



2016 ANNUAL DRINKING WATER QUALITY REPORT
CCR – CONSUMER CONFIDENCE REPORT

VILLAGE OF OAK LAWN ANNUAL WATER QUALITY REPORT

For the period of January 1 to December 31, 2016

This report is intended to provide you with important information about your drinking water and the efforts made by the OAK LAWN water system to provide safe drinking water. The source of drinking water used by OAK LAWN is purchased surface water. For more information regarding this report contact David Leslie at (708) 499-7746

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).** The Public Works Water Division does not hold regularly scheduled board meetings with regard to the water distribution system. Please refer to the Village of Oak Lawn web site at www.oaklawn-il.gov for Public Works Committee meeting dates, time, and location.

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, naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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.

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 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.

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).

Source Water Assessment

When available, a Source Water Assessment summary is included below for your convenience.

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 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 the Water Management, Department of Environment and the MWRDGC to assure the safety of the city’s water supply. Also, 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 that 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.

2016 Regulated Contaminants Detected

Lead Date Sampled: 7/18/14

Definitions: **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. 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 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>.

Lead and Copper	MCLG	Action Level (AL)	90 th Percentile	# Sites Over All	Units	Violation	Likely Source of Contamination
Lead	0	15	8.04	1	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits

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. MCLGs allow for a margin of safety. mg/l: milligrams per liter or ppm: parts per million – or one ounce in 7,350 gallons of water. ug/l: micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water. N/A: 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 Goal (MRDLG):** 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.

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
TTHMs (Total Trihalomethanes)	Year 2016	32.0	13.21-35.5	N/A	80	ppb	No	By-product of drinking water disinfection
Total Haloacetic Acids (HAA5)	Year 2016	18.0	10.22-20.04	N/A	60	ppb	No	By-product of drinking water disinfection
Chlorine	12/31/2016	0.9	0.7-1.0	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes

CITY OF CHICAGO

2016 Regulated Contaminants Detected

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	Year 2016	0.0206	0.0196-0.0206	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	Year 2016	0.78	0.62-0.78	4	4	ppm	No	Erosion of natural deposits; Water additives which promotes strong teeth; fertilizer and aluminum factories.
Nitrate (As Nitrogen)	Year 2016	0.46	0.40-0.46	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sulfate (PPM) Erosion of Natural Occurring Deposits	N/A	N/A	25.7	25.0-25.7	N/A	ppm	No	
Sodium	Year 2016	8.92	8.49-8.92	N/A	N/A	ppm	No	Erosion from naturally occurring deposits; used in water softener regeneration.
Combined Radium 226/228	2/11/2014	0.84	0.50-0.84	0	5	pCi/L	No	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2/11/2014	6.6	6.1-6.6	0	15	pCi/L	No	Erosion of natural deposits.

*Unregulated Contaminants: A MCL for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring is to assist USEPA in determining the occurrence of unregulated contaminants and whether future regulation is warranted. **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. 2016 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.

Total Organic Carbon: The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

Detected Contaminants Continued

Contaminant (unit of measurement Typical Source of Contamination) Sample	MCLG	MCL	Highest Level Detected	Range of Detections	Date of Violation
Turbidity Data (LOWEST Monthly %)					
Turbidity (NTU/Lowest Monthly %<_0.3NTU) Soil Runoff	N/A	TT	99.7%	99.7%-100.0%	
			(Limit 95%<_0.3 NTU)		
Turbidity (NTU/Highest Single Measurement) Soil Runoff	N/A	TT	0.45	N/A	
			(Limit 1 NTU)		

Detected Contaminants Continued

Contaminant (unit of measurement Typical Source of Contamination) Sample	MCLG	MCL	Highest Level Detected	Range of Detections	Date of Violation
Chromium (ppb) Naturally-occurring element used in making steel and other alloys	100	100	0.3	0.3-0.3	

Molybdenium (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 TV's 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

Violations Table

Consumer Confidence Rule			
The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
CCR ADEQUACY/AVAILABILITY/CONTENT	07/01/2016	09/30/2016	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water.

This violation was from incorrectly averaging Chlorine, Total Trihalomethenes, and Total Halocacetic Acids. We, at no time exceeded the MCL's . This department will strive to improve its reporting so that this does not happen in the future.