

Great Lakes—St. Lawrence River Basin Water Resources Council

Meeting Summary

December 8, 2020

3:37 p.m. EST

Remote participation was available to individuals registering at:

<https://attendee.gotowebinar.com/register/3137421656089621005>

Listen only mode was available by calling:

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Passcode: 814-996-294

Notice:

Notice of the meeting was provided to the public through the Great Lakes Information Network's distribution list on November 8, 2020. 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:

3:37 p.m. EST— The meeting was called to order by James Clift, alternate of Governor Gretchen Whitmer.

Roll Call:

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

Illinois (alternate of Governor J.B. Pritzker): Loren Wobig, Director, Office of Water Resources, Illinois Department of Natural Resources.

Indiana (alternate of Governor Eric Holcomb): Chris Smith, Deputy Director, Indiana Department of Natural Resources.

Michigan (alternate of Governor Gretchen Whitmer): James Clift, Deputy Director, Michigan Department of Environment, Great Lakes & Energy.

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

New York (alternate of Governor Andrew Cuomo): Don Zelazny¹, on behalf of James Tierney, Assistant Commissioner, New York State Department of Environmental Conservation.

Ohio (designee of Governor Mike DeWine): Dena Barnhouse, Chief, Division of Water Resources, on behalf of Mary Mertz, Director, Ohio Department of Natural Resources.

Pennsylvania (alternate of Governor Tom Wolf): Tim Bruno, Chief, Office of the Great Lakes, Pennsylvania Department of Environmental Protection.

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

Wisconsin (designee of Governor Tony Evers): Todd Ambs², Assistant Deputy Secretary, on behalf of Preston Cole, Secretary, Wisconsin Department of Natural Resources.

Actions Taken

Review of December 8, 2020 Compact Council meeting minutes

Mr. Clift asked for a motion that the December 8, 2020 Compact Council meeting minutes be approved as posted. Mr. Bruno moved to approve, and Mr. Zelazny 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. Richards to incorporate minutes of the Regional Body reports into the Compact Council minutes. Mr. Bruno 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).

Michigan

Mr. Clift provided the following report:

The Michigan Departments of Environment, Great Lakes and Energy (EGLE), Natural Resources (DNR), and Agriculture and Rural Development (MDARD) continue to function during the Covid-19 pandemic with most of staff working remotely except for field and lab staff. Michigan's Water Management Program continues to work with the Water Use Advisory Council (WUAC). The WUAC is submitting its biennial report to the legislature in December. The report includes requests for additional funding or other resources necessary to implement recommendations 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. The WUAC's final report will be posted on the WUAC's web page (click on the link for the WUAC on the Water Use Program's web page, <http://www.michigan.gov/wateruse>). The WUAC's Models Committee also has a technical work group studying the issues involved with tracking cumulative stream flow depletions from the headwaters to the mouths of the rivers discharging to the Great Lakes. These issues include revising return flow estimates for various water use sectors.

To date, over 4,900 large quantity withdrawals have been registered through Michigan's program. The program hopes to hire additional staff to focus on site specific reviews

² Signed proxy forms for individuals participating on behalf of official member designees are available upon request.

and to hire an additional groundwater modeler in the future. Current hiring freezes are impacting the ability to fill vacant and new positions.

Over the past 18 months there has been greater focus in Michigan on the impacts of climate change, including high water levels, reducing Michigan’s carbon footprint, and addressing aging water infrastructure. Michigan Governor Gretchen Whitmer recently ordered EGLE’s Office of Climate and Energy to coordinate the state’s efforts to achieve carbon neutrality by 2050 through development and implementation of the MI Healthy Climate Plan, outlined in Executive Order 2020-182 and Directive 2020-10. The creation of the [MI Healthy Climate Plan](#), a comprehensive plan meant to protect public health and the environment while helping to develop new clean energy jobs by making Michigan fully carbon-neutral by 2050 provides an opportunity to bring water squarely into the energy conversation.

Michigan submitted its 2020 Water Conservation and Efficiency Program Annual Program Assessment. A few highlights from the report include efforts underway to assess Michigan’s climate, energy, and water infrastructure programs and initiatives to identify opportunities to further advance Michigan’s water conservation goals and objectives. In addition, new state policies and offices focused on environmental justice and clean water advocacy are improving state program administration and outreach and engagement efforts to address goals of equity, diversity, and inclusion. Most recently, the Office of the Clean Water Public Advocate developed the Focus on Water Initiative, bringing together multi-sector partners to support community efforts and connect resources to address water concerns. The broad initiative includes the Water Leak Pilot. In November, the Office of the Clean Water Public Advocate launched the Water Leak Pilot in partnership with community-based organizations and state and local partners. The program is focused on the communities of Highland Park and Benton Harbor and aims to reduce water waste in communities. During the 12-month pilot period, the program will increase community education about water leaks, conducting household water audits, and tips for energy savings. Two hundred residents will receive free premise plumbing repairs.

Illinois

Mr Wobig provided the following report:

Lake Michigan Water Use Reporting:

The Illinois Lake Michigan Water Allocation Program (Program) continues to manage Illinois’ diversion of Lake Michigan Water in accordance with a 1967 Supreme Court Decree, amended in 1980. This decree limits Illinois’ diversion to 3,200 cfs based on a 40-year running average. Water Year 2020 (October 2019 – September 2020) was year 40 of Illinois’ diversion. Much has been done to reduce water loss and conserve water use since the first years of the accounting, so the running average should reflect that reduction going forward. Illinois’ Lake Michigan Diversion is regulated by the “LEVEL OF

LAKE MICHIGAN ACT” [615 ILCS 50] and implemented by the IDNR/OWR’s Part 3730 Rules, “ALLOCATION OF WATER FROM LAKE MICHIGAN”. Illinois’ Diversion Accounting is overseen by the U.S. Army Corps of Engineers (USACE). The USACE’s most recent certified diversion report, Water Year 2015 shows Illinois’ Water Year 2015 certified flow as 2,441 cfs with a running average of 3,070 cfs. The Corps has not completed any additional Water Year Certifications of the provisional flows to date. In Water Year 2019 total domestic Lake Michigan water use was 789 million gallons per day (mgd), a decrease of approximately 26 mgd from Water Year 2018’s pumpage. In Water Year 2019 the annual precipitation was 47.16 inches, 2.72 inches greater than 2018’s 44.44 inches. Accordingly, Water Year 2019 shows provisional flow of 3,351 cfs with a running average of 3,063 cfs.

Lake Michigan Allocation Program:

The Lake Michigan Management Section continues to collect water use data from each of its 217 Lake Michigan Water Allocation permittees on an annual basis. The process is highly interactive and allows permittees and the Department of Natural Resources to work together to evaluate water system performance and investigate ways to reduce water loss. Water Year 2019 was the fifth year the Department implemented its Non-Revenue Water standard using the American Water Works Association’s Free Water Audit Software (AWWA FWAS) to assist with the completion of the annual LMO-2 data submittal to the Department. Transition to using the American Water Works Association’s Software has been challenging and permittees continue to struggle to complete their LMO-2 water use submittals. The specific issues range from simple math errors to a lack of familiarity with the fundamentals of the methodology. Accordingly, the state of Illinois has begun to evaluate the need for changes to the data collection process.

In addition, all direct diverters must submit a monthly pumpage form (LMO-3) which shows daily pumpage numbers and the amount of water sold to other Lake Michigan allocation permittees. A direct diverter is a permittee who has an intake structure in Lake Michigan or, if the intake structure originates in a neighboring state, the direct diverter is the first Illinois user of that water. Illinois currently has 19 direct diverters. The total amount of Lake Michigan water diverted into the Chicago Waterway System for discretionary diversion and navigation makeup flow was 217.61 cubic feet per second (cfs) in Water Year 2019. At the end of the 2019 Water Year, the five-year running average of these two components of direct diversion stands at 193.80 cfs or 61.27 cfs below the combined allocation (255 cfs) for these two components of direct diversion. The Metropolitan Water Reclamation District of Greater Chicago submits a monthly report detailing Lake Michigan water used for Direct Diversion.

All water use data is submitted to the U.S. Army Corps of Engineers for use in Illinois’ Lake Michigan diversion accounting.

Water Conservation:

Water Year 2019 is the year the Department's standard limits for non-revenue water decreased to 10% from 12% of net annual pumpage. Water systems not in compliance with the non-revenue standard are required to prepare and submit a water system improvement plan. In Water Year 2019 the average percent NRW for all Lake Michigan Water Allocation permittees was 13.0% with 100 permittees now above the 10% threshold. During Water Year 2019, the City of Chicago continued to pursue several initiatives to upgrade their water, wastewater and stormwater infrastructure. In 2019 the City of Chicago reported the installation of approximately 2,751 new water meters and replaced 57 miles of old water mains.

Lake Michigan Water Allocation Updates:

Approximately every 10-years, the Department reviews all its Lake Michigan Water Allocation Permittees' allocations to determine if actual use is in line with allocation projections. The Department is working with Stantec to complete the systemwide Lake Michigan Water Allocation review and expects to be finished by the Summer of 2021. The Department has received a petition for a new Lake Michigan water allocation from the City of Joliet in 2020. Joliet has been on a deep aquifer well water supply that groundwater modeling efforts indicate will not be able to meet the City's maximum daily demands by 2030. The Illinois DNR Office of Water Resources has initiated review of the application in accordance with Illinois' specific provisions in Section 4.14 of the Great Lakes Compact, Paragraphs 10, 11, 12, and 13 of Article 207 in the Great Lakes—St. Lawrence River Basin Sustainable Water Resources Agreement, and the 1967 Supreme Court Decree, amended in 1980.

Lake Michigan High Water Issues:

Illinois is also dealing with both diversion and erosion issues related to recent near-record high water levels in Lake Michigan. These have negatively affected Illinois' Diversion of Lake Michigan Water in a couple ways. High water levels increase the amount of water entering the Chicago Area Water Systems (CAWS) during lockages at the Chicago River Controlling Works and the Thomas J. O'Brien Lock and Dam. Also, more frequent and intense rainfall in Northeast Illinois has resulted in an increase in the amount of runoff in the diverted portion of the watershed that is a component of the Illinois Lake Michigan Diversion.

High lake levels have resulted in an increase in Lake Michigan shoreline damage due to wave attack, including significant loss of dune and swale habitat at Illinois Beach State Park, which is the only remaining significant natural shoreline in the Illinois portion of Lake Michigan. High water levels have led to an increase in applications-for-permit for (77 applications) shore protection. The Department's Lake Michigan Management Section has seen an average increase of 40% in applications for construction since 2016. High Lake Michigan water levels has also caused a decrease in the size and sometimes complete disappearance of most public beaches.

State Water Plan:

Illinois is currently in the process of updating its State Water Plan. This updated will include many Lake Michigan related issues including water conservation, resiliency actions, and social justice matters. The Illinois State Water Plan Task Force just completed its first of 3 planned public outreach sessions virtually on December 1st, 2nd and 3rd.

Brandon Road:

The state of Illinois Governor’s Office is actively reviewing final draft wording of a Preliminary Engineering Design (PED) Agreement and an associated Intergovernmental Agreement with the state of Michigan for PED funding to support Illinois in its role as the non-federal sponsor for the Brandon Road Project. A draft Michigan and Illinois escrow agreement is also being reviewed and tweaked as part of that Intergovernmental Agreement. The current focus is on making sure all 3 documents are in sync with each other.

Approval of the accelerated funds provision is still waiting on approval by the federal Office of Management and Budget and the associated appropriating committees of Congress. No timeline has been established for this federal approval process and no non-federal funds can be used for design purposes ahead of pending federal funds without this provision. The state of Illinois is reviewing the PED without this provision included.

Staffing:

The Lake Michigan Management Section is currently interviewing for one additional Engineer for the Lake Michigan’s program with hopes to expand this program staffing by another one or two staff in 2021. The interviewing process for all DNR positions was delayed in 2020 due to the Corona-19 pandemic.

Current Status of Illinois' Diversion				Jun-20
Accounting	Certified	Running	Cumulative	
Year	Flow	Average	Deviation	
	(cfs)	(cfs)	(cfs)	
1981	3106	3106	94	
1982	3087	3097	207	
1983	3613	3269	-206	
1984	3432	3310	-438	
1985	3472	3342	-710	
1986	3751	3410	-1261	
1987	3774	3462	-1835	
1988	3376	3451	-2011	

1989	3378	3443	-2189	
1990	3531	3452	-2520	
1991	3555	3461	-2875	
1992	3409	3457	-3084	
1993	3841	3487	-3725	
1994	3064	3456	-3589	
1995	3197	3439	-3586	
1996	3108	3418	-3494	
1997	3114	3400	-3408	
1998	3060	3382	-3268	
1999	2909	3357	-2977	
2000	2584	3318	-2361	
2001	2698	3289	-1859	
2002	2919	3272	-1578	
2003	2398	3234	-776	
2004	2757	3214	-333	
2005	2771	3196	96	
2006	2628	3174	668	
2007	3094	3171	774	
2008	3002	3165	972	
2009	3135	3164	1037	
2010	2874	3155	1363	
2011	2791	3143	1772	
2012	2267	3115	2705	
2013	2431	3095	3474	
2014	2876	3088	3798	
2015	2447	3070	4551	
2016*	2590	3057	5161	
2017*	2756	3049	5605	
2018*	2968	3046	5837	
2019*	3397	3055	5640	
2020**	3351	3063	5489	

*Estimated, based on final USGS discharge at Lemont Gage.

**Estimated, based on provisional USGS data.

Indiana

Mr. Smith submitted the following report:

Indiana has submitted their conservation & efficiency report as required. Our focus has been on outreach to SWWF.

As mentioned by IL we await a decision by the City of Joliet. If the intake will be located in Indiana, registration as a SWWF and permitting of the pipeline will be run through their normal permitting process.

Shoreline erosion continues to be an issue with the higher than normal lake levels. To date, we have issued 17 Emergency Authorizations for property owners addressing issues along the lakeshore. The vast majority have been projects to replace failing seawalls. In those instances, the property owners have been retreating and placing the new seawalls landward of the previous structure.

The requirement to submit continuing education hours for water well drillers & pump installers has been deferred in response to COVID. This deferral will allow licensed contractors to obtain and submit their continuing education hours for 2020 by the end of 2021. Licensed contractors will still be required to obtain their continuing education hours for the previous year's cycle in order to renew their next licenses.

Water Use in the GL basin - Indiana

- Currently there are 1057 Significant Water Withdrawal Facilities (SWWF) registered in the Basin.
- SWWF has the capacity to withdrawal 100,000 gallons a day.
- Have added about 70 new facilities in last two years, mostly irrigation
- Water use in the Basin for 2019- ~500 billion gallons total
- Decrease of about 250 billion gallons over the last 5 years, mainly driven by Energy Production/ Industrial use
- Nisource Baily station retired in May 2018 accounts for a significant portion of the reduction.
- Industrial decreases more gradual, likely due to conservation efforts, and portion of Arcelormittal Harbor East plant shut down in 2018.
- Of the 1057 SWWF:
 - o 1574 wells (a facility can have multiple wells / intakes) – Accounting for 34 BG
 - o 254 surface intakes – Accounting for 465 BG
- When you compare withdrawal vs. capacity:
 - o SWWF total – 17.1%
 - o Surface – 19.2%
 - o Wells – 7%

Data for each SWWF can be found online at: <https://www.in.gov/dnr/water/4841.htm>

Minnesota

Mr. Richards submitted the following report:

Tribal Climate Adaptation Menu – Did mention this in the summer meeting but want to start by again recognizing the development of The Tribal Adaptation Menu. This tool was created out of a need to incorporate indigenous and traditional knowledge, culture, language, and history into climate adaptation planning processes. The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) led development of this tool in close collaboration with the Northern Research Station’s Northern Institute of Applied Climate Science and numerous tribal, academic, inter-tribal, and government entities in Minnesota, Wisconsin, and Michigan. The tool is available on the GLIFWC website.

Coastal Hazards of Lake Superior (CHAOS) Meetings – The CHAOS meetings provide an opportunity for community leaders, managers, and researchers to engage over concerns about coastal hazards across western Lake Superior. Minnesota Sea Grant and the Minnesota and Wisconsin Coastal programs host presentations. The group met again in July where they discussed options for property owners experiencing erosion, a new high water spotting tool, project updates, and the nature based shoreline guidance.

Update on St. Louis River Estuary Area of Concern (AOC) Remediation and Habitat Restoration – In November 2020, the Azcon Slip remediation project at was completed. MN and WI bi-state AOC completed their Piping Plover and Wisconsin Point Dunes habitat restoration projects. MN made substantial progress on three habitat restoration projects: Grassy Point creates an 18-acre island with native vegetation; Kingsbury Bay restores 80 acres of coast marsh wetland habitat; Interstate Island Avian Habitat site will improve nesting habitat for Common Terns by enlarging the island and making it more resilient to high water levels.

More Broadly On a Statewide Basis:

Sustainable Water Use – Minnesota (EQB) has now completed the 2020 State Water Plan. This 10-year plan focused on water and climate change. The plan establishes a framework for aligning state agencies, legislative priorities, and local government policy, programs and actions for the coming decade. EQB developed this plan to set an agenda for tackling the stubborn and complex water problems that climate change will intensify for Minnesotans. Minnesota’s climate is changing. Our rainfall events are heavier and more intense and our winters are warmer. Although we are now in a wet cycle, droughts will return, and climate change models predict they will be longer and more severe than before.

Water Availability and Assessment Report - This five-year assessment report concludes that the total volume of water used has decreased 28% over the last ten years while our population increased 7%. Most notably, the energy sector significantly

reduced water use in power plants. Sustainable water use continues to be supported through DNR programs by engaging with water users to support their water supply planning and water conservation efforts, collecting and using water and ecosystem data, and effectively applying Minnesota's water laws.

Water Conservation Reporting System – Beginning in January 2021, nearly 10,000 water permit holders will begin reporting their water conservation and efficiency efforts. This is in addition to their annual water use reporting. The Water Conservation Reporting System collects annual water conservation data from cities, commercial, industrial, and agricultural water users to track the success of water conservation efforts in the state.

New York

Mr. Zelazny submitted the following report:

- The first of the 2020 Annual Water Withdrawal reports are being received from permittees who have completed their irrigation season. Water withdrawal data will be shared with the Commission as in previous years and reports will be available by the mid-2021 on the Department of Environmental Conservation's website.
- Since New York's Water Withdrawal regulations went into effect in 2012, the Initial Withdrawal Permit Program has concluded. That 5-year program focused on transferring self-reported water withdrawal registrations into withdrawal permits, containing specific parameters that enable us to monitor for compliance with the principles and metrics of the GL-SLR Basin Regional Agreement and Compact. Concurrently, we updated our existing Municipal Water Supply Permit Program to ensure all water withdrawals and diversions within New York meet the Regional Agreement and Compact requirements. Combined, NY has nearly 600 permitted water withdrawals in its Great Lakes watersheds. The earliest of the Initial Permits are due for renewal in the coming few years. Those permits will be reviewed and reissued with minimum stream flow requirements and reduced withdrawal limits where appropriate. We are continually working to refine our program and management of the state's waters.
- In response to a recent New York State law that furthers the goals of the Compact and Agreement, DEC had previously posted the 2018 Annual Water Withdrawal Reports for public water supplies to the Department's InfoLocator GIS website at <https://www.dec.ny.gov/pubs/109457.html>. The annual reports include information on water sources, usage, and water conservation. That posting has now been expanded beyond public water supplies to include annual reports from all permitted water withdrawers for both the 2018 and 2019 reporting years. We expect to have all annual reports dating back to the beginning of the reporting program in 2009 posted to the website by the end of 2021.

Ohio

Ms. Barnhouse submitted the following report:

The Ohio Department of Natural Resources (“ODNR”) collected and compiled data on Ohio’s 2019 Lake Erie Basin water withdrawals, consumptive uses, and diversions pursuant to The Great Lakes Water Resources Compact protocols (“Compact”). ODNR staff submitted this report to the Great Lakes Commission for the Great Lakes Water Use Database. We are presenting another year of decreased water use across all water use sectors.

For the fifth year in a row, 100 percent of registered water withdrawal facilities within the basin completed and returned their annual water use reports.

In 2020, no new diversion permits, or water withdrawal and consumptive use permits were applied for or issued within the Lake Erie Basin in Ohio, and only one new water withdrawal facility was registered in the basin. The water for that facility was temporarily used for repair work on a wastewater treatment plant in Cuyahoga County.

The water conservation & efficiency webpages on ODNR’s Compact objectives website were completely rebuilt in 2020. The website now provides water conservation home education, as well as water use conservation and efficiency tools for various water use sectors including manufacturing and commercial facilities, agricultural operations, and public water systems.

Ohio’s Annual Water Conservation & Efficiency Program Review document was compiled and submitted to the Regional Body and Compact Council.

ODNR staff participated in the Compact Council and Regional Body subcommittee that reviewed proposed rules, guidelines, and procedures.

ODNR staff are in the Final stages of beta testing an online water withdrawal reporting website. The website is expected to improve the accuracy of reported data by automatically checking for typos and inconsistencies, and reduce the time required to input data into the water withdrawal database.

ODNR staff continued its membership with the Concentrated Animal Feeding Facility Advisory Committee. This committee advises the Ohio Department of Agriculture on problems the state faces with large-scale livestock farms. The current focus is on fertilizer contaminants and algae blooms in North West Ohio.

Last fall, ODNR shared Governor DeWine’s new H2Ohio initiative, which is a water quality initiative to ensure safe and clean water for all Ohioans. This program is a

comprehensive, data-driven approach to improving water quality over the long term and is focused on reducing phosphorus, creating wetlands, addressing failing septic systems, and preventing lead contamination.

- Some of the progress to date includes the following initiatives:
 - The ODA is working with the agricultural community and has received 1 million acres in voluntary nutrient management applications.
 - ODNR has 26 projects moving forward representing over \$33 million to create, restore or enhance more than 3,500 acres of coastal Lake Erie and inland wetland ecosystems which will absorb and filter nutrient-laden water. Most projects are in northwest Ohio counties that comprise the Western Lake Erie Basin watershed, therefore providing water quality benefits to Lake Erie. These projects account for 60,000 acres in the watershed.
 - ODNR has developed the Lake Erie and Aquatic Research Network (LEARN) to facilitate collaboration on the H2Ohio Initiative's wetland monitoring plan. The group will assess the effectiveness and future role of implemented and planned wetland restoration projects under the H2Ohio Initiative.
 - ODNR's H2Ohio CREP Initiative is being offered in combination with the Lake Erie Conservation Reserve Enhancement Program (CREP). CREP is a USDA conservation program that offers farmers and landowners financial compensation for taking cropland out of production and establishing conservation practices. The H2Ohio Water Quality Incentive Program will offer landowners a one-time payment for new Lake Erie CREP wetlands and forested riparian buffers (buffer strip with trees) to help improve water quality in the Lake Erie watershed.
 - The OEPA has added 20 additional rain gages to improve weather forecasting and rainfall estimates in an effort to increase monitoring and data collection, in addition to millions spent towards critical water and sewer infrastructure projects

Pennsylvania

Mr. Bruno reported the following:

Pennsylvania continues to implement the requirements of the Compact and Agreement through facilitating state and local programming on water use. Pennsylvania submitted

the Great Lakes water withdrawal, consumptive use, and diversion statistics for Water Year 2019 for compilation into the Annual Report of the Great Lakes Regional Water Use Database. Additionally, Pennsylvania will soon be submitting the annual Conservation and Efficiency Program Review to the Compact Secretariat.

Pennsylvania observed a decline in overall water use during Water Year 2019. Water withdrawal amounts decreased by approximately 6 percent from 40 million gallons per day (mgd) in 2018 to 38.1 mgd in 2019. While this represents a year-over-year decline, the 2019 water use totals are consistent with Pennsylvania's 12-year running average. Approximately 31.4 mgd, or 82 percent of the total 2019 water use amount was dedicated to Public Water Supply purposes. The next largest sector was Self-Supplied Industrial with a total withdrawal amount of 3.6 mgd followed by Self-Supplied Livestock use of 2.7 mgd. The estimated total Consumptive Use was 3.9 mgd, with Public Water Supplies accounting for 79 percent of the total consumptive loss. There are no diversions in Pennsylvania.

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".

During 2020, DEP convened the Great Lakes Water Resources Regional Committee to guide the process of making Lake Erie Basin amendments to the Pennsylvania State Water Plan. The Committee aids in the collection and dissemination of data, prioritization of resource availability and protection, and the formation of water use policies in the Basin. A final updated plan is anticipated for mid-2021. More information about the Pennsylvania State Water Plan can be found at the DEP webpage dep.pa.gov and searching "State Water Plan".

Wisconsin

Mr. Ambs reported the following:

Mr. Ambs stated that he would start with some highlights of what is being undertaken on the water usage side and then would touch a little bit on some of the other issues that the State has been dealing with on the water quality and shoreline erosion, end of the spectrum.

In terms of irrigation and consumptive use, Wisconsin DNR has been involved in several research projects related to better understanding irrigation and the views and links these projects are available in Wisconsin's water conservation and efficiency report.

Mr. Ambs then provided an update City of Waukesha diversion. That project continues to move forward with an expedited completion date in 2023. At the June, 2021 Regional Body meeting, an update was provided noting the permits received and the permits that are still outstanding. Since the June meeting, the City of Waukesha received the following approvals.

First a certificate of authority from the Public Service Commission Wisconsin for a water transmission main and the revised locations for the booster pumping station, ground storage reservoirs and a water tower. Next, plans and specifications for the return flow pipeline were approved, and then finally a US Army Corps of Engineer's permit for activities in a wetland. The city has also submitted engineering plans for the water transmission mains to WDNR, applied for permits from the Wisconsin Department of Transportation for activities in the highway right of way, and submitted a Root River monitoring program plan.

Also, as reported at the June, 2020 meeting, part of the plans for the revised location of the water and main storage facilities includes a caped tee in the Waukesha water transmission main. This cap tee would allow for potential future interconnecting of the City of New Berlin, allowing for the possibility for New Berlin to install a metered connection to connect to the Waukesha transmission main and purchase water from the City of Milwaukee. This tee connection was approved by both the Public Service Commission of Wisconsin and the Wisconsin DNR, with the requirement that necessary approvals be obtained before New Berlin could pursue in connection to the future Waukesha transmission main. Any such connection will be regulated under the New Berlin diversion approval.

Currently, the City of Waukesha anticipates receiving approvals for all the necessary permits this winter. The Wisconsin DNR will issue the State diversion approval only after all the other permits have been issued. Information on permits is available on the Wisconsin DNR website as "City of Waukesha" diversion page, and Wisconsin DNR representatives are happy to discuss any aspects of the City of Waukesha's diversion approval process further with interested parties.

Next, a brief update on the central sands Lake study. The Wisconsin DNR, USGS, and Wisconsin geological Natural History survey are continuing to move forward on the central sands lakes study. This is an effort to evaluate and model the potential impact of groundwater withdrawals on three lakes in Central Wisconsin. These are seepage lakes that are obviously very susceptible to groundwater issues. He noted that right now they have plenty of water in them but recently is 2013 2014, they were very low. Wisconsin DNR posted a series of recorded presentation on the study methods to our webpage this fall that may be of interest to others working in managing high capacity wells and potential impacts to surface water. The project results and recommendations to the legislature are planned for the spring of next year.

Next in terms of water use permits, Wisconsin requires water withdrawal hours that were caught withdraw more than 100,000 gallons per day to have coverage under a general permit and requires those withdrawers that take more than 1 million gallons per day in 30 consecutive days to have an individual permit. The individual permit lasts 10 years, so the Wisconsin DNR will be reviewing application permit renewals next year.

Next, reported on the historic high water levels the State is facing due to climate change and the predicted larger precipitation events, resulting in threatened major loss of property and homes. In Wisconsin, it was noted that there is a pretty robust public trust doctrine. Accordingly, there's a number of permitting requirements before any measures may be taken along the waterways, which includes both Lake Michigan and Lake Superior this year. To date, the State has had well over 500 notifications submitted just in the Lake Michigan shoreline for shoreline stabilization projects. Most of those requests have been in Door, Kewaunee, Brown and Kenosha counties. The State has also had over 100, individual permit applications for riprap along the Great Lakes, an individual permits, which is putting a lot of stress on WDNR staff, and the State is also very concerned that these are just the ones that they've submitted. We know there are some active unpermitted activities going on out there, that we're trying to get a handle on and deal with.

Mr. Ambs also noted that the State is going to have to grapple with the problem of what do with the excessive armoring of shorelines that may occur during this high water time period, because when the Lakes get back to a lower water time period, it is unlikely that anybody is going to want to have to climb over large expenses of riprap and perhaps even rebar to get to the water's edge.

Mr. Ambs then reported on efforts related to water quality. The focus of the report was on continued work that the State is doing on efforts to get safe drinking water to Wisconsin residents. The most important of that work involves three focus areas, all of which have serious health implications if efforts aren't undertaken to deal with them now. Those are PFAS mitigation; nitrate reduction; and, lead service line replacement.

With regard to PFAS, the State has started a rulemaking process to develop numeric safety standards when PFAS is found in our groundwater, surface water and drinking water. To that end, Governor Evers signed an executive order to establish a PFAS Coordinating Council. The Council was about to recommend a series of steps as part of a PFAS action plan. As part of the recommendations, the Council will be holding persons who own properties that are the source of PFAS contamination responsible for taking appropriate cleanup actions.

The next area of concern relates to nitrates, pathogens, fertilizers and manure spreading that contaminate our water resources. State research results indicate that tens of thousands private drinking water wells in Wisconsin have water that is unsafe to drink

to drink due to high nitrate levels, which can cause a range of health problems including Blue Baby Syndrome. Those problems are especially problematic because nearly one in three Wisconsinites gets their drinking water from private wells, compared with 10% of the national population getting their water from private wells. Accordingly, the State has begun a process for creating new rules, in this case for targeted performance standards in areas of Wisconsin that are most susceptible to nitrate contamination, and where rural families are suffering the most. Some of those areas of the State are in both the Lake Superior and Lake Michigan basins.

And finally, lead service lines major public health threat to the State's children. No amount of lead is safe to ingest as we all know. Currently the State has nearly 200,000 lead service lines and more than 120 communities in the State providing drinking water to home schools and businesses. Of course, while pipes can be treated to keep them safe in the short run, the only truly safe solution is to remove the lead lines entirely. To overcome that barrier, the DNR launched a private lead service line replacement program this fall, in which any community in the State can get help through a grant to assist homeowners with covering costs of private lead service line removal. This is a \$63 million grant program that will likely provide grants to communities over the next two to three years, starting early in 2021.

Administrative reports.

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

Despite the hurdles presented by the ongoing pandemic, we've continued to move forward on a number of important projects. To that end, the first item of business will be adopting amendments to the Regional Body Procedures, and Compact Council Guidance in the next meeting. The Procedures Update Team has been working hard over the last year and 1/2, resulting in amendments to be considered during today's Regional Body and Compact Council meetings.

The Regional Body and Compact Council Science Team is also moving forward to implement the Strategy that was adopted in 2019. Specifically, the focus of the Science Strategy for 2020 was on Consumptive Uses. While the pandemic has made it difficult to engage in implementation, on November 4 we held a webinar with several speakers on the issue of consumptive use. Video of the webinar is on the Regional Body/Compact Council sites under the Science tabs. Further, he noted that the Science Team would be hosting another webinar with GLIFWC on December 15. He noted that the video of the webinar will be posted upon completion. He noted that while the Team is likely to continue to do some work on consumptive uses next year just because this year was so unusual, the new focus will be on water quantity issues next year as per the

Science Strategy, which will be particularly important as planning begins on the next comprehensive cumulative impact assessment.

To that end, the International Association for Great Lakes Research has accepted our proposal to host a virtual session at their May 17-21 conference that will be focused on Water Quantity research. For both the webinars and IAGLR he noted that speakers are being sought to provide information, and encourage individuals and organizations that would like to share information that may be relevant to our focus areas to reach out to Mr. Johnson to see if there is a fit.

Next, Mr. Clift invited Margo Davis of the Great Lakes Commission to give an update on 2019 regional water use report. Ms. Davis reported the following:

Ms. Davis announced that the 2019 water use report has been released, and that the report can be found on the Great Lakes Commission's regional water use database site, alongside all of the 2019 water use data reported by the States and Provinces.

She reported that this year, the total water withdrawal was approximately 38.9 billion gallons per day, or 147.1 billion litres per day. That represents approximately 4% decrease from the water use in 2018. The consumptive use was below just under 5% of the total withdrawal amount, so 1.9 billion gallons per day, or 7.2 billion litres per day. She noted that there were similar general trends across the States and Provinces, certainly some differences but nothing that would fall outside of what is considered normal fluctuations.

The predominant sector for water use remains thermoelectric power production, with "once through" cooling representing 65% of the total water withdrawal, and public water supply coming in at 13%. The industrial self-supply sector represents 10.5 percent of all water withdrawals.

Across the board, the basin gained 452 million gallons per day, or 1.7 billion litres per day. That's a 192% increase from from 2018. The vast majority of that that's largely attributable to the incoming diversion, specifically, the Long Lac and Ogoki diversions. She noted that as was heard from Ontario during their report, there was an 11.3% increase in that incoming diversion, which represents over 300 million gallons per day, representing the bulk of the increase into the basin,

She noted that there was a slight increase in outgoing diversions as well (4.3% increase) while consumptive uses stayed largely constant, with less than 1% decrease from 2018.

One thing that was worked on this year with the water use data managers is the way in which diversions are reported just to ensure that we're consistent across the board. Ms.

Davis stated that she greatly appreciate their work on getting everyone using the same reporting approaches. By making that data consistent, it allows the Great Lakes Commission to calculate the net diversions within the database with an extra layer of quality control.

Ms. Davis reported that the Great Lakes Commission did see some decreases in compliance rates associated with COVID-19. Specifically, several jurisdictions noted that they had slightly decreased compliance rates, but largely indicated that they wouldn't necessarily affect the totals reported to the Great Lakes Commission because most of the users out of compliance were smaller users.

Ms. Davis closed by acknowledging and thanking all of the water use data managers who do a tremendous amount of work and make this process very smooth for the Great Lakes Commission.

Opportunity for public comments.

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

Todd Brennan, Alliance for the Great Lakes. Mr. Brennan stated that he appreciated the changes made to the draft Guidance that will be discussed in the Compact Council meeting. He noted that on the whole, they support the proposed inclusions to the sections dealing primarily with preliminary consultations, originating party powers and duties, application submissions and consideration of regionally significant potentially precedent setting proposals. He noted that while these are not rules, they do improve clarity and guide the Council through what is arguably a complex review and decision making process.

He also indicated that the Alliance also appreciates the action to extend the revision process for the draft rules package proposed by the Council in September 2020. He recognized that the Work Plan drafted by the Council originally intended the procedures update process to be wrapped up and voted upon at the meeting to be held today, so recognized that extending the procedures update process was a decision that was not taken lightly, and that the Regional Body and Compact Council are undertaking the process very seriously.

He noted that as referenced in their joint sign on letter submitted in October, decisions made under the Compact should be public. Accordingly, he noted that the Alliance strongly recommends that the proposed Rules and Guidance move away from any private confidential decision making when developing alternative dispute resolution

procedures. He noted in particular that private alternative dispute resolution processes, including arbitrations and mediations, are better suited to private disputes between private parties.

Specifically, he stated that the Great Lakes Compact and Agreement is a public contract between public governmental bodies, and the issues addressed in them are of great importance to the people living in the Great Lakes Basin. Therefore, those goals are much better served by establishing public, transparent processes for all decision making under the compact, as issues that would arise are genuinely all of interest to the public.

He stated, therefore, that it is essential to remove all rules and guidance provisions which would create confidential proceedings such as rule 500.4 or 501.4, or 600.6. And, also to ensure that the changes in the rules package tracks well with the guidance, there are a few sections such as 200.8 that point to the rules section. He further stated that the Alliance would want to make sure if those changes are subsequently changed again that that wording is in sync.

Of particular importance is recognition that the Compact Council is the final decision maker for making decisions on diversions, as well as what qualifies for regional review. Accordingly, the alternative dispute resolution process should still empower the Council to make the final decision by majority vote. Therefore, it should be clear that the panel established by the alternative dispute resolution process should make a recommendation to the Council and the Council will make the final decisions. It's also important that decision should be informed by a public hearing process with the opportunity to make comments akin to what was expressed in comments submitted in writing in October during the public comment period.

Mr. Brennan also supported the incorporation of the ADR and Enforcement sections into Rules of Practice and Procedure.

[Additional comments from Mr. Brennan made during the Compact Council meeting]:

Mr. Brennan wanted to reiterate some of the things that were said by others and encourage the Compact Council to take the opportunity to learn more about environmental justice and think more equitably about the decisions that are being made, as well as what can we do done to improve the Compact Council's approaches to environmental justice and equity.

Mr. Brennan also wanted to strongly encourage the Council to address a gap that he saw in stewarding a final centralized list of withdrawal, consumptive use and diversion baselines, providing clarification as to what constitutes or is allowable in terms of changes, modifications or corrections made by the states and provinces to the baseline. He stated that it was his opinion that at this point there should be no further need for modifications, and therefore the baseline list should be considered finalized with no further modifications allowed, and language on the

Regional Body and Compact Council websites should be changed so that there is no indication modifications can be made.

He also stated that if the Council considers that modifications are correct, the modifications should be shared with the Advisory Committee and fellow Council members, as well as Tribes and First Nations of the US and Canada. He further stated that if it is determined that modifications should be allowed, the Council should propose to develop rules that codify the process by which they define modifications or corrections and distinguish these from changes, which should not be allowed, and any modifications or corrections should be a request of the Council and be noticed to the public and open for comment. The compact is clear in Section 4.12 that this should have been established and furnished as a list one year from the compact effective date December 8 2009. He argued that the Compact does not make any mention of and allow the States or Provinces to make corrections. He noted that while the Compact clarifies that the States could have used different methods to approach calculating their original baseline diversions and volumes that should not be inferred to allow each state to revise those volumes in perpetuity.

He closed by noting that the Council is the governing body in all matters of the Compact and the setting and furnishing of baselines is its duty, and therefore any modifications that are proposed should also be the responsibility to Council to oversee. The concept of establishing a baseline is not a new concept in water law, and from what I know requires a clear and defensible process that results in a static number not a dynamic process subject to different interpretations. Doing this will benefit the most realistic and accurate calculations of water consumption using cumulative impact. And it will also provide clarity where there seems to be implementation ambiguity. Lastly, it will improve upon the governance model set in the compact for dealing with Interstate and trans boundary resource management of what we know is the world's largest surface available freshwater resource.

Jacqueline Wilson, Canadian Environmental Law Association. Ms. Wilson wanted to reiterate a couple of Mr. Brennan's comments. She noted that they agree that it's important and commendable that the Regional Body and the Compact Council has given itself more time to consider the proposed rules around private arbitration. She also indicated that they appreciate the consideration of previous written comments.

Ms. Wilson also strongly encouraged moving away from any private arbitration models that would mean that there'd be confidential decision making without the public involved. Anything under this Compact or Agreement is a public contract between public governing bodies on issues that are of such great importance to people all over the Great Lakes Basin. She indicated that the region is much better served, and we will get much better decisions, with an open and transparent process.

Ms. Wilson also wanted to make two specific comments as well about the Guidance that's to be voted on today. The first was to look at section 200.5.8.D of the Guidance, to mention that that section refers to the alternative dispute resolution process, which is still being discussed as under review. She stated that it may make more sense from that perspective to not include that right now, as it's still under consideration whether there's going to be any alternative dispute resolution process, or what that will look like.

She also indicated that Section 200.3.2.3, and Section 200.3.3. has been simplified from the original version that was released for public comment, and it is appreciated. Specifically, they appreciated that the “substantial likelihood” standard has been removed, which they consider an improvement. However, they would recommend further simplifying the language because they believe that there are a lot of additional words that are a little bit convoluted in terms of what the standard would be. Accordingly, they would recommend changing the language to require a “reasonable likelihood” the application contains a regionally significant or potentially precedent setting proposal.

Finally, Ms. Wilson indicated that they would like to encourage the members in 2021 to begin looking at a process about incorporating environmental justice principles into everything that is done by the Regional Body and Compact Council. Specifically, there should be a focus on protecting low income individuals, as well protecting overburdened communities from environmental harm. In addition, there should be an effort undertaken for improving engagement and providing full access to information to low income and vulnerable communities.

Marc Smith, National Wildlife Federation

Mr. Smith began by thanking all the members of the Regional Body and Compact Council for participating in the day's meetings, and indicated that he appreciated all the reports. He noted that a lot of good work happening, and appreciated all the hard work, especially in these trying times.

Mr. Smith indicated that he wanted to reiterate the comments that had been submitted in writing in October during the public comment period to encourage a more robust public participation. He indicated that he would be happy to be part of that process in any way that is helpful and constructive, with the shared goal of achieving resolution in 2021.

He indicated that when the Regional Body and Compact Council finalize amendments to the Guidance, he and his counterparts stand ready to help the members of the Regional Body and Compact Council to help set up conversations for how equity and justice discussions can help the Governors and the Premiers in their decision making when it comes to water withdrawals and diversions review. He noted that many other groups

and stakeholders are having the same conversation, and believed that there will be a lot to learn.

Mr. Smith closed by thanking all the States and Provinces for working through this difficult year. He closed by noting that he hoped that all participants would be able to meet again in person soon.

New Business

- *Consideration of Resolution #45 Election of Chair and Vice Chair*

Mr. Clift noted that the first order of business is consideration of Resolution #45-- Election of Chair and Vice-Chair. The resolution would elect the Governor of Wisconsin to serve as the Compact Council Chair, and the Governor of Pennsylvania to serve as the Compact Council Vice-Chair, beginning immediately after this meeting until the next Annual Meeting of the Compact Council, to be held on or about December 8, 2021. Mr. Clift moved the resolution, and Mr. Richards seconded the resolution. The resolution was adopted without objection.

- *Consideration of Resolution #46 Adoption of Amendments to Guidance*

Mr. Clift then noted that the next item for consideration is adoption of Amendments to Great Lakes St. Lawrence River Water Resources Council's Guidance. In the interest of time, Mr. Clift moved and Indiana seconded a motion to incorporate the overview presented during the Regional Body meeting of the process used to develop amendments to the Guidance. The motion was passed without objection, and the following is incorporated into the Compact Council minutes (with amendments as appropriate).

The Compact Council Guidance that is being amended was adopted on December 6, 2018. At that time, the Compact Council committed to undertake a Phase II of Guidance and Rules of Practice and Procedure which formally began immediately thereafter.

On December 6, 2018, the Council and the Regional Body tasked the Procedures Update Team with drafting Phase II revisions to the Regional Body Procedures and Council Guidance for the Regional Body and Council's consideration, as well as potentially modifying the Rules of Practice and Procedure for the Council's consideration. Each member of the Regional Body and the Council has appointed at least one individual to the joint Team.

The existing Regional Body/Compact Council Advisory Committee, Resource Group, and Observers, as well as Tribes and First Nations have provided input and feedback to the Team at specific times throughout the process. In addition, from May 18 through June 17, 2020, the public provided feedback on initial drafts.

From September 15-October 15, 2020, the Compact Council solicited written comments on draft amendments to the Compact Council Guidance as well as draft amendments to

the Compact Council Rules of Practice & Procedure. A public meeting was held on October 13, 2020 wherein members of the public provided oral comments. After considering the comments received during the public comment period, additional revisions were made, resulting in the proposed amendments to the Compact Council guidance to be considered today.

Mr. Clift also noted that the Compact Council is still considering amendments to the Rules of Practice & Procedure as part of this process, and hopes to have final amendments for the Council's consideration in the near future.

Mr. Clift also noted that during the drafting of the Guidance, there was considerable discussion as to what language should be retained in Guidance and what language should be incorporated into the Council's Rules of Practice and Procedure. Accordingly, he stated that the Council is making a commitment to revisit within 5 years whether the Guidance, in whole or in part, should be incorporated into the Rules of Practice and Procedure, and initiate a rule-making process as appropriate.

Mr. Clift noted that pursuant to the terms of the Compact, these amendments to the Guidance may be adopted by majority vote. He stated that he would also add that much as was done in 2018, the Council will give authority to Secretariat staff to make any typo level corrections, and corrections to conform the Procedures to the amendment to the resolution, as necessary, and report to the Regional Body members what if any such changes were made by January 31, 2021.

The resolution was moved by Mr. Smith, and seconded by Mr. Bruno. The resolution was approved without objection.

○ *Consideration of Resolution #47 Adoption of FY 2022 Budget*

Mr. Clift noted that The next item for consideration is Approval of Fiscal Year 2022 Budget. He reminded the members that the proposed budget and the resolution granting approval of the budget were previously distributed to the members and were posted to the Compact Council website on November 6. Mr. Clift moved that the resolution be adopted, and Mr. Zelazny seconded the motion.

Mr. Clift then reminded the members that the vote must be unanimous to approve the budget:

- Illinois—Yes
- Indiana—Yes
- Michigan—Yes
- Minnesota—Yes
- New York—Yes
- Ohio—Yes
- Pennsylvania—Yes
- Wisconsin—Yes

- *Consideration of Joint Resolutions 2020-1 through 2020-8 (Declarations of Finding)*

Mr. Clift noted that pursuant to the terms of the Agreement and the Compact, each State must submit a report on their Water Management and Water Conservation and Efficiency Programs every five years. The Regional Body and Compact Council must then review those reports and make a determination as to whether each of the State programs are consistent with the terms of the Agreement and Compact, and if not, make recommendations to the relevant State as to how they could make their programs consistent.

He also noted that Preliminary draft reports were submitted by each of the States in June 2019. These reports were made publicly available, allowing the public to engage with the jurisdictions as they finalized their reports for submission. By December of 2019, each of the States submitted the final version of their required reports, after having taken into consideration any feedback received on the preliminary draft reports. The States have reviewed the reports and have come to the conclusion that all the State and Provincial programs are consistent with the terms of the Agreement and Compact.

Mr. Clift reminded the members that the Regional Body in an immediately preceding meeting approved Joint Resolutions 2020-1 through 2020-8. Mr. Clift then asked for a motion to adopt Joint Resolutions 2020-1 through 2020-8. Mr. Wobig moved that the resolutions be adopted, and Mr. Zelazny seconded the motion. The resolutions were approved unanimously via voice vote.

Adjournment

Mr. Clift invited a motion to adjourn and a second. Mr. Ambs moved and Mr. Smith seconded the motion. The motion passed without objection and the meeting was adjourned.

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