

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2018

Presented By



Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

Community Participation

The Valley of the Moon Water District encourages the public to voice any concerns about their drinking water. Please write to the district or attend any of the regularly scheduled board meetings. The Board of Directors meets on the first Tuesday of each month at 6:30 p.m. in the district office, located at 19039 Bay Street in El Verano.



Important Health Information

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 or <http://water.epa.gov/drink/hotline>.



Where Does Our Water Come From?

One of the critical factors for water quality is the source of supply; the purer the source, the better the water. The Valley of the Moon Water District relies on two sources: water from the Sonoma County Water Agency (Water Agency) and local groundwater wells.

The Water Agency produces water from six Ranney Collectors (or caissons) in the Russian River and, to a lesser extent, three groundwater wells in the Santa Rosa Plain. The Russian River originates in central Mendocino County, about 15 miles north of Ukiah. The main channel is 110 miles long and flows southward from the headwaters near Potter Valley to the Pacific Ocean near Jenner. Three main reservoirs, Lake Sonoma, Lake Pillsbury, and Lake Mendocino, feed the river, providing seasonal storage and replenishing the river aquifer.

The riverbed provides natural filtration for the water removed from the Ranney Collectors. The Water Agency treats the water with chlorine for bacterial disinfection and adds sodium hypochlorate and sodium hydroxide (also known as caustic soda) to adjust the pH. Slightly higher pH levels reduce corrosivity, thereby reducing the amount of copper and lead in the water. The water needs no further treatment when it reaches the district through the Water Agency's transmission system.

The district supplements Water Agency supplies with water from one leased and four district-owned groundwater wells. In 2018 the district purchased 2,037 acre-feet of water from the Water Agency and produced 679 acre-feet from its local wells.

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. 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.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides that may come from a variety of 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, and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

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

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

An assessment of the drinking water sources for the Sonoma County Water Agency was completed in January 2001. The sources are considered vulnerable to wastewater treatment and disposal, mining operations, septic systems, and agricultural operations. A copy of the complete assessment is available at the State Water Resources Control Board, Division of Drinking Water, 50 D Street, Suite 200, Santa Rosa, California, or at www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/DWSAP.shtml.

An assessment of the district's wells was performed in 2003, as required by the U.S. EPA.

This assessment identified the sewer collection system as the most likely source of possible contamination to the wells. Please note that no contaminants have been detected in the water supply above state primary drinking water standards; however, the sources are still considered vulnerable to activities located near the drinking water sources. The Valley of the Moon Water District routinely monitors and samples the wells to ensure the water is free from contamination. A copy of the completed assessment is on file at the Valley of the Moon Water District office located at 19039 Bay Street, El Verano, or at www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/DWSAP.shtml.



We remain vigilant in delivering the best-quality drinking water

QUESTIONS?

For more information about this report, or for other questions relating to water quality, please contact Matt Fullner, Water System Manager, at (707) 996-1037.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES

				Sonoma County Water Agency		Valley of the Moon Water District			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2017	10	0.004	ND	NA	2.56	ND–4.0	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	2017	2.0	1	ND	NA	0.19 ¹	0.13–0.26 ¹	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2014	15	(0)	0.3	ND–0.96	ND ²	NA ²	No	Erosion of natural deposits
Haloacetic Acids (ppb)	2018	60	NA	7.37	1.55–14.19	5.37	ND–8.9	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2017	NS ³	0.02	0.54	ND–0.54	ND	NA	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrate] (ppm)	2017	45	45	ND	NA	ND ⁴	NA ⁴	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2018	80	NA	12.3	4.7–21.1	20.7 ⁵	11–31 ⁵	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2017	1.3	0.3	0.300	0/33	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2017	15	0.2	0.0057	0/33	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

				Sonoma County Water Agency		Valley of the Moon Water District			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2018	500	NS	5.55	5.2–7.0	8.6 ⁶	4.7–20 ⁶	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2018	1,600	NS	243.33	222–270	216 ⁶	150–400 ⁶	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2018	500	NS	14.83	11.0–29.0	5.56 ⁶	ND–20 ⁶	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2018	1,000	NS	135.0	130.0–150.0	188 ⁶	160–260 ⁶	No	Runoff/leaching from natural deposits
Turbidity (Units)	2018	5	NS	0.0310	0.031–0.043	0.102 ⁶	ND–0.18 ⁶	No	Soil runoff

OTHER UNREGULATED SUBSTANCES⁷

		Sonoma County Water Agency		Valley of the Moon Water District		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Calcium (ppm)	2017	20.9	15–25	12.9	8.3–28	Erosion of natural deposits
Magnesium (ppm)	2017	12.8	6.8–17	7.9	4.4–18	Erosion of natural deposits
pH (Units)	2017	7.3	7.14–7.4	7.32	7.1–7.5	Runoff/leaching from natural deposits; industrial wastes
Sodium (ppm)	2018	8.23	7.7–8.8	17.6 ⁶	14–25 ⁶	Erosion of natural deposits
Total Hardness (ppm)	2017	104.4	66–132	65.8	39–150	Calcium and magnesium concentration

¹ Sampled in 2011.

² Sampled in 2016.

³ There is currently no MCL for hexavalent chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.

⁴ Sampled in 2018.

⁵ Sampled in 2015.

⁶ Sampled in 2017.

⁷ Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).