

ANNUAL DRINKING WATER QUALITY REPORT

Pontoon Beach PWD

IL1195300

Annual Water Quality Report for the period of January 1 to December 31, 2021. 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 Pontoon Beach PWD is purchased Surface Water

For more information regarding this report contact:
District Manager Terry Kreher at 618-931-2856

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:

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.

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.

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:

<u>Source Water Name</u>	<u>Type of Water</u>	<u>Report Status</u>	<u>Location</u>
CC 01-METER-100FT W/SARA ON N FF IL1195030 TPO2	SW	-----	Pontoon Rd
CC 02-METER-NW COR OF INT PONTOON FF IL1195030 TPO2	SW	-----	RD/RTE 111
CC 03-METER-SW COR OF INT HWY 111 FF IL1195030 TPO2	SW	-----	TIMBERLAKE DR

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 the Pontoon Beach Public Water District Office located at 3959 Pontoon Rd, Pontoon Beach, Illinois or call our water operator at 618-931-2856. 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.umesc.er.usgs.gov/pub/gis_data/oil_spill.

2021 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.

Copper

Date Sampled: 7/20/2020

MCLG: 1.3

Action Level (AL): 1.3

90th Percentile: 0.157

of Sites Over AL: 0

Units: ppm

Violation: N

Likely Source of

Contamination: 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.

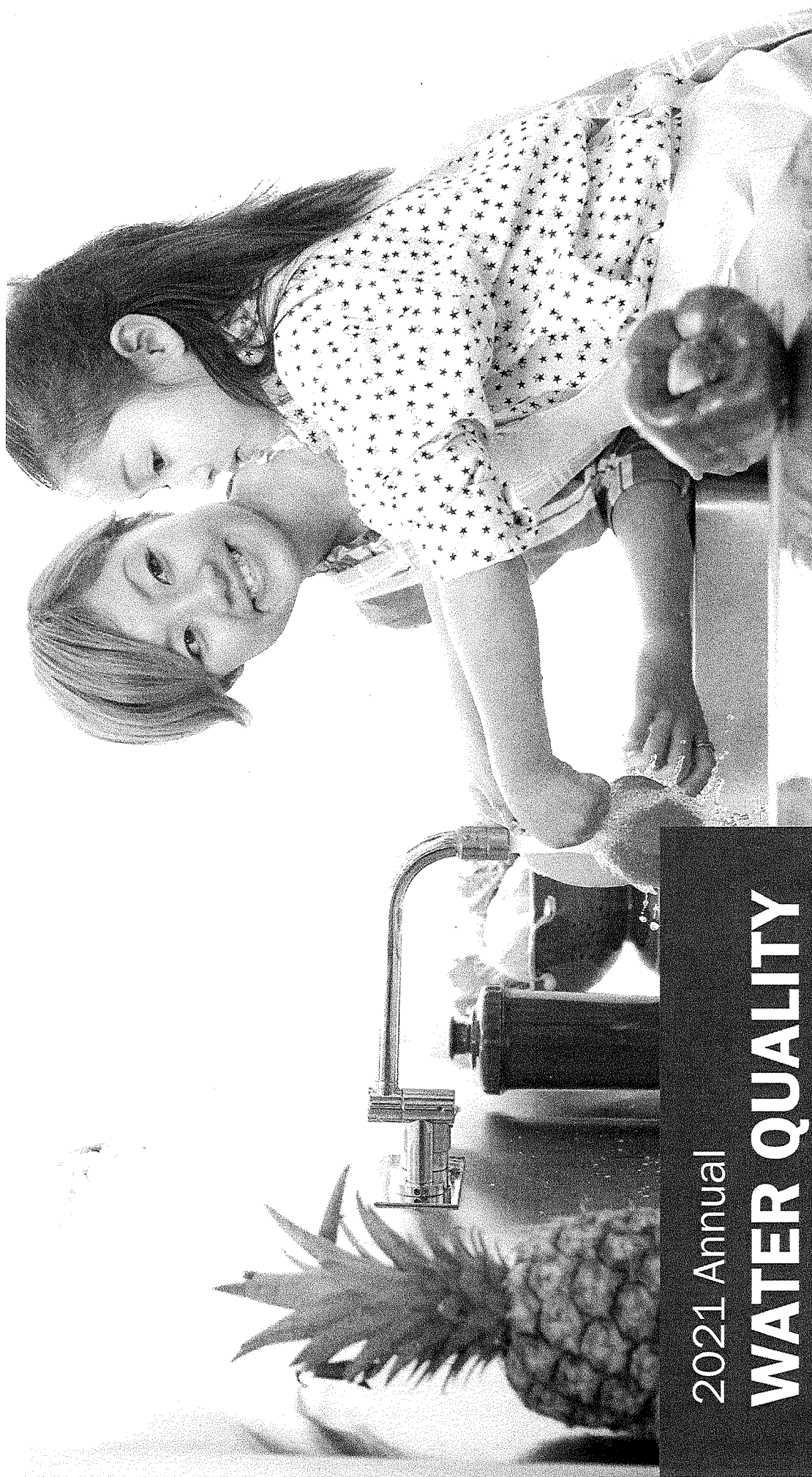
Treatment technique or TT:

A required process intended to reduce the level of a contaminant in drinking water.

Regulated Contaminants

Disinfectants and Disinfection By-products

	Chloramines	Haloacetic Acids (HAA5)	Total Trihalomethanes (TTHM)
Collection Date:	12/31/2021	2021	2021
Highest Level Detected:	2.3	22	39
Range of Levels Detected:	2 - 2.3	9 - 39	14.8 - 66.6
MCLG:	MRDLG = 4	No goal	No goal
MCL:	MRDL = 4	60	80
Units:	ppm	ppb	ppb
Violation:	N	N	N
Likely Source of Contamination:	Water additive used to control microbes	By-Product of drinking water disinfection	By-product of drinking water disinfection



2021 Annual
**WATER QUALITY
REPORT**


GRANITE CITY
PWS ID: 1195030



**ILLINOIS
AMERICAN WATER**

WE KEEP LIFE FLOWING®

**QUALITY. ONE MORE WAY
WE KEEP LIFE FLOWING.**



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>

What are the Sources of Contaminants?

To provide tap water that is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, aquifers and/or groundwater. 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 may 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 may also, come from gas stations, urban storm water runoff, and septic systems.
Radioactive Contaminants	which can be naturally occurring or may be the result of oil and gas production and mining activities.

SPECIAL HEALTH INFORMATION

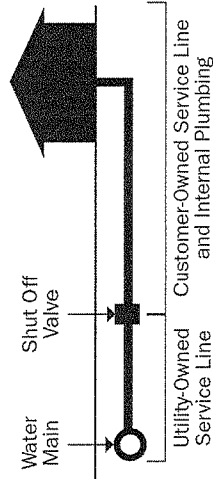
Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (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).

About Lead

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.

American Water 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>

UTILITY-OWNED VS. CUSTOMER-OWNED PORTION OF THE SERVICE LINE



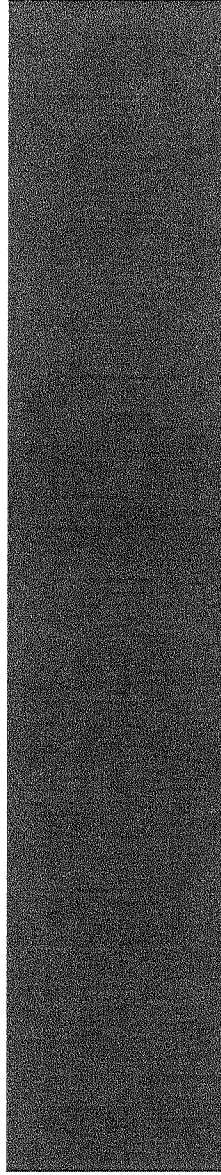
Please note: This diagram is a generic representation. Variations may apply.







The most common source of lead in tap water is from the customer's plumbing and their service line.

Our water mains are not made of lead; however, the water service line that carries the water from the water main in the street to your home could be. Homeowners' service lines may be made of lead, copper, galvanized steel or plastic. You can assess your service line material where it enters your home, typically in your basement, crawl space or garage, near the inlet valve.

MINIMIZING YOUR POTENTIAL EXPOSURE

You cannot see, smell or taste lead, and boiling water will not remove lead. Here are steps you can take to reduce your potential exposure if lead exists in your home plumbing.



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1. Flush your taps. The longer the water lies dormant in your home's plumbing, the more lead it might contain. If the water in your faucet has gone unused for more than six hours, flush the tap with cold water for 30 seconds to two minutes before drinking or using it to cook. To conserve water, catch the running water and use it to water your plants.
- 
2. Use cold water for drinking and cooking. Hot water has the potential to contain more lead than cold water. If hot water is needed for cooking, heat cold water on the stove or in the microwave.
- 
3. Routinely remove and clean all faucet aerators.
- 
4. Look for the "Lead Free" label when replacing or installing plumbing fixtures.
- 
5. Follow manufacturer's instructions for replacing water filters in household appliances, such as refrigerators and ice makers, as well as home water treatment units and pitchers. Look for NSF 53 certified filters.
- 
6. Flush after plumbing changes. Changes to your service line, meter, or interior plumbing may result in sediment, possibly containing lead, in your water supply. Remove the strainers from each faucet and run the water for 3 to 5 minutes.

Important Information About Drinking Water

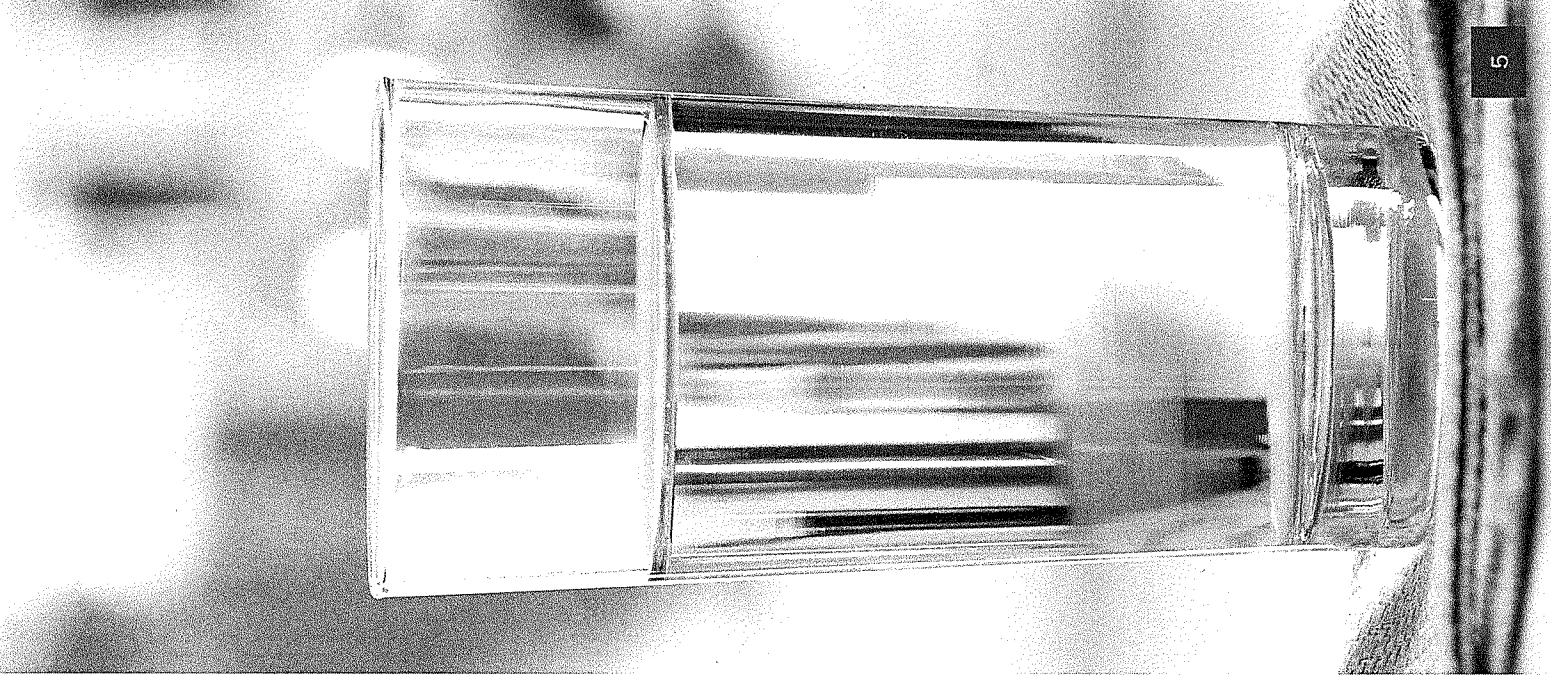
IMPORTANT HEALTH INFORMATION

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 (1-800-426-4791).

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 (1-800-426-4791).

CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.



Important Information About Drinking Water

UNREGULATED CONTAMINANT MONITORING RULE (UCMR)

The EPA created the Unregulated Contaminants Monitoring Rule (UCMR) to assist them in determining the occurrence of unregulated contaminants in drinking water and whether new regulations are warranted. The first Unregulated Contaminants Monitoring Rule (UCMR1) testing was completed in 2003 for a list of contaminants specified by the EPA.

Unregulated contaminants are those for which the EPA has not established drinking water standards. UCMR2 testing was conducted between November 2008 and August 2009, and UCMR3 assessment monitoring was conducted between January 2013 and December 2016. The fourth list of contaminants to monitor as part of the UCMR was published by the EPA in December 2016. UCMR4 testing began in 2018 and was completed in 2020. The results from the UCMR monitoring are reported directly to the EPA. The results of this monitoring are incorporated in the data tables in this report as appropriate.

PFAS Monitoring

PFAS refers to per- and polyfluoroalkyl substances, a class of synthetic chemicals, manufactured for industrial applications and commercial household products such as: non-stick cookware; waterproof and stain resistant fabrics and carpets; firefighting foam and cleaning products. The properties that make these chemicals useful in so many of our every-day products also resist breaking down and therefore persist in the environment. Exposure may be from food, food packaging, consumer products, house dust, indoor and outdoor air, drinking water and at workplaces where PFAS are made or used.

The science and regulation of PFAS and other contaminants is always evolving, and Illinois American Water strives to be a leader in research and development. PFAS contamination is one of the most rapidly changing areas in the drinking water field. We have invested in our own independent research, as well as engaging with other experts in the field to understand PFAS occurrence in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critically important to addressing this issue.

Illinois American Water is currently collecting samples to better understand the occurrence of PFAS levels in drinking water and their sources. This testing allows us to understand how our water compares against the non-enforceable Health Advisory Level set by USEPA of 70 nanograms per liter or parts per trillion for a combination of two PFAS compounds, PFOA and PFOS. Testing also allows Illinois American Water to be better prepared if the USEPA or state environmental regulator develop a drinking water standard for those PFAS for which we have USEPA approved testing methods.

IL EPA established Health Advisory Levels for several PFAS analytes in 2021. For more information about PFAS health advisories <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx>

Definition of Terms

These are terms that may appear in your report.

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

Compliance Achieved: Indicates that the levels found were all within the allowable levels as determined by the USEPA.

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.

LRAA: Locational Running Annual Average

Maximum Contaminant Level (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. See also Secondary Maximum Contaminant Level (SMCL).

Maximum Contaminant Level Goal (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 (MRDL): 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 Goal (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.

MREM/year: Millirems per year (a measure of radiation absorbed by the body).

MFL: Million fibers per liter.

NA: Not applicable

ND: Not detected

Nephelometric Turbidity Units (NTU): Measurement of the clarity, or turbidity, of the water.

picocuries per liter (pCi/L): Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

parts per billion (ppb): One part substance per billion parts water, or micrograms per liter.

parts per million (ppm): One part substance per million parts water, or milligrams per liter.

parts per trillion (ppt): One part substance per trillion parts water, or nanograms per liter.

RAA: Running Annual Average

Range of Detections: The range of individual sample results, from lowest to highest, that were collected during the sample period.

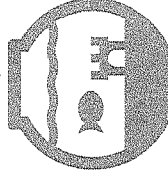
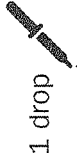
Secondary Maximum Contaminant Level (SMCL): Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

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

%: Percent

MEASUREMENTS

Parts Per Million



in a 10 gallon fish tank

Parts Per Billion



in a 10,000 gallon swimming pool

Parts Per Trillion



In 35 junior size Olympic pools

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.

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.