

Water Qualities that Matter to You: Taste and Softness

As a customer of City Utilities, you expect the drinking water delivered to you to be safe and to meet all federal and state water quality regulations. You also expect your water to have a certain feel and to be tasteless and odorless. In other words, you care about the aesthetics of your water. So does City Utilities.



City Utilities is committed to providing great water and to making adjustments to the water treatment process as necessary to ensure consistency in water quality. Occasionally, substances are found in drinking water that may cause taste, color and odor. These types of problems are not necessarily causes for health concerns. Employees at the Three Rivers Water Filtration Plant work diligently to anticipate these changes in river water quality and adjust the treatment process to remove as much of the taste and odor as possible from the water. This is done by adding powdered activated carbon to the treatment process and adjusting the balance between various types of disinfecting chemicals being used. For more information on taste, odor or color of drinking water please contact City Utilities by calling 311. City Utilities posts an indicator of current taste and odor of our water at drinkingwater.cityoffortwayne.org.

The feel of water is determined by the softness. The plant softens the water sent to customers using powdered calcium hydroxide (lime). The lime causes a chemical reaction that helps to remove calcium and magnesium – the naturally occurring minerals that cause hardness in water. Water hardness is measured in milligrams of calcium and magnesium per liter. Very soft water may be from 0-75 mg/L of hardness. Hard water has between 150 and 300 mg/L of hardness. Fort Wayne's water had an average hardness of 106.5 mg/L in 2019 and is considered moderately soft.

With moderately softer water, soaps and detergents create more suds, so you use less. Softer water has been found to extend the life of water-using appliances such as ice makers and dishwashers by as much as 30%.

An essential part of the regulatory requirement of drinking water treatment is providing adequate corrosion control to help prevent pipe deterioration and aid their long-term reliability. It reduces the risk of leaching of metals, such as lead, from the pipes into the water and helps preserve the quality of water in the distribution system and customer plumbing systems. In 2018, we evaluated ways to enhance that process, and in early 2019, we successfully added orthophosphate as an additional control measure.

The Board of Public Works reviews and approves contracts for utility construction projects that impact how your drinking water is treated. The Board meets every Tuesday at noon at Citizens Square, 200 E. Berry Street, Fort Wayne, Indiana. The meetings are open to the public and are on Public Access TV.

Information about Lead

Lead in drinking water primarily comes from materials and components in water service lines and interior plumbing; therefore, lead levels in water may go up because of the kinds of pipes and plumbing fixtures present in homes and businesses. City Utilities does not control the variety of materials used in plumbing components inside homes and businesses. However, we are taking steps to reduce lead levels in private plumbing through service line replacements and a new treatment process.

In 2019, City Utilities began using orthophosphate in our treatment process to reduce levels of lead found primarily in water service lines, the pipe from the curb to the home, and pipes and hardware inside homes and businesses. Orthophosphate forms a protective layer inside lead service lines, creating a barrier between the lead pipes and the water flowing through them. The EPA supports its use and has found it to be an effective way to reduce lead levels from service lines and home plumbing. We, too, found the process to be effective as we met all state and federal drinking water standards, including lead and copper in 2019.

Last year, two separate test periods of over 100 samples each showed the micrograms for liter (ug/L) lead levels at 7 ug/L and 9 ug/L. That's well under the allowable EPA level of 15 ug/L.

City Utilities is taking additional steps to reduce lead levels by partnering with American Water Resources to help residents with lead service line replacements at an agreed to, lower price. More than 300 property owners have signed up to date.

Elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Until you can eliminate the lead in your private plumbing, you can minimize your potential for lead exposure by letting the water run before using it. Turn on the cold water and let it run for 30 seconds to two minutes before you use the water for drinking or cooking. If you are concerned about the level of lead in your water, you may wish to have your water tested by a private laboratory. Information on lead in drinking water, testing methods and other steps you can take to minimize exposure to lead is available from the Safe Drinking Water Hotline 1-800-426-4791 or at www.epa.gov/safewater/lead.



Successful Partnership Paying Off

2019 marked a 10-year partnership for City Utilities and the Fort Wayne Community Schools (FWCS), Career Academy.

The utility hires 'Concrete Crews,' the students in the construction trades program, to restore sidewalks and curbs that are demolished when utility crews dig to fix pipes, valves and other infrastructure. It's real-world experience with real pay! Students complete an astonishing 180 repairs a year, 1,800 in ten years.

FORT WAYNE CITY UTILITIES

Citizens Square, 200 E. Berry, Suite 270
Fort Wayne, IN 46802

Important Information Sources:

Three Rivers Water Filtration Plant
Victoria Jahn - Water Quality Manager
260-427-8311 or 260-427-1254
www.cityoffortwayne.org/utilities

Indiana Department of Environmental Management (IDEM)
1-888-233-7745
in.gov/idem/cleanwater/2450.htm

EPA's Safe Drinking Water Hotline
1-800-426-4791
www.epa.gov/drink/

Where Does Fort Wayne's Water Come From?

Water provided to customers of City Utilities comes from the St. Joseph River. Water flows into the river from more than 694,000 acres in northeast Indiana, northwest Ohio and a small part of south central Michigan. The primary land use in the watershed is agricultural.

Fort Wayne draws an average of about 34 million gallons of water each day from the river. This "raw" water is treated, filtered and tested at the Three Rivers Water Filtration Plant before it is distributed to customers.

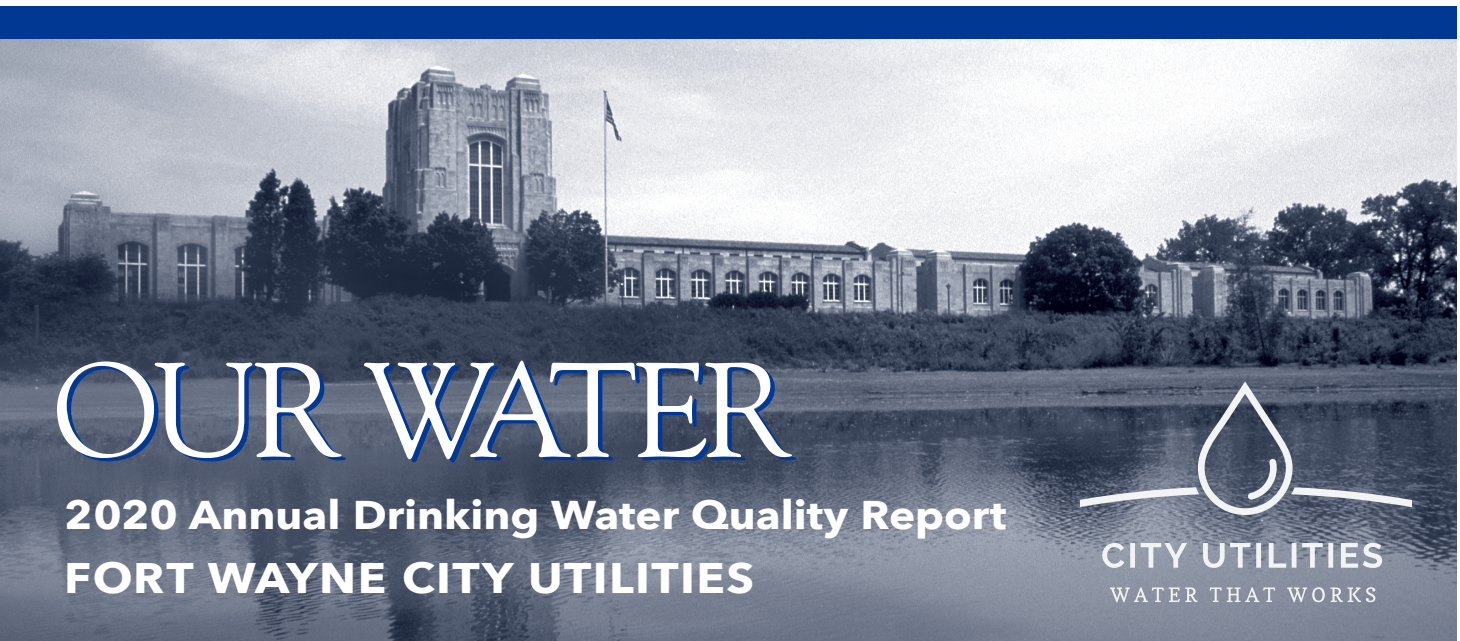
The Indiana Department of Environmental Management (IDEM) has conducted a Source Water Assessment for City Utilities' water supply. The Source Water Assessment has identified potential sources of contamination. The report also analyzes the hydrological conditions that may affect the susceptibility of the water supply to potential contaminants. More information concerning this Source Water Assessment may be obtained by contacting the Water Quality Manager of the Three Rivers Filtration Plant, Victoria Jahn, by calling 260-427-8311.



AVISO IMPORTANTE

Este reporte contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda. En español: 311.

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Letter from the Director

Safe, abundant water that comes out of our tap every day is something most of us take for granted. But in late 2019, as people around the world began facing an unprecedented crisis with COVID-19, water was front and center as a guideline to help prevent the spread of the coronavirus.

Health officials reminded all of us of the importance of washing hands with soap and water for at least 20 seconds to help prevent the spread of COVID-19 and other infectious diseases.

For over 100 years, City Utilities has been at the forefront of public health and public safety, supporting every facet of healthcare with water for sterilization and hygiene, empowering our firefighters with reliable and robust pressure, and sustaining our customers with dependable water delivery.

We are proud of the numerous national awards City Utilities has received for great-tasting, high-quality water, superior sewer service, and a reliable distribution system that supports more than 300,000 residents in the Allen County area. But those accolades mean nothing if we can't be there for you in a time of crisis.

You can rely on City Utilities water to be bountiful and safe. It is our promise to you, a promise we work hard to keep every moment of every day. The importance of that promise has been magnified many times during the COVID-19 pandemic.

I can assure you that throughout these difficult times, our team of 360 employees with over 5,000 years of collective experience, has pulled together, and our systems are operating at their highest performance levels. Based on testing from the Environmental Protection Agency (EPA) and water professionals across the world, there is no evidence that the virus can survive the disinfection process used at water treatment plants. The EPA says, "Americans can continue to use and drink water from their tap as usual."

We will never stop working to provide safe, clean, high-quality utility services to our homes and businesses. Conversely, we will never stop improving our operations to meet the demands of the future.

One of our biggest challenges is the sub-standard pipes that were placed in the ground in Fort Wayne after World War II. Many of the pipes placed in the 1940s through the early 70s require replacement.

While underground infrastructure may have been ignored in past decades, our priority today is to improve our infrastructure and its reliability for our growing community. In 2019, we treated and delivered more than 12 billion gallons of water through our 1,422 miles of water main pipes.

Our goal, from 2013 to 2024, is to replace 115 miles of water main. Through the end of last year, we had replaced 45 miles. In 2019, we replaced aging pipe that had numerous breaks in areas along North

Clinton Street and Ardmore Avenue and the neighborhoods of Crestwood Colony and Tamarack. These new pipes will last 75-100 years and reduce the cost of expensive emergency repairs.

Additionally, we've continued to support growth and economic development with a new pump station in the northwest part of the community, a new feeder main near Maplecrest Road, and water main extensions in various parts of the community.

In 2020, City Utilities will invest more than \$100 million in water, sewer and

stormwater improvements to protect and support our neighborhoods, public health, public safety, and economic development.

Treating water for you and your family is a responsibility we take very seriously. As Director of Fort Wayne City Utilities, I am happy to share this report for the calendar year 2019 about our improvements and our constant commitment to sustaining our system for generations to come. We look forward to continuing to serve all our customers with the same focus on professionalism and quality that supports our neighborhoods and contributes to the growth and development of Fort Wayne, Allen County and Northeast Indiana.



Delivery Quality – Day side staff in UV room at Three Rivers Water Filtration Plant

Drinking Water and Your Health

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

Cryptosporidium is a microbial pathogen that may be found in surface water such as rivers, lakes and streams throughout the United States. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of the infection include nausea, diarrhea and abdominal cramps. Cryptosporidium oocysts must be ingested to cause disease, and the illness may be spread through means other than drinking water. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people, infants, small children and the elderly are at greater risk for having cryptosporidiosis advance into a life-threatening illness.

Guidelines from the US EPA and Centers for Disease Control and Prevention 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.

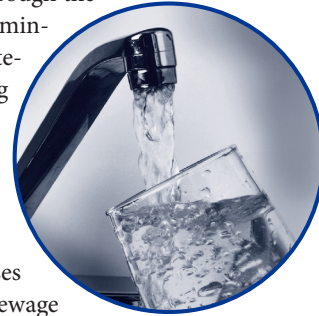


In order to guard against any possibility that Cryptosporidium could be present in Fort Wayne's drinking water, City Utilities added a new water disinfection process in 2014 that uses ultraviolet light specifically to deactivate Cryptosporidium and other similar pathogens. To ensure your safety, City Utilities also uses a stringent monitoring program, testing both source water from the St. Joseph River and finished drinking water, to ensure that any Cryptosporidium has been removed or neutralized before the water is sent to you.

In 2019, the highest level of Cryptosporidium found in the river water coming into the water filtration plant before it was treated was 0.667 oocysts per liter of water. Cryptosporidium was NEVER found in the drinking water that City Utilities sent out to its customers, as is required by federal standards. That means that 100% of the time, City Utilities' water treatment process was able to remove or deactivate these "germs."

Sources of Drinking Water

The sources of drinking water (both tap and bottled) 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 stormwater 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 stormwater runoff, and residential land uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Supporting the Pipeline of Talent

To develop and retain talent in the Science, Technology, Engineering and Math (STEM) fields, City Utilities is partnering with the Anthony Wayne Rotary Club to create a scholarship fund for City Utilities' interns. The partnership aligns with Rotarian efforts to support clean water and education.

STEM workers are in short supply nationwide and as an industry that relies heavily on STEM the investment in developing talent and supporting them with scholarships is essential. Scholarship winners agree to work in their field for at least five years in the northeast Indiana area. Our thanks to Baker Tilly, Oakmont Development-Mike Thomas and Associates, Walden Associates, and Black & Veatch for their financial contributions to this program.



Delivering Good Water – After an expansion, Cedarville Elementary discovered that their well-water supply did not meet State standards. Following months of bottled water, school officials asked to connect to a City Utilities' water main located about 1/3 of a mile away. The connection was made in early 2019, and the school now has City Utilities' water.

Testing Our Water

To ensure that tap water is safe to drink, the United States Environmental Protection Agency (US EPA) sets regulations that limit the amount of certain contaminants in water that comes from public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. The US EPA also requires that public water systems make an annual report, such as this one, to all of their customers. Bottled water producers don't face the same requirement to share information regularly.

The US EPA and the State of Indiana require City Utilities to regularly test the drinking water we produce and send out to make sure that it remains safe. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants in drinking water, at a level below the limits set by regulatory agencies, does not indicate that the water poses a health risk.

The table to the right shows substances that are regulated by the US EPA that were detected in Fort Wayne's finished drinking water between January 1 and December 31, 2019. Results of all tests performed in 2019 met or were better than federal and state standards require. City Utilities tests for many other substances, but because they were not detected, they are not reported here. Some tests are required only once per year because the US EPA and State of Indiana have determined that the concentration of these substances does not change frequently. For tests required only once a year, there is no range of results in the table.

City Utilities also tests for many substances that are not regulated. Monitoring unregulated contaminants helps the US EPA determine where certain contaminants occur and whether the agency should consider regulating those in the future.

Check the City Utilities' website at www.cityoffortwayne.org/utilities for more information.

Award Winning City Utilities

- 2019 - Utility of the Future Today - award presented by a consortium of national water agencies including the EPA. The award recognized City Utilities' partnerships with groups like the St. Joseph River Watershed Initiative, FWCS, university internship programs, Greater Fort Wayne Inc., business and industry, and with citizens serving on the Utility Advisory Group.
- 2019 Sustainable Water Utility Management Award – presented by the American Water Works Association (AWWA) for successful efforts in areas of public health, economic development, social and environmental endeavors, meeting responsibilities to the community, and providing cost effective services.
- 2019 Directors Award for Distribution- Partnership for Safe Water - Presented by the EPA and AWWA for high-quality treatment and testing processes and the delivery system.
- 2019 – Best Tasting Water Regional Winner – Alliance of Indiana Rural Water Association presented the award for our 19-county area for the second year in a row.

How to Read the Water Quality Table

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 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.

Treatment Technique (TT):

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

Action Level (AL):

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Detected Level:

The highest level of a contaminant detected for comparison against the accepted level. The detected level could be the highest single measurement or it may be an average, depending on the peak level of a contaminant.

Range:

The lowest to highest values for all samples tested for each contaminant. If only one sample is tested, no range is listed.

HA: Health Advisory level.

NA: Not applicable.

MNR: Monitoring not required but recommended.

ppm: Parts per million or milligrams per liter (mg/L).

ppb: Parts per billion or micrograms per liter (ug/L).

NTU:

Nephelometric Turbidity Units. A measure of water's cloudiness and an indicator of the effectiveness of the water filtration process.

%: Percent of monthly samples that were positive.

Oocyst:

A fertilized gamete of a parasitic organism's sporozoans that is enclosed in a thick wall.



Water Quality Table

Contaminants	Units	MCLG	MCL	Compliance Achieved	Highest Level Detected in Your Water	Range	Typical Sources
Disinfectants & Disinfection By-Products							
Chlorine	ppm	4	4	Yes	1.91	1.33 - 1.91	Additive used in drinking water treatment process to control bacteria
Chlorine Dioxide	ppb	800	800	Yes	190	38 - 190	Additive used in drinking water treatment process to control bacteria
Chlorite	ppm	0.8	1	Yes	0.906	0.420 - 0.906	By-product of drinking water disinfection
Haloacetic Acids (HAA5)	ppb	NA	60	Yes	26.725 <small>Highest LRAA at site #10</small>	9.1 - 43.9	By-product of drinking water disinfection <small>NOTE: compliance is based on each location's running annual average (LRAA). The location running annual average for the site with the highest individual result of 43.9 was 26.725</small>
Total Organic Carbon (TOC)	mg/L	NA	TT	Yes	<small>The percentage of TOC was measured each month and the system met the TOC removal requirements</small>	NA	Naturally present in the environment
TTHMs (Total Trihalomethanes)	ppb	NA	80	Yes	39.675 <small>Highest LRAA at site #1</small>	10.3 - 65.7	By-product of drinking water disinfection <small>NOTE: compliance is based on each location's running annual average (LRAA). The location running annual average for the site with the highest individual result of 65.7 was 26.725</small>
Inorganic Compounds							
Fluoride	ppm	4	4	Yes	0.9	0.4 - 0.9	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	ppm	10	10	Yes	3.067	0.465 - 3.067	Runoff from fertilizer use; leaching from septic systems; sewage discharge; erosion of natural deposits
Nitrite (measured as Nitrogen)	ppm	1	1	Yes	0.046	0.003 - 0.046	Runoff from fertilizer use; leaching from septic systems; sewage discharge; erosion of natural deposits
Sodium	ppm	0	NONE	NA	33	7.0 - 33.0	Naturally present in the environment
Barium	ppm	2	2	Yes	0.013	0.0075 - 0.013	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Thallium	ppb	0.5	2	Yes	0.4	0.0 - 0.4	Discharge from electronics, glass, leaching from ore-processing sites, drug factories
Sulfate	ppm	NA	NA	NA	34	<small>Only one test is required per year</small>	Naturally occurring compound
Microbiological Contaminants							
Total Coliform	% of positive samples monthly	0	5	Yes	3.33	0 - 3.33	Naturally present in the environment
Turbidity	% of samples below TT of 0.3 NTU	100	95	Yes	100	100 - 100	Soil runoff
Turbidity	<small>Highest single measurement in NTU</small>	NA	TT	Yes	0.15	NA	Soil runoff
Cryptosporidium	oocysts/100 L	0	TT	Yes	0	NA	Human and animal fecal waste
Source (Raw) water Cryptosporidium	oocysts/L	NA	NA	NA	NA	<0.089 - 0.667	Human and animal fecal waste
Volatile Organic Compounds							
NA							
Synthetic Organic Compounds Regulated							
Atrazine	ppb	3	3	Yes	0.3	0.0 - 0.30	Runoff of herbicide used on row crops
Simazine	ppb	4	4	Yes	0.11	0.0 - 0.11	Runoff of herbicide used on row crops
2,4-D	ppb	70	70	Yes	0.2	0.0 - 0.2	Runoff of herbicide used on row crops
Unregulated Compounds							
Metolachlor	ppb	NA	NA	NA	0.2	0.0 - 0.2	Runoff of herbicide used on row crops
Dicamba	ppb	NA	NA	NA	0.3	0.0 - 0.3	Runoff of herbicide used on row crops
Total Hardness	ppm	NA	NA	NA	146	57 - 146	Runoff of limestone and dolomite; Ave. = 106
					90th percentile		
Copper (Round 1 - January - June 2019)	ppm	1.3	90% of samples taken below AL = 1.3	Yes	0.085	Samples taken = 123 samples Exceeding AL = 0	Corrosion of household plumbing systems
Copper (Round 2 - July - December 2019)	ppm	1.3	90% of samples taken below AL = 1.3	Yes	0.082	Samples taken = 101 samples Exceeding AL = 0	Corrosion of household plumbing systems
Lead (Round 1 - January - June 2019)	ppb	0	90% of samples taken below AL = 15	Yes	7	Samples taken = 123 samples Exceeding AL = 5	Corrosion of household plumbing systems; erosion of natural deposits
Lead (Round 2 - July - December 2019)	ppb	0	90% of samples taken below AL = 15	Yes	9	Samples taken = 101 samples Exceeding AL = 4	Corrosion of household plumbing systems; erosion of natural deposits
Unregulated Contaminant Monitoring*							
Bromochloroacetic acid	ppb	NA	NA	NA	5.36	0.302 - 5.36	By-product of drinking water disinfection
Dichloroacetic acid	ppb	NA	NA	NA	30.2	4.81 - 30.20	By-product of drinking water disinfection
Trichloroacetic acid	ppb	NA	NA	NA	6.48	0.834 - 6.48	By-product of drinking water disinfection

* Unregulated contaminants monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants