



Village of Elk Grove Village Public Water Supply System 2014 Consumer Confidence Report As Reported June 2015

*The Greenleaf Standpipe
was selected as a winner in
the Illinois Section of the
American Water Works
Association's 2015 Water
Tank Photo Contest.*



INTRODUCTION

The Village of Elk Grove Village is dedicated to providing its residents and businesses with a dependable supply of safe drinking water. This Consumer Confidence Report (CCR) provides residents and businesses served by the Village-owned water distribution system with the information necessary to make informed decisions about how they use tap water.

This report is also a requirement of the 1996 Safe Drinking Water Act amendments. It summarizes where your water came from, what it was made of, and how it compared to the standards established by regulatory agencies. Information about water consumed during the reporting year will be made available in a CCR scheduled for distribution during the following year.

Information in this report describes water consumed during the 2014 calendar year. We are pleased to report that the Village-owned water system met all water quality standards in 2014.



Example of one of the Village's emergency wells and the motor to power it.

Where does our water come from?

Our water supply comes from Lake Michigan, one of the five Great Lakes. **The lake water is treated and purified by the City of Chicago Water Department.** The finished drinking water is then pumped to the **Northwest Suburban Municipal Joint Action Water Agency (NSMJAWA)** reservoirs near O'Hare Airport. NSMJAWA then pumps the water to the Village of Elk Grove Village and six (6) other northwest suburban communities via large water transmission mains. Elk Grove Village has four (4) connection points to the NSMJAWA transmission mains. Prior to receiving lake water, the Village pumped water from as many as fourteen (14) public deep wells located throughout the Village. Six (6) of these deep wells have been maintained as emergency back up supplies only in the event that the lake water should be unavailable for an extended period of time. The Village monitors and tests the backup emergency wells, and information regarding detections of contaminants in the emergency wells is available by contacting Scott Nailor in the Public Works Department at 847-734-8800. Please note the untreated water from the emergency wells is not used in the Village's water system.

By volume, Lake Michigan is the second largest of the Great Lakes. Hydrologically, it is inseparable from Lake Huron. The total shoreline, including all its islands, is almost 1,640 miles long. All 63 miles of shoreline within Illinois are considered to be in good condition. As water travels over or through the ground to the lake, it can dissolve naturally occurring minerals or radioactive material. It can also pick up substances resulting from the presence of animals or from human activity. Possible contaminants consist of:

- *Microbial contaminants* such as viruses and bacteria. These contaminants may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants* such as salts and metals. These contaminants can occur naturally or they can be the result of urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining operations, or farming.
- *Pesticides and herbicides* 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, are by-products of industrial processes and petroleum production. They can also be produced by gas stations,



Pumps, motors, and piping in one of the Village's pumping stations.

urban storm water runoff, and septic systems. Untreated lake water has the potential to contain these types of contaminants. However, it is important to realize that these materials can be found throughout nature to some degree. Their presence does not necessarily mean that there is a health risk associated with our source water. Rather, the most important factor to consider is how much of a particular contaminant can be found in our source water.

- *Radioactive Contaminants*, which may be naturally occurring or be the result of oil & gas production and mining activities.

Has an assessment been made of Lake Michigan water?

Yes! 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 only dilution as protection. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance offshore 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. Throughout history there have been extraordinary steps taken to assure a safe source of drinking water in the Chicagoland area. From the building of 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.

Who regulates if the water is safe to drink?

In order to make certain that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the Illinois Environmental Protection Agency (IEPA) prescribe regulations that limit the amount of certain contaminants in the water distributed by public water systems. All public water systems, including the City of Chicago and the Village of Elk Grove Village, must monitor their systems and comply with these regulations. Failure to do so is a violation of federal and state laws. Food & Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.



Elk Grove Village water tower design selected as the winner of the Illinois Section AWWA 2014 Tank Photo Contest.

Is Elk Grove Village's drinking water safe?

Yes! During 2014, Elk Grove Village complied with all of the federal and state regulations pertaining to the storage and distribution of drinking water. **All samples met water quality standards.** The table on pages 5-6 summarizes the tests that were performed to ensure compliance with water quality standards. Page 7 has additional information and outlines the definitions associated with this information. The City of Chicago conducted a number of additional water quality tests as well. In fact, they performed over 70 different water quality tests as part of their raw water treatment process. The results of all of these tests complied with federal and state drinking water regulations. The results of Chicago's analyses are available to the public and are on file at the Elk Grove Village Public Works Department.

Are there any problems with Lead or Copper in our water?

No! The Village tests for lead and copper content indicate that there were no significant levels of either contaminant in our drinking water.

The Village tests for lead and copper content once every three (3) years. We collect samples from the taps of 30 private homes. These samples are then sent to the IEPA laboratories for analysis. Our last round of lead and copper testing from July & August of 2014 showed no significant levels of lead or copper. There were no detectable levels of lead in any of the samples. The Village will be testing for Lead and Copper from the same 30 homes during July & August of 2017.

Our current rate of testing, once every three (3) years, as well as our sample size (30 samples), were prescribed by IEPA following initial rounds of annual testing using larger sample sizes. These initial tests indicated that there were no significant problems with lead or copper contamination in our drinking water. Therefore, our sampling frequency and sample size was reduced.

However, it should be noted that pregnant woman, infants and young children are more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home may be higher than in other homes due to the types of materials used in your home's plumbing system. If you are concerned about elevated lead levels in your water, you may wish to have it tested at a local laboratory, contact Scott Nailor in the Public Works Department at 847-734-8800. Flushing your tap for 2 minutes before using the water will also reduce your risk of lead exposure. Additional information about lead in drinking water is available from the USEPA's Safe Drinking Water Hotline (800-426-4791). You can also visit them on the web at www.epa.gov/safewater/lead.

Is there Cryptosporidium or Giardia in our water?

No! These organisms can be found in most raw surface water. It is caused by animal waste products deposited into the source water. However, properly filtered and disinfected water is virtually free of it. The Village of Elk Grove Village has never had a case of Cryptosporidiosis or Giardiasis, the illnesses caused by these organisms. Monitoring performed in 2014 by the City of Chicago did not detect any Cryptosporidium or Giardia in source water samples collected.



Pumps, motors, and controls in one of the Village's pumping stations.

Who can I talk to if I have questions or comments about the Village-owned water system?

If you have any questions about this report, would like to participate in decisions that may affect the quality of the water, or would like additional information about the Village-owned water system, please feel free to contact Scott Nailor in the Public Works Department at 847-734-8800.

2014 VILLAGE OF ELK GROVE VILLAGE WATER QUALITY TESTING RESULTS

Contaminants (unit of measurements)	MCLG	MCL	Highest Level Detected	Range of Levels Detected	VIOLATION NOTED	Typical Source of Contamination
Regulated and Tested for In The Village-Owned Water Distribution System						
TOTAL COLIFORM BACTERIA (%pos/mo)	0	0	ND		NO	Naturally present in the environment.
FECAL COLIFORM AND E.COLI (#pos/mo)	0	0	ND		NO	Human and animal fecal waste.
HAA5 (Total Haloacetic Acids) (ppb)	N/A	60	18	5.9–28.9	NO	By-Product of drinking water chlorination.
TTHMs (Total Trihalomethanes) (ppb)	N/A	80	44	19.123–51.5	NO	By-Product of drinking water chlorination.
CHLORINE (ppm)	MRDLG = 4	MRDL= 4	1	1–1.3	NO	Water additive used to control microbes.
Detected Regulated Contaminants Tested For By The City Of Chicago						
Turbidity Data						
TURBIDITY (NTU/ Lowest Monthly % ≤ 0.3 NTU)	N/A	TT(95% ≤ 0.3 NTU)	100%	100% - 100%	NO	Soil runoff. Lowest monthly percent meeting limit.
TURBIDITY (NTU Highest single measurement)	N/A	TT(1NTU max)	0.11	N/A	NO	Soil runoff. Highest single measurement.

2014 VILLAGE OF ELK GROVE VILLAGE WATER QUALITY TESTING RESULTS (CONTINUED)

Contaminants (unit of measurements)	MCLG	MCL	Highest Level Detected	Range of Levels Detected	VIOLATION NOTED	Typical Source of Contamination
Detected Regulated Contaminants Tested For By The City Of Chicago						
Inorganic Contaminants						
BARIUM (ppm)	2	2	0.0227	0.0223–0.0227	NO	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
NITRATE (AS NITROGEN) (ppm)	10	10	0.31	0.30–0.31	NO	Runoff from fertilizer use. Leaching from septic tanks. Sewage. Erosion of natural deposits.
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm)	10	10	0.31	0.30–0.31	NO	Runoff from fertilizer use. Leaching from septic tanks. Sewage. Erosion of natural deposits.
Detected State Regulated Contaminants Tested For By The City Of Chicago						
FLUORIDE (ppm)	4	4	0.98	0.94–0.98	NO	Water additive which promotes strong teeth. Erosion of natural deposits.
Detected Unregulated Contaminants Tested For By The City Of Chicago						
SODIUM (ppm)	N/A	N/A	10.0	9.53–10.0	NO	Erosion of naturally occurring deposits. Used as water softener.
SULFATE (ppm)	N/A	N/A	35.5	20.9–35.5	NO	Erosion of naturally occurring deposits.
Detected Radioactive Contaminants Tested For By The City Of Chicago						
Combined Radium 226/228 (pCi/l) Sample Date 03/17/2008	0	5	0.84	0.50–0.84	NO	Decay of natural and man-made deposits.
GROSS ALPHA excluding radon & uranium (pCi/l) Sample Date 03/17/2008	0	15	6.6	6.1–6.6	NO	Decay of natural and man-made deposits.
UCMR3 Compliance Reporting Tested For By The City Of Chicago*						
CHROMIUM (ppb)	100	100	0.3	0.2–0.3	NO	Naturally-occurring element; used in making steel and other alloys
MOLYBDENUM (ppb)	NA	NA	1.1	1.0–1.1	NO	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide
STRONTIUM (ppb)	NA	NA	120	110–120	NO	Naturally-occurring element; has been used in cathode-ray tube TV's to block x-ray emissions
VANADIUM (ppb)	NA	NA	0.3	ND–0.3	NO	Naturally-occurring metal; vanadium pentoxide is used as a catalyst and a chemical intermediate
CHROMIUM-6 or HEXA-VALENT CHROMIUM	NA	NA	0.22	0.18–0.22	NO	Naturally-occurring element; used in making steel and alloys
4-ANDROSTENE-3, 1-DIONE (ppb)	NA	NA	0.0008	0.0006–0.0008	NO	Steroidal hormone naturally produced in the human body; and used as a anabolic steroid and a dietary supplement
TESTOSTERONE	NA	NA	0.0001	0.0001–0.0001	NO	Androgenic steroid naturally produced in the human body; and used in pharmaceuticals

*In compliance with the Unregulated Contaminant Monitoring Rule 3 (UCMR3) as required by the EPA, the City of Chicago has monitored for the 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 contaminants that they have monitored include volatile organic chemicals, metals, perfluorinated compounds, hormones, 1,4-dioxane and chlorate. The contaminants that were detected in the monitoring program are listed below.

DEFINITIONS

- **MCLG** - Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- **MCL** - Maximum Contaminant Level: The highest level of a known contaminant allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.
- **"Range of Detection"** represents a range of individual sample results, from lowest to highest, taken during the CCR calendar year.
- **"Date of Sample"** represents whether the sample was collected during the CCR calendar year or the last time IEPA required samples to be collected. If no date appears, then the sample was collected during the reporting year.
- **ppm** - Parts Per Million (same as mg/l) – or one ounce in 7,350 gallons of water.
- **ppb** - Parts Per Billion (same as ug/l) – or one ounce in 7,350,000 gallons of water.
- **#pos/mo** - This represents the number of positive samples per month.
- **%pos/mo** - This represents the percentage of positive samples per month.
- **AL** - Action Level: The level of a contaminant above which certain prescribed treatment techniques must be employed to reduce contaminant risk.
- **ND** - Not Detectable: Not found at the testing limits.
- **NA** - Not Applicable.
- **TT** - Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.
- **%<0.5 NTU** - Percent of samples less than .5 NTU.
- **"Amount"** column is an average of all sample result data collected during the CCR calendar year.
- **NTU** - Nephelometric Turbidity Unit, used to measure cloudiness in the drinking water.

Total Organic Carbon (TOC) The percentage of Total Organic Carbon removal was measured each month and Chicago's system met all TOC removal requirements set by the IEPA.

Turbidity is a measurement of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of the filtration system and disinfectants. During the winter months your water may appear to be turbid, but in fact only contains air bubbles. This is nothing to be concerned about. Run your tap till your water gets cold or simply let the water stand a few minutes for it to clear up.

Unregulated Contaminants A maximum contaminant level (MCL) for this contaminant has not been established by either the state or federal regulations, nor has a mandatory health effect language. The purpose for monitoring this contaminant is to assist the USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

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.

Sodium has no MCL. Monitoring is required to provide information to consumers and health officials concerned about sodium intake due to dietary precautions. However, individuals on a sodium-restricted diet should consider consulting a physician.

Vulnerable Populations: Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of these contaminants does not necessarily indicate the water poses a health risk. Additional information regarding these contaminants and the potential health risks associated with drinking water may be obtained by calling the U.S. Environmental Protection Agency's Safe Drinking Water Hotline (SDWH) at **1-800-426-4791**, or call Village of Elk Grove Public Works at 847-734-8800.

Important Note: 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 persons, 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.

Village of Elk Grove Village

VIOLATION SUMMARY TABLE

No drinking water quality violations occurred during 2014

Ever wonder why there are bubbles in your water?

Fill a glass with tap water and sometimes it looks cloudy or “milky.” Wait a few seconds and the water starts to clear. It usually happens more during the cold weather months. It is a function of water temperature, water pressure and the solubility of air in the water.

The water is safe and meets the required testing standards. The United States Geological Survey has additional information on this phenomena on their website. To find more information about this and much more visit the USGS at <http://water.usgs.gov/edu/qa-chemical-cloudy.html>