



2015 Water Quality Report - Sample Results for Calendar Year 2014

This City of Warrenville has developed and published this report, as per the requirements of the *Federal Safe Drinking Water Act*, to inform our customers as to the source and safety of Warrenville's drinking water.

This year, as in years past, Warrenville tap water met all United States Environmental Protection Act (USEPA) drinking water health standards. The City system vigilantly safeguards the groundwater supply and had no violation of a contaminant level, or of any other water quality standard, in 2014. This report summarizes the quality of water provided last year, including details about where the water comes from, what it contains, and how it compares to standards set by regulatory agencies. Warrenville is committed to providing information to customers because informed customers are our best allies.

If you have any questions concerning this report or concerning Warrenville's water system, please contact Michael Smith, Public Works Superintendent, at 630-393-9050, Monday through Friday, 7:30 am to 3:30 pm. A Committee of the Whole, concerning Community Development issues, is held bi-monthly at 7:00 pm, in City Hall Council Chambers, located at 28W701 Manning Avenue, Warrenville, Illinois. Meetings are published in the local papers, posted on bulletin boards inside both main entrances to City Hall, and on line at <http://www.warrenville.il.us/Calendar.aspx?NID=1&FID=240>. You can also call City Hall at 630-393-9427 to obtain the meeting dates. Water issues are discussed in open forums on an "as needed" basis.

The City uses groundwater provided by five wells drilled into the Silurian–Dolomite aquifer. An aquifer is a geological formation that contains water. The wells are drilled to an average depth of 300 feet. The location of the wells are as follows: Well 8 is located at the water tower on Country Ridge Dr., across the street from the hardware building, Well 9 is located at the water tower site at Warrenville Rd. and Lorraine St., Well 10 is located at Batavia Rd. and Cherice Dr. in the Summerlakes Subdivision, Well 11 is located next to Bower School on River Rd., and Well 12 is located at 3S000 Timber Drive, between the Warrenville Lakes and Timber Creek subdivisions.

Warrenville homes normally receive a mixture of water from Wells 9, 10, 11, and 12 that utilize iron removal equipment in the production process, thus removing the iron from the water before it enters the distribution system.

A source-water assessment conducted by the Illinois Environmental Protection Agency (IEPA) indicated the ground water is not vulnerable to any contaminants. The assessment is available for public viewing at the City Hall, or on line at <http://il-warrenville.civicplus.com/DocumentCenter/View/2141>.

Immuno-compromised persons such as persons with cancer and undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some infants and elderly, may be more vulnerable to contaminants in drinking water than the general population, and can be particularly at risk for infections. USEPA/CDC guidelines are available from the USEPA Safe Drinking Water Hotline at 1-800-426-4791, or <http://www.epa.gov/safewater>.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of 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 Safe Drinking Water Hotline at 1-800-426-4791, or <http://www.epa.gov/safewater>.

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 line and home plumbing. The City cannot control the variety of materials used in plumbing components.



When water has been sitting in the pipes for several hours, it is possible to 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>.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, and wells. All of Warrenville's tap water is obtained from wells. As water travels over the surface or through the ground, it can dissolve naturally occurring minerals and pick up substances resulting from the presence of animal or human activity. 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 can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, or farming; **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water 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 may be naturally occurring .

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 supplies. Federal Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Definitions and Abbreviations

Definitions:

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

MCL: Maximum Contaminant Level, or 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, or 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 the water

MRDLG. Maximum residual disinfectant level goal.

Abbreviations:

N/A – not applicable

nd – not detectable at testing limits.

ppm – parts per million or milligrams per liter.

ppb – parts per billion or micrograms per liter.



Definitions and Abbreviations - Continued

NTU – Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.

% < 0.5 NTU – Percent samples less than 0.5 NTU.

MFL – Million fibers per liter, used to measure asbestos concentration.

The “**Range of Detections**” column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

BETA/PHOTON EMITTERS The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/l to be a level of concern for Beta particles.

SODIUM * There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If the level is greater than 20 mg/l, and you are on a sodium restricted diet, you should consult a physician.

FLUORIDE Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride Level of 0.9 To 1.2 ppm.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Unregulated UCMR 3 Health risks

Strontium: The risk posed by strontium depends on the concentration ingested and on the exposure conditions and EPA current reference concentration indicates that ongoing exposure to strontium at levels of more than 4000 parts per billion per day may lead to negative health effects. There is no evidence that drinking water with trace amounts of naturally-occurring strontium is harmful. However, exposure to high levels of naturally-occurring strontium during infancy and childhood can affect bone growth and cause dental changes, and there is some evidence that strontium increases bone density in adults.

Molybdenum: Exposure to molybdenum naturally occurring in food and water at low levels is not known to be harmful.

1, 4-Dioxane; EPA currently identifies dioxane as “likely to be carcinogenic to humans.” This finding is based primarily on toxicology studies conducted using rodents. EPA’s most recent analysis, completed in 2010, concluded that at a concentration of 0.35 parts per billion (ppb) over a lifetime exposure dioxane may lead to negative health effects.



2014 Water Quality Data

Note: The state requires monitoring for certain contaminants less than once per year as concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

Lead and Copper Likely source of contamination is from corrosion of household plumbing. Samples of the wells have not indicated any traces of lead or copper in the water supply. Triennial Sample Schedule

Lead & Copper	Date Sampled	MCLG	Action Level	90 th Percentile	# Sites Over AL	Violation	Likely Source of Contamination
Lead	08/13/2011	0 ppb	15 ppb	9.16 ppb	2	NO	Corrosion of household plumbing systems: Erosion of natural deposits
Copper	2014	1.3 ppm	1.3 ppm	.416 ppm	0	NO	Erosion of natural deposits: Leaching from wood preservatives: Corrosion of household plumbing

National Secondary Standards – Non-enforceable guidelines regulating contaminants that may cause cosmetic effects or aesthetic effects in drinking water. USEPA recommends secondary standards to water systems but does not require systems to comply.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source of Contamination
Sulfate	10/08/2012	190	94.4 - 190	ppm	NA	250	NO	Erosion of natural deposits
Total Dissolved Solids	7/9/2008	748	748 -748	ppm	N/A	500	NO	Erosion of Natural deposits

Regulated Contaminants

Note: For each location sampled (in most cases, each active entry point), a quarterly average is calculated using all routine/confirmation samples collected during the quarter. Next, an annual average is calculated for each location by adding the quarterly averages and dividing by four. The location sampled with the highest annual average is used in the table.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source of Contamination
Barium	2012	0.111	.	ppb	2	2	NO	Discharge of drilling waste: Discharge from metal refineries: Erosion of natural deposits
Fluoride	2014	1.3	0.976 – 1.3	ppm	4	4	NO	Erosion of naturally occurring deposits: Water additive which promotes strong teeth: Discharge from fertilizer and aluminum factories.
Arsenic	2012	.914	.914 - .914	ppb	10	10	NO	Erosion of natural deposits: runoff from orchards, glass & electronics production wastes



Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source of Contamination
Iron	7/23/2012	.917	0 - .917	ppm		1	NO	This contaminant is not regulated by the USEPA but is regulated by the State. Erosion of natural occurring deposits.
Sodium	7/23/2012	70	25 - 70	ppm			NO	Erosion from naturally occurring deposits: Used in water softener regeneration. There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source of Contamination
Combined Radium	2014	4.2	4.2- 4.2	PCI/L	0	5	NO	Erosion of natural deposits
Gross Alpha excluding radon and uranium	10/08/2012	4.57	0 – 4.57	PCI/L	0	15	NO	Erosion of natural deposits
Disinfectants & Disinfections Byproducts	Collection Date	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source of Contamination
Total Halo acetic Acids (HAA5)	2014	3	1.03 – 3.6	ppb	N/A	60	NO	By-product of drinking water chlorination.
Chlorine	12/31/2014	2.5	2 -3	ppm	MRDLG =4	MRDLG=4	NO	Water additive to control microbes
Total Trihalomethanes	2014	4	1.22 – 5.3	ppb	No goal for total	80	N	By product of drinking water disinfection

Sodium * There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If the level is greater than 20 mg/l, and you are on a sodium restricted diet, you should consult a physician.

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride Level of 0.9 to 1.2 ppm.



Unregulated Contaminants UCMR 3

Name of Compound	Collection Date	Highest Level Detected	Range of Levels Detected	Unit of Measurement	RDL	DF	Likely Source of contamination
Molybdenum	12/16/2013	12	4.3 - 12	ppb	1	1	Molybdenum is a naturally-occurring metal that can be found in small amounts in rocks and soil. It is also present in plants, animals and bacteria. Molybdenum is most commonly used in the production of structural steel, stainless steel, cast iron and other alloys.
Strontium	12/16/2013	2147.8	576 – 2147.8	ppb	3	10	Strontium occurs naturally in the environment. Air, dust, soil, foods and drinking water all contain small amounts of strontium. Ingestion of small amounts of strontium is not harmful. However, high levels of strontium can occur in water drawn from bedrock aquifers that are rich in strontium minerals
1,4 Dioxane	12/16/2013	.13	.12 - .13	ppb	0.07	1	,4-dioxane is a colorless, flammable liquid often used as a solvent or solvent stabilizer. It is a synthetic organic compound, meaning it does not occur naturally in the environment. Dioxane is used as a solvent, cleaning agent, chemical stabilizer, surface coating, adhesive agent, and an ingredient in chemical manufacture.

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