2015 - Water Quality Report

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

This year, as in years past, your tap water was tested according to USEPA and state drinking water health standards. Our system vigilantly safeguards its water supply from Lake Michigan, and we are working hard to continue providing the best water possible. This report summarizes the quality of water that we provided last year and informs you of any concerns we are working on overcoming. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies.

If you have any questions about this report or concerning your water system, please contact Robert Wenger, Water Treatment Supervisor, at 630.823.5749. We want our valued customers to be informed about their water quality. Additional information may be obtained at the Village Board meetings with the Village President and Board of Trustees, held on the first and third Thursday of every month in the Municipal Building located at 2121 Lake Street, in room 214 at 7:30 p.m. All meetings are open to the public.

The Village of Hanover Park uses ground water provided by four (4) wells drilled into the Cambrian Ordovician and the Illinois Prairie aquifers as an emergency water source. These wells provided only 1 percent of the total water consumed in the Village in 2015. Lake Michigan was the source of 99 percent of the Village's water supply.

The City of Chicago provides treatment for the Village's Lake Michigan supply of water. The City of Chicago 2015 Water Quality Data Report is attached.

Sources of Water - The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and groundwater wells. Lake Michigan is a surface water supply.

As water travels over the surface of the land or through the ground, it can pick up substances resulting from human activity or the presence of animals. The drinking water source is vulnerable to industrial waste and runoff from surrounding lands.

Possible contaminants consist of:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- Inorganic contaminants, such as salts and metals, which may 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 may also come from gas stations, urban storm water runoff and septic systems; and,
- Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline 1.800.426.4791.

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 USEPA's Safe Drinking Water Hotline 1.800.426.4791.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that 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.

2015 Source Water Assessments
Village of Hanover Park

1 percent of Hanover Park's water is provided by ground water wells, which are not considered to be susceptible to contamination, based on criteria including monitoring at the wells, monitoring at entry points to the distribution system, and available hydrogeological data. The remaining 99 percent of water is from Lake Michigan.

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 off shore 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 Chicagoland 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 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.

Continued on next Page

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.

The source water assessment for our supply has been completed by the Illinois EPA. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/ recommendation of Source Water Protection Efforts, visit the Illinois EPA at: http://dataservices.epa.illinois.gov/swap/factsheet.aspx.

City of Chicago - Lake Michigan 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 area 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.

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 Crytosporidium 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 month 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 to monitor 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 at: http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsreports/city_of_chicago_emergincontaminantstudy.html

Definitions and Abbreviations (relating to Pages 8 & 9)

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

Action Level Goal (ALG): Level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

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.

Highest Level Detected: This column represents the highest single reading of a contaminant of all the samples collected in 2015.

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

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.

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

TCR (Total Coliform Rule): Requires all public water supplies to monitor for the presence of total coliform in the distribution system.

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

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 samples less than 0.3 NTU

pCi/l – Picocuries per liter, used to measure radioactivity

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2015 WATER QUALITY DATA VILLAGE OF HANOVER PARK plus CITY OF CHICAGO

0316000 CHICAGO DATA TABULATED BY CHICAGO DEPARTMENT OF WATER MANAGEMENT

DETECTED CONTAMINANTS

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Date of Sample
			(Lowest Monthly %)			
Microbial Contaminants						
TURBIDITY (NTU/Lowest Monthly %≤0.3NTU) Soil runoff	n/a	TT(95%≤0.3NTU)	99.7%	99.7% -100%		
TURBIDITY (NTU/Highest Single Measurement) Soil runoff	n/a	TT(1NTUmax)	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		
Synthetic Organic Contaminants						
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		
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

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. until November 2015. As of November 2015, the new recommendation is an optimal level of 0.7mg/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.

UNREGULATED CONTAMINANT DETECTIONS

Additional Contaminants

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 contaminant 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.

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Date of Sample
CHROMIUM (ppb) Naturally-occurring element; used in making steel and other alloys	100	100	0.3	0.2 – 0.3		
MOLYBDENUM (ppb) Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used for molybdenum trioxide	n/a	n/a	1.1	1.0 - 1.1		

STRONTIUM (ppb) Naturally-occurring element; has been used in cathode-ray tube TVs to block x-ray emissions	n/a	n/a	120	110 - 120		
VANADIUM (ppb) Naturally-occurring metal; vanadium pentoxide is used as a catalyst and a chemical intermediate	n/a	n/a	0.2	0.2-0.2		
CHROMIUM-6 or HEXAVALENT CHROMIUM (ppb) Naturally-occurring element; used in making steel and alloys	n/a	n/a	0.19	0.18 – 0.19		

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.

0314480 HANOVER PARK **2015 Regulated Contaminants Detected**

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Date of Sample
Microbial Contaminants						
TOTAL COLIFORM Bacteria (%pos/mo) Human and animal fecal waste	0	5%	3.8%	n/a	no	

Lead and Copper

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. We are responsible for providing high quality drinking water, but we 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. NOTE: Lead and copper sampling was completed in August 2014. Monitoring for this period did not detect any lead.

Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation
Disinfectants and Disinfection By-Products							
CHLORINE Water additive used to control microbes	12/31/2015	0.8	0.6 – 1.0	MRDLG = 4	MRDL = 4	ppm	No
HALOACETIC ACIDS (HAA5) By-product of drinking water disinfection	2015	20	12.77 – 23.7	No goal for the total	60	ppb	No
TOTAL TRIHALOMETHANES (TThm) By-product of drinking water disinfection	2015	35	19.87 – 45.1	No goal for the total	80	ppb	No
Inorganic Contaminants							
ARSENIC Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	10/06/2015	0.713	0.502 – 0.713	0	10	ppb	No
BARIUM Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	10/06/2015	0.233	0.0667 – 0.233	2	2	ppm	No
FLUORIDE Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	10/06/2015	1.1	0.99 – 1.1	4	4.0	ppm	No
IRON This contaminant is not currently regulated by the USEPA. However, the State regulates; Erosion of natural deposits.	10/6/2015	0.253	0.0524 - 0.253		1	ppm	No
NITRATE (measured as Nitrogen) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10/06/2015	0.290	0.249 – 0.290	10	10	ppm	No
SODIUM Erosion from naturally occurring deposits: Used in water softener regeneration	10/06/2015	14.6	14.6 – 14.6			ppm	No
Radioactive Contaminants							
COMBINED RADIUM – 226/228 Erosion of natural deposits	4/07/2014	3.8	2 – 3.8	0	5	pCi/L	No
GROSS ALPHA EXCLUDING RADON AND URANIUM Erosion of natural deposits	4/07/2014	3.7	0.67 – 3.7	0	15	pCi/L	No
Volatile Organic Contaminants							
XYLENES Discharge from petroleum factories; Discharge from chemical factories.	8/10/2015	0.001	0 — 0.0006	10	10	Ppm	No

UNREGULATED CONTAMINANT DETECTIONS

Additional Contaminants

UCMR3 Compliance Reporting: In compliance with the Unregulated Contaminant Monitoring Rule 3 (UCMR3) as required by the EPA, the Village of Hanover Park has monitored for 21 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 contaminant that we have monitored included volatile organic chemicals, metals, perfluorinated compounds, 1,4-dioxane and chlorate. The contaminants that were detected in this monitoring program are listed below.

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Date of Sample
CHROMIUM (ppb) Naturally-occurring element; used in making steel and other alloys	100	100	0.4	0.3 – 0.4		
MOLYBDENUM (ppb) Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used for molybdenum trioxide	n/a	n/a	3.0	ND-3.0		
STRONTIUM (ppb) Naturally-occurring element; has been used in cathode-ray tube TVs to block x-ray emissions	n/a	n/a	703.4	105 – 703.4		
VANADIUM (ppb) Naturally-occurring metal; vanadium pentoxide is used as a catalyst and a chemical intermediate	n/a	n/a	0.3	ND-0.3		
CHROMIUM-6 or HEXAVALENT CHROMIUM (ppb) Naturally-occurring element; used in making steel and alloys	n/a	n/a	0.23	0.13 – 0.23		

2015 Violation Summary Table

No drinking water violations were recorded in 2015