2021 Water Quality Report for Penny Lake Estates

This report covers the drinking water quality for Penny Lake Estates for the calendar year 2021. This information is a snapshot of the quality of the water that we provided to you in 2021. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

Your water comes from two groundwater wells located 291' deep, drawing from the Duncan Aquifer. The State performed an assessment of our source water in 2003 to determine the susceptibility or relative potential of contamination. The susceptibility rating is or a six-tiered scale from "very-low" to "very-high" based primarily on geologic sensitivity, water chemistry and contaminate sources. The susceptibility of our source is moderately low. For more info about your source water, contact info is at the end of the report

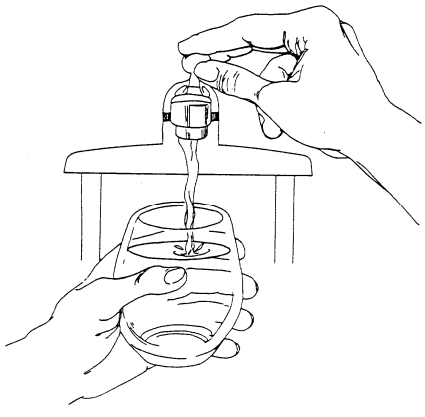
- **Contaminants and their presence in water:** Drinking Water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA'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. Immune-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 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, 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 and residential uses.
  - ✳ **Radioactive contaminants**, which are naturally occurring or be the result of oil and gas production and mining activities.
  - ✳ **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.

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. 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 2021 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 – December 31, 2021 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 of 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.
- N/A: Not applicable ND: not detectable at testing limit ppb: parts per billion or micrograms per liter ppm: parts per million or milligrams per liter pCi/l: picocuries per liter (a measure of radioactivity).
- Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Regulated Contaminant	MCL	MCLG	Level Detected	Range of Detections	Sample Date	Violation Yes / No	Typical Source of Contaminant		
Arsenic (mg/L)	0.01	N/A	0.0062	N/A	2020	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes		
Barium (mg/L)	2	2	0.28	N/A	2020	No	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits		
Fluoride (ppm)	4	4	N/D	N/A	2020	No	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.		
Combined radium **226&228 pCi/L	5pCi/L	0	N/D	+/- 0.17	2019	No	Erosion of natural deposits		

Special Monitoring and Unregulated Contaminant **	Level Detected	Sample Date			Typical Source of Contaminant
Sodium (mg/L)	7mg/L	2017			Erosion of natural deposits

Contaminant Subject to AL	Action Level	MCLG	90% of Samples ≤ This Level	Sample Date	Range of Results	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15 ppb	0	3 ppb	2021	0 ppb / 5 ppb	0	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3 ppm	0	0.3 ppm	2021	0.1 ppm / .03 ppm	0.0	Corrosion of household plumbing systems; Erosion of natural deposits

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. Penny Lake Estates 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 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.

**Some people who drink water containing radium 228 or 228in excess of the MCL over many years may have increased risk of getting cancer.

* While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
** Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

Regulated Contaminant	**TT**	**MCLG or MRDL**	**Level detected**	**Range**	**Year Sampled**	**Violation** Yes/No	**Typical source of contaminant**
Total Coliform (total number or % of positive samples/month)	TT	N/A	N/A	N/A	2021	No	Naturally present in the environment
E. coli in the distribution system (positive samples)	See E. coli note[1]	0	0	N/A	2021	No	Human and animal fecal waste
Fecal Indicator – E. coli at the source (positive samples)	TT	N/A	0	N/A	2021	No	Human and animal fecal waste

[1] *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*.

Monitoring and Reporting Requirements:

The State and EPA require us to test our water on a regular basis to ensure its safety. The Village met all monitoring requirements for 2021.

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 the Village Office. This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality. The monthly council meetings are on the second Wednesday of the month. For more information about your water, or the contents of this report, contact Mr. Andrew Stone, Water Systems Operator at 248-624-1710. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.