

What is this Report?

Howard Waterworks Annual Water Quality Report takes you inside the world of your high-quality drinking water. Is our water safe? Yes, it is! Howard's Waterworks produces some of the highest quality drinking water in the nation. Last year, as in years past, your tap water meets and exceeds every federal and state drinking water health standard. We commit to provide you with useful information, and this report summarizes the quality of the water provided to our customers in 2021.

As mandated by the Drinking Water Act (SDWA), this "Consumer Confidence Report" details our water sources, the results of our water tests and how they compare to regulatory standards. You can count on Howard for quality water from your tap. Our results show it.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Dlaim ntawv tshaabzu nuav muaj lug tseemceeb heev nyob rua huv kws has txug cov dlej mej haus. Kuas ib tug paab txhais rua koj, los nrug ib tug kws paub lug thaam.

If you would like more about the information contained in this report please contact, Geoffrey Farr or Bill Thielke at (920) 434-4060.

Sources of Water

Source	Depth	Name
Groundwater	886 ft	Well #2 - Active
Groundwater	785 ft	Well #3 - Emergency
Purchased Surface Water - Lake Michigan – via the Central Brown County Water Authority & Manitowoc Public Utilities PWS ID# 43602878/PWS ID# 43603648		

Health Information

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 Environmental Protection Agency's (EPA) safe drinking water hotline (800) 426-4791.

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 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).

Educational Information

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.

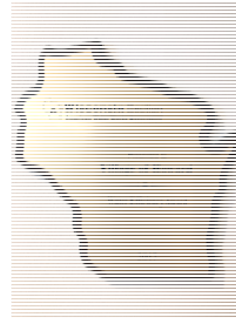
Contaminants that may be present in source water include:

- * 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- * Pesticides and herbicides, which come from a variety of sources such as agriculture, urban storm water 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 come from gas stations, urban storm water 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.

CONGRATULATIONS!

The Howard Water Utility received the 2017 Water Efficiency Award from the Wisconsin Section of American Water Works Association!



Water System Information

Questions are welcome, if you would like to know more about the information contained in this report please contact Public Works Director Geoff Farr, P.E. or Water Utility Operator-In-Charge Bill Thielke at (920) 434-4060. Howard Waterworks staff members are available to answer your questions about drinking water quality and the operations of our utility.

Opportunity for input on decisions affecting water quality: Village Board Meetings occur at 6:30 P.M. on the 2nd and 4th Mondays of each month at the Village Hall, 2456 Glendale Avenue, Howard, WI. 54313

Accomplishments in 2021

- * Upgrading SCADA and adding water tower meters

Planned Improvements for 2022

- * Upgrading SCADA and adding water tower meters
- * Correction of the venting deficiency on the Cornell water tower discussed below

Uncorrected Significant Water System Deficiencies

There is not dedicated vent on the Cornell water tower. Instead the opening between the access tube and the roof is used and this opening is required to be sealed. Without other venting capacity, sealing this opening will create operational and structural problems. Therefore, a dedicated vent is needed. We are required to correct this by Dec. 31, 2023. This corrective work is underway and scheduled for completion in 2022.

On the Cover

Howard citizens rely on clean, safe water in our daily lives. Howard puts public safety at the top of the list when it comes to planning for your water needs now and in the future.



The 2021 Annual Drinking Water Quality Report



Howard Waterworks
PWS ID: 40504684



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Detected Contaminants

In 2021, Howard Waterworks tested for a variety of contaminants in your drinking water. None of them exceeded an action level or violated EPA acceptable levels for drinking water. Your water complies with all safe drinking water standards.

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 table lists 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.

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.

Contaminants with a Health Advisory or Secondary Maximum Contaminant Level

These contaminants which were detected in your water and that have either a Health Advisory Level (HAL) or 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 Contaminant Levels are levels that do not present health concerns but may pose aesthetic problems such as objectional taste, odor, or color. Health Advisory Levels are levels at which concentrations of the contaminant present a health risk.

Turbidity Monitoring

In accordance with s. NR 810.29, Wisconsin Administrative Code, treated surface water is monitored for turbidity to confirm the filtered effectiveness of the Manitowoc Water filtration system. Turbidity is a measure of the cloudiness of water. During the year, the highest single entry point turbidity measurement was 0.08 NTU.

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. Howard Waterworks 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 tap for 30 seconds to 2 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 or at www.epa.gov/safewater/lead.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

Data Table Definitions

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.

SMCL - Secondary drinking water standards or Secondary Maximum Contaminant Levels

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

nd - none detected

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 (ng/l)

ppq - parts per quadrillion or picograms per liter (pCi/l)

Drinking Water Quality Data Table

Contaminant	Year Tested	Unit	MCL	MCLG	Test Result	Range	Violation	Comments / Major Sources
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Detected Contaminants in the Distribution System

Disinfection By-products

HAA5, SM5		ppb	60	60	20.0	11.0 - 20.0	No	By-product of drinking water chlorination
TTHM, SM5		ppb	80	0	40.5	21.8 - 51.9	No	By-product of drinking water chlorination
HAA5, SM6		ppb	60	60	19.0	12.0 - 17.0	No	By-product of drinking water chlorination
TTHM, SM6		ppb	80	0	42.9	23.0 - 52.8	No	By-product of drinking water chlorination
HAA5, SM7		ppb	60	60	19.0	11.0 - 17.0	No	By-product of drinking water chlorination
TTHM, SM7		ppb	80	0	39.6	21.2 - 52.8	No	By-product of drinking water chlorination
HAA5, SM8		ppb	60	60	19.0	12.0 - 16.0	No	By-product of drinking water chlorination
TTHM, SM8		ppb	80	0	43.5	24.6 - 50.2	No	By-product of drinking water chlorination

Inorganic Contaminants

Copper	7/8/2020	ppm	AL=1.3	1.3	0.4140 (90th %)	0 of 30	No	Range: is the number of results above the action limit. Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead	7/13/2020	ppb	AL=15	0	1.6 (90th %)	2 of 30	No	Range: is the number of results above the action limit. Corrosion of household plumbing systems; Erosion of natural deposits

Detected Contaminants from our Surface Water

Inorganic Contaminants

Arsenic		ppb	10	n/a	1.0	1.0	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium		ppm	2	2	0.020	0.020	No	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Fluoride		ppm	4	4	0.7	0.7	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nickel	2/18/2020	ppb	100	100	0.47	0.47	No	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless
Nitrate (N03-N)	2/26/2019	ppm	10	10	0.44	0.44	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Nitrate—Nitrite (N03+NO2)		ppm	10	10	0.28	0.28	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits

Radioactive Contaminants

Radium, (226 + 228)	2/18/2020	pCi/l	5	0	0.46	0.46	No	Erosion of natural deposits
Combined Uranium	2/18/2020	ug/l	30	0	0.313	0.313	No	Erosion of natural deposits

Synthetic Organic Contaminants including Pesticides and Herbicides

Atrazine	8/11/2020	ppb	3	3	0.028	0.028	No	Runoff from herbicide used on row crops
Metolachlor (Dual)	8/11/2020	ppb	n/a	n/a	0.01	0.01	N/A	
Sodium		ppm	n/a	n/a	7.1	7.1	N/A	
Sulfate		ppm	n/a	n/a	21	21	N/A	
Bromodichloromethane	2/18/2020	ppb	n/a	n/a	3.5	3.5	N/A	
Chloroform	2/18/2020	ppb	n/a	n/a	2.6	2.6	N/A	
HAA5		ppb	n/a	n/a	36.4	17.4 - 36.4		2019 Howard UCMR 4 Monitoring
HAA6Br		ppb	n/a	n/a	13.5	9.5 - 13.5		2019 Howard UCMR 4 Monitoring
HAA9		ppb	n/a	n/a	48.2	26.2 - 48.2		2019 Howard UCMR 4 Monitoring
Manganese		ppb	n/a	n/a	0.7	0.7	N/A	2018 Manitowoc and 2019 Howard UCMR 4 Monitoring

Detected Contaminants from our Wells

Inorganic Contaminants

Fluoride	2/22/2017	ppm	4	4	0.7	0.7	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (N03-N)		ppm	10	10	0.36	0.36	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits

Radioactive Contaminants

Gross Alpha, Excl. R & U		pCi/l	15	0	0.6	0.6	No	Erosion of natural deposits
Gross Alpha, Incl. R & U		pCi/l	n/a	n/a	0.8	0.8	No	Erosion of natural deposits
Radium, (226 + 228)		pCi/l	5	0	0.9	0.9	No	Erosion of natural deposits
Combined Uranium		ug/l	30	0	0.3	0.3	No	Erosion of natural deposits

Unregulated Contaminants

Sodium	2/22/2017	ppm	n/a	n/a	8.30	8.30	N/A	n/a
Chloromethane (Methylchloride)	3/11/2019	ppb	n/a	n/a	0.2	0.00 - 0.20	N/A	n/a
Chloride	2/22/2017	ppm	250	n/a	14.00	14.00	N/A	MCL listed is actually a SMCL; Runoff/leaching from natural deposits, road salt, water softeners
Iron	2/22/2017	ppm	0.3	n/a	0.36	0.36	N/A	MCL listed is actually a SMCL; Runoff/leaching from natural deposits, industrial wastes
Manganese	2/22/2017	ppm	0.05	0.3	0.00	0.00	N/A	MCL listed is actually a SMCL; MCLG listed is actually a HAL; Leaching from natural deposits
Silver	2/22/2017	ppm	0.1	0.05	0.00	0.00	N/A	MCL listed is actually a SMCL; MCLG listed is actually a HAL; Runoff/leaching from industrial wastes
Sulfate	2/22/2017	ppm	250	n/a	22.0	22.0	N/A	MCL listed is actually a SMCL; Runoff/leaching from natural deposits, industrial wastes