

Annual Drinking Water Quality Report

Mitchell PWD

IL1195210

Annual Water quality Report for the period of January 1 to December 31, 2020

This report is intended to provide you with important information about your drinking water and the effects made by the Water system to provide safe drinking water. These reports will not be mailed directly to customers but will be available at the water office. This report will be published in the local newspaper.

The source of drinking water used by MITCHELL PWD is Purchased Surface Water

For more information regarding this report contact: Ben Goeke, 618-931-0164.

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) includes rivers, lakes, streams, ponds, reservoirs, springs and 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.

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 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.

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).

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 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>.

Source Water Information

Source Water Name	Type of Water	Report Status	Location
CC 01-MASTER METER 1 FF IL1195030 TP02	SW	_____	N OF INT BREMAN AVE IN GRANITE CITY
CC 02-MASTER METER 2 FF IL1195030 TP02	SW	_____	N OF INTER ST.THOMAS
CC 04-MASTER METER 3 FF IL1195030 TP02	SW	_____	ADJ TO FLYING J TRUCK STOP

Source Water Assessment

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. MPWD meetings are held the third Thursday of each month at 745 E. Chain of Rocks Rd, Granite City IL 62040 (5:00pm). 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 Mitchell Public Water District office hours are from 7:00am till 3:30 pm or call the District Manager Ben Goeke at 618-931-0164 for a copy to be mailed. 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://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Source of Water: IL AMERICAN-GRANITE CITY Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems, hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Within the Illinois portion of the Mississippi River Watershed, which is illustrated in Figure 3, many commodities, including manufactured goods, petrochemicals, and pesticides are transported along the river system. The production, storage, and transportation of these commodities are a major concern, especially when occurring near surface water intakes. In addition, agricultural runoff within the Illinois portion of the Mississippi River Basin contributes to the

susceptibility of the IAWC-Granite City intakes. With high flow rates and long distances of travel on the Mississippi River, critical areas can be extensive. The critical area for the IAWC-Granite City intake was determined using data from a joint U.S. Environmental Protection Agency/U.S. Geological Survey project. This project used a computer modeling program (SPARROW) to determine travel times on major rivers in the United States. Accidental spills of hazardous materials into navigable waterways are a major concern because of their frequency in the United States in recent years. Illinois has access to 1,116 miles of inland waterway that can handle commercial barge traffic. These include the Upper Mississippi River, Illinois River Waterway, and the Ohio River. Along these waterways are numerous facilities that load and unload hazardous materials. Analysis of reported spills indicate that between 1974 and 1989, 794 accidental spills of hazardous materials occurred along Illinois waterways. Approximately 92% of these spills occurred along the Mississippi and/or the Illinois River. Figure 2 shows the critical area of concern (Zone 1) For the IAWC-Granite City surface water intake. Spills occurring in this critical area will travel to the intake in five hours or less, making contingency planning and spill reporting a major concern in this watershed. Information concerning spill response planning on the Mississippi River may be found at the U. S. EPA website www.epa.gov/region5/oil, and additional data can also be downloaded at the U. S. Geological Survey's FTP site ftp://ftp.urnesc.er.usgs.gov/pub/gis_data/oil_spill.

2020 Regulated Contaminants Detected

Coliform Bacteria

Maximum Contamination Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of
0	0 Positive monthly sample	0		0	N	Naturally present in the environment.

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
 Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper Contamination	Date sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites over AL	Units	Violations	Likely Source of
Copper	06/12/ 2020	1.3	1.3	0.162	0	ppm	N	Erosion of natural deposits:

preservatives;

Leaching from wood

Corrosion of household plumbing systems.

Water Quality Test Results

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

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Level 1 Assessment: A level 1 assessment is a study of the user system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum Contaminant Level or MCL: 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.

Maximum Contaminant Level Goal or MCLG: 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.

Maximum residual disinfectant level or MRDL: The highest level of a 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 goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

na: not applicable

mrem: millirems per year (a measure of radiation absorbed by the body)

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.

Regulated Contaminants

Disinfectants and Disinfection Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2020	2.2	1 - 2.7	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2020	24	18.2 – 34.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	2020	35	16.7 – 63.5	No goal for the total	80	ppb	N	By-product of drinking water disinfection

About Your Drinking Water Supply

WHERE YOUR WATER COMES FROM

Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems, hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection.

The Granite City Water Treatment Facility draws surface water for treatment from the Mississippi River. The Mississippi River is subject to a variety of influences including agricultural, municipal, and industrial activities. Farm chemicals may be seasonally elevated in the river. Extensive monitoring and treatment ensure high-quality water service regardless of variations in the source water.

The Illinois EPA has completed a source water assessment for the Granite City system and a copy is available upon request by calling Sam Saucier, Water Quality Supervisor at 618-707-1913.

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>



www.epa.gov/watersense

DID YOU KNOW?

that easy-to-fix water leaks account for nearly 1 trillion gallons of water wasted each year in U.S. homes? In fact, the average household leaks nearly 10,000 gallons of water per year, or the amount of water it takes to wash 300 loads of laundry.

Many common household leaks are quick to find and easy to fix. Worn toilet flappers, dripping faucets, and leaking showerheads all are easily correctable and can save on your utility bill and water in your community.

Remember to look for the WaterSense label when purchasing plumbing products. WaterSense labeled products are independently certified to use at least 20 percent less water.

Granite City

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. TOC has no health effects but contributes to the formation of disinfection by-products. Reduction of TOC can help to minimize disinfection by-product formation.

TURBIDITY - Collected at the Treatment Plant

Substance (with units)	Requirement	Limit (Treatment Technique)	Level Detected	Compliance Achieved	Likely Source of Contamination
Turbidity (NTU)	Highest single measurement	1 NTU	0.17 NTU	Yes	Soil runoff.
	Lowest monthly % meeting limit	0.3 NTU	100%	Yes	Soil runoff.

Turbidity is a measure of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of the effectiveness of our filtration system, water quality, and disinfectants. The treatment technique requires that at least 95% of routine samples are less than or equal to 0.3 NTU, and no sample exceeds 1 NTU. We are reporting the percentage of all readings meeting the standard of 0.3 NTU, plus the single highest reading for the year.

REGULATED SUBSTANCES - Collected at the Treatment Plant

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Arsenic (ppb)	2020	Yes	0	10	2	2.0 to 2.0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Fluoride (ppm)	2020	Yes	4.0	4.0	0.7	0.68 to 0.68	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate measured as nitrogen (ppm)	2020	Yes	10	10	4	3.77 to 3.77	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Nitrate in drinking water at levels above 10ppm is a health risk for infants of 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 advice from your health care provider.

OTHER SUBSTANCES OF INTEREST - Collected at the Treatment Plant							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Limit	Highest Result	Range Detected	Typical Source
Sodium (ppm)	2020	NA	NA	NA	25	25.2 to 25.2	Erosion from naturally occurring deposits. Used in water softener regeneration.

- For healthy individuals the sodium intake from water is not important because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be of concern to individuals on a sodium restricted diet.

UNREGULATED CONTAMINANT MONITORING RULE

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is necessary. Every five years, the EPA issues a new list of no more than 30 unregulated contaminants to be monitored.

ADDITIONAL WATER QUALITY PARAMETERS OF INTEREST					
Parameter	Units	Year	Average Result	Range Detected	Typical Source
Total Haloacetic Acids	ppb	2019	24	16 to 35	By-product of drinking water disinfection
Total Haloacetic Acids - Br	ppb	2019	3.2	1.4 to 7.1	By-product of drinking water disinfection
Total Haloacetic Acids-UCMR4	ppb	2019	27	18 to 42	By-product of drinking water disinfection
Manganese*	ppb	2019	10	4.7 to 16	Naturally-occurring elemental metal; largely used in aluminum alloy production. Essential dietary element.

* Manganese has a Secondary MCL of 50 ppb.

East St. Louis

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. TOC has no health effects but contributes to the formation of disinfection by-products. Reduction of TOC can help to minimize disinfection by-product formation.

TURBIDITY - Collected at the Treatment Plant

Substance (with units)	Requirement	Limit (Treatment Technique)	Level Detected	Compliance Achieved	Likely Source of Contamination
Turbidity (NTU)	Highest single measurement	1 NTU	0.19 NTU	Yes	Soil runoff.
	Lowest monthly % meeting limit	0.3 NTU	100%	Yes	Soil runoff.

Turbidity is a measure of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of the effectiveness of our filtration system, water quality, and disinfectants. The treatment technique requires that at least 95% of routine samples are less than or equal to 0.3 NTU, and no sample exceeds 1 NTU. We are reporting the percentage of all readings meeting the standard of 0.3 NTU, plus the single highest reading for the year.

REGULATED SUBSTANCES - Collected at the Treatment Plant

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Arsenic (ppb)	2020	Yes	0	10	2	0 to 2	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Fluoride (ppm)	2020	Yes	4	4.0	0.7	0.67 to 0.67	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate measured as nitrogen (ppm)	2020	Yes	10	10	4	1.62 to 3.96	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Combined Radium 226/228 (pCi/L)	2020	Yes	0	5	1.29	0.977 to 1.29	Erosion of natural deposits.
Gross alpha excluding radon and uranium (pCi/L)	2020	Yes	0	15	2.84	0.24 to 2.84	Erosion of natural deposits.
Atrazine (ppb)	2020	Yes	3	3	1.1	0 to 1.1	Runoff from herbicide used on row crops.

Nitrate in drinking water at levels above 10ppm is a health risk for infants of 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 advice from your health care provider.

OTHER SUBSTANCES OF INTEREST - Collected at the Treatment Plant							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Limit	Highest Result	Range Detected	Typical Source
Sodium (ppm)	2020	NA	NA	NA	26	22.3 to 25.7	Erosion from naturally occurring deposits. Used in water softener regeneration.

- For healthy individuals the sodium intake from water is not important because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be of concern to individuals on a sodium restricted diet.

UNREGULATED CONTAMINANT MONITORING RULE

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is necessary. Every five years, the EPA issues a new list of no more than 30 unregulated contaminants to be monitored.

ADDITIONAL WATER QUALITY PARAMETERS OF INTEREST					
Parameter	Units	Year	Average Result	Range Detected	Typical Source
Total Haloacetic Acids	ppb	2019	18	9.4 to 38	By-product of drinking water disinfection
Total Haloacetic Acids - Br	ppb	2019	2.9	0.9 to 12	By-product of drinking water disinfection
Total Haloacetic Acids-UCMR4	ppb	2019	21	11 to 49	By-product of drinking water disinfection
Manganese*	ppb	2019	7.3	2.5 to 17	Naturally-occurring elemental metal; largely used in aluminum alloy production. Essential dietary element.

* Manganese has a Secondary MCL of 50 ppb.