

A photograph of a male worker wearing a grey baseball cap, safety glasses, and a high-visibility yellow safety vest over a dark t-shirt and blue jeans. He is smiling and holding a blue vertical rod of a piece of industrial machinery. The machinery is mounted on a metal table and has various components, including a black cylindrical tank and a white tray. The background shows a workshop or industrial setting with a diamond-plate metal wall.

# WATER QUALITY

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Annual Report  
**2023**

 **KAUKAUNA**  
UTILITIES

PWS ID#: 44503360

## Our Commitment

We are pleased to present to you the 2023 annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2023. Included are details about your source of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water that meets all state and federal standards. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies.

In 2023 a system-wide study was initiated to evaluate alternative drinking water sources and treatment methods and expansion of the drinking water system. Check our website ([www.kaukaunautilities.com/about-ku/water-department/](http://www.kaukaunautilities.com/about-ku/water-department/)) and Facebook page for updates.

A customer survey was provided to the public in 2024 to evaluate water quality and customer satisfaction. The results of the survey will be provided to the community this year. We look forward to your feedback as we work to continually improve your drinking water and determine a sustainable path forward.

## Where Does My Water Come From?

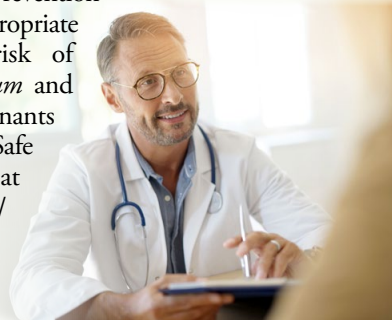
Kaukauna Utilities water comes from five groundwater wells located throughout the city. The depths of the wells range from 500 to 850 feet. Our daily pumping averages around 1.2 million gallons, or 438 million gallons of treated water per year. We have the capability to pump in excess of four million gallons a day. The distribution system consists of approximately 100 miles of water mains, ranging from 6 to 16 inches in diameter. We have three iron filters that also remove radium from the water. Two water towers, one on the north side and one on the south side of the city, each have a capacity of 500,000 gallons. We also have three underground reservoirs with a combined capacity of 600,000 gallons.

“When the well is dry, we know the worth of water.”

—Benjamin Franklin

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. Environmental Protection Agency (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 at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



## Source Water Assessment

The Department of Natural Resources (DNR) conducted assessments for all drinking water sources across the state. The purpose of the assessments was to determine the susceptibility of each drinking water source to potential contaminant sources and establish a relative susceptibility rating of high, moderate, or low. The Kaukauna Utilities system is moderately susceptible to contamination by volatile organic compounds, nitrate, beryllium, and microbes. The system has moderate susceptibility to contamination by synthetic organic compounds. The system has low susceptibility to ethylene dibromide. A copy of the source water assessment can be obtained by contacting Kaukauna Utilities at (920) 462-0238. For additional information on the source water assessment, call Steve Elmore with the DNR at (608) 259-6100.

## How Is My Water Treated and Purified?

The treatment process consists of a series of steps. First, raw water is pumped from our wells and sent to the filter plant, where we add potassium permanganate and manganese sulfate to the water before it enters the filter tank. The addition of these substances oxidizes the iron, causing small particles (called floc) to adhere to one another, which makes the particles big enough to be filtered out as the water passes through the layers of anthracite and manganese greensand in the filter tank. This process removes iron and also reduces radium levels. Next, we add chlorine for disinfection and a polyphosphate-orthophosphate blend for corrosion control. Finally, the water is pumped to the distribution system.

**QUESTIONS?** For more information about this report, or for any questions relating to your drinking water, please call Andy Vanden Heuvel, Water Department Superintendent, at (920) 858-9180. Additional information can also be found at [www.kaukaunautilities.com/about-ku/water-department/](http://www.kaukaunautilities.com/about-ku/water-department/).



## Important Information about Fluoride Levels

This is a notice to customers about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) or parts per million (ppm) of fluoride may develop cosmetic discoloration of their permanent teeth, known as dental fluorosis. The naturally occurring fluoride concentration at Well 8 was 2.1 mg/L on June 28, 2023. Fluoride concentrations at the remaining four groundwater supply wells were 1.8 mg/L, and historical fluoride detections at all groundwater supply wells have consistently been in the range of 1.8 to 2.0 mg/L. Additional sampling of Well 8 in 2023 showed fluoride concentrations at 1.8 mg/L. Dental fluorosis, in its moderate or severe forms, may result in a brown staining or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use of fluoride-containing products by young children. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/L of fluoride, the U.S. EPA's drinking water standard, can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/L of fluoride, but we are required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/L because of the cosmetic dental problem. For more information, please call Andy Vanden Heuvel of Kaukauna Utilities at (920) 858-9180. Home water treatment units are available to remove fluoride from drinking water. To learn more, call NSF International at (877) 8-NSF-HELP.

### Lead in Home Plumbing

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 are responsible for providing high-quality drinking water, but 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 two 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 at (800) 426-4791 or [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).



## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 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 stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



### Community Participation

You are invited to attend our Utility Commission meetings and provide feedback about your drinking water. We typically meet the third Wednesday of each month at 4:00 p.m. at Kaukauna Utilities Commission Chambers, 777 Island Street. Schedule changes can be found on our website located at <https://www.kaukaunautilities.com/about-ku/utility-commission/>

## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

For each substance listed, compare the value in the KU Highest Level Detected column to the value in the Highest Level Allowed (MCL) (or AL) column. If the Amount Detected is smaller, your water meets the health and safety standards set for the substance. We are pleased to report that your drinking water meets or exceeds all federal and state requirements. This includes compliance sampling for per- and polyfluoroalkyl substances (PFAS) in 2023, which resulted in PFAS levels below the laboratory detection limit in all samples collected.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	KU HIGHEST LEVEL DETECTED	HIGHEST LEVEL ALLOWED (MCL)	GOAL LEVEL (MCLG)	KU RANGE OF DETECTIONS	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2023	3.9	15	0	2.0–3.9	No	Erosion of natural deposits
Barium (ppm)	2023	0.009	2	2	0.002–0.009	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Combined Radium (pCi/L)	2023	4.6	5	0	2.0–4.6	No	Erosion of natural deposits
Fluoride (ppm)	2023	2.1	4	4	1.8–2.1	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 1 (ppb)	2023	3	60	NA	3–3	No	By-product of drinking water disinfection
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2023	2	60	NA	2–2	No	By-product of drinking water disinfection
Nickel (ppb)	2023	50	100	NA	2.6–50	No	Naturally occurring
Nitrate (ppm)	2021	0.05	10	10	ND–0.05	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	2020	1	50	50	ND–1	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
TTHMs [total trihalomethanes]–Stage 1 (ppb)	2023	10.2	80	NA	10.2–10.2	No	By-product of drinking water disinfection
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2023	8.8	80	NA	8.8–8.8	No	By-product of drinking water disinfection
Uranium (ppb)	2021	0.4	30	0	0.3–0.4	No	Erosion of natural deposits

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

**MCL (Maximum Contaminant Level):** 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.

**MCLG (Maximum Contaminant Level Goal):** 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.

**NA:** Not applicable

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (µg/L) (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (mg/L) (parts per million):** One part substance per million parts water (or milligrams per liter).

**SMCL (Secondary Maximum Contaminant Level):** These standards are developed to protect aesthetic qualities of drinking water and are not health based.



**Tap water samples were collected for lead and copper analyses from sample sites throughout the community**

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	KU HIGHEST LEVEL DETECTED	GOAL LEVEL (MCLG)	AL	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2023	0.2220	1.3	1.3	0/60	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	2023	2.4	0	15	0/60	No	Lead service lines; corrosion of household plumbing systems, including fittings and fixtures; erosion of natural deposits

**SECONDARY SUBSTANCES<sup>1</sup>**

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	KU HIGHEST LEVEL DETECTED	GOAL LEVEL (MCLG)	SMCL	KU RANGE OF DETECTIONS	VIOLATION	TYPICAL SOURCE
Sulfate (ppm)	2023	560.00	NA	250	420.00–560.00	No	Runoff/leaching from natural deposits; industrial wastes

<sup>1</sup>The table above lists substances which were detected in your water and that have a Secondary Maximum Contaminant Level (SMCL). There are no violations for detections of contaminants that exceed Secondary Maximum Contaminant Levels. Secondary Maximum Contaminant Levels are levels that do not present health concerns but may pose aesthetic problems such as objectionable taste, odor, or color.

**UNREGULATED SUBSTANCES**

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	KU HIGHEST LEVEL DETECTED	KU RANGE OF DETECTIONS	TYPICAL SOURCE
Sodium (ppm)	2023	17.00	12.00–17.00	NA

**Tap vs. Bottled**

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council (NRDC), bottled water is not necessarily cleaner or safer than most tap water. In fact, about 40 percent of bottled water is actually just tap water, according to government estimates. The Food and Drug Administration (FDA) is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Further, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States. People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water. For a detailed discussion on the NRDC study results, check out its website at <https://goo.gl/Jxb6xG>.



**What Causes the Pink Stain on Bathroom Fixtures?**

The white/brown staining commonly noted on bathroom fixtures is generally from hard water; however, the reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, and toothbrush holders and on pets' water bowls is caused by the growth of the bacterium *Serratia marcescens*. *Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including humans). The bacteria can be introduced into the house through any of these sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to clean and dry these surfaces to keep them free from bacteria. Chlorine-based compounds work best, but keep in mind that abrasive cleaners may scratch fixtures, making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and help eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help to minimize its occurrence. *Serratia* will not survive in chlorinated drinking water.

