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.

HANNAHVILLE WATER OPERATIONS

906.723.2200

HANNAHVILLE INDIAN COMMUNITY

WATER QUALITY REPORT

2018

HANNAHVILLE INDIAN COMMUNITY'S PUBLIC DRINKING WATER SYSTEM MET AND SURPASSED ALL QUALITY STANDARDS IN 2018. THIS REPORT PROVIDES INFORMATION WHERE YOUR DRINKING WATER COMES FROM, HOW IT'S TREATED, AND RESULTS FROM QUALITY TESTING.

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"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."

THIS REPORT IS ISSUED TO EDUCATE YOU ABOUT THE QUALITY OF DRINKING WATER THAT HANNAHVILLE WATER OPERATIONS PRODUCED IN 2018. WE TAKE PRIDE IN THE WATER WE PROVIDE TO OUR RESIDENTS. WE ARE HAPPY TO REPORT THAT NO CONTAMINANTS WERE DETECTED AT LEVELS THAT VIOLATED FEDERAL DRINKING WATER STANDARDS DURING 2018.

Hannahville Water Distribution System

Hannahville's Public Water System serves 130 homes on the following street names: B-1 Road, Balsam Lane, Cedar Drive, Cedarview Drive, Deer Ridge, Eagle Road, Maple Drive, Oak Road, Pine Drive, Ridge Road, Ridgeview Road, Spikehorn Ridge, Sunrise Lane, Tamarack Lane, Willow Road, and 38th Road. Including these business/buildings: Island Resort & Casino, Island Oasis/Pharmacy, Administration Offices, VISIONS, Hannahville Indian School, Environmental Offices, Health Center, RV Park, Housing Offices, Community Center, and Elder's Complexes.

How to get more involved in your drinking water

Meetings concerning your public water supply and its decision making on water quality can be discussed at Tribal Council Meetings which are held the first Monday each month at the Administration Building. N14911 B-1 Road Wilson, MI 49896. Phone: 906.723.2600.

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 located near the Island Resort & Casino that pump groundwater, 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 the Environmental Offices 906.723.2296.

Possible Contaminates in Source Water

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:

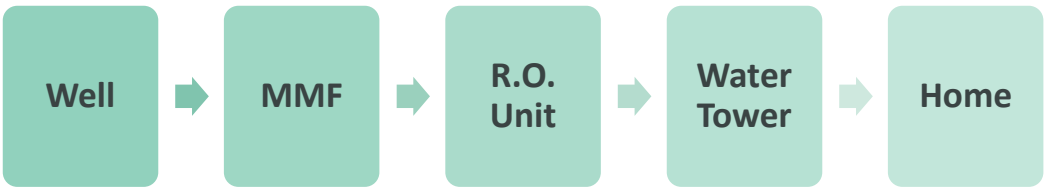
Hannahville's Water Treatment Plant Process

Well water is first pumped through a Multi-Media Filter (MMF), which uses anthracite (coal), sand, and garnet to remove small particles such as dirt and rust. This pre-filtered water is further treated through a Reverse Osmosis Unit (R.O. Unit), which forces water through semi-permeable membranes that remove much smaller contaminates such as ions and microbes, allowing clean water through. A very small amount of chlorine is added as extra protection for continuous disinfection. This treated and high-quality drinking water fills a clearwell, which is an underground storage tank, and is then pumped as needed to the water tower for distribution to your homes and businesses.

- 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 contaminates in the water provided by public water systems. FDA regulations establish limits for contaminates in bottled water which must provide the same protection for human health.

Hannahville's Water Treatment Plant Process



Water System Maintenance & Security

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 states how to contact the on-call operator.

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 test for Total Coliforms five times a month, a least one each week from various sites in the distribution system. We are happy to report that all weekly samples in 2018 were absent of Total Coliforms.

Water Quality Data Table Definitions

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.

Water Quality Data Table

We are pleased to report Hannahville Water Operations met and surpassed 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 contaminates less than once a year because the concentrations of these contaminates do not frequently change. Some data reported is more than a year old but still representative.

SUBSTANCE, unit	TEST DATE	LEVEL COMPARISON			VIOLATION ?
		MRDL:	4.00		
		MRDLG:	4.00		
CHLORINE, ppm	5/1/18	**YOUR WATER:**	**0.46**		**NO**
TRIHALO-METHANES		MCL:	80.0		
		MCLG:	NA	*	
(total), **ppb**	8/6/18	**YOUR WATER:**	**1.6**		**NO**
		MCL:	2.00		
		MCLG:	2.00		
BARIUM, ppm	3/29/18	**YOUR WATER:**	**0.01**		**NO**
		AL:	15		
		MCLG:	0		
LEAD, ppb	8/15/18	**YOUR WATER:**	**2**		**NO**
		AL:	1.30		
		MCLG:	1.30		
COPPER, ppm	8/15/18	**YOUR WATER:**	**0.14**		**NO**
		MCL:	10.0000		
		MCLG:	10.0000		
XYLENES (total), **ppm**	5/23/17	**YOUR WATER:**	**0.0005**		**NO**
		MCL:	15.00		
		MCLG:	0.00		
GROSS ALPHA, pCi/L	4/6/15	**YOUR WATER:**	**5.60**	†	**NO**
		MCL:	50.00	‡	
		MCLG:	0.00		
GROSS BETA, pCi/L	1/12/15	**YOUR WATER:**	**1.33**	§	**NO**
		MCL:	5.00		
		MCLG:	0.00		
RADIUM - 226, pCi/L	1/12/15	**YOUR WATER:**	**1.53**		**NO**

***** 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.

‡ 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.

Reduce Lead exposure in any water system.

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.

Dispose of your old Medications Properly

Wastewater treatment facilities have to deal with an increasing amount of prescription drugs in the water supply. Unfortunately, facilities aren't equipped to "filter out" these chemicals and therefore, they make it into our water ways and eventually back into our water supplies.

SUBSTANCE, unit	POTENTIAL HEALTH EFFECTS FROM LONG-TERM EXPOSURE ABOVE THE MCL	COMMON SOURCES OF CONTAMINANT IN DRINKING WATER
CHLORINE, ppm	Eye/nose irritation; stomach discomfort.	Water additive used to control microbes.
TRIHALO-METHANES (total), **ppb**	Liver, kidney, or central nervous system problems; increased risk of cancer.	Byproduct of drinking water disinfection.
BARIUM, ppm	Increase in blood pressure.	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
LEAD, ppb	Infants and children: Delays in physical or mental development, children could show slight deficits in attention span and learning abilities. Adults: kidney problems; high blood pressure.	Corrosion of household plumbing systems; erosion of natural deposits.
COPPER, ppm	Short-term exposure: Gastro-intestinal distress. Long-term exposure: Liver or kidney damage. People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the Action Level.	Corrosion of household plumbing systems; erosions of natural deposits.
XYLENES (total), **ppm**	Nervous system damage.	Discharge from petroleum and chemical factories.
GROSS ALPHA, pCi/L	Increased risk of cancer.	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	Increased risk of cancer.	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	Increased risk of cancer.	Erosion of natural deposits.

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. 20 samples were sent to Michigan's 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.

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. During flushing or anytime a hydrant is opened you may notice a brief reduction in water pressure and/or temporary discoloration. Pressure will return to normal and though 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.

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.

PFAS

On August 21, 2018, a sample from the Hannahville Community Public Water System was collected and analyzed as part of Michigan's statewide per- and polyfluoroalkyl substances (PFAS) testing initiative. PFAS were not detected in your 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**

Water Quality Basics

2018 Typical Values for Hannahville Tap Water			
pH	7.20	**Hardness**	35 ppm
Alkalinity	37 ppm	**Chlorine** (Free)	0.33 ppm

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.**