

Hannahville Water Operations

Telephone: 906.723.2200

Address: N14911 Hannahville B-1 Road. Wilson, MI 49896

ANNUAL WATER QUALITY REPORT 2019

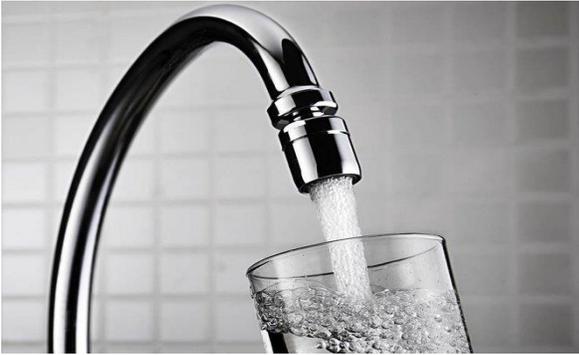


For the Hannahville Indian Community
and its Enterprises



DRINKING WATER QUALITY

Hannahville Indian Community's Public Drinking Water System exceeded all quality standards in 2019. This report provides information where your drinking water comes from, how it's treated, and results from quality testing. This report is issued to educate you about the quality of drinking water that Hannahville Water Operations produced in 2019. We take pride in the water we provide to our community. We are happy to report that no contaminants were detected at levels that violated federal drinking water standards during 2019.



PUBLIC INFORMATION

Please share this information with all other people who drink this water, especially those who may not have received this notice directly, for example, schools and businesses. You can do this by posting this report in a public place or distributing copies by hand or mail.

"Delivering high quality drinking water to our consumers is a job we take seriously and ensure the water is safe for all members of our community."

Water Operations Supervisor: Dan Stein

Water Operators: Tom Broeders - Steve Javurek - Roxanne Miller - Kevin Moreau

The Water Distribution System

Hannahville's Drinking Water System serves 221 connections of which 147 are single family homes on the following street names: Balsam Lane, Cedar Drive, Cedarview Drive, Deer Ridge, Eagle Road, Maple Drive, Oak Road, Pine Drive, Ridge Road, Ridgeview Road, Spike horn Ridge, Sunrise Lane, Tamarack Lane, and Willow Road. Includes some but not all homes on B-1 Road and 38th Road. The remaining connections include these businesses and/or buildings: Island Resort & Casino and its Warehouse; Island Oasis/Pharmacy and Car Wash; Administration Offices; VISIONS; Hannahville Indian School, its Bus Garage and Green Houses; Environmental Offices/Homemaker's building; Health Center; RV Park; Housing Office and its Construction Building; Community Center; 6 Elder's Complexes; Well House 1 & 2; Water Treatment Plant; Wastewater Treatment Plant; and the Bus Garage for Bark River School.

Water Quality Basics

2019 Typical Values for Hannahville Tap Water

pH	7.20	Hardness	37 ppm
Alkalinity	38 ppm	Chlorine (Free)	0.30 ppm

Be Involved in Your Drinking Water

Take a tour of your water treatment facility, please call ahead to schedule a tour 906.723.2200. Meetings concerning your public water supply and its decision making on water quality can be discussed at monthly Tribal Council Meetings which are typically held the first Monday of each month at the Administration Building in the Council Chambers at N14911 B-1 Road Wilson, MI 49896. Please call the administration at 906.723.2600 for more meeting information. Our website is: <http://www.hannahville.net/services/hannahville-water-wastewater-department/> Up-to-date information is also posted on our Facebook page titled, "Hannahville Water Operations". Please like and follow the page. When needed, important information is also printed out on flyers and posted at the following locations: Island Oasis, Administration Building, Health Center, Hannahville School, and Elder's Buildings (near mailboxes).

Where Your Water Comes From

Your source water supply originates as water beneath the surface of the Earth, called Groundwater. It is naturally filtered as it travels through soil and rocks. Hannahville's water system has three wells, Well 3, Well 4, and Well 5, located near the Island Resort & Casino that pump groundwater, also known as well water, to the Water Treatment Plant. Our Source Water Protection and Well Head Protection Program is an assessment that consists of identifying the area around the wells, which need to be protected from contamination, and determining the susceptibility of the wells to contamination.

Because the water we drink comes from underground wells, we need to be careful how we dispose of harmful contaminants. An assessment provides us with the information we need, as a community to make sure our drinking water is safe now and in the future. This report is at Hannahville Environmental Offices 906.723.2296.



Source Water Possible Contaminates

The sources of all drinking water, both tap 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 and or from human activity. Contaminants that may be present in source water include:

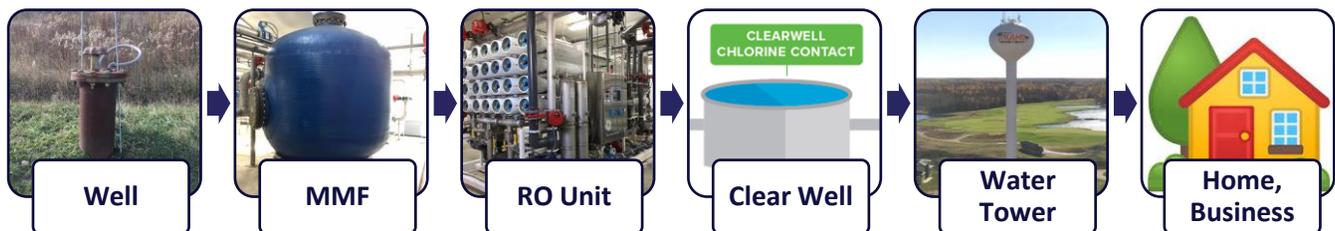
- Microbial Contaminants: viruses & bacteria; may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic Contaminants: salts & metals; can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and Herbicides: may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- Organic Chemical Contaminates: including Synthetic and Volatile Organic Chemicals, which are by-products of industrial processes and petroleum production can also come from gas stations, urban storm runoff and septic systems.
- Radioactive Contaminates: can be naturally occurring or be the result of oil and gas production and mining activities.

To protect public health, water treatment plants remove these contaminants to safe levels established by EPA regulations. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in the water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for human health.

Maintenance & Security of the Water System

We encourage your help to maintain and secure your drinking water supply. Please immediately notify us if you notice something you think needs prompt attention from our department. This includes hydrants, pipes, and leaks. Call our direct line: 906.723.2200. Our voicemail greeting is updated weekly and states how to contact the on-call operator.

Hannahville's Water Treatment Plant Process



Well water is first pumped through a Multi-Media Filter (MMF), which uses anthracite, sand, and garnet to remove small particles such as dirt and rust. This pre-filtered well water is further treated through a Reverse Osmosis Unit, (RO Unit), which forces water through semi-permeable membranes which remove much smaller contaminants such as ions and microbes, but allows clean water

through. This treated and high-quality drinking water fills a clear well, where a small amount of chlorine is added as extra protection for continuous disinfection and the drinking water is then pumped as needed to the water tower for distribution to homes and businesses.

Coliforms in Drinking Water

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. EPA requires Hannahville Water Operations to sample and analyze for Total Coliforms five times a month, a least one each week from various sites throughout the distribution system. We are happy to report that all weekly samples in 2019 were absent of Total Coliforms.

Water Quality Data Table *(on page 5)*

We are pleased to report Hannahville Water Operations exceeded all drinking water regulations set by the EPA. These regulations are Primary Standards that protect public health by setting legal limits on levels of potentially harmful contaminants in drinking water. EPA requires us to monitor for certain contaminants less than once a year because the concentrations of these contaminants do not frequently change. Some data reported is more than a year old but still representative. Substances that we tested for but did not find are not included in the table.

Definitions for the Water Quality Data Table *(on page 5)*

- MRDL: Maximum Residual Disinfectant Level. The highest level of a drinking water 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- MCL: Maximum Contaminant Level. The highest level of a contaminant that is allowed in the water we drink. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety.
- ppm: parts per million. 1 drop in 1 million gallons.
- ppb: parts per billion. 1 drop in 1 billion gallons.
- AL: Action Level. The concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.
- pCi/L: Picocuries per liter. Measure of radio activity.
- RAA: Running Annual Average. The average of four quarterly samples collected in one year.

WATER QUALITY DATA TABLE - Regulated Contaminants Found in Your Water

CONTAMINANT, unit. Date Tested	LEVEL COMPARISON	MEETS STANDARD	COMMON SOURCES OF CONTAMINANT IN DRINKING WATER
CHLORINE (free), ppm. RAA	MRDL: 4.00 MRDLG: 4.00 YOUR WATER: 0.24	✓	Water additive used to control microbes.
TRIHALOMETHANES (total), ppb. 08/05/2019	MCL: 80.0 MCLG: NA * YOUR WATER: 0.6	✓	Byproduct of drinking water disinfection.
BARIUM, ppm. 03/29/2018	MCL: 2.00 MCLG: 2.00 YOUR WATER: 0.01	✓	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
LEAD, ppb. 08/15/2018	AL: 15 MCLG: 0 YOUR WATER: 2	✓	Corrosion of household plumbing systems; erosion of natural deposits.
COPPER, ppm. 08/15/2018	AL: 1.30 MCLG: 1.30 YOUR WATER: 0.14	✓	Corrosion of household plumbing systems; erosions of natural deposits.
XYLENES (total), ppm. 05/23/2017	MCL: 10.0000 MCLG: 10.0000 YOUR WATER: 0.0005	✓	Discharge from petroleum and chemical factories.
GROSS ALPHA, pCi/L. 04/06/2015	MCL: 15.00 MCLG: 0.00 YOUR WATER: 5.60 †	✓	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
GROSS BETA, pCi/L. 01/15/2015	MCL: 50.00 ‡ MCLG: 0.00 YOUR WATER: 1.33 §	✓	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation.
RADIUM - 226, pCi/L. 01/12/2015	MCL: 5.00 MCLG: 0.00 YOUR WATER: 1.53	✓	Erosion of natural deposits.

* There is no collective MCLG for this group, there are individual MCLG's for some individual contaminants.

† If the result of this sample was above 15 pCi/L, our system would have been required to do additional testing for uranium. Because the result was below 15 pCi/L no testing for uranium was required.

‡ The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

§ Because the beta particle results were below 50.00 pCi/L, no testing for individual beta particles constituents was required.

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. The developing fetus and therefore pregnant women may also be more vulnerable to contaminants in drinking water. These people or their caregivers should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (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 1-800-426-4791.

Lead in Drinking Water

EPA requires Hannahville Water Operations to collect water samples from inside homes within its distribution system considered at risk for lead and copper contamination. In 2018, 20 samples were sent to Michigan's EGLE Drinking Water Laboratory for analysis. The 90th percentile Lead result is 2 ppb out of an Action Level of 15 ppb. No samples exceeded the Action Level, meaning there is no corrective action needed for Lead in our drinking water system.

Hannahville Water Operations is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. Drinking water is essentially lead-free when it leaves the treatment plant, but lead can be released into the drinking water system when the water comes in contact with pipes and plumbing fixtures that contain lead, particularly homes built before 1960.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. 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 can request your water to be 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 website at www.epa.gov/lead.

PFAS

On August 21, 2018, a sample from the Hannahville Indian Community's Public Water System was collected and analyzed as part of Michigan's statewide per- and polyfluoroalkyl substances (PFAS) testing initiative. PFAS was not detected in the Hannahville Water System. For information on PFOS, PFOA, and other PFAS, including possible health outcomes, you may visit these websites:

- US EPA website including basic information, EPA actions, and links to informational resources: www.epa.gov/pfas
- State of Michigan PFAS Action Response Team (MPART) website serving as the main resource for public information on PFAS contamination in Michigan: www.michigan.gov/pfasresponse
- Agency for Toxic Substances and Disease Registry (ATSDR) website including health information, exposure, and links to additional resources: www.atsdr.cdc.gov/pfas

Protect our Shared Water Sources for Future Generations

It's important to realize that our groundwater is connected to our surface water supplies. Please use caution with what you flush down the toilet. You can help protect the sanitary sewer system and ease the burden of wastewater treatment by disposing of the following items in the trash:

- "Flushable wipes" – Marketed as flushable, however these do not break down like toilet paper.
- Condoms – These do not break down and can balloon, creating clogs.

- Fats, oils and grease – Don't put grease down garbage disposals. Pour into a container such as an empty jar or coffee can. Once cooled and solidified, secure the lid and place it in the trash.
- Diapers and feminine supplies – Padding and adsorbent nature makes these too thick for plumbing.
- Cotton swabs – Cardboard cotton swabs can be composted, and plastic swabs go into the trash.
- Dental floss – Not biodegradable, can create clogs.
- Cigarette butts – Contain chemicals that can contaminate water.
- Hair – Put hair in a compost bin or in the trash.

Dispose of Your Medications Properly

Wastewater treatment facilities have to deal with an increasing amount of prescription drugs in the water supply. Unfortunately, facilities are not equipped to “filter out” these chemicals and therefore they make it into our water ways and eventually back into our water supplies. Do not flush unused medications. Instead, take them to participating pharmacies and law enforcement offices in the area. To find a prescription disposal location near you, visit www.takebackmeds.org.

Prevent Frozen Water Lines

During winter months when weather is severely cold, if you live in a mobile home, we encourage you to run a faucet. A pencil sized water stream is sufficient to prevent freezing of water pipes.

Annual Hydrant Flush

Flushing hydrants occurs in the fall every year, this preventative maintenance is done to ensure hydrants operate properly and provide high quality drinking water. It involves opening fire hydrants and closing valves under controlled conditions to improve distribution pipes. The scouring process helps to remove built up mineral products, improves water quality and restore capacity. Customers in the immediate vicinity of flushing may notice a brief reduction in water pressure and/or temporary discoloration. Pressure will return to normal and although discolored water is unpleasant, during flushing it is still safe. If you experience discolored water during flushing, flush your service line by running a cold tap until clear.

Water Conservation

Producing high quality drinking water is costly and you can help keeping those costs low by simply conserving water at home. Here are several easy conserving tips: Always turn taps off tightly so they do not drip. Promptly repair any leaks in and around your taps. (One leak can waste several thousand liters of water per year.) Use an aerator and/or a water flow-reducer attachment on your tap to reduce your water usage. When hand-washing dishes, never run water continuously. Wash dishes in a partially filled sink and then rinse them using the spray attachment on your tap. When brushing your teeth, turn the water off while you are actually brushing. Use short bursts of water for cleaning your brush. Wash only full loads in your washing machine.