

# The Winnetka Water Plant 2016 Annual Consumer Report on the Quality of Tap Water for the period of January 1 to December 31, 2016



The Winnetka Water Plant is committed to providing residents with a safe and reliable supply of high-quality drinking water. We test our water using sophisticated equipment and advanced procedures. Winnetka water exceeds both State and Federal standards. This annual consumer confidence report, required by the Safe Drinking Water Act (SDWA), tells you where your water comes from, what our tests show about it, and other things that you should know about our drinking water. The Winnetka Water Plant is supplied by surface water from Lake Michigan.

## How to Read This Table

The table shows the results of our water-quality analyses. Every regulated contaminant that we detected in the water, even in the minutest traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings and a key to units of measurement. Definitions of MCL and MCLG are important.

**Maximum Contaminant Level or 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 or 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.

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

- ppm** = Parts Per Million, or milligrams per liter (mg/l)
- ppb** = Parts Per Billion, or micrograms per liter (µg/l)
- ppt** = Parts per trillion
- pCi/l** = Picocuries Per Liter (measurement of radioactivity)
- CDC** = Center for Disease Control
- MRDLG** = Maximum Residual Disinfection Level Goal
- EPA** = Environmental Protection Agency
- MRDL** = Maximum Residual Disinfection Level
- FDA** = Food and Drug Administration
- n/a** = Not Applicable

## Regulated Contaminants Detected in 2016

	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source of Contamination	
<b>Inorganic Contaminants:</b>								
Barium 2016	0.02	n/a	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.	
Fluoride 2016	0.9	n/a	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; fertilizer discharge.	
Nitrate 2016	0.46	n/a	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.	
Sodium 2016	7.3	n/a	ppm	n/a	n/a	No	Erosion of naturally occurring deposits; used in water softener regeneration.	
Sulfate 2016	22	n/a	ppm	250	n/a	No	Erosion of naturally occurring deposits.	
Arsenic 2016	1	n/a	ppm	0	10	No	Erosion of natural deposits.	
<b>Disinfectants &amp; Disinfection By-Products Date Sampled:</b>								
Chlorine 12/31/16	0.9	0.7 – 1.0	ppm	MRDLG=4	MRDL=4	No	Water additive used to control microbes.	
Total Haloacetic Acids (HAA5) 2016	19	11-22.6	ppb	n/a	60	No	By-product of drinking water chlorination.	
TThm 2016 (Total Trihalomethanes)	34	16.03-50.2	ppb	n/a	80	No	By-product of drinking water chlorination.	
<b>Radioactive Contaminants Date Sampled: 1/6/2014</b>								
Combined Radium	0.837	n/a	pCi/L	0	5	No	Erosion of natural deposits.	
<b>Lead and Copper Year Sampled: 2014</b>								
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	Likely source of contamination
0 ppb	15 ppb	4.2 ppb	0	1.3 ppm	1.3 ppm	0.452 ppm	0	Corrosion of household plumbing systems; erosion of natural deposits.
<b>Turbidity</b>								
Limit (Treatment Technique): 0.1 NTU		Lowest Monthly % meeting limit: 100%				No	Soil runoff.	
Limit (Treatment Technique): 1 NTU		Highest Single Measurement Source: 0.10				No	Soil runoff.	

**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, unless a TOC violation is noted in the violations act.

# 2016 Annual Consumer Report on the Quality of Tap Water for 2016

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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

**NOTE:** Illinois 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. Sodium does not have a State or Federal MCL. Monitoring is required to provide information to consumers and health officials who are concerned about sodium intake due to a need to observe dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water. Turbidity (recorded as NTU) is a measure of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

## Required Additional Health Information

In order to ensure that tap water is safe to drink, the EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water. 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 (800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from the presence of animals or from human activity.

Radon is a naturally occurring gas that may pose a health risk when the gas is released from the water into the air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. If you are concerned about radon in your home tests are available to determine the total exposure level contact 800-767-7236.

## Contaminants that may be present in source water include:

(a) microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; (b) inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic waste water discharges, oil and gas production, mining and farming; (c) pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff and residential uses; (d) organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff and septic systems; (e) radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

FDA regulations establish limits for contaminants in bottled water that 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 for 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).

## A Source Water Assessment summary is included for your information.

Susceptibility is defined as the likelihood for the source water(s) of a public water system to be contaminated at concentrations that would pose a concern. The Illinois EPA considers all surface water sources of 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, which is the reason for mandatory treatment for all surface water supplies in Illinois. With this in mind, a workgroup from the Great Lakes States was organized to develop a protocol for assessing the Great Lakes. The mission of the Great Lakes Protocol was to develop a consistent procedure allowing the flexibility necessary to properly conduct source water assessments of our Great Lakes drinking water sources. This flexibility will take into account the variability of these sources and site-specific concerns for determination of source sensitivity and susceptibility (Illinois EPA 1999). Sensitivity is defined as the intrinsic ability of surface water to be isolated from contaminants by the physical attributes of the hydrologic or geologic setting (Illinois EPA, 1999). The two factors used for this zone that affect the sensitivity of Great Lakes intakes are the length of the intake pipeline and the water depth of the intake. The shallower, near shore intakes are more sensitive to shoreline influences than the off shore, deep intakes. Using the Sensitivity Analysis from the Great Lakes Protocol and the Winnetka water supply information,

# 2016 Annual Consumer Report on the Quality of Tap Water for 2016

the sensitivity for both Winnetka's active intakes is considered moderate. Because of this, the critical assessment zones have been determined to be the area within 2,000 feet around each of the intakes. As indicated by the sensitivity analysis, Winnetka's primary intake (IEPA# 01299) is located far enough offshore that shoreline impacts are not considered a significant factor on water quality. However, the secondary intake (IEPA# 0109) is close to shore and may be influenced by potential sources of contamination including the boat launch located within the property of the water treatment plant. In addition, the combination of the land use, storm sewer outfalls and the proximity to the North Shore Channel would add to the susceptibility of both intakes.

At certain times of the year the potential for contamination exists due to wet-weather flows from the North Shore Channel. If the near shore currents are flowing in a northerly direction, contaminants from these flows could migrate to Winnetka's intakes and compromise water quality. However, it should be stressed that treatment employed by Winnetka's water treatment plant is protective of its consumers, as noted by the facility's finished water quality history. The best way to ensure a safe source of drinking water for a water supply 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 the watershed is urban, a majority of watershed protection activities described in this document

are aimed at this purpose. Citizens must be aware that activities around their houses may have a negative impact on their source water. The main efforts on the immediate community should be an awareness of storm water drains and the direct link to the Lake within the identified Lake Michigan watershed. Water supply officials from Winnetka are active members of the West Shore Water Producers Association. Coordination regarding water quality situations (i.e., spills, tanker leaks, exotic species, etc.) is frequently discussed during the associations quarterly meetings. Lake Michigan, as well as all the Great Lakes, also has a variety of organizations and associations that are currently working to either maintain or improve water quality.

## National Primary Drinking Water Regulation Compliance

The Winnetka Water Plant staff prepared this report. Laboratory test results were supplied by the Winnetka Water Plant and the Illinois EPA. For more information, call Brian Curley at 847-716-3644, or attend one of the Council Meetings held the first and third Tuesday of every month at 7:00 p.m. in the Village Hall Council Room.

We want our valued customers to be informed about their water quality. To view a summary 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

**[eps.state.il.us/cgi-bin/wp/swap-fact-sheets.pl](https://eps.state.il.us/cgi-bin/wp/swap-fact-sheets.pl)**