

ANNUAL DRINKING WATER QUALITY REPORT
JANUARY 1, 2016 TO DECEMBER 31, 2016

CITY OF WEST FRANKFORT WATER UTILITY #IL0550700

THIS REPORT WILL NOT BE MAILED OUT. A COPY CAN BE OBTAINED AT THE WATER OFFICE, OR AT WWW.WESTFRANKFORT-IL.GOV.

THE WEST FRANKFORT CITY COUNCIL MEETS THE 2ND AND 4TH TUESDAY OF EACH MONTH AT 7 P.M. AT 110 N. JEFFERSON STREET, WEST FRANKFORT, IL

This report is intended to provide you with important information about your drinking water and the efforts made by the West Frankfort water system to provide safe drinking water. The source of drinking water used by the City of West Frankfort Water Utility is purchased water from The Rend Lake Inter City Water System.

Contact Person=s (Persona de contacto): Ed Blades Water Commissioner
Call (teléfono): (618) 937-4512

Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

Source 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.

* 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 1-800 426-4791**.

Contaminates that may be present in source water include:

Microbial contaminates, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminates, 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.

* 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 at 1-800-426-4791**.

Source Water Assessment

A Source Water Assessment summary is included below for your convenience.

Illinois EPA considers all surface water sources of public water supply to be susceptible to potential pollution problems. Hence 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. In order to help farmers in adopting sound agricultural practices the Illinois Council on Best Management Practices (C-BMP) was formed. The Council is a coalition of agribusiness and agricultural producer organizations with the support of the University of Illinois Extension and serves as a clearinghouse on current research to protect water quality in Illinois. The Council also provides information and support to local watershed groups to help implement sound water quality initiatives and can offer educational assistance and help facilitate the technical and financial resources needed to carry out water quality objectives. For more information on C-BMP contact Dr. George Czapar, Springfield Extension Center, P.O. Box 8199, Springfield, IL 62791, email: g-czapar@uiuc.edu. For more information on BMP=s, please refer to the web site at <http://www.ctic.purdue.edu>, as well as AA Guide to Illinois Lake Management@ available from Illinois EPA. The Illinois Agronomy Handbook should also be used as guidance in implementing BMP=s. In an effort to minimize the impact of livestock facilities on water resources on a state wide basis, livestock facilities are now regulated under the Livestock Management Facilities Act. This legislation is designed to keep Illinois= livestock industry productive and environmentally responsible by establishing requirements for design, construction, operation and management of livestock facilities and waste-handling structures. Detailed information on the Livestock Management Facilities Act may be found at the website <http://www.arg.state.il.us>. In addition, further watershed protection efforts and priorities of the Illinois EPA, Illinois Department of Agriculture, Illinois Department of Natural Resources, U.S. Department of Agriculture=s Natural Resources Conservation Service, U.S. Army Corps of Engineers, and The Nature Conservancy are described and illustrated at the web site: <http://www.epa.state.il.us/water/unified-watershed-assessment/index.html>.

2016 REGULATED CONTAMINANTS DETECTED

COLIFORM BACTERIA SAMPLES

The City of West Frankfort is required to take 120 Bacterial System Samples yearly to insure quality, safe drinking water.

The City of West Frankfort Water Department had no violations for the year 2016.

Lead and Copper:

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 for 2 minutes before using the 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>.

Definitions: Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which must follow.

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG=s allow for a margin of safety.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	#Sites over AL	Units	Violation	Likely Source of Contamination
Copper	2014	1.3	1.3	0.063	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Regulated Contaminants:

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL=s are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk of health. MCLG=s allow for a margin of safety.

ppm mg/l: milligrams per litre or parts per million - or one ounce in 7,350 gallons of water.

ppb ug/l: micrograms per litre or parts per billion - or one ounce in 7,350,000 gallons of water.

na: not applicable.

Avg.: Regulatory compliance with some MCL=s is based on running annual average of monthly samples.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary to control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG=s do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHM)	2016	37	18.3-46	N/A	80	ppb	No	By-product of drinking water disinfection
Total Haloacetic Acids (HAA5)	2016	21	0-22	N/A	60	ppb	No	By-product of drinking water disinfection
Chloramines	12/31/16	1.9	1.5-3	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes

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.

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.

REND LAKE INTER CITY WATER

2016 Regulated Contaminants Detected

Lead and Copper: **Date Sampled: 08/06/15**

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

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG=s allow for a margin of safety.

Lead MCLG	Lead Action Level (AL)	Lead 90 th Percentile	# of Sites Over Lead AL	Copper MCLG	Copper Action Level	Copper 90 th Percentile	# Sites Over Copper AL	Likely Source of Contamination
0	15 ppb	9.3 ppb	0	1.3 ppm	1.3 ppm	0	0	Corrosion of household plumbing systems; erosion of natural deposits

Total Organic Carbon: The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violation section.

Regulated Contaminants:

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL=s are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): 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.

mg/l: milligrams per litre or parts per million - or one ounce in 7,350 gallons of water.

ug/l: micrograms per litre or parts per billion - or one ounce in 7,350,000 gallons of water.

na: not applicable. **Avg:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.

ppm: parts per million. **ppb:** parts per billion. **ppt:** parts per trillion. **pCi/l:** picoCuries per liter (measurement of radioactivity).

Maximum Residual Disinfectant Level (MMRD): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG=s do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

*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.

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
TTHMs (Total Trihalomethanes)	2016	45	3.1-47.6	N/A	80	ppb	No	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5)	2016	23	16.8-28.8	N/A	60	ppb	No	By-product of drinking water chlorination
Chloramines	2016	3.5	2.6-3.5	MRDLG=4	MRDL=4	ppm	No	Water Additive used to control microbes
Chlorite	2016	.42	.18-.042	.8	1	ppm	No	By-product of drinking water chlorination

<u>Inorganic Contaminants:</u>	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2016	0.0209	0.0209-0.0209	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Arsenic	2016	1	0.959-0.959	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Fluoride	2016	0.6	0.572-0.572	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Sodium	2016	19	19-19			ppm	No	Erosion of naturally occurring deposits.

<u>Radioactive Contaminants:</u>	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 of naturally occurring deposits

<u>Synthetic Organic Contaminants:</u>	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

Turbidity: is the 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 its disinfectants.

		Limit (Treatment Technique)	Violation	Likely Source of Contamination
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, unless a TOC violation is noted in the violation sections.