

OUR WATER

2021 Annual Drinking Water Quality Report FORT WAYNE CITY UTILITIES



Letter from Kumar Menon, Director of City Utilities

Hindsight and perfect vision are both 20/20. Looking back, 2020 was a challenging year for all of us. As we navigated our way through the last several months, words like pandemic, social distancing and personal protective equipment became so much more common. Hand washing emerged as the first line of defense against the virus. Along with essential workers, the vital importance of water to our collective fight was reinforced again and again.

All of us made daily adjustments in our personal lives. This was also the case at City Utilities. I can tell you that I have never been prouder of the level of dedication of our essential workers — the women and men of City Utilities — that was demonstrated throughout this difficult period.

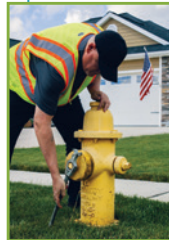
Thank you for the notes and social media posts that many of you sent to our City Utilities' team. Your encouragement meant a great deal to our staff as we focused on our work while juggling the countless demands we all faced at home to keep our lives functioning and our own families safe.



Three Rivers Water Filtration staff

No matter if the times are ordinary or extraordinary, our focus was, is and always will be on delivering high-quality water to support public health and safety. As you will see in this report, test results for the 2020 year clearly show our drinking water met or was better than all the water quality standards established by the U.S. Environmental Protection Agency. We run more than 50,000 tests each day through

our lab and our automation processes that perform continuous testing every minute of every day.



Once again, in 2020, City Utilities received national and statewide recognition, receiving awards for water treatment, our water distribution system and a geographic app created to aid us and our public safety partners in fire hydrant maintenance.

Recently we were chosen as the fourth best tasting municipal water at the Berkeley International Water Tasting competition. In addition, this year, in renewing the lab certification at our Three Rivers Water Filtration Plant, our chemists received a perfect (20/20) score on certification testing.

Recognition for our efforts is rewarding, but the awards mean nothing unless we remain laser focused on making improvements that support your family, your neighborhood and our community.

I can promise you we will continue to produce high-quality, safe water and invest in infrastructure improvements to support the entire system.

In 2020, City Utilities invested more than \$100 million in water, sewer and stormwater improvements. In hindsight, our community's investments in underground infrastructure may have been less than enough in past decades. However, looking back over the last dozen years, our investments in infrastructure have significantly benefited our neighborhoods and local businesses. Looking forward, our vision is to strengthen all our infrastructure to meet future demands of our community.

In 2020, we treated and delivered more than 13 billion gallons of water through our 1,428 miles of water main pipes. That's a billion gallons more than in 2019.

Treating and delivering high-quality water to you and your family is a responsibility we take very seriously. Clean water is our core mission.

The dedication, resilience and expertise of every City Utilities' employee are there to see in every drop of water we produce and supply. It is the pledge of excellence we renew every day.

Looking forward, you will clearly see our vision and mission's impact across 2021 as we continue our efforts to sustain our system, enhance our neighborhoods and promote the growth and development of Fort Wayne, Allen County and Northeast Indiana. Thank you for trusting us through 2020. Here's to the future.

Supporting Neighborhoods

Nationwide, underground infrastructure has been ignored for decades. City Utilities is committed to replacing aging infrastructure.

We are two and a half years into an aggressive commitment to replace 70 miles of aging water mains by 2024. In 2020, new water mains were built in the neighborhoods of Southwood Park, Fairmont, Crestwood Colony, Hamilton, and Frances Slocum.

These new pipes will support the neighborhood for 75-100 years. In 2021, work will continue throughout the community with main replacements and extensions.



Water Qualities that Matter to You

City Utilities is committed to providing great water and to adjusting 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. 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 116 mg/L in 2020 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%.

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 City Utilities drinking water primarily comes from materials and components used in water service lines and interior plumbing; therefore, lead levels in a customer's water vary depending on 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 and plumbing, creating a barrier between the lead pipes and the water flowing through them. This process is proving effective at reducing lead levels.

In testing water samples from around the community we found results for 2020 well within the regulatory limit. Our result was 3.1 ug/L. compared to an allowable EPA level of 15 ug/L.

City Utilities is taking additional steps to reduce lead levels by offering customers prequalified contractors and financing to help residents with lead service line replacements at an agreed to, lower price. More than 430 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.

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.

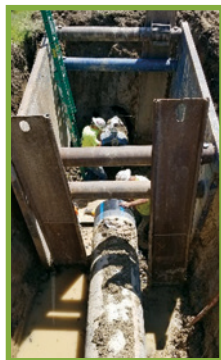
Cryptosporidium is a microbial pathogen that may be found in surface water such as rivers, lakes and streams throughout the United States. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of the infection include nausea, diarrhea and abdominal cramps. Cryptosporidium 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 2020, the highest level of Cryptosporidium found in the river water coming into the water filtration plant before it was treated was 0.645 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."

Improving Water Delivery

The fifth phase of the 24-inch water main is under construction in 2021 between Fernhill Avenue and Washington Center Road. Approximately 7,300 feet of pipe is being installed by directional drilling pushing the pipe under Lima Road and Coliseum Boulevard. The new main will improve reliability and fire protection for the neighborhoods and businesses in the area.



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.

High Service Pump

Engineers and staff at our Three Rivers Water Filtration Plant upgraded a high service pump with a new variable frequency drive in 2020. The new drive will reduce energy consumption, save money and improve the reliability and consistency of our pumping system.



We also replaced the aging under-drains on some of our filter systems. These investments are essential to continue operation at a high level and meet the demands of the future.

◀ Technology allows operators to adjust water flow from the pump



▲ High Service Pump Team:

L-R Andrew Schipper, Jason Anspach, Dan Troxell, Jon Melton, Stephen Williams

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, 2020. Results of all tests performed in 2020 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

We are honored to receive national and state recognition in 2020. Partnership for Safe Water - 20 Year Director's Award for Water Treatment - The award recognizes high-quality water production and optimization of plant treatment operations. Of the more than 11,400 community-owned surface water utilities in the U.S., City Utilities was one of only 37 to receive the award. Presented by American Water Works Association (AWWA) and EPA.

Partnership for Safe Water - Director's Award for Water Distribution System Operations - presented for a thorough and high level of performance and performance improvement in the water distribution system. Presented by AWWA and EPA.

Excellence in GIS Award. The City Utilities Geographic Information Systems (GIS) team was recognized for "One Dot at a Time. The new App/Dashboard to aid fire hydrant maintenance.



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.



Chemists - Michele Gerke, Steve Hinkleman

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	1.81	1.39 - 1.81	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	0.957	0.387 - 0.957	By-product of drinking water disinfection
Haloacetic Acids (HAA5)	ppb	NA	60	Yes	26 Highest LRAA at site #10	9.2 - 24.7	By-product of drinking water disinfection 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 24.7 was 26
Total Organic Carbon (TOC)	mg/L	NA	TT	Yes	The percentage of TOC was measured each month and the system met the TOC removal requirements	NA	Naturally present in the environment
TTHMs (Total Trihalomethanes)	ppb	NA	80	Yes	37 Highest LRAA at site #1	15.6 - 53.6	By-product of drinking water disinfection 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 53.6 was 37
Inorganic Compounds							
Fluoride	ppm	4	4	Yes	0.8	0.5 - 0.8	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	ppm	10	10	Yes	2.83	0.206 - 2.83	Runoff from fertilizer use; leaching from septic systems; sewage discharge; erosion of natural deposits
Nitrite (measured as Nitrogen)	ppm	1	1	Yes	0.043	0 - 0.043	Runoff from fertilizer use; leaching from septic systems; sewage discharge; erosion of natural deposits
Sodium	ppm	0	NONE	NA	30	9.6 - 30	Naturally present in the environment
Barium	ppm	2	2	Yes	0.018	0.0076 - 0.018	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Thallium	ppb	0.5	2	Yes	0.0	0.0 - 0.0	Discharge from electronics, glass, leaching from ore-processing sites, drug factories
Sulfate	ppm	NA	NA	NA	32	Only one test is required per year	Naturally occurring compound
Microbiological Contaminants							
Total Coliform	% of positive samples monthly	0	5	Yes	2.3	0 - 2.3	Naturally present in the environment
Turbidity	% of samples below TT of 0.3 NTU	100	95	Yes	100	100 - 100	Soil runoff
Turbidity	Highest single measurement in NTU	NA	TT	Yes	0.12	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 - 0.645	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	0.3	0.0 - 0.30	Runoff of herbicide used on row crops
Unregulated Compounds							
Metolachlor	ppb	NA	NA	NA	0.0	0.0 - 0.0	Runoff of herbicide used on row crops
Dicambia	ppb	NA	NA	NA	0.1	0.0 - 0.1	Runoff of herbicide used on row crops
Total Hardness	ppm	NA	NA	NA	151	86 - 151	Runoff of limestone and dolomite; Ave. = 116
Inorganic Contaminants 90th percentile							
Copper (June - Sept 2020)	ppm	1.3	90% of samples taken below AL = 1.3	Yes	0.076	Samples taken = 50 samples Exceeding AL = 0	Corrosion of household plumbing systems
Lead (June - Sept 2020)	ppb	0	90% of samples taken below AL = 15	Yes	3.1	Samples taken = 50 samples Exceeding AL = 1	Corrosion of household plumbing systems; erosion of natural deposits
Radioactive Contaminants							
Combined Radium 226/228	pCi/L	0	5	Yes	1	1 - 1	Erosion of natural deposits
Gross alpha excluding radon and Uranium	pCi/L	0	15	Yes	0.2	0.2 - 0.2	Erosion of natural deposits



FORT WAYNE CITY UTILITIES

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

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Important Information Sources:

Three Rivers Water Filtration Plant
Jason Anspach - Water Quality Manager
260-427-8311 or 260-427-1303
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 36 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, Jason Anspach, 260-427-1303.



Protecting Our Water Source

Fort Wayne City Utilities works with partners upstream to protect the quality of water in the St. Joseph River before it gets to Fort Wayne. The St. Joseph River Watershed Initiative is a non-profit watershed planning and protection organization that involves many watershed stakeholders in testing river water quality, developing management plans, implementing best management practices to reduce pollution going into the river and educating property owners.

Do you want to help protect Fort Wayne's drinking water at its source? Check out the St. Joe Initiative's website at www.sjrwi.org for information on ways you can volunteer.

Fire Protection

Some of the investments we make in the water system are specifically intended to increase water capacity and reliability for firefighting. These investments coupled with the professionalism of the Fort Wayne Fire Department, make Fort Wayne's ISO fire protection rating a Class 2. A community's ISO rating helps determine what property owners pay for insurance. As a result of the improved rating, Fort Wayne residents have the potential to see lower property insurance costs.



Hydrant flushing is part of City Utilities' maintaining 11,739 hydrants in the system.

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.

City Utilities' Mission

To support public safety and public health and enhance regional economic development by delivering high quality, affordable water, wastewater and stormwater services in ways that protect the environment.