

Why am I getting this report?

Sunrise Water Authority is proud to report that the water supplied to our customers throughout 2016 met or exceeded all federal and state drinking water standards. We continuously strive to deliver safe, reliable, high quality tap water to our customers in the most cost effective manner possible.

The water that Sunrise Water Authority supplies to its customers undergoes rigorous testing and monitoring before being delivered to you. This annual water quality report, required by the 1996 Safe Drinking Water Act, provides information about the source of your water and what tests show about it. The data displayed in the tables contained in this report are the results of tests performed in 2016.



2017 Drinking Water Quality Report

The Water You Drink

The Sunrise Water Authority distribution system consists of over 225 miles of pipe, 14,500 service connections and meters and innumerable fire hydrants, valves, back-flow prevention devices, and pressure reducing valves. Distribution mains range in size from 6-inches to 8-inches and deliver water brought into the system by the transmission portion of the system. The water is pumped to fourteen different reservoirs scattered throughout the Sunrise Water Authority territory at varying elevations. The Sunrise system is a gravity fed system with water pressure generated by the drop in elevation from the reservoirs to the point of use.

The transmission system at Sunrise Water Authority consists of a series of 12 and 24-inch transmission mains and sixteen pump stations. Water is consistently delivered to the Sunrise Water Authority transmission system from the Clackamas River Water and North Clackamas County Water Commission treatment plants on the Clackamas River. Water is also extracted from Sunrise Water Authority wells located in the Damascus area during periods of peak water use.

Sunrise Water Authority is governed by a seven member Board of Commissioners elected by zone from the local community. Sunrise Water Authority serves an area of approximately 21 square miles, encompassing the City of Happy Valley, the community of Carver, portions of the City of Damascus and areas in unincorporated Clackamas County.

The Sunrise Water Authority Board and Staff strive to assure our customers receive an excellent value in water service. We constantly seek to increase efficiency and reduce costs in order to keep rates as low as possible. We take great pride in our dedicated staff of water professionals. Providing great customer service is a focus of the organization and the staff lives that ethic every day.

Public involvement and participation in our community's decisions affecting drinking water are encouraged. Regular monthly board meetings are scheduled for the fourth Wednesday of each month at 6:00 PM at 10602 SE 129th Avenue, Happy Valley, OR 97086. The Public is welcome to attend. Please check our website at www.sunrisewater.com for additional information, Board Agendas, and Meeting Minutes.

www.sunrisewater.com

10602 SE 129th Avenue
Happy Valley, Oregon 97086
503-761-0220

Based on data from the 2016 calendar year

Stewardship of Resources

Safe, clean water starts at the source. Sunrise is actively involved in programs and projects to protect and preserve the watershed and our aquifers. Wise management of our water resources also pays dividends in the form of broader environmental benefits such as cooler streams and increased biodiversity.

Source Water Assessment

The Clackamas River is the primary source of water distributed by Sunrise Water Authority. A Source Water Assessment was completed for the Clackamas River in 2003. This information may be found at www.sunrisewater.com or by contacting Kim Swan at 503-723-3510 or at kims@clackamasproviders.org.



The Clackamas River

About This Report

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Oregon Health Authority Drinking Water Program is charged with monitoring compliance by water providers in the state.

All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. For more information about contaminants and potential health effects call the EPA's Safe Drinking Water Hotline at 800-426-4791 or visit www.epa.gov/safewater.

The sources of drinking water, both tap and bottled, include surface sources such as rivers, streams, lakes, and reservoirs, and groundwater sources (wells). As water moves through the ground or over surfaces it dissolves naturally occurring minerals and, in some cases, radioactive material. Water can also pick up substances resulting from the presence of human or animal activity. Contaminants that may be present in the source water include:

Microbial- such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, pet waste, and wildlife.

Inorganic- salts and metals, which can occur naturally or result from urban storm runoff, industrial, or domestic wastewater discharges, oil and gas productions, mining, or farming.

Pesticides and Herbicides- from a variety of sources such as agriculture, stormwater runoff, and residential uses.

Organic Chemicals- both synthetic and volatile, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive- can be naturally occurring or can be the result of oil and gas production and mining activities.

A Note to People with Special Health Concerns

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 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 at 800-426-4791.

Definitions

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

Haloacetic Acids (HAAs): By-products of the treatment process that are formed when the disinfectant chlorine combines with organic matter in the source water. Since chlorine is important for disinfection, HAAs will be present, but they are monitored very closely by water utilities.

Parts Per Million (ppm) or Milligrams Per Liter (mg/L): A measure of the concentration of a substance in a given volume of water. One part per million corresponds to one penny in \$10,000.

Parts Per Billion (ppb) or Micrograms Per Liter: An even finer measure of concentration. One part per billion corresponds to one penny in \$10,000,000.

Picocuries Per Liter (pCi/L): A measure of radioactivity.

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 disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the 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.

Nephelometric Turbidity Units (ntu): A measure of particles in water.

Total Trihalomethanes (TTHMs): By-products of the treatment process that are formed when the disinfectant chlorine combines with organic matter in the source water. Since chlorine is important for disinfection TTHMs will be present, but they are monitored very closely by water utilities.

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

Chlorine

The addition of small amounts of chlorine protects our customers from disease causing organisms. We are required by law to add disinfectant in order to meet state and federal mandates for safe drinking water.

Radon

Radon is a naturally occurring radioactive gas present in the earth that you cannot see, smell, or taste. The EPA has not issued a standard for the testing of radon. Sunrise Water Authority does not currently test for radon. The majority of our water supply comes from a surface water source, so radon levels are naturally low as it naturally dissipates into the air.

Cryptosporidium & Giardia

Cryptosporidium & Giardia are microscopic organisms that may cause gastrointestinal disease in some people, especially individuals with conditions that affect the immune system. Currently, there is not an established Maximum Contaminant Level for either of these organisms. However, because of the potential health effects of these organisms, both raw and treated water are tested for presence. Tests administered in 2016 did not detect Cryptosporidium & Giardia in your drinking water.

Sampling Results

The tables in this report illustrate the results of our water quality analysis. Every regulated contaminant that was detected in the water, even in the most minute traces, is listed here. These results were compiled from tests conducted by certified laboratories for Sunrise Water Authority, the North Clackamas County Water Commission, and Clackamas River Water. Reading the definitions listed below will assist in your understanding of the Water Quality Data Tables.

Contaminant	Unit	MCL	MCLG	Highest Detected Level	Range	Major Sources	Violation?
CONTAMINANTS DETECTED AT WELLHEADS							
Inorganic Contaminants							
Arsenic (2014)	ppb	10	0	1.5	0-1.5	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste	No
Fluoride (2014)	ppm	4	4	1.51	0-1.51	Erosion of natural deposits; discharge from fertilizer and aluminum factories	No
Barium (2013)	ppm	2	2	0.020	0.003-0.020	Discharge of drilling wastes; Metal refineries; Erosion of natural deposits	No
Lead (2014)	ppb	15	0	8	0-8.0	Corrosion of household plumbing systems; Erosion of natural deposits	No
Nickel (2013)	ppb	100	100	1	0-1.0	Erosion of natural deposits	No
Nitrate (as Nitrogen)	ppm	10	10	1.66	0-1.66	Fertilizer run-off; leaching from septic tanks, sewage; Erosion of natural deposits	No
Chromium (2014)	ppb	100	100	2	0-2.0	Discharge from steel & pulp mills; Erosion of natural deposits	No
Radioactive Contaminants							
Combined Radium (2012)	pCi/L	5	0	0.655	0-0.655	Erosion of natural deposits	No
CONTAMINANTS DETECTED AT WATER TREATMENT PLANTS IN TREATED WATER							
Turbidity	ntu	TT	N/A	0.95	0.01-0.95	Soil Runoff	No
Radioactive Contaminants							
Alpha Emitters (2012)	pCi/L	15	0	4.5	0-4.5	Erosion of natural deposits	No
Inorganic Contaminants							
Nitrate (as Nitrogen)	ppm	10	10	0.263	0.241-0.263	Fertilizer run-off; leaching from septic tanks, sewage; Erosion of natural deposits	No
Barium	2ppm	2	2	0.003	0.002-0.003	Discharge of drilling wastes; Meal refineries; Erosion of natural deposits	No
Fluoride	ppm	4	4	0.16	0-0.16	Erosion of natural deposits; discharge from fertilizer and aluminum factories	No



Ripple Creek

Contaminant	Unit	MCL	MCLG	Detected Level	Range	Major Sources	Violation?
TABLE OF DETECTED CONTAMINANTS IN THE DISTRIBUTION SYSTEM							
Inorganic Contaminants							
Copper (2014)	ppm	AL=1.3	1.3	0.037 (90th percentile)	0-0.330	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives	No
Lead (2014)	ppb	AL=15	0	3 (90th percentile)	0-6	Corrosion of household plumbing systems; erosion of natural deposits	No
Disinfection By-Products							
TTHMs (Total Trihalomethanes)	ppb	80	N/A	43.4 (Highest Locational Average)	23.8-51.6	By-product of drinking water disinfection	No
HAAs (Haloacetic Acids)	ppb	60	N/A	32.3 (Highest Locational Average)	9.4-44.6	By-product of drinking water disinfection	No
Chlorine	ppm	MRDL=4	MRDLG=4	0.58 (Average)	0.03-1.25	Water additive used to control bacteria	No

Lead in Tap Water

The water supplied by Sunrise Water Authority has been tested for lead content and found to be in compliance with regulations. In the Sunrise system, 43 homes were tested and zero exceeded the action level in 2014.

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 material and components associated with service lines and home plumbing. Sunrise Water Authority is responsible for providing high quality drinking water, but cannot control the variety of material 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 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 Safe Drinking Water Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Homes that are at a higher risk of lead leaching from the plumbing system and fixtures are those built prior to 1985. If you are concerned about your exposure to lead you can reduce the risk by taking the following actions:

- Run water for 30 seconds prior to use if water has been unused for more than six hours.
- Use only cold water for cooking, drinking, and making baby formula. Hot water may leach more metals from your plumbing system.
- Use only lead-free solder when making plumbing repairs.
- Use NSF certified faucets and plumbing fixtures.

Contact NSF International for more information about certified faucets and plumbing fixtures. They can be reached at 877-867-3435, online at www.nsf.org, or by email at info@nsf.org.



Questions?

Questions concerning this report or requests for more information should be directed to Suzanne DeLorenzo, PhD at 503-722-9241 or sdelorenzo@sunrisewater.com