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 have remained 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 of Pateros has two wells in use located near the intersection of Dawson and US97, Well #1 – AGJ116 and Well #2 – AGJ117. 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 on a daily basis effective while remaining at the safe levels determined by the EPA. We also test for several different contaminants each year. In the event that any test exceeded the maximum contaminant levels set by the EPA, the appropriate public notification would be issued immediately.

2017 Water System Improvements

The City Water System Improvement project is moving forward. On May 23, 2017, after a public information meeting with the City engineering firm, Varela & Associates, Pateros City Council approved the reservoir and well designs. The project will be advertised for bids in June, and construction should begin as early as July.

The City will construct a 500,000-gallon re-enforced concrete reservoir near the cemetery. This will be an increase in water storage by 200,000-gallons. It is possible that the reservoir will be on-line by Thanksgiving, if not, early spring of 2018.

The City plans to drill two wells, with an option to drill a third well. The well sites have been chosen, and are near the recycle center on Industrial Way and at Pearl and Edna Streets.

After the wells are tested, a pumping station will be designed. In the Winter of 2017-2018 the engineers will work on final design of the pump station, additional fire hydrants, improvements to the distribution system. Final construction would begin in spring of 2018.

SOURCE WATER PROTECTION PLAN

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

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 OF PATEROS HAD NO MONITORING OR REPORTING VIOLATIONS IN 2016

City of Pateros

2016 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 informacion importante sobre la calidad de su aqua potable. Debe ser traducido por alguien que habla bien Ingles. Si tiene alguna pregunta acerca de este informe puede communicarse 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 online at http://www.epa.gov/safewater/lead.

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 you property, you are encouraged to contact Pateros City Hall at (509) 923-2571

Lead and copper monitoring results in City of Pateros for 2016

Lead and Copper standard test is required every 3 years. Next test is scheduled for September of 2019

Lead and Copper 90th percentile: Out of every 10 homes sampled, 9 were at or below this level.

Parameter and Units	MCLG	Action Level	2016 Results 90th Percentile	Major Sources in Drinking Water
Copper (ppm)	1.3	1.3	0.154	Corrosion of household plumbing systems; erosion of natural deposits.
Lead (ppb)	0	15	0.0017	Corrosion of household plumbing systems; erosion of natural deposits.

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).

Quality Data Table for 2016

CONTAMINANTS (UNITS)	EPA's Allowable Limits		YOUR WATER	SAMPLE YEAR*	VIOLATION	TYPICAL SOURCE
	MCLG	MCL				
Inorganic Contaminants						
Antimony (ppb)	6	6	5	2011	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	0	10	2	2011	No	Erosion of natural deposits; Runoff from orchards; runoff from glass and electronics production wastes
Asbestos	0	7	0.119	2015	No	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	2	2	0.114	2011	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Cadmium (ppb)	5	5	0.3	2011	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chromium (ppb)	100	100	4.7	2011	No	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	200	200	10	2011	No	Discharge from Steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	4	4	0.19	2011	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Mercury (ppb)	2	2	0.3	2011	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nitrate (ppm)	10	10	2.9	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	1	1	<0.07	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radium (pCi/L)	n/a	n/a	ND	2013	No	
Selenium (ppb)	50	50	5	2011	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Thallium (ppb)	0.5	2	1	2011	No	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories

TERMS AND ABBREVIATIONS

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.

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

In search for better quality water

In May of 2015, the City completed its *Groundwater Investigation.* The purpose of the study was to (1) evaluate the potential for drilling a groundwater test well south of town in the Starr Road area. (2) Install a test well near the existing wells to see if the high manganese levels are well based or aquifer based, and (3) provide a recommended implementation plan.

The study found that drilling south of town would most likely not provide the City with the high producing wells it requires, even if the water was free of manganese. The study reviewed existing well logs and geological formations and found the most likely place for high producing municipal quality wells to be in the downtown area. The City did drill a monitoring well near the recycle area and found the water quality to be good. There was manganese in the monitoring well, but it is lower than existing wells. The test done in the monitoring well is a small snapshot of the much larger water source, and a 24-hour pump test on the new wells will give additional information.

It is the goal of the City to reduce manganese levels in the system, even though not a lot is known about what increases manganese levels in wells. Theories include old wells designed with high degrees of turbulence; groundwater influenced by surface water; and bacteria activity similar to rust bacteria found in other parts of the country. We will not know the levels of manganese and how easy it will be to treat until after pump testing is complete, and even then, it sometimes takes a year or longer for contaminants to show up in a well source. We will continue to seek better quality of water for the City of Pateros.

*Testing Frequency

The water quality information presented in the tables is from the most recent round of testing done according to the regulations. All data shown were collected during the last calendar year unless otherwise noted in the following table.

The Washington State Department of Health reduced the monitoring requirements for the following test groups because the source is not at risk of contamination. The last sample collected for these contaminants is shown below and was found to meet all applicable standards.

Waived Tests Groups	Last Sample	Next Sample Date
Complete Inorganic (IOC)	06/16/2011	2020
Herbicides	04/19/2012	April 2021
Soil Fumigants	None	2017
Manganese		Oct 2019
Gross Alpha	04/07/2010	May 2017
Radium 228	08/21/2013	May 2017

CONTAMINANTS (UNITS)	EPA's Allowable Limits		YOUR WATER	SAMPLE YEAR	VIOLATION	TYPICAL SOURCE
	MCLG	MCL				
Disinfection Residuals – Monitoring in the Distribution System						
	Health Goal MRDLG	MRDL/ MCL	Levels/ Range	Tested		
Total Chlorine Residual	<.1	4	.1-.5	Daily	No	Water additive used to control microbes
Disinfection By-Products						
Total Trihalomethane (TTHM)	n/a	80	3.4	2016	No	By-product of drinking water disinfection
Halo-Acetic Acids (HAA's)	n/a	60	1.0	2016	No	By-product of drinking water disinfection
Turbidity – Not Regulated						
Turbidity	n/a	n/a	0.16			
Volatile Organic Chemicals (VOC's)						
Total Trihalomethanes	n/a	80	0.8	2016		
44 VOC's tested	No Detection			2016		
Synthetic Organic Chemicals (SOC's) - General Pesticides						
31 SOC's tested	No Detection			2016		

Microbiological Contaminants – Monitored Monthly (22 coliform tests taken 2016)					
Contaminant	MCLG	MCL	Your Water	Sample Year	In Compliance
Total Coliform Bacteria	0	2 or more positive samples per monthly sampling period	No Positive Samples	2016	Yes
Fecal coliform and E.coli	0	A routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E.coli positive	No Positive Samples	2016	Yes