on.ca/wtrsr/> or <https://signin.ontario.ca/>, respectively) or via hard copy prior to March 31 of the following year. The Water Taking Reporting System and Regulatory Self Reporting System databases represent the provincial warehouses for reported actual volumes of water taken by all permitted users in the province.

In addition, the *Permit to Take Water Database* is the primary warehouse of active permit holder information (permit number, owner name, address, water taking source information: water use sector, source coordinates, taking type and source name and maximum permitted volumes). A searchable map of active permits can be found at <https://www.ontario.ca/page/map-permits-take-water>. Enhancements to the databases may be required to warehouse information specifically related to applications that involve intra-basin transfers, return flow, and calculated or measured consumptive uses.

In 2021, Ontario made actual volumes of water taken by permitted holders available on the Open Data Catalogue website: <https://data.ontario.ca/dataset/water-taking>

By regulation, permit to take water holders are required to measure water taking/use by flow meter, or calculate it using a method acceptable to the program Director.

Permit holders are also required to comply with any additional data collection or monitoring and reporting conditions required by a permit such as specific monitoring methods, collection of information at a greater frequency, recording a daily maximum flow, and a requirement that all water taking information be analyzed by a qualified professional.

Water User Reporting under the Registrations under Part II.2 of the Environmental Protection Act

By regulation, registrants are required to report daily water taking amounts. Prior to March 31 of the following year, registrants are required to submit daily water taking volumes, electronically to the provincial Regulatory Self Reporting System (RSRS) which is accessed through the same online account used to register an eligible water-taking activity. The RSRS database houses reported actual volumes of water taken by all registered water takers in the province.

In addition, active EASR's can also be found through Access Environment at <https://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/GoSearch.action?search=basic&lang=en>.

Note: The MECP has an online environmental permissions platform that applicants can use to apply for permits and register eligible water-taking activities. PTTWs and EASRs issued through the online platform require applicants to report water takings on the RSRS. These permits and EASRs are accessible to the public through Access Environment. If applicants are unable to submit an application for a PTTW online, they can submit their application via email to the MECP. PTTWs issued for emailed applications should continue to report water takings on the WTRS. Permit information will continue to be housed in the publicly accessible Permit to Take Water Database.

5. Ontario's Provincial withdrawal application documents

As part of the Permit to Take Water program, Ontario's *Application for Permit to Take Water* (May 2017) collects information from applicants under the authority of the *Ontario Water Resources Act*, the *Environmental Bill of Rights Act* and is used by the Province to evaluate applications under Section 34 of the Act (Water Taking). The application can be found at: <https://forms.mgcs.gov.on.ca/en/dataset/012-2167>.

Assistance is provided to applicants in completing the Application Form through local Regional Offices of the MECP, along with a published *Guide to Permit to Take Water Application Form* found at: <https://www.ontario.ca/page/guide-permit-take-water-application-form>

Information requested on the form is categorized as the application type (e.g. new, amended, or renewal), permit category classification, applicant information, water taking information (e.g. source, public consultation requirements, and water taking sector and volume information), and location mapping and supporting studies. Revisions to the form may be required to identify information specifically related to applications that involve intra-basin transfers, return flow, and consumptive uses.

The suite of permit to take water application resources can be found at: <https://www.ontario.ca/page/permits-take-water>

Links to related policies and manuals supporting permit to take water applicants, Environmental Activity Sector Registrants, proponents, and application reviewers:

- a) *Permit to Take Water Manual* (April 2005): <https://archive.org/details/permittotakewa4932ontauoft>
This manual sets out the decision-making process generally followed by the Ministry and explains to applicants, proponents, and the public the requirements and considerations that are generally taken into account as reviewers are evaluating a proposed or existing water taking.
- b) Application guide: Permit to Take Water: <https://www.ontario.ca/page/guide-permit-take-water-application-form>
- c) *Technical Guidance Document for Surface Water Studies in Support of Category 3 Applications for Permit to Take Water* (April 2008): <https://www.ontario.ca/page/technical-guidance-document-surface-water-studies->

support-category-3-applications

This document provides guidance and a consistent, structured approach for a surface water study (hydrological and or ecological) in support of Category 3 Permit to Take Water applications (or for Category 2 applications, where applicable).

- d) *Technical Guidance Document for Hydrogeological Studies in Support of Category 3 Applications for Permit to Take Water* (April 2008):

<https://www.ontario.ca/page/technical-guidance-document-hydrogeological-studiessupport-category-3-applications>

This document provides guidance and a consistent, structured approach for a hydrogeological study in support of Category 3 Permit to Take Water applications (or for Category 2 applications, where applicable).

- e) *Great Lakes Watershed Locator Interactive Mapping Tool*:

<https://www.ontario.ca/page/great-lakes-watershed-locator>

The web-based mapping tool assists applicants in determining the tertiary watershed and the classification of a proposed water taking location for the purposes of the *Water Taking and Transfer Regulation*.

Map identifies the boundaries of water basins and connecting channel watersheds to assist practitioners in identifying new or increased water transfers.

- f) *Permits to Take Water Interactive Map*:

<https://www.ontario.ca/page/map-permits-take-water>

Map assists users in locating water taking locations specified in active permits across Ontario.

- g) *Access Environment*:

<https://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/GoSearch.action>

Map-based tool to search for various issued environmental permissions, including PTTWs.

- h) *Water taking user guide for environmental activity and sector registry*:

<https://www.ontario.ca/page/water-taking-user-guide-environmental-activity-and-sector-registry>

Water taking and transfer user guide: clarifications and exemptions:

<https://www.ontario.ca/page/water-taking-and-transfer-user-guide-clarifications-and-exemptions>

- i) [Guidance](#) to support the implementation of the priorities of water use

<https://www.ontario.ca/page/guidance-support-priorities-water-use>

- j) [Guidance](#) to support area-based water quantity management

<https://www.ontario.ca/page/guidance-support-area-based-water-quantity-management>

- k) *Data Catalogue* (Daily and annual water takings)

<https://data.ontario.ca/dataset/water-taking>

6. Description of Provincial initiatives that support an improved scientific understanding of the Waters of the Basin (including groundwater) in basin water resource management

Initiatives supporting improved scientific understanding of basin waters:

Ontario's **Provincial Surface Water Monitoring Centre (MNR)**:

The MNR administers the bi-lateral 'Canada-Ontario Agreement on Hydrometric Monitoring' which funds stream flow monitoring infrastructure, technology and data collection protocols on behalf of the province. The MNR also collects, monitors, and analyzes stream flow and climate data from a network of over 650 observation stations. This information is used to provide early warnings for flooding and drought/low water to identify locations throughout the province where potential risks may exist. The mandate for this work is founded in Lieutenant Governor Order-in-Council under the *Emergency Management and Civil Protection Act* for the purposes of emergency planning and public safety. Additionally, this information supports a broad spectrum of water related decision-making for the management, use and sharing of water resources.

- <http://ontario.ca/page/surface-water-monitoring>
- <https://www.lloapplications.lrc.gov.on.ca/webapps/swmc/flood-forecasting-and-warning-program/>

Aquatic Research and Monitoring (MNR):

The MNR conducts research that contributes to a greater understanding of the waters of the Great Lakes – St. Lawrence basin and provides improved scientific information to support water resource decision making within the basin. Examples of research conducted or initiated over past several years include: examining flow and thermal regimes of Ontario's rivers and physical and ecological effects of alteration; understanding the ecology of rivers with waterpower facilities; investigating variability and change in water balance components of Great Lakes tributaries, including changes to snow accumulation and melt; developing hydrologic models; developing an aquatic ecosystem classification system; and developing and providing datasets and tools for practitioners to examine and assess change in flow and thermal regimes of rivers and the water balances of watersheds.

- <https://www.ontario.ca/page/aquatic-research>

The **Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, 2021** (Environment and Climate Change Canada (federal lead), and Ministries of the Environment, Conservation and Parks (provincial lead), Natural Resources and Agriculture, Food and Agribusiness) supports the restoration, protection and conservation of Great Lakes water quality and ecosystem health. Improved understanding of adaptive management approaches to lake level regulation, nutrient management, groundwater and climate change impacts are areas supporting basin water resource management and water related actions.

- <https://www.ontario.ca/document/canada-ontario-great-lakes-agreement>

The **International Joint Commission (IJC) under the Boundary Waters Treaty** carries out **periodic science-based studies** in boundary waters along Ontario's borders. The MNR and the MECP participate as stakeholders in aspects of studies involving the IJC's review of its regulation of water levels and flows and associated water-related natural hazards and alterations along shorelines, hydroclimate, water use, and ecosystem impacts.

Geospatial Ontario (MNR):

Geospatial Ontario provides leadership and coordination to capture, create and maintain the province's foundation geospatial data (e.g., roads, water, utilities, wetlands, elevation and

aerial imagery) and works to ensure information about Ontario's water resources is available to provincial ministries, municipalities, conservation authorities and others to create maps, conduct geographic analysis and support decisions about the province's water resources. The Ontario Hydrology Network; Ontario Integrated Hydrology; provincial elevation and imagery layers; and enhanced watershed boundaries are all examples of datasets produced by Geospatial Ontario that can support the implementation of the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement. Geospatial Ontario has developed the **Ontario Watershed Information Tool (OWIT)** to allow water professionals in the public and private sectors and academia to analyze and understand water flow. The application allows for watersheds to be generated and characterized for any location in Ontario. Outputs from OWIT can be used as an input to hydrology models. The application allows access to standardized data that is used for a range of water management activities, such as water permitting, water use reporting and water quantity assessment.

- <https://www.ontario.ca/page/geospatial-ontario>
- <https://www.ontario.ca/page/topographic-maps>
- <https://www.ontario.ca/page/watershed-flow-assessment-tool>

The **Conservation Authorities Act** (MNR), provides a statutory framework for establishing and governing conservation authorities. The purpose of the *Conservation Authorities Act* is to provide for the delivery of programs and services that further the conservation, restoration, development and management of natural resources in watersheds in Ontario. Ontario's 36 conservation authorities were created at the request of municipalities and are governed by municipally appointed representatives to deliver resource management programs at a watershed scale for both provincial and municipal interests.

Conservation authorities are enabled to study and investigate the watershed(s) in their jurisdictions including development of watershed-based resource management strategies and technical studies to support understanding of local resource management interests, and to undertake provincial mandated programs and services for example related to the risks of natural hazards. Conservation authorities are currently involved in the delivery of several provincial programs that require data management and monitoring of water including the Provincial Flood Forecasting and Warning Program, Ontario's Low Water Response, the Provincial Groundwater Monitoring Network, and the Provincial Water Quality Monitoring Network.

The **Clean Water Act** (MECP) provides for a **source water protection program and local source water protection planning**. Local Source Protection Authorities (Conservation Authorities) with guiding support from the MECP develop supporting estimates of surface and groundwater supplies, water budgets, water use demand, and water quantity risks assessments. Locally, water use impacts are considered through Ontario's water use permitting application process.

- The Science Behind Drinking Water Source Protection:
<https://www.ontario.ca/page/source-protection>
- Ontario's online Source Protection Information Atlas:
<https://www.liaapplications.lrc.gov.on.ca/SourceWaterProtection/index.html?viewer=SourceWaterProtection.SWPViewer&locale=en-CA>

Ontario's Provincial Groundwater Monitoring Network (MECP) monitors ambient groundwater quantity and quality conditions in the province. The monitoring data provide indicators of aquifer conditions and supports studies and decisions around water-taking, drought management, land use planning decisions, climate change impacts, and water budget and cumulative impact studies. Ontario's 36 conservation authorities are involved in the delivery of the program.

- <https://www.ontario.ca/page/map-provincial-groundwater-monitoring-network>

The **Ministry of Natural Resources** integrates climate adaptation and mitigation into natural resource management across the ministry and with their partners by leading strategic projects in advance and incorporate climate considerations into policy, developing and communicating information and resources to support policy and science, and coordinating MNR actions within broader provincial climate priorities. This includes support to aquatic and terrestrial research and adaptation initiatives in the Great Lakes basin and beyond. Recent projects that support the implementation of the Agreement include modelling the relative risks of aquatic invasive species establishing and spreading in the Great Lakes under future climate change scenarios, assessing the vulnerability of species to climate change in the Ontario Great Lakes Basin, modelling temperatures in streams throughout the Great Lakes Basin and associated impacts on cold and cool-water species and continued enhancements to climate modelling and monitoring capacity.

Ontario Geological Survey (Ministry of Mines) implements a **Groundwater Geoscience Mapping Initiative** that contributes geoscience data and information to water management initiatives, including the development of GIS-based geological maps/databases, , regional (3-D) aquifer subsurface mapping in bedrock and surficial sediments, derivative maps showing depth to first significant aquifer, water table depth maps, karst mapping, watershed characterization, thematic studies, regional groundwater geochemistry studies, method/protocol and product development.

- <https://www.geologyontario.mndm.gov.on.ca/ogsearth.html>
- <https://www.ontario.ca/page/geoscience-research-topics>
- <https://www.hub.geologyontario.mines.gov.on.ca/>

7. Additional Information

N/A

Province of Ontario

Water Conservation and Efficiency Program Report

The following information is submitted by the Province of Ontario to the Great Lakes Regional Body Secretariat in response to the Questionnaire for Preliminary Submittals by States and Provinces, in fulfillment of the five-year review of Ontario's Water Conservation and Efficiency Programs, pursuant to the requirements in Article 304 of the *Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement* (Agreement).

1. Lead agency and contact person:

Jennifer Keyes, Director
Development and Hazard Policy Branch
Ontario Ministry of Natural Resources

2. Status of Ontario's water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives

In 2012 Ontario adopted water conservation and efficiency goals and objectives that are consistent with the Basin-wide goals and objectives. The goals and objectives were developed based on stakeholder consultation, Indigenous engagement, and public comments received.

Ontario adopted the water conservation and efficiency goals as set out in the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (herein referred to as 'the Agreement'), and developed objectives consistent with the regional objectives adopted for the Basin that are tailored for Ontario to reflect the direction in the *Water Opportunities and Water Conservation Act*, 2010, and to address stakeholder and Indigenous community requests to emphasize the importance of taking ecological water needs into account in decision making, in keeping with the broader ecosystem protection and restoration goals of the Agreement.

Ontario's water conservation goals and objectives are available at:

[Ontario's water conservation and efficiency goals, objectives and programs \(in accordance with the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement\) | ontario.ca](https://www.ontario.ca/government/ontario-water-conservation-and-efficiency-goals-objectives-and-programs)

3. Ontario's water conservation and efficiency program overview

Ontario's water conservation and efficiency program consists of a wide variety of statutes, programs and policies administered across several Ontario ministries, as well as local governments and other organizations. See Appendix A for a detailed description of Ontario's forty-five contributing water management and conservation statutes, programs and policies.

The foundation of the program is the *Ontario Water Resources Act* (OWRA) and the Water Taking and Transfer Regulation (Ontario Regulation 387/04). The purpose of the OWRA is to provide for the conservation, protection and management of Ontario's waters and for their efficient and sustainable use, in order to promote Ontario's long-term environmental, social

and economic well-being. Under the OWRA, a permit is required to withdraw more than 50,000 litres per day of ground or surface water, with a few exceptions.

Section 34.1 (9)(h) of the OWRA provides a permitting Director with authority to set terms and conditions on a permit governing the use and conservation of water taken under the permit, including requiring the holder to implement specified measures to promote the efficient use of the water or reduce the loss of water through consumptive use, conduct a water audit, and to prepare and implement a water conservation plan.

The *Water Taking and Transfer Regulation* outlines matters that the Director must consider when considering an application for a Permit to Take Water. Section 4(2).3.i. of the Regulation requires that the Director consider issues relating to the use of water, including whether water conservation measures are being implemented or are proposed to be implemented in the use of water, in accordance with best water management standards and practices for the relevant sector, if these are available.

Provincial land use planning statutes, such as the *Planning Act*, policies, such as those in the *Provincial Planning Statement, 2024*, and plans, such as the Greenbelt Plan, include some policy direction relating to water conservation in new developments. Section 3 of the *Planning Act* requires land use decisions to be consistent with the provincial policy statements and to conform to provincial plans. The *Clean Water Act, 2006* requires that any significant threats to municipal drinking water sources, from a water quantity perspective, be identified through the preparation of water budgets and addressed in local source protection plans, such as through policies on water conservation.

The *Water Opportunities and Water Conservation Act, 2010* builds upon Ontario's expertise in clean water technology and sets out a framework to make the province a continental leader in water innovation to help address global water challenges. Among other things, the Act sets the framework to encourage Ontarians to use water more efficiently by creating and implementing innovative approaches to protecting and conserving water resources for current and future generations.

4. Consistency with Regional Objectives

Ontario's program is consistent with the regional objectives in the promotion of environmentally sound and economically feasible water conservation measures. The programs (statutes, programs and policies) below may link to more than one objective. See Table 1 and Appendix A.

Table 1. Regional Objectives and Ontario's Water Conservation and Efficiency Program

REGIONAL OBJECTIVE	LEGISLATIVE AND PROGRAM CITATION
1) Guide programs toward long-term sustainable water use and management.	Ontario implements a range of adaptive programs and conservation and efficiency strategies that consider long-term sustainable water use while taking into account the importance of water to related ecosystems – such as through the assessment of water taking applications as described above, preparation of source protection plans to protect existing and future sources of drinking water in terms of both water quantity

REGIONAL OBJECTIVE	LEGISLATIVE AND PROGRAM CITATION
	and quality, development of water budgets to estimate surface and groundwater supplies, water use and water quantity risk assessments, and action to protect the Great Lakes. 1. <i>Ontario Water Resources Act</i> and Water Management: Policies, Guidelines, Provincial Water Quality Objectives 2. <i>Ontario Water Resources Act</i> and Regulations 3. <i>Clean Water Act</i>, 2006 4. <i>Conservation Authorities Act</i>, 1990 5. <i>Lakes and Rivers Improvement Act</i>, 1990
2) Adopt and implement supply and demand management to promote efficient use and conservation of water resources.	Ontario has a range of programs that manage water supply and demand to achieve efficient use and conservation of water resources - such as Ontario's <i>Provincial Planning Statement</i>, 2024 which requires local planning authorities to protect, improve or restore the quality and quantity of water, promote green infrastructure in planning for stormwater management and establishing water efficiency standards in Ontario's Building Code (O.Reg 163/24) and <i>Electricity Act</i>. 6. <i>Water Opportunities and Water Conservation Act</i>, 2010 7. Financial Plans Regulation under the <i>Safe Drinking Water Act</i>, 2002 8. <i>Municipal Act</i>, 2001 and <i>City of Toronto Act</i>, 2006 9. <i>Building Code Act</i>, 1992 and the Ontario Building Code (O.Reg 163/24) 10. <i>Electricity Act</i>, 1998 11. <i>Oak Ridges Moraine Conservation Act</i>, 2001 and Oak Ridges Moraine Conservation Plan, 2017 12. Growth Plan for Northern Ontario 13. <i>Planning Act</i> and Provincial Planning Statement, 2024 14. Municipal Stormwater Management Systems (e.g., Green Infrastructure, rainwater harvesting and reuse)
3) Improve monitoring and standardize data reporting among State and Provincial water conservation and	A range of Ontario programs and initiatives support improved monitoring and standardized data reporting related to water supply, water use and conservation/efficiency – for example, water use information for Permits to Take Water is collected, analyzed and reported, Ontario Surface Water Monitoring and Low Water Response, the Provincial Groundwater Monitoring Network, management of Ontario's foundation geospatial datasets and analysis to support decisions about water

REGIONAL OBJECTIVE	LEGISLATIVE AND PROGRAM CITATION
efficiency programs.	resources, and the Ontario Geological Survey's Groundwater Initiative. 15. Ontario Low Water Response 16. Ontario Surface Water Monitoring 17. Provincial Groundwater Monitoring 18. Water Use Reporting 19. Reporting of Energy Consumption and Water Use 20. Geospatial Ontario 21. The Ontario Geological Survey's Groundwater Initiative
4) Develop science, technology and research.	The following programs encourage science, technology and research to implement the best in water, wastewater and stormwater technology: 22. Ontario Clean Water Agency 23. Investment Accelerator Fund 24. Ontario Agri-Food Innovation Alliance and Ontario Agri-Food Research Initiative
5) Develop education programs and information sharing for all water users.	Ontario is implementing a range of education initiatives and programs that raise awareness of the importance of water conservation, efficiency and cost-saving approaches to promote the sharing of information on best management practices through the following programs: 25. Walkerton Clean Water Centre 26. Water Efficiency Labelling 27. Best Management Practices 28. Canada-Ontario Environmental Farm Plan Program and Sustainable Canadian Agricultural Partnership – Ontario Agricultural Sustainability Initiative suite of programming for Producers
Other programs:	In accordance with Ontario's water conservation and efficiency goals and objectives, the province's water conservation and efficiency program includes a range of environmental and resource management legislation, strategies and programs that align with the objectives by integrating water conservation and efficient water use with other environmental management practices and considerations, such as energy use, climate

REGIONAL OBJECTIVE	LEGISLATIVE AND PROGRAM CITATION
	change, and the protection and restoration of hydrological and ecological integrity: 29. <i>Endangered Species Act</i>, 2007 30. <i>Greenbelt Act</i>, 2005 and Greenbelt Plan, 2017 31. <i>Niagara Escarpment Planning and Development Act</i> and Plan 32. Ontario's Biodiversity Strategy, 2023 - 2030 33. Ontario's Great Lakes Strategy 34. Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, 2021 35. <i>Great Lakes Protection Act</i>, 2015 36. Joint Strategic Plan for the Management of Great Lakes Fisheries 37. <i>Lake Simcoe Protection Act</i>, 2008 and Lake Simcoe Protection Plan, 2009 and associated Subwatershed Plans and Water Budgets 38. <i>The Crown Forest Sustainability Act</i>, 1994 39. Wetlands Conservation Partner Program 40. Ontario's Provincial Fish Strategy: Fish for the Future 41. Anishinabek/Ontario Fisheries Resource Centre 42. Ontario Parks Water Conservation Initiatives 43. Species at Risk Stewardship Program 44. Eastern Habitat Joint Venture 45. Great Lakes Local Action Fund

5. Ontario's water conservation and efficiency program implementation timeline and status

Ontario's water conservation and efficiency program is in place and being implemented.

Appendix A: Description of Ontario's Contributing Water Management and Conservation Statutes, Programs and Policies

The following statutes, programs and policies contribute to achieving Ontario's goals and objectives for water conservation and efficiency. The statutes, programs and policies may link to more than one goal or objective.

OBJECTIVE 1) GUIDE PROGRAMS TOWARD LONG-TERM SUSTAINABLE WATER USE AND MANAGEMENT

To achieve this objective, Ontario has a range of adaptive programs and conservation and efficiency strategies that consider the importance of water to related ecosystems, working with local stakeholders, and improving water demand forecasts, and water budgets.

1. *Ontario Water Resources Act* and Water Management: Policies, Guidelines, Provincial Water Quality Objectives

The legislative authority to manage water comes from the *Ontario Water Resources Act*, *Environmental Protection Act* and other legislation. Ontario's Water Management: Policies, Guidelines, Provincial Water Quality Objectives gives direction on how to manage the quality and quantity of both surface water and groundwater. Surface water and groundwater quantity is to be managed to ensure a fair sharing, conservation, and sustainability of the resource. Water conservation is defined as the preservation of the quantity of available water through judicious use, reuse and minimal wastage.

[Water management: policies, guidelines, provincial water quality objectives | ontario.ca](#)

2. *Ontario Water Resources Act* and Regulations

Water takings in Ontario are governed by the *Ontario Water Resources Act* and the Water Taking and Transfer Regulation (Ontario Regulation 387/04). The purpose of the *Ontario Water Resources Act* is to provide for the conservation, protection and management of Ontario's waters and for their efficient and sustainable use, to promote Ontario's long-term environmental, social and economic well-being.

[Ontario Water Resources Act, R.S.O. 1990, c. O.40](#)

According to the *Ontario Water Resources Act*, any person taking more than 50,000 litres of water on any day must first obtain a Permit to Take Water from the Ministry of the Environment, Conservation and Parks. Water taken for domestic uses, watering of livestock or poultry, firefighting, wetland conservation, a weir that was constructed prior to March 29, 2016, passive and/or active in-stream diversions for construction purposes and constructing or operating a dam associated with the production of electricity are exempted from the requirement to obtain a permit. The Ministry's guiding policy for issuing permits is to ensure the fair sharing, conservation, and sustainable use of the surface and ground waters in the province.

The Water Taking and Transfer Regulation and Permit to Take Water Manual outlines the specific requirements related to applying for and holding a permit and identifies the matters that the Ministry must consider when reviewing a permit application.

O. Reg. 387/04: WATER TAKING AND TRANSFER (ontario.ca)

Among the matters considered by the Ministry when reviewing a permit application is whether water conservation measures are to be implemented in the use of water, in accordance with sector best water management standards and practices, if these are available. As part of their permit application, proponents must complete and submit a “Schedule 1 – Implementation of Water Conservation in accordance with Best Management Practices and Standards for the Relevant Sector”. This Schedule provides details about sector-specific best management practices (e.g., Environmental Farm Plan) to be applied to the proposed water taking and specifies the water conservation measures and practices they are currently anticipated to be implemented over the duration of the permit. Applicants must also state their goals for reducing the use, loss, or waste of water, or for increasing the efficiency of their water use (e.g., litres per day per unit of production or litres per day per capita for the residential use).

Enhancements to Ontario’s Water Quantity Management Framework

The province completed a review of the state of water resources in key areas of Ontario and the effect water takings have on these resources. The review included examining water quantity-related policies and programs as they apply to water takers across the province, including water bottlers taking groundwater, as well as enhancing our understanding of how we can manage water takings to ensure we have sustainable water resources in the face of changing climate and continued population growth.

The province’s review found that the government’s current approach to managing water takings is effective. The analysis included a panel of the Professional Geoscientists Ontario who reviewed and validated the government’s findings. They found that water takings for water bottling are managed sustainably in Ontario under existing legislation, regulation, and guidance. The review also identified opportunities to improve how water takings are managed in parts of Ontario where water availability is or could become a concern. All reports associated with the review are available for download from the supporting materials section of the Environmental Registry posting titled “Updating Ontario’s Water Quantity Management Framework”.

The Ontario government has moved forward with enhancements to the province’s water taking program as part of its commitment to ensure our water resources are protected and used sustainably, now and for future generations.

The new rules apply to all permitted water users, including water bottlers, and came into effect on April 1, 2021. These changes include:

- requiring water bottling companies to have the support of their local host municipality for new or increase groundwater takings in their community.

- establishing priorities on how water should be shared among water users when there are competing demands for water. For example, restrictions on water taking could be applied during a drought. The ministry has published [guidance](#) to support the implementation of the new priorities of water use policy.
- putting in place a new, more flexible approach for the ministry and water users to better assess and manage multiple water takings in areas where water sustainability is a concern. The ministry has published [guidance](#) to support the implementation of the new area-based water quantity management policy.
- making water taking data available to the public to increase transparency of how Ontario manages water resources. [Actual volumes of water taken](#) by permitted water takers was made available to the public starting in July 2022.

3. *Clean Water Act, 2006*

The purpose of the *Clean Water Act* is to protect existing and future sources of drinking water in Ontario as it relates to both quality and quantity of water. It is part of the Ontario Government's commitment to ensure the sustainability of clean, safe drinking water for Ontario communities.

Source protection plans are in effect for drinking water systems across Ontario, covering an area where over 95 per cent of the province's population live. The plans are developed by local source protection committees across the province and administered by conservation authorities acting as 'source protection authorities' under the *Clean Water Act*. Source protection plans contain a series of locally developed policies such as prohibiting an activity or regulating it through risk management plans, provincial approvals, land use planning tools or non-regulatory approaches such as education and outreach programs. Plans may also include policies around water conservation and/or water efficiency. Municipalities, the Province, and others are implementing actions on the ground to protect the quality and quantity of sources of drinking water.

Science-based assessment reports were developed and are updated from time to time to identify where sources of drinking water are vulnerable to contamination and depletion. As part of the assessments, water budgets evaluate how much water exists both at the surface and below ground, how water moves and how much water is withdrawn, to identify potential water shortages on both a subwatershed scale, and for at-risk municipal drinking water systems. Part of this process is also looking at the long-term water supply and determining current or future water availability and ecological needs. Furthermore, these water budgets consider drought climate conditions and the potential impact on supplies of drinking water.

As a requirement under the *Clean Water Act*, source protection planning also considered several federal and provincial Great Lakes agreements, including the Great Lakes Charter and the Great Lakes-St Lawrence River Basin Sustainable Water Resources Agreement.

[Clean Water Act, 2006, S.O. 2006, c. 22 \(ontario.ca\)](#)

4. *Conservation Authorities Act, 1990*

The purpose of the *Conservation Authorities Act* is to provide for the organization and delivery of programs and services that further the conservation, restoration, development, and management of natural resources in watersheds in Ontario. Administration of the *Conservation Authorities Act* is the responsibility of the Ministry of Natural Resources.

The Act enables municipalities within a common watershed to petition the province to establish a conservation authority - a public sector organization, for the delivery of local resource management programs and services as prescribed by the province, or on behalf of its municipalities, or as decided by the authority itself. There are 36 conservation authorities in Ontario today.

The *Conservation Authorities Act* and corresponding regulations set out what conservation authorities are, including being governed by a membership of municipal representatives appointed by the municipalities that formed or later joined the conservation authority (the collective membership of appointed municipal representatives being the conservation authority). The Act also provides for optional advisory boards to the conservation authority that can include members of the public.

The *Conservation Authorities Act* provides what conservation authorities may do in resource management, including mandatory programs and services that each conservation authority must provide as well as other programs and services at the discretion of municipalities and the authorities.

Mandatory programs and services include, but are not limited to, those related to the risk of natural hazards, conservation and management of conservation authority owned lands, and an authority's legislative responsibilities as a source protection authority under the *Clean Water Act*. These mandatory programs and services support and contribute to Ontario's water conservation and efficiency goals under the Agreement. For example, related to the risk of natural hazards, conservation authorities operate flood control infrastructure (dams, reservoirs, channels) to manage water levels and flows for flood management and public safety as well as low flow augmentation in low water or drought circumstances. Programs and services related to the management of conservation authority lands protect significant natural heritage features such as wetlands, and with programs to control invasive species and support wildlife habitat that provide important contributions to hydrologic and ecosystem integrity in the province.

Conservation authorities are also key delivery agencies for several other government programs such as the Ontario Low Water Response Program, Provincial Groundwater Monitoring Network and Provincial Water Quality Monitoring Network.

[Ontario Low Water Program \(gov.on.ca\)](https://www.gov.on.ca)

[Conservation Authorities | ontario.ca](https://www.ontario.ca)

5. *Lakes and Rivers Improvement Act, 1990*

The *Lakes and Rivers Improvement Act* (LRIA), administered by the Ministry of Natural Resources, provides a legislative framework for the regulation of construction,

alteration, decommissioning and operation of dams in Ontario. The LRIA defines a dam as a structure or work forwarding, holding back, or diverting water and includes: a dam, dam tailings, dike, diversion, channel alteration, artificial channel culvert or causeway.

The purposes of the Act are to provide for:

- the management, protection, preservation and use of waters of the lakes and rivers of Ontario and the land under them;
- the protection and equitable exercise of public rights in or over waters of the lakes and rivers in Ontario;
- the protection of the interests of riparian owners;
- the management, perpetuation and use of the fish, wildlife and other natural resources dependent on the lakes and rivers;
- the protection of the natural amenities of the lakes and rivers and their shores and banks; and
- the protection of persons and of property by ensuring that dams are suitably located, constructed, operated and maintained and are of an appropriate nature with respect to the purposes of the above noted clauses.

Approval may be required for the construction of a new dam and for certain alterations improvements or repairs of to existing dams. The prescribed circumstances for which approval must be obtained by a dam owner within the Province can be found in Ontario Regulation 454/96 (Construction).

Ontario Regulation 102/20 Monitoring of Mercury Near Dams came into effect March 2020. This Minister's Regulation requires the owners of 12 dams that had mercury monitoring and reporting requirements established through a Permit to Take Water Program under the *Ontario Water Resources Act*, issued by the Ministry of Environment, Conservation and Parks, to maintain these requirements under the authority of the *Lakes and Rivers Improvement Act*, with reporting to MNR. This regulation ensures that potential changes in levels of methylmercury from existing waterpower dams are monitored, reported and potential impacts to people are mitigated.

To support the administration of the LRIA and dam safety in Ontario, the Ministry has produced a series of policies, technical bulletins and best management practices. The LRIA Administrative Guide and supporting Technical Bulletins outline ministry requirements and technical guidance for applicants seeking approval for dam related works. The Ministry also engages key dam owners through the Ministry of Natural Resources Dam Owners Advisory Committee to seek advice on government policies and initiatives related to the regulation and management of dams.

Dams may provide for a few objectives, including waterpower generation, municipal water supply, flood low water mitigation, wetland habitat management, navigation for commercial and recreational purposes, and other municipal, commercial and industrial use.

Lakes and Rivers Improvement Act, R.S.O. 1990, c. L.3 (ontario.ca)

[Dam management | ontario.ca](#)

OBJECTIVE 2) ADOPT AND IMPLEMENT SUPPLY AND DEMAND MANAGEMENT TO PROMOTE EFFICIENT USE AND CONSERVATION OF WATER RESOURCES

To achieve this objective, Ontario has a range of programs that manage water supply and demand to achieve efficient use and conservation of water resources — including promoting innovative water technologies, green infrastructure and water use efficiency.

6. *Water Opportunities and Water Conservation Act, 2010*

The *Water Opportunities and Water Conservation Act* was passed in November 2010. The fourth progress report on the implementation of the *Water Opportunities Act*, covering the period from 2020 to 2023, is available in the [Minister's Annual Report on Drinking Water \(2023\) | ontario.ca](#).

Schedule 1 enacts a stand-alone Act, the *Water Opportunities Act, 2010* (see below for details). Schedules 3 to 5 amend existing legislation within respect to water conservation and other matters. The Act builds upon Ontario's expertise in clean water technology and sets out a framework to make the province a North American leader in water innovation to help address global water challenges. Among other things, the Act sets the framework to encourage Ontarians to use water more efficiently by creating and implementing innovative approaches to protect water resources for current and future generations.

The *Water Opportunities Act, 2010* also includes authority to require prescribed information on or with municipal water bills to promote transparency; authority to set aspirational targets for water conservation and other matters; and authority to require public agencies to prepare water conservation plans. This includes the authority to require public agencies to achieve water conservation targets and consider technologies, services and practices that promote the efficient use of water when making capital investments or purchasing goods and services.

The Act also amended the *Ontario Water Resources Act* to enable regulations for water efficiency standards or requirements for prescribed appliances and products. No person would be permitted to offer for sale, sell or lease a prescribed appliance or product unless it meets the water efficiency standard or requirement set out in the regulations. These are tools that will enable Ontarians to use water more efficiently to conserve and protect water resources.

The fourth progress report on the implementation of the *Water Opportunities Act*, covering the period from 2020 to 2023, can be found on [Ontario.ca](#).

[Water Opportunities Act, 2010, S.O. 2010, c. 19, Sched. 1 \(ontario.ca\)](#)

7. Financial Plans Regulation under the *Safe Drinking Water Act, 2002*

Ontario put in place a licensing framework under the *Safe Drinking Water Act*, 2002 for municipal residential drinking water systems – the Municipal Drinking Water Licensing Program. Financial plans are one of the elements that the owner of a municipal drinking water system must have in place for a licence to be issued or renewed.

Ontario adopted the Financial Plans regulation (Ontario Regulation 453/07) and released a Financial Plans Guideline document in 2007. The regulation outlines requirements set out by the Minister of the Environment, Conservation and Parks for financial plans that are required to obtain a licence under the *Safe Drinking Water Act*, 2002. Taken together, the Financial Plans Regulation and Guideline are a key step in the province's long-term strategy to ensure the financial sustainability of municipal drinking water systems.

O. Reg. 453/07: FINANCIAL PLANS

8. *Municipal Act*, 2001 and *City of Toronto Act*, 2006

Under the *Municipal Act*, 2001 and *City of Toronto Act*, 2006 (and Ontario Regulations 599/06 and 609/06 respectively) municipalities may establish municipal or city services corporations to deliver water and wastewater services, subject to certain limitations and requirements. It is up to municipal councils to decide whether or not a corporation would be appropriate as the most efficient means of delivering water and wastewater services.

Shares in municipal water and wastewater corporations cannot be privately owned. Legislative requirements for a municipality, in terms of water delivery, apply to its municipally established water and wastewater corporation as well.

9. *Building Code Act*, 1992 and the Ontario Building Code (O. Reg 163/24)

Ontario's Building Code is a regulation under the *Building Code Act*, 1992 that sets out technical and administrative requirements that must be met when a building is constructed, renovated, demolished or undergoes a change of use.

One way to conserve water is to design buildings so that they use less water. Ontario's Building Code has been amended over the past 20 years to include increasingly progressive water conservation requirements.

Conservation is one of the objectives of the Building Code. Over time, water conservation requirements for plumbing fixtures have been enhanced so that today, very high-efficiency toilets (4.8 litres/flush, or a dual flush option or both 4.1 litres flush), urinals (1.9 litres/flush) and residential showerheads (7.6 litres/minute) are required as a minimum in new construction and renovations. Over time, the Building Code has also been amended to add to the ways that rainwater, storm sewage and greywater can be reused. By clarifying requirements for non-potable water systems and adding requirements for non-potable rainwater harvesting systems, the 2024 Code further enhances certainty in the building industry about how rainwater, storm sewage and greywater can be used, helping to make it a more mainstream practice.

Building Code Act, 1992, S.O. 1992, c. 23 (ontario.ca)

O. Reg. 163/24: BUILDING CODE (ontario.ca)

10. *Electricity Act*, 1998

The *Electricity Act*, 1998 prohibits the sale of products in Ontario that do not meet prescribed energy and water efficiency standards. Setting water efficiency standards reduces water and energy use and further lower greenhouse gas emissions. Water efficiency standards for products using both energy and water, such as dishwashers and clothes washers are set out in Energy and Water Efficiency – Appliances and Products regulation (O.Reg. 509/18).

Electricity Act, 1998, S.O. 1998, c. 15, Sched. A (ontario.ca)

11. *Oak Ridges Moraine Conservation Act*, 2001 and Oak Ridges Moraine Conservation Plan, 2017

The *Oak Ridges Moraine Conservation Act*, 2001 provides the legislative framework for the development and implementation of the Oak Ridges Moraine Conservation Plan, 2017. The Act requires all decisions under the *Planning Act* and *Condominium Act* to conform to the Oak Ridges Moraine Conservation Plan, 2017 and that municipalities bring their official plans and zoning by-laws into conformity with the Plan.

The Oak Ridges Moraine Conservation Plan, 2017 provides a long-term framework for land use designations and policies and requires that municipalities further implement these directions through their official plans and zoning by-laws. The Plan identifies a natural heritage system comprised of Core and Linkage Areas and goes on to define key natural heritage and hydrological features which are to be identified and protected, along with defined buffers. It also provides mapping of landform conservation areas and highly vulnerable aquifer areas. Watershed management plans, water conservation plans, and water budgets are required for the identification and protection of municipal well-head protection areas. The plan restricts certain types of stormwater management facilities in order to protect the ground water resources in the Moraine's aquifers, which are the regional groundwater divide for central Ontario. These aquifers provide the baseflow for the vast majority of streams running north and south off the Moraine.

The Oak Ridges Moraine Conservation Plan, 2017 requires that every upper-tier municipality and single-tier municipality within the designated Oak Ridges Moraine plan area have a water budget and water conservation plan in place for every watershed whose streams originate within the municipality's area of jurisdiction. The Plan prohibits major development unless the watershed plan for the relevant watershed has been completed; the major development conforms with the watershed plan; and a water budget and conservation plan are completed and demonstrates that the water supply required for the major development is sustainable.

Oak Ridges Moraine Conservation Act, 2001, S.O. 2001, c. 31 (ontario.ca)

Oak Ridges Moraine Conservation Plan | ontario.ca

12. Growth Plan for Northern Ontario

The Growth Plan for Northern Ontario, 2011 is a 25-year plan to guide decisions and investments to build a globally competitive northern economy that is resilient and sustainable. The Plan includes a chapter on the environment which sets out policies to encourage municipalities to contribute to the protection of surface water and ground water features. Additionally, Northern economic and service hubs are encouraged to identify environmental sustainability objectives and develop policies and programs to achieve water conservation.

[Growth Plan for Northern Ontario | Ontario.ca](#)

13. *Planning Act* and Provincial Planning Statement, 2024

The *Planning Act* provides the legislative basis for the land use planning system in Ontario. Municipalities are the main implementers of provincial land use planning policies through their official plans and zoning by-laws and their decisions on planning applications. Their decisions and plans are required by the *Planning Act* to conform (or not conflict) with provincial plans and to be consistent with provincial policy statements such as the Provincial Planning Statement, 2024. A variety of other legislation may also apply when municipalities are making decisions on planning matters.

The *Planning Act* contains the process requirements for public notice and consultation rules governing municipal processing of land use proposals or documents and the framework for appeals to the Ontario Land Tribunal. The planning process provides an opportunity for an inter-disciplinary assessment of matters pertaining to land use, including the integration of water-related considerations.

Issued under the authority of section 3 of the *Planning Act*, provincial policy statements such as the Provincial Planning Statement, 2024 provides policy direction on matters relating to land use planning that are of provincial interest. Among other matters, it provides some direction to protect water resources. For example, policy 3.6.1 of the Provincial Planning Statement, 2024 states that planning for water and sewage services shall promote water conservation and water use efficiency. In addition, policy 3.6.8 states that planning for stormwater management shall promote best management practices, which include water conservation and water use efficiency. Lastly, policy 4.2.1 states that planning authorities shall protect, improve or restore the quality and quantity of water by, among other things, “planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality” and using the watershed as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development. It calls for planning authorities to identify water resource systems, including ground and surface water features and functions necessary for ecological and hydrological integrity of the watershed, and to maintain linkages among hydrologically connected water-based and terrestrial-based features. Under the new PPS 2024, municipalities in the Greater Golden Horseshoe are no longer mandated to create water/wastewater master plans. However, they are encouraged, and large, fast-growing municipalities are required, to conduct watershed planning. This planning informs sewage, water services, stormwater management, low impact development, and the protection and improvement of water quality and quantity.

Under the *Clean Water Act*, source protection plans are developed and updated locally based on scientific assessments that identified vulnerable areas related to the drinking water systems included in the plans that must be considered by planning authorities when implementing policy 4.2.1 of the Provincial Planning Statement, 2024. These source protection plans also identify areas where water supplies are vulnerable to depletion and may include policies to find efficiencies in the use of water including developing water conservation plans to address these water supply risks.

Provincial Planning Statement, 2024

Planning Act, R.S.O. 1990, c. P.13 (ontario.ca)

14. Municipal Stormwater Management Systems

The Ministry of the Environment, Conservation and Parks has created several documents for municipalities, businesses and anyone who is responsible for managing stormwater and reducing pollution at its source. They include the Stormwater Management Planning and Design Manual, March 2003; Understanding Stormwater Management: An Introduction to Stormwater Management Planning and Design; and summaries of several stormwater projects completed with provincial assistance.

Several objectives for stormwater management as stated in the 2003 Stormwater Management Planning and Design Manual support the efficient use and conservation of water resources:

- Preserve groundwater and baseflow characteristics, protect water quality;
- Reduce occurrences of undesirable geomorphic change (e.g., stream erosion);
- Reduce flood damage potential;
- Maintain appropriate diversity of aquatic life and opportunities for human uses; and
- Protect the ecosystem by maintaining the natural hydrologic cycle to the greatest extent possible.

By better managing the rain where it falls and snow melts using stormwater green infrastructure will help to steadily replenish groundwater, local streams, wetlands, and lakes making more water available when needed. Stormwater green infrastructure (and low impact development by another name) also includes rainwater harvesting systems that offer opportunities for human uses and thereby conserve water resources.

Stormwater Management Planning and Design Manual | ontario.ca

In 2010, Ontario completed a review of the need for a new policy, Act or regulation to deal with municipal stormwater management systems in Ontario municipalities considering climate change. The review identified a need for a stormwater management policy framework, with emphasis on improving stormwater management at the source through green infrastructure and low impact development practices to reuse the water or infiltrate into the ground. Further, increased collaboration for source control practices

is needed between all partners including residents, businesses, conservation authorities and all levels of governments.

Ontario is committed to improving municipal wastewater and stormwater management and reporting, by increasing transparency through real-time reporting of sewage overflows from municipal wastewater systems into Ontario's lakes and rivers, and updating policies related to municipal wastewater and stormwater to make them easier to understand.

[Policy Review of Municipal Stormwater Management in the Light of Climate Change | ontario.ca](#)

Ontario has developed a draft Low Impact Development Stormwater Management Guidance Manual, which was posted for consultation on the Environmental Registry of Ontario. The document provides technical guidance that will assist proponents to protect the environment, manage rain where it falls, reuse and conserve water and increase resiliency to climate change.

[Low Impact Development Stormwater Management Guidance Manual | Environmental Registry of Ontario](#)

A Discussion Paper on Wastewater and Stormwater Management in Ontario was posted early in 2022 to seek public feedback on potential policy approaches for a variety of topics related to wastewater and stormwater management and water conservation. The feedback will help inform any potential future policy proposals (e.g., policy updates, regulations) that would help to further protect communities and water resources in Ontario.

[Municipal Wastewater and Stormwater Management in Ontario Discussion Paper | Environmental Registry of Ontario](#)

OBJECTIVE 3) IMPROVE MONITORING AND STANDARDIZE DATA REPORTING AMONG STATE AND PROVINCIAL WATER CONSERVATION AND EFFICIENCY PROGRAMS

To achieve this objective, Ontario has a range of programs that improve monitoring of water supply, use and conservation/efficiency and standardizing data reporting among states and provinces.

15. Ontario Low Water Response

The Ministry of Natural Resources oversees the Ontario Low Water Response program which provides a framework to enable local response in the event of a drought/low water. The Ministry of Natural Resources collects, monitors and analyzes stream flow and climate data to provide early warnings, and to support local drought response. The early warning framework utilizes three levels of drought/low water status, based on precipitation and stream flow deficit conditions. Local Water Response Teams are encouraged to outline voluntary contingency measures within the watershed to achieve water use reduction targets. Water permit holders may be contacted to help achieve

water reduction targets and are formally regulated through the Ministry of the Environment, Conservation and Parks Permit-to-Take-Water Program. Increasing water conservation is strongly encouraged and communicated as water scarcity increases. The program is currently being modernized to streamline the response process, clarify roles and responsibilities and allow for increased autonomy in local decision making.

[Surface Water Monitoring Centre, low water response program | ontario.ca](#)

16. Ontario Surface Water Monitoring

The Ministry of Natural Resources administers the bi-lateral 'Canada-Ontario Agreement on Hydrometric Monitoring' which funds stream flow monitoring infrastructure, technology and data collection protocols on behalf of the province. The Ministry of Natural Resources collects, monitors and analyzes stream flow and climate data from a network of over 650 observation stations. This information is used to provide early warnings for flooding and drought/low water to identify locations throughout the province where potential risks may exist. The mandate for this work is founded in Lieutenant Governor Order-in-Council under the *Emergency Management and Civil Protection Act* for the purposes of emergency planning and public safety. Additionally, this information supports a broad spectrum of water-related decision-making for the management, use and sharing of water resources.

[Surface Water Monitoring Centre | ontario.ca](#)

[Flood Forecasting and Warning Program \(gov.on.ca\)](#)

17. Provincial Groundwater Monitoring

The Ministry of the Environment, Conservation and Parks' Provincial Groundwater Program consists of the Provincial Groundwater Monitoring Network (PGMN) and the Integrated Water Climate Change Initiative. The PGMN monitors and reports on groundwater levels at over 490 wells across the province with a subset of 380 wells being monitored for groundwater quality. The data allows for the recognition of spatial and temporal trends and correlations, informs assessments of water taking applications, supports drought response assessments, and provide information on how various aquifers are responding to dry years and changing weather patterns. Data collected through rain gauges established at 15% of the monitoring sites allow for assessments of how groundwater levels are responding to precipitation. Six of the PGMN sites are located at Integrated Water-Climate Change Initiative monitoring sites, where stream water and groundwater levels and quality are monitored along with weather.

[Map: Provincial Groundwater Monitoring Network | ontario.ca](#)

18. Water Use Reporting

Under Ontario Regulation 387/04, every holder of a Permit to Take Water is required to report daily water use for each calendar year by March 31 of the following year. This also applies to water taking activities prescribed under the Registrations Under Part II.2

of the Act – Water Taking (Ontario Regulation 63/16). These datasets are used to inform the broad water management programs for the province.

[O. Reg. 63/16: REGISTRATIONS UNDER PART II.2 OF THE ACT - WATER TAKING \(ontario.ca\)](#)

[Permits to take water | ontario.ca](#)

Provincial reporting of withdrawals, consumptive uses and diversions to the Great Lakes Commission's Regional Water Use Database is coordinated by the Ministry of Natural Resources in collaboration with the Ministry of the Environment, Conservation and Parks. Investments continue to be made to enhance the regional data processing and assessment.

[Great Lakes Regional Water Use Database - Great Lakes Commission \(glc.org\)](#)

19. Reporting of Energy Consumption and Water Use

Ontario Regulation 506/18: Reporting of Energy Consumption and Water Use (EWRB), made under the *Electricity Act*, 1998, requires owners of prescribed properties that are 50,000 square feet or larger to report their buildings' annual energy and water use to the Ministry of Energy and Electrification by July 1 of each year. In addition, the Ministry of Energy and Electrification collects Greenhouse Gas emissions associated with these buildings.

The EWRB initiative helps large building owners and managers better understand and manage energy and water use within their facilities, and supports informed engagement in energy efficiency programming and other energy efficiency actions.

Under this Regulation, exemptions to reporting are established for eligible reporters who meet specific exemption criteria. Exemptions are available for a single calendar year, or ongoing year-over-year.

Portions of the data are publicly disclosed on the Ontario Data Catalogue. Making the information publicly available can help building owners better manage energy and water use and costs.

[O. Reg. 506/18: REPORTING OF ENERGY CONSUMPTION AND WATER USE \(ontario.ca\)](#)

[Report energy and water use in large buildings | ontario.ca](#)

20. Geospatial Ontario

Geospatial Ontario provides leadership and coordination to capture, create and maintain the province's foundation geospatial data (e.g., roads, water, utilities, wetlands, elevation and aerial imagery) and, through Ontario GeoHub, works to ensure information about Ontario's water resources is available to provincial ministries, municipalities, conservation authorities and others to create maps, conduct geographic analysis and support decisions about the province's water resources. The Ontario

Hydrology Network; Ontario Integrated Hydrology; provincial elevation and imagery layers; and enhanced watershed boundaries are all examples of datasets produced by Geospatial Ontario that can support the implementation of the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement.

Geospatial Ontario has developed the Ontario Watershed Information Tool (OWIT) to allow water professionals in the public and private sectors and academia to analyze and understand water flow. The application allows for watersheds to be generated and characterized for any location in Ontario. Outputs from OWIT can be used as an input to hydrology models. The application allows access to standardized data that is used for a range of water management activities, such as water permitting, water use reporting and water quantity assessment.

[Geospatial Ontario | ontario.ca](https://ontario.ca/geospatial)

[Ontario GeoHub \(gov.on.ca\)](https://gov.on.ca/geo)

[Ontario Watershed Information Tool \(OWIT\) | ontario.ca](https://ontario.ca/owit)

21. The Ontario Geological Survey's Groundwater Initiative

The Ontario Geological Survey's groundwater initiative contributes geoscience data and information to water management initiatives, including the development of GIS-based geological maps/databases, groundwater vulnerability maps, regional (3-D) aquifer subsurface mapping in bedrock and surficial sediments, karst mapping, watershed characterization, thematic studies, regional groundwater geochemistry studies, method/protocol and product development.

[OGSEarth \(gov.on.ca\)](https://gov.on.ca/ogsearth)

[Geoscience research topics | ontario.ca](https://ontario.ca/geoscience-research-topics)

OBJECTIVE 4) DEVELOP SCIENCE, TECHNOLOGY AND RESEARCH

To achieve this objective, Ontario has a range of programs that encourage science, technology and research to implement the best in water, wastewater and stormwater technology.

22. Ontario Clean Water Agency (OCWA)

OCWA was established as a provincial agency in 1993 to provide water, wastewater, and related services to clients in a manner that protects human health and the environment and encourages the conservation of water resources. Four and a half million Ontarians rely on OCWA for clean water.

The core business is the operation and maintenance of water and wastewater treatment facilities and their associated distribution and collection systems on behalf of municipalities, First Nations communities, institutions, and private sector companies.

OCWA also offers a broad array of related services, including engineering, training, technical and advisory solutions, process optimization, and energy and asset management.

OCWA's First Nations Advisory Circle augments understanding of the broader water issues facing First Nations, from an Indigenous perspective. Reporting to OCWA's Board of Directors, through the Board's First Nations Committee, participation includes a diverse group of individuals who identify as Indigenous, representing a variety of backgrounds, experiences and communities.

The goal is to advise OCWA, integrate First Nation perspectives into the Agency's strategies and provide a better understanding of the challenges that First Nations face, not only with respect to addressing water and wastewater treatment in their communities, but also in the context of their unique experiences, culture and history in Canada.

The *Water Opportunities and Water Conservation Act*, 2010 enabled the Ontario Clean Water Agency to finance and promote the development, testing, demonstration and commercialization of technologies and services for the treatment and management of water, wastewater and stormwater.

Capital Investment Plan Act, 1993, S.O. 1993, c. 23 (ontario.ca)

23. Investment Accelerator Fund

The Investment Accelerator Fund helps accelerate the growth of new technology companies (including companies focused on water conservation technologies) being established in Ontario and positions them for further investment by angels and venture capitalists. The Fund invests up to \$1,500,000 in companies that have the potential to be global leaders in their field and provide sustainable economic benefits to Ontario.

A new seed-stage fund known as Graphite IAF IV was launched in fall 2021 to provide even more VC support for early-stage Ontario technology companies- including cleantech and water technology companies. This private, \$100M fund provides up to \$4.5 million in VC support to rapidly amplify the growth of early-stage technology companies.

24. Ontario Agri-Food Innovation Alliance (Alliance) and Ontario Agri-Food Research Initiative (OAFRI)

The Ministry of Agriculture, Food and Agribusiness invests in research in eleven research priority areas (including soil health, water quantity and quality, and sustainable production systems) through a partnership agreement (known as Ontario Agri-Food Innovation Alliance) with the University of Guelph. The Alliance supports agricultural research centre infrastructure, applied research and knowledge translation and transfer (KTT) projects through various programs. Soil health, water quality and quantity and sustainable production systems research and knowledge transfer projects aim to protect and enhance agricultural soil health and water quality & quantity, thereby supporting improved public confidence in the sector to deliver on sustainability expectations.

Funded projects strengthen the sustainability of the agri-food sector through soil health and conservation, improved water quality (e.g., reduced nutrient runoff and pesticides), increased water/waste/energy efficiency and reduced GHG emissions, and increased utilization of science-based nutrient management best practises.

The Alliance research program has funded research projects related to water management in agriculture and food. These projects specifically targeted water use efficiency and water quality (e.g., technologies for greenhouse, microbrewery and fruit processing wastewater treatment, evaluation of the implications of private water supply and wastewater systems for rural Ontario municipalities, groundwater recharge and modeling water use efficiency in agriculture). Water efficiency continues to be a priority for the Alliance.

[Ontario Agri-Food Innovation Alliance \(uoguelph.ca\)](https://uoguelph.ca)

The Ontario Agri-Food Innovation Research Initiative is a research and innovation program launched in October 2023 that supports applied research, KTT, pilot and demonstration, and commercialization projects through Canada-Ontario Sustainable Canadian Agricultural Partnership (2023-28) funding. Agricultural water quality and quantity is one of the ten agri-food research and innovation priorities that will likely attract water efficiency and quality projects from various research institutions of Ontario.

[Ontario Agri-food Research Initiative | ontario.ca](https://ontario.ca)

OBJECTIVE 5) DEVELOP EDUCATION PROGRAMS AND INFORMATION SHARING FOR ALL WATER USERS

To achieve this objective, Ontario has a range of education initiatives and other programs that raise awareness of the importance of water and the value of conservation, efficiency and cost-saving, and to share information on best management practices.

25. Walkerton Clean Water Centre

The Walkerton Clean Water Centre was established in 2004. The Centre provides training for drinking water operators across Ontario. The Centre's Technology Demonstration Facility, with its leading-edge drinking water technologies, is a platform for hands-on training and research on cost-effective solutions for small drinking water systems. The Centre is also responsible for delivering education, information and advice on water treatment, equipment, technology and operational requirements, and environmental issues related to drinking water. Currently, the Centre offers content on water conservation as part of the Mandatory Certificate Renewal Course (2024-26), which must be completed by all drinking water operators and water quality analysts to renew their certificates. Course participants learn key concepts of source water protection including the guiding principles of the ministry's permit to take water program, and the promotion of water conservation and stewardship.

[Walkerton Clean Water Centre – Ontario's Water Centre \(wcwc.ca\)](https://wcwc.ca)

26. Water Efficiency Labelling

The Ministry of the Environment, Conservation and Parks has a promotional partnership agreement with the U.S. Environmental Protection Agency to be part of their WaterSense Program, a water efficiency labelling program for products such as showerheads, faucets, toilets, and pre-rinse spray valves. As a promotional partner, Ontario can share information about the program and promote WaterSense. The WaterSense label lets consumers know they are buying products tested and proven to use 20 per cent less water and will make it easier for Ontarians to make green choices every day. WaterSense also gives tips for saving water around the house. Ontario-based manufacturers can get their water efficient products certified and promoted under the program. Retailers, municipalities and other organizations in Ontario can also participate in WaterSense and help promote the label. More information is available at:

[WaterSense | US EPA](#)

27. Best Management Practices

For the agricultural sector, the Ministry of Agriculture, Food and Agribusiness has released over 25 books on best management practices (BMPs), also referred to as environmentally sustainable agricultural practices. BMPs are consensus-based documents developed by multi-disciplinary and multi-agency project teams. This series offers proven, practical and affordable approaches to conserving soil, water and other natural resources in agricultural and rural areas. Four books - Irrigation Management, Water Management, Water Wells and Cropland Drainage - address, among other things, efficient use of water/water conservation, (e.g. water efficient irrigation systems and staggered irrigation schedules, water quality tile drainage installation, maintenance and outlet protection for erosion control and subsurface drainage). The BMP series can be found here:

[Agricultural best management practices | \(bmpbooks.com\)](#)

For the municipal sector, the Ministry of the Environment, Conservation and Parks provided funding to the Ontario Water Works Association (OWWA) to prepare “Water Efficiency: Best Management Practice” as well as “Outdoor Water Use Reduction Manual” and associated seminars, with order information available through OWWA’s Water and Energy Efficiency Committee:

[Water Energy and Efficiency Committee \(owwa.ca\)](#)

28. Canada-Ontario Environmental Farm Plan Program and Sustainable Canadian Agricultural Partnership – Ontario Agricultural Sustainability Initiative suite of programming for Producers

The Ontario Ministry of Agriculture, Food and Agribusiness, in partnership with Agriculture and Agri-Food Canada supports the development and delivery of the Canada-Ontario Environmental Farm Plan program. The Environmental Farm Plan (EFP) is a confidential, voluntary self-assessment that farmers undertake to review potential environmental risks associated with their farm operations. Farmers attend an

EFP educational workshop, complete a review of their operation, and develop an individualized Action Plan to address identified concerns. Action Plans may be submitted for independent review to verify appropriateness of the actions proposed for mitigating identified areas of risk. The EFP promotes water conservation and water efficiency, raising farmers' awareness of legislative requirements, and best practices.

Participation in EFP and completion of a reviewed plan are required prior to a producer applying for cost-share funding for environmental projects under the Sustainable Canadian Agricultural Partnership – Ontario Agricultural Sustainability Initiative suite of programming for producers.

The Ontario Agricultural Sustainability Initiative, funded under the Sustainable Canadian Agricultural Partnership provides cost-share or acreage-based funding to support a range of best management practices project categories aimed at improving soil health and water quality, reducing greenhouse gas emissions and sequestering carbon.

Funding support for both programs is currently provided by the Ministry of Agriculture, Food and Agribusiness and Agriculture and Agri-Food Canada under the federal-provincial Sustainable Canadian Agricultural Partnership. Both programs are delivered locally to producers, on behalf of government, by the Ontario Soil and Crop Improvement Association.

[Canada-Ontario Environmental Farm Plan \(EFP\) | ontario.ca](#)

OTHER PROGRAMS

In accordance with Ontario's water conservation and efficiency goals, objectives, and the provinces water conservation and efficiency program includes a range of legislation, strategies and programs that align with these objectives by integrating water conservation and efficient water use with other environmental management practices and considerations such as energy use, climate change, and the protection and restoration of hydrological and ecological integrity.

29. *Endangered Species Act, 2007*

With the passage of the *Endangered Species Act, 2007*, Ontario became a North American leader in protection and recovery for the province's more than 260 species at risk and their habitats. Many species at risk and their habitats in the Great Lakes Basin are now legally protected under the Act. Some of these protected species, including Lake Sturgeon and American Eel, are also the focus of rehabilitation efforts under the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, 2021.

The key to protecting many species at risk is protecting and restoring their habitats. Effective water management helps to maintain habitat conditions for many species at risk and can aid in their recovery.

[Endangered Species Act, 2007, S.O. 2007, c. 6 \(ontario.ca\)](#)

[Species at risk | ontario.ca](https://speciesatrisk.ontario.ca)

30. *Greenbelt Act*, 2005 and *Greenbelt Plan*, 2017

The *Greenbelt Act*, 2005 provides the legislative framework for the development and implementation of the *Greenbelt Plan*, 2017. The Act sets out the objectives of the *Greenbelt Plan* including protection of the land base needed to maintain, restore and improve the ecological and hydrological functions of the *Greenbelt Area*. The *Greenbelt Act*, 2005 requires municipal decisions under the *Ontario Planning and Development Act*, 1994 and the *Planning Act* or the *Condominium Act* to conform with the policies of the *Greenbelt Plan*. The *Greenbelt Act*, 2005 also requires municipalities to amend their official plans to conform with the *Greenbelt Plan*.

The *Greenbelt Plan*, 2017, requires municipalities contribute to a comprehensive, integrated, and long-term approach to managing water resource systems and natural heritage systems that are comprised of key natural heritage and key hydrological features and areas that are to be identified and protected from development and site alteration, along with appropriate buffers.

The area under the *Greenbelt Plan*, 2017, contains numerous watersheds, subwatersheds, groundwater and surface water resources, and several river valleys identified in the Plan. These resources are critical to the long-term health and sustainability of the Greater Golden Horseshoe's water resources, biodiversity and overall ecological integrity.

The policies of the *Greenbelt Plan*, 2017, recognize the importance of key hydrologic areas and how these areas contribute to the health and integrity of the water resource system in the GGH. These policies help align the *Greenbelt Plan* with source protection plans developed under the *Clean Water Act*, 2006.

Key water resource protection policies in the *Greenbelt Plan* include those related to: requirements for watershed planning to inform development and infrastructure planning and the identification of a water resource system; and requirements for municipalities to protect, improve or restore the water resource system including key hydrologic areas (e.g. significant groundwater recharge areas, highly vulnerable areas) and features (e.g. wetlands, permanent/ intermittent streams).

Amendment 4c to the *Greenbelt Plan* took effect at the same time the Provincial Planning Statement, 2024 on October 20, 2024. This amendment maintains policy protections in the *Greenbelt* that rely on the Provincial Policy Statement, 2020 and A Place to Grow 2019 for lands designated as Protected Countryside in the *Greenbelt Plan*. This amendment does not affect the lands covered by the Niagara Escarpment Plan or Oak Ridges Moraine Conservation Plan.

[Greenbelt Act, 2005, S.O. 2005, c. 1 \(ontario.ca\)](https://e-laws.gov.on.ca/ont/05/05_001_01.htm)

[Greenbelt Plan \(2017\) | ontario.ca](https://www.ontario.ca/govt/greenbelt-plan)

31. *Niagara Escarpment Planning and Development Act* and Niagara Escarpment Plan

The *Niagara Escarpment Planning and Development Act* sets out the legislative framework for the Niagara Escarpment Plan (NEP) and its implementation through a system of development control that is administered by the Niagara Escarpment Commission, a regulatory agency of the Ontario Government. The purpose of the Act and the NEP is to provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment, and to ensure that only such development occurs as is compatible with that natural environment.

The Plan identifies several land use designations which direct how land can be used throughout the NEP Area and includes development criteria policies that are applied to all proposed development. The NEP includes policies related to development affecting water resources (part 2.6). The objective of these policies is to ensure key hydrological features and functions including the quality, quantity and character of groundwater and surface water, at the local and watershed level, are protected and where possible enhanced.

[Niagara Escarpment Plan \(NEP\) - Niagara Escarpment Commission \(NEC\)](#)

[Niagara Escarpment Planning and Development Act, R.S.O. 1990, c. N.2 \(ontario.ca\)](#)

32. Ontario's Biodiversity Strategy, 2023-2030

Ontario's Biodiversity Strategy is the guiding framework for coordinating the management of Ontario's biodiversity. Implementation and reporting (through the State of Ontario's Biodiversity report) on progress towards achievement of the strategy's 13 targets is guided by the Ontario Biodiversity Council with membership from government, conservation stakeholders, Indigenous organizations and industry. Ontario's Biodiversity Strategy includes actions to reduce threats and enhance the resilience of the Great Lakes through activities including reducing pollution, preventing the introduction and spread of invasive species, identifying and prioritizing restoration areas, implementing policies to better protect species at risk and their habitats, enhancing a system of protected areas representative of Ontario's ecosystems, and encouraging private land and water resources stewardship. On an international scale, Ontario participates in efforts to conserve the diversity of species and ecosystems of the Great Lakes Basin through binational projects that developed biodiversity conservation strategies for each of the Great Lakes.

[Ontario Biodiversity Council | Ontario's Strategy - Ontario Biodiversity Council](#)

[State of Ontario's Biodiversity | why reporting on biodiversity is important \(sobr.ca\)](#)

[Great Lakes Biodiversity Conservation Strategies \(conservationgateway.org\)](#)

33. Ontario's Great Lakes Strategy

Ontario's Great Lakes Strategy, released in 2012, provides a roadmap for how Ontario will focus action to protect the Great Lakes. The Strategy summarizes environmental conditions of the Great Lakes and Ontario's actions taken to date and identifies priorities for future action.

Goal 2 of Ontario's Great Lakes Strategy (protecting water for human and ecological health) includes actions to improve water quantity management such as fulfilling Ontario's commitments under the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement and promoting water conservation and efficiency under the *Water Opportunities and Water Conservation Act*.

In 2016, Ontario published a progress report that outlines some of the key accomplishments and new scientific findings established during the first three years of Ontario's Great Lakes Strategy. In 2022, the second report was released.

[Ontario's Great Lakes Strategy | ontario.ca](#)

[Archived - Ontario's Great Lakes Strategy 2016 progress report | ontario.ca](#)

[Ontario's Great Lakes Strategy: Second progress report | ontario.ca](#)

34. Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, 2021

For over 50 years the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health (COA) has been the principal mechanism through which Ontario and Canada coordinate their work to address their respective and shared commitments to restore, protect and conserve the Great Lakes. Since 1971, a series of COAs have enabled both governments, together with local partners, to address the most significant challenges facing the Great Lakes region. COA supports Ontario's implementation of the Great Lakes Strategy and Canada's commitments under the 2012 Canada-U.S. Great Lakes Water Quality Agreement.

In 2021 Ontario and Canada signed the ninth COA, effective from June 1, 2021 until May 31, 2026. This agreement marks 50 years of collaborative Great Lakes work between both governments since the first COA was signed in 1971.

The 2021 COA continues to build on the successes and achievements of the 2014-2019 COA and includes continued commitments to enhance knowledge and understanding through sharing data and expertise on water levels and water budgets of the Great Lakes and supporting the development and implementation of regional Great Lakes adaptive management initiatives, including initiatives related to lake level uncertainties, vulnerabilities and risks.

The 2021 COA incorporates feedback received from engagement with the public, First Nations, Métis and the broader Great Lakes community.

Other provincial Great Lakes priorities addressed in the 2021 COA include improving municipal wastewater and stormwater management, reducing plastic pollution and

excess road salt, restoring native species and habitats, improving climate resilience, and reducing excess nutrients and algal blooms.

Ontario is committed through the Great Lakes Protection Act, 2015 (GLPA) and COA to establish phosphorus load reduction targets and implement an action plan for the Lake Erie basin. The Canada-Ontario Lake Erie Action Plan (LEAP) is Canada and Ontario's domestic action plan to reduce phosphorus loads to Lake Erie by 40 per cent. Released in 2018, the LEAP identified more than 120 actions to help achieve the Lake Erie phosphorus load reduction targets to reduce harmful and nuisance algal blooms and decrease low oxygen zones. Ontario is working with Canada and partners including municipalities, conservation authorities, agricultural organizations, conservation organizations, and Indigenous communities to implement the LEAP. This includes actions to better manage wastewater and stormwater discharges; keep phosphorus on farmland and out of waterways through best management practices; restore natural heritage features such as wetlands; improve monitoring and science; and enhance communication and outreach.

2021 Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health:

[Canada-Ontario Great Lakes agreement | ontario.ca](#)

COA Summary:

[Summary of the Canada-Ontario Great Lakes agreement | ontario.ca](#)

Canada-Ontario Lake Erie Action Plan

[Canada-Ontario Lake Erie Action Plan | ontario.ca](#)

35. Great Lakes Protection Act, 2015

The *Great Lakes Protection Act, 2015* (GLPA) strengthens the province's ability to restore and protect the Great Lakes and St. Lawrence River, as well as the waterways that flow into them.

Ontario's Great Lakes Strategy was first released in 2012. The GLPA requires Ontario to report on progress made under Ontario's Great Lakes Strategy every three years. The first progress report was published in 2016 and the second progress report was published in 2023. Under the GLPA, Ontario is also required to undertake a review of its Great Lakes Strategy every six years.

[Protecting the Great Lakes | ontario.ca](#)

[Great Lakes Protection Act, 2015, S.O. 2015, c. 24 \(ontario.ca\)](#)

[Ontario's Great Lakes Strategy | ontario.ca](#)

[Archived - Ontario's Great Lakes Strategy 2016 progress report | ontario.ca](#)

[Ontario's Great Lakes Strategy: Second progress report | ontario.ca](#)

36. Joint Strategic Plan for the Management of Great Lakes Fisheries

The Joint Strategic Plan for the Management of Great Lakes Fisheries is a world-renowned model for ensuring that Canada and the U.S. agree on how best to manage and sustain common Great Lakes fish stocks. The Great Lakes Fishery Commission, a secretariat that coordinates fisheries management and research on the Great Lakes, coordinates implementation of this historic plan, originating in the 1950s and last revised in 1997. The Ministry of Natural Resources represents Ontario on four out of five Great Lakes Fishery Commission lake committees and on the Council of Lake Committees. The lake committees are responsible for developing fish-community goals and objectives for each Great Lake, as well as plans for managing, preserving and restoring Great Lakes fish species and their habitats.

The Joint Strategic Plan identifies the need for an ecosystem approach to Great Lakes fishery management, recognizing the impact of water quality and water use on fish habitat. This includes the potential for large-scale water diversions to impact fish populations in the Great Lakes. As a result, the plan sets out an Ecosystem Management Strategy for the Great Lakes which has unique strategic procedures requiring the identification and resolution of environmental issues such as water uses that may impede the achievement of the individual Great Lakes Fish-Community Objectives.

[Great Lakes Fishery Commission - Home \(glfc.org\)](http://glfc.org)

37. *Lake Simcoe Protection Act, 2008 and Lake Simcoe Protection Plan, 2009*

The *Lake Simcoe Protection Act, 2008* provides the legislative framework for the development and implementation of the Lake Simcoe Protection Plan. The delivery of Lake Simcoe Protection Plan policies is a shared responsibility led by provincial ministries, including the lead ministry, the Ministry of the Environment, Conservation and Parks, with the Ministry of Natural Resources and the Ministry of Agriculture, Food and Agribusiness, in collaboration with the federal government, municipalities, Indigenous communities, the Lake Simcoe Region Conservation Authority and others to improve the health of the watershed.

Ontario undertakes or supports monitoring and research in the Lake Simcoe watershed to track changes in water quality and tributary flow over time.

Ontario is also supporting actions from other water use sectors by encouraging the development and implementation of water conservation practices in the agricultural, tourism and construction sectors. For example, the Lake Simcoe Region Conservation Authority and local municipalities require new development to be accompanied by plans and studies that minimize changes to the water balance and protect recharge functions.

38. *Crown Forest Sustainability Act, 1994*

In Ontario, the *Crown Forest Sustainability Act* provides the legislative framework to sustainably manage public forests. Direction and tools in the framework maintain oversight and protect the environment.

The [Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales](#) requires forest managers to prevent or minimize adverse effects from forest operations. For example, when operating in proximity to a wetland or waterbody, the type and timing of road construction/ maintenance, renewal, harvest, and tending is prescribed to maintain water quality and wildlife habitat.

Specifically, section 4.1 of the Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales provides direction to maintain ecological functions of aquatic and wetland ecosystems and shoreline forest, including habitat suitability and productive capacity by:

- protecting the water quality, hydrology, and biota of lakes, ponds, rivers, and streams and the composition, pattern, and structure of the associated shoreline forest; and
- minimizing adverse effects from forest operations on provincially significant wetlands, rich lowland hardwood-dominated forest, non-forested wetlands, and woodland pools.

Forest policies are regularly reviewed and revised to improve their effectiveness and ensure direction is based on the most current science and knowledge available. The Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales was recently reviewed and is being revised to address aquatic and wetland ecosystems by:

- revising the potential sensitivity classification of lakes, ponds, rivers, and streams;
- increasing the protection of smaller, headwater streams during forest operations;
- integrating the standard wetland classification by providing wetland class-specific direction; and

ensuring hydrological flow in wetlands is maintained during road construction.

[Crown Forest Sustainability Act, 1994, S.O. 1994, c. 25 \(ontario.ca\)](#)

[Forest Management Guides](#)

39. Wetlands Conservation Partner Program

The [Wetlands Conservation Partner Program](#) has invested \$31M in capital funding over 5 years for wetland restoration and enhancement projects. The funding focuses on restoring and enhancing wetlands in priority areas across Ontario and supporting municipalities with stormwater management.

Since the program launched in 2020, about 560 wetland restoration and enhancement projects have been funded covering approximately 9,100 acres of wetlands in the Great Lakes watershed and connecting lakes and rivers. These projects are implemented by several conservation organizations, municipalities and Indigenous communities,

including Ducks Unlimited Canada, ALUS Canada, the Ontario Federation of Anglers and Hunters, Toronto Region Conservation Authority, Royal Botanical Gardens, Bruce Peninsula Biosphere Association and the City of Brampton.

These projects are helping to improve water quality, mitigate excess stormwater flow, preserve and increase habitats for endangered species, prevent flooding, build climate change resiliency in the Great Lakes watersheds connect waterways, and increase economic activity throughout Ontario.

All program funds have been allocated to wetland projects ongoing until March 31, 2025.

Wetlands Conservation Partner Program

40. Ontario's Provincial Fish Strategy: Fish for the Future

Ontario's abundant aquatic resources support a diverse range of year-round recreational, commercial and First Nation and Métis fisheries. Together, these activities and their supporting industries are estimated to contribute more than \$1.74 billion annually to Ontario's economy. The province's Provincial Fish Strategy outlines goals, objectives and tactics for the dual purposes of improving the conservation and management of fisheries and the ecosystems on which fish communities depend, and promoting, facilitating and encouraging fishing as a social, economic and cultural activity in the province.

A Key Management Approach of the Provincial Fish Strategy is the ecosystem-based approach, where all ecosystem components, including humans and their interactions, are considered. In keeping with this, one of the goals of the Provincial Fish Strategy is 'Healthy Ecosystems that Support Self-Sustaining Native Fish Communities'. There are five objectives under this goal aimed at protecting and managing native fish populations and the diversity, connectivity, structure, and function of Ontario's aquatic ecosystems, as well as restoring or rehabilitating them where they are degraded. The objectives and tactics are also aimed at mitigating or adapting to large scale environmental changes and minimizing cumulative environmental effects of multiple stressors which can be much greater than any single stressor operating alone.

This goal is supported by the Ministry of Natural Resources' broad-scale monitoring program for inland lakes which aims to: describe the distribution of aquatic resources in Ontario lakes; identify stresses on these resources; track trends in indicators of the health of Ontario's fisheries, lake ecosystems and aquatic biodiversity; and assess and report on the status of fisheries in Ontario. A wide range of variables are monitored including: fish abundance, sex, length and weight; fish contaminant levels (in collaboration with the Ministry of the Environment, Conservation and Parks, Fish Contaminant Monitoring Program); lake temperature, oxygen levels, and overall water quality; presence and abundance of invasive species; and estimated fishing effort.

Intensive monitoring occurs on each of the Great Lakes to provide information on the fish communities and fisheries they support. These monitoring programs support decision-making used in managing the sustainability of recreational fisheries resources

and to inform the development of lake-specific Fish Community Objectives under the Joint Strategic Plan for Management of Great Lakes Fisheries and establish allowable harvest levels for fisheries within the lakes.

[Fishing | ontario.ca](https://www.ontario.ca/fishing)

[Ontario's provincial fish strategy | ontario.ca](https://www.ontario.ca/fish) to go directly to the Strategy.

41. Anishinabek/Ontario Fisheries Resource Centre (AOFRC)

The Anishinabek/Ontario Fisheries Resource Centre, established in 1995, continues to serve as an independent source of information on fisheries assessment, conservation, and management, promoting the value of both Western science and Indigenous knowledge of the land and water. Since its establishment, the AOFRC has completed over 500 fisheries projects with First Nations and government agencies across the province, including creel surveys, index netting projects, tagging studies, fish habitat inventories, and syntheses of fisheries data for formulating resource management plans. This type of information contributes to measuring the success of water conservation and fisheries management efforts.

[Anishinabek/Ontario Fisheries Resource Centre \(aofrc.org\)](https://aofrc.org)

42. Ontario Parks Water Conservation Initiatives

Ontario Parks is responsible for the operation and protection of 638 protected areas including 342 provincial parks and 296 conservation reserves. This land area covers 9.8 million hectares and is 9% of the province's land area and inland waters.

Over the last few years, Ontario Parks has undertaken several initiatives to conserve water use within parks. Initiatives include the use of low-flow fixtures in park washrooms, variable frequency driven distribution pumps, propane water heaters to reduce reliance on hydroelectric power, cold water meters in new buildings to monitor water usage, the use of polyethylene piping in water distribution systems where possible to reduce leakage, monitoring for water system leakage, identifying and making timely repairs, and during infrastructure renewal reducing the number of public water taps and locating them in more convenient spots for the public. While several of our operating parks are municipally connected to sewerage, most parks rely on septic treatment systems to safely return the water to the local environment.

Ontario Parks permanently protects thousands of square kilometres of water including lakes, rivers and wetlands. These areas are managed with a priority on ecological integrity, or environmental health, for the benefit of Ontarians and their visitors. This priority on ecological integrity is demonstrated at multiple scales; through a robust policy framework that outlines permitted activities, to protected area classifications that protect aquatic features (such as waterway class parks), to protected area-specific management plans that document values, pressures, vision, site objectives, and management direction in the form of site-specific management policies and implementation actions (e.g. wetland restoration).

43. Species at Risk Stewardship Program

The Species at Risk Stewardship Program is a funding program established under the *Endangered Species Act*, 2007 to encourage and support the protection and recovery of species at risk and their habitats through stewardship and research activities. Since 2007, Ontario has supported over 1,200 stewardship projects through the program. Program funding is available to a wide variety of individuals and groups. Examples of eligible aquatic-related activities could include inventory, monitoring, researching or education and outreach work related to aquatic species at risk, enhancing and protecting aquatic habitat of species at risk or the development and implementation of Best Management Practices to help avoid or mitigate threats to species such as American Eel, Redside Dace, or Spotted Gar.

[Species at Risk Stewardship Program | ontario.ca](#)

44. Eastern Habitat Joint Venture

The Eastern Habitat Joint Venture (EHJV) is a collaborative partnership of government and non-government organizations that work together to conserve wetlands and other habitats that are important to waterfowl and other migratory birds. Officially formed in 1989, the EHJV has helped to implement habitat conservation programs that support continental waterfowl objectives identified under the North American Waterfowl Management Plan (NAWMP). The EHJV also supports the mission of the North American Bird Conservation Initiative (NABCI), an inter-governmental and inter-agency initiative to conserve all native birds and the habitats that support them.

The EHJV, one of 25 Joint Ventures in North America, spans the six eastern-most Canadian provinces: Ontario, Québec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador. Ontario EHJV partners include the Government of Canada (Environment and Climate Change Canada – Canadian Wildlife Service), the Government of Ontario (Ministry of Natural Resources), Ducks Unlimited Canada, the Nature Conservancy of Canada and Birds Canada. The Ontario government, through the Ministry of Natural Resources has provided annual financial and/or in-kind support for wetland conservation by Ontario EHJV partners since 1994.

[The Eastern Habitat Joint Venture – Partners conserving habitat for migratory birds and people \(ehjv.ca\)](#)

45. Great Lakes Local Action Fund

The Great Lakes Local Action Fund was launched in 2020 and supports local projects that protect and restore coastal, shoreline and nearshore areas of the Great Lakes and the rivers and streams that flow into them. In the first funding round of the Great Lakes Local Action Fund, the Ontario government provided \$1.9 million in funding to 44 community-based projects that had a positive environmental impact on the Great Lakes, as well as social and/or economic benefits for communities.

In February 2022, Ontario launched the second round of the Fund. \$1.8 million was provided to 36 recipients, for projects that helped protect and improve the health of the Great Lakes and benefit local communities.

On June 5, 2024, Ontario launched another round of funding. This round will provide up to \$1.8M in 2025 to community-based projects working to increase climate change resiliency and protect or improve water quality in the Great Lakes.

Projects that contribute to Great Lakes protection and restoration support improved water quality and ecosystem health, which could also help to achieve water conservation and efficiency goals.

[Great Lakes Local Action Fund | ontario.ca](https://www.ontario.ca/great-lakes-local-action-fund)

**Great Lakes-St. Lawrence River Water Resources Regional
Body**

RESOLUTION NO. 2025-10

ADOPTING DECLARATION OF FINDING

For the Water Management Program Review and
Water Conservation and Efficiency Program Review
Government of Québec

I. BACKGROUND AND PURPOSE

A. The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (“Agreement”) is by, between and among the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, and Wisconsin, the Commonwealth of Pennsylvania, the Province of Ontario, and the Government of Québec, and certain provisions of the Agreement began to more fully come into force on March 8, 2015.

B. Article 300 of the Agreement requires each Party State and Province to submit a report to the Regional Body on actions taken by the State or Province to meet the provisions of the Agreement regarding that State’s or Province’s Water management and conservation and efficiency programs.

C. Following the Regional Body’s review of such reports pursuant to Article 300 of the Agreement, the Regional Body shall determine if that State or Province’s programs: (1) meet or exceed the provisions of the Agreement; or (2) do not meet the provisions of the Agreement; or (3) would meet the provisions of the Agreement if certain modifications were made and what options may exist to assist the jurisdiction in meeting the provisions of the Agreement.

D. Article 304, Paragraph 1 of the Agreement requires the Regional Body to identify Basin-wide Water conservation and efficiency objectives to assist the Parties in developing their Water conservation and efficiency programs by December 13, 2007, which were adopted by the Regional Body on December 13, 2007. Article 304, Paragraph 2 of the Agreement requires each Party State and Province to develop its own water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives, and develop and implement a water conservation and efficiency program, either voluntary or mandatory, within its jurisdiction based on the Party State’s and Province’s goals and objectives.

II. SUBMISSIONS BY GOVERNMENT OF QUÉBEC

The Regional Body has received the Government of Québec’s report on its Water management and conservation and efficiency programs under the Agreement, which is attached to this Resolution as Attachment A.

III. DECLARATION OF FINDING

Upon review of the submissions of the Government of Québec and the terms of the Agreement, the Regional Body finds that:

- A. Based on the report submitted by the Government of Québec, the Water Management Program presented by the Government of Québec meets or exceeds the current requirements of the Agreement.
- B. Based on the report submitted by the Government of Québec, the Water Conservation and Efficiency Program presented by the Government of Québec meets or exceeds the current requirements the Agreement.

Draft—For Discussion Purposes Only
November 11, 2025

ATTACHMENT A

Water Management and Conservation and Efficiency Programs—
Report to the Regional Body
Dated December 11, 2024

Province de Québec

Examen quinquennal du Programme de gestion de l'eau et du Programme de conservation et d'utilisation efficace de l'eau du Québec

11 décembre 2024

La province de Québec fournit ce qui suit au Conseil régional des ressources en eau des Grands Lacs et du fleuve Saint-Laurent (le « Conseil régional ») en vertu de l'article 300 de l'Entente sur les ressources en eaux durables du bassin des Grands Lacs et du fleuve Saint-Laurent (l'« Entente »).

Renseignements généraux

1. Personne-ressource prioritaire et entité de référence

Peter Stevenson, Directeur général

Direction générale de l'expertise et de la gestion hydrique du ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP) et représentant désigné du premier ministre auprès du Conseil régional des ressources en eau des Grands Lacs et du fleuve Saint-Laurent.

2. Lois, règlements et politiques veillant à l'application du Programme de gestion de l'eau du Québec

Les lois et règlements ci-après mentionnés se trouvent aux adresses suivantes :

Français : <https://www.quebec.ca/gouv/ministere/environnement/lois-et-reglements/>

Anglais :

<https://www.quebec.ca/en/government/ministere/environnement/statutes-and-regulations/>

a. Article 3.4 du Pacte¹ / article 300 de l'Entente

- Art. 31.101 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>

b. Article 4.1 du Pacte / article 301 de l'Entente

- Règlement sur la déclaration des prélèvements d'eau (RLRQ, c. Q-2, r. 14)
<http://legisquebec.gouv.qc.ca/fr/pdf/cr/Q-2,%20R.%2014.pdf>

c. Articles 4.2(2), 4.2(4) et 4.2(5) du Pacte / article 304 de l'Entente

- Consulter le sous-paragraphe *h* ci-dessous.

¹ Great Lakes — St. Lawrence River Basin Water Resources Compact. <https://www.glsregionalbody.org/laws-and-procedures/compact-agreement/>

d. Article 4.3 du Pacte / article 200 de l'Entente

Article 200 1 :

- Art. 31.90 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>

Article 200 2 :

- Art. 31.90 à 31.94 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Règlement concernant le cadre d'autorisation de certains projets de transfert d'eau hors du bassin du fleuve Saint-Laurent (RLRQ, c. Q-2, r. 5.1)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%205.1>
- Art. 170 du Règlement sur l'encadrement d'activités en fonction de leur impact sur l'environnement (Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

Article 200 3 :

- Art. 22 par. 2, 31.74 et 31.76 de la Loi sur la qualité de l'environnement
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Art. 31.95 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Titre IV, Chapitre 1 du Règlement sur l'encadrement d'activités en fonction de leur impact sur l'environnement (Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

e. Articles 4.8, 4.9 et 4.13 du Pacte / articles 200, 201 et 208 de l'Entente

Article 200 :

- Consulter la section « d. Article 4.3 du Pacte / article 200 de l'Entente » ci-dessus.

Article 201 :

- Art. 31.90 à 31.94 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Règlement concernant le cadre d'autorisation de certains projets de transfert d'eau hors du bassin du fleuve Saint-Laurent (RLRQ, c. Q-2, r. 5.1)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%205.1>
- Art. 169 et 170 du Règlement sur l'encadrement d'activités en fonction de leur impact sur l'environnement (Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

Article 208 :

- Art. 31.74, 31.74.1 et 31.75 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>

f. Article 4.10 du Pacte / article 206 de l'Entente

- Art. 31.74 et 31.74.1 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Art. 31.91 à 31.93 et 31.95 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Règlement sur le prélèvement des eaux et leur protection (RLRQ, c. Q-2, r. 35.2),
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%2035.2>
- Articles 166 à 176 du Règlement sur l'encadrement d'activités en fonction de leur impact sur l'environnement (Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

g. Article 4.11 du Pacte / article 207 de l'Entente

Article 207.1, paragraphes a et b :

- Règlement sur la déclaration des prélèvements d'eau (RLRQ, c. Q-2, r. 14)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%2014>
Les prélèvements autorisés entre le 1^{er} septembre 2011 et l'entrée en vigueur de l'article 31.95 de la Loi sur la qualité de l'environnement en 2014 sont considérés comme ayant déjà été effectués au 1^{er} septembre 2011 et ont été ajoutés à la liste correspondante.

Article 207.2 :

- Art. 31.96 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Art. 169 du Règlement sur l'encadrement d'activités en fonction de leur impact sur l'environnement (Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

Article 207.5 :

- Art. 167 et 169 du Règlement sur l'encadrement d'activités en fonction de leur impact sur l'environnement (Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

Article 207.9 :

- Art. 31.90 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>

h. Article 304 de l'Entente

- Art. 31.101 de la Loi sur la qualité de l'environnement (RLRQ, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>

Programme de gestion de l'eau

1. Résumé de la portée du Programme de gestion de l'eau du Québec et des seuils stipulés

La Loi affirmant le caractère collectif des ressources en eau et favorisant une meilleure gouvernance de l'eau et des milieux associés (RLRQ, chapitre C-6.2) (la « Loi sur l'eau ») a modifié la Loi sur la qualité de l'environnement (LQE) de façon à y intégrer les dispositions de l'Entente.

Dérivations (transferts)

Aux fins de l'article 201 de l'Entente, intitulé « Exceptions à l'interdiction des dérivations », les articles 31.90 à 31.94 de la LQE s'appliquent à l'égard du transfert d'eau hors bassin. Adopté en 2011, le Règlement concernant le cadre d'autorisation de certains projets de transfert d'eau hors du bassin du fleuve Saint-Laurent rend possible l'application de l'article 31.92 de la LQE, qui doit être respecté pour obtenir l'autorisation de transférer de l'eau hors du bassin conformément aux normes d'exception à l'Entente, et l'article 170 du Règlement sur l'encadrement d'activités en fonction de leur impact sur l'environnement (Q-2, r. 17.1; REAFIE), en vigueur depuis le 31 décembre 2020, précise les renseignements nécessaires à l'évaluation de l'autorisation de ces demandes de transfert.

Nouveaux prélèvements et augmentation des quantités prélevées

Par ailleurs, la Loi sur l'eau a notamment introduit un régime d'autorisation des prélèvements d'eau dans la LQE, lequel vise les nouveaux prélèvements depuis le 14 août 2014, mais aussi les prélèvements existants au 14 août 2014 (en vertu des articles 33 et 34 de la Loi sur l'eau). En vertu du paragraphe 2 de l'article 22 de la LQE, nul ne peut, sans obtenir au préalable une autorisation du ministre, réaliser un projet comportant un prélèvement d'eau, y compris les travaux et ouvrages que nécessite un tel prélèvement. Le REAFIE précise l'encadrement de ces activités soumises à une autorisation ministérielle (entre le 14 août 2014 et le 31 décembre 2020, des dispositions équivalentes similaires étaient dans le Règlement sur le prélèvement des eaux et leur protection [Q-2, r. 35.2; RPEP]).

Ce régime d'autorisation vise tout prélèvement de 75 000 litres par jour en sol québécois (sauf exception). L'article 203 de l'Entente, intitulé « Norme de décision pour la gestion des prélèvements et consommations d'eau », impose des dispositions particulières à tout prélèvement sur le territoire d'application. Ces dispositions sont celles de l'article 31.95 de la LQE, qui concerne les prélèvements sur ledit territoire, qu'il assujettit à ladite Norme de décision. Cette norme précise un seuil d'application moyen de 379 000 litres ou plus par jour à l'article 31.95. Des exigences de protection de ces prélèvements et des ressources en eau souterraine et de surface sont aussi précisées dans plusieurs règlements d'application de la LQE, notamment le RPEP.

Déclaration

En 2011, le Québec a adopté le Règlement modifiant le Règlement sur la déclaration des prélèvements d'eau, qui lui donne le droit de recueillir de l'information sur les prélèvements et la consommation dans le bassin du fleuve Saint-Laurent et sur les volumes d'eau qui en sont transférés. En plus de donner à la province les moyens de respecter l'article 301 de l'Entente,

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ce règlement modifié renforce les dispositions de la LQE relatives aux transferts d'eau et le cadre d'autorisation de prélèvement, notamment par l'application d'un seuil à tout nouveau prélèvement et à toute augmentation de la quantité prélevée. Il vise de plus à induire des comportements plus responsables au regard de l'utilisation de l'eau en amenant les plus importants préleveurs d'eau au Québec, par une reddition de comptes sur les prélèvements effectués, à prendre davantage conscience de la valeur intrinsèque de cette ressource et de la responsabilité de chacun de la préserver en qualité et en quantité suffisantes pour répondre aux besoins des générations actuelles et à venir.

2. Description de la méthode de gestion des prélèvements d'eau par secteur, par source, par quantité et par emplacement en vigueur au Québec

- a. Secteurs : approvisionnement public en eau, auto-approvisionnement commercial et institutionnel, auto-approvisionnement à des fins d'irrigation, auto-approvisionnement à des fins d'élevage, auto-approvisionnement industriel, auto-approvisionnement pour la production d'énergie thermoélectrique (eau de refroidissement recyclée ou non recyclée), production d'hydroélectricité hors cours d'eau ou en cours d'eau (volontaire) et autres types d'auto-approvisionnement**

Autorisation de prélèvement d'eau

L'article 22 (paragraphe 2) de la LQE exige une autorisation du ministre avant de réaliser tout projet comportant un prélèvement d'eau, y compris les travaux et ouvrages que nécessite un tel prélèvement, sauf exception. Les exceptions sont décrites aux articles 31.74 et 31.75 de la LQE. Les exceptions sont précisées également aux articles 168 et 173 du REAFIE (les prélèvements inférieurs à 75 000 litres par jour et desservant 20 personnes ou moins à des fins de consommation humaine ne sont pas assujettis à une autorisation). Selon l'article 31.81 de la LQE, cette autorisation est valide pendant 10 ans, sauf pour un prélèvement visant l'alimentation en eau potable d'un système d'aqueduc exploité par une municipalité.

Les prélèvements existants à l'entrée en vigueur de cette exigence sont également assujettis à une autorisation, en vertu des articles 33 et 34 de la Loi sur l'eau.

La décision du ministre de refuser ou d'accepter – avec ou sans condition – un prélèvement d'eau doit être basée sur les dispositions des articles 31.76, 31.92 et 31.95 de la LQE.

Déclaration de prélèvements

Depuis 2011, le Règlement sur la déclaration des prélèvements d'eau (RDPE) exige de tout préleveur qui prélève de l'eau dans le bassin du fleuve Saint-Laurent (territoire de l'Entente) à partir d'un site de prélèvement dont la capacité nominale de prélèvement des installations est égale ou supérieure à 379 000 litres par jour ou de tout préleveur qui détient une autorisation pour prélever un volume inférieur à la capacité nominale de prélèvement de ses installations, qu'il déclare annuellement au ministre les volumes prélevés et consommés sur une base mensuelle dans ce bassin et les volumes transférés hors bassin, le cas échéant.

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Selon l'article 18.7 de ce règlement, cette exigence s'applique à compter du 1^{er} janvier 2016 pour les prélèvements d'eau effectués à des fins agricoles ou piscicoles au cours de l'année 2015.

b. Source d'eau : eau souterraine, eau de surface des Grands Lacs et du fleuve Saint-Laurent ou eau de surface d'une autre provenance

Le régime d'autorisation ministérielle de la LQE s'applique aux prélèvements d'eau souterraine et de surface partout au Québec.

Quiconque déclare un volume d'eau prélevé doit également indiquer, entre autres, sa provenance (eau souterraine ou eau de surface) et si le site de prélèvement se situe sur le territoire de l'Entente ou non.

c. Quantité : seuils réglementaires, volumes, taux et exigences de déclaration

Autorisation de prélèvement d'eau

L'article 31.75 de la LQE précise les seuils d'application du régime d'autorisation de prélèvement d'eau dans toute la province. L'autorisation ministérielle est obligatoire pour tout prélèvement égal ou supérieur à 75 000 litres par jour, mais aussi pour certains prélèvements dont le débit maximum est inférieur à 75 000 litres par jour (par exemple les prélèvements desservant plus de 20 personnes à des fins de consommation humaine ou l'eau qui est prélevée dans le bassin du fleuve Saint-Laurent pour être transférée hors de ce bassin).

L'article 31.95 de la LQE fixe le seuil d'application à une quantité ou une consommation moyenne de 379 000 litres ou plus par jour pour tout nouveau prélèvement et toute augmentation de la quantité prélevée sur le territoire de l'Entente.

Quant à un transfert d'eau hors bassin, l'article 31.92 fixe le seuil d'application à une quantité moyenne d'eau de 379 000 litres ou plus par jour pour les transferts destinés à une municipalité chevauchant la limite du bassin du fleuve Saint-Laurent. La méthode de calcul à appliquer est précisée à l'article 7 du Règlement concernant le cadre d'autorisation de certains projets de transfert d'eau hors du bassin du fleuve Saint-Laurent de même qu'aux articles 166 et 167 du REAFIE.

Les articles 16, 17, 18, 169, 171 et 365 du REAFIE indiquent les renseignements requis pour toute demande d'autorisation ministérielle de prélèvement en vertu de l'article 31.75 de la LQE. Ainsi, une telle demande doit comprendre une description des sites de prélèvement et de rejet, les usages prévus et les volumes de prélèvement, de consommation et de rejet pour différentes périodes de la journée ou de l'année. Les articles 33 et 34 de la LQE ainsi que l'article 365 du REAFIE précisent de façon similaire les renseignements à fournir pour une demande de renouvellement d'une autorisation et l'article 170 du REAFIE précise les documents additionnels à fournir dans le cas d'un transfert d'eau hors bassin.

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Déclaration de prélèvements

Selon le RDPE, tout prélèvement de 75 000 litres ou plus par jour, sauf exception, doit faire l'objet d'une déclaration annuelle du volume prélevé. Dès 2025, ce seuil sera abaissé à 50 000 litres ou plus par jour. Ce volume correspond au volume journalier maximal, c'est-à-dire que dès qu'un préleveur prélève cette quantité une journée dans l'année, il est assujéti au règlement pour cette année et pour toutes les années subséquentes.

De plus, tout préleveur qui a un site de prélèvement qui se situe sur le territoire de l'Entente dont les ouvrages ou les installations ont une capacité nominale de prélèvement égale ou supérieure à 379 000 litres par jour, ou qui a une autorisation pour prélever de l'eau, doit déclarer annuellement les volumes prélevés et consommés sur le territoire de l'Entente, ainsi que les volumes transférés hors de ce territoire, le cas échéant.

La déclaration annuelle doit être transmise au ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs au plus tard le 31 mars de l'année qui suit l'année civile qui fait l'objet de la déclaration.

d. Emplacement : à l'échelle de l'État ou de la province ou dans le bassin des Grands Lacs et du fleuve Saint-Laurent

Délimitation du territoire de l'Entente

L'article 31.89 de la LQE définit la partie québécoise du territoire de l'Entente et une carte du territoire est jointe à l'annexe 0.A de la LQE et sur d'autres supports informatiques.

Déclaration et autorisation de prélèvement d'eau

Il est obligatoire de préciser, notamment, les données géoréférencées de tout site de prélèvement visé et des points de rejet (lorsqu'il y a transfert d'eau hors bassin en ce qui concerne la déclaration et pour toutes demandes d'autorisation de prélèvement d'eau).

e. Autres exemptions particulières permises par l'Entente et le Pacte

L'article 31.75 (deuxième alinéa) de la LQE précise qu'aucune autorisation n'est exigée pour un prélèvement temporaire et non récurrent qui est effectué dans une situation d'urgence ou à des fins humanitaires ou de sécurité civile.

Certaines exceptions à la déclaration sont aussi énumérées à l'article 3 et à l'article 18.2 du Règlement sur la déclaration des prélèvements d'eau.

3. Description du mode d'application des dispositions de la norme d'examen et de décision

a. Norme de décision pour la gestion des prélèvements et consommations d'eau

En plus des dispositions de l'article 31.76 applicables à toute autorisation de prélèvement d'eau, la LQE comprend des dispositions particulières applicables aux prélèvements d'eau

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dans le bassin du fleuve Saint-Laurent, énoncées aux articles 31.88 à 31.104, dont l'interdiction de transfert hors bassin à l'article 31.90.

L'article 31.95 de la LQE énonce les critères d'autorisation propres à la Norme de décision pour la gestion des prélèvements et consommations d'eau. Les voici :

1° les eaux prélevées sont retournées en totalité au bassin, préférablement dans le bassin de l'affluent direct du fleuve d'où elles proviennent le cas échéant, moins la quantité d'eau allouée pour des fins de consommation;

2° la quantité d'eau prélevée ou consommée ne cause aucun impact négatif significatif, individuel ou cumulatif, sur la quantité ou la qualité des eaux du bassin et des ressources naturelles qui en dépendent;

3° le prélèvement ou la consommation d'eau est soumis à des mesures de conservation de l'eau déterminées par règlement du gouvernement, ou par le ministre en vertu d'autres dispositions de la présente Loi;

4° la quantité d'eau prélevée ou consommée est raisonnable compte tenu, notamment :

- a) de l'usage auquel est destinée l'eau;*
- b) des mesures prises pour utiliser efficacement et conserver l'eau, dont celle provenant des approvisionnements existants;*
- c) de l'équilibre entre le développement économique, social et environnemental;*
- d) des impacts prévisibles sur l'environnement et sur les autres usages, ainsi que des moyens prévus pour éviter ou atténuer ces impacts;*
- e) du potentiel d'approvisionnement de la source d'eau et des autres sources qui sont interconnectées.*

b. Norme d'exception pour les dérivations

Adoptée en 2009 et modifiée en 2017, la Loi affirmant le caractère collectif des ressources en eau et favorisant une meilleure gouvernance de l'eau et des milieux associés (RLRQ, chapitre C-6.2) (la « Loi sur l'eau »), par l'intermédiaire de la LQE, introduisait dans la législation québécoise les dispositions de l'Entente qui régissent les transferts d'eau hors du bassin du fleuve Saint-Laurent ainsi que les critères d'exception correspondants. En voici l'essentiel, tiré de l'article 31.90 de la LQE :

Le transfert hors du bassin du fleuve Saint-Laurent des eaux qui y sont prélevées est interdit, sous réserve des exceptions qui suivent et de l'article 31.91.

Cette interdiction n'est pas applicable aux prélèvements d'eau, effectués dès l'origine à des fins de transfert hors bassin, qui ont été autorisés avant le 1^{er} septembre 2011 ou qui, sans avoir été autorisés, ont légalement débuté avant cette date. À moins qu'elle ne soit augmentée dans les conditions définies par les articles 31.91 à 31.93, la quantité d'eau issue d'un tel prélèvement et transférée hors bassin ne peut toutefois excéder la quantité autorisée à cette date ou, en l'absence d'autorisation ou si l'autorisation ne fixe pas de plafond, la capacité du système de prélèvement à cette même date.

Cette interdiction n'est pas non plus applicable aux eaux prélevées :

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1^o pour être commercialisées comme eau de consommation humaine, pourvu que l'emballage de ces eaux soit effectué dans le bassin et dans des contenants de 20 litres ou moins;

2^o pour entrer dans la fabrication, la conservation ou le traitement, dans le bassin, de produits;

3^o pour approvisionner des véhicules, tels les navires ou avions, que ce soit pour les besoins des personnes ou des animaux transportés, ou pour le ballastage ou d'autres besoins liés au fonctionnement de ces véhicules;

4^o pour des fins humanitaires ou de sécurité civile, ou dans des situations d'urgence, à condition que le prélèvement soit temporaire et non récurrent.

L'article 31.91 de la LQE ajoute :

En outre des conditions prescrites par les articles 31.92 et 31.93 et de celles que peut prescrire le gouvernement ou le ministre en vertu d'autres dispositions de la présente loi, le transfert hors du bassin du fleuve Saint-Laurent des eaux provenant d'un nouveau prélèvement dans ce bassin, ou l'augmentation de la quantité d'eau transférée hors de ce bassin en provenance d'un tel prélèvement ou d'un prélèvement existant le 1^{er} septembre 2011, peut être autorisé dans les conditions suivantes :

1^o les eaux transférées hors bassin sont destinées en totalité à l'approvisionnement d'un système d'aqueduc desservant en tout ou en partie la population d'une municipalité locale dont le territoire est situé :

a) soit situé en partie dans le bassin du fleuve Saint-Laurent et en partie à l'extérieur de ce bassin;

b) soit situé à la fois entièrement à l'extérieur du bassin du fleuve Saint-Laurent et entièrement dans une municipalité régionale de comté dont le territoire se trouve en partie à l'intérieur de ce bassin et en partie à l'extérieur de ce même bassin;

2^o les eaux transférées hors bassin sont en totalité retournées au bassin, préférablement dans le bassin de l'affluent direct du fleuve d'où elles ont été prélevées le cas échéant, moins la quantité d'eau allouée pour des fins de consommation et moins la quantité d'eau prélevée à l'extérieur du bassin qui peut être ajoutée aux eaux retournées au bassin lorsque celles-ci :

a) font partie d'un système d'approvisionnement ou de traitement d'eaux usées où sont mélangées des eaux en provenance à la fois de l'intérieur et de l'extérieur du bassin;

b) font l'objet d'un traitement pour être conformes aux normes de rejet ou de qualité applicables et pour prévenir l'introduction dans le bassin d'espèces envahissantes;

c) se composent d'un maximum d'eau prélevée à l'intérieur du bassin et d'un minimum d'eau prélevée à l'extérieur.

Aux fins du présent article, « nouveau prélèvement » s'entend de tout prélèvement autorisé après le 1^{er} septembre 2011.

Le ministre publie à la Gazette officielle du Québec la liste des municipalités locales et des municipalités régionales de comté dont le territoire est situé en partie dans le bassin du

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fleuve Saint-Laurent et en partie à l'extérieur de ce bassin et qui sont respectivement visées aux sous-paragraphe a et b du paragraphe 1^o du premier alinéa.

L'article 31.92 de la LQE dit :

S'il implique une quantité moyenne d'eau de 379 000 litres ou plus par jour, ou une quantité moindre déterminée par règlement du gouvernement, qui est destinée à alimenter un système d'aqueduc desservant une municipalité visée au sous-paragraphe a du paragraphe 1^o du premier alinéa de l'article 31.91, le transfert hors bassin des eaux provenant d'un nouveau prélèvement ou de l'augmentation d'un prélèvement visés à cet article ne peut être autorisé que si les conditions suivantes sont respectées :

1^o le transfert ne peut raisonnablement être évité ou diminué par une utilisation efficace de l'eau ni par la conservation de l'eau provenant d'approvisionnements existants;

2^o la quantité d'eau transférée est raisonnable compte tenu de l'usage auquel est destinée cette eau;

3^o le transfert ne cause aucun impact négatif significatif, individuel ou cumulatif, sur la qualité ou la quantité des eaux du bassin et des ressources naturelles qui en dépendent;

4^o le transfert est soumis à des mesures de conservation de l'eau déterminées par règlement du gouvernement, ou par le ministre en vertu d'autres dispositions de la présente loi.

S'il implique une consommation moyenne d'eau de 19 millions de litres ou plus par jour, le transfert d'eau hors bassin visé au premier alinéa est également subordonné à l'examen du Conseil régional des ressources en eaux des Grands Lacs et du fleuve Saint-Laurent créé en vertu de l'Entente.

L'article 31.93 de la LQE dit :

Le transfert hors bassin des eaux qui proviennent d'un nouveau prélèvement ou de l'augmentation d'un prélèvement visés à l'article 31.91 et qui sont destinées à alimenter un système d'aqueduc desservant une municipalité visée au sous-paragraphe b du paragraphe 1^o du premier alinéa de cet article, ne peut être autorisé que si les conditions suivantes sont respectées, en outre de celles prescrites par les paragraphes 1^o à 4^o du premier alinéa de l'article 31.92 :

1^o il n'existe, à l'intérieur du bassin où est située la municipalité locale concernée, aucune source d'approvisionnement qui est raisonnablement accessible et en mesure de satisfaire les besoins en eau potable;

2^o la quantité d'eau transférée ne met aucunement en danger l'intégrité de l'écosystème du bassin;

3^o le transfert a fait l'objet d'un examen par le Conseil régional des ressources en eaux des Grands Lacs et du fleuve Saint-Laurent.

L'article 31.94 de la LQE ajoute :

Lorsqu'une demande d'autorisation est, aux termes des articles 31.92 ou 31.93, subordonnée à l'examen du Conseil régional des ressources en eaux des Grands Lacs et du fleuve Saint-Laurent, le ministre doit, après en avoir informé le demandeur :

1^o donner avis de la demande au Conseil ainsi qu'à chacune des parties à l'Entente;

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2° transmettre au Conseil le dossier de la demande d'autorisation comprenant tous les documents ou renseignements fournis par le demandeur ainsi que son avis sur la conformité de la demande aux conditions prescrites par les articles 31.91 à 31.93 et par l'Entente;

3° sur demande du Conseil ou de l'une des parties à l'Entente, lui fournir tout document ou renseignement supplémentaire qu'il estime nécessaire à l'examen de la demande d'autorisation.

Le ministre doit également informer le public que la demande d'autorisation est soumise à l'examen du Conseil.

Après en avoir fait l'examen dans les conditions prévues par l'Entente et par les règles de procédure qu'il établit, le Conseil fait une déclaration sur la conformité de la demande d'autorisation aux conditions prescrites par l'Entente. Cette déclaration est transmise au ministre et rendue accessible au public selon les modalités fixées par le Conseil.

Le ministre ou le gouvernement, selon le cas, tient compte de la déclaration du Conseil lorsqu'il prend sa décision relativement à cette demande.

Adopté en 2011, le Règlement concernant le cadre d'autorisation de certains projets de transfert d'eau hors du bassin du fleuve Saint-Laurent énonce les dispositions à respecter pour obtenir l'autorisation de transférer de l'eau hors du bassin. Les renseignements ou documents permettant au ministre de s'assurer du respect de ces dispositions sont exigés dans le cadre de l'analyse de la demande d'autorisation de prélèvement d'eau (en vertu des articles 16 à 18 et 169 à 172 du REAFIE et de l'article 24 de la LQE).

4. Résumé des exigences provinciales en matière de prélèvement, de consommation et de dérivation, et en matière de bases de données

Adopté en 2009, puis modifié en 2011 pour inclure certaines dispositions de l'Entente, le Règlement sur la déclaration des prélèvements d'eau (RDPE) donne aux autorités québécoises le droit de recueillir des renseignements sur les volumes d'eau prélevés et consommés dans le bassin du Saint-Laurent et ceux qui seront transférés à l'extérieur du bassin. Cette information sert également à calculer les impacts cumulatifs des prélèvements d'eau sur les débits des eaux de surface.

L'article 9 du RDPE indique quels renseignements le préleveur est tenu de déclarer annuellement pour les prélèvements d'eau totalisant un volume moyen quotidien de 75 000 litres ou plus par jour (50 000 L/j à partir de 2025). Depuis 2024, ce seuil est basé sur un volume journalier maximal et tout préleveur qui atteint ce seuil une fois dans l'année doit déclarer ses prélèvements pour cette année et pour toutes les années subséquentes. L'article 9.1 indique les renseignements à consigner dans le cas où les prélèvements sont inférieurs à ce seuil.

L'article 18.7 du RDPE précise que tout préleveur qui prélève de l'eau dans le bassin du fleuve Saint-Laurent à partir d'un site de prélèvement dont les ouvrages ou les installations ont une capacité nominale de prélèvement égale ou supérieure à 379 000 litres par jour doit aussi fournir des renseignements supplémentaires relativement à la consommation d'eau ou au transfert d'eau hors du bassin du fleuve Saint-Laurent. Selon l'article 18.3, lorsque le préleveur

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a une autorisation de prélèvement d'eau, il doit déclarer ces volumes même lorsque la capacité nominale de ses installations est inférieure au seuil prescrit à l'article 18.7. Avec ces renseignements en main, le Québec est en mesure de respecter son engagement à l'égard de l'article 301 de l'Entente.

Dans le RDPE, la définition de « consommation d'eau » est la même qu'à l'article 31.89 de la LQE, conformément à l'Entente, c'est-à-dire qu'elle correspond à la « [...] *quantité d'eau prélevée ou retenue du bassin et qui est perdue ou non retournée au bassin en raison de son évaporation, de son intégration à un produit ou pour toute autre raison.* »

Les premier et deuxième alinéas de l'article 18.7 du RDPE précisent les renseignements supplémentaires à fournir lors d'une déclaration relative à un prélèvement d'eau en vue d'un transfert d'eau. Ces renseignements doivent inclure les volumes d'eau transférés hors du bassin du fleuve Saint-Laurent (en litres), accompagnés des données géoréférencées des lieux d'utilisation de l'eau ainsi transférée, de même que les volumes d'eau rejetés ou retournés au bassin du fleuve Saint-Laurent (en litres), accompagnés des données géoréférencées des lieux de rejet de ces eaux ou, le cas échéant, de retour de ces eaux.

Conformément à l'article 207 de l'Entente, l'article 18.4 du RDPE précise quels renseignements fournir au plus tard le 31 mars 2012 afin que le Québec puisse déterminer les volumes d'eau de référence des prélèvements. Cette référence doit servir à fixer le seuil d'application aux fins du régime d'autorisation de prélèvement d'eau.

Le titre II du RDPE s'applique à tout prélèvement destiné aux secteurs concernés par l'Entente et la Résolution n° 13 du Conseil régional, à l'exception des installations hydroélectriques à même le cours d'eau, pour lesquelles la collecte et la transmission de données sont facultatives selon la Résolution n° 13.

Tout prélèvement assujéti au RDPE effectué du 1^{er} janvier au 31 décembre d'une année donnée doit faire l'objet d'une déclaration au plus tard le 31 mars de l'année qui suit l'année civile qui fait l'objet de la déclaration.

Le Québec a accordé aux entreprises agricoles et piscicoles un délai supplémentaire pour la première déclaration annuelle de leurs prélèvements. En effet, selon le cinquième alinéa de l'article 18.7 du RDPE, qui renvoie à l'article 9 du même règlement, ces entreprises peuvent produire leur première déclaration annuelle au plus tard le 31 mars 2016 pour les prélèvements effectués en 2015 sur le territoire de l'Entente.

Selon le deuxième alinéa de l'article 9 susmentionné, la transmission des déclarations annuelles doit se faire électroniquement. Néanmoins, lorsqu'un préleveur n'a pas d'accès à Internet, les données peuvent être transmises en format papier.

L'article 5 du RDPE indique que les volumes d'eau prélevés se calculent par mesure directe rapportée par un équipement de mesure, sous réserve de l'article 6, qui renvoie au chapitre IV. Advenant qu'un préleveur ne possède pas d'équipement de mesure, il peut estimer les volumes prélevés avec des mesures indirectes ou ponctuelles, mais il doit ensuite obtenir l'attestation d'un professionnel, conformément au troisième alinéa de l'article 7. L'article 8 du RDPE stipule qu'un préleveur qui aménage ou modifie un site de prélèvement doit le munir d'un équipement de mesure qui respecte les dispositions du chapitre IV.

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Dans tous les secteurs, le calcul des volumes d'eau consommés peut se faire par mesure directe ou par estimation. Dans le premier cas, l'équipement de mesure doit répondre aux exigences relatives au calcul des volumes d'eau prélevés (article 6 du RDPE). Dans le second cas, un professionnel doit réaliser l'estimation et non seulement l'attester (alinéa 4 de l'article 18.7 qui fait référence à l'alinéa 3 de l'article 18.4). Si l'eau prélevée est destinée à un système d'aqueduc, le déclarant peut indiquer une consommation égale à 15 % de ses prélèvements sans avoir à justifier ce pourcentage, selon le paragraphe 3 de l'article 18.4.

L'article 2 du RDPE indique que « professionnel » s'entend au sens de l'article 1 du Code des professions du Québec, qui institue l'Office des professions du Québec et le mandate de régir tout exercice professionnel, comme les activités mentionnées dans le RDPE.

Le *Guide de soutien technique pour la clientèle* explique les méthodes de calcul et d'estimation approuvée par le gouvernement du Québec :

<http://www.environnement.gouv.qc.ca/eau/prelevements/Guide-soutien-clientele.pdf>

Les dispositions réglementant la détermination des volumes d'eau prélevés et consommés s'appliquent également aux transferts d'eau hors du bassin du fleuve Saint-Laurent ou vers celui-ci.

Tous les renseignements fournis sont saisis dans la base de données provinciale *Gestion des prélèvements d'eau* (GPE).

5. Demande d'autorisation de prélèvement au Québec

Autorisation de prélèvement d'eau

Les informations et les formulaires de demande d'autorisation ministérielle d'un prélèvement d'eau, y compris un formulaire spécifique aux prélèvements effectués sur le territoire de l'Entente, sont disponibles à l'adresse suivante :

<https://www.environnement.gouv.qc.ca/autorisations/autorisations-ministerielles.htm>

Déclaration de prélèvements d'eau

Page Internet du règlement :

<https://www.environnement.gouv.qc.ca/eau/prelevements/declaration.htm>

Page Internet à l'intention du secteur agricole :

<https://www.environnement.gouv.qc.ca/eau/prelevements/declaration-agriculture.htm>

Règlement sur la déclaration des prélèvements d'eau :

<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%2014>

L'accès au service en ligne pour le formulaire se trouve sur le site Internet du ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs :

<http://www.environnement.gouv.qc.ca/eau/prelevements/enligne.htm>

Le formulaire électronique est identique au formulaire papier.

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Le *Guide du préleveur* explique chaque étape à suivre pour remplir le formulaire, notamment la façon de saisir de l'information dans le système en ligne :

<https://www.environnement.gouv.qc.ca/eau/prelevements/demarche-pasapas.pdf>

Le *Guide de soutien technique pour la clientèle* aide le préleveur dans la mise en place d'un système d'évaluation des volumes d'eau :

<http://www.environnement.gouv.qc.ca/eau/prelevements/Guide-soutien-clientele.pdf>

Le *Guide de soutien aux entreprises agricoles pour l'application du Règlement sur la déclaration des prélèvements d'eau* vise les préleveurs agricoles :

<http://www.environnement.gouv.qc.ca/eau/prelevements/guide-applicationRDPE-entreprises-agricoles.pdf>

6. Description sommaire des mesures provinciales favorisant la compréhension scientifique des eaux du bassin et des eaux souterraines du bassin ainsi que de leur rôle dans la gestion des ressources hydriques du bassin, et description des mécanismes et mesures provinciaux soutenant une meilleure compréhension des répercussions individuelles et cumulatives des prélèvements d'eau, de la consommation d'eau et des dérivations sur l'écosystème du bassin

L'article 31.102 de la LQE, qui correspond à l'article 209 de l'Entente, stipule notamment ceci :

Le ministre est tenu de réaliser, en conformité avec les exigences de l'Entente, une évaluation des impacts cumulatifs des prélèvements ou consommations d'eau dans le bassin du fleuve Saint-Laurent sur l'écosystème de ce bassin, en particulier sur les eaux et les ressources naturelles qui en dépendent. [...]

Cette évaluation doit prendre en compte les principes de prévention et de précaution, de même que les effets des prélèvements ou consommations passés et de ceux qui seront vraisemblablement effectués dans le futur, ainsi que les effets du changement climatique et de toute autre situation susceptible de porter atteinte de façon significative aux écosystèmes aquatiques du bassin.

L'évaluation que prescrit le présent article doit être faite tous les cinq ans. Elle doit également être faite chaque fois que survient dans le bassin des Grands Lacs et du fleuve Saint-Laurent une perte moyenne de 190 millions de litres d'eau par jour, par rapport aux quantités consommées lors de l'évaluation précédente, ou encore lorsque l'une ou plusieurs des parties à l'Entente en font la demande.

Aux fins de réalisation de ces travaux et conformément aux visées scientifiques de l'Entente, le Québec travaille avec plusieurs partenaires québécois et canadiens à améliorer les connaissances et à développer des outils pour pouvoir évaluer les impacts cumulatifs des prélèvements d'eau et de la consommation d'eau à plusieurs échelles territoriales.

- Le Québec a établi des ententes avec Ouranos, le consortium québécois sur la climatologie régionale et l'adaptation aux changements climatiques, notamment pour développer des projets de recherche sur l'évolution des besoins et ressources en eau dans un contexte de changements climatiques et l'élaboration de mesures d'adaptation.

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- Le Québec participe aux travaux menés par le Conseil canadien des ministres de l'environnement sur la disponibilité de l'eau en changement climatique.
- Le Québec met au point une méthode et des outils pour évaluer les répercussions individuelles et cumulatives des prélèvements d'eau, qui serviront à l'analyse des demandes d'autorisation ministérielle en matière de prélèvement d'eau.
- Le Québec poursuit son Programme d'acquisition de connaissances sur les eaux souterraines du Québec pour compléter le portrait des eaux souterraines des régions en vue de les protéger et de renforcer leur durabilité. De plus amples renseignements sur le programme se trouvent à l'adresse suivante :
<http://www.environnement.gouv.qc.ca/eau/souterraines/programmes/acquisition-connaissance.htm>

7. Renseignements supplémentaires

Loi instituant le Fonds bleu et modifiant d'autres dispositions

En vigueur depuis le 1^{er} juillet 2023, cette loi crée le Fonds bleu qui est spécifiquement consacré à l'eau et qui vise à permettre le financement adéquat, prévisible et suffisant de toute mesure que le ministre peut réaliser pour assurer la protection, la restauration, la mise en valeur et la gestion des ressources en eau.

Les mesures financées par le Fonds bleu contribueront notamment à :

- une utilisation durable, équitable et efficace des ressources en eau;
- un meilleur contrôle et une meilleure prévention des inondations;
- une meilleure conservation des écosystèmes aquatiques;
- une meilleure gouvernance de l'eau dans le respect du régime de gouvernance établi par la Loi affirmant le caractère collectif des ressources en eau et favorisant une meilleure gouvernance de l'eau et des milieux associés (Loi sur l'eau).

Le Ministère prévoit que les mesures financées par le Fonds bleu seront regroupées dans un plan de mise en œuvre associé à la Stratégie québécoise de l'eau 2018-2030. Les mesures qui seront financées feront l'objet d'une reddition de comptes et d'un bilan annuel.

Programme de conservation et d'utilisation efficace de l'eau

1. État des orientations et objectifs de conservation et d'utilisation efficace de l'eau de la province comparativement à ceux du bassin

En 2011, le gouvernement du Québec a adopté les orientations et objectifs décrits au Programme de conservation et d'utilisation efficace de l'eau du Québec (le « Programme »). Pour rédiger les principes directeurs de celui-ci, il s'est inspiré du premier alinéa de l'article 304 de l'Entente, puis a adapté au contexte québécois les cinq objectifs régionaux que le Conseil régional a adoptés en décembre 2007.

De plus, avec la réaffirmation des objectifs de conservation et d'utilisation efficace de l'eau du bassin des Grands Lacs et du fleuve Saint-Laurent en décembre 2019, ainsi que la réalisation de l'examen quinquennal du Programme de gestion de l'eau et du Programme de conservation et d'utilisation efficace de l'eau du Québec, achevé en 2020, le Québec a mis à jour le Programme. Cette mise à jour inclut la poursuite des mesures dont les cibles n'avaient pas été atteintes ou partiellement atteintes, ainsi que l'ajout de nouvelles mesures liées aux initiatives gouvernementales mises en place depuis l'adoption du Programme en 2013.

Pour lui permettre de respecter l'article 304 (3) de l'Entente, le Québec participe actuellement aux travaux de mise à jour des objectifs qui ont été réaffirmés en 2019 par le Conseil régional (Résolution n° 30). À la suite de cette mise à jour, le Québec révisera le Programme en tenant compte notamment des modifications aux objectifs, s'il y a lieu. Le Programme prendra en compte l'évolution des nouvelles technologies et des connaissances scientifiques.

2. Résumé du Programme de conservation et d'utilisation efficace de l'eau

a. Mentions du Programme de conservation et d'utilisation efficace de l'eau du Québec mettant en œuvre des lois, règlements et politiques

L'article 304 de l'Entente, qui porte sur la mise en œuvre du Programme de conservation et d'utilisation efficace de l'eau, a force de loi au Québec grâce à l'article 31.101 de la LQE (<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>).

Le paragraphe 2 du premier alinéa de l'article 22 de la LQE stipule que « tout prélèvement d'eau, incluant les travaux et ouvrages que nécessite un tel prélèvement [...] » est subordonné à une autorisation du ministre. Les articles 33 et 34 de la Loi sur l'eau font en sorte que les prélèvements d'eau effectués au 14 août 2014 sont assujettis au régime d'autorisation des prélèvements d'eau au même titre que les prélèvements commencés après cette date ou à venir. Le REAFIE précise les renseignements et les documents qui doivent accompagner une demande d'autorisation ministérielle.

L'évaluation de toute demande d'autorisation de prélèvement ou de transfert d'eau sur le territoire de l'Entente doit se fonder notamment sur les mesures de conservation et d'utilisation efficace en place ou prévues afin de réduire la quantité prélevée.

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Le premier alinéa de l'article 31.76 de la LQE indique ceci :

Tout pouvoir d'autorisation visé par la présente loi relatif à un prélèvement d'eau doit être exercé de manière à assurer la protection des ressources en eau, notamment en favorisant une gestion durable, équitable et efficace de ces ressources ainsi qu'en prenant en compte le principe de précaution et les effets des changements climatiques.

Il pourrait s'agir, par exemple, de mesures de conservation et d'utilisation efficace.

De la même façon, l'article 25 de la LQE dit :

Lorsqu'il délivre une autorisation, le ministre peut prescrire toute condition, restriction ou interdiction qu'il estime indiquée pour protéger la qualité de l'environnement et pour éviter de porter atteinte à la vie, à la santé, à la sécurité, au bien-être ou au confort de l'être humain, aux écosystèmes, aux espèces vivantes ou aux biens [...].

L'article 26 de la LQE précise ceci :

Le ministre peut, s'il l'estime nécessaire, prescrire dans une autorisation toute norme ou toute condition, restriction ou interdiction différente de celles prescrites par règlement du gouvernement, pour l'un des motifs suivants :

1° il juge que celles qui sont applicables sont insuffisantes pour respecter la capacité de support du milieu récepteur;

2° il juge que celles qui sont applicables sont insuffisantes pour assurer la santé, la sécurité, le bien-être ou le confort de l'être humain, pour protéger les autres espèces vivantes ou pour éviter de porter atteinte aux biens [...].

En outre, le paragraphe 6 du premier alinéa de l'article 31.80 souligne que le gouvernement ou le ministre, selon le cas, peut prescrire toute condition, restriction ou interdiction portant sur :

les moyens propres à assurer la conservation de l'eau prélevée et son utilisation efficace ainsi qu'une réduction de la quantité d'eau consommée, perdue ou non retournée au milieu après usage, en tenant compte notamment des meilleures pratiques ou technologies économiquement accessibles ainsi que des particularités des équipements, installations ou procédés concernés.

L'article 31.92 de la LQE stipule notamment ceci :

S'il implique une quantité moyenne d'eau de 379 000 litres ou plus par jour, ou une quantité moindre déterminée par règlement du gouvernement, qui est destinée à alimenter un système d'aqueduc desservant une municipalité visée au sous-paragraphe a du paragraphe 1° du premier alinéa de l'article 31.91, le transfert hors bassin des eaux provenant d'un nouveau prélèvement ou de l'augmentation d'un prélèvement visés à cet article ne peut être autorisé que si les conditions suivantes sont respectées :

1° le transfert ne peut raisonnablement être évité ou diminué par une utilisation efficace de l'eau ni par la conservation de l'eau provenant d'approvisionnements existants;

2° la quantité d'eau transférée est raisonnable compte tenu de l'usage auquel est destinée cette eau;

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3° le transfert ne cause aucun impact négatif significatif, individuel ou cumulatif, sur la qualité ou la quantité des eaux du bassin et des ressources naturelles qui en dépendent;

4° le transfert est soumis à des mesures de conservation de l'eau déterminées par règlement du gouvernement, ou par le ministre en vertu d'autres dispositions de la présente loi.

S'il implique une consommation moyenne d'eau de 19 millions de litres ou plus par jour, le transfert d'eau hors bassin visé au premier alinéa est également subordonné à l'examen du Conseil régional des ressources en eaux des Grands Lacs et du fleuve Saint-Laurent créé en vertu de l'Entente.

Régime d'autorisation des projets impliquant un transfert d'eau hors bassin :

Le 22 juin 2011, le Québec a adopté le *Règlement concernant le cadre d'autorisation de certains projets de transfert d'eau hors du bassin du fleuve Saint-Laurent*, lequel a pour objectifs d'appliquer l'interdiction des transferts d'eau à l'extérieur du bassin et de préciser, pour certains cas d'exception précis, le cadre régissant les autorisations que peut délivrer le ministre ou le gouvernement, selon le cas, en vertu de la *Loi affirmant le caractère collectif des ressources en eau et visant à renforcer leur protection* (dont les dispositions légales visées ont été transférées dans la *Loi sur la qualité de l'environnement* en 2014).

Depuis le 31 décembre 2020, les dispositions réglementaires d'application de l'article 31.92 de la LQE sont inscrites à l'article 170 du *Règlement sur l'encadrement d'activités en fonction de leur impact sur l'environnement* (Q-2, r. 17.1; REAFIE), qui regroupe l'ensemble des dispositions réglementaires concernant les autorisations de prélèvements d'eau.

L'article 31.95 de la LQE stipule notamment ceci :

S'il implique une quantité ou consommation moyenne d'eau de 379 000 litres ou plus par jour [...], un nouveau prélèvement dans le bassin du fleuve Saint-Laurent, ou toute augmentation de ce prélèvement ou d'un prélèvement existant [...] ne peut être autorisé que si les conditions suivantes sont respectées [...] :

[...] 3° le prélèvement ou la consommation d'eau est soumis à des mesures de conservation de l'eau déterminées par règlement du gouvernement [...];

4° la quantité d'eau prélevée ou consommée est raisonnable compte tenu notamment :

[...] b) des mesures prises pour utiliser efficacement et conserver l'eau, dont celle provenant des approvisionnements existants [...].

Ainsi, le processus d'autorisation est un moyen de favoriser la mise en œuvre de mesures de conservation et d'utilisation efficace.

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b. Description sommaire du Programme de conservation et d'utilisation efficace de l'eau du Québec, avec indication des éléments volontaires et obligatoires

À l'amorce de la période quinquennale 2019-2024, le gouvernement du Québec a réalisé un exercice de mise à jour générale de son Programme de conservation et d'utilisation efficace de l'eau. Les mesures suivies durant la période et les résultats quinquennaux de ces mesures sont présentés à l'annexe 1. Ces renseignements permettent d'apprécier les efforts déployés par le Québec en réponse aux objectifs du programme.

La majorité des mesures sont sous la responsabilité volontaire du ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs, du ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec et du ministère des Affaires municipales et de l'Habitation. Quant aux mesures qui concernent les lois et les règlements, leur mise en œuvre est obligatoire.

3. Description de la stratégie provinciale de promotion de mesures de conservation de l'eau judicieuses sur le plan environnemental et économiquement réalisables

Le tableau suivant donne des précisions sur chaque objectif adopté dans le cadre de l'Entente (Résolution 6, accessible en anglais : [Draft Resolution #6--Conservation and Efficiency Objectives](https://www.melccfp.org/fr/Document/Document-6-Conservation-et-Efficacy-Objectives) [fqlsregionalbody.org](https://www.melccfp.org/fr/Document/Document-6-Conservation-et-Efficacy-Objectives)) et décrit les orientations par objectif qui figurent au Programme de conservation et d'utilisation efficace de l'eau du Québec.

OBJECTIFS	RÉFÉRENCE À LA LOI OU À UN PROGRAMME
Orienter les programmes vers une utilisation durable des eaux à long terme.	Le premier objectif relève directement des mesures gouvernementales visant la durabilité des prélèvements d'eau au Québec. Trois mesures ont été mises en place pour atteindre cet objectif. Elles portent sur la réduction de l'eau dans les immeubles gouvernementaux, la modification du Code de construction et une gestion durable de la ressource et des actifs en eau des municipalités.
Adopter et mettre en œuvre une gestion de l'offre et de la demande pour promouvoir une utilisation efficace et la conservation des ressources en eau.	Le deuxième objectif concerne le nouveau régime d'autorisation fondé sur des principes de saine gestion. Cet objectif est rattaché à plusieurs mesures en lien avec la Loi sur la qualité de l'environnement, comme l'établissement des mesures de conservation et d'utilisation efficace de l'eau, l'évaluation des impacts cumulatifs des prélèvements d'eau et l'approfondissement des connaissances sur les répercussions des changements climatiques sur l'offre et la demande.
Améliorer le suivi des programmes de conservation et d'utilisation efficace de l'eau et uniformiser le contenu des	Le troisième objectif concerne la coordination et le suivi du Programme, dont le MELCCFP est responsable. Les mesures visent à mettre au point un mode d'évaluation du Programme et à faire de celui-ci une source intarissable de connaissances.

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rapports présentés par les États et les provinces.	
Approfondir la science, la technologie et la recherche.	Le quatrième objectif porte sur l'approfondissement des connaissances sur la conservation de l'eau et son utilisation efficace. Les mesures mises en place consistent à renforcer les travaux de recherche, encourager les partenariats, soutenir des projets d'innovation et favoriser les progrès technologiques.
Concevoir des programmes de sensibilisation du public et promouvoir la communication d'information à tous les utilisateurs de l'eau.	Le cinquième objectif rassemble des moyens efficaces pour guider, soutenir et autonomiser les consommateurs d'eau en matière de conservation et d'utilisation efficace. Cet objectif compte sept mesures qui sont regroupées sous de grands thèmes : conscientiser les gens à l'importance de l'eau et de sa protection, les informer et les former, mettre au point de bons outils de communication et reconnaître les efforts accomplis.

4. Description du calendrier et de la progression de la mise en œuvre du Programme de conservation et d'utilisation efficace de l'eau du Québec

Depuis l'adoption et la publication du Programme de conservation et d'utilisation efficace de l'eau du Québec en 2013, un suivi annuel des mesures est effectué par le ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP). En tant que coordonnateur du Programme, le MELCCFP produit sous forme de tableau un rapport annuel en vertu de l'article 304 de l'Entente afin de suivre le progrès de chaque mesure. Ces rapports sont disponibles en français et en anglais à la page [Water Use Efficiency and Conservation – The Great Lakes-St. Lawrence River Water Resources Regional Body \(glsiregionalbody.org\)](https://www.glsiregionalbody.org)

L'évaluation annuelle 2024 du Programme de conservation et d'utilisation efficace de l'eau coïncide avec le bilan quinquennal du Programme. Ainsi, tous les collaborateurs du MELCCFP et des autres ministères provinciaux ont évalué la progression quinquennale de chaque mesure dont ils sont responsables. Le bilan est présenté à l'annexe 1 du présent document.

Annexe 1. Programme de conservation et d'utilisation efficace de l'eau du Québec - Suivi des mesures (2019-2024)

Objectif 1 : Orienter les programmes vers une utilisation durable des eaux à long terme

#	MESURE	ORIGINE DE LA MESURE	JUSTIFICATION	INDICATEURS	RESPONSABLE	BILAN QUINQUENNAL (1 ^{er} avril 2019 au 31 mars 2024)
1.1	Poursuivre la Stratégie québécoise d'économie d'eau potable (SQEEP) sur l'horizon 2018-2025.	Mesure 5.1.2 de la Stratégie québécoise de l'eau (SQE)	La SQEEP sur l'horizon 2018-2025 accompagnera les municipalités dans leurs efforts visant à assurer une gestion durable de la ressource et des actifs municipaux. Elle s'inscrit dans une volonté de garantir la pérennité des services d'eau aux citoyens et aux générations futures. L'objectif mesuré par la présente mesure est la réduction de la quantité d'eau distribuée par personne par rapport à l'année 2015. L'atteinte d'un niveau de fuites modéré dans les réseaux de distribution et l'application par les municipalités de certains principes de gestion de leurs actifs en infrastructures d'eau afin d'assurer le maintien des services d'aqueduc à leurs citoyens constituent les deuxième et troisième objectifs de la SQEEP.	Taux de réduction de la quantité d'eau distribuée par personne par jour.	MAMH en collaboration avec les municipalités du Québec.	La SQEEP 2019-2025 se poursuit. Une équipe spécialisée accompagne en continu les municipalités dans leurs efforts visant l'économie d'eau potable ainsi que l'amélioration de la gestion de la ressource en eau et des actifs. Les données servant à la production du bilan de 2025 qui seront disponibles au 31 mars 2026 permettront de constater si l'objectif de réduire de 20 % la quantité d'eau potable distribuée par personne au Québec est atteint. Le résultat cumulatif à ce jour, provenant des données du bilan de 2022, révèle une diminution de 15 % de la quantité d'eau distribuée par personne au Québec par rapport à 2015. La moyenne québécoise passe ainsi de 573 L/pers/j (litres par personne et par jour) en 2015 à 487 L/pers/j en 2022, une réduction de 86 L/pers/j. Cette réduction continue de la quantité d'eau distribuée s'explique par plusieurs facteurs, notamment : 1. La gestion active des pertes d'eau appuyée par les investissements majeurs des dernières années réalisés par les municipalités, en partie grâce aux programmes d'aide financière du MAMH pour le renouvellement de conduites d'eau;

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						2. Les répercussions positives, sur une dizaine d'années, des nouveaux équipements de plomberie économes en eau; 3. Les effets positifs des campagnes de sensibilisation et d'éducation ainsi que l'application de la réglementation municipale pour une utilisation efficace de l'eau potable.
1.2	Modifier le Code de construction (chapitre Plomberie et Bâtiment) interdisant la vente ou l'installation d'équipements surconsommant l'eau dans le cadre de la Stratégie québécoise d'économie d'eau potable (SQEEP).	Mesure n° 7 de l'ancien programme de conservation Mesure 4.2.2 de la SQEEP	La modification du Code de construction, dans le cadre de la SQEEP, vise notamment à interdire, pour la clientèle visée, a) l'installation des modèles de toilettes de plus de 4,8 L/chasse dans les habitations, b) les pommeaux de douche de plus de 7,6 L/min et c) les robinets de lavabo de plus de 5,7 L/min. Elle permet donc de réduire l'utilisation de l'eau potable dans le secteur résidentiel et institutionnel.	Publication par la RBQ de l'édition révisée du code prévue à l'automne 2020.	Régie du bâtiment du Québec (RBQ) en collaboration avec le MAMH	Le règlement modifiant le chapitre III, Plomberie, du Code de construction, est entré en vigueur le 27 mars 2021, et les trois modifications sont présentement en vigueur.

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1.3	Poursuivre la mise en œuvre des politiques d'économie d'eau potable dans les immeubles gouvernementaux et ceux des réseaux de la santé et de l'éducation dans le cadre de la SQEEP.	Mesure n° 8 de l'ancien programme de conservation Mesure n° 4.2.3 de la SQEEP	La mesure de la SQEEP permet l'adoption de plans d'action et l'implantation des correctifs ciblés dans les immeubles gouvernementaux afin de diminuer l'utilisation d'eau potable dans le secteur institutionnel.	Réception du bilan annuel des mesures d'économie d'eau réalisées par le secteur institutionnel.	MAMH en collaboration avec SQI/MSSS/MEQ /MELCCFP	La mise en œuvre des politiques d'économie d'eau potable dans les immeubles gouvernementaux ainsi que dans les établissements des réseaux de la santé et de l'éducation se poursuit dans le cadre de la SQEEP. Les dispositions nécessaires pour atteindre les objectifs fixés d'ici 2025 ont été mises en place.

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Objectif 2 : Adopter et mettre en œuvre une gestion de l'offre et de la demande pour promouvoir une utilisation efficace et la conservation des ressources en eau

#	MESURE	ORIGINE DE LA MESURE	JUSTIFICATION	INDICATEURS	RESPONSABLE	BILAN QUINQUENNAL (1 ^{er} avril 2019 au 31 mars 2024)
2.1	Établir les mesures de conservation et d'utilisation efficace de l'eau applicables dans le cadre des demandes d'autorisation ministérielle de prélèvements d'eau nouveaux ou augmentés assujettis aux articles 31.92 et 31.95 de la Loi sur la qualité de l'environnement (LQE).	Mesure n° 10 de l'ancien programme de conservation	La mesure s'inscrit dans le cadre du régime d'autorisation ministérielle des prélèvements d'eau prévu à l'article 22 (paragraphe 2) de la LQE. Les préleveurs d'eau doivent démontrer l'acceptabilité de leur demande et pourront, entre autres, proposer d'appliquer des mesures de conservation et d'utilisation efficace de l'eau pour diminuer leurs prélèvements. Par ailleurs, les préleveurs de 379 000 litres et plus par jour assujettis aux articles 31.92 et 31.95 de la LQE devront mettre en œuvre des mesures de conservation et d'utilisation efficace de l'eau pour demander une autorisation.	Recensement des mesures de conservation proposées dans les demandes d'autorisation ministérielle de prélèvements d'eau assujettis aux articles 31.92 et 31.95 de la LQE analysées annuellement.	MELCCFP	Pour la période visée, trois documents d'autorisation ont été émis concernant l'article 31.95 et aucun concernant l'article 31.92.

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2.2	Évaluer les impacts cumulatifs des prélèvements d'eau lors de l'analyse de prélèvements d'eau de surface assujettis à une autorisation ministérielle en vertu de la LQE.	Mesure n° 11 de l'ancien programme de conservation	L'analyse des impacts cumulatifs des prélèvements d'eau permet de s'assurer que des quantités suffisantes d'eau sont disponibles pour maintenir l'intégrité des écosystèmes et répondre aux besoins des usagers. L'analyse à l'échelle du (sous-)bassin versant tient compte des débits actuels et futurs, des prélèvements en amont et en aval du point de prélèvement à l'analyse et de la consommation des secteurs d'activité. Cette analyse permettra d'identifier les zones de conflit actuelles et potentielles et de faire ressortir les endroits et les secteurs qui nécessiteront des efforts de conservation et d'utilisation efficace de l'eau.	Nombre d'avis produits par la Direction de l'eau potable et des eaux souterraines et de surface (DEPESS).	MELCCFP	Le traitement des demandes d'avis d'experts sur l'analyse des prélèvements cumulatifs d'eau a été centralisé à la DEPESS. Le nombre de demandes a augmenté de façon significative au cours de la dernière année. Des outils sont en cours d'élaboration pour simplifier le traitement des demandes d'avis d'experts.

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2.3	Développer une méthodologie pour l'évaluation des impacts cumulatifs des pressions physiques sur les ressources en eau souterraine et les zones de gestion particulière.	Nouvelle mesure proposée par la DEPESS, 2020	L'analyse des demandes d'autorisation ministérielle de prélèvements d'eau souterraine doit tenir compte des effets cumulatifs et des impacts appréhendés des changements climatiques. Cette analyse étant complexe, des indicateurs décrivant l'état actuel et futur des ressources en eau souterraine sont en cours de développement afin de faciliter le travail des analystes dans l'évaluation et l'approbation des demandes. Des outils (ex. : cartes et logigrammes) seront créés pour identifier les bassins hydrogéologiques actuellement sous pression en raison d'activités anthropiques (ex. : prélèvements d'eau et urbanisation) et ceux à risque en raison des impacts futurs des changements climatiques, et qui pourraient nécessiter des mesures de gestion particulière des ressources.	Production de cartes priorisant les aquifères (zones de gestion particulière) et intégrant les résultats du projet de recherche avec l'INRS. Production de cartes et d'outils d'interprétation (schémas décisionnels, guides, etc.). Développement d'outils d'aide à l'analyse des demandes d'autorisation ministérielle de prélèvement d'eau pour pouvoir évaluer les impacts cumulatifs sur les eaux souterraines, tels que des cartes et des logigrammes.	MELCCFP	En attente des résultats des travaux faits en parallèle, qui permettront de compléter les cartes et les outils.
2.4	Poursuivre le Programme d'acquisition de connaissances sur les eaux souterraines (PACES).	Mesure n° 16 de l'ancien programme de conservation	Le programme d'acquisition de connaissances permet de connaître le volume et la recharge des nappes phréatiques au Québec. Il permet de développer et de diffuser les connaissances sur l'offre en eau souterraine.	Portrait complet de la ressource en eau souterraine à l'échelle régionale, pour chaque région. Diffusion des bases de données de terrain, des bases de données cartographiques et des rapports.	MELCCFP	100 % des livrables ont été reçus et sont diffusés sur Données Québec. En mars 2022, la presque totalité des zones habitées du territoire québécois a été couverte.

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Objectif 3 : Améliorer le suivi des programmes de conservation et d'utilisation efficace de l'eau et uniformiser le contenu des rapports présentés par les États et les provinces

#	MESURE	ORIGINE DE LA MESURE	JUSTIFICATION	INDICATEURS	RESPONSABLE	BILAN QUINQUENNAL (1 ^{er} avril 2019 au 31 mars 2024)
3.1	Effectuer annuellement une évaluation des résultats atteints par le programme de conservation et transmettre un rapport au Conseil régional des ressources en eaux des Grands Lacs et du fleuve Saint-Laurent (Conseil régional).	Mesure n° E3 de l'ancien programme de conservation	En vertu de l'article 31.101 de la Loi sur la qualité de l'environnement, le MELCCFP effectue annuellement une évaluation des résultats atteints par le programme qu'il a mis en œuvre en vertu du présent article. Il transmet au Conseil régional des ressources en eaux des Grands Lacs et du fleuve Saint-Laurent un rapport faisant état du programme et des résultats obtenus.	Transmission du rapport annuel au Conseil régional selon l'échéancier fixé par celui-ci.	MELCCFP	Le rapport annuel a été soumis au Conseil régional dans les délais chaque année, en respectant les échéances établies.
3.2	Recenser annuellement les nouvelles mesures auprès des ministères et organismes.	Mesure n° E6 de l'ancien programme de conservation	Permet la mise à jour en continu du Programme et l'atteinte des objectifs régionaux.	Veille de l'action gouvernementale en matière de conservation de l'eau.	MELCCFP	Le Programme de conservation et d'utilisation efficace de l'eau du Québec a été révisé en 2019, et de nouvelles mesures sont entrées en vigueur à l'hiver 2020. À la suite de la publication du Plan national de l'eau, une révision approfondie est prévue pour 2025.

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3.3	Diffuser les résultats du suivi annuel des mesures.	Mesure n° E7 de l'ancien programme de conservation	Le MELCCFP doit effectuer un suivi de l'avancement des mesures et rédiger un bilan annuel du Programme. Les résultats sont diffusés sur le site Internet du MELCCFP.	Diffusion des résultats du suivi annuel des mesures sur le site Internet du MELCCFP.	MELCCFP	Lorsque le rapport annuel est diffusé sur le site Web du Conseil régional, il est également diffusé sur le site Internet du MELCCFP.
3.4	Présenter le rapport de l'évaluation quinquennale aux membres du Conseil régional et le diffuser sur le site Internet du Conseil régional.	Mesure n° E8 de l'ancien programme de conservation	Tous les cinq ans, le MELCCFP doit effectuer une évaluation de l'atteinte des objectifs du Programme. Il doit rédiger un bilan quinquennal du Programme et le rendre public. Cette diffusion se fera sur le site Internet du Conseil régional.	Transmission du bilan quinquennal au Conseil régional.	MELCCFP	Le rapport quinquennal 2019 a été transmis au Conseil régional et est diffusé sur son site Internet. Le rapport quinquennal 2024 sera transmis au Conseil régional en respectant les échéances établies.

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Objectif 4 : Approfondir la science, la technologie et la recherche

#	MESURE	ORIGINE DE LA MESURE	JUSTIFICATION	INDICATEURS	RESPONSABLE	BILAN QUINQUENNAL (1 ^{er} avril 2019 au 31 mars 2024)
4.1	Réaliser un projet d'acquisition de connaissances sur les eaux souterraines en territoire cri.	Mesure n° 1.2.1.1 de la SQE	Le territoire de la Nation crie héberge des ressources hydriques importantes et vulnérables qui sont de plus en plus soumises aux pressions anthropiques, y compris le développement hydroélectrique, la foresterie et l'exploitation minière. Ce projet a pour objectif de dresser un portrait exhaustif de la ressource en eau souterraine sur le territoire de la communauté crie d'Eastmain. Il permettra d'outiller les gouvernements locaux et le gouvernement de la Nation crie pour leur permettre de mieux gérer la planification, le développement et l'aménagement du territoire en assurant l'évaluation et la protection des aquifères et des ressources en eau souterraine.	Portrait exhaustif de la ressource en eau souterraine sur le territoire de la communauté crie. Outils permettant aux gouvernements locaux et de la Nation crie de mieux planifier le développement et l'aménagement du territoire.	MELCCFP	Le projet pilote sur le territoire d'Eastmain a pris fin en mars 2022. La méthodologie développée est appliquée dans le cadre d'un deuxième projet, sur le territoire de Chisasibi. Il sera terminé en mars 2028.

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4.2	Réaliser, dans la région des Îles-de-la-Madeleine, un projet d'acquisition de connaissances sur les eaux souterraines et un projet de développement d'une méthodologie de caractérisation des aquifères côtiers.	Mesure n° 1.2.1.3 de la SQE	Les projets d'acquisition de connaissances sur les eaux souterraines aux Îles-de-la-Madeleine, financés par la SQE, visent à assurer la protection et la gestion adéquate de l'eau souterraine de ce milieu insulaire particulier.	Portrait complet de la ressource en eau souterraine aux Îles-de-la-Madeleine. Diffusion des bases de données de terrain, des bases de données cartographiques et des rapports. Renforcement de la protection des eaux souterraines par l'élaboration de recommandations pour une exploitation durable.	MELCCFP	100 % des livrables ont été reçus et sont diffusés sur Données Québec.
4.3	Réaliser des projets de recherche visant à comprendre les effets des changements climatiques sur la ressource en eau souterraine.	Nouvelle mesure (2020)	Plusieurs projets en cours, financés par le Plan d'action sur les changements climatiques (PACC) et le Fonds vert, visent une meilleure compréhension de la relation entre les changements climatiques et les ressources en eau souterraine.	Évaluer quantitativement les effets des changements climatiques sur la ressource en eau souterraine par modélisation intégrée, notamment sur la recharge. Développer des indicateurs et des outils de gestion de l'eau.	MELCCFP	100 % des livrables ont été reçus.

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4.4	Soutenir des projets d'innovation agroalimentaire.	Mesure n° 30 de l'ancien programme de conservation	Certains projets financés par le programme Innovation bioalimentaire ou le programme Prime-Vert concernent l'optimisation de l'utilisation de l'eau en agriculture. Cette mesure permet de soutenir la mise au point de nouvelles technologies de l'eau en agriculture.	Nombre de projets terminés annuellement.	MAPAQ	Vingt-deux (22) projets ont été financés et réalisés entre avril 2019 et mars 2024. Les rapports finaux sont disponibles sur demande auprès du MAPAQ.
4.5	Réaliser des projets de recherche et transfert technologique touchant la conservation et l'optimisation de l'usage de l'eau en agriculture.	Mesure n° 25 de l'ancien programme de conservation	Cette mesure vise la réalisation de projets de recherche et de transfert technologique touchant la conservation et l'optimisation de l'usage de l'eau en agriculture. Les résultats des projets permettent de consolider les connaissances sur l'utilisation de l'eau dans le secteur agricole et ainsi, de trouver des moyens efficaces pour réduire l'utilisation de l'eau dans ce secteur d'activité.	Nombre de projets terminés.	MAPAQ	Un projet de recherche (Radeau 1) a été financé pour répertorier les conflits d'usage de l'eau dans cinq régions agricoles du Québec. Le projet a pris fin en mars 2019. Un second projet de recherche (Radeau 2) a été financé pour poursuivre les actions dans six autres régions agricoles du Québec. Ce projet s'est terminé en mars 2020.
4.6	Participer aux événements et aux comités qui rassemblent les experts du domaine pour améliorer les connaissances du MAMH sur les concepts liés à l'économie d'eau dans le	Mesure n° 21 de l'ancien programme de conservation	Dans le cadre de la SQEEP, le MAMH participe aux formations de l'American Water Works Association (AWWA) et au comité canadien sur l'économie d'eau. Cette mesure permet de développer et de consolider les connaissances sur la conservation et l'utilisation efficace de l'eau dans le secteur municipal.	Nombre de participations aux comités canadien et québécois sur l'économie d'eau et aux formations de l'AWWA.	MAMH	Le MAMH a participé aux conférences téléphoniques du Comité canadien sur l'économie d'eau, de la Performance Indicator Task Force et du Comité de l'audit de l'eau de l'American Water Works Association (AWWA).

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	cadre de la SQEEP.					
4.7	Produire annuellement des bilans municipaux sur l'utilisation de l'eau pour évaluer les quantités d'eau distribuées et les pertes d'eau dans les réseaux de distribution dans le cadre de la SQEEP.	Mesure n° 23 de l'ancien programme de conservation	Dans le cadre de la SQEEP, les municipalités doivent produire un bilan annuel de leur utilisation de l'eau. Une base de données centrale regroupe les données transmises par les municipalités (environ 200 entrées par municipalité). Cette mesure permet de consolider les connaissances sur les quantités d'eau distribuées et sur les pertes en réseau dans le secteur municipal.	Pourcentage des municipalités du Québec possédant un réseau de distribution qui ont produit leur bilan annuel d'utilisation de l'eau.	MAMH	Les connaissances sur les quantités d'eau distribuées et les pertes d'eau dans les réseaux de distribution pour le secteur municipal sont consolidées annuellement par la mise à jour de la base de données et du Rapport annuel de l'usage de l'eau potable. Ces documents sont disponibles à l'adresse suivante : https://www.quebec.ca/gouvernement/ministere/affaires-municipales/publications/strategie-economie-potable/cartographie-avancement-strategie

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Objectif 5 : Concevoir des programmes de sensibilisation du public et promouvoir la communication d'information à tous les utilisateurs de l'eau

#	MESURE	ORIGINE DE LA MESURE	JUSTIFICATION	INDICATEURS	RESPONSABLE	BILAN QUINQUENNAL (1 ^{er} avril 2019 au 31 mars 2024)
5.1	Élaborer et mettre en œuvre, dans le cadre de la SQE, des mesures de sensibilisation pour le Mois de l'eau (juin).	Mesure n° 5.1.1 de la SQE	Les activités du Mois de l'eau, financées dans le cadre de la SQE, visent à encourager les Québécois à préserver l'eau, une ressource fragile et épuisable. Pour souligner de façon concrète cette initiative, des activités sont organisées à travers le Québec (descentes de rivières, journées de sensibilisation autour des lacs, distribution de matériel de sensibilisation, soirées d'information, ateliers scolaires, etc.). Ces projets locaux sont coordonnés par les organismes de bassins versants (OBV) et les tables de concertation régionale (TCR). Le Regroupement des organismes de bassins versants du Québec (ROBVQ) est mandaté pour développer différents outils de base afin de soutenir les OBV et les TCR dans l'organisation des activités terrain (modèles de communiqués de presse et d'affiches, logo, alimentation des médias sociaux, etc.).	Nombre de publications sur les réseaux sociaux des OBV, des TCR et du ROBVQ. Nombre d'activités réalisées.	MELCCFP	- 938 activités ont été réalisées de 2018 à 2023 (dont 739 activités de sensibilisation et de mobilisation) - 86 000 personnes ont participé en direct aux activités de 2019 à 2023 - 2 436 111 personnes ont été jointes via les médias sociaux de 2019 à 2023 - Fonds de contrepartie : 188 681 \$ de 2021-2023

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5.2	Sensibiliser la population à la protection et à l'utilisation durable de l'eau.	Mesure n° 5.1.4 de la SQE	Le développement et la mise en œuvre d'une campagne de sensibilisation, financée dans le cadre de la SQE, ont pour objectif d'informer la population québécoise et de la sensibiliser aux enjeux liés à la protection, à l'économie et à l'utilisation durable de l'eau dans le but d'induire des changements de comportements. Plus précisément, cette mesure vise à élaborer et mettre en œuvre une campagne nationale de marketing social sur l'eau abordant des thématiques en lien avec la protection, l'économie et l'utilisation durable de l'eau, culminant au mois de juin de chaque année (Mois de l'eau). Elle proposera également des outils et des activités en lien avec les thématiques abordées. Les trois thèmes rassembleurs identifiés sont : - l'économie d'eau potable : réduire la consommation à la maison; - un « bilan eau » sur la propriété : à l'instar du concept de « bilan carbone », amener les citoyens à avoir un bilan neutre de la qualité d'eau qui s'écoule sur leur propriété; - la fin du « tout-à-l'égout » : réduire les rejets individuels vers les réseaux d'égouts.	Nombre de livrables déposés.	MELCCFP	Comme le mentionne le rapport annuel 2023 du Programme de conservation et d'utilisation efficace de l'eau, la première édition de la campagne nationale de sensibilisation sur l'eau « Pensez bleu », qui a débuté le 4 juin 2020, s'est terminée le 31 août 2021. Durant cette période : - tous les livrables attendus ont été déposés au MELCCFP selon les échéances établies; - un site Web (pensezbleu.com) a été créé et mis en ligne dès le 1^{er} juin 2020; - des pages « Pensez bleu » ont été créées à la fin mai 2020 sur Facebook et Instagram; - quatre vidéos (La toilette, c'est pas une poubelle, Les vieux médicaments retournent à la pharmacie, L'évier, c'est pas un écocentre et La cour au naturel) ont été diffusées à la télévision; - quinze influenceurs ont collaboré à la campagne; - le Guide d'aménagement et d'entretien durables des propriétés résidentielles a été mis à jour; - le concours « Plein d'amour pour ma cour » a été créé. Une deuxième édition de la campagne nationale de sensibilisation sur l'eau a été annoncée dans le budget de mars 2023. Une convention d'aide financière a été signée avec Réseau Environnement pour la coordination de cette deuxième édition de la campagne, en collaboration avec le Regroupement des organismes de bassins versants du Québec et le Centre d'interprétation de l'eau.

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5.3	Offrir des ateliers de transfert des connaissances issues des nouveaux projets d'acquisition de connaissances sur les eaux souterraines aux gestionnaires du territoire et de la ressource eau souterraine (municipalités, MRC, organismes de bassin versant et analystes des directions régionales du MELCCFP).	Nouvelle mesure (2020)	Les ateliers de transfert des connaissances issues des projets d'acquisition de connaissances sur les eaux souterraines sont offerts aux gestionnaires du territoire et de la ressource en eau souterraine (municipalités, MRC, organismes de bassin versant et analystes des directions régionales du MELCCFP) afin de mieux les outiller pour assurer la pérennité de la ressource eau souterraine.	Nombre d'ateliers de transfert des connaissances tenus chaque année.	MELCCFP	100 % des ateliers prévus ont été tenus.

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5.4	Organiser et préparer des séances de formation sur l'économie d'eau pour accompagner les municipalités (dans le cadre de la Stratégie québécoise d'économie d'eau potable [SQEEP]).	Mesure n° 22 de l'ancien programme de conservation Mesure 4.2.4 de la SQEEP	La Stratégie sera présentée lors de congrès et de conférences. Cette mesure permet de consolider les connaissances sur la conservation et l'utilisation efficace de l'eau et de les diffuser aux acteurs du secteur municipal.	Nombre de séances de formation offertes chaque année sur l'économie d'eau.	MAMH	Le MAMH a organisé et tenu, chaque année, des séances de formation sur l'économie d'eau potable pour accompagner les municipalités. Il a également participé à divers congrès et journées réunissant des ingénieurs, des professionnels du milieu municipal, ainsi que des élus, entrant ainsi en relation avec plusieurs centaines de représentants du secteur municipal afin de les soutenir dans leurs démarches.
5.5	Poursuivre le partenariat avec Réseau Environnement pour le programme Municipalité Écon'Eau, qui sensibilise les citoyens en collaboration avec les municipalités dans le cadre de la SQEEP.	Mesure n° 35 de l'ancien programme de conservation	Municipalité Écon'Eau est un programme de reconnaissance et d'échanges en économie d'eau visant à stimuler et outiller les municipalités du Québec, dans le cadre de la SQEEP, ainsi qu'à reconnaître leurs efforts en économie d'eau, grâce à des indicateurs élaborés par Réseau Environnement. Les municipalités participantes peuvent mesurer leur performance et recevoir des recommandations. En plus de reconnaître les efforts déployés, Municipalité Écon'eau offre une communauté d'échange d'expertises. La campagne La fin du « tout-à-l'égout » vise à réduire les rejets individuels vers les réseaux d'égouts.	Nombre de municipalités ayant participé chaque année au programme Municipalité Écon'Eau.	MAMH en collaboration avec Réseau Environnement	La campagne annuelle Mon empreinte bleue a débuté le 20 mai 2021 et s'est poursuivie jusqu'à l'automne de la même année. Près de 100 000 téléchargements des outils de la boîte à outils ont été enregistrés.

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5.6	Diffusion du Rapport sur l'état des ressources en eau et des écosystèmes aquatiques au Québec.	Mesure n° 39 de l'ancien programme de conservation	Le rapport quinquennal sur l'état des ressources en eau et des écosystèmes aquatiques au Québec est un outil visant à informer toutes les personnes et tous les groupes préoccupés par l'eau et les écosystèmes aquatiques afin d'enrichir leurs connaissances et de les aider à mieux comprendre les enjeux relatifs aux ressources en eau et aux écosystèmes aquatiques.	État d'avancement (en pourcentage) des travaux du rapport quinquennal.	MELCCFP	- Le rapport de 2020 a été finalisé et publié (décembre 2020). - Les travaux préparatoires à la rédaction du rapport de 2025 (choix des indicateurs, production des documents d'accompagnement, etc.) ont été effectués durant l'année 2023. - La rédaction du rapport de 2025 a débuté en janvier 2024.
5.7	Production de guides et traduction de manuels de l'American Water Works Association (AWWA) dans le cadre de la SQEEP.	Mesure n° 41 de l'ancien programme de conservation	Pour outiller les municipalités, dans le cadre de la SQEEP, des documents ont été produits (modèle de réglementation municipale sur l'utilisation de l'eau potable, formulaire simple pour mesurer les résultats, guide intitulé « L'économie d'eau potable et les municipalités », manuels de l'AWWA traduits en français, évaluation économique de la Stratégie, etc.) et d'autres sont en préparation (devis type pour la recherche de fuites, étude d'impact économique pour l'implantation de compteurs et d'une tarification, etc.).	Nombre de guides produits ou mis à jour.	MAMH	Le MAMH a régulièrement produit et mis à jour des guides et outils, et a également traduit le manuel d'audit de l'eau de l'American Water Works Association (AWWA).

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December 11, 2024

The Province of Québec is submitting this review to the Great Lakes—St. Lawrence River Water Resources Regional Body (the “Regional Body”) pursuant to article 300 of the *Great Lakes—Saint Lawrence River Basin Sustainable Water Resources Agreement* (the “Agreement”).

General information

5. Key resource person and reference entity

Peter Stevenson, Director General

Direction générale de l'expertise et de la gestion hydrique, Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP), designated by the Premier to represent Québec on the Great Lakes—St. Lawrence River Water Resources Regional Body

6. Legislation, regulations, and policies governing the administration of Québec's Water Management Program

The hyperlinks of the following statutes and regulations are indicated below:

French: <https://www.quebec.ca/gouv/ministere/environnement/lois-et-reglements/>

English:

<https://www.quebec.ca/en/government/ministere/environnement/statutes-and-regulations/>

c. Article 3.4 of the Compact² / article 300 of the Agreement

- section 31.101 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>

d. Article 4.1 of the Compact / article 301 of the Agreement

- *Regulation respecting the declaration of water withdrawals* (CQLR, c. Q-2, r. 14)
<http://legisquebec.gouv.qc.ca/fr/pdf/cr/Q-2,%20R.%2014.pdf>

e. Articles 4.2(2), 4.2(4), and 4.2(5) of the Compact / article 304 of the Agreement

- Please see subparagraph *h* below.

² Great Lakes—St. Lawrence River Basin Water Resources Compact. <https://www.glsregionalbody.org/laws-and-procedures/compact-agreement/>

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f. Article 4.3 of the Compact / article 200 of the Agreement

Article 200 1:

- S. 31.90 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>

Article 200 2:

- Sections 31.90 to 31.94 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin* (CQLR, c. Q-2, r. 5.1)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%205.1>
- Section 170 of the *Regulation respecting the regulatory scheme applying to activities on the basis of their environmental impact* (c. Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

Article 200 3:

- Sections 22 (2), 31.74, and 31.76 of the *Environment Quality Act*
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Section 31.95 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Chapter 1 of title IV of the *Regulation respecting the regulatory scheme applying to activities on the basis of their environmental impact* (c. Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

g. Articles 4.8, 4.9, and 4.13 of the Compact / articles 200, 201, and 208 of the Agreement

Article 200:

- Consult section “d, article 4.3 of the Compact / article 200 of the Agreement” below.

Article 201:

- Sections 31.90 to 31.94 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin* (CQLR, c. Q-2, r. 5.1)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%205.1>
- Sections 169 and 170 of the *Regulation respecting the regulatory scheme applying to activities on the basis of their environmental impact* (c. Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

Article 208:

- Sections 31.74, 31.74.1, and 31.75 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>

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h. Article 4.10 of the Compact / article 206 of the Agreement

- Sections 31.74 and 31.74.1 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Sections 31.91 to 31.93 and 31.95 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- *Water Withdrawal and Protection Regulation* (CQLR, c. Q-2, r. 35.2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%2035.2>
- Sections 166 to 176 of the *Regulation respecting the regulatory scheme applying to activities on the basis of their environmental impact* (c. Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

i. Article 4.11 of the Compact / article 207 of the Agreement

Section 207.1, paragraphs a and b:

- *Regulation respecting the declaration of water withdrawals* (CQLR, c. Q-2, r. 14)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%2014>
The withdrawals authorized between September 1, 2011 and the coming into force of section 31.95 of the *Environment Quality Act* in 2014 are deemed to have already been carried out on September 1, 2011, and have been added to the corresponding list.

Article 207.2:

- Section 31.96 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>
- Section 169 of the *Regulation respecting the regulatory scheme applying to activities on the basis of their environmental impact* (c. Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

Article 207.5:

- Sections 167 and 169 of the *Regulation respecting the regulatory scheme applying to activities on the basis of their environmental impact* (c. Q-2, r. 17.1)
<https://www.legisquebec.gouv.qc.ca/fr/document/rc/Q-2,%20r.%2017.1>

Article 207.9:

- Section 31.90 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>

j. Article 304 of the Agreement

- Section 31.101 of the *Environment Quality Act* (CQLR, c. Q-2)
<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>

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Water Management Program

7. Summary of the scope of Québec's Water Management Program and the thresholds stipulated

The Act to affirm the collective nature of water resources and to promote better governance of water and associated environments (CQLR, c. C-6.2) (the "Water Act") amended the Environment Quality Act (EQA) in order to integrate therein the provisions of the Agreement.

Diversions (transfers)

For the purposes of article 201 of the Agreement ("Exceptions to the Prohibition of Diversions"), sections 31.90 to 31.94 of the EQA apply to transfer water out of the Basin. Adopted in 2011, the *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin* makes possible the application of section 31.92 of the EQA, which must be observed to obtain the authorization to transfer out of the Basin in accordance with the exception standards in the Agreement, and section 170 of the *Regulation respecting the regulatory scheme applying to activities on the basis of their environmental impact* (c. Q-2, r. 17.1 [RRSAABEI]), in force since December 31, 2020, specifies the information necessary to assess the authorization of such transfer requests.

New and increased withdrawals

Moreover, the *Water Act* introduced a water withdrawal authorization system into the EQA, which has covered new withdrawals since August 14, 2014, but also existing withdrawals as of August 14, 2014, pursuant to sections 33 and 34 of the *Water Act*. Pursuant to paragraph 2 of section 22 of the EQA, no one may carry out a water withdrawal project, including the work and structures necessary for such a withdrawal, without first obtaining the Minister's permission. The RRSAABEI specifies the oversight of such activities subject to ministerial authorization. Between August 14, 2014, and December 31, 2020, the *Water Withdrawal and Protection Regulation* contained similar equivalent provisions [c. Q-2, r. 35.2 [WWPR]].

This authorization regime covers almost without exception all withdrawals of 75,000 litres per day in Québec. Article 203 of the Agreement, entitled "Decision-Making Standard for Management of Withdrawals and Consumptive Uses," imposes specific provisions on all withdrawals in the territory of application. Such provisions are found in section 31.95 of the EQA, governing withdrawals in the aforesaid territory, which it subjects to the decision-making standard. Article 31.95 of the standard specifies an average application threshold of 379,000 litres or more per day. Protection requirements governing such withdrawals and groundwater and surface water resources are also stipulated in several statutory regulations of the EQA, in particular the WWPR.

Declaration

In 2011, Québec adopted the *Regulation to amend the Regulation respecting the declaration of water withdrawals*, which empowers it to collect information on withdrawals and consumption in the St. Lawrence River Basin and the volumes of water transferred out of it. In addition to giving Québec the means to comply with article 301 of the Agreement, the amended regulation bolsters the provisions of the EQA relating to water transfers and the withdrawal authorization framework, in particular through the application of a threshold on all new

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withdrawals and all increases in the volume withdrawn. Moreover, it seeks to achieve more responsible water use through withdrawal accountability mechanisms by making the largest water withdrawers in Québec more acutely aware of the intrinsic value of water resources and the responsibility each person has to preserve the quality of water and a sufficient quantity of it to meet the needs of current and future generations.

8. Description of the water withdrawal management method in force in Québec by sector, source, quantity, and location

- k. Sectors: public water supply, commercial and institutional self-supply, irrigation-related self-supply, livestock-related self-supply, industrial self-supply, thermoelectric power production self-supply (recycled or non-recycled cooling water), thermoelectric power production (recirculated cooling), off-stream or in-stream hydroelectric power production (voluntary), and other self-supply**

Water withdrawal authorization

Paragraph 2 of section 22 of the EQA stipulates that almost without exception authorization must be obtained from the Minister before carrying out any project involving a water withdrawal, including the work and structures that such a withdrawal requires. Sections 31.74 and 31.75 of the EQA describe the exceptions. The exceptions are also clarified in sections 168 and 173 of the RRSABEI (withdrawals of less than 75,000 litres per day and serving 20 or fewer people for human consumption are not subject to an authorization). Section 31.81 of the EQA stipulates that the authorization is valid for 10 years, except for a withdrawal to supply drinking water to a municipal waterworks system.

Existing withdrawals when this requirement came into force are also subject to an authorization pursuant to sections 33 and 34 of the *Water Act*.

The Minister's decision to refuse or to accept with or without conditions a water withdrawal must be based on the provisions in sections 31.76, 31.92, and 31.95 of the EQA.

Declaration of water withdrawals

Since 2011, the *Regulation respecting the declaration of water withdrawals* (RDWW) requires withdrawers who withdraw water in the St. Lawrence River Basin (territory of the Agreement) from a site where the withdrawal rated capacity of the facilities is equal to or greater than 379,000 litres per day or withdrawers that possess an authorization to withdraw a volume below the withdrawal rated capacity of their facilities, to annually declare to the Minister the volumes withdrawn and consumed on a monthly basis in this Basin and the volumes transferred out of the Basin, if need be.

Article 18.7 of the regulation stipulates that this requirement applies starting from January 1, 2016 for withdrawals made for agricultural or fish-breeding purposes in 2015.

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I. Water source: groundwater, surface water from the Great Lakes and the St. Lawrence River, or surface water from another source

The ministerial authorization system of the EQA applies to groundwater and surface water withdrawals throughout Québec.

Anyone who declares a volume of water withdrawn must also indicate, by way of an example, whether it is groundwater or surface water and whether or not the withdrawal site is located in the territory of the Agreement.

m. Quantity: regulatory thresholds, volumes, rates, and reporting requirements

Water withdrawal authorization

Section 31.75 of the EQA specifies the application thresholds of the water withdrawal authorization regime. The ministerial authorization is mandatory for all withdrawals equivalent to or greater than 75,000 litres per day but also for certain withdrawals whose maximum flow rate is less than 75,000 litres per day, e.g., withdrawals serving fewer than 20 people for human consumption or water that is withdrawn in the St. Lawrence River Basin to be transferred out of the Basin.

Section 31.95 of the EQA sets the application threshold at a quantity or average consumption of 379,000 litres or more per day for all new withdrawals and all increases in the quantity withdrawn in the territory of the Agreement.

As for water transfers out of the Basin, section 31.92 sets the application threshold at an average quantity of water of 379,000 litres or more per day for transfers intended for a municipality straddling the boundary of the St. Lawrence River Basin. The applicable calculation method is stipulated in section 7 of the *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin* and sections 166 and 167 of the RRSABEI.

Sections 16, 17, 18, 169, 171, and 365 of the RRSABEI indicate the information required for all ministerial withdrawal authorization applications pursuant to section 31.75 of the EQA. Consequently, such applications must include a description of the withdrawal and discharge sites, the anticipated uses, and the volumes withdrawn, consumed, and discharged for different periods of the day or year. Sections 33 and 34 of the EQA and section 365 of the RRSABEI similarly specify the information to be provided for an authorization renewal application and section 170 of the RRSABEI specifies the additional documents to be provided to transfer water out of the Basin.

Declaration of water withdrawals

According to the RDWW, almost without exception withdrawals of 75,000 litres or more per day must subject to an annual declaration of the volume withdrawn. Starting in 2025, this threshold will be lowered to 50,000 litres or more per day. This volume corresponds to the maximum daily volume, i.e., once a withdrawer withdraws this quantity on one day in the year the withdrawer is subject to the regulation for this year and all subsequent years.

Furthermore, withdrawers that possess a withdrawal site located in the territory of the Agreement whose structures or facilities have a withdrawal rated capacity that is equal to or greater than 379,000 litres per day or that possess a water withdrawal authorization

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must declare annually the volumes withdrawn and consumed in the territory of the Agreement and the volumes transferred out of this territory, if need be.

The annual declaration must be submitted to the Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs not later than March 31 in the year that follows the calendar year that the declaration covers.

n. Location: at the state or provincial level or in the Great Lakes and St. Lawrence River Basin

Delimitation of the territory of the Agreement

Section 31.89 of the EQA defines the Québec portion of the territory of the Agreement and a map of the territory is appended to Schedule 0.A of the EQA and on other computer media.

Water withdrawal declaration and authorization

It is mandatory to specify the georeferenced data of any withdrawal site concerned and the discharge points when water has been transferred out of the Basin as regards the declaration and for all water withdrawal authorization applications.

o. Other specific exemptions that the Agreement and the Compact allow

Subparagraph 2 of section 31.75 of the EQA stipulates that no authorization is required for a temporary, non-recurring withdrawal for emergency-response, humanitarian or civil protection purposes.

Sections 3 and 18.2 of the *Regulation respecting the declaration of water withdrawals* indicate certain exceptions to the declaration.

9. Description of the method of application of the review and decision-making standard

p. Decision-making standard governing the management of water withdrawals and consumption

In addition to the provisions in section 31.76 applicable to all water withdrawal authorizations, the EQA contains specific provisions applicable to the water withdrawals in the St. Lawrence River Basin stipulated in sections 31.88 to 31.104, including the prohibition on transferring water out of the Basin in section 31.90.

Section 31.95 of the EQA stipulates the authorization criteria specific to the decision-making standard governing the management of water withdrawals and consumption:

- (1) "all water withdrawn is to be returned to the Basin, with preference to the direct St. Lawrence River tributary stream watershed from which it was derived, if applicable, less an allowance for consumptive use;
- (2) the quantity of water withdrawn or consumed would result in no significant individual or cumulative adverse impacts on the quantity or quality of the waters of the Basin or on water-dependent natural resources in the Basin;

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- (3) the withdrawal or consumptive use is subject to water conservation measures determined by regulation of the Government, or by the Minister under other provisions of this Act; and
- (4) the quantity of water withdrawn or consumed is reasonable having regard, among other things, to
 - f) the water's intended use;
 - g) the measures implemented for the conservation and efficient use of water, including water from existing water supplies;
 - h) the balance between economic, social and environmental development;
 - i) the foreseeable impacts on the environment and on other uses, and the measures for avoidance or mitigation of such impacts; and
 - j) the supply potential of the water source and other interconnected water sources."

q. Exception standard for diversions

Adopted in 2009 and amended in 2017, the *Act to affirm the collective nature of water resources and to promote better governance of water and associated environments* (CQLR, c. C-6.2) (the "Water Act") through the EQA incorporated into Québec legislation the provisions of the Agreement governing water transfers out of the St. Lawrence River Basin and the corresponding exception criteria. Section 31.90 of the EQA stipulates, in particular that:

"No water withdrawn from the St. Lawrence River Basin may be transferred out of the Basin, except as set out below and in section 31.91.

This prohibition does not apply to water withdrawals, from the outset made for purposes of transfer out of the Basin, which were authorized before 1 September 2011 or, if not authorized, were lawfully commenced before that date. Unless it is increased under the conditions defined by sections 31.91 to 31.93, the quantity of water derived from such a withdrawal must not, however, exceed the quantity authorized at that date or, if there is no authorization or the authorization does not determine a maximum quantity, the capacity of the withdrawal system at that date.

Nor does this prohibition apply to water withdrawn

- (1) to be marketed for human consumption, if packaged within the Basin in containers of 20 litres or less;
- (2) to be used within the Basin in the manufacture, preservation or processing of products;
- (3) to supply vehicles, including vessels and aircraft, whether for the needs of persons or animals being transported or for ballast or other needs related to the operation of the vehicles; or
- (4) for humanitarian, civil protection or emergency-response purposes provided the withdrawal is temporary and non-recurrent."

Section 31.91 of the EQA adds:

"In addition to the conditions prescribed by sections 31.92 and 31.93 and those the Government or the Minister may prescribe under other provisions of this Act, a transfer out

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of the St. Lawrence River Basin resulting from a new withdrawal from the Basin, or an increased transfer out of the Basin resulting from such a withdrawal or a withdrawal existing on 1 September 2011, may be authorized under the following conditions:

- (1) all water transferred out of the Basin is intended to supply a waterworks system serving all or part of the population of a local municipality whose territory is either
 - (a) partly within the Basin; or
 - (b) both wholly outside the Basin and wholly within a regional county municipality whose territory is partly within the Basin; and
- (2) all water transferred out of the Basin is to be returned to the Basin, with preference to the direct St. Lawrence River tributary stream watershed from which it was withdrawn, if applicable, less an allowance for consumptive use. No water from outside the Basin may be added to complete the quantity of water returned to the Basin unless
 - (a) it is part of a water supply or waste water treatment system that combines water from inside and outside the Basin;
 - (b) it is treated to meet applicable water quality or discharge standards and to prevent the introduction of invasive species into the Basin; and
 - (c) it maximizes the portion of water from within the Basin and minimizes the portion from outside the Basin.

For the purposes of this section, "new withdrawal" means any water withdrawal authorized after 1 September 2011.

The Minister shall publish in the *Gazette officielle du Québec* a list of the local municipalities and regional county municipalities whose territory is partly within the Basin for the purposes of subparagraphs a and b of subparagraph 1 of the first paragraph."

Section 31.92 of the EQA stipulates states:

"If it involves an average of 379,000 litres or more per day, or a lesser quantity determined by regulation of the Government, that is intended to supply a waterworks system serving a municipality described in subparagraph a of subparagraph 1 of the first paragraph of section 31.91, a transfer out of the St. Lawrence River Basin resulting from a new or increased water withdrawal described in that section may be authorized only if it meets the following conditions:

- (1) the transfer cannot be reasonably avoided or diminished through the conservation and efficient use of existing water supplies;
- (2) the quantity of water to be transferred is reasonable having regard to the water's intended use;
- (3) the transfer would result in no significant individual or cumulative adverse impacts on the quantity or quality of the waters and water-dependent natural resources of the Basin; and
- (4) the transfer is subject to water conservation measures determined by regulation of the Government, or by the Minister under other provisions of this Act.

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If a transfer out of the Basin under the first paragraph would result in a consumptive use of an average of 19 million litres or more per day, it is also subject to review by the Great Lakes–St. Lawrence River Water Resources Regional Body established by the Agreement.”

Section 31.93 of the EQA stipulates states:

“A transfer out of the St. Lawrence River Basin resulting from a new or increased water withdrawal described in section 31.91 that is intended to supply a waterworks system serving a municipality described in subparagraph b of subparagraph 1 of the first paragraph of that section may be authorized only if it meets the conditions set out below and the conditions prescribed in subparagraphs 1 to 4 of the first paragraph of section 31.92:

- (1) there is no water supply alternative within the watershed in which the local municipality concerned is situated that is reasonably accessible and able to satisfy its drinking water needs;
- (2) the quantity of water transferred will not endanger the integrity of the Basin ecosystem; and
- (3) the transfer was reviewed by the Great Lakes-St. Lawrence River Water Resources Regional Body.”

Section 31.94 of the EQA adds:

“If, under section 31.92 or 31.93, an application for authorization is subject to review by the Great Lakes-St. Lawrence River Water Resources Regional Body, the Minister must, after so informing the applicant,

- (1) notify the Regional Body and each of the parties to the Agreement;
- (2) send the Regional Body the application record containing all the documents or information provided by the applicant as well as the Minister's opinion on the compliance of the application with the conditions prescribed by sections 31.91 to 31.93 and those set out in the Agreement; and
- (3) at the request of the Regional Body or one of the parties to the Agreement, provide any additional document or information the Regional Board or the party may consider necessary for review of the application for authorization.

The Minister must also inform the public that the application for authorization is subject to review by the Regional Body.

After reviewing the application for authorization as set out in the Agreement and its own rules of procedure, the Regional Body shall issue a declaration on the compliance of the application with the conditions set out in the Agreement. The declaration is sent to the Minister and made available to the public in the manner the Regional Body determines.

In making a decision with respect to the application for authorization, the Minister or the Government, as the case may be, shall take into account the Regional Body's declaration.”

Adopted in 2011, the *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin* stipulates the provisions to be observed to obtain an authorization to transfer water out of the Basin. The information or documents that enable the Minister to ensure compliance with these provisions are required in the context of

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the analysis of the water withdrawal authorization application pursuant to sections 16 to 18 and 169 to 172 of the RRSAABEI and section 24 of the EQA.

10. Summary of the provincial requirements pertaining to withdrawal, consumption, diversion, and databases

Adopted in 2009 and amended in 2011 to incorporate certain provisions in the Agreement, the *Regulation respecting the declaration of water withdrawals* (RDWW) empowers Québec authorities to collect information on the volumes of water withdrawn and consumed in the St. Lawrence River Basin and the volumes to be transferred out of the Basin. Such information is also used to calculate the cumulative impacts of water withdrawals on surface water flows.

Section 9 of the RDWW stipulates the information that withdrawers must declare annually for water withdrawals totalling an average daily volume of 75,000 litres or more per day (50,000 litres per day starting in 2025). Since 2024, this threshold has been based on a maximum daily volume and withdrawers that meet this threshold once in the year must declare such withdrawals for that year and all subsequent years. Section 9.1 indicates the information to be included in cases where the withdrawals fall below the threshold.

Section 18.7 of the RDWW stipulates that a withdrawer that withdraws water from the St. Lawrence River Basin from a withdrawal site whose works or facilities have a withdrawal rated capacity equal to or greater than 379,000 litres per day must also provide additional information pertaining to the consumption or transfer of water out of the St. Lawrence River Basin. According to section 18.3, when the withdrawer possesses a water withdrawal authorization, it must declare these volumes even when the rated capacity of its facilities falls below the threshold prescribed in section 18.7. Such information enables Québec to meet its commitment with respect to article 301 of the Agreement.

The definition of “consumptive use” in the RDWW is the same as in section 31.89 of the EQA, in keeping with the Agreement, and means “that portion of water withdrawn or impounded from the St. Lawrence River Basin that is lost or otherwise not returned to the Basin due to evaporation, incorporation into a product, or other processes.”

The first and second subparagraphs of section 18.7 of the RDWW specify the additional information that must be provided when a water withdrawal to be transferred is declared. The information must include the volumes of water transferred out of the St. Lawrence River Basin, expressed in litres, indicating for each withdrawal site concerned, the georeferenced data of the sites where the water so transferred is used and the volumes of water discharged or returned to the St. Lawrence River Basin, expressed in litres, specifying the georeferenced data of the sites where the water was discharged or, as the case may be, where the water was returned.

In keeping with section 207 of the Agreement, section 18.4 of the RDWW specifies the information to be submitted not later than March 31, 2012 to enable Québec to determine the reference volumes of the water withdrawals. This reference must be used to set the application threshold for the purposes of the water withdrawal authorization scheme.

Title II of the RDWW applies to all withdrawals intended for the sector covered by the Agreement and Resolution No. 13 of the Regional Body, with the exception of run-of-river

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hydroelectric production, with respect to which data collection and transmission are optional according to Resolution No. 13.

All water withdrawals covered by the RDWW carried out between January 1 and December 31 of any given year must be included in the annual declaration submitted not later than March 31 of the calendar year covered by the reporting.

Québec granted agricultural and fish-breeding enterprises an extension for the first annual declaration of their withdrawals. Subparagraph 5 of section 18.7 of the RDWW, which refers to section 9 of the same regulation, stipulates that such enterprises can submit their first annual declaration not later than March 31, 2016 for withdrawals made in 2015 in the territory of the Agreement.

Paragraph 2 of section 9 stipulates that the annual declarations must be submitted electronically. However, withdrawers who do not have Internet access can submit the data in hard copy.

Section 5 of the RDWW indicates that the volumes of water withdrawn must be calculated by direct measurement taken by measuring equipment, subject to section 6, which refers to Chapter IV. A withdrawer that does not have measuring equipment may determine the volumes of water withdrawn by estimates based on indirect or spot measurements and the estimates must be certified by a professional, as stipulated in paragraph 3 of section 7. Section 8 of the RDWW stipulates that "[a] withdrawer who establishes or alters a withdrawal site must fit the site with measuring equipment that complies with the provisions of Chapter IV."

In all sectors, the volumes of water consumed can be calculated by direct measurement or estimated. In the first instance, the measuring equipment must satisfy the requirements governing the calculation of the volumes of water withdrawn (section 6 of the RDWW). In the second instance, a professional must make the estimate and not only certify it (subparagraph 4 of section 18.7, which refers to subparagraph 3 of section 18.4). Where the water is withdrawn to supply a waterworks system, the person making the declaration may indicate a consumptive use equal to 15% of the person's withdrawals without justifying the percentage, according to paragraph 3 of section 18.4

Section 2 of the RDWW states that "professional" means a professional within the meaning of section 1 of the *Professional Code*, which establishes the Office des professions du Québec and the mandate to govern the exercise of professional activity, such as the activities mentioned in the RDWW.

The *Guide de soutien technique pour la clientèle* explains the calculation and estimation methods approved by the Québec government:

<http://www.environnement.gouv.qc.ca/eau/prelevements/Guide-soutien-clientele.pdf>

The provisions governing the determination of the volumes of water withdrawn and consumed also apply to water transfers out of or into the St. Lawrence River Basin.

The *Gestion des prélèvements d'eau* (GPE) provincial database contains all the information provided.

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11. Québec water withdrawal authorization applications

Water withdrawal authorization

Information and the ministerial water withdrawal authorization application forms, including a specific form for withdrawals made in the territory of the Agreement, are available online:

<https://www.environnement.gouv.qc.ca/autorisations/autorisations-ministerielles.htm>

Declaration of water withdrawals

Website of the regulation:

<https://www.environnement.gouv.qc.ca/eau/prelevements/declaration.htm>

Website for the agricultural sector:

<https://www.environnement.gouv.qc.ca/eau/prelevements/declaration-agriculture.htm>

Regulation respecting the declaration of water withdrawals:

<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%2014>

The form is available online on the Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs website:

<http://www.environnement.gouv.qc.ca/eau/prelevements/enligne.htm>

The e-form and hardcopy form are identical.

The *Guide du préleveur* provides step-by-step guidance to complete the form, in particular how to input information in the online system:

<https://www.environnement.gouv.qc.ca/eau/prelevements/demarche-pasapas.pdf>

The *Guide de soutien technique pour la clientèle* helps withdrawers to implement a system to measure the volumes of water:

<http://www.environnement.gouv.qc.ca/eau/prelevements/Guide-soutien-clientele.pdf>

The *Guide de soutien aux entreprises agricoles pour l'application du Règlement sur la déclaration des prélèvements d'eau* is intended for agricultural withdrawers:

<http://www.environnement.gouv.qc.ca/eau/prelevements/guide-applicationRDPE-entreprises-agricoles.pdf>

12. A brief description of provincial measures to foster scientific understanding of water and groundwater in the Basin and their role in managing the Basin's water resources and a description of the provincial mechanisms and measures to broaden understanding of the individual and cumulative repercussions on the Basin's ecosystem of water withdrawals, consumptive use, and diversions

Section 31.102 of the EQA, which corresponds to section 209 of the Agreement, stipulates that:

“The Minister must conduct an assessment of the cumulative impacts of water withdrawals and consumptive uses in the St. Lawrence River Basin on the Basin ecosystem, particularly on the waters and water-dependent natural resources of the Basin, in accordance with the requirements of the Agreement. ...

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The assessment must evaluate the application of the prevention principle and the precautionary principle as well as the effects of past and reasonably foreseeable future withdrawals and consumptive uses, the effects of climate change and any other factor that may significantly damage the Basin's aquatic ecosystems.

The assessment prescribed by this section must be done every five years. It must also be done each time the incremental losses to the Great Lakes-St. Lawrence River Basin reach an average of 190 million litres per day in excess of the quantity at the time of the last assessment, or each time one or more of the parties to the Agreement so request."

To carry out such work and in keeping with the Agreement's scientific objectives, Québec is working with several Québec and Canadian partners to broaden knowledge and develop tools to assess at the territorial level the cumulative impacts of water withdrawals and consumptive use.

- Québec has concluded agreements with Ouranos, a Québec regional climatology and climate change adaptation consortium, to develop research projects on changing water needs and resources against a backdrop of climate change and the elaboration of adaptation measures.
- Québec is participating in the deliberations of the Canadian Council of Ministers of the Environment on the availability of water in the context of climate change.
- Québec is developing a method and tools to assess the individual and cumulative repercussions of water withdrawals that will be used to analyze ministerial water withdrawal authorization applications.
- Québec is pursuing its Programme d'acquisition de connaissances sur les eaux souterraines du Québec to take stock of groundwater in the regions in order to protect and bolster its sustainability. Additional information on the program is available online: <http://www.environnement.gouv.qc.ca/eau/souterraines/programmes/acquisition-connaissance.htm>

13. Additional information

The Act to establish the Blue Fund and to amend other provisions

The Act, which came into force on July 1, 2023, establishes the Blue Fund specifically dedicated to water and seeks to facilitate the appropriate, foreseeable, and sufficient funding of measures that the Minister may adopt to ensure the protection, restoration, development, and management of water resources.

The measures funded will contribute to:

- the sustainable, equitable, efficient use of water resources;
- better flood prevention and control;
- enhanced aquatic ecosystem conservation;
- enhanced governance of water in a spirit of respect for the governance regime established by the *Act to affirm the collective nature of water resources and to promote better governance of water and associated environments* (the Water Act).

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The MELCCFP anticipates that the measures financed by the Blue Fund will be grouped together in an implementation plan under the *Québec Water Strategy 2018-2030*. The measures funded will be subject to accountability and an annual review.

Water Conservation and Efficiency Program

14. Overview of Québec's water conservation and efficiency objectives compared with those of the Basin

In 2011, the Québec government adopted the orientations and objectives described in its Water Conservation and Efficiency Program (the "Program"). The program's guiding principles drew inspiration from the first subparagraph of article 304 of the Agreement, then adapted to the Québec context the five regional objectives that the Regional Body adopted in December 2007.

Moreover, with the reaffirmation in December 2019 of the water conservation and efficient water use objectives in the Great Lakes and St. Lawrence River Basin and the production of the five-year review of Québec's Water Management Program and the Water Conservation and Efficiency Program, completed in 2020, Québec updated the Program. The update includes the pursuit of measures whose targets were not met or only partially attained and the addition of new measures linked to the government initiatives introduced since the Program's adoption in 2013.

To ensure compliance with section 304 (3) of the Agreement, Québec is participating in deliberations to update the objectives that the Regional Body reaffirmed in 2019 (Resolution No. 30). Following the update, Québec will revise the Program in light of the modifications to the objectives, if necessary. The Program will consider changes in innovative technologies and scientific knowledge.

15. Summary of the Water Conservation and Efficiency Program

r. Facets of Québec's Water Conservation and Efficiency Program that implement legislation, regulations, and policies

Article 304 of the Agreement, concerning the implementation of the Water Conservation and Efficiency Program, has the force of law in Québec pursuant to section 31.101 of the EQA (<http://legisquebec.gouv.qc.ca/fr/ShowDoc/cs/Q-2>).

Subparagraph 2 of the first paragraph of section 22 of the EQA stipulates that "any withdrawal of water, including related work and works," is subject to authorization by the Minister. Sections 33 and 34 of the Water Act stipulate that water withdrawals made as of August 14, 2014 are subject to the water withdrawal authorization regime in the same way as withdrawals begun after that date or impending. The RRSAABEI specifies the information and documents that must accompany a ministerial authorization application.

The assessment of any water withdrawal or water transfer authorization application in the territory of the Agreement must be based on the existing or anticipated conservation and efficient use measures to reduce the quantity withdrawn.

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The first paragraph of section of the EQA states:

“Any power of authorization under this Act with regard to a water withdrawal must be exercised so as to ensure the protection of water resources, particularly by fostering sustainable, equitable and efficient management of the resources in light of the precautionary principle and the effects of climate change.”

This might include, by way of an example, conservation and efficient use measures.

Similarly, section 25 of the EQA stipulates states:

“On issuing an authorization, the Minister may prescribe any condition, restriction or prohibition the Minister deems advisable for protecting the quality of the environment and preventing adverse effects on the life, health, safety, welfare or comfort of human beings or on ecosystems, living species or property ...”.

Section 26 of the EQA states:

“If of the opinion that it is necessary, the Minister may, in an authorization, prescribe any standard, condition, restriction or prohibition that differs from those prescribed by government regulation, if

- (1) the Minister deems that those that apply are insufficient to ensure that the support capacity of the receiving environment is respected;
- (2) the Minister deems that those that apply are insufficient to ensure the health, safety, welfare or comfort of human beings, protect other living species or prevent adverse effects on property.”

Moreover, subparagraph 6 of the first paragraph of section 31.80 emphasizes that the government or the Minister, depending on the circumstances, can prescribe any condition or prohibition pertaining to:

“measures to ensure the conservation and efficient use of the water withdrawn and to reduce the quantity of water consumed, lost or not returned to the environment after use, taking into account, among other things, the best economically feasible practices or economically available technologies and the particularities of the equipment, facilities and processes involved.”

Section 31.92 of the EQA states:

“If it involves an average of 379,000 litres or more per day, or a lesser quantity determined by regulation of the Government, that is intended to supply a waterworks system serving a municipality described in subparagraph a of subparagraph 1 of the first paragraph of section 31.91, a transfer out of the St. Lawrence River Basin resulting from a new or increased water withdrawal described in that section may be authorized only if it meets the following conditions:

- (1) the transfer cannot be reasonably avoided or diminished through the conservation and efficient use of existing water supplies;
- (2) the quantity of water to be transferred is reasonable having regard to the water's intended use;

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(3) the transfer would result in no significant individual or cumulative adverse impacts on the quantity or quality of the waters and water-dependent natural resources of the Basin; and

(4) the transfer is subject to water conservation measures determined by regulation of the Government, or by the Minister under other provisions of this Act.

If a transfer out of the Basin under the first paragraph would result in a consumptive use of an average of 19 million litres or more per day, it is also subject to review by the Great Lakes-St. Lawrence River Water Resources Regional Body established by the Agreement.”

Authorization regime governing projects that involve a transfer of water out of the Basin:

On June 22, 2011, Québec adopted the *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin*, which prohibits water transfers out of the Basin and clarifies, with respect to certain specific exceptional cases, the framework governing the authorizations that the Minister or the government may issue, depending on the circumstances, pursuant to the *Act to affirm the collective nature of water resources and to promote better governance of water and associated environments*, whose relevant legal provisions were transferred to the *Environment Quality Act* in 2014.

Since December 31, 2020, the regulatory provisions of application in article 31.92 of the EQA have been included in section 170 of the *Regulation respecting the regulatory scheme applying to activities on the basis of their environmental impact* (Q-2, r. 17.1 [RRSAABEI]), which group together the regulatory provisions concerning water withdrawal authorizations.

Section 31.95 of the EQA stipulates states:

“If it involves an average quantity or consumptive use of 379,000 litres or more per day ..., a new withdrawal from the Basin, an increase in a new withdrawal or an increase in [an existing withdrawal] ... may be authorized only if it meets the conditions set out below ...:

... (3) the withdrawal or consumptive use is subject to water conservation measures determined by regulation of the Government ...;

(4) the quantity of water withdrawn or consumed is reasonable having regard, among other things, to:

... (b) the measures implemented for the conservation and efficient use of water, including water from existing water supplies”

The authorization process is thus a means to promote the implementation of measures governing conservation and efficient use.

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s. A brief description of Québec's Water Conservation and Efficiency Program that indicates the voluntary and mandatory facets

At the outset of the five-year period 2019-2024, the Québec government undertook a general update of its Water Conservation and Efficiency Program. Appendix 1 indicates the measures followed during the period and their five-year outcomes. This information reveals Québec's efforts to meet the program's objectives.

Most of the measures are under the voluntary responsibility of the Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs, the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec, and the Ministère des Affaires municipales et de l'Habitation. The implementation of measures pertaining to legislation and regulations is mandatory.

16. A description of Québec's strategy to promote judicious water conservation measures from an achievable environmental and economic standpoint

The following table clarifies each objective adopted under the Agreement (Resolution 6 is accessible in English ([Draft Resolution #6--Conservation and Efficiency Objectives \[glsregionalbody.org\]](https://gls.regionalbody.org/))) and describes the orientations by objective in Québec's Water Conservation and Efficiency Program.

OBJECTIVE	REFERENCE TO A STATUTE OR A PROGRAM
Guide programs toward long-term sustainable water use.	The first objective falls directly under the governmental measures focusing on the sustainability of water withdrawals in Québec. Three measures have been implemented to attain this objective. They focus on reduced water use in government buildings, the amendment of the <i>Construction Code</i> , and the sustainable management of municipal water resources.
Adopt and implement supply and demand management to promote efficient use and conservation of water resources.	The second objective concerns the new authorization regime based on the principles of sound management. This objective is linked to several measures pertaining to the <i>Environment Quality Act</i> , such as the establishment of measures governing the conservation and efficient use of water, the assessment of the cumulative impacts of water withdrawals, and broadening knowledge on the repercussions on supply and demand of climate change.
Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs.	The third objective concerns the coordination and follow-up to the Program, for which the MELCCFP is responsible. The measures to seek to develop an approach to assessing the Program and making it an inexhaustible source of knowledge.

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Develop science, technology and research.	The fourth objective focuses on broadening knowledge on the conservation and efficient use of water. The measures introduced are bolstering research, encouraging partnerships, supporting innovation projects, and fostering technological breakthroughs.
Develop education programs and information sharing for all water users.	The fifth objective encompasses effective means to guide, support, and empower water consumers from the standpoint of conservation and efficient use. This objective comprises seven measures that are grouped together under key themes: heighten public awareness of the importance of water and its protection, inform and train the public, elaborate sound communication tools, and acknowledge the efforts made.

17. A description of the timetable and progress in the implementation of Québec's Water Conservation and Efficiency Program

Since the publication in 2013 of Québec's Water Conservation and Efficiency Program, the Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP) has conducted annual follow-up in respect of the measures. In its capacity as coordinator of the Program, the MELCCFP produces an annual report in table form pursuant to section 304 of the Agreement to monitor the progress of each measure. The English and French versions of the reports are available online ([Water Use Efficiency and Conservation – The Great Lakes-St. Lawrence River Water Resources Regional Body \(glsregionalbody.org\)](http://www.glsregionalbody.org)).

The 2024 annual evaluation of the Water Conservation and Efficiency Program coincides with the five-year review of the Program. Accordingly, all the MELCCFP's collaborators and the other provincial government departments have evaluated the five-year progress of each of the measures for which they are responsible. Appendix 1 reviews the outcomes.

Appendix 1: Québec’s Water Conservation and Efficiency Program - Measure monitoring (2019-2024)

Objective 1: Guide programs toward long-term sustainable water use

No.	MEASURE	ORIGIN OF THE MEASURE	JUSTIFICATION	INDICATORS	REPRESENTATIVE	FIVE-YEAR REVIEW (April 1, 2019, to March 31, 2024)
1.1	Pursue the 2018-2025 Québec Strategy for Drinking Water Conservation (QSDWC).	Measure 5.1.2 of the Québec Water Strategy (QWS)	The 2018-2025 QSDWC will guide the municipalities’ efforts to ensure the sustainable management of municipal water and assets. It reflects the desire to guarantee the long-term survival of water services for current and future generations. The objective assessed by this measure is to reduce per capita water consumption in relation to 2015. The second and third objectives of the QSDWC focus on the attainment of reduced leaks in distribution networks and the application by the municipalities of certain principles governing the management of their water infrastructure assets to ensure the maintenance of water services for their residents.	The reduction rate of daily per capita water consumption	The MAMH in collaboration with Québec municipalities	The 2019-2025 QSDWC is ongoing. A specialized team is offering ongoing support to the municipalities in their efforts to conserve drinking water and enhance water resource and asset management. The data used to produce the 2025 review that will be available on March 31, 2026 will reveal whether the objective of reducing by 20% the per capita drinking water volume distributed in Québec has been achieved. The cumulative outcome to date drawn from data in the 2022 review reveals a 15% reduction in per capita water consumption in Québec in relation to 2015. The Québec average thus fell from 573 litres/person/day in 2015 to 487 litres/person/day in 2022, a reduction of 86 litres/person/day. Several factors explain this ongoing reduction in the water volume distributed: (1) the active management of water loss supported by significant investments in recent years by the municipalities, partly through the MAMH’s financial assistance programs to renew water mains; (2) the positive repercussions over 10 years of new water-efficient plumbing equipment;

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						(3) the positive impacts of awareness and education campaigns and the application of municipal bylaws pertaining to efficient drinking water use.
1.2	Amend the chapters of the <i>Construction Code</i> devoted to plumbing and buildings that prohibit the sale or installation of equipment that overconsumes water in the context of the <i>Québec Strategy for Drinking Water Conservation</i> (QSDWC).	Measure No. 7 of the former conservation program Measure 4.2.2 of the QSDWC	The amendment of the <i>Construction Code</i> in the context of the QSDWC seeks to prohibit for the clientele concerned (a) the installation in dwellings of toilets with a flush rate of more than 4.8 litres; (b) shower heads with flow rates of more than 7.6 litres/minute; and (c) washbasin taps with a flow rate of more than 5.7 litres/minute. It therefore reduces drinking water use in the residential and institutional sectors.	Publication by the RBQ of the revised edition of the <i>Construction Code</i> anticipated in the fall of 2020	The Régie du bâtiment du Québec (RBQ) in collaboration with the MAMH	The regulation amending Chapter III - Plumbing of the <i>Construction Code</i> came into force on March 27, 2021, and the three amendments are in force.

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1.3	Pursue the implementation of reduced drinking water consumption policies in government buildings and those in the health and education networks in the context of the QSDWC.	Measure No. 8 of the former conservation program Measure No. 4.2.3 of the QSDWC	The measure in the SQEEP facilitates the adoption of action plans and the implementation of the remedial measures targeted in government buildings to reduce drinking water use in the institutional sector.	Receipt of the annual review of the water-conserving measures carried out by the institutional sector	The MAMH in collaboration with the SQI/MSSS/MEQ/MELCCFP	The implementation of reduced drinking water consumption policies in government buildings and those in the health and education networks in the context of the QSDWC are ongoing. The requisite provisions to attain the objectives set by 2025 have been implemented.

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Objective 2: Adopt and implement supply and demand management to promote efficient use and conservation of water resources

No.	MEASURE	ORIGIN OF THE MEASURE	JUSTIFICATION	INDICATORS	REPRESENTATIVE	FIVE-YEAR REVIEW (April 1, 2019, to March 31, 2024)
2.1	Establish the measures governing conservation and efficient water use applicable in the context of new or increased ministerial water withdrawal authorization applications subject to sections 31.92 and 31.95 of the <i>Environment Quality Act</i> (EQA).	Measure No. 10 of the former conservation program	The measure is part of the ministerial water withdrawal authorization system stipulated in section 22 (2) of the EQA. Water withdrawers must demonstrate the acceptability of their application and may, by way of an example, propose the application of conservation and efficient water use measures to reduce withdrawals. Moreover, the withdrawers of 379,000 litres or more per day subject to sections 31.92 and 31.95 of the EQA must implement conservation and efficient water use measures to request an authorization.	Inventorying of the conservation measures proposed in the ministerial water withdrawal authorization applications subject to sections 31.92 and 31.95 of the EQA analyzed annually	MELCCFP	For the period covered, three authorization documents were issued with respect to section 31.95, and no document was issued as regards section 31.92.

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2.2	Evaluate the cumulative impact of water withdrawals during the analysis of surface water withdrawals subject to ministerial authorization pursuant to the EQA.	Measure No. 11 of the former conservation program	The analysis of the cumulative impacts of water withdrawals ensures that sufficient volumes of water are available to maintain the integrity of ecosystems and respond to users' needs. The analysis at the (sub-) drainage basin level considers current and future flows, water withdrawals upstream and downstream from the withdrawal point, and the consumption of areas of activity. This analysis will pinpoint current and potential conflict zones and highlight the sites and sectors that will require conservation and efficient water use measures.	Number of notices produced by the Direction de l'eau potable et des eaux souterraines et de surface (DEPESS)	MELCCFP	The processing of requests for expert opinions on the analysis of cumulative water withdrawals has been centralized in the DEPESS. The number of requests has increased significantly over the past year. Tools are under preparation to simplify the processing of requests for expert opinions.

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2.3	Develop a methodology to evaluate the cumulative impacts of physical pressures on groundwater resources and specific management zones.	The DEPESS proposed a new measure in 2020	The analysis of ministerial groundwater withdrawal authorization applications must consider the cumulative and anticipated impacts of climate change. This analysis is complex and indicators describing the current and future state of groundwater resources are being developed to facilitate the work of analysts in assessing and approving the requests. Tools such as maps and logical diagrams will be created to pinpoint the groundwater basins now subject to pressure because of anthropic activities such as water withdrawals and urbanization and those at risk because of future climate change impacts and which might require specific resource management measures.	The production of maps that prioritize aquifers (specific management zones) and that integrate the outcomes of the research project with the INRS The production of maps and interpretation aids such as decision trees and guides The development of tools such as maps and logical diagrams to support the analysis of ministerial water withdrawal authorization applications in order to assess the cumulative impacts on groundwater	MELCCFP	In anticipation of the outcomes of the deliberations carried out at the same time, which will facilitate the completion of the maps and tools
2.4	Pursue the Groundwater Knowledge Acquisition Program (PACES).	Measure No. 16 of the former conservation program	The knowledge acquisition program ascertains groundwater volume and recharge in Québec. It facilitates the development and dissemination of knowledge on groundwater supply.	A comprehensive overview of groundwater resources at the regional level for each region, and the dissemination of ground data, map databases, and reports	MELCCFP	All the deliverables have been received and are disseminated on the Données Québec website. In March 2022, almost all of Québec's populated areas were covered.

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Objective 3: Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs

No.	MEASURE	ORIGIN OF THE MEASURE	JUSTIFICATION	INDICATORS	REPRESENTATIVE	FIVE-YEAR REVIEW (April 1, 2019, to March 31, 2024)
3.1	Conduct an annual assessment of the results that the program achieves and submit a report to the Great Lakes—St. Lawrence River Water Resources Regional Body.	Measure No. E3 of the former conservation program	Pursuant to section 31.101 of the <i>Environment Quality Act</i> , the MELCCFP conducts an annual assessment of the outcomes achieved by the program that it implemented pursuant to this section. It must submit to the Great Lakes—St. Lawrence River Water Resources Regional Body a report that indicates the status of the program, and the results achieved.	The annual report is submitted to the Regional Body according to the timetable that it sets	MELCCFP	The annual report has been submitted on time to the Regional Body each year according to the established deadlines.
3.2	Make an annual inventory of new measures adopted by government departments and bodies.	Measure No. E6 of the former conservation program	Facilitates the ongoing updating of the Program and the attainment of regional objectives.	Monitoring of the government's water conservation initiatives.	MELCCFP	The Québec Water Conservation and Efficiency Program was revised in 2019, and new measures came into force in the winter of 2020. Following the publication of the <i>National Water Plan</i> , a comprehensive revision is planned for 2025.

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3.3	Disseminate the outcomes of measure monitoring.	Measure No. E7 of the former conservation program	The MELCCFP must monitor the advancement of the measures and draft an annual review of the Program. The results are disseminated on the MELCCFP website.	Dissemination of the results of annual measure monitoring on the MELCCFP website	MELCCFP	When the annual report is disseminated on the Regional Body's website, it is also disseminated on the MELCCFP website.
3.4	Present the five-year evaluation report to the members of the Regional Body and disseminate it on the Regional Body's website.	Measure No. E8 of the former conservation program	Every five years, the MELCCFP must assess the attainment of the Program's objectives. It must draft and make public a five-year review of the Program to be disseminated on the Regional Body's website.	Submission to the Regional Body of the five-year review	MELCCFP	The 2019 five-year report was submitted to the Regional Body and is disseminated on its website. The 2024 five-year report will be submitted to the Regional Body within the established deadline.

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Objective 4: Develop science, technology and research

No.	MEASURE	ORIGIN OF THE MEASURE	JUSTIFICATION	INDICATORS	REPRESENTATIVE	FIVE-YEAR REVIEW (April 1, 2019, to March 31, 2024)
4.1	Carry out a knowledge acquisition project devoted to groundwater in the Cree territory.	Measure No. 1.2.1.1 of the QWS	The territory of the Cree Nation encompasses significant, vulnerable water resources that are increasingly subject to anthropic pressures such as hydroelectric power development, forestry, and mining. This project seeks to provide a comprehensive picture of groundwater in the territory of the Eastmain Cree community. It will equip local governments and the Cree Nation Government to better manage planning, development, and land-use planning by ensuring the assessment and protection of aquifers and groundwater resources.	A comprehensive picture of groundwater resources in the territory of the Cree community Tools that enable local governments and the Cree Nation Government to better plan development and land-use planning	MELCCFP	The pilot project in the Eastmain territory ended in March 2022. The methodology developed is being applied in the context of a second project in the territory of Chisasibi and will be completed in March 2028.

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4.2	Carry out in the Îles-de-la-Madeleine region a groundwater knowledge acquisition project and a project to develop a coastal aquifer characterization method.	Measure No. 1.2.1.3 of the QWS	The groundwater knowledge acquisition projects in the Îles-de-la-Madeleine, funded by the QWS, seek to protect and effectively manage groundwater in this specific island environment.	A comprehensive overview of groundwater resources in the Îles-de-la-Madeleine The dissemination of ground data, map databases, and reports Enhanced protection of groundwater through the elaboration of recommendations respecting sustainable exploitation	MELCCFP	All the deliverables have been received and are disseminated on the Données Québec website.
4.3	Carry out research projects focusing on the impact of climate change on groundwater resources.	A new measure (2020)	Several projects under way, funded by the <i>Climate Change Action Plan</i> (CCAP) and the Green Fund, seek to broaden understanding of the relationship between climate change and groundwater resources.	Conduct a quantitative assessment of climate change impacts on groundwater resources by means of integrated modelling, especially on recharge. Develop water management indicators and management tools.	MELCCFP	All of the deliverables have been received.

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4.4	Support agri-food innovation projects.	Measure No. 30 of the former conservation program	Certain projects funded by the Biofood Innovation Program or the Prime-Vert program concern the optimization of agricultural water use. This measure supports the development of new agriculture-related water technologies.	Number of projects completed annually	MAPAQ	Some 22 projects were funded and completed between April 2019 and March 2024. The final reports are available upon request from the MAPAQ.
4.5	Carry out research and technology transfer projects focusing on the conservation and optimization of water use in agriculture.	Measure No. 25 of the former conservation program	This measure focuses on research and technology transfer projects pertaining to the conservation and optimization of water use in the agriculture sector. The outcomes of the projects consolidate knowledge on water use in the agriculture sector and thus to pinpoint effective means to reduce water use in this area of activity.	Number of projects completed	MAPAQ	A research project (Radeau 1), which ended in 2019, was funded to inventory water use conflicts in five agricultural regions in Québec. A second research project (Radeau 2), which ended in March 2020, was funded to pursue initiatives in six other agricultural regions in Québec.
4.6	Participate in events and on committees that assemble experts in the field to enhance the MAMH's knowledge on concepts linked to reduced water consumption in	Measure No. 21 of the former conservation program	In the context of the QSDWC, the MAMH is participating in the training programs offered by the American Water Works Association (AWWA) and the Canadian committee on water conservation. This measure is facilitating the development and consolidation of knowledge on the conservation and efficient use of water in the municipal sector.	Number of participations on Canadian and Québec water conservation committees and in AWWA training programs.	MAMH	The MAMH has participated in telephone conference calls of the Water Efficiency Committee of the Canadian Water and Wastewater Association, the Performance Indicator Task Force, and the Audit Committee of the American Water Works Association (AWWA).

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	the context of the QSDWC.					
4.7	Produce annual municipal reports on water use to assess the volumes of water distributed and water losses in distribution networks in the context of the QSDWC.	Measure No. 23 of the former conservation program	In the context of the QSDWC, the municipalities must produce an annual review of their water use. A central database groups together the data transmitted by the municipalities (roughly 200 entries per municipality). This measure facilitates the consolidation of knowledge on the volumes of water distributed and water loss in municipal networks.	The percentage of Québec municipalities that possess a distribution network that have produced their annual water use review	MAMH	Knowledge of the volumes of water distributed and water loss in municipal distribution networks is consolidated annually by means of the updating of the database and the annual report on drinking water use. These documents are available online: https://www.quebec.ca/gouvernement/ministere/affaires-municipales/publications/strategie-economie-potable/cartographie-avancement-strategie

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Objective 5: Develop education programs and information sharing for all water users

No.	MEASURE	ORIGIN OF THE MEASURE	JUSTIFICATION	INDICATORS	REPRESENTATIVE	FIVE-YEAR REVIEW (April 1, 2019, to March 31, 2024)
5.1	Elaborate and implement in the context of the QWS awareness-raising measures for Water Month (June).	Measure No. 5.1.1 of the QWS	Activities during Water Month funded in the context of the QWS seek to encourage Quebecers to conserve water, a fragile, exhaustible resource. To concretely highlight this initiative, activities such as river descents, awareness-raising events focusing on lakes, the distribution of awareness-raising material, information evenings, and school workshops are organized throughout Québec. Watershed organizations and regional issue tables coordinate these local projects. The Regroupement des organismes de bassins versants du Québec (ROBVQ) has a mandate to develop basic tools such as model press releases and posters, logos, and social media feeds to support watershed organizations and regional issue tables to organize activities in the field.	Number of publications on the social networks of the watershed organizations, the regional issue tables, and the ROBVQ. Number of activities carried out	MELCCFP	- Between 2018 and 2023, 938 activities, including 739 awareness-raising and mobilization activities were carried out - From 2019 to 2023, 86 000 individuals participated directly in activities - The social media reached 2 436 111 individuals between 2019 and 2023 - Matching funds: \$188 681 from 2021 to 2023

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5.2	Heighten public awareness of the protection and sustainable use of water.	Measure No. 5.1.4 of the QWS	The development and implementation of an awareness campaign funded in the context of the QWS sought to inform Quebecers and heighten their awareness of challenges related to the protection, conservation, and sustainable use of water with a view to achieving behavioural change. More specifically, this measure seeks to elaborate and implement a province-wide water-related social marketing campaign focusing on themes related to the protection, conservation, and sustainable use of water, culminating in Water Month in June each year. It will also propose tools and activities related to the themes broached. The three unifying themes pinpointed are: - water conservation: reduce consumption in the home; - a “water balance” on property, following the example of the concept of the carbon balance, encourage individuals to maintain a neutral balance of the quality of water that flows on their property; - the end of “everything-down-the-drain”: reduce individual discharges into sewer systems.	Number of deliverables submitted	MELCCFP	As the 2023 annual report of the Water Conservation and Efficiency Program noted, “Pensez bleu,” the initial province-wide water-related awareness-raising campaign, which began on June 4, 2020, ended on August 31, 2021. During this period: - all the deliverables expected were submitted to the MELCCFP within the established deadlines; - the pensezbleu.com website was created and launched on June 1, 2020; - “Pensez bleu” pages were created in late May 2020 on Facebook and Instagram; - four videos (“La toilette, c’est pas une poubelle,” “Les vieux médicaments retournent à la pharmacie,” “L’évier, c’est pas un écocentre,” and “La cour au naturel” were broadcast on television; - 15 influencers collaborated on the campaign; - the <i>Guide d’aménagement et d’entretien durables des propriétés résidentielles</i> was updated; - the “Plein d’amour pour ma cour” contest was created. The March 2023 Budget announced a second province-wide water-related awareness-raising campaign. A financial assistance agreement was signed with the Réseau Environnement to coordinate the second edition of the campaign, in collaboration with the Regroupement des organismes de bassins versants du Québec and the Centre d’interprétation de l’eau.

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5.3	Offer workshops to transfer knowledge stemming from new groundwater knowledge acquisition projects to managers of the territory and groundwater resources such as the municipalities, the RCMs, watershed organizations, and analysts in the regional offices of the MELCCFP.	A new measure (2020)	The workshops to transfer knowledge stemming from new groundwater knowledge acquisition projects are being offered to managers of the territory and groundwater resources such as the municipalities, the RCMs, watershed organizations, and analysts in the regional offices of the MELCCFP to better equip them to ensure the long-term survival of groundwater resources.	Number of knowledge transfer workshops held each year	MELCCFP	All of the workshops planned were held.
5.4	Organize and prepare training sessions on water conservation to support the municipalities in the context	Measure No. 22 of the former conservation program Measure No. 4.2.4 of the QSDWC	The strategy will be presented at conventions and conferences. This measure is consolidating knowledge on the conservation and efficient use of water and disseminating such knowledge among stakeholders in the municipal sector.	Number of training sessions devoted to water conservation each year	MAMH	Each year, the MAMH has organized and held training sessions devoted to drinking water conservation to support the municipalities. It has also participated in various conventions and day-long events that assemble engineers, professionals from the municipal sector, and elected representatives, thereby engaging with several hundred representatives of the municipal sector to support them in their initiatives.

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	of the <i>Québec Strategy for Drinking Water Conservation</i> (QSDWC).					
5.5	Pursue the partnership with the Réseau Environnement for the Municipalité Écon'Eau program, which heightens public awareness in collaboration with the municipalities in the context of the QSDWC.	Measure No. 35 of the former conservation program	Municipalité Écon'Eau is a recognition and water conservation exchange program that seeks to encourage and equip Québec municipalities in the context of the QSDWC and to recognize their water conservation initiatives through indicators elaborated by Réseau Environnement. The participating municipalities can measure their performance and receive recommendations. In addition to recognizing the efforts made, Municipalité Écon'eau offers an expertise exchange community. The "La fin du "tout-à-l'égout" campaign seeks to reduce individual discharges into sewer systems.	The number of municipalities that have participated each year in the Municipalité Écon'Eau program	The MAMH in collaboration with Réseau Environnement	The annual "Mon empreinte bleue" campaign began on May 20, 2021, and ended in the fall of the same year. Nearly 100 000 downloads of the tools in the toolkit were recorded.

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5.6	Dissemination of the <i>Rapport sur l'état des ressources en eau et des écosystèmes aquatiques au Québec</i> .	Measure No. 39 of the former conservation program	The five-year report on the state of Québec's water resources and aquatic ecosystems seeks to inform all individuals and groups concerned with water and aquatic ecosystems to enrich their knowledge and help them to better grasp the challenges related to water resources and aquatic ecosystems.	State of advancement (as a percentage) of the deliberations in the annual report.	MELCCFP	- The 2020 report was finalized and published in December 2020. - Preparatory work, i.e., the choice of indicators and the production of the supporting documents, for the drafting of the 2025 report was carried out in 2023. - Drafting of the 2025 report began in January 2024.
5.7	Production of guides and the translation of the manuals of the American Water Works Association (AWWA) in the context of the QSDWC.	Measure No. 41 of the former conservation program	To equip the municipalities in the context of the QSDWC, documents such as a model municipal bylaw on drinking water use, a simple form to measure the results, a guide entitled "L'économie d'eau potable et les municipalités," the manuals of the AWWA translated into French, and an economic assessment of the Strategy, have been produced and other documents such as a model specification to locate leaks, an economic impact study for the installation of meters, and a rate system are being prepared.	Number of guides produced or updated	MAMH	The MAMH has regularly produced and updated guides and tools and has also translated the water audit manual of the American Water Works Association (AWWA).