



# Water Quality Test Results

Contaminant	MCL	MCLG	Range of Amount Detected	Testing Frequency	Typical Source of Contamination
<b>Table #1 McAllister Springs (Surface Water Source) Before Chlorination (2013)</b>					
Cryptosporidium	N/A		Zero	Quarterly	Fecal
Giardia Lamblia	99% Removal				
Fecal Coliform Bacteria (# of bacteria per 100 milliliter of water)	90% of samples had fewer than 20 bacteria per 100 milliliters of water	Zero	0-14 Organisms	5 times per week	
<b>Table #2 Water Supply System (Tap Water) After Chlorination (2013)</b>					
Total Coliform Bacteria	95% of samples must have zero detections	Zero	Zero	70 times per month at a minimum	Naturally occurring in the environment
Chlorine residual (ppm)	4 ppm	4 ppm	0.24-1.72 ppm	Metered continuously	Disinfectant in the water treatment process
<b>Disinfection By-products</b>					
Haloacetic Acids (HAA5) (ppb)	60 ppb	Zero	<1.0 - 3.0 ppb	Quarterly	By-product of drinking water chlorination
Total Trihalomethanes (TTHM) (ppb)	80 ppb	Zero	<0.5 - 13.40 ppb		

Contaminant	MCL	City Water Amount Detected	Number of Sites Above the AL	Range of Amount Detected	Testing Frequency	Typical Source of Contamination
<b>Table #3 Lead &amp; Copper Results - Taken at Customer's Tap (2012)</b>						
Copper (ppm)	Action Level (AL) 1.3 ppm	90% of the homes <0.907 ppm	Zero out of 35 sampled	0.027-1.005 ppm	Every 3 years	Corrosion of household plumbing
Lead (ppb)	Action Level (AL) 15 ppb	90% of the homes <6 ppm		0 - 25 ppb		

Notes: Action Level for Copper - 90% of the homes tested must have levels less than 1.3 ppm detected. Action Level for Lead - 90% of the homes tested must have levels less than 15 ppb detected.



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Contaminant	McAllister Springs 2012	Allison Springs Well #13	Allison Springs Well #19	Shana Park Well #11	Kaiser Well #1	Hoffman Well #8	Indian Summer Well #20	Units	SRL	Trigger Level	MCL
<b>Table #4 Drinking Water Source Inorganic Test Results (2013)</b>											
Arsenic	0.001	<0.001	<0.001	<0.001	<0.001	<0.0001	<0.001	mg/L	0.001	0.01	0.01
Barium	0.003	0.002	0.0035	0.0024	0.004	0.013	0.005	mg/L	0.001	2	2
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/L	0.001	0.005	0.005
Chromium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/L	0.001	0.1	0.1
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	mg/L	0.0002	0.002	0.002
Selenium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0002	<0.002	mg/L	0.002	0.05	0.05
Beryllium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/L	0.001	0.004	0.004
Nickel	<0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/L	0.005	0.1	0.1
Antimony	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/L	0.001	0.006	0.006
Thallium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/L	0.001	0.002	0.002
Cyanide	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/L	0.01	0.2	0.2
Fluoride	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/L	0.2	2	4
Nitrite	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	mg/L	0.5	0.5	1
Nitrate	1.2	1.33	2.46	1.3	0.95	<0.5	2.37	mg/L	0.5	5	10
Nitrate + Nitrite<N	1.2	1.33	2.46	1.3	0.95	<0.5	2.37	mg/L	0.5	5	10
Iron	<0.1	<0.1	<0.1	<0.1	*0.65	*0.89	0.05	mg/L	0.1	0.3	0.3
Manganese	<0.001	<0.001	<0.001	<0.001	0.015	*0.143	0.003	mg/L	0.001	0.05	0.05
Silver	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/L	0.01	0.05	0.05
Chloride	4	5.3	6.9	5.3	4.2	3.3	6.7	mg/L	20	250	250
Sulfate	4.7	2.8	6.9	2.9	3.6	6.2	6.8	mg/L	10	250	250
Zinc	<0.005	<0.005	<0.005	<0.005	0.009	0.009	0.008	mg/L	0.005	5	5
Sodium	7.1	5.6	6.8	5.6	6.8	6.1	6.8	mg/L	5	n/a	n/a
Hardness as Calcium Carbonate	60.6	56.3	62.2	56.5	80.5	45.2	62.1	mg/L	10	n/a	n/a
Conductivity	151	133	155	133	178	120	155	uS/cm	10	700	700
Turbidity	0.44	0.15	0.11	0.14	1.97	1.64	0.57	NTU	0.01	1	1
Color	<5	<5	<5	<5	<5	15	<5	Color Unit	5	15	15
Lead	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/L	0.001	n/a	0.015
Copper	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	<0.005	mg/L	0.005	n/a	1.3

\*Note: Iron and Manganese are secondary contaminants. They can cause aesthetic issues and do not cause an increase in health risks.



# Water Quality Test Results

Compound	Results	Units	SRL
<b>Table #5 Third Unregulated Contaminant Monitoring Rule - UCMR3 (2013)</b>			
1,1 - Dichloroethane	<0.5	ppb	0.5
1,2,3 - Trichloropropane	<0.03	ppb	0.03
1,3 - Butadiene	<0.01	ppb	0.01
1,4 - Dioxane	<0.07	ppb	0.07
Bromochlormethane (halon 1011)	<0.06	ppb	0.06
Bromomethane	<0.2 - <0.5	ppb	0.05
Chlorate	<5 - <20	ppb	20
Chlorodibromomethane	<0.2 - <0.5	ppb	0.5
Chlorodifluoromethane (HCFC<22)	<0.08	ppb	0.08
Chromium	<0.001 - <0.43	ppb	0.001
Cobalt	<0.1	ppb	0.001
Hexavalent Chromium (Chromium<6)	<0.03 - 0.297	ppb	0.03
Molybdenum	<1	ppb	1
Perfluorobutanesulfonic acid (PFBS)	<0.9	ppb	0.9
Perfluoroheptanoic acid (PFHpA)	<0.1	ppb	0.1
Perfluorohexanesulfonic acid (PFHxS)	<0.3	ppb	0.3
Perfluorononanoic acid (PFNA)	<0.02	ppb	0.02
Perfluorooctanesulfonic acid (PFOS)	<0.04	ppb	0.04
Perfluorooctanoic acid (PFOA)	<0.02	ppb	0.02
Strontium	39.8 - 88	ppb	0.3
Vanadium	<0.2 - 2.05	ppb	0.2

Note: These are sample results reported from all sources and the distribution system. They are a low to high range.



# Water Quality Test Results

Water Source	pH Average	pH Range
<b>Table #6 pH - City of Olympia Water Sources (2014)</b>		
McAllister Springs	6.8	6.5 - 7.0
Shana Park	7.7	7.6 - 7.9
Allison Springs	7.7	7.6 - 7.9
Artesian Well	7.7	6.9 - 8.0

The data in the table above is from 2014. The following wells are not online and therefore do not have data: Hoffman, Kaiser and Indian Summer.



# Required Information

Glossary	
Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Cryptosporidium	A one-celled parasite that can cause a gastrointestinal illness called cryptosporidiosis.
Giardia lamblia	Giardia is a one-celled parasite that can cause a gastrointestinal illness called giardiasis.
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. MCLG allows for a margin of safety.
Milligrams per Liter (mg/L)	Milligrams per liter of water.
Milliliter	Measures a volume of water. For example, 100 milliliters equals approximately 1/2 cup.
Nephelometric Turbidity Unit (NTU)	Turbidity Unit (NTU): Unit by which turbidity is measured.
Parts Per Billion (ppb)	Parts per billion is a unit of measurement. It is equivalent to about one dissolved aspirin tablet (or 326 mg) in a 25-meter swimming pool (about 100,000 gallons), one minute in 2,000 years or a single penny in \$10,000,000.
Parts Per Million (ppm)	Parts per million is a unit of measurement. One part per million is equivalent to about half of a dissolved aspirin tablet (or 162 mg) in a full bathtub of water (about 50 gallons), one minute in two years or a single penny in \$10,000. This unit is interchangeable with milligrams per liter (mg/L).
State Reporting Level (SRL)	The minimum reporting level required by the State of Washington Department of Health (DOH).
Treatment Technique	A required process intended to reduced the level of a contaminant in drinking water.
Trigger Level	A level set by Washington State Department of Health that if compounds are detected above this level will trigger additional sampling.
Turbidity	Measures the cloudiness of water and is a good indicator of water quality.

## Important Health Information

The Washington State Department of Health (DOH) has a summary of the City's susceptibility to contamination, including maps of our Drinking Water Protection Areas at: [www.doh.wa.gov/ehp/dw/sw](http://www.doh.wa.gov/ehp/dw/sw). To ensure the tap water you drink is safe, the DOH and the Environmental Protection Agency (EPA) set regulations that limit the amount of certain contaminants in drinking water. The Food and Drug Administration and the Washington Department of Agriculture set limits for contaminants in bottled water and both must provide the same protection for public health.

DOH grants the City of Olympia waivers for certain monitoring requirements if previous monitoring results conclude that the risk of contamination by a specific substance is very low.

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 for infections. These people should seek advice about drinking water from their health care providers. EPA and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline (1.800.426.4791).



# Required Information

## Contaminants and Health Concerns

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It also picks up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include microbial contaminants, inorganic contaminants, organic chemical contaminants, pesticides and herbicides, and radioactive contaminants.

## Required Statement Regarding Lead

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 Olympia 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 drinking 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 EPA Safe Drinking Water Hotline (1.800.426.4791) or at: [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Water Source Information

In 2013, McAllister Springs provided 81.1% of our water. To help meet demand, McAllister was supplemented (18.9%) by four other wells around Olympia:

West Olympia:

- Kaiser Well #1 (S03)
- Allison Springs Well #13 (S09)
- Allison Springs Well #19 (S11)

East Olympia:

- Shana Park Well #11 (S10)

## How To Get Involved

The Olympia City Council meets Tuesdays at 7:00 p.m. in the Council Chambers located at Olympia City Hall, 601 4th Avenue E

The Utility Advisory Committee (UAC) meets the first Thursday of each month (except July and August) at 5:40 p.m. in Room 207 at Olympia City Hall 601 4th Avenue E

## Questions?

Contact Cheri Reimers, Water Quality Specialist at 360.709.2774 or [creimers@ci.olympia.wa.us](mailto:creimers@ci.olympia.wa.us)