2017 WATER QUALITY REPORT

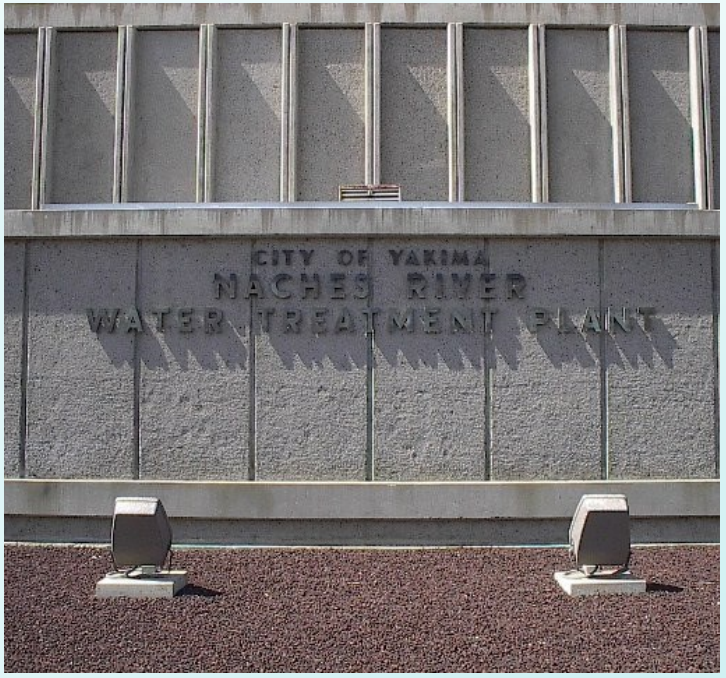
Inside this issue:

City Of Yakima
Water production for 2017

Naches River WTP	3.122 Billion
Airport Well	98 Million
Kissel Well	303 Million
Kiwanis Well	86 Million
Gardner Well	328 Million

Naches River Water Treatment Plant

The City of Yakima is once again pleased to present our annual report on water quality. In addition to the results of our major testing programs, we hope this pamphlet will inform you about your tap water and inspire confidence that the water we all rely on is of the highest quality possible. In pursuit of that goal the Water/Irrigation Division staff is committed to around-the-clock vigilance and service, and we are proud to announce that your tap water meets and exceeds all state and federal requirements.



WHERE YOUR WATER COMES FROM

The Naches River supplies most of Yakima's drinking water. Our diversion is located along Hwy 12 and supplies the Naches River Water Treatment Plant at Rowe Hill. After treatment, water flows by gravity along the highway into town. During times of heavy runoff or when the Plant requires downtime maintenance, we can draw upon our 4 wells. They are located at Kiwanis Park, Kissel Park, Gardner Park, and Yakima Airport. These wells draw from the Ellensburg Aquifer and are also tested regularly.

Every year we take hundreds of samples and analyze them for disinfection byproducts, synthetic and volatile organics, biological, radiological, and inorganic contaminants. The tables below show the most important and frequently requested results for 2017. If you have any questions about these tests or if you would like to know about a substance not listed here you can call the Water Quality Specialist at 509 -576-6477.

All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Microbial Contaminants

Each year 960 samples from the distribution system are collected and analyzed to comply with the Total Coliform Rule (TCR). Coliforms are environmentally ubiquitous bacteria that live in the ground. The presence of coliforms in the water may indicate a leak, a cross-connection, or other problems.

Name	Units	MCL	MCLG	Number detected	Range low/high	Violation?
Total Coliform	Sample	>5%	0	0	0—100%	No

Disinfection and Disinfection Byproducts

Disinfection Byproducts (DBP's) are formed when the chlorine added as a disinfectant combines with the naturally occurring organic matter (NOM) to form potentially harmful compounds. These compounds are divided into two main groups: Trihalomethanes (THM's) and Haloacetic Acids (HAA5's.)

Name	Units	MCL / MRDL	Range	2017 Average	Violation?
Chlorine	mg/L	4.0	0.0—1.52	0.86	No
TTHM's	ppb	80	9.4—60.8	27.9	No
HAA5's	ppb	60	15.6—44.3	20.8	No

Turbidity

Turbidity is a measure of the "cloudiness" of water. High turbidity can indicate poor water quality. Sources of turbidity are generally attributed to soil runoff caused by heavy rain or snowmelt.

Name	Units	MCL	2017 Average	Range low/high	Violation?
Turbidity	NTU	TT	0.03	0.01—0.06	No

Glossary for Tables

< = less than

MCL = Maximum Contaminant Level, the highest level of a contaminant allowed in drinking water.

MCLG = Maximum Contaminant Level Goal, the level of contaminant below which there is no known or expected health risk.

mg/L = milligrams per liter. Equal to ppm.

MRDL = Maximum Residual Disinfectant Level, the highest level of a disinfectant allowed in drinking water.

MRDLG = Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected health risk.

NTU = Nephelometric Turbidity Unit.

ppm = part per million

ppb = part per billion

TT = Treatment Technique, a required process intended to reduce the level of a contaminant.

Fluoride

Fluoride is added to drinking water to improve dental health. Fluoridation in Yakima began in 2004 after a referendum vote in 2001. For more information about water system fluoridation, please visit the DOH website: http://www.doh.wa.gov/Portals/1/Documents/Pubs/160-021_Fluoridate_Facts.pdf

Name	Units	MCL	MCLG	2017 Average	Range	Violation?
Fluoride	ppm	4.0	2.0	0.66	0.04—0.93	No

Primary Standards

National Primary Drinking Water Regulation primary standards are legally enforceable standards that apply to public water systems. There are more primary standards not included here because they were present in undetectable amounts.

Name	Units	MCL	MCLG	Amount detected	Violation?	Source
Arsenic	ppm	0.01	0	0.00013	No	Erosion of natural deposits, industrial waste.
Barium	ppm	2	2	0.00263	No	Erosion of natural deposits, industrial waste.
Chromium	ppm	0.1	0.1	0.00011	No	Erosion of natural deposits, industrial waste.
Nitrate	ppm	10	10	0.06	No	Erosion of natural deposits, fertilizer runoff, sewage, and faulty septic systems.
Nitrite	ppm	1	1	<0.05	No	Erosion of natural deposits, fertilizer runoff, sewage, and faulty septic systems.
Thallium	ppm	0.002	0.0005	0.00096	No	Industrial waste.

Secondary Standards

Secondary standards are non-enforceable guidelines regulating contaminants that may have cosmetic or aesthetic effects, such as taste, odor, or staining.

Name	Units	MCL	Amount detected	Name	Units	MCL	Amount Detected
Calcium	mg/L	—	8.78	Manganese	mg/L	0.05	0.00117
Chloride	mg/L	250	7.25	Turbidity	mg/L	—	<0.1
Color	units	15	<4	Silver	mg/L	0.1	<0.0001
Conductivity	µmhos/cm	700	91	Sodium	mg/L	—	6.16
Hardness	mg/L	—	30.2	Sulfate	mg/L	250	3.04
Iron	mg/L	0.3	0.0098	Total Dissolved Solids	mg/L	500	56.0
Magnesium	mg/L	—	2.01	Zinc	mg/L	5	0.00238

Questions, Comments, Concerns?

The City of Yakima welcomes your input! The City Council meets on the first and third Tuesday of each month at City Hall Council Chambers. You are encouraged to attend. If you would like to schedule a tour of the Naches River Water Treatment Plant, please call 575-6177. If you would like to talk about this report please call 576-6477.

Water and Health

Some people may be more vulnerable to certain chemical compounds and substances 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 and the Center for Disease Control 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)**.

About Lead in Drinking Water

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 Yakima 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 to lead 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 http://www2.epa.gov/lead

Lead and Copper Rule

Every three years the City of Yakima is required to analyze water samples from homes determined by the EPA to be most susceptible to lead and copper leaching from pipes and plumbing components. The City of Yakima is very pleased to present the 2015 results of all these analyses here, as it is the most recent data that we have. The element abbreviation for lead is Pb, and copper is Cu. All values are mg/L, or PPM. The Rule sets an Action Level (AL) for lead at 0.015 mg/L and 1.3 mg/L for copper. As you can see, all of these locations from throughout our service area show very low to essentially undetectable amounts of these harmful metals.

	Site 1	**Site 3**	**Site 4**	**Site 5**	**Site 7**	**Site 8**	**Site 9**
Pb	0.00014	0.0001	0.00115	0.0003	0.00064	0.00086	0.00036
Cu	0.024	0.0286	0.0532	0.0132	0.0382	0.0266	0.043
	Site 10	**Site 11**	**Site 17**	**Site 18**	**Site 19**	**Site 20**	**Site 22**
Pb	0.00072	0.00011	0.00013	0.00019	<0.0001	0.0005	0.00056
Cu	0.053	0.0652	0.0395	0.0309	0.0271	0.0459	0.0776
	Site 25	**Site 30**	**Site 31**	**Site 32**	**Site 35**	**Site 36**	**Site 38**
Pb	<0.0001	0.0002	0.00022	0.00067	0.00018	<0.0001	0.0001
Cu	0.01	0.0234	0.0322	0.04	0.0195	0.00399	0.00701
	Site 39	**Site 40**	**Site 41**	**Site 42**	**Site 43**	**Site 47**	**Site 49**
Pb	0.00356	<0.0001	0.00015	0.0008	0.00708	0.00032	0.00361
Cu	0.0348	0.0262	0.00782	0.0501	0.0484	0.086	0.0421
	Site 50	**Site 51**	**Site 53**	**Site 56**	**Site 57**	**Site 58**	**Site 59**
Pb	0.00291	0.00219	0.00033	0.00018	0.00062	<0.0001	<0.0001
Cu	0.0927	0.0514	0.0457	0.0263	0.06	0.0238	0.0165
	Site 60	**Site 61**	**Site 62**	**Site 65**	**Site 66**	**Site 68**	**Site 71**
Pb	<0.0001	0.00021	0.00011	0.00065	0.00016	<0.0001	0.00016
Cu	0.00783	0.0296	0.0271	0.036	0.00861	0.0205	0.055
	Site 72	**Site 73**	**Site 75**	**Site 76**	**Site 78**	**Site 80**	**Site 81**
Pb	0.00093	0.00131	0.00036	0.00182	0.00013	0.00016	0.00011
Cu	0.0677	0.0572	0.0994	0.0708	0.0622	0.04	0.0362
	Site 83	**Site 85**	**Site 87**	**Site 88**			
Pb	<0.0001	0.0004	0.00017	0.0007			
Cu	0.00271	0.038	0.0331	0.128			

A big THANK YOU! to all 53 residents that participated in 2015. We can't do it without you.