




# DuPage Water Commission

## MEMORANDUM

TO: Owner / Official Custodian / Bottle Recipient

FROM: Terry McGhee  
Manager of Water Operations

DATE: April 1, 2013 

SUBJECT: Consumer Confidence Report

The Consumer Confidence Report (CCR) rule requires all community water systems to provide a report to their customers on the quality of their drinking water. You should have received a package from the City of Chicago by now containing all of their source water data and 2011 data tables.

I have included a copy of the data tables for the DuPage Water Commission as part of our CCR requirements. If you have any questions regarding this letter or the information attached please feel free to contact me. If you are not the person who should be receiving the CCR information please contact me so I can update my files.

[mcghee@dpwc.org](mailto:mcghee@dpwc.org)  
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Attachments

Cc: File



## **Annual Drinking Water Quality Report**

**DU PAGE WATER COMMISSION**

**IL0435400**

**Annual Water Quality Report for the period of  
January 1, to December 31, 2012**

**This report is intended to provide you with important information about your drinking water and the efforts made by the DU PAGE WATER COMMISSION water system to provide safe drinking water. The source of drinking water used by DU PAGE WATER COMMISSION is Purchased Water from the City of Chicago.**

**For more information regarding this report contact:**

**Name Terry McGhee**

**Phone (630) 834-0100**

### **IS MY WATER SAFE**

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

### **DO I NEED TO TAKE SPECIAL PRECAUTIONS?**

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, persons 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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of Infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

## 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 systems, agricultural livestock operations or 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 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. 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. 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, persons 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).

## **DESCRIPTION OF THE WATER TREATMENT PROCESS**

Your water is treated in a "treatment train" (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called "floc," which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand and gravel filters that remove even smaller particles. A small amount of chlorine is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed to homes and businesses in the community.

## **SOURCE WATER ASSESSMENT**

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 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. Throughout history there have been extraordinary steps taken to assure a safe source of drinking water in the Chicago land area. From the building of the offshore cribs and the introduction of interceptor sewers to the lock-and-dam system of Chicago's waterways and the city's Lakefront Zoning Ordinance.

The city now looks to the recently created Department of the Water Management, Department of Environment and the MWRDGC to assure the safety of the city's water supply. Water supply officials from Chicago are active members of the West Shore Water Producers Association. Coordination of water quality situations (i.e., spills, tanker leaks, exotic species, etc) and general lake conditions are frequently discussed during the association's quarterly meetings. Also, Lake Michigan has a variety of organizations and associations that are currently working to either maintain or improve water quality. Finally, one of the best ways to ensure a safe source of drinking water is to develop a program designed to protect the source water against potential contamination on the local level. Since the predominant land use within Illinois' boundary of Lake Michigan

watershed is urban, a majority of the watershed protection activities in this document are aimed at this purpose. Citizens should be aware that everyday activities in an urban setting might have a negative impact on their source water. Efforts should be made to improve awareness of storm water drains and their direct link to the lake within the identified local source water area. A proven best management practice (BMP) for this purpose has been the identification and stenciling of storm water drains within a watershed. Stenciling along with an educational component is necessary to keep the lake a safe and reliable source of drinking water.

### **ADDITIONAL INFORMATION ON LEAD**

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 Water Commission 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>.

### **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 a leaking toilet 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 <http://www.preservingeverydrop.org/> for more information.

## **SOURCE WATER PROTECTION**

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one
- Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier
- Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water."
- Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

## **2012 Regulated Contaminants Detected**

### **Water Quality Test Results**

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

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

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

**mg/l:** milligrams per litre or parts per million - or one ounce in 7,350 gallons of water.

**ug/l:** micrograms per litre or parts per billion - or one ounce in 7,350,000 gallons of water.

**na:** not applicable. **Avg:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water.

**Maximum Residual Disinfectant Level (MRDLG):** The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's allow for a margin of safety.

## 2012 Regulated Contaminants Detected

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source Of Contamination
0	0 positive monthly sample	0	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive	0	No	Naturally present in the environment

## Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Chlorine		1.0	0.9– 1.0	4	4	ppm	No	Water Additive used to control microbes
Total Haloacetic Acids (HAA5)		19.4	15 – 19.4	N/A	60	ppb	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes]		30.5	28 – 30.5	N/A	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



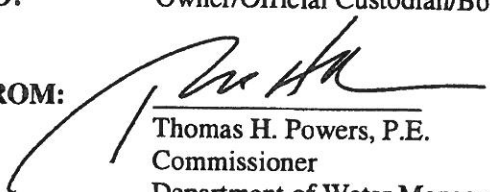
**Note:** The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.

**MCL (Maximum Contaminant Level):** 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. 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. AL (Action Level): The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow. ppm: parts per million ppb: parts per billion ppt: parts per trillion pCi/l: picoCuries per liter (measurement of radioactivity)



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 28, 2013

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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 2012 through December 2012. If your water supply is required to produce a report you will need this data to complete your Consumer Confidence Report.

The completed 2012 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 Alan Stark using either

e-mail: [astark@cityofchicago.org](mailto:astark@cityofchicago.org) or fax: (312) 742-2364

Included in this information package:

- Summary Tables -
  - 2012 Water Quality Data – includes Regulated and Non-Regulated Contaminant Detections
  - 2012 Violation Summary Table .
  - 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, 2012 we have enclosed 2012 tables that were prepared by DWM. The Illinois EPA will post data tables for the Department of Water Management on the Drinking Water web site

Attachments

**2012 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.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use disinfectants to control microbial contaminants.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Highest Level Detected:** This column represents the highest single sample reading of a contaminant of all the samples collected in 2009.

**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.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

**ND:** Not detectable at testing limits. **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**

			(Lowest Monthly %)	
TURBIDITY (NTU/Lowest Monthly % $\leq$ 0.3 NTU) Soil runoff	N/A	TT(95% $\leq$ 0.3NTU)	99.7%	99.7% – 100.0%
TURBIDITY (NTU/Highest Single Measurement) Soil runoff	N/A	TT(1NTU $_{max}$ )	0.69	N/A

**Inorganic Contaminants**

BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.0204	0.0194 - 0.0204
ARSENIC (ppb) Erosion of natural deposits; runoff from orchards; Runoff from glass and electronics production wastes	0	10	0.67	0.52 – 0.67
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.34	0.34 - 0.34
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.34	0.34 - 0.34

**CITY OF CHICAGO, DEPARTMENT OF WATER MANAGEMENT  
SOURCE WATER ASSESMENT SUMMARY  
FOR THE 2012 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.

**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.

**2012 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.

In 2012, 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/chromium-6.html](http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/chromium-6.html)

***2012 Violation Summary Table***

The following table(s) lists all violations that occurred during 2012. We included a brief summary of the actions we took following notification of the violation.

<b>Contaminant or Program</b>	<b>Violation Type</b>	<b>Monitoring Period Start Date – End date</b>	<b>Violation Explanation</b>
Individual Filter Effluent Turbidity Monitoring	Minor Routine Monitoring (ISWTR/LT1)	09/01/2012 – 09/30/2012 10/01/2012 – 10/31/2012	We failed to complete all the required tests of our drinking water for the contaminant and period indicated.
Health Effects (if applicable)	None		
Actions we took:	The Department of Water Management has installed a new low level turbidity detection alarm program in the electronic turbidity monitoring system and provided corrective action training to staff. This will ensure continuous filter effluent turbidity monitoring without interruption.		



## *Detected Contaminants Continued*

<i>Contaminant (unit of measurement) Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Highest Level Detected</i>	<i>Range of Detections</i>	<i>Violation</i>	<i>Date of Sample</i>
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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	17.6	13.4 – 17.6		
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	N/A	N/A	7.07	6.88 – 7.07		

### **State Regulated Contaminants**

FLUORIDE (ppm) Water additive which promotes strong teeth	4	4	0.85	0.84 – 0.85		
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### **Radioactive Contaminants**

COMBINED RADIUM 226/228 (pCi/L) Decay of natural and man-made deposits.	0	5	1.38	1.300 – 1.380		03-17-2008
GROSS ALPHA excluding radon and uranium (pCi/L) Decay of natural and man-made deposits.	0	15	0.88	0.090 – 0.880		03-17-2008

#### **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 recommends an optimal fluoride range of 0.9 mg/l to 1.2 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.