



# Illinois Department of Natural Resources

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## LAKE MICHIGAN WATER ALLOCATION NEWSLETTER

September 2014

### Introduction

It's been almost two years since our last newsletter (October, 2012). You may recall that back then, the N.E. IL region, along with most of the rest of the country, had endured one of the longest and most intense droughts in modern history. Since that time, we have had several significant flooding events and Lake Michigan water levels have rebounded from record low water levels (set in January 2013) back to average. We seem to be going from one hydrologic extreme to another. With climate variability becoming more pronounced, we are very fortunate to be located near the greatest supply of surface freshwater on earth.

In this year's newsletter, we'd like to provide you with an update on the status of our proposal to amend the Lake Michigan water allocation rules, guidance for preparing water system improvement plans, the current status of Illinois' Diversion as allowed under the U.S. Supreme Court Decree, Great Lakes Governors and Premiers Regional Water Management, and a summary of water use for the 2013 Water Year.

### Amending the Lake Michigan Water Allocation Rules

On March 7, 2014, proposed changes to the Rules and Regulations for the Allocation of Water from Lake Michigan (IL Admin. Code, Title 17, Part 3730) were published in the Illinois Register. An initial 45 day review and comment period was extended an additional 30 days until May 12, 2014. The Department received nine comments during the notice period and in response made several minor changes to the proposed rules. We expect the new rules to become final before the end of the year.

Prior to the rules being published in the Illinois Register we undertook a 100 day public review and comment period that included three public meetings. Over 170 people attended one or more of the public meetings and we received over 50 written comments. The input the Department received from our Lake Michigan communities resulted in a number of changes to the original draft that was circulated back in February, 2013. I would again like to thank each one of you that took the time to attend one of our public meetings and to those who provided written comments. I believe the updated Lake Michigan water allocation rules will improve our region's effort to manage and conserve our Lake Michigan water resource.

Here is a very brief summary of the substantive changes to the rules:

- The Unaccounted-For-Flow Standard will be replaced with a Non-Revenue Water Standard (12% in 2015, decreasing to 10% by 2019). The allowance for maximum unavoidable leakage will no longer be used.
- Water systems not in compliance with the non-revenue standard will be required to prepare and submit a water system improvement plan.
- Plumbing code/ordinances must be amended to require that new and replacement plumbing fixtures be a labeled WaterSense product.
- Revising the classification of water applicants so that both domestic water supply categories are a higher priority than the diversion of Lake Michigan water into the Chicago Area Waterway System to meet navigation requirements and to keep the Waterway in a reasonably satisfactory sanitary condition.

### **Guidance for Preparing Water System Improvement Plans**

The updated Lake Michigan water allocation rules replace the unaccounted-for-flow standard with a non-revenue water standard/threshold. This rule is meant to be a catalyst for Lake Michigan communities to address water loss problems, utilizing the best methods of water accounting and loss reduction. The rules specify that the compliance activity for water systems whose non-revenue water exceeds the thresholds is to prepare and submit a ‘Water System Improvement Plan’. This document is meant to be a locally developed plan of action that identifies the causes of water loss, what measures need to be implemented to reduce water loss and an estimated timeframe to implement those measures. While the rules only require permittees whose non-revenue water exceeds the thresholds (12% in 2015, decreasing to 10% by 2019) to prepare and submit a water system improvement plan, we believe all water systems could benefit by having such a plan to guide future water infrastructure investment.

In 2013, the Department entered into a Memorandum of Agreement with the Chicago Metropolitan Agency for Planning to utilize their Local Technical Assistance program to conduct an analysis of the obstacles and constraints faced by public water supplies in managing/minimizing water loss. The Center for Neighborhood Technology also collaborated on this project. Their analysis and recommendations were presented to the Department in a report titled “An Assessment of Water Loss Among Lake Michigan Permittees in Illinois”, and can be accessed at: <http://www.cmap.illinois.gov/programs-and-resources/lta/idnr>. Their analysis confirmed that water loss is becoming more pervasive throughout the Lake Michigan water service area, and that the allowance for maximum unavoidable leakage was masking the severity of actual water loss. They also found that 74% of our permittees have no formal water loss control policy.

One of the report’s recommendations is that the Department should require the use of the American Water Works Association (AWWA) M-36 water audit methodology. In line with this recommendation, we are pleased to announce that the Illinois Environmental Protection Agency is partnering with the Department, the Illinois Rural Water Association, the Illinois Section of the American Water Works Association and other organizations to conduct a number of free workshops throughout the state, including at least twelve within the Lake Michigan water service area, on the AWWA M-36 Water Audit Methodology. These one day workshops will be an excellent opportunity to learn how to utilize the AWWA water audit methodology, one of the best water audit tools available and which has become the industry standard. We expect to modify the LMO-2 Water Use Audit Form so that in 2015 permittees can utilize the M-36 water audit methodology to meet our reporting requirements.

I want to strongly encourage all permittees to attend one of these free training sessions. Further information is available at: [www.isawwa.org/WaterLoss](http://www.isawwa.org/WaterLoss).

To further assist permittees that will need to prepare Water System Improvement Plans the Department has contracted with the Chicago Metropolitan Agency for Planning to assemble and prepare guidance materials to assist permittees in the development of water system improvement plans. We anticipate that their work will be completed and available to our permittees in early 2015.

One final note: A comprehensive water audit, like the AWWA M-36, will identify and quantify water uses and losses from a water system. This is not only an important component in the development of a water system improvement plan, but can also be an important component for those who wish to take advantage of the Governor's Clean Water Infrastructure Initiative program that is administered by the Illinois Environmental Protection Agency. This program provides low-interest loans for wastewater and drinking water infrastructure projects.

### **Status of Illinois' Diversion**

Since our last newsletter the U.S. Army Corps of Engineers has certified Illinois' diversion for Water Years 2008, 2009, 2010 and 2011. Our diversion in Water Year 2008 was 3,002 cubic feet per second (cfs), in Water Year 2009 it was 3,135 cfs, in Water Year 2010 it was 2,874 cfs, and in Water Year 2011 it was 2,791 cfs. For all 4 of these water years Illinois' diversion was below the U.S. Supreme Court limit of 3,200 cfs (approximately 2.1 billion gallons per day). From 1981-2011, Illinois' diversion has averaged 3,143 cfs, an annual average diversion that's 57 cfs below the Court limit of 3200 cfs. This is very good news for Illinois and all of our permittees who depend on Lake Michigan water. The climate in Northeastern Illinois seems to be getting more extreme, and during high precipitation years, like this year, it can be more difficult for our diversion to stay below the U.S. Supreme Court limit. Having a running average diversion well below the 3,200 cfs limit provides the flexibility needed to ensure that we will remain in compliance with the Decree for many years to come.

### **Great Lakes Governors and Premiers Regional Water Management**

It has been over 5 years since Congress consented to the creation of the Great Lakes/St. Lawrence River Basin Water Resources Compact. Illinois is a member of the Compact Council, and the associated Regional Body, which includes the Provinces of Ontario and Quebec. In 2013 the Compact Council and the Regional Body completed the first Cumulative Impact Assessment of Withdrawals, Consumptive Uses and Diversions, covering the period from 2006-2010. Key findings of this report were that the impact of withdrawals, consumptive uses and diversions by the basin states and provinces are very small relative to the inflows to the Great Lakes system, and that more water is diverted into the Great Lakes (into Lake Superior in Ontario) than is diverted out of the Great Lakes, primarily in Illinois.

For a number of years we have been anticipating that the State of Wisconsin, on behalf of the City of Waukesha, will submit a proposal seeking approval of their intent to divert Lake Michigan water out of the basin. This will require Compact Council approval since the City of Waukesha is outside of the Lake Michigan basin but within a county who straddles the basin boundary. This application will be the first submitted to the Great Lakes Compact Council and the Regional Body. Further information on the Compact and its implementation can be found on the Council of Great Lakes Governors' website: [www.cglg.org](http://www.cglg.org).

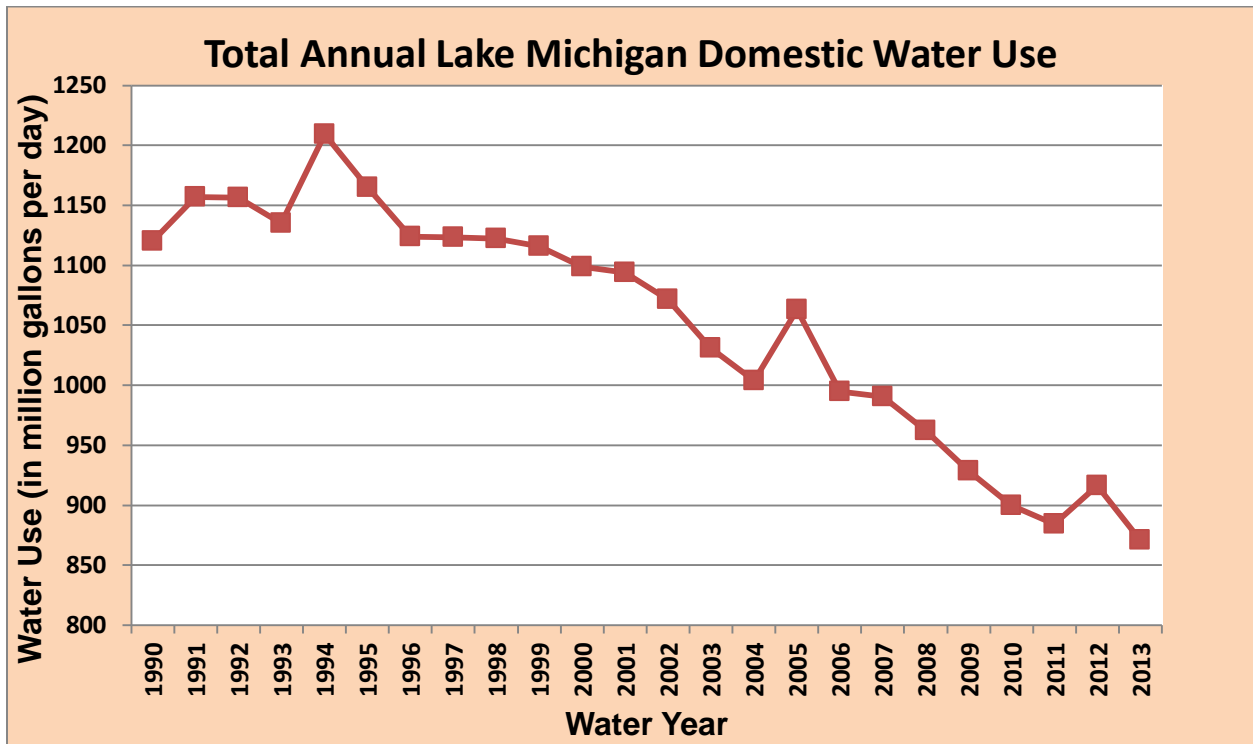
Please remember that Illinois' diversion of water from Lake Michigan will continue to be governed under the terms of the U.S. Supreme Court Decree and Illinois' participation on the Compact Council does not limit our ability to continue to divert water from Lake Michigan consistent with the Decree.

## New Lake Michigan Water Allocation Orders

Since our last newsletter, the Department has not issued any water allocation orders. We currently are reviewing two new applications for a Lake Michigan water allocation.

## Water Use Summaries for the 2012 and 2013 Water Years

The water use summaries for the 2012 and 2013 Water Years have been posted to our website: <http://www.dnr.illinois.gov/WaterResources/Pages/LakeMichiganWaterAllocation.aspx>. This information was obtained from the Annual Water Use Audit Reports (LMO-2). Total domestic Lake Michigan water use was 916 million gallons per day (mgd) in 2012 and 871 mgd in 2013. 2012 was a drought year (annual precipitation in the N.E. IL area was only 28.3 inches). In 2013 the annual precipitation was 34.6 inches, slightly below the 23 year average of 36.7 inches. Overall, total domestic use of Lake Michigan has continued to decline, a pattern we have observed since the early 1990's (see the chart below).



If you have any questions, please feel free to contact either:

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