Annual Water Quality Report

HUDSON PUBLIC UTILITIES

Serving the City of Hudson and the Village of North Hudson

Hudson Public Utilities **Summer 2025**

Water Quality Meets Federal and State Requirements

Hudson Public Utilities is pleased to provide you with this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. 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.

Our water is pumped from the Jordan and Mount Simon sandstone aquifers. Because of the naturally occurring iron and manganese in the water from these geological formations, Hudson Public Utilities controls these substances using filtration equipment installed at nine well heads which are located in Hudson and North Hudson. In addition to the eight wells and seven treatment plants, which pumped and treated 758 million gallons of water in 2024, your water supply system contains seven water storage reservoirs totaling 3.50 million gallons, three booster stations, four pressure sustaining valve stations, and 108 miles of water distribution system mains.

We are pleased to report that your drinking water is safe and meets Federal and State requirements.

Questions or Comments

If you have any questions about this report or concerning your Public Utility, please contact:

Hudson Utilities Service Center
1201 Livingstone Rd.
Hudson, WI 54016-1694
Phone number: (715) 386-4760
E-mail address: hudwater@hudsonwi.gov
City of Hudson web site: www.hudsonwi.gov
Hudson Water Utility web site: www.hudsonpublicutilities.com

Sources of Contamination

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials.

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 in drinking 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 residential uses, agriculture, and urban stormwater runoff.
- **Radioactive contaminants,** which can be naturally occurring or be a result of oil and gas production or mining.
- **Organic chemical contaminants,** including synthetic and volatile organic chemicals, which are the by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

Getting Involved

We want our valued customers to be informed about their Public Utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at 6:00 p.m. on the second Tuesday of every month at the Hudson Utilities Service Center.

Monitoring Results

In order to ensure tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Federal Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Hudson Public Water Utilities routinely monitors for contamination by constituents in your drinking water according to federal and state laws. The table on the next page shows some results of our monitoring for the period of January 1 to December 31, 2024. The state allows us to monitor for certain contaminants less than once a year because concentrations of the contaminants are not expected to vary significantly from year to year.

Unsafe Water Sources-Cross Connections/ Back-Flows

Cross connections are defined as any physical connection or arrangement between two water sources, one of which contains potable water from your Drinking Water System and the other from an unknown or questionable source.

A major concern of the Hudson Public Utility is the potential introduction of **unsafe** water into your Drinking Water System. Some common cross connections are garden hoses connected to fertilizer and pesticide sprayers, hoses left lying in buckets of contaminated water or pools of water on chemically treated lawns, hoses in laundry tubs, boilers, and lawn irrigation systems. Water can flow from one source to the other (Back-Flow) depending on the pressure differential between the two sources. The elimination of these practices or the installation of cross connection devices can substantially reduce the potential of **unsafe** water being introduced into your Drinking Water System. Hudson Public Utilities has been conducting cross-connection inspections on residential homes since 2016.

Help protect your Drinking Water and the health of you, your family, and neighbors by eliminating potential Back-Flow situations.

If you don't want to drink it - don't connect to it.
If you have any questions, please call the Hudson Public Utilities.

Detected Contaminants

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the tables below along with the sample date.

City of Hudson Public Water Utility 2024 PWS ID # - 65600876

TEST RESULTS

Contaminant (units)	MCL	MCLG	Sample Location	Range	Level Found/ Sample Date	Violation	Typical Source of Contaminant
Microbiological Contaminants							
Total Coliform Bacteria (TCR – Total Coliform Rule)	No more than one sample per month can be total coliform positive	0	N/A	N/A	ND 20 Monthly (Tested Bi-monthly)	NO	Naturally present in the environment
Inorganic Contaminants							
Antimony (ppb)	6	6	All Entry Points	0 - 0.37	0.37 5/16/23	NO	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	10	N/A	All Entry Points	0 – 1.5	1.5 5/16/23	NO	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2	2	All Entry Points	0.004 - 0.024	0.024 5/16/23	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (Raw Water) (ppm)	4	4	All Entry Points	0.1 - 1.2	1.2 5/16/23	NO	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nickel (ppb)	100	N/A	All Entry Points	0 – 29.0	29.0 5/16/23	NO	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products
Nitrate (as Nitrogen) (ppm)	10	10	All Entry Points	0 – 3.80	3.80 4/24/24	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	50	50	All Entry Points	0 – 3.20	3.2 5/16/23	NO	Discharge from petroleum and metal refineries; discharge from mines; erosion of natural deposits
Sodium (ppm)	N/A	N/A	All Entry Points	4.60 – 54.0	54.0 5/16/23	NO	Erosion of natural deposits
Radioactive Contaminants							
Combined Uranium (ug/l)	30	0	All Entry Points	0.087 – 14.0	14.0 8/28/23	NO	Erosion of natural deposits
Gross Alpha (Excluding Radon & Uranium) (pCi/l)	15	0	All Entry Points	1.29 – 6.9	6.9 8/28/23	NO	Erosion of natural deposits
Gross Alpha (Including Radon & Uranium) (n/a)	N/A	N/A	All Entry Points	1.35 – 16.4	16.4 8/28/23	NO	Erosion of natural deposits
Radium (226 + 228) (pCi/l)	5	0	All Entry Points	2.08 – 4.16	4.16 8/28/23	NO	Erosion of natural deposits
Synthetic Organic Contaminants							
Atrazine (ppb)	3	3	All Entry Points	0.0 – 0.039	0.039 5/16/23	NO	Runoff from heribicide on row crops
Unregulated Contaminants Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring. EPTDS - Entry Point to the Distribution System							
1, 3, 5 - Trimethylbenzene (ppb)	N/A	N/A	Well #10 EP	0.27	0.27 6/25/18	NO	Occurs naturally in coal tar & petroleum
1, 2, 4 - Trimethylbenzene (ppb)	N/A	N/A	Well #10 EP	0.38	0.38 6/25/18	NO	Occurs naturally in coal tar & petroleum
Bromide (ppb)	N/A	N/A	All Entry Points	0 – 322	322 5/14/19	NO	A negatively charged form of Bromine Erosion of natural deposit
HAA5 (Haloacetic Acids) (ppb)	N/A	N/A	Distribution System	0.66 – 1.70	1.70 5/14/19	NO	By-product of drinking water chlorination
HAA6Br (Haloacetic Acids) (ppb)	N/A	N/A	Distribution System	0.42 – 2.0	2.0 5/14/19	NO	By-product of drinking water chlorination
HAA9 (Haloacetic Acids) (ppb)	N/A	N/A	Distribution System	1.1 – 2.6	2.6 5/14/19	NO	By-product of drinking water chlorination
Manganese (ppb)	N/A	N/A	Distribution System	0 – 16.6	16.6 5/14/19	NO	Erosion of natural deposits

Contaminants with a Public Health Groundwater Standard, Health Advisory Level or a Secondary Maximum Containment Level

The following tables list contaminants which were detected in your water and that have either a Health Advisory Level (HAL) or a Secondary Maximum Contaminant Level (SMCL), or both. There are no violations for detections of contaminants that exceed Health Advisory Levels, Groundwater Standards or Secondary Maximum Contaminant Levels. Secondary Maximum Containment Levels are levels that do not present health concerns but may pose problems such as objectionable taste, odor, or color. Health Advisory Levels are levels at which concentrations of the contaminants present a health risk.

Contaminant (units)	Site	SMCL	HAL	Level Found	Range	Sample Date (if prior 2021)	Typical Source of Contaminant
Sulfate (ppm)	All Entry Points	250		22.00	10.00 - 24.00	5/16/23	Runoff/leaching from natural deposits, industrial wastes

TEST RESULTS

PFAS Contaminants with Recommended Health Advisory Level

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a large group of human-made chemicals that have been used in industry and consumer products worldwide since the 1950s. The following table list PFAS contaminants which were detected in your water and that have a recommended Health Advisory Level (HAL). There are no violations for detections of contaminants that exceed recommended Health Advisory Lebels. The Recommended Health Advisory Levels are lebels at which concentrations of the contaminant present a health risk and are based on guidance provided by the Wisconsin Department of Health Services.

Contaminant	Site	Recommended HAL (PPT)	Level Found	Range	Sample Date (if prior 2020)	Typical Source of Contaminant
Perfluorobutanesulfonic acid (PFBS)	All Entry Points	450,000 ppt	1.20	0 - 1.20	1/25/23	Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and releases from certain types of waste in landfills.
Perfluoroheptanoic acid (PFHxA)	All Entry Points	150,000 ppt	0.87	0 - 0.87	1/25/23	
Perfluorohexanesulfonic acid (PFHxS)	All Entry Points	40 ppt	2.20	0 - 2.20	1/25/23	
Perfluorooctanic acid (PFOA)	All Entry Points	20 ppt	0.89	0 - 0.89	1/25/23	
PFOA and PFOS Total	All Entry Points	20 ppt	3.69	0 - 3.69	1/25/23	
Perfluorooctanesulfonic acid (PFOS)	All Entry Points	20 ppt	2.80	0 - 2.80	1/25/23	

Contaminant (units)	Site	MCL	MCLG	Range	Level Found/ Sample Date	Violation	Typical Source of Contaminant
Disinfection By-Products							
Haloacetic Acids (HAA5) (ppb)	D-22	60	60	0.64 - 1.9	1.9 12/09/24	NO	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	D-29	60	60	2.5 - 3.6	3.6 12/09/24	NO	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	D-3	60	60	0.65 - 2.1	2.1 12/09/24	NO	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	D-47	60	60	0.99 - 1.4	1.4 12/09/24	NO	By-product of drinking water chlorination
Trihalomethane (TTHM) (ppb)	D-22	80	0	2.6 - 6.4	6.4 12/09/24	NO	By-product of drinking water chlorination
Trihalomethane (TTHM) (ppb)	D-29	80	0	8.1 - 17	17 12/09/24	NO	By-product of drinking water chlorination
Trihalomethane (TTHM) (ppb)	D-3	80	0	2.9 - 6.3	6.3 12/09/24	NO	By-product of drinking water chlorination
Trihalomethane (TTHM) (ppb)	D-47	80	0	2.9 - 3.0	3.0 12/09/24	NO	By-product of drinking water chlorination
Added Constituents							
Chlorine (Free) (ppm)	N/A		N/A	Distribution System	0.19 – 1.4	0.61 Average 3 Bi-Weekly	N/A	Additive for oxidation and disinfection
Fluoride (Total) (ppm)	4		4	Distribution System	0.63 – 0.85	0.75 Average 3 Daily	NO	Erosion of natural deposits; additive to promote strong teeth; discharge from fertilizer and aluminum factories

Copper & Lead

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior 2013)	Violation	Typical Source of Contaminant
Copper (ppm)	AL=1.3	1.3	0.170	0 of 30 results were above the action level	8/15/23	NO	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	AL=15	0	5.70	0 of 30 results were above the action level	8/15/23	NO	Corrosion of household plumbing systems; erosion of natural deposits

Your water has an average pH level of 7.36 (7.0 is neutral between acid and base) and a hardness average of 12.5 grains/gallon or 210ppm.
Hardness is a measure of total calcium carbonate (CaCO3) in the water and a reading greater than 17 grains/gallon or 290ppm is considered hard.

Definitions

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

N/A - Not Applicable

Parts per million (ppm) or ***milligrams per liter (mg/l) -*** one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or ***micrograms per liter (ug/l) -*** one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per trillion (ppt) or ***nanograms per liter***

Picocuries per liter (pCi/l) - measure of the radioactivity in water.

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

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

Health Advisory Level (HAL) - The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice.

Secondary Maximum Contaminant Levels (SMCL) - secondary drinking water standards for contaminants that affect taste, odor, or appearance of the drinking water. The SMCLs do not represent health standards.

What do these results mean?

As you can see by the table, **our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements.** We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water **IS SAFE** at these levels.

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Lead / Additional Health Information

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. Hudson Public Utilities is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Hudson Public Utilities and Operator Jennifer Tschida at 715-781-8833. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

Lead and Copper Services Locator Link

https://hudsonwi.maps.arcgis.com/apps/webappviewer/index.html?id=39e4f2887ea44390b7489249436d4779

Water and Health

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

All 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 the 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 (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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Information on Monitoring for Cryptosporidium & Radon

Hudson Water Utility did not monitor for cryptosporidium or radon in 2022. Radon was sampled for in 2020 and the results are in the table above.

Source(s) of Water

Source ID	Source	Depth (in feet)	Status
3	Groundwater	543	Active
4	Groundwater	522	Active
5	Groundwater	504	Active
6	Groundwater	611	Active
7	Groundwater	522	Active
8	Groundwater	365	Active
9	Groundwater	387	Active
10	Groundwater	385	Active