

2021 WATER QUALITY REPORT

WATER QUALITY DATA TABLE

Detected Compounds	MCLG	MCL	Highest Level	Range of Detection	Typical Sources	Sample Date
INORGANIC CONTAMINANTS						
Fluoride (ppm)	4	4	3.24	ND - 3.24	Naturally present in the environment. We do not add fluoride to the drinking water. Fluoride was found in the Central, Knolls Vista, Montlake, and Wheeler zones within allowable levels	2021
Nitrate (ppm)	10	10	5.10	ND - 5.10	Naturally present in the environment. Nitrate was detected in the Lakeview, Wheeler, and Larson zones within allowable levels.	2021
Trichloroethylene	0.5	5.0	3.11	ND - 3.11	An industrial solvent	2021
Coliform Bacteria	Each month we take 25 or more bacteriological samples to check for bacteria in the water. All samples were satisfactory, meaning no bacteria in the water for 2021.					

In 2019 the City Water Division participated with the Environmental Protection Agency in sampling our wells for Unregulated Contaminants. This program occurs every three years. The EPA determines what tests to run to ensure water is safe to drink. We drew samples for approximately 10 different analysis categories in 14 of our 19 wells. No chemicals or contaminants were detected in the samples for 2021.

UNIT DESCRIPTIONS

mg/L: number of milligrams of substance in one liter of water
 ppm: parts per million, or milligrams per liter
 ppb: parts per billion, or micrograms per liter
 N/A: not applicable
 ND: not detected
 gpg: grain per gallon

IMPORTANT DRINKING WATER DEFINITIONS

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: Maximum Contaminant Level: this highest level of a contaminant that is allowed in drinking water. MCLs are set as close as feasible using the best available treatment technology.
 N/A: Not Applicable
 ppm: parts per million, or milligrams per liter (mg/L). The equivalent of one second in 12 days.
 ppb: parts per billion, or micrograms per liter (ug/L). The equivalent of one second in 32 years.

LEAD & COPPER

Samples were taken from 31 homes within the distribution system.

Contaminant	Year of Testing	Measure	90th Percentile	# of Sites Exceeding Action Level	Action Level	Common Sources of Substance
Lead	2020	ppb	.233	0	15 ppb	Corrosion of household plumbing systems; erosion of natural deposits
Copper	2020	ppm	0.0447	0	1.3 ppm	

90th Percentile Value: 90% of the samples were at or below this value. EPA considers the 90th percentile value the same as an average value for other contaminants. Lead and copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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 Moses Lake Water Division 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 (800-426-4791)** or at www.epa.gov/safewater/lead.



WAIVERS

The State Department of Health automatically grants sampling waivers for many of our sources. The City of Moses Lake Water Division takes samples from the wells in accordance with EPA and Washington State Department of Health, Office of Drinking Water regulations.

pH Levels range from 8.0 to 8.5



HEALTH INFORMATION

PROVIDED BY THE EPA

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)**.

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/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)**.

YOUR DRINKING WATER

This report is provided to you to help you make informed decisions about the water you drink and to encourage you to get involved in protecting and improving your drinking water resource. The report tells you the source of the water we provide, the quality of the water, and who makes the management decisions. The report is required by the Federal Clean Water Act, which refers to it as the Consumer Confidence Report. As the water system's certified operator, I encourage you to call us with any concerns you have. Our goal is to provide you with fast, friendly, helpful, and efficient service.

Chad Strevy

Water Services Manager / 509.764.3948

IMPORTANT INFORMATION

This is very important information regarding the City of Moses Lake public potable (drinking) water system. You may wish to have this information translated.

Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.

В этом сообщении содержится важная информация о воде, которую вы пьёте. Попросите кого-нибудь перевести для вас это сообщение или поговорите с человеком, который понимает его содержание.

このレポートには飲料水に関する重要な情報が記載されています。この英文を訳してもらるか、またはどなたか英語が分かる方にたずねてください。

WATER SOURCE

All but one of our 19 wells draw water from confined aquifers in basalt rock over 205 feet below the ground surface. Well 29, is in an industrial zone, is 135 feet deep, and draws from an alluvial aquifer that is composed of flood deposits. The City of Moses Lake wells have a pumping capacity of approximately 30 million gallons of water per day.

DRINKING WATER INFORMATION

The city installs check valves at the meter on most services. Consumers should be aware that the installation of a check valve results in a closed plumbing system within the premises. Provisions may have to be made by the owner to provide for thermal expansion within the closed system, such as the installation of an approved thermal expansion device.

WATER USE EFFICIENCY

In 2003 the State Legislature passed the Municipal Water Law, which directed the Department of Health (DOH) to adopt a rule that establishes Water Use Efficiency (WUE) requirements for all municipal water suppliers. Several components are included, including auditing for leakage, setting WUE goals, and submitting annual reports to the State DOH.

In June 2010, the City Council set a goal to reduce the average residential water usage by 2% before 2015. This goal focuses on customer water use and water savings. All users are encouraged to conserve water in their daily lives. In February 2016, the City Council reset the goal to continue to reduce the average annual consumption per residential connection by 2% by 2022.

In 2020, the City Council reviewed and approved recommendations in a water rate study carried out by the FCS Group. That study recommended a new use-base cost of service. City staff will carry out a process in 2021 to review the new use-based cost of service for implementation in 2022.

WATER STEWARDSHIP

We completed five days of leak detection in a portion of the city in 2021. We will continue to look for and eliminate leaks in our system. The Department of Health goal for unauthorized use is 10 percent or below. Our system had an 8.8 percent unauthorized use of water in 2021, which gives us a three year average of 7.6 percent. We encourage our customers to use water efficiently during their daily routines.

WATER CONSERVATION

In 2018, the City of Moses Lake implemented water conservation throughout the city water distribution area beginning June 1st through September 30th. The City will continue this program each year. Addresses with **ODD** numbers shall be allowed to irrigate on odd numbered days. Addresses with **EVEN** numbers shall be allowed to irrigate on even numbered days.

Any property with irrigation meters two inches (2") and larger will be restricted to irrigate from midnight to 8:00 a.m. or on a schedule approved by the Municipal Services Director.

Authority: Municipal code 13.07.010 Water Rationing (Ord. 2737, 11/11/14)

THERMAL EXPANSION

The city installs check valves at the meter on most services. Consumers should be aware that the installation of a check valve results in a closed plumbing system within the premises. Provisions may have to be made by the owner to provide for thermal expansion within the closed system, such as the installation of an approved thermal expansion device.

CONTAMINANT INFORMATION

Provided by the Environmental Protection Agency (EPA) 40 CFR Part 141

The sources of 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 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 occur naturally or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

PESTICIDES & HERBICIDES which may come from various sources such as agriculture, urban storm water runoff, and residential uses.

ORGANIC CHEMICAL CONTAMINANTS including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. They can also come from gas stations, urban storm water runoff, and septic systems.

RADIOACTIVE CONTAMINANTS which can occur naturally or result from oil and gas production and mining activities.

WATER CONSERVATION IDEAS TO HELP YOU SAVE WATER IN YOUR YARD, LAWN, OR GARDEN:

- 1 Water lawns during the early morning when temperatures and wind speed are the lowest.
- 2 Use sprinklers that throw big drops of water close to the ground.
- 3 Use a water timer on hose-end sprinklers to avoid over-watering.
- 4 Use mulch to retain moisture in the soil. Mulch also helps reduce soil compaction from raindrops and helps control weeds that compete with landscape plants for water.
- 5 Wash your vehicles on your lawn.



PUBLIC CITY COUNCIL MEETINGS

The public potable water system is owned and operated by the City of Moses Lake. Its direction is provided by the City Council through the City Manager. The City Council meets on the second and fourth Tuesday each month, at 6:00 p.m. in the Council Chambers in the Civic Center located at 401 S. Balsam. The public is encouraged to attend. Information for citizens to join remotely can be found on the posted agenda online www.cityofml.com.

CONTACT PHONE NUMBERS

Water Division	509-764-3951
Building Department	509-764-3756
City Manager	509-764-3701
Water Billing Office	509-764-3715
After Hours Water Emergencies	509-762-1160
Grant County Building Department	509-754-2011
WA State Department of Health	509-329-2100
US EPA Safe Drinking Water Hotline	800-426-4791
EPA's Website	www.epa.gov/safewater
City of Moses Lake Website	www.cityofml.com



WATER SERVICE ZONES & HARDNESS

The City of Moses Lake Water system is divided into **6 service zones**. The water in each zone is comprised of a combination of the wells in the zone. Hardness levels are listed by wells.

CENTRAL ZONE: *Downtown, Peninsula & Westlake Areas* Wells 4, 7, 10, 19 & 31 » 16-117 ppm (1-7 gpg)

KNOLLS VISTA ZONE: *Knolls Vista Area* Wells 3, 9, 14 & 33 » 54-90 ppm (3-5 gpg)

LAKEVIEW ZONE: *Lakeview Terrace Area* Wells 11 & 12 » 208 ppm (1-12 gpg)

LARSON ZONE: *Grant County Airport* Wells 21, 23, 24, 28 & 29 » 58-193 ppm (3-11 gpg)

MONTLAKE ZONE: *Below Division Street* Well 8 » 169 ppm (10 gpg)

WHEELER ZONE: *Wheeler Corridor* Wells 17 & 18 » 16-166 ppm (1-10 gpg)

WATER HARDNESS RATING

Hardness in ppm

0 – 60	Soft
61 – 120	Moderately Hard
121 – 180	Hard
181 – Up	Very Hard

FLUORIDE

Secondary Maximum Contaminant Level Exceeded

The City of Moses Lake Water System, I.D. 56300X, located in Grant County recently violated the Secondary Maximum Contaminant Level (SMCL) of 2 mg/L for fluoride in drinking water. Fluoride contamination is rarely due to human activity. Fluoride occurs naturally in some areas and is found in high concentrations in the aquifer of our source water. Although our fluoride concentrations are not an emergency, the following is a summary of our fluoride levels.

The sample collected at Well 14 had a fluoride concentration of 3.24 mg/L. The sample collected at Well 8 had a fluoride concentration of 1.51 mg/L. The sample collected at Well 7 had a fluoride concentration of 1.51 mg/L.

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by the City of Moses Lake has a natural fluoride concentration between no detection and 3.36 mg/L. Fluoride is not added to City water. All results over 2.00 mg/L are listed above.

Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/L of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/L because of this cosmetic dental problem.

Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

At this time no action is required by the water users. We are continuing to monitor fluoride levels. We will inform you if they exceed the limit of 4 mg/L. For more information, please call the Water Division at 509-764-3951. This notice is being sent to you by the City of Moses Lake Water Division, in the Water Quality Report, being mailed in June or July 2022.