



# Annual Drinking Water Quality Report for Calendar Year 2016

## Fox Lake IL0970200

**This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. This report includes drinking water facts, information on violations (if applicable), and contaminants detected in your drinking water supply during calendar year 2016. Each year, we will provide you a new report. If you need help understanding this report or have general questions, please contact the person listed below.**

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Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

### **ABOUT OUR WATER SYSTEM**

In 1928 the Village of Fox Lake Public Water System was put into service. Today our Water System supplies 500,000 to 1,000,000 gallons of potable water per day for over 5,000 Village residents, and our water system now reaches as far south as Rt. 134 & Rt. 12.

Before we begin listing our unique water quality characteristics, here are some important facts you should know to help have a basic understanding of drinking water in general.

### **Sources 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.

Our source of water comes from groundwater which is drawn primarily from shallow sand and gravel aquifers. Wells #1, 2, 4, and 5 supply the Village's treated water. Wells #4 and #5 operate through iron removal systems. We add 3 chemicals to our treated water. We add chlorine for disinfection, fluoride to prevent tooth decay, and polyphosphates to sequester iron and hardness.

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.

### **Other Facts about Drinking 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 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).

## Source Water Assessments

Source water protection (SWP) is a proactive approach to protecting our critical sources of public water supply and assuring that the best source of water is being utilized to serve the public. It involves implementation of pollution prevention practices to protect the water quality in a watershed or wellhead protection area serving a public water supply. Along with treatment, it establishes a multi-barrier approach to assuring clean and safe drinking water to the citizens of Illinois. The Illinois EPA has implemented a source water assessment program (SWAP) to assist with wellhead and watershed protection of public drinking water supplies.

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The Village Board meets on the second and fourth Tuesdays of each month at 6:30pm at the Village Hall located at 66 Thillen Drive. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by Village Hall or call our staff at 847-587-3506. 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>

Based on information obtained in a Well Site Survey published in 1992 by the Illinois EPA, twenty-six potential sources or possible problem sites were identified within the survey area of Fox Lake's wells. Furthermore, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated several additional sites with ongoing remediation which may be of concern. The Illinois EPA has determined that the Fox Lake's wells #1 and #2 source water is not susceptible to contamination. However, the source water obtained from Well #4 is 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 hydro geologic data on the wells.

## 2016 Regulated Contaminants Detected

The next several tables summarize contaminants detected in your drinking water supply.

Here are a few definitions and scientific terms which will help you understand the information in the contaminant detection tables.

AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Avg	Regulatory compliance with some MCLs is based on running annual average of monthly samples.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal 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.
MRDL	Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water.
MRDLG	Maximum Residual Disinfectant Level Goal: 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.
N/A	Not Applicable
NTU	Nephelometric Turbidity Units
pCi/L	picocuries per liter ( a measure of radioactivity)
ppb	parts per billion or micrograms per liter (ug/L) - or one ounce in 7,350,000 gallons of water.
ppm	parts per million or milligrams per liter (mg/L) - or one ounce in 7,350 gallons of water.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

<b>Lead and Copper</b>								
	<b>Dates Sampled</b>	<b>MCLG</b>	<b>Action Level (AL)</b>	<b>90<sup>th</sup> Percentile</b>	<b># Sites Over AL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
Copper	June-Sept.2015	1.3	1.3	1.02	1	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	June-Sept.2015	0	15	3.7	1	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.

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. Fox Lake 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>.

Disinfectants & Disinfection Byproducts	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2016	0.7	0.4-1	MRDLG=4	MRDL=4	ppm	No	Water Additive Used to Control Microbes
Haloacetic Acids (HAA5)*	2016	3	2.54-2.54	No Goal for the Total	60	ppb	No	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	2016	4	4.14-4.14	No Goal for the Total	80	ppb	No	By-product of drinking water disinfection
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.								
Inorganic Contaminants	Collection Dates	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2015	1.1	0-1.1	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2015	0.14	0.053 - 0.14	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	2015	1.06	0.38 - 1.06	4	4.0	ppm	No	Erosion of Natural Deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	2015	3.1	0.059 - 3.1		1.0	ppm	No	This contaminant is not currently regulated by the USEPA. However the state regulates erosion of natural deposits.
Manganese	2015	74	3.7-74	150	150	ppb	No	This contaminant is not currently regulated by the USEPA. However the state regulates erosion of natural deposits.
Sodium	2015	39	13 - 39			ppm	No	Erosion from naturally occurring deposits; Used in water softener regeneration.
Zinc	2015	0.049	0.0095 - 0.049	5	5	ppm	No	This contaminant is not currently regulated by the USEPA. However the state regulates erosion of natural deposits.
Radioactive Contaminants	Collection Dates	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2015	1.38	1.38- 1.38	0	5	pCi/L	No	Erosion of natural deposits.
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
cis-1,2- Dichloroethylene	2016	1	0 - 0.53	70	70	ppb	No	Discharge from industrial chemical factories.
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.								

#### **Violation Summary Table**

We are happy to announce that **no** monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during **2016**.

#### **System Flushing**

The Sewer & Water Department flush the water system and fire hydrants twice a year, once in the spring and again in the fall. This flushing is required to insure our fire hydrants are working properly and to clean the water mains of sediments that cause red water and odor problems.

#### **Water Audits**

We are still offering free water audits as a service to our residents. Please contact the Fox Lake Sewer and Water Department at (847)587-3506 to schedule an appointment for a free water audit. A member of our staff will come to your location and check for: leaks, fixture and meter efficiency, and offer conservation/water saving tips. Audits are available Monday-Friday 7:30a.m.-3:00p.m.

**FOR SEWER and WATER Emergencies please call (847)587-3100**

If you have a question about your Sewer & Water Bill please call our office at 847-587-3945 or E-mail [martinezl@foxlake.org](mailto:martinezl@foxlake.org)

For general information or requests for **non-emergency service** please call: 847-587-3506 or E-mail [horvathr@foxlake.org](mailto:horvathr@foxlake.org)

For Sewer & Water Locations Before You Dig. Please Call J.U.L.I.E. at 1-800-892-0123

*It is our commitment to the residents of Fox Lake to provide safe, reliable, and economical sewer and water services.*