Village of Hartland Waterworks

2024 Consumer Confidence Report

System Number 26802050

The Village of Hartland is happy to share the Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the drinking water and other water related services the Village delivers to you every day. This report communicates to the public the source of the Village's water and summarizes the detected compounds from the sampling results for the year ending 2024. Our goal is to provide you with a safe and dependable supply of drinking water. The water supplied meets all EPA/DNR requirements for drinking water. We want you to understand the efforts we make to continually improve the water utility and protect our water resources.

The Village obtains its drinking water from five drilled groundwater wells. Each of these wells is finished in the shallow sand and gravel aquifer. This aquifer can yield municipal wells ranging in capacity from 100 gallons per minute (gpm) to 2,000 gpm depending on the specific well construction and location, but it's also the most susceptible to potential contaminant sources due to the shallow depth. Well No. 1 and the associated reservoir were abandoned in 1994. Well No. 2 was constructed in 1956 to a total depth of 82 feet. The well was rehabilitated in 2022. The current well capacity is approximately 800 gpm. Well No. 3 was constructed in 1974 to a total depth of 135 feet. The well was rehabilitated in 2017 and has a capacity of approximately 1,000 gpm. Well No. 4 was drilled in 1972 to a depth of 81 feet. The well was rehabilitated in 2015 and produces 275 gpm. Well No. 5 was drilled in 1983 to a depth of 89 feet. The well was rehabilitated in spring of 2011 and has a capacity of approximately 1,250 gpm. Well No. 6 was drilled in 2006 to a depth of 122 feet. The well was rehabilitated in 2023 and has a capacity of approximately 1,600 gpm. The Wisconsin Department of Natural Resources requires Water utilities to inspect towers and reservoirs every 5 years. Coventry Lane, Hill Street and Bristlecone towers were drained and inspected in 2018. Coventry Lane and Hill Street towers had their exterior sand blasted and painted in 2019. Bristlecone Tower’s exterior was painted in 2020. Bristlecone Tower was interior blasted and painted in 2024

At each well pumping station, a phosphate solution is added to coat the interior of the distribution piping throughout the Village. The coating is to prevent lead from getting into the water system from private residential plumbing systems. This addition was a DNR requirement with injection into the distribution system starting on 9/4/2024. Phosphate is being added to the system at a dosage range of 1.85 – 2.15 mg/l with a distribution residual targeted at 0.81mg/l

In addition, the Village added an air stripping tower adjacent to well pumping station No. 3 in 1984, to reduce certain detected volatile organic compounds to required levels. Due to the air stripping process, both chlorine and a phosphate compound are added to the water at pumping station No. 3. The Village started adding chlorine at Well No. 2, Well No. 5 and Well No. 6 in 2016. This is done to ensure that no bacteria growth occurs and control the water chemistry. The drinking water supplied in the Village is very hard and is approximately 23 grains per gallon.

UTILITY IMPROVEMENTS/ INFORMATION

In order to maintain a safe and dependable water supply the Utility sometimes needs to make improvements to benefit all of its customers. The Village continues to replace old water mains, fire hydrants, service lines and valves.

The Village of Hartland staff works hard to provide quality drinking water to all its customers at a reasonable cost. The Village is proud that ten of its employees are certified water operators.
We ask that all our customers help us protect our water sources by conserving water and participating in the Village efforts to increase awareness of groundwater protection. We also ask that you repair any leaks such as dripping faucets/running toilets immediately.

MISCELLANEOUS

- The Village water utility has 73.6 miles of water main, 3,219 water meters, 688 fire hydrants, 1,685 street valves and pumped 324,711,000 gallons of water in 2024.
- The fire department, the D.P.W. staff and contractors with a permit are the only persons allowed to operate a fire hydrant. Please report any suspicious use of a fire hydrant to the Police Department immediately at (262) 367-2323.
- The cost of a gallon of water from the tap in 2024 was $0.00347.

WATER SYSTEM CONTACT INFORMATION

If you would like to know more about the information contained in this report, or your water utility, please contact the Village Hall at (262) 367-2714 or attend any of our regularly scheduled meetings. The Village Board meets at 6:30 P.M. at the Village Hall on the second and fourth Mondays of each month. Additional information may be found on the Village web site at www.villageofhartland.wi.gov.

Opportunity for input on decisions affecting your water quality

The Village Board meets at 6:30 P.M. at the Village Hall on the second and fourth Mondays of each month. Additional information may be found on the Village web site at www.villageofhartland.wi.gov

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 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).

Information about Cross-Connection Control and Backflow Prevention

What is a Cross-Connection?

A cross-connection is an actual or potential connection between the safe drinking water (potable) supply and a source of contamination or pollution. State plumbing codes require approved backflow prevention methods to be installed at every point of potable water connection and use. Cross-Connections must be properly protected or eliminated.

How does contamination occur?

When you turn on your faucet, you expect the water to be as safe as when it left the treatment plant. However, certain hydraulic conditions left unprotected within your plumbing system may allow hazardous substances to contaminate your own drinking water or even the public water supply.

Water normally flows in one direction. However, under certain conditions, water can actually flow backwards; this is known as Backflow. There are two situations that can cause water to flow backward: back siphonage and backpressure.

Backsiphonage

May occur due to a loss of pressure in the municipal water system during a fire fighting emergency, a water main break or system repair. This creates a siphon in your plumbing system which can draw water out of a sink or bucket and back into your water or the public water system.

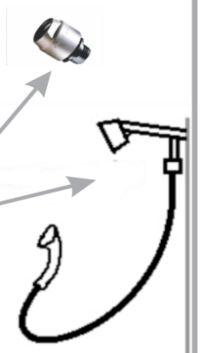
Backpressure

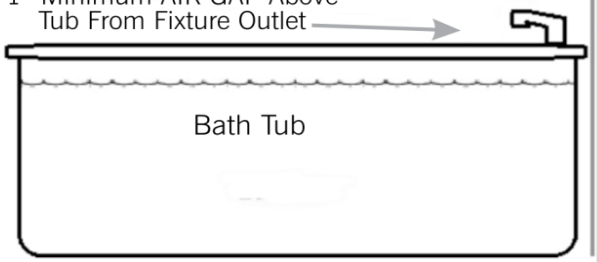
May be created when a source of pressure (such as a boiler) creates a pressure greater than the pressure supplied from the public water system. This may cause contaminated water to be pushed into your plumbing system through an unprotected cross-connection.

In the Bathroom - Hand Held Shower Fixture

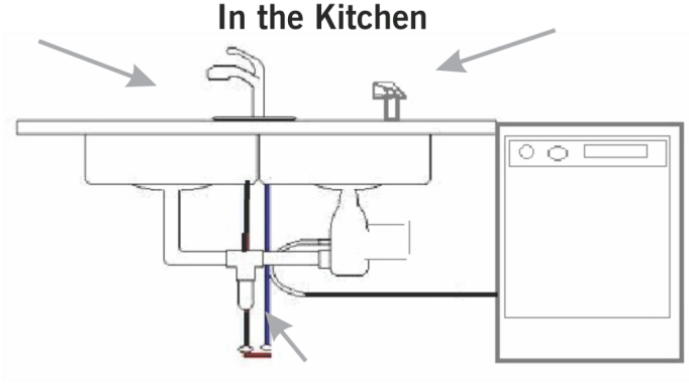
The hand held shower fixture is compliant if:

- When shower head is hanging freely, it is at least 1" above top of the flood level rim of the receptor (tub)
- Complies with **ASSE#1014**
- Has the **ASME code 112.18.1** stamped on the handle





In the Kitchen



Hoses and water treatment devices may create a potential backflow hazard if not properly isolated with backflow prevention methods.

Insights to protect your drinking water

Do...

- Keep the ends of hoses clear of all possible contaminants.
- Make sure dishwashers are installed with a proper "air gap" device.
- Verify and install a simple hose bibb vacuum breaker on all threaded faucets around your home.
- Make sure water treatment devices such as water softeners have the proper "air gap", which is a minimum of one inch above any drain.

Hose bibb Vacuum Breaker

Don't...

- Submerge hoses in buckets, pools, tubs, sinks or ponds.
- Use spray attachments without a backflow prevention device.
- Connect waste pipes from water softeners or other treatment systems directly to the sewer or submerged drain pipe. Always be sure there is a one inch "air gap" separation.

Air Gap

Did you know...

Your water can become contaminated if connections to your plumbing system are not properly protected!

The purpose of the local Cross-Connection Control Program, as required by State Plumbing Code and Regulations, is to ensure that everyone in the community has safe, clean drinking water.

Public Health & Safety....

To avoid contamination, backflow preventers are required by state plumbing codes wherever there is an actual or potential hazard for a cross-connection. The Wisconsin Department of Natural Resources requires all public water suppliers to maintain an on-going Cross-Connection Control Program involving public education, onsite inspections, and possible corrective actions by building owners if required.

More Information

WI Department of Safety and Professional Services (formerly DOC)
www.dsps.wi.gov

WI Department of Natural Resources
www.dnr.wi.gov

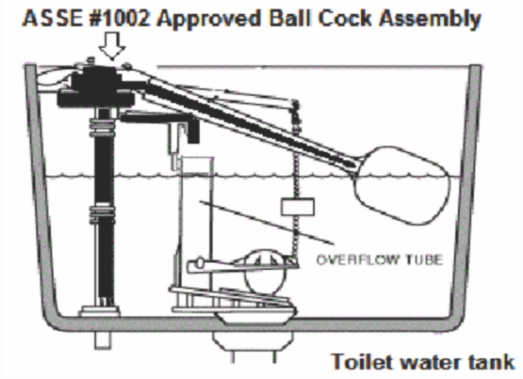
Environmental Protection Agency (EPA)
www.epa.gov

Cross-Connection Control / Backflow Prevention
www.hydrodesignsinc.com/wiccc.html

In the Bathroom - Toilet Tanks

There are many unapproved toilet tank fill valve products sold at common retailers which do not meet the state plumbing code requirements for backflow prevention.

- Look for the **ASSE #1002** Standard symbol on the device and packaging
- Replace any unapproved devices with an **ASSE #1002** approved anti siphon ball-cock assembly. Average cost is typically $12 to $22 at home improvement stores
- Verify overflow tube is one inch below critical level (CL) marking on the devce



Source(s) of Water

Source ID	Source	Depth (in feet)	Status
2	Groundwater	82	Active
3	Groundwater	135	Active
4	Groundwater	81	Active
5	Groundwater	89	Active
6	Groundwater	122	Active

To obtain a summary of the source water assessment please contact Tom Jenson at (262) 367-4750.

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 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.

Definitions

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
HA and HAL	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	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

Term	Definition
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	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.
TCR	Total Coliform Rule
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

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.

Disinfection Byproducts

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2024)	Violation	Typical Source of Contaminant
HAA5 (ppb)	DBP1	60	60	1	1		No	By-product of drinking water chlorination
TTHM (ppb)	DBP1	80	0	2.1	2.1		No	By-product of drinking water chlorination

Inorganic Contaminants

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2024)	Violation	Typical Source of Contaminant
BARIUM (ppm)		2	2	0.100	0.062 - 0.100	5/22/2023	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE (ppm)		4	4	0.7	0.1 - 0.7	5/22/2023	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NICKEL (ppb)		100		5.7000	2.2000 - 5.7000	5/22/2023	No	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
NITRATE (N03-N) (ppm)		10	10	5.03	1.80 - 5.40		No	Runoff from fertilizer use; Leaching from

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2024)	Violation	Typical Source of Contaminant
								septic tanks, sewage; Erosion of natural deposits
SELENIUM (ppb)		50	50	1	0 - 1	5/22/2023	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
SODIUM (ppm)		n/a	n/a	140.00	64.00 - 140.00	5/22/2023	No	n/a

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	Range	# of Results	Sample Date (if prior to 2024)	Violation	Typical Source of Contaminant
COPPER (ppm)	AL=1.3	1.3	0.4400	0.0140 - 1.8000	2 of 38 results were above the action level.	9/16/2020	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD (ppb)	AL=15	0	12.00	0.10 - 310.00	4 of 38 results were above the action level.	9/16/2020	No	Corrosion of household plumbing systems; Erosion of natural deposits

PFAS Contaminants with a 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 1950. The following table list PFAS contaminants which were detected in your water and that have a

Recommended Public Health Groundwater Standard (RPHGS) or Health Advisory Level (HAL). There are no violations for detections of contaminants that exceed the RPHGS or HAL. The RPHGS are levels at which concentrations of the contaminant present a health risk and are based on guidance provided by the Wisconsin Department of Health Services.

Note: The recommended health-based levels in the table below were in effect in 2024. These levels were revised by WDHS in 2025. They can be found here https://www.dhs.wisconsin.gov/water/gws.htm.

Typical Source of Contaminant		**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 release from consumer products in landfills.**			
Contaminant (units)	**Site**	**RPHGS or HAL (PPT)**	**Level Found**	**Range**	**Sample Date (if prior to 2024)**
PFBS (ppt)		450000	13.00	4.00 - 13.00	
PFHXS (ppt)		40	3.80	0.98 - 3.80	
PFOS (ppt)		20	3.10	0.76 - 3.10	
PFOA (ppt)		20	2.40	1.10 - 2.40	
PFHXA (ppt)		150000	4.20	1.20 - 4.20	
PFOA AND PFOS TOTAL (ppt)		20	5.50	1.86 - 5.50	

Radioactive Contaminants

Contaminant (units)	**Site**	**MCL**	**MCLG**	**Level Found**	**Range**	**Sample Date (if prior to 2024)**	**Violation**	**Typical Source of Contaminant**
GROSS ALPHA, EXCL. R & U (pCi/l)		15	0	1.6	0.0 - 1.6	2/25/2020	No	Erosion of natural deposits
RADIUM, (226 + 228) (pCi/l)		5	0	0.6	0.0 - 0.6	2/25/2020	No	Erosion of natural deposits
GROSS ALPHA, INCL. R & U (n/a)		n/a	n/a	1.5	0.0 - 1.5	2/10/2020	No	Erosion of natural deposits
COMBINED URANIUM (ug/l)		30	0	1.0	0.4 - 1.0	2/10/2020	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 detecting 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)	Site	SMCL (ppm)	PHGS or HAL (ppm)	Level Found	Range	Sample Date (if prior to 2024)	Typical Source of Contaminant
CHLORIDE (ppm)		250		240.00	97.00 - 240.00	2/18/2021	Runoff/leaching from natural deposits, road salt, water softeners
ZINC (ppm)		5		0.01	0.01 - 0.01	2/18/2021	Runoff/leaching from natural deposits, industrial wastes

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 2024)
METOLACHLOR (DUAL) (ppb)	0.03	0.02 - 0.03	8/1/2023

Additional Health Information

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. Hartland Waterworks is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is

effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formulas, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact Hartland Waterworks (Jake Schlafer at (262) 367-4750). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at https://www.epa.gov/safewater/lead.

Additional Information on Service Line Materials

We are required to develop an initial inventory of service lines connected to our distribution system by October 16, 2024 and to make the inventory publicly accessible. You can access the service line inventory here/by: https://v-hartland.maps.arcgis.com/apps/webappviewer/index.html?id=5f54bc28f99c425ab0938885faafe051