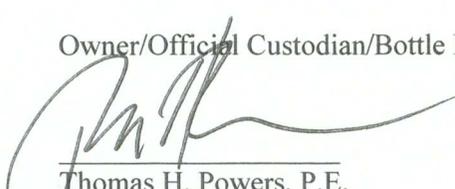




DEPARTMENT OF WATER MANAGEMENT  
CITY OF CHICAGO

**TO:** Owner/Official Custodian/Bottle Recipient

**FROM:**

  
Thomas H. Powers, P.E.  
Commissioner  
Department of Water Management

**SUBJECT:** Consumer Confidence Report Parent Supply Information

**DATE:** March 18, 2015

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The Consumer Confidence Report (CCR) rule requires all community water systems to provide a report to their customers on the quality of the drinking water. The Department of Water Management (DWM), as your parent supply, is providing the required information pertaining to compliance monitoring for the period January 2015 through December 2015. If your water supply is required to produce a report you will need this data to complete your Consumer Confidence Report.

The completed 2015 report for the DWM will be mailed to consumers before the July 1<sup>st</sup> deadline. If this information does not apply to you or if you are not the person to be receiving this package, please send any changes to Andrea Putz using either:

e-mail: [andrea.putz@cityofchicago.org](mailto:andrea.putz@cityofchicago.org), fax: (312) 742-9123, or phone: (312) 742-1070

Included in this information package:

- Summary Tables -
  - 2015 Water Quality Data – includes Regulated and Non-Regulated Contaminant Detections
  - 2015 Violation Summary Table – there were no violations for this facility for the 2015 monitoring period.
  - Source Water Assessment Program Summary
  - Educational Statements Regarding Commonly Found Drinking Water Contaminants
  - Voluntary Testing - short summary of additional testing done by this facility outside of the required testing

In order to expedite the CCR to you before April 1, 2016 we have enclosed 2015 tables that were prepared by DWM with the help by the Illinois EPA. The Illinois EPA posted data tables for the Department of Water Management on the Internet at:

<http://www.epa.state.il.us/water/drinking-water-watch/>

Please let us know if we can be of further assistance.

Attachments

Cc: Alan Stark, DC-BWS

## 2015 Water Quality Data

### -Definition of Terms-

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Highest Level Detected:** This column represents the highest single sample reading of a contaminant of all the samples collected in 2015, except where a specific date is indicated.

**Range of Detections:** This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

**Date of Sample:** If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year, because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**ND:** Contaminant Not Detected at or above the reporting or testing limit. **N/A:** Not applicable

### Detected Contaminants

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Date of Sample
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### Turbidity Data

TURBIDITY (NTU/Lowest Monthly %≤0.3 NTU) Soil runoff	N/A	TT (Limit 95%≤0.3 NTU)	(Lowest Monthly %) 99.7%	99.7% – 100.0%		
TURBIDITY (NTU/Highest Single Measurement) Soil runoff	N/A	TT (Limit 1 NTU)	0.45	N/A		

### Inorganic Contaminants

BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.0201	0.0193 - 0.0201		
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.30	0.28 - 0.30		
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.30	0.28 - 0.30		

## Detected Contaminants Continued

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Date of Sample
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### Total Organic Carbon

#### TOC [TOTAL ORGANIC CARBON]

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.

### Unregulated Contaminants

SULFATE (ppm) Erosion of naturally occurring deposits	N/A	N/A	27.2	18.8 – 27.2		
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	N/A	N/A	8.48	8.04 – 8.48		

### State Regulated Contaminants

FLUORIDE (ppm) Water additive which promotes strong teeth	4	4	1.01	0.76 – 1.01		
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### Radioactive Contaminants

COMBINED RADIUM (226/228) (pCi/L) Decay of natural and man-made deposits.	0	5	0.84	0.50 – 0.84		2/11/2014
GROSS ALPHA excluding radon and uranium (pCi/L) Decay of natural and man-made deposits.	0	15	6.6	6.1 – 6.6		2/11/2014

### UCMR3 Compliance Reporting

In compliance with the Unregulated Contaminant Monitoring Rule 3 (UCMR3) as required by the EPA, the City of Chicago has monitored for 28 contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act. The monitoring results were reported to the EPA. The list of UCMR3 contaminants that we have monitored included volatile organic chemicals, metals, perfluorinated compounds, hormones, 1,4-dioxane and chlorate. The contaminants that were detected in this monitoring program are listed below.

CHROMIUM (ppb) Naturally-occurring element; used in making steel and other alloys	100	100	0.3	0.3 - 0.3		
MOLYBDENUM (ppb) Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide	NA	NA	1.1	1.0 - 1.1		
STRONTIUM (ppb) Naturally-occurring element; has been used in cathode-ray tube TVs to block x-ray emissions	NA	NA	120	110 - 120		
VANADIUM (ppb) Naturally-occurring metal; vanadium pentoxide is used as a catalyst and a chemical intermediate	NA	NA	0.2	0.2 - 0.2		
CHROMIUM-6 or HEXAVALENT CHROMIUM(ppb) Naturally-occurring element; used in making steel and alloys	NA	NA	0.19	0.18 - 0.19		

### Unit of Measurement

ppm - Parts per million, or milligrams per liter

ppb - Parts per billion, or micrograms per liter

NTU - Nephelometric Turbidity Unit, used to measure cloudiness in drinking water

%≤0.3 NTU - Percent of samples less than or equal to 0.3 NTU

pCi/L - Picocuries per liter, used to measure radioactivity

# Water Quality Data Table Footnotes

## **TURBIDITY**

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

## **UNREGULATED CONTAMINANTS:**

A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

## **FLUORIDE**

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health had recommended an optimal fluoride range of 0.9 mg/l to 1.2 mg/l until November 2015. As of November 2015, the new recommendation is an optimal fluoride level of 0.7 mg/l.

## **SODIUM**

There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

## **CITY OF CHICAGO, DEPARTMENT OF WATER MANAGEMENT SOURCE WATER ASSESMENT SUMMARY FOR THE 2015 CONSUMER CONFIDENCE REPORT (CCR)**

### **Source Water Location**

The City of Chicago utilizes Lake Michigan as its source water via two water treatment plants. The Jardine Water Purification Plant serves the northern areas of the City and suburbs, while the South Water Purification Plant serves the southern areas of the City and suburbs. Lake Michigan is the only Great Lake that is entirely contained within the United States. It borders Illinois, Indiana, Michigan, and Wisconsin, and is the second largest Great lake by volume with 1,180 cubic miles of water and third largest by area.

### **Source Water Assessment Summary**

The Illinois EPA implemented a Source Water Assessment Program (SWAP) to assist with watershed protection of public drinking water supplies. The SWAP inventories potential sources of contamination and determined the susceptibility of the source water to contamination. The Illinois EPA has completed the Source Water Assessment Program for our supply. Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

### **Susceptibility to Contamination**

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment of all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

## **2015 VOLUNTARY MONITORING**

The City of Chicago has continued monitoring for Cryptosporidium, Giardia and E. coli in its source water as part of its water quality program. To date, Cryptosporidium has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sample collected in September 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium oocysts and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced. Also, in compliance with Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) Round 2, the City of Chicago has started the 24 months long monitoring program in April 2015, collecting samples from its source water once per month to monitor for Cryptosporidium, Giardia, E. coli and turbidity. Cryptosporidium and Giardia were not detected in these samples.

In 2015, CDWM has also continued monitoring for hexavalent chromium, also known as chromium-6. USEPA has not yet established a standard for chromium-6, a contaminant of concern which has both natural and industrial sources. Please address any questions or concerns to DWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for chromium-6 are posted on the City's website which can be accessed at the following address below:

[http://www.cityofchicago.org/city/en/depts/water/supp\\_info/water\\_quality\\_resultsandreports/city\\_of\\_chicago\\_emergincontaminantstudy.html](http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/city_of_chicago_emergincontaminantstudy.html)

## **2015 Violation Summary Table**

We are pleased to announce that no monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2015.