

# 2018 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 pm. 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 00.45 percent of the total water consumed in the Village in 2018. Lake Michigan was the source of 99.55 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 2018 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.

## **2018 SOURCE WATER ASSESSMENTS VILLAGE OF HANOVER PARK**

Less than 1 percent of Hanover Parks water was provided from ground water wells. IEPA staff recorded no potential sources, routes, or possible problem sites within the 200 foot minimum setback zone of Wells #3, #4 and #6. They also do not consider the source water of this facility to be susceptible to contamination. This determination is based on a number of criteria including monitoring conducted at the wells, monitoring conducted at the entry point to the distribution system, and the available hydrogeological data on the wells. However, Hanover Park received approximately 99 percent of its water from the Northwest Suburban Municipal Joint Action Water Agency, a surface water supply from Lake Michigan through the City of Chicago. The IEPA considers all surface water sources of public supply to be susceptible to potential pollution problems.

The source water supply for the City of Chicago is provided in this document.

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, you may access the Illinois EPA website 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.

### 2018 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 continued the 24 month long monitoring program in April 2015 through April 2017, collecting samples from its source water once per month to monitor for Cryptosporidium, Giardia, E. coli and turbidity, with no detections for Cryptosporidium and Giardia reported so far.

In 2018, 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 which can be accessed at the following address: [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)

### DEFINITIONS AND ABBREVIATIONS

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

**Action Level Goal (ALG):** The 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

**% $\leq$ 0.3 NTU** – Percent of samples less than or equal to 0.3 NTU

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

## 0316000 CHICAGO DATA TABULATED BY CHICAGO DEPARTMENT OF WATER MANAGEMENT

<b>DETECTED CONTAMINANTS</b>						
Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Date of Sample
<b>Microbial Contaminants</b>						
TURBIDITY (NTU/Lowest Monthly %≤0.3NTU) Soil runoff	n/a	TT(Limit: 95% ≤ 0.3) NTU	Lowest Monthly % 100%	100% -100%		
TURBIDITY (NTU/Highest Single Measurement) Soil runoff	n/a	TT(Limit 1NTU)	0.19	n/a		
<b>Inorganic Contaminants</b>						
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.0214	0.0203 – 0.0214		
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.42	0.31– 0.42		
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.42	0.31 – 0.42		
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						
<b>Unregulated Contaminants</b>						
SULFATE (ppm) Erosion of naturally occurring deposits	n/a	n/a	27.6	26.3 – 27.6		
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener	n/a	n/a	8.89	8.14 – 8.89		
<b>State Regulated Contaminants</b>						
FLUORIDE (ppm) Water additive which promotes strong teeth	4	4	0.86	0.64– 0.86		
<b>Radioactive Contaminants</b>						
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 had recommended an optimal fluoride level of 0.7 mg/L with a range of 0.6 mg/L to 0.8 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.

0314480 HANOVER PARK

**DETECTED CONTAMINANTS**

Contaminant (unit of measurement) Typical Source of Contaminant							
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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 2017. Monitoring results are shown below.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation
<b>COPPER</b> Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems	2017	1.3	1.3	0.1186	0	ppm	No
<b>LEAD</b> Corrosion of household plumbing systems; Erosion of natural deposits	2017	0	15	2.57	0	ppb	No
Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation
<u>Disinfectants and Disinfection By-Products</u>							
<b>CHLORINE</b> Water additive used to control microbes	12/31/2018	0.8	0.8 – 1.0	MRDLG = 4	MRDL = 4	ppm	No
<b>HALOACETIC ACIDS (HAA5)</b> By-product of drinking water disinfection	2018	23	15.9 – 32	No goal for the total	60	ppb	No
<b>TOTAL TRIHALOMETHANES (TTHm)</b> By-product of drinking water disinfection	2018	36	17.1 – 48.3	No goal for the total	80	ppb	No
<u>Inorganic Contaminants</u>							
<b>ARSENIC</b> Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	2018	0.655	0.612 – 0.655	0	10	ppb	No
<b>BARIUM</b> Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2018	0.0706	0.0461 – 0.0706	2	2	ppm	No
<b>FLUORIDE</b> Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	2018	0.81	0.75 – 0.81	4	4.0	ppm	No
<b>IRON</b> This contaminant is not currently regulated by the USEPA. However, the State regulates; Erosion of natural deposits	2018	0.104	0 – 0.104		1	ppm	No
<b>NITRATE (measured as Nitrogen)</b> Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	2018	0.396	0.344 – 0.396	10	10	ppm	No
<b>SODIUM</b> Erosion from naturally occurring deposits: Used in water softener regeneration	2018	13.8	9.44 – 13.8			ppm	No
<u>Radioactive Contaminants</u>							
<b>COMBINED RADIUM – 226/228</b> Erosion of natural deposits	5/16/17	0.47	0.47 – 0.47	0	5	pCi/L	No
<b>GROSS ALPHA EXCLUDING RADON AND URANIUM</b> Erosion of natural deposits	4/07/2014	3.7	0.67 – 3.7	0	15	pCi/L	No
<u>Synthetic Organic Contaminants Including Pesticides and Herbicides</u>							
<b>DALAPON</b> Runoff from herbicide used on rights of way	2018	0.542	0 – 0.542	200	200	ppb	No
<u>Volatile Organic Contaminants</u>							
<b>XYLENES</b> Discharge from petroleum factories; Discharge from chemical factories	2018	0.003	0 – 0.0108	10	10	ppm	No
<b>ETHYLBENZENE</b> Discharge from refineries	2018	2.09	0 – 2.09	700	700	ppb	No

<b>Unregulated Contaminants</b>							
HALOACETIC ACIDS (HAA9) By-product of drinking water disinfection	2018	28.40	20.5 – 42.0	N/A	N/A	ppb	
MANGANESE Naturally occurring element found in soil and rocks, commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient	2018	1.15	0 – 1.47	N/A	N/A	ppb	
1 – BUTANOL Used as a solvent, food additive and in production of other chemicals. By-product of drinking water disinfection	2018	5.5	0 – 7.2	N/A	N/A	ppb	
2 – METHOXYETHANOL Used in a number of consumer products such as synthetic cosmetics, perfumes, fragrances, hair preparations and skin lotions	2018	0.62	0 – 0.81	N/A	N/A	ppb	

### **2018 Monitoring Violations**

We are pleased to announce that no monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2018.