

**Great Lakes—St. Lawrence River Basin Water Resources Council
Meeting Summary
June 15, 2023**

Approx: 10:05 a.m. CST

University of Wisconsin-Milwaukee School of Freshwater Sciences
Room 3080
600 East Greenfield Avenue
Milwaukee, WI 53204

Remote participation was available to individuals registering at:
<https://attendee.gotowebinar.com/register/6630142407964385371>

Listen only mode was available by calling:

Canada: +1 (647) 497-9368

United States: +1 (914) 614-3429 Passcode: 538-876-279

Notice:

Notice of the meeting was provided to the public through the Great Lakes Information Network's distribution list on May 16, 2023. Notice was also posted to the Great Lakes-St. Lawrence River Water Resources Council (Compact Council) website at www.glscompactcouncil.org. The notice included an announcement that the meeting agenda, draft resolutions and materials to be discussed during the meeting were available on the Compact Council's website. Call-in information was also posted to the front page of the Compact Council website.

Call of Meeting:

10:15 a.m. CST— The meeting was called to order by Adam Payne, Secretary of the Wisconsin Department of Natural Resources.

Roll Call:

The following Compact Council members, constituting a quorum, were present:

Illinois (designee of Governor J.B. Pritzker): John Rogner, Assistant Director, Illinois Department of Natural Resources.

Indiana (designee of Governor Eric Holcomb): Ryan Mueller, Deputy Director, Indiana Department of Natural Resources.

Michigan (designee of Governor Gretchen Whitmer): Emily Finnell, Great Lakes Senior Advisor and Strategist, Office of the Great Lakes, on behalf of James Clift, Deputy Director, Michigan Department of Environment, Great Lakes & Energy.¹

Minnesota (designee of Governor Tim Walz): Jess Richards, Assistant Commissioner, Minnesota Department of Natural Resources.

New York (designee of Governor Kathy Hochul): Karen Stainbrook¹, Director, Bureau of Water Resource Management, Division of Water New York State Department of

¹ Signed proxy forms for individuals participating on behalf of official member designees are available upon request.

Environmental Conservation on behalf of James Tierney, Deputy Commissioner, New York State Department of Environmental Conservation.²

Ohio (designee of Governor Mike DeWine): Brad Lodge¹, Water Inventory and Planning Program Manager, on behalf of Mary Mertz, Director, Ohio Department of Natural Resources.

Pennsylvania (designee of Governor Josh Shapiro): Tim Bruno, Chief, Office of the Great Lakes, Pennsylvania Department of Environmental Protection.

Wisconsin (designee of Governor Tony Evers): Adam Payne, Secretary, Wisconsin Department of Natural Resources

Actions Taken

Review of December 16, 2022 Compact Council meeting minutes

Secretary Payne asked for a motion that the December 16, 2022 Compact Council meeting minutes be approved as posted. Mr. Richards moved to approve, and Mr. Bruno seconded the motion. The minutes were approved without objection.

Reports

Noting that the Regional Body meeting adjourned immediately prior to the Compact Council meeting, a motion was made by Mr. Mueller to incorporate minutes of the Regional Body reports into the Compact Council minutes. Mr. Lodge seconded the motion. The motion was approved. Pursuant to the approved motion, the following reports are incorporated by reference into the Compact Council's record and re-printed in their entirety below:

State updates on implementation of the Great Lakes—St. Lawrence River Basin Water Resources Compact (Compact).

Wisconsin

Secretary Payne submitted the following report:

City of Waukesha Diversion

The City of Waukesha Diversion project continues to move forward, and the Lake Michigan water supply to the City is expected to start in September 2023. The water utility manager, Dan Duchniak will provide an overview of the project and final stages of implementation in a presentation at this meeting. The City completed an update to their Water Conservation and Efficiency Plan in April 2023 and are finalizing their plan to monitoring the Root River, as required by the Compact Council decision approving the diversion of Lake Michigan water.

² Karen Stainbrook of the New York Department of Environmental Conservation also participated on behalf of Don Zelazny, providing the jurisdictional report incorporated herein and voting on all matters other than on the proposed FY 2024 budget. A proxy form for her is also available upon request.

Information on permits and approvals is available on the Wisconsin DNR website, [City of Waukesha diversion page](#) and Wisconsin DNR representatives are happy to discuss any aspects of City of Waukesha’s diversion approval and implementation further with interested parties.

Diversions Approvals

Wisconsin has three other diversions approved under the Great Lakes Compact for the City of New Berlin, the City of Racine and the Village of Somers. These communities are all required to submit annual reports to the Wisconsin DNR and they are available on the [Wisconsin DNR water use webpage](#).

Water Use

Water use reports for 2022 were due to the Wisconsin DNR March 1, 2023. Ninety-three percent of these reports have been submitted to date, with 69 percent of these reports submitted online. Wisconsin has received reports on almost 14,000 ground and surface water sources. Wisconsin is on track for reviewing these data and submitting the water use report to the Great Lakes Commission in August. Wisconsin DNR recently released an updated Water Use StoryMap and 2021 Water Use report. These materials highlight the way that water is used in Wisconsin. These reports are available on the Wisconsin DNR [water use webpage](#).

Administrative Rules

Wisconsin DNR is continuing the process of promulgating rules related to Water Supply Service Area Plans and Diversion applications. These rules do not change any of the Compact standards as the standards are codified in Wisconsin’s Compact implementing statutes, but rather describe the application requirements and DNR review process for plans and diversion applications. The scope statement for the rules were approved by the DNR Board in June 2022 and the Wisconsin DNR has drafted the rules. Draft rules will be provided to the Wisconsin DNR Board by Fall 2023, with subsequent opportunities for a public hearing and public comment. More information can be found at <https://dnr.wisconsin.gov/topic/WaterUse/ImplementationRules>

PFAS

Like our neighboring states, PFAS contamination in Wisconsin is a threat to the state’s economy, our health and well-being, and our way of life. Clean drinking water is one of our governor’s highest priorities and we’re working with him and our legislature to provide funding to help communities address and prevent PFAS contamination. We have set enforceable standards for public drinking water and surface water. We’ve issued necessary consumption advice on rainbow smelt caught from Lake Superior and Green Bay. More information can be found at [PFAS | Wisconsin DNR](#).

Milwaukee Estuary Area of Concern (AOC)

The Milwaukee Estuary was designated as a problem area 25 years ago due to industrial activities that released toxic contaminants to the river system. We have made great

strides in cleaning up this waterway by working closely with our partners to address impairments. We continue to work together to secure funding to dredge and dispose of contaminated sediments from the estuary to meet the Biden Administrations goal of fully restoring and delisting this AOC. More information can be found at [Milwaukee Estuary Area of Concern | Wisconsin DNR](#)

Illinois

Mr Rogner submitted the following report:

Lake Michigan Diversion

Illinois continues to manage Illinois' diversion of water from Lake Michigan and remains well within the limits of the 1967 Supreme Court Decree, amended in 1980, limiting Illinois' diversion to 3,200 cubic feet per second (cfs) based on a 40-year running average. Such diversion management is further authorized by the "LEVEL OF LAKE MICHIGAN ACT" [615 ILCS 50], and implemented by the Illinois Department of Natural Resources, Office of Water Resources (hereafter Department) under Illinois Part 3730 Rules ("ALLOCATION OF WATER FROM LAKE MICHIGAN"). The state of Illinois recently hired Russ Flinchum as Chief of the Lake Michigan Programs Section that includes the Lake Michigan Water Allocation Program.

Illinois' Diversion Accounting is overseen by the U.S. Army Corps of Engineers (USACE). The USACE's most recent certified diversion report, water year (WY) 2019 (October 1, 2018, through September 30, 2019 – a very wet period) states Illinois' WY2019 certified flow is **3198 cfs with a 40-year running average of 3039 cfs**. As the older, much higher water use numbers drop out the back end of running average, the running average continues to generally decline reflecting much improved water conservation in Illinois.

Lake Michigan Water Use Data Collection

The Department continues to collect potable water supply, consumption, and water loss information from each of its 219 Lake Michigan Water Allocation Program permittees on an annual basis as required by their allocation permits. The process is highly interactive and allows permittees and the Department staff to work together to evaluate water system performance and investigate ways to reduce water loss. All permittees submitted data to the Department for WY2019. Information for water years 2020 through 2022 is still being received and reviewed by the Department.

Direct diverters in Illinois are required to provide monthly pumpage information including daily pumpage values and the amount of water exported/sold to other Lake Michigan allocation permittees. A direct diverter is a permittee who has an intake structure on Lake Michigan or is the first Illinois user of water diverted from outside of Illinois. There are currently 19 direct diverters. The Metropolitan Water Reclamation District of Greater Chicago submits monthly reports detailing Lake Michigan water used for Direct Diversion. Direct Diversion also includes releases at the Lake Michigan control structures including lockage, leakage, navigational make up, and discretionary flow. All

direct diversion data collected continues to be submitted to the USACE to be used for diversion accounting.

Water Conservation

The Department's regulatory threshold for non-revenue water is 10%. All Domestic permittees that exceed the Department's non-revenue water threshold are required to submit a water system improvement plan that outline actions the permittee plans to undertake, along with a timeframe, to reduce non-revenue water to the 10% threshold requirement or below. Currently about 43% of Illinois permittees are not in compliance with the Department's threshold requirement and increasing, primarily due to aging infrastructure. The Department is in the process of expanding the allocation program staffing to focus on water loss in the region and to evaluate the types of planning assistance that could be provided to permittees help reduce non-revenue water, particularly for economically marginalized and disadvantaged communities. The Department is augmenting staff to identify needs to help these communities: 1) track and better advance implementation of their Water System Improvement Plans, and 2) bridge the gap between Water System Improvement Plan goals and actual development of bid documents needed to seek potential project grants.

Lake Michigan Water Re-Allocations

Approximately every 10 years, the Department reviews each domestic water permittee's Lake Michigan water allocation. The last comprehensive review was in 2008. Delayed by COVID impacts, the primary goal of this review is to adjust each permittee's allocation, as needed, to reflect future water demand through water year 2050. The water demand projections are developed based upon both historical use and future projections. In general, most pending re-allocations are being reduced relative to the allocations developed in 2008 due to more comprehensive reduced water use data being available over the last 14 years, and stricter water loss constraint implementation. For example, previous total domestic allocation for 2030 drops from 1,210 MGD to 957 MGD, almost 21%. Permittees were provided provisional revised allocations and offered an opportunity to contest and change the draft re-allocation if better information was provided to support the need. The Department will be conducting its final re-allocation hearing on June 22, 2023, and a re-allocation order is anticipated shortly thereafter in 2023.

New Allocations and Requests

The Department issued an allocation permit to the City of Joliet on November 17, 2021 for 15.615MGD in 2030 increasing to 18.604MGD in 2050 to eliminate their dependence on deep aquifer well water supply. Joliet's permit includes a special condition requiring their non-revenue water be reduced to 10% or less by Water Year 2030 when the City anticipates beginning use of Lake Michigan water after demonstrating full compliance with this special condition. This reduction in non-revenue water is primarily to be achieved by replacing nearly 200 miles of existing water main. Joliet is diligently working on these water system improvements and the Department continues to

coordinate with Joliet to monitor the progress of their water main replacements and non-revenue water reduction efforts. The Department does not, however, regulate formal agreements (such as the Chicago-Joliet arrangement) to deliver Lake Michigan water to the community.

Between September 2021 and June 2023, the Department received nine applications for Lake Michigan water allocations. These include the following entities:

- Village of Lemont, IL
- Village of Romeoville, IL
- City of Crest Hill, IL
- Village of Oswego, IL
- Village of Channahon, IL
- Village of Minooka, IL
- Village of Montgomery, IL
- United City of Yorkville, IL
- Pekara System – Lake County, IL

Under Illinois Part 3730 rules, any entity petitioning for a Lake Michigan water allocation must demonstrate acceptable standalone justification to support the petition regardless of other pending petitions for Lake Michigan water. All of these communities except Crest Hill access the deep aquifer for a portion of their supply. Petition reviews, pre-hearings, and the hearing process is currently underway for these entities.

In addition to the applications mentioned above, the Village of Oak Brook and Aqua Illinois, Inc. are working together to remove five non-contiguous areas from Oak Brook's current allocation and have Aqua Illinois, Inc. acquire the associated water systems. Aqua Illinois, Inc. has installed new monitoring equipment in these areas. After sufficient water use data has been collected, Aqua Illinois, Inc. will apply for five new allocations for the removed areas and own and operate the systems in the future. Accordingly, Oak Brook's current allocation will then be amended downward.

Brandon Road

In collaboration with the US Army Corps of Engineers and with significant support from the state of Michigan, design of the Brandon Road Interbasin Project continues. The current plan involves a layered system of structural and non-structural control measures, to be constructed in increments, including technologies such as a flushing lock, an engineered channel with electric barrier, underwater acoustic deterrent, and air bubble curtain and other improvements. Earlier this year, Illinois and Michigan provided additional "accelerated non-federal sponsor funding" to the Corps of Engineers to allow the continued use of state resources for the preconstruction, engineering, and design (PED) to allow continued design efforts into the spring of 2023. Accordingly, design efforts for "Increment 1A," a standalone leading-edge sound and bubble deterrent system, are nearly complete. Most of the supporting infrastructure for Increment 1A will be located out of the floodway on the peninsula separating the lock channel from the Des Plaines River. Design team leadership continue to collaborate to address key project challenges including project costs, private land rights, potentially hazardous

waste remediation, Project Partnership Agreement terms, and project regulatory matters needing resolution to release both state and federal construction dollars. The Corps has agreed to obtain a state of Illinois public waters permit for the project, and design team efforts continue to resolve right-of-way and potentially hazardous waste challenges.

Earlier this spring, the Corps released a new certified cost estimate of \$1.146 Billion Dollars for the project. The 2022 Water Resources Development Act (WRDA22) thankfully changed the federal/non-federal cost share ratio to 90/10 providing an estimated non-federal sponsor savings of over \$100 Million Dollars. Project OMRR&R currently remains at an 80/20 annual cost share estimate with the federal government assuming full responsibility for the Brandon Road lock. Governor Pritzker included \$50 Million Dollars in the Illinois FY-24 Budget recently signed into law for project non-federal sponsor funding. The state of Michigan's pending budget also includes \$64 Million Dollars to supplement Illinois' non-federal sponsor funds to complete the project. This new funding demonstrates Illinois and Michigan's unified support and commitment to complete the Brandon Road Interbasin Project and provide additional measures to help protect the Great Lakes from invasive species.

Finally, the states of Illinois and Michigan, with facilitation from the Great Lakes Commission supported by the Joyce Foundation, continue to hold regular Great Lakes State and Provincial Forums to advance collaborative discussions among state and provincial leaders toward implementation of deterrent measures at Brandon Road.

Coastal Management Program and Shoreline Resilience

The Department continues to work to increase coastal resiliency and improve coastal habitats via projects like the recent reconnection of Powder Horn Lake to Wolf Lake. The Department and partner agencies continue to conduct biological and hydrodynamic monitoring at the Illinois Beach State Park (IBSP) "rubble ridge" shoreline protection project to gather data that will allow the Department to determine the efficacy of this novel intervention. These 750-foot-long "rubble stone ridges" are intended to work in concert to lessen storm waves and protect the unique dune and swale ecosystem while preserving views and enhancing fish habitat. The Department has also initiated design-build construction of a large-scale shoreline break water protection project at IBSP that will protect nearly 2.2 miles of Illinois Beach State Park shoreline via creatively shaped and formulated islands and submerged reef structures, positioned to reduce the erosive force of incoming waves, redirect nearshore currents, and provide a new home to shoreline aquatic and avian species.

Lastly, the Department is excited to begin working with the seven other Great Lake states, and the USACE to conduct a comprehensive watershed assessment of the Great Lakes coastal areas via the Great Lakes Coastal Resiliency Study aimed at protecting the immense economic, environmental and social value of the Great Lakes coast.

Department staff are actively involved in associated project development of the Lake

Michigan Coastal Resiliency Initiative, assisting communities with developing projects for engineering and design support from NOAA and the Great Lakes and St. Lawrence Cities Initiative. This resiliency initiative provides training and technical assistance to municipalities around Lake Michigan to support the development of nature-based solutions to impacts experienced in coastal areas, including erosion, flooding and severe storm events.

Respectfully submitted on behalf of the Honorable JB Pritzker, Governor of Illinois,

John Rogner
IDNR, Assistant Director

Indiana

Mr. Mueller provided the following report:

Thank you Mr. Chairman and good morning everyone. I'm Ryan Mueller, Deputy Director for the Indiana Department of Natural Resources, representing Governor Eric Holcomb.

Today I'll briefly review Water use in the Indiana portion of GL basin for reporting year 2021

- Currently there are 1074 Significant Water Withdrawal Facilities (SWWF) registered in the Basin.
- SWWF has the capacity to withdrawal 100,000 gallons a day.
- Have added about 30 new facilities in last two years, mostly irrigation
- Water use in the Basin for 2021 totaled approximately ~550 billion gallons
- There has been a decrease of about 250 billion gallons over the last 5 years, mainly driven by Energy Production/ Industrial use that have implemented conservation measures or that have ceased operations

- Of the 1074 SWWF:
 - o 1619 wells (a facility can have multiple wells / intakes) – Accounting for 33 BG
 - o 247 surface intakes – Accounting for 523 BG

Staff are currently finalizing water use data for the 2022 reporting year. Thank you and this concludes my report.

Michigan

Ms. Finnell submitted the following report:

Michigan's Water Use Program (Program) continues to work with the Water Use Advisory Council (WUAC) to advance and improve Michigan's Program. The WUAC continues to play a key role in water management and water conservation and efficiency in Michigan.

WUAC 2022 Biennial Legislative Report

In late December 2022, the WUAC submitted [its biennial report](#) to the Michigan Legislature. The recommendations put forward focus on improving the Water Withdrawal Assessment Tool, conducting additional streamflow research, developing new models, and implementing an irrigation pilot project to evaluate and retrofit irrigation systems. The proposed pilot irrigation program would evaluate and retrofit existing irrigation systems to improve water and energy efficiency. The project estimates to save 3.2 MG of water on a 100-acre irrigated field per year.

WUAC 2020 Biennial Report Recommended Funding

Since the Michigan Legislature approved approximately \$10 million to fund the WUAC's 2020 Biennial Legislative Report recommendations, the Michigan Department of Environment, Great Lakes, and Energy (EGLE) has been working to develop grant agreements and requests for proposals to implement WUAC recommendations. This includes creating the Michigan Hydrologic Framework for groundwater and surface water models, updating the aquifer properties (transmissivity and storage coefficient) used by the Water Withdrawal Assessment Tool's groundwater model, and using transition probability groundwater modeling in two counties in southern Michigan where agricultural irrigation is common.

The funds approved by the Legislature also provide support for two recommendations put forward by the council's Water Conservation and Efficiency Committee. Michigan State University Extension will be hiring additional educators focused on water conservation and efficiency in agriculture and expanding programming to include animal industries. EGLE's Office of the Great Lakes will be issuing a Request for Proposals for a project to identify innovations and technological advancements in water conservation best practices that can benefit Michigan's water sectors with a focus on business and industry sectors. This project will be co-funded by the WUAC's funding and the Michigan Great Lakes Protection Fund.

Michigan Water Withdrawals

To date, in 2023, there have been 243 new large quantity withdrawals (LQW) registered or permitted. Program staff members conducted 112 reviews of withdrawal requests or permit applications, and 131 were self-registered via the Water Withdrawal Assessment Tool.

Data Collection, Data Warehouse, and Models

The WUAC's Data Collection and Models Committees continue to assess the web-squared model for allocating stream flow depletions from groundwater withdrawals, and stream temperature classifications on the sub-watershed scale.

Work continues to develop an agency-wide groundwater data warehouse. This will provide a common location and format for environmental data submitted by EGLE staff

and external parties. The system will be linked to Geographic Information System (GIS) data layers for visual presentation of data as well as being linked to other external databases (e.g., federal agencies' databases). The data warehouse system will be expanded in the future to include other types of environmental data (e.g., geologic, surface water, sediment, soils, soil gas).

Water Infrastructure – State Revolving Fund

Demand remains strong for water infrastructure projects with the State Revolving Fund (SRF) receiving over 600 requests for over \$5.1 billion in 2024. The number of requests has doubled each year since 2021. Several factors have contributed to the increased demand on the SRF, including an improved application process, an increase in principal forgiveness allocated, the lowest interest rates in program history, and additional general fund allocations to compliment the SRF. The SRF will not be able to finance all of the 10 submitted requests.

MI Healthy Climate Plan

EGLE's Office of Climate and Energy (OCE) held the first MI Healthy Climate Plan Conference, April 11 and 12, in Detroit, Michigan. This two-day conference brought together more than 600 participants working to create synergies and opportunities to advance the MI Healthy Climate Plan and its goal of carbon neutrality by 2050 for Michigan.

The OCE also received a \$3 million planning grant from the U.S. Environmental Protection Agency (EPA). The grant will help develop innovative strategies to cut climate pollution and expand Michigan's clean energy economy. The grant opens the door for Michigan to apply for the \$4.6 billion in funding to implement projects and initiatives related to climate change.

Outreach and Education

EGLE organized a variety of outreach events to address Michigan's education and outreach goals to promote water sustainability and stewardship. EGLE's Office of the Clean Water Public Advocate hosted [Fix-a-Leak Week](#) in March to raise awareness about water leaks and provide resources to find and address common household leaks.

As part of Earth Day celebrations, Governor Whitmer [proclaimed](#) the Year of Clean Water in honor of the 50th anniversary of the Clean Water Act. The proclamation highlighted 13 ways to learn about and get involved in improving the quality and health of Michigan's rivers, streams, lakes, wetlands, and watersheds.

EGLE's Office of the Clean Water Public Advocate also hosted [Drinking Water Week](#) in early May, focusing on public education about the provenance of drinking water, water quality, residential wells and contamination prevention.

From June 3-11, the OGL hosted [Great Lakes and Fresh Water Week](#) to raise awareness and promote stewardship of the Great Lakes and Michigan's inland lakes, rivers, streams, and groundwater. Among many activities, the OGL hosted a public webinar

about water workforce development. EGLE partnered with the Department of Natural Resources and the Southeast Michigan Council of Governments to host events. The OGL will be filling a full-time Great Lakes Stewardship Coordinator position to support statewide efforts to promote water conservation and stewardship.

Minnesota

Mr. Richards submitted the following report

OVERVIEW OF WATER USE IN MINNESOTA'S LAKE SUPERIOR BASIN

- There are currently 151 active water appropriation permits in the Minnesota Lake Superior Basin (one more than in December 2022. There are 32 new permits so far this year and nine with expiration dates in 2023.
- A city in the Basin has requested to increase their appropriation and pumping rate and change their use type to industrial, but there are questions on whether the intended use is consumptive or non-consumptive, and whether the change might engage the GLC requirements.
- Most of Minnesota's water use in the Basin is for industrial uses, power generation and public water supply.
- Minnesota is still processing 2022 water use data, and we will provide more information in December.

PROMOTING EFFICIENT USE AND NATURAL RESOURCE CONSERVATION

- The Minnesota Dept. of Health, is currently working through its Drinking Water Revolving Fund project priority list after the Minnesota Legislature passed a bonding bill and also provided the necessary state match to access Federal Infrastructure Investment and Jobs Act funds. At this time, 17 projects in the Minnesota Lake Superior Basin are set to receive approximately \$43.5M, but that list may grow.
- Minnesota approved the St. Louis River Comprehensive Watershed Management Plan (The St. Louis One Watershed, One Plan), in March. The plan area covers over 3000 square miles and includes over 500 lakes and 2000 miles of streams in the Lake Superior watershed. The result is a comprehensive watershed management plan that targets projects that protect and restore the watershed's most valuable resources.
- Much of Minnesota is again moving into a Drought Watch phase, including the Lake Superior Watershed. We will soon be sending notices out to municipalities across the state to encourage the implementation of additional water conservation measures.

St. Louis River Area of Concern

- US EPA has determined that the targets were met and approved the removal of the degraded fish and wildlife populations beneficial use impairment in SLRAOC
- As of March 2023, out of 80 management actions in the remedial action plan:
 - 7 need no further action,

Draft—For Discussion Purposes Only

- 44 are completed,
- 10 remediation projects are in progress,
- 8 restoration projects are in progress,
- 11 other actions like studies, tracking, etc. are in progress
- Examples of projects underway include:
 - Perch Lake: which will restore connection between Perch Lake and the St. Louis River Estuary in August 2023 to improve circulation and water quality in a lake designated as a resource of outstanding biological significance.
 - Spirit Lake: Remediating an area After last year’s completion of dredging contaminated soils and capping necessary areas, habitat restoration plantings and pedestrian trail construction will happen this summer.
- SLRAOC projects have involved several partners including the MN DNR, MPCA, City of Duluth, Fond du Lac Band of Chippewa, USEPA , USACE and others.

EDUCATION PROGRAMS

- The We Are Water program partnership with the Minnesota Humanities Center continues sharing its traveling exhibit to increase community engagement with water sustainability in places across Minnesota. This year’s cohort includes another 5 organizations from rural areas to the metro. Planning for next year’s cohort is ongoing and will likely include a site in Duluth.

New York

Ms. Stainbrook submitted the following report:

- Good morning, I am Karen Stainbrook. I am the Director of the Water Resource Management Bureau in the Division of Water in the NYS Department of Environmental Conservation. And I am serving as proxy for Don Zelazny.
- NYS’s Water Withdrawal Management Program complies with the Compact & Regional Agreement. The state’s Department of Environmental Conservation’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 from either surface or groundwater sources within the Basin. For agricultural facilities, the threshold is the use of a 100,000 gallon per day average over a 30-day period. For all types of water withdrawal facilities, each permit has required the submittal of a water conservation plan. The main objective of the plan 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 for public water suppliers. All registered or permitted facilities are required to submit an annual water withdrawal report to NYSDEC. This includes over 700 actively reporting facilities within the Great Lakes Basin.
- In the past 2 years NYS has made the water withdrawal spatial information and individual water well information available on an online mapper called DECinfo Locator

on the NYS Department of Environmental Conservation website. The data is also available in various formats on NYS Open data.

- New York's 2022 Annual Water Withdrawal Reports have been received. As in previous years, our water withdrawal data will be shared with the Commission and reported to this group in December. We continue to update our database and QA/QC the annual reporting data as necessary.

- Also, the New York State Energy Research and Development's (NYSERDA) improved efficiency standards go into effect this month and require lower flow rates for showerheads, urinals, and bathroom and kitchen faucets sold or installed in NYS.

- We look forward to continuing to work with the other jurisdictions on common concerns and issues.

With that, I conclude my report.

Ohio

Mr. Lodge submitted the following report:

The Ohio Department of Natural Resources (ODNR) Division of Water Resources (Division) continues to collect CY2022 water withdrawal data from its 2,129 active registered facilities. To date, 95% of the facilities within the Lake Erie Basin have reported, and the Division is diligently working to collect the remaining delinquent data. In January 2023, ODNR introduced its first online application for current registered facilities to report their annual water use via the ODNR website. 1,500 of the 2,129 registered active facilities obtained the required login credentials and reported online. New water users may also use the portal to register a new facility.

Division staff began compiling Ohio's 2022 Lake Erie Basin water withdrawals, consumptive uses, and diversions pursuant to the protocols established by the Compact. On September 29, 2022, the Chief of the ODNR Division of Water Resources issued an Order approving a New Water Withdrawal and Consumptive Use Permit within the Lake Erie Basin. The Permit approved a new ground water withdrawal of up to 5.25 million gallons per day (MGD) for use at a proposed aquaculture farm in Williams County, Ohio. All water will be returned to the Basin less a consumptive use of .065 MGD.

-On March 27, 2023, the Permittee submitted a proposed Ground Water Monitoring Plan to the Chief of the Division for review as required by the Chief's Order. The plan is currently under review.

-The Permit is expressly conditioned upon the Permittee obtaining a National Pollutant Discharge Elimination System (NPDES) Permit from the Ohio Environmental Protection Agency for its return of water back to the Lake Erie watershed as described in its Application.

In 2021, ODNR was pleased to report the roll out of the State of Ohio Water Withdrawal Atlas. The Atlas concisely summarizes the data collected from the Water Withdrawal Facility Registration Program to assist in answering commonly asked questions regarding

water use and to promote conservation focused initiatives. The Atlas continues to evolve with the addition of the mapping components now differentiating between water use sectors. The most recent water use data is now available with previous years archived within the Atlas [webpage](#).

Water conservation and efficiency continues to be a high priority for ODNR. This year, our conservation webpages were updated with current conservation material. ODNR continues to accept and post submissions on our Water Conservation Education webpages through the available online portal.

To aid in Conservation efforts, ODNR recently became a member of the Alliance for Water Efficiency. The Alliance provides comprehensive information and tools about water-efficient products, practices, and programs. The tools provided will support in educating water users, and train staff on current best management [practices](#). ODNR is excited to announce a new citizen science pilot program that will begin in August. The Division of Water Resources will be partnering with the Division of Parks and Watercraft to bolster surface water data on high quality and sensitive streams throughout the state. Using cell phones, *EnGauge Ohio* will prompt State Park visitors to capture streamflow measurements which will be electronically sent to a database. Additional streamflow data assists in creating a higher resolution picture of water availability

and trends in the state. Data received from each site will be compiled and made publicly available on the Division of Water’s website.

In 2019, ODNR shared Governor DeWine’s new H2Ohio initiative, which is a water quality initiative to ensure safe and clean water for all Ohioans. The Governor, the Ohio Department of Agriculture, the Ohio Department of Natural Resources, the Ohio Environmental Protection Agency, the Lake Erie Commission, and many partners, including the Ohio Agriculture Conservation Initiative (OACI) have worked together to invest in projects across Ohio that will reduce nutrients and provide other long-term economic and water quality benefits to communities statewide. This program is a comprehensive, data-driven approach to improving water quality and is focused on reducing phosphorus, creating wetlands, addressing failing septic systems, and preventing lead contamination.

Multi-agency H2Ohio Updates Include:

Ohio Department of Natural Resources (ODNR)

The ODNR Division of Wildlife is collaborating with the Nature Conservancy on two coastal wetland restoration projects near Sandusky at Pickerel Creek Wildlife Area. The work will improve water quality and recreational opportunities by reducing algal blooms while aiding in the preservation of the wildlife habitat. The project will also restore shoreline wetlands, promote the establishment of submergent and emergent aquatic vegetation, and improve the water quality in Maumee Bay.

The Ohio Department of Agriculture (ODA)

The ODA is awarding \$4.2 million in grants for 12 two-stage ditch projects. Six county engineers and six Soil and Water Conservation Districts will receive funds for the project. More than 18,000 acres of watershed will benefit from the 8.4 miles of two-stage ditch projects. Construction of these projects will begin this summer, and all projects must be completed by fall 2024.

The Ohio Environmental Protection Agency (OEPA)

The OEPA invested \$1 million in mini grants for drinking water system equipment needs in communities across the state. These grant opportunities aim to strengthen the ability of public water systems to reduce leaks, purchase critical equipment, evaluate rates, and successfully operate for years to come.

[H2Ohio | An Ohio Partnership for better water statewide](#)

Pennsylvania

Mr. Bruno submitted the following report:

Pennsylvania continues to implement the requirements of the Compact and Agreement through facilitating state and local programs on water use. Pennsylvania Department of Environmental Protection (DEP) is preparing to assemble the Great Lakes water

withdrawal, consumptive use statistics for Water Year 2022 for compilation into the Annual Report of the Great Lakes Regional Water Use Database. Pennsylvania currently has no diversions within our jurisdiction. It is expected that Pennsylvania's Great Lakes general trend of annual water use will continue into the 2022 Water Year, representing just a mere fraction of overall Great Lakes water use.

DEP continues to maintain the Great Lakes Program webpages which include information about the Great Lakes and St. Lawrence River Basin Sustainable Water Resources Compact and Agreement. Resources available on the site include Pennsylvania Great Lakes Water Resources Inventory and Reporting document. Interested individuals can view registered water users within the Pennsylvania Great Lakes Basin and view their annual water use from the 2005 Water Year forward. This document and other information regarding DEP Great Lakes Program can be found at the DEP webpage dep.pa.gov and searching "Great Lakes Program".

On January 27, 2023, DEP completed the Pennsylvania State Water Plan in accordance with the Water Resources Planning Act (Act 220 of 2002, P.L. 1776, No. 220, 27 Pa.C.S. §§ 3101 et. seq.). The Plan addresses regional and state-wide priorities and examines emerging water issues. The Great Lakes Water Resources Committee, consisting of members from government, non-governmental organizations, and private industry, provided updates to the Great Lakes Basin sections of the plan that include both Lake Erie and Lake Ontario-Genesee River Basins. These updates specifically identify the Compact and Agreement and Pennsylvania's coordination with other Great Lakes states and provinces as one of best ways to protect water quantity. The plan dictates that Pennsylvania not only continue current participation in Great Lakes interstate and international governance venues, but play a larger role in state and federal legislation and other policy measures that may impact Lake Erie and Lake Ontario. More information about the Pennsylvania State Water Plan can be found at the DEP webpage dep.pa.gov and searching "State Water Plan".

Also, Pennsylvania previously reported that DEP assembled a team of policy, legal, and permitting staff to examine current regulatory methods of implementing the Compact in Pennsylvania. As DEP continues the transition to new executive leadership, including the Pennsylvania Senate confirmation of new Acting Secretary Rich Negrin, the regulatory development team looks to continue with a potential rulemaking process.

Administrative Reports.

Secretary Payne introduced the Cumulative Impact Assessment that will be released today. As in the past, the comprehensive Cumulative Impact Assessment being released today covers a five year period—from 2016 through 2020—and examines the impacts of withdrawals, diversions and consumptive uses on the Great Lakes St. Lawrence River Basin Water Budget. However, unlike past years, he noted that the Regional Body and Compact Council also looked at the impact of Climate, both in the past and looking to the future, on the overall water budget.

The Secretary then stated that leading this effort was Professor Drew Gronewold (Grunewold), Associate Professor with the School for Environment and Sustainability (SEAS) at the University of Michigan. I would now like to ask Professor Gronewold to report on the work he did this year on the Cumulative Impact Assessment we are releasing later today.

Professor Gronewold began by thanking a few others, including Jim Nicholas, formerly with the United States Geological Survey, as he was instrumental to some of this work; as well as several students on this work, including Hannah Paulson, Megan Mueller, Yifan Luo and Justin Huber.

He then noted that one of the unique things about the cumulative impact assessment report this year was how it addresses some needs that were highlighted in earlier reports, specifically one to reduce uncertainty in the historical water balance, and also takes a look at whether or not we can quantify the impacts of climate change, both in the historical record and also understand what the future impacts of climate change might be.

Professor Gronewold noted that the importance of reducing uncertainty in the historical water balance is pretty critical. He noted that Jim Nicholas had done some legacy work on this decades ago to quantify uncertainty bounds in each of the major water balance components and what we aim to do was use. He then stated that new science and new computer technology has been developed to reduce that uncertainty and in a nutshell, what his team did is run a computer simulation model that dramatically reduced uncertainty and historical water balance components. He noted that the takeaways for this group are that not only that the results of that work lead to a basically a brand new Great Lakes water balance record that includes multi decadal records of evaporation, precipitation and runoff, all of which have significantly reduced uncertainty; and, that we developed are able to reduce uncertainty has now been adopted by the federal agencies across the Great Lakes, including Environment and Climate Change Canada, the National Oceanic and Atmospheric Administration, as well as the U.S. Army Corps of Engineers.

The second point Professor Gronewold made is that we were able to use this new historical record of the Great Lakes water balance with these reduced uncertainties to tease out historical impacts of climate change and take a lens at what might be happening into the future. The take away from this part of the assessment is that over long time periods precipitation across the Great Lakes on average has been going up and that evaporation is becoming more variable. He noted that this is a very important message, because what it means for the long term is that the Great Lakes water balance is actually quite stable. In other words, water levels are not expected to change much over 20, 50 or 80 year periods. From a climate change perspective, the Great Lakes are expected to be relatively abundant for the next several decades, but on shorter time

periods, the research found that both precipitation and evaporation can change dramatically, leading to wide swings in water levels. He noted that a great example of this is in 2013 and 2014 when Lake Michigan, Lake Huron and Lake Superior had just hit record low water levels, followed by a surge in precipitation over the next several years, resulting in water levels soaring to record or near record highs.

He noted that one of the things recommended in the report is that while long term water levels on average may not change much from the past, there will be concerns about short term variability and perceptions among the public. With the new data set with reduced uncertainty, and the region will be able to make some pretty important statements about historical and potential future impacts of climate.

Mr. Bruno stated that we've been in conversation with Professor Gronewold many times and had a lot of back and forth with them. Accordingly, Mr. Bruno thanked Jim Nicholas for doing an incredible job putting together all the data on the general cumulative impact assessment, and Professor Gronewold and his team for doing the groundbreaking work included in the Cumulative Impact Assessment.

Secretary Payne then noted that in 2016 the Regional Body and Compact Council reviewed an application from the City of Waukesha to divert Lake Michigan water under the Community in a Straddling County exception to the general prohibition against diversions. After extensive review by the Regional Body and Compact Council, the Compact Council approved the proposal with conditions, allowing the State of Wisconsin to continue its review of the proposal and initiate any additional State specific review and permitting requirements. He also stated that Wisconsin continues to appreciate all the time and energy that all of the jurisdictions put into the review of the City of Waukesha's diversion application.

The water quality concerns in the City of Waukesha have been ongoing for decades and he acknowledged that the State of Wisconsin is looking forward to a permanent resolution to these water quality problems with the switch to a Lake Michigan water source at the end of the summer. He noted that after the work of the Regional Body and Compact Council in 2016 the Wisconsin DNR has continued the work with the City of Waukesha on the needed permits to implement the diversion and to ensure that the transition to Lake Michigan water is smooth and protective of public health.

Secretary Payne then invited Dan Duchniak, General Manager of the Waukesha Water Utility, to provide an update on the status of the City's plans to use Lake Michigan water. Mr. Duchniak provided an overview of the issue regarding the City of Waukesha's water, the process that was used, and plans to change over from tainted groundwater to Lake Michigan water planned for the end of the summer.

Following the presentation, Mr. Bruno asked if the cost for the project was around what was originally expected. Mr. Duchniak responded by noting that they had originally

estimated the project was going to be around 286 million dollars, noting that's a lot of money for their 72,000 residents. He also noted that this is a huge issue for the city of Waukesha and having a sustainable water supply is a huge undertaking for the entire city. They anticipate that they will be a bit under budget, which they are pretty happy about. Mr. Duchniak also noted that they have been working with the federal government on funding, and they have been able to secure grants and low interest federal loans, with 30 year loans at about 1.1%. He closed by noting that from the standpoint of running all of their projections that were started with back in 2016 when the approval was issued by the Compact Council that the City of Waukesha has been able to meet or exceed all of those projections

Mr. Bruno responded by noting that this project was well done by everyone in the room and should be used as a model should any similar proposals be made in the future.

Secretary Payne invited Peter Johnson on behalf of the Regional Body's Secretariat, to give an administrative report. Mr. Johnson reported the following:

- In the days immediately preceding today's meeting, we held a two day conference of the Regional Body and Compact Council's Science Team.
 - It was open to members of the Tribes, First Nations and Métis Communities in Canada, as well as all of our Advisory Committee, Resource Group and Observers. I want to thank those who were able to join us.
 - We heard presentations on USGS water studies as well as an update on the International Joint Commission's Science Strategy development. Esteban Chiriboga of the Great Lakes Indian Fish & Wildlife Commission provided an update on the study they have undertaken to look at cumulative impacts of water usage at smaller scales. We also heard from several of our States about their water conservation and efficiency programs and how they are implemented.
 - As a reminder, the current Regional Body/Compact Council Science Strategy was adopted in December of 2019. The Science Team is initiating a process to update the Science Strategy, and we look forward to continuing this important work together.
 - As reported at the December 2022 meeting, every five years, pursuant to the Compact and Agreement a comprehensive cumulative impact assessment needs to be created. These assessments focus on the water budget of the Great Lakes St. Lawrence Basin, and the impacts of humans on the budget.
 - As we've heard, the next Cumulative Impact Assessment has been completed and will be released today. Thank you to Dr. Gronewold and his team of students for the fantastic work they did, as well as Jim

Nicholas for again doing a great job of pulling together all the data from across the region into the report that is being released today.

- I am also pleased to report that the Regional Body and Compact Council again hosted a session at the International Association for Great Lakes Research on May 12 in Toronto. Thanks to James Polidori of the Great Lakes Commission as well as Aaron Pruitt of the Wisconsin Department of Natural Resources for presenting at that meeting, and Isaac Noyes of the Ontario Ministry of Natural Resources and Forestry for speaking as well.
- During our meeting with Advisory Committee members we learned about the Community Advisory Committee model being used on the clean up of the Milwaukee Area of Concern. This new approach is an innovative model that can be used to reach out to communities that haven't always been properly engaged, and the members appreciated learning more about this approach.
- Earlier this year, we traveled to the Red Cliff Band of Lake Superior Chippewa Ottawa reservation in Northern Wisconsin to provide an overview of the work we do and to discuss opportunities to better collaborate with each other.
- We are looking forward to getting back together again in June of 2024 in New York, and hope people will be able to join us in person for that meeting.

Opportunity for public comments.

Members of the public were given an opportunity to ask questions or provide comments. No comments were provided.

Adjournment

Secretary Payne invited a motion to adjourn and a second. Mr. Richards moved and Mr. Lodge seconded the motion. The motion to adjourn was then passed without objection and the meeting was adjourned at 10:15 a.m. CST.

The full text of the materials discussed at the meeting is available online at www.compactcouncil.org.