DuPage County Department of Public Works
Southeast Regional Water Facility
IEPA Facility #0430060

Annual Drinking Water Quality Report

This report reviews the quality of Lake Michigan Drinking Water purchased from the City of Chicago delivered January 1 to December 31, 2011 by the Southeast Regional Water Facility (SERWF). Your tap water meets all USEPA and State drinking water health requirements. We are able to report that DuPage County Southeast Regional Water Facility had no violations in the previous year. This report summarizes the quality of water that was provided last year, including the City of Chicago's Detected Contaminants test results compared with standards set by regulatory agencies. Safe water is vital to our community. Please read this report carefully, and if you have questions, call the number listed at the end of the report.

Este informe contiene información muy importante. Tradúzcalo ó hable con alguien que lo entienda bien.

Your drinking water meets or exceeds all Federal and State drinking water standards!

We encourage participation in the decisions affecting your drinking water. Public Works Committee meetings are regularly scheduled twice every month. For information about meeting schedules and agendas, you may call (630) 407-6800 or review our webpage at; http://www.co.dupage.il.us/agendas.aspx?fid=2268

SERWF Overview

The source of drinking water used by the South East Regional Water Facility is Lake Michigan Water. The wells remain in an Emergency Standby Status. These Emergency Wells are routinely tested per the Regulators Standards. In the unlikely event the Lake Michigan supply is taken out of service, we can supply the system with this safe emergency source of unfiltered chlorinated well water. Copies of this and our other water systems can be downloaded from:
http://www.co.dupage.il.us/Public_Works/1389/

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 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.

Susceptibility to Contamination

The Illinois EPA considers all surface water sources to a 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 for 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.

Source Water Assessment Information

To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendations of Source Water Protection Efforts, you may access the Illinois EPA website at http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl Or call the Groundwater Section of the Illinois EPA at (217) 785-4787.

Source of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic system, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also, come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, person who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

For additional information please call James Joers at (630) 964-7503 or email jim.joers@dupageco.org.
Dupage County Public Works
17W440 N. Frontage Rd. Darien, IL 60561

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.

2011 Regulated Contaminants Detected
-Definition of terms-

AL	**Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.**
Avg	**Regulatory compliance with some MCLs is based on running annual average of monthly samples.**
MCL	**Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.**
MCLG	**Maximum Contaminant Level Goal: 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.**
MRDL	**Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water.**
MRDLG	**Maximum Residual Disinfectant Level Goal: The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLGs allow for a margin of safety.**
N/A	**Not Applicable**
NTU	**Nephelometric Turbidity Units**
pCi/L	**picocuries per liter (a measure of radioactivity)**
ppb	**Parts per billion or micrograms per liter (ug/L) - or one ounce in 7,350,000 gallons of water.**
ppm	**Parts per million or milligrams per liter (mg/L) - or one ounce in 7,350 gallons of water.**
TT	**Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.**
Collection Date	**If a date appears in this column, the IEPA 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.**

SERWF – 2011 Distributed Water Quality Data IEPA Facility # 0430060

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead (AL)	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper (AL)	Violation	Likely Source of Contaminant
0	15 ppb	0	0	1.3 ppm	1.3 ppm	0.362 ppm	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. DuPage County Public Works is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at *http://www.epa.gov/safewater/lead*

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Chlorine	1/1/2011	0.8	0.6286 – 1.1143	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Haloacetic Acids (HAA5)		*18	11.26-22	No Goal for the Total	60	ppb	No	By-product of drinking water chlorination
TTHMs Total Trihalomethanes		*31	16.11– 47	No Goal for the Total	80	ppb	No	By-product of drinking water chlorination

*Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.

Since the emergency supply of water is a well water supply w/chlorine injection, several water tests were collected from the emergency back-up well to satisfy EPA regulations. *None of the results were out of compliance.* If you are interested in seeing any of the required testing results you may call us at (630) 964-7503 or check them out on the IEPA's website, known as Water Watch at http://www.epa.state.il.us/water/drinking-water-watch/index.html.

SERWF Violation Summary Table 2011 IEPA Facility #0430060

No drinking water quality violations were recorded during 2011.

For additional information about the Southeast Regional Water Facility or water quality results, please call James Joers at 630.964.7207or email jim.joers@dupageco.org DuPage County Public Works 17W440 North Frontage Darien IL. 60561.

See Chicago Water Testing Results included with this 2011 CCR.

DUPAGE COUNTY DEPARTMENT OF PUBLIC WORKS
WATERING RESTRICTION GUIDELINES

The following restrictions shall be in effect from **May 15 through September 15** as follows:
Water shall not be used on any day between the hours of 10:00 A.M. and 7:00 P.M. for the purpose of:

- Watering or sprinkling gardens, lawns, trees, shrubs and other outdoor plants, except that such restrictions shall not prohibit the watering of newly planted gardens, lawns, trees, shrubs and plants with hand held water devices.
- Filling swimming pools; and
- Washing vehicles, houses, trailers, driveways and sidewalks.

Outside watering will be allowed before 10:00A.M. or after 7:00 P.M., as determined by street number and day of the month (odd/even sequence). Odd street addresses may water on the odd days of the month and even street addresses may water on the even days of the month.

2011 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.

City of Chicago's Emerging Contaminant Study Analysis of Endocrine Disrupting Chemicals, Pharmaceuticals, and Personal Care Products

In 2011, CDWM has also monitored for hexavalent chromium, also known as chromium-6, and continues to do so quarterly. USEPA has not established a standard for chromium-6, a contaminant of concern which has both natural and industrial sources. A list of detected contaminants from the monitoring studies and additional information is posted on the City's webpage 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

The City of Chicago Department of Water Management (CDWM) has completed a water quality study to monitor some compounds that have not historically been considered to be contaminants of concern, but have been recently documented at trace concentrations in our nation's water bodies. This study, completed in 2009-2011, includes compounds known as Endocrine Disrupting Chemicals (EDCs) and Pharmaceuticals & Personal Care Products (PPCPs), which are considered to be emerging contaminants. EDCs are compounds with potential to interfere with natural hormone systems. PPCPs are a group of compounds consisting of prescription or over-the-counter therapeutic drugs, veterinary drugs, and consumer products such as sun-screen, lotions, insect repellent, and fragrances. The reader is encouraged to visit the United States Environmental Protection Agency (USEPA) website to learn more about EDCs (http://www.epa.gov/ncer/science/endocrine/) and PPCPs (http://www.epa.gov/ppcp/).

CHICAGO –2011 SOURCE WATER QUALITY DATA IEPA #0316000

UNREGULATED CONTAMINANT MONITORING RULE II (UCMRII):

Our water system was required to monitor for all contaminants required under the Unregulated Contaminant Monitoring Rule II (UCMRII). Started in 2009, monitoring under UCMR II was finished in 2011, with none of the contaminants detected. Inquiries and results may be obtained by calling the Water Quality Division office at (312) 742-7499.

Detected Contaminants

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Level found	Range of detections	Violation	Date of Sample
Turbidity Data						
TURBIDITY (NTU) (%< 0.3NTU) Soil runoff, lowest monthly percent meeting limit	N/A	TT	99.5%	99.5% - 100%		
TURBIDITY (NTU) Soil runoff, highest single measurement	N/A	TT=1NTUmax	0.86	N/A		

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.

CHICAGO –2011 SOURCE WATER QUALITY DATA IEPA #0316000

Detected Contaminants

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Level found	Range of detections	Violation	Date of Sample
Inorganic Contaminants						
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	2	2	0.0208	0.0201 – 0.0208		
NITRATE & NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, Sewage; Erosion of natural deposits.	10	10	0.44	0.393 – 0.44		
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. 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.	N/A	N/A	16.1	14.4 – 16.1		
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener. There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium restricted diet, you should consult a physician about this level of sodium in the water.	N/A	N/A	6.64	6.63– 6.64		
State Regulated Contaminants						
FLUORIDE (ppm) Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optional fluoride range of 0.9 mg/l to 1.2 mg/l.	4	4	0.92	0.81 – 0.92		
Radioactive Contaminants						
COMBINED RADIUM (226/228) (pCi/L) *Decay of natural and manmade deposits.*	0	5	1.38	1.300-1.380		3/17/08
GROSS ALPHA excluding radon and uranium (pCi/L) *Decay of natural and manmade deposits.*	0	15	0.88	0.090-0.880		3/17/08

CHICAGO VIOLATION SUMMARY TABLE 2011 IEPA #0316000

No Drinking Water Quality Violations were recorded during 2011. For additional information about Chicago's drinking water quality, please call 312-742-7499.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.