



2022 Water Quality Report for The City of White Cloud

Water Supply Serial Number: 07060

This report covers the drinking water quality for The City of White Cloud for the 2022 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2022. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (USEPA) and state standards.

Your water comes from 3 groundwater wells, each over 96 feet deep. (96 ft. is the minimum of the 3 wells). The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source is "moderately high" for well number 1, "moderate" for well number 2, and "low" for well number 4. Our drinking water is stored in a 100,000-gallon elevated tank on the northwest of Newell St. The second water tower is located on Pine Hill St. east of the Newell St. location; this is a 200,000-gallon tank, which was constructed in 2000.

There are no significant sources of contamination included in our water supply. We are making efforts to protect our sources by continuing to replace old, galvanized lines with copper, and continually upgrading and monitoring our water supply.

If you would like to know more about this report, please contact: Eric Hoenshell/ or April Storms.

City of White Cloud, (231) 689-1194 or email citymanager@cityofwhitecloud.org

Contaminants and their presence in water:

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 USEPA's Safe Drinking Water Hotline (800-426-4791).

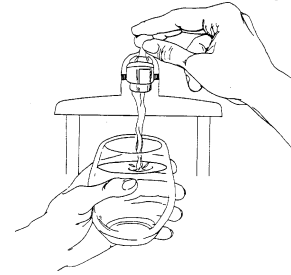
Vulnerability of sub-populations: Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems 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. USEPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Sources of drinking water: The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, 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 and residential uses.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, are by-

products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.



To ensure that tap water is safe to drink, the USEPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2022 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2022. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All the data is representative of the water quality, but some are more than one year old.

Terms and abbreviations used below:

- Maximum Contaminant Level Goal (MCLG): 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.
- Maximum Contaminant Level (MCL): 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.
- Maximum Residual Disinfectant Level (MRDL): 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.
- Maximum Residual Disinfectant Level Goal (MRDLG): 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.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- N/A: Not applicable
- ND: not detectable at testing limit
- ppm: parts per million or milligrams per liter
- ppb: parts per billion or micrograms per liter
- pCi/l: picocuries per liter (a measure of radioactivity)
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

1 Monitoring Data for Regulated Contaminants

Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Arsenic (ppb)	10	0	.003	.005-.005	2019	no	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	.538	.001	2019	no	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Nitrate (ppm)	10	10	<0.100	0.100	2022	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	0.375	.100	2022	no	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium ¹ (ppm)	N/A	N/A	14.5	2.0	2020	no	Erosion of natural deposits
TTHM Total Trihalomethanes (ppb)	N/A	N/A	N/A	N/A	N/A	N/A	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids (ppb)	N/A	N/A	N/A	N/A	N/A	N/A	Byproduct of drinking water disinfection
Chlorine ² (ppm)	N/A	N/A	N/A	N/A	N/A	N/A	Water additive used to control microbes
Alpha emitters (pCi/L)	15	0	-0.580	1.7	2022	no	Erosion of natural deposits
Combined radium (pCi/L)	5	0	0	0	2016	no	Erosion of natural deposits
Total Coliform (total number or % of positive samples/month)	TT	N/A	N/A	N/A	2022	no	Naturally present in the environment
<i>E. coli</i> in the distribution system (positive samples)	See <i>E. coli</i> note ³	0	0	N/A	2022	no	Human and animal fecal waste
Fecal Indicator – <i>E. coli</i> at the source (positive samples)	TT	N/A	0	N/A	2022	no	Human and animal fecal waste

¹ Sodium is not a regulated contaminant.

² The chlorine “Level Detected” was calculated using a running annual average.

³ *E. coli* MCL violation occurs if: (1) routine and repeat samples are total coliform-positive and either is *E. coli*-positive, or (2) the supply fails to take all required repeat samples following *E. coli*-positive routine sample, or (3) the supply fails to analyze total coliform-positive repeat sample for *E. coli*.

Per- and polyfluoroalkyl substances (PFAS)

Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt)	370	N/A	<2.0	2.0	2022	No	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	<2.0	2.0	2022	No	Discharge and waste from industrial facilities; Stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	<2.0	2.0	2022	No	Firefighting foam; Discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	<2.0	2.0	2022	No	Firefighting foam; Discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6.0	N/A	<2.0	2.0	2022	No	Discharge and waste from industrial facilities; Breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	<2.0	2.0	2022	No	Firefighting foam; Discharge from electroplating facilities; Discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8.0	N/A	<2.0	2.0	2022	No	Discharge and waste from industrial facilities; Stain-resistant treatments
Inorganic Contaminant Subject to ALs	AL	MCLG	Your Water ⁴	Range of Results	Year Sampled	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0	1.7	0-2.4	Jan-June 2022	0	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.14	0-0.2	Jan-June 2022	0	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	0	2.3	0-2.4	July-Dec 2022	0	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.15	0-0.2	July-Dec 2022	0	Corrosion of household plumbing systems; Erosion of natural deposits

⁴ Ninety (90) percent of the samples collected were at or below the level reported for our water.

During the past year, we were required to conduct a level three assessment. Tier three public notice is included after this report and will be distributed via USPS.

Information about lead: 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. The City of White Cloud 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 have a lead service line, it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead service line. 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 USEPA's Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Our water supply has 151 lead service lines, 195 galvanized lines that were previously hooked up to lead, 52 that likely contain lead, 72 service lines that do not contain lead or galvanized lines and 14 service lines of unknown material, making a total of 498 service lines in the City of White Cloud. The City of White Cloud is currently in the process of initiating a replacement program which will replace 5% of services over the next 20 years. By 2045, all the lines will be replaced.

Monitoring and Reporting to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Requirements: The State of Michigan and the USEPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2022.

We will update this report annually and will keep you informed of any problems that may occur throughout the year as they happen. Copies are available at White Cloud City Office. (12 N. Charles, White Cloud, MI 49349) This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality. Our water committee only meets once per year, but the White Cloud City Council meets the first Tuesday of the month at the City Office Building at 6pm. For more information about your water or the contents of this report, contact April Storms, City Manager/Treasurer, at White Cloud City Hall (231) 689-1194. For more information about safe drinking water, visit the USEPA at <http://www.epa.gov/safewater>.

To receive a paper copy, please visit www.cityofwhitecloud.org or contact April Storms, City Manager, at the City of White Cloud at citymanager@cityofwhitecloud.org, or call (231) 689-1194.