

The City of Pateros is pleased to present this annual report as required by the federal Safe Drinking Water Act and the State of Washington. We are committed to providing clean, safe drinking water to our customers by meeting or exceeding all quality standards. We encourage you to stay informed on the quality of your drinking water by reading this report.

Our Drinking Water

The City has two active wells, Well #3 (BKG069) at 101 Edna Street and Well #4 at 159 Pateros Mall.

These wells are relatively deep, and the water meets all state and federal standards. Chlorine is used for disinfection. Residual chlorine levels in the distribution system are checked daily and are kept at effective and safe levels determined by EPA. We also test for contaminants, and if any test exceeds maximum contaminant levels set by the EPA, the appropriate public notification would be issued.

Important Health Information

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 (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 see 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 (1-800-426-4791).

City of Pateros 2022 Annual Consumer Confidence Report

FOR MORE INFORMATION ON
THIS REPORT CONTACT:

Pateros Water Department

Public Water System #
66450

Jord Wilson, Pateros City
Administrator, Public Work
Supervisor (509) 923-5271
Washington Department of
Health (509) 456-3115

EPA Website:

www.epa.gov/safewater
EPA Hotline: (800) 426-4791

Public Participation

Residents with questions or
input on water issues may
attend City Council
meetings on the third
Monday of each month at
6:00 PM at City Hall. The
agenda is posted at the
City website at
www.pateros.com

En Español

Este informe contiene
información importante
sobre la calidad de su
agua potable. Debe ser
traducido por alguien que
habla bien Inglés. Si tiene
alguna pregunta acerca
de este informe puede
comunicarse con el
Department de Obras
Publicas en Pateros (509)
923-2571 durante las horas
normales de oficina.

The Effects of Lead in Drinking Water

In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing. The more time water has been sitting in pipes, the more dissolved metals, such as lead, it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children.

To help reduce potential exposure to lead: for any drinking water tap that has not been used for 6 hours or more, flush water through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes, or general cleaning. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water is available from the EPA's Safe Drinking Water Hotline at 1-800-426-4791 or <http://www.epa.gov/safewater/lead>.

*THE CITY OF PATEROS HAD NO
MONITORING OR REPORTING
VIOLATIONS IN 2021*

SOURCE WATER PROTECTION PLAN

PROTECT OUR DRINKING WATER!

Hazardous materials put onto the ground have the potential of contaminating our drinking water supply. Any unwanted or unused household hazardous materials can be disposed of free of charge at the Okanogan County Central Landfill. Contact: (509) 422-2602 for more information regarding when and what is accepted.

*The City Source Water Protection Plan is available at
City Hall.*

DEFINITIONS

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

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 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 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

n/a: Not Applicable

Not Detected (ND): Lab analysis indicates that the contaminant is not present or not detectable with the best available technology.

ppb: Parts per billion, or micrograms per liter.

ppm: Parts per million, or milligrams per liter.

Range: The lowest (minimum) amount of contaminant detected and the highest (maximum) amount detected during a sample period.

LT SDRL: Less than State Detection Reporting Limit

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Cross Connection Control

Cross connections are links between drinking water piping and any plumbing or equipment through which it may be possible for used water or other substances to enter (or backflow) into the public water supply. Our Cross Connection Control Program helps control backflow and cross connections by identifying and eliminating unsafe situations or practices; however, a large part of the success of the program depends on the cooperation of our city's property owners.

Each individual property owner is responsible for maintaining their plumbing system according to the plumbing code and state regulations. This includes preventing or eliminating cross connections. If you have a lawn irrigation system fertilizer hose attachment or any other type of water-using equipment, you have a cross connection and should be taking measures to prevent backflow. Many of these household cross connections require the installation of mechanical units called backflow prevention assemblies. These units, when properly installed, tested and maintained, prevent used water or substances from flowing backward.

If you have question about the cross connections, or plan on installing a backflow prevention assembly on your property, you are encouraged to contact Pateros City Hall at (509) 923-2571

MANGANESE LEVELS IN CITY WATER

Manganese levels in City water remains low. Since February of 2021, the City has primarily used water from Pump Station #3. Sixteen manganese samples have been taken at Pump Station #3 since 2019. The average manganese level is 0.0011 well below the State Secondary Contaminant Level of 0.5.

The City has received a grant from USDA Rural Development to investigate the manganese issue at Pump Station #4, and the project is ongoing through 2022.

City water is tested for many contaminants including:

Microbial contaminants, such as viruses, parasites, and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife.

Inorganic contaminants, such as salts and metals, which can occur or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.

Pesticide and herbicides, which may come from various 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. They can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants, which can occur naturally or result from oil and gas production and mining activities.

CONTAMINANT (UNITS)	YOUR WATER			Allowable Limits		SAMPLE YEAR	VIOLATION	TYPICAL SOURCE
	Highest Detected Level	RANGE		MCL	MCLG			
		Low	High					
REGULATED CONTAMINANTS EPA/DOH								
Microbiological Contaminants - (Number of positive samples from the distribution system)								
Total Coliform Bacteria	0			TT	0	2021	No	Naturally present in the environment
Fecal Coliform & E. coli	0			0	0	2021	No	Human and animal fecal waste
Turbidity - (Samples from groundwater sources)								
Turbidity (NTU) *	0.64	0.12	0.64	TT	N/A	2020	No	Soil runoff
* Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.								
Sodium - (Samples from groundwater sources)								
Sodium (ppm)	31.8	20.8	31.8			2020	No	Soil runoff
Radionuclides - (Samples from groundwater sources)								
Combined Radium 226 & 228 (pCi/L)	1			5	0	2020	No	Erosion of natural deposits
Gross Alpha (pCi/l)	9.84	4.3	9.84	3	0	2020	No	
Inorganic Contaminants - (Samples from groundwater sources)								
Arsenic (ppb)	1.3	0.6	1.3	10	0	2020	No	Erosion of natural deposits
Barium (ppm)	0.1259	0.1164	0.1259	2	2	2020	No	
Copper (ppm)	0.0383	0.0015	0.0383	1.3	1.3	2017	No	
Flouride	0.55	0.21	0.55	4	4	2017	No	
Mercury (ppb)	0.2			2	2	2020	No	
Nitrate (ppm)	5.58	0.67	5.58	10	10	2020	No	Runoff from fertilizer use; Erosion of natural deposits
Total Nitrate/Nitrite	5.58	3.44	5.58	10		2020	No	Erosion of natural deposits
Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.								
Lead and Copper - (Samples from resident taps) (90th percentile: Out of every 10 homes sampled, 9 were at or below this level. AL: Action Level)								
	90th Percentile			AL				
Copper (ppm)	0.0426			1.3	1.3	2019	No	Corrosion of household plumbing systems
Lead (ppb)	0.00088			15	0	2019	No	
Disinfection Byproducts (DBPs) - Samples from the Distribution System								
Chlorine (ppm)	0.30 Annual Daily Average	Daily Target Level is 0.2 - 1.5		MRDL = 4 ppm; MRDLG = 4 ppm		2021	No	Water additive used to control microbes
*Residual chlorine levels are read and recorded daily in the morning. When levels drop below 0.20, adjustment is immediately made so that chlorine levels return to ≥ 0.20 within the same day.								
Total Trihalomethane (ppm)	3.32			80.4		2021	No	Naturally present in the environment

CONTAMINANT (UNITS)	YOUR WATER			Allowable Limits		SAMPLE YEAR	VIOLATION	TYPICAL SOURCE
	Highest Detected Level	RANGE		MCL	MCLG			
		Low	High					
Synthetic Organic Contaminants including Pesticides and Herbicides (measured in ug/L or ppb Parts per billion)								
2,4 DB (ppb)	1	1	1			2019	No	Synthetic Organic Contaminants come from many sources. Most are probably associated with past use of pesticide and herbicide use in the surrounding farming and orchard industry.
2,4,5 T (ppb)	0.4					2019	No	
2,4,5 TP (Silvex) (ppb)	0.2	0.2	0.2	50		2019	No	
2,4-D (ppb)	0.1	0.1	0.1	70		2019	No	
3,5 Dichlorbenzoic Acid (ppb)	0.5	0.5	0.5			2019	No	
4-Nitrophenol (ppb)	0.5					2017	No	
Acifluorfen (ppb)	2	2	2			2019	No	
Alachlor (ppb)	0.4	0.2	0.4	2		2019		
Aldicarb (ppb)	0.5	0.5	0.5			2017	No	
Aldicarb Sulfoxide (ppb)	0.5	0.5	0.5			2017	No	
Aldrin	0.1					2019	No	
Arochlor 1221 (ppb)	100	20	100			2019	No	
Arochlor 1232 (ppb)	2.5	0.5	2.5			2019	No	
Arochlor 1242 (ppb)	1.5	0.3	1.5			2019	No	
Arochlor 1248	0.1					2019	No	
Atrazine (ppb)	0.5	0.1	0.5	3		2019	No	
Bentazon (ppb)	0.5					2019	No	
Benzo (A) Pyrene (ppb)	0.04	0.02	0.04	0.2		2019	No	
Butachlor (ppb)	0.4	0.1	0.4			2019	No	
Carbaryl (ppb)	2	2	2			2017	No	
Carbofuran (ppb)	0.9	0.9	0.9	40		2017	No	
Chloramben (ppb)	2					2017	No	
Chlordane (Total) (ppb)	0.4	0.2	0.4	2		2019	No	
Dalapon (ppb)	1	1	1	200		2019	No	
DCPA Acid Metabolites (ppb)	1	0.1	1			2019	No	
Di (Ethylhexyl) Adipate (ppb)	1.3	0.6	1.3	400		2019	No	
Di (Ethylhexyl) Phthalate (ppb)	1.3	0.6	1.3	6		2019	No	
Dicamba (ppb)	0.2	0.2	0.2			2019	No	
Dichloroprop (ppb)	0.5					2019	No	
Dieldrin	0.1	0.1	0.1			2019	No	
Dinoseb (ppb)	0.2	0.2	0.2	7		2019	No	
Endrin (ppb)	0.05	0.01	0.05	2		2019	No	
Heptachlor (ppb)	0.09	0.04	0.09	0.4		2019	No	

CONTAMINANT (UNITS)	YOUR WATER			Allowable Limits		SAMPLE YEAR	VIOLATION	TYPICAL SOURCE
	Highest Detected Level	RANGE		MCL	MCLG			
		Low	High					
Synthetic Organic Contaminants including Pesticides and Herbicides (measured in ug/L or ppb Parts per billion)								
Heptachlor Epoxide (ppb)	0.1	0.02	0.1	0.2		2019	No	Synthetic Organic Contaminants come from many sources. Most are probably associated with past use of pesticide and herbicide use in the surrounding farming and orchard industry
Hexachlorobenzene (ppb)	0.5	.		1		2019	No	
Hexachlorocyclo Pentadiene (ppb)	0.5	0.1	0.5	50		2019	No	
Lindane (BHC - Gamma) (ppb)	0.04	0.02	0.04	0.2		2019	No	
Methomyl (ppb)	4	4	4			2017	No	
Methoxychlor (ppb)	10	0.1	10	40		2019	No	
Metolachlor (ppb)	1	0.1	1			2019	No	
Metribuzin (ppb)	0.2	0.1	0.2	0.1		2019	No	
Oxamyl (ppb)	2	2	2	200		2017	No	
PCB (as total arochlors) (ppb)	0.5			0.5		2017	No	
Pentachlorophenol (ppb)	0.04	0.04	0.04	1		2019	No	
Picloram (ppb)	0.1	0.1	0.1	500		2019	No	
Propachlor (ppb)	0.1	0.1	0.1			2019	No	
Simazine (ppb)	0.15	0.07	0.15	4		2019	No	
Toxaphene (ppb)	2	1	2	3		2019	No	

CONTAMINANT (UNITS)	YOUR WATER			Allowable Limits		SAMPLE YEAR	VIOLATION	TYPICAL SOURCE
	Highest Detected Level	RANGE		MCL	MCLG			
		Low	High					
UNREGULATED & SECONDARY CONTAMINANTS								
Unregulated contaminants - (Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose unregulated contaminant monitoring is to help EPA determine their occurrence in drinking water and potential need for future regulation.)								
Magnesium (ppm)	19.15	18.2	19.15			2020	No	
Hardness (ppm)	322	294	322			2020	No	
Calcium	87.9	80.5	87.9			2020	No	
Secondary Contaminants (Secondary Maximum Contaminant Level [SMCL]: these standards are developed to protect the aesthetic qualities of drinking water and are not health based.)								
				SMCL				
Manganese	0.2176	0.0001	0.2176	0.05		2021	Yes	
<i>Children and adults who drink water with high levels of manganese for a long time may have problems with memory, attention, and motor skills. Infants (babies under one year old) may develop learning and behavior problems if they drink water with too much manganese in it.</i>								
Conductivity (Umhos/cm)	706	69	706	700		2020	Yes	
<i>Water with high conductivity can have an unpleasant taste and odor and cause mineral deposits on plumbing fixtures.</i>								
Chloride (ppm)	20.6	7.2	20.6	250		2020	No	
Sulfate (ppm)	133	63.2	133	250		2020	No	
Copper (ppm)	0.0383	0.0015	0.0383	1		2020	No	
Total Dissolved Solids (TDS) (ppm)	490	418	490	500		2020	No	