

# Consumer Confidence Report

## Annual Drinking Water Quality Report

MITCHELL PWD

IL1195210

Annual Water Quality Report for the period of January 1 to December 31, 2022

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.

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

For more information regarding this report contact:

Name Matt King

Phone 618-931-0164

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

Source of 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 EPAs Safe Drinking Water Hotline at (800) 426-4791.
The sources of drinking water (both tap water and bottled water) include 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.	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.
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.	Some people may be more vulnerable to contaminants in drinking water than the general population.
- 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.	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).
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.	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 <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a> .
- 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.	

## Source Water Information

Source Water Name		Type of Water	Report Status	Location
CC 01-MASTER METER 1	FF IL1195030 TP02	SW	<u>active</u>	N OF INT BREMAN AVE IN GRANITE CITY
CC 02-MASTER METER 2	FF IL1195030 TP02	SW	<u>active</u>	N OF INTER ST. THOMAS
CC 04-MASTER METER 3	FF IL1195030 TP02	SW	<u>active</u>	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. 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 618-931-0164. 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](http://www.epa.gov/region5/oil), and additional data can also be downloaded at the U. S. Geological Survey's FTP site

## 2022 Regulated Contaminants Detected

### 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	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	06/12/2020	1.3	1.3	0.162	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; 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 water 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 By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2022	2	1 - 2.4	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2022	21	16.8 - 32.6	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	35	19.3 - 47.8	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

## Violations Table

Haloacetic Acids (HAA5)			
Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (DBP), MAJOR	03/01/2022	05/31/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Total Trihalomethanes (TTHM)			
Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (DBP), MAJOR	03/01/2022	05/31/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

See the attached public notification for these violations.

## Monitoring Violations Annual Notice Template

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### Monitoring Requirements Not Met for Mitchell PWD

Our water system violated several drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2022Q2 we did not monitor during the correct month for TTHMs and HAA5 and therefore cannot be sure of the quality of our drinking water during that time.*

#### What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for these contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were or will be taken
TTHMs	Quarterly	2	May 2022	April 2022
HAA5	Quarterly	2	May 2022	April 2022

#### What happened? What is being done?

We monitor quarterly during a specific month. In 2022 quarter 2, we collected the samples on April 25, 2022 and we should have collected during the month of May.  
For more information, please contact Matt King at 618-931-0164

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by Mitchell PWD.

Water System ID#

IL1195210

Date distributed

With CCR



# Water Quality Results

Illinois American Water conducts extensive monitoring to determine if your water meets all water quality standards. The detections of our monitoring are reported in the following tables. While most monitoring was conducted in 2021, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting the tables below, see previous page "Definition of Terms".

## HOW TO READ THIS TABLE (FROM LEFT TO RIGHT)

- Starting with **Substance (with units)**, read across.
- **Year Sampled** is usually in 2021, but may be a prior year.
- A **Yes** under **Compliance Achieved** means the amount of the substance met government requirements.
- **MCLG/MRDLG** is the goal level for that substance (this may be lower than what is allowed).
- **MCL/MRDL/TT/Action Level** shows the highest level of substance (contaminant) allowed.
- **Highest, Lowest or Average Compliance Result** represents the measured amount detected.
- **Range** tells the highest and lowest amounts measured.
- **Typical Source** tells where the substance usually originates.

Some unregulated substances are measured, but maximum contaminant levels have not been established by the government. These contaminants are shown for your information.

**NOTE: Regulated contaminants not listed in this table were not found in the treated water supply.**

## Total Organic Carbon – Granite City Treatment Plant

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 Granite City Treatment Plant

Substance (with units)	Requirement	Limit (Treatment Technique)	Level Detected	Compliance Achieved	Likely Source of Contamination
Turbidity (NTU)	Highest single measurement	1 NTU	0.24 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 Granite City Treatment Plant

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Fluoride (ppm)	2021	Yes	4	4.0	0.8	0.83 to 0.83	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate measured as nitrogen (ppm)	2021	Yes	10	10	4	2.51 to 3.98	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 Granite City Treatment Plant

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Result	Range Detected	Comments
Sodium (ppm)	2021	Yes	NA	NA	28	28.1 to 28.1	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 – Collected at the Granite City Treatment Plant or Distribution System

Parameter	Units	Year	Average Result	Range Detected	Typical Source
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 150 ppb.



## PER- AND POLYFLUOROALKYL SUBSTANCES

Per- or polyfluoroalkyl substances (PFASs) are synthetic substances used in a variety of products, such as: stain resistant fabric, non-stick coatings, firefighting foam, paints, waxes, and cleaning products. They are also components in some industrial processes like electronics manufacturing and oil recovery. While the EPA has not developed drinking water standards for PFAS, Illinois American Water recognizes the importance of testing for these contaminants. Compounds detected are tabulated below, along with typical sources.

In 2021, our PWS was sampled as part of the State of Illinois PFAS Statewide Investigation. Results from this sampling indicated PFAS were detected in our drinking water (above the health advisory level/below the health advisory level) established by Illinois EPA. Follow up monitoring is being conducted. For more information about PFAS health advisories <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx>

### UNREGULATED PERFLUORINATED COMPOUNDS – Collected at the Granite City Treatment Plant

Parameter	Year Sampled	Units	Health-Based Guidance Level	Highest Result	Range Detected	Typical Source
Perfluorohexanoic Acid (PFHxA)	2021	ppt	560,000	3.0	2.4 to 3.0	Manufactured chemical(s); used in household goods for stain, grease, heat and water resistance.

The health-based guidance levels are intended to be protective of all people consuming the water over a lifetime of exposure. It is important to understand that guidance levels are not regulatory limits for drinking water. Rather, the guidance levels are benchmarks against which sampling results are compared to determine if additional investigation or other response action is necessary.

## East St. Louis Plant Information

The Granite City Distribution System is supplemented by the East St. Louis Water Treatment Plant. Below is the applicable data.

### Total Organic Carbon – East St. Louis Treatment Plant

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 East St. Louis Treatment Plant

Substance (with units)	Requirement	Limit (Treatment Technique)	Level Detected	Compliance Achieved	Likely Source of Contamination
Turbidity (NTU)	Highest single measurement	1 NTU	0.3 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 East St. Louis Treatment Plant

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Arsenic (ppb)	2021	Yes	0	10	1	0 to 1	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Fluoride (ppm)	2021	Yes	4	4.0	0.7	0.72 to 0.72	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Manganese (ppb)	2021	Yes	150	150	20	0 to 20	This contaminant is not currently regulated by the USEPA. However, the state regulates it. Erosion of natural occurring deposits.
Nitrate measured as nitrogen (ppm)	2021	Yes	10	10	4	1.77 to 3.78	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	1.29 to 1.29	Erosion of natural deposits.
Gross alpha excluding radon and uranium (pCi/L)	2020	Yes	0	15	2.84	2.84 to 2.84	Erosion of natural deposits.
Atrazine (ppb)	2021	Yes	3	3	0.9	0 to 0.9	Runoff from herbicide used on row crops.

Nitrate in drinking water at levels above 10 ppm 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 East St. Louis Treatment Plant

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Result	Range Detected	Comments
Sodium (ppm)	2021	Yes	NA	NA	23	21.6 to 23.1	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 – Collected at the East St. Louis Treatment Plant

Parameter	Units	Year	Average Result	Range Detected	Typical Source
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 150 ppb.

## PER- AND POLYFLUOROALKYL SUBSTANCES

Per- or polyfluoroalkyl substances (PFASs) are synthetic substances used in a variety of products, such as: stain resistant fabric, non-stick coatings, firefighting foam, paints, waxes, and cleaning products. They are also components in some industrial processes like electronics manufacturing and oil recovery. While the EPA has not developed drinking water standards for PFAS, Illinois American Water recognizes the importance of testing for these contaminants. Compounds detected are tabulated below, along with typical sources.

In 2021, our PWS was sampled as part of the State of Illinois PFAS Statewide Investigation. Results from this sampling indicated PFAS were detected in our drinking water (above the health advisory level/below the health advisory level) established by Illinois EPA. Follow up monitoring is being conducted. For more information about PFAS health advisories <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx>

### UNREGULATED PERFLUORINATED COMPOUNDS – Collected at the East St. Louis Treatment Plant

Parameter	Year Sampled	Units	Health-Based Guidance Level	Highest Result	Range Detected	Typical Source
Perfluorooctane Sulfonic Acid (PFOS)	2021	ppt	14	3.1	0 to 3.1	Manufactured chemical(s); used in household goods for stain, grease, heat and water resistance.
Perfluorooctanoic Acid (PFOA)	2021	ppt	2	2.9	0 to 2.9	Manufactured chemical(s); used in household goods for stain, grease, heat and water resistance.
Perfluorohexanoic Acid (PFHxA)	2021	ppt	560,000	3.5	0 to 3.5	Manufactured chemical(s); used in household goods for stain, grease, heat and water resistance.
Perfluorobutanesulfonic Acid (PFBS)	2021	ppt	2,100	2.3	0 to 2.3	Manufactured chemical(s); used in household goods for stain, grease, heat and water resistance.

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