

## 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.

CONTAMINANT (Units)	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to "22)
Bromochloroacetic acid (BCAA) (ppb)	1.4	0.40-1.4	1/8/2019 - 7/31/2019
Bromodichloroacetic acid (BDCAA) (ppb)	1.6	0.58-1.6	1/8/2019 - 7/31/2019
Dibromoacetic acid (DBAA) (ppb)	0.92	0.43-0.92	1/8/2019 - 7/31/2019
Chlorodibromoacetic acid (CDBAA) (ppb)	0.63	0.31-0.63	1/8/2019 - 7/31/2019
Dichloroacetic acid (DCAA) (ppb)	0.90	0.40-0.90	1/8/2019 - 7/31/2019
Trichloroacetic acid (TCAA) (ppb)	0.53	0.53	1/8/2019 - 7/31/2019
HAA5 (ppb)	3.267	0.306-2.325	1/8/2019 - 7/31/2019
HAA6Br (ppb)	5.808	0-2.58	1/8/2019 - 7/31/2019
HAA9 (ppb)	6.38	0.306-5.929	1/8/2019 - 7/31/2019
Manganese (ppb)	406.04	0.521-406.04	5/21/2018 - 11/5/2018
Germanium (ppb)	0.394	0.394	5/21/2018 - 11/5/2018
WATER PROPERTIES	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to "22)
Alkalinity	328/mg/L		
Hardness	23.8/grains/gal		
Iron	.40/mg/L		
Ph	7.3 S.U.		

### DEFINITIONS

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

**HA: Health Advisory:** An estimate of acceptable drinking water levels for a chemical substance based on health effects information.

**HAL:** Health Advisory Level is a concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice. Health Advisories are determined by US EPA.

**HI: Hazard Index:** A Hazard Index is used to assess the potential health impacts associated with mixtures of contaminants. Hazard Index guidance for a class of contaminants or mixture of contaminants may be determined by the US EPA or Wisconsin Department of Health Services. If a Health Index is exceeded a system may be required to post a public notice.

**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 or why total coliform bacteria have been found in our water system, or both, on multiple occasions.

**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.

**MFL:** Million fibers per liter

**MRDL:** Maximum residual disinfectant level: 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.

**MRDLG:** Maximum residual disinfectant level goal: 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)

**NTU:** Nephelometric Turbidity Units

**pCi/l:** Picocuries per liter (a measure of radioactivity)

**ppm:** Parts per million, or milligrams per liter (mg/l)

**ppb:** Parts per billion, or micrograms per liter (ug/l)

**ppt:** Parts per trillion, or nanograms per liter

**ppq:** Parts per quadrillion, or picograms per liter

**PHGS:** PHGS: Public Health Groundwater Standards are found in NR 140 Groundwater Quality. The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice.

**RPHGS:** Recommended Public Health Groundwater Standards: Groundwater standards proposed by the Wisconsin Department of Health Services. The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice.

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

**S.U. =** Standard Unit of measurement

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

\* Each contaminant range is from no detect (nd) to the maximum reported value.



# 2022 Annual Germantown Water Quality Report

Germantown Water Utility



## WATER QUALITY MEETS ALL REGULATORY STANDARDS

In the year 2022, the Germantown Water Utility (GWU) conducted all DNR required tests to ensure the safety and quality of the drinking water delivered to our customers. All laboratory analysis indicated that the water provided by the Utility met all Federal and State drinking water standards.

This report summarizes the water quality provided to customers in 2022. It also includes details about where your water comes from, what has been detected in your water and how that compares to regulatory standards. We are committed to providing you with useful information.

## SPECIAL HEALTH INFORMATION AVAILABLE

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).

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

## HEALTH EFFECTS FOR ANY CONTAMINANTS WITH MCL VIOLATION/ACTION LEVEL EXCEEDANCES

Infants and young children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

### Additional Health Information

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. Germantown

Water Utility 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 cold side tap for 30 seconds to 2 minutes or until it feels cooler than when you first started flushing 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 (800-426-4791) or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## HEALTH EFFECTS FOR ANY CONTAMINANTS WITH MCL

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.

## LEAD SERVICES

We are currently unaware of any lead water services to homes or businesses in the Village of Germantown and have not seen any evidence indication we do.

### Opportunity for input on decisions affecting our water quality or other questions

First Tuesday of each month at 5:30 p.m. in the Village Hall Board Room-with the Public Works & Highway Committee, located at N112 W17001 Mequon Rd. Germantown, WI 53022.

The day and time maybe subject to change. Water Utility office 262-253-8254, Village Hall 262-250-4721

## SOURCES OF GERMANTOWN'S 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 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 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.



## SOURCE (S) OF WATER

SOURCE ID	SOURCE	DEPTH	STATUS
2	Groundwater	342	Active
3	Groundwater	965	Active
4	Groundwater	1271	Active
5	Groundwater	415	Active
7	Groundwater	370	Active
11	Groundwater	1401	Active

### COST OF LEAKY PIPES

Size of leak at 60 psi	GALS/MIN	GAL/DAY-24hrs-COST	GALS/YR-COST
1/16" (.0625)	.63	907-\$4.00	331,128-\$1,374.00
1/8" (.125)	2.53	3,643-\$15.00	1,329,768-\$5,519.00
1/4" (.25)	10.12	14,558-\$60.00	5,319,816-\$22,052.00
1/2" (.50)	40.46	58,219-\$242.00	21,250,008-\$88,188.00

First 100,000gal = \$4.15/1000gal...

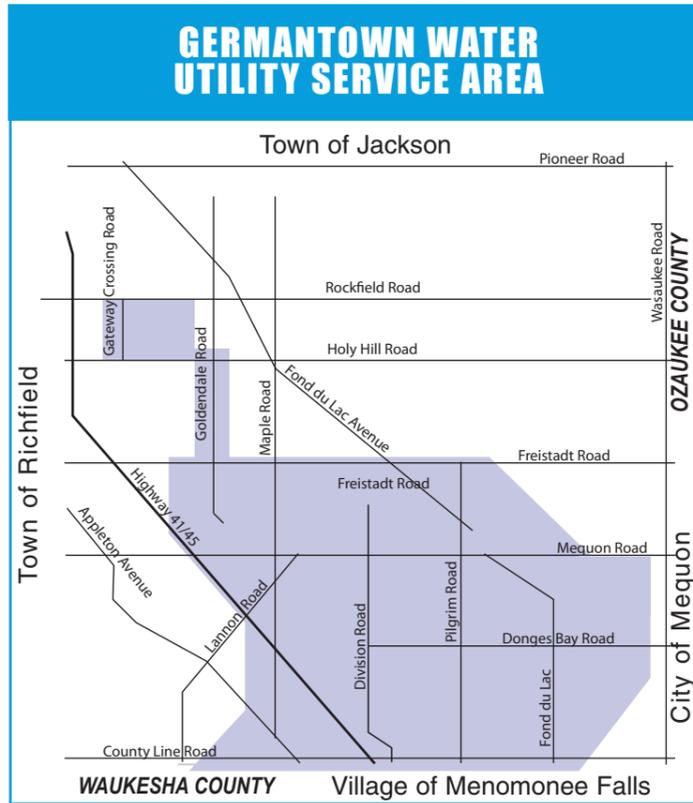
Next 900,000gal = \$3.60/1000gal...

Over 1,000,000gal = \$3.03/1000gal

(Numbers will vary slightly due to rounding)

For more information visit:

<https://www.540technologies.com/resources/water-cost-calculator>



## TREATED WATER QUALITY

Listed on the following pages are contaminants detected in Germantown's drinking water during 2022.

The state allows the GWU to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data though representative, are more than one year old.

## HOW TO READ THE ANNUAL GERMANTOWN WATER QUALITY TABLE

1. Read the definitions on the back page to better understand this table.
2. Choose a "Contaminant" on the table.
3. Check the "Ideal Goal" (Maximum Contaminant Level Goal) for that substance.
4. Note the "Highest Level Allowed" (Maximum Contaminant Level).
5. Compare the contaminant "Level Detected" in Germantown's water supply to the Ideal Goal and the Highest Level Allowed

## DISINFECTION BYPRODUCTS

CONTAMINANT (Units)	SITE	MCL (Highest Level Allowed)	MCLG (Ideal Goals)	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to "22)	VIOLATION	TYPICAL SOURCE OF CONTAMINANT
HAA5 (ppb)	D-14	60	60	1	1		NO	By-product of drinking water chlorination
TTHM (ppb)	D-14	80	0	3.2	3.2		NO	By-product of drinking water chlorination
HAA5 (ppb)	D-16	60	60	2	2		NO	By-product of drinking water chlorination
TTHM (ppb)	D-16	80	0	3.7	3.7		NO	By-product of drinking water chlorination

## INORGANIC CONTAMINANTS

CONTAMINANT (Units)	SITE	MCL (Highest Level Allowed)	MCLG (Ideal Goals)	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to "22)	VIOLATION	TYPICAL SOURCE OF CONTAMINANT
Arsenic (ppb)		10	n/a	1	1	1/29/2020	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppb)		2	2	0.120	0.009-0.120	1/29/2020	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Cadmium(ppb)		5	5	0.2	0.0-0.2	1/29/2020	NO	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints
Fluoride(ppb)		4	4	0.7	0.4-0.7	1/29/2020	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nickel		100		4.2000	1.1000-4.2000	1/29/2020	NO	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
Nitrate (NO3-N) (ppm)		10	10	0.93	0.00-0.93		NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)		n/a	n/a	38.00	7.30-38.00		NO	n/a

CONTAMINANT (Units)	ACTION LEVEL	MCLG	90th PERCENTILE LEVEL FOUND	# OF RESULTS	SAMPLE DATE (If prior to "22)	VIOLATION	TYPICAL SOURCE OF CONTAMINANT
Copper (ppb)	AL=1.3	1.3	0.5200	0 of 30 results were above	9/9/2020	NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL=15	0	2.00	1 of 30 results were above	7/15/2020	NO	Corrosion of household plumbing systems; Erosion of natural deposits

## RADIOACTIVE CONTAMINANTS

CONTAMINANT (Units)	MCL (Highest Level Allowed)	MCLG (Ideal Goals)	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to "22)	VIOLATION	TYPICAL SOURCE OF CONTAMINANT
Gross Alpha, Excl. R & U (pCi/l)	15	0	4.8	3.7-4.8		NO	Erosion of natural deposits
Radium, (226 + 228) (pCi/l)	5	0	2.3	0.8-2.3		NO	Erosion of natural deposits
Gross Alpha, Incl. R & U (n/a)	n/a	n/a	5.0	3.9-5.0		NO	Erosion of natural deposits
Combined Uranium (ug/l)	30	0	0.3	0.0-0.3		NO	Erosion of natural deposits

## CONTAMINANTS WITH A PUBLIC HEALTH GROUNDWATER STANDARD, HEALTH ADVISORY LEVEL OR A SECONDARY MAXIMUM CONTAMINANT LEVEL

The following table lists contaminants which were detected in your water and that have either a Public Health Groundwater Standard (PHGS), 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, Public Health Groundwater Standards or 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. Public Health Groundwater Standards and Health Advisory Levels are levels at which concentrations of the contaminant present a health risk.

CONTAMINANT (Units)	SMCL	RPHGS or HAL	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to "22)	TYPICAL SOURCE OF CONTAMINANT
Sulfate	250	0	230.00	56.00-230.00	1/29/2020	Runoff/leaching from natural deposits, industrial wastes

