



Annual Drinking Water Quality Report for Calendar Year 2016

City of Mount Vernon

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.

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

Contact Name: Sean Hicks
Telephone Number: 618-242-6850
E-mail (if available) public.utilities@mtvernon.com

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 is surface water purchased from the Rend Lake Inter-City Water System.

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 regular scheduled meetings. 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 City Hall or call our water operator at 618-242-6850. To view a summary version of the completed Source Water Assessment, 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://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Source Water: Rend Lake Inter-City Water System. Illinois EPA considers all surface water sources of public water supply to be susceptible to potential pollution problems. Thus the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion.

2016 Regulated Contaminants Detected

The next several tables summarize contaminants detected in your drinking water supply. Since water is purchased from Rend Lake Inter-City Water System, results indicated with an asterisk (*) were provided to us by them.

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.

Coliform Bacteria	MCLG	Total Coliform MCL	Highest Number of Positive Samples	Fecal Coliform or <i>E. coli</i> MCL	Total No. of Positive <i>E. coli</i> or Fecal Coliform Samples	Violation	Likely Source of Contamination
	0	1 Positive Monthly Sample	1	Fecal Coliform or <i>E. coli</i> MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	0	N	Naturally present in the environment

Lead and Copper								
	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/26/14			0		ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	09/26/14	0	15	0	1	ppb	N	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. The City of Mount Vernon 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
*Total Haloacetic Acids (HAA5)	2016	23	16.8-28.8	N/A	60	ppb	No	By-product of water chlorination
*TTHMs (Total Trihalomethanes)	2016	45	3.1-47.6	N/A	80	ppb	No	By-product of water chlorination
*Chlorite	2016	.42	.18-.42	.8	1	ppm	No	By-product of water chlorination
*Chloramines	2016	3.5	2.7-3	MRDLG=4	MRDL=4	ppm	No	Water Additive used to control microbes
*Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
*Barium	2016	0.0209	.0209-0.0209	2	2	ppm	No	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits.
*Arsenic	2016	1	.959-.959	0	10	ppm	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production waste.
*Fluoride	2016	0.6	.572-.572	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer or Aluminum Factory Discharge.
*Sodium	2016	19	19-19			ppm	No	Erosion from naturally occurring deposits.
Synthetic Organic Contaminants (pesticides and herbicides)	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
*Atrazine	2016	.53	0-0.53	3	3	ppb	No	Runoff from fertilizer used on row crops.
*Di (2-ethylhexyl) phthalate	2016	2.5	0-2.5	0	6	ppb	No	Discharge from rubber and chemical factories.
Radiological Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
*Combined Radium 226/228	01-16-2014	.26	.26-.26	0	5	pCi/L	No	Erosion from naturally occurring deposits.
State Regulated Contaminants: Disinfectants and Disinfectant By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloramines	12/31/16	2.6	1-4	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes.
Haloacetic Acids	2016	22	3.8-28.5	No goal for the total.	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes	2016	39	23.7-49.4	No goal for the total.	80	ppb	No	By-product of drinking water disinfection.

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.

*Turbidity	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Turbidity is a measurement 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.				
*Lowest Monthly % Meeting Limit 100%	0.3 NTU		No	Soil Runoff
*Highest Single Measurement 0.31	1 NTU		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 violation section.

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.