2024 Water Quality Report

Is my water safe?

The City of Missoula is pleased to present the 2023-2024 Annual Water Quality Report (Consumer Confidence Report) for the Phantom Hills Water System, PWS #0004379; as required by the Safe Drinking Water Act (SDWA).
We are proud to report that our drinking water meets, or exceeds, all established federal and state regulations.
This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. *This report is a snapshot of last year's water quality (2023).*
We are committed to providing you with information because informed customers are our best resources to aid in maintaining and improving water quality.

Do I need to take special precautions?

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. These people 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 Water Drinking Hotline (800-426-4791).

Where does my water come from?

The water provided to the Phantom Hills Water System comes from two ground water wells that draw water from the valley's ground water aquifer. This aquifer is recharged by runoff from precipitation and snow melt.

Source water assessment and its availability

As required by the EPA in 2003, Phantom Hills completed a Source Water Delineation and Assessment report and submitted it to the Department of Environmental Quality and the EPA. For a copy of this report contact our office.

Why are there contaminants in my drinking 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).
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. The water can also pick up substances resulting from the presence of animals or from human activity:
Microbial contaminants such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife and domestic animals.
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.

How can I get involved?

As your water utility, it is our responsibility to provide the highest available quality of water and to meet all of the requirements and standards set forth by the State of Montana. If you as a consumer have any questions or concerns, we are here to help and provide information to you.

Description of Water Treatment Process

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

Additional Information for 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. Phantom Hills Water System 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 thirty seconds to two 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 http://www.epa.gov/safewater/lead.

State-Wide Waiver Program

The Montana Department of Environmental Quality (DEQ) created the Chemical Reduced Monitoring Waiver Program in 1996 to reduce monitoring expenses for public water supplies (PWS) while still protecting public health. Due to the considerable population growth and expansion in intervening years, the presence of these analytes needs to be reevaluated. Phantom Hills Water System is required to monitor for endothall, diquat, glyphosate, ethylene dibromide (EDB), dibromochloropropane (DBCP), cyanide and PCBs from one entry point between Jan. 1, 2020, and Dec. 31, 2022. Phantom Hills Water System records indicate that is not located within one mile of a potential or known dioxin site and therefore is not required to sample for dioxin (2,3,7,8-tetrachlorodibenzo-p-dioxin or 2,3,7,8-TCDD).

In May 2020, Phantom Hills Water System collected the water samples for the above contaminates including Asbestos. In which, all analytical results cameback as non-detect. In accordance with our monitoring schedule the next state-wide waiver monitoring will be conducted in 2029.

Additional Information

For additional information on Coronavirus in drinking water, Perfluorinated Compounds (PFAS), Lead or Household Water Quality. Please visit our web page at https://www.ci.missoula.mt.us/2242/Water-Quality.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report.

The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Primary Standards	Violation	Sample Date	Your Water's Detection Level	MCL	MCLG	Typical Source
Distribution System						
(There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants)						
Chlorine (as Cl2) (ppm)	No	2023	0.285	4	4	Water additive used to control microbes
Total Coliform % positive samples	No	2023	0	TT	NA	Naturally present in the environment
TTHMs [Total Trihalomethanes] (ppb)	No	2023	1.8	80	NS	By-product of drinking water disinfection
HAA5 [Haloacetic Acids] (ppb)	No	2023	.56	60	NS	By-product of drinking water disinfection
Inorganic Chemicals						
Arsenic (ppb)	No	2022	0.0	10	0	Erosion of natural deposits: historical mining and smelting
Barium (ppm)	No	2022	0.57	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	No	2022	0.0	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	No	2023	1.69	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Primary Standards	**Violation**	**Sample Date**	**Your Water's Detection Level**	**MCL**	**MCLG**	**Typical Source**
Radionuclides						
Alpha emitters (pCi/L)	No	2022	-3	15	0	Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	No	2022	0.5	5	0	Erosion of natural deposits
Uranium (mg/L)	No	2022	0.0013	0.03	0	Erosion of natural deposits

Lead and Copper Monitoring Rule
(Tap water samples were collected for lead and copper from sites throughout the community)

Metals	Violation	Amount Detected at 90th Percentile	Sample Date	Number of Samples collected	Action Level	Typical Source
Lead (ppb)	No	2	2021	5	15	Corrosion of household plumbing systems; erosion of natural deposits; discharge from industrial manufactures
Copper (ppm)	No	0.077	2021	5	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Unit Descriptions

Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required but recommended.
NS	NS: no standard

Important Drinking Water Definitions

Term	Definition
MCLG	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.
MCL	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection 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.
MRDL	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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

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