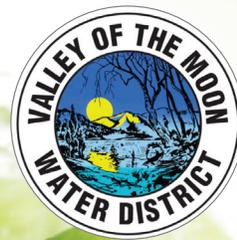


**Presented By
Valley of the Moon
Water District**



ANNUAL
**WATER
QUALITY
REPORT**

WATER TESTING PERFORMED IN 2017



Quality First

Once again, we are pleased to present our annual water quality report covering the period between January 1 and December 31, 2017. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day-at any hour-to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in our employees, infrastructure, customer outreach, education, and new treatment technologies, the payoff will be reliable, high-quality tap water delivered to you and your family.

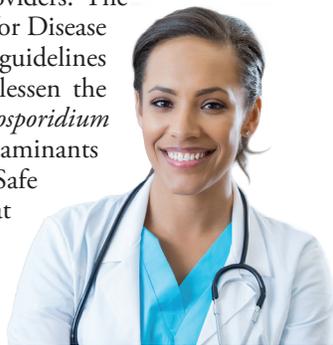
We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Community Participation

The Valley of the Moon Water District encourages and invites the public to voice their concerns, if any, about their drinking water. They may 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, beginning at 6:30 p.m., at the District's 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 ground water wells.

The Water Agency produces water from six Ranney Collectors (or caissons) in the Russian River, and to a lesser extent, from three ground water 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 river streambed 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 the 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 four District-owned and one leased ground water well. In 2017, the District purchased 2,010 acre feet of water from the Water Agency, and produced 679 acre feet from our local wells.

How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

In case of natural disaster, it is recommended that you store at least 3 gallons per person in your household. This should be sufficient to cover drinking water needs for 3 days.



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.

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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, which 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, which 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, which 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.

Water treatment is a complex, time-consuming process.

What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection.

For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.

QUESTIONS?

For more information about this report, or for other questions relating to water quality, please contact Matt Fullner, Operations and Maintenance Supervisor, at (707) 996-1037.

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 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 or at www.epa.gov/lead.



Count on Us

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws and water system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water;
- Monitoring and inspecting machinery, meters, gauges, and operating conditions;
- Conducting tests and inspections on water and evaluating the results;
- Maintaining optimal water chemistry;
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels;
- Documenting and reporting test results and system operations to regulatory agencies; and
- Serving our community through customer support, education, and outreach.

So, the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables shows only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less often 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 3rd stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

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)	2017	60	NA	5.38	1.16-9.43	5.6	ND-10.0	No	By-product of drinking water disinfection
Hexavalent Chromium ³ (ppb)	2017	NS	0.02	0.54	ND-0.54	0.64 ⁴	0.4-1.4 ⁴	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	0.69 ⁵	ND-0.69 ⁵	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2017	80	NA	10.4	5.6-17.2	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%TILE)	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)	2017	500	NS	7.07	4.7–19	8.6	4.7–20	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2017	1,600	NS	248.6	230–280	216	150–400	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2017	500	NS	11.57	6–16	5.56	ND–20	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2017	1,000	NS	152.85	140–200	188	160–260	No	Runoff/leaching from natural deposits
Turbidity (Units)	2017	5	NS	0.034	ND–0.055	0.102	ND–0.18	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES ⁶

		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)	2017	11.27	7.5–30.0	17.6	14–25	Erosion of natural deposits	
Total Hardness (ppm)	2017	104.4	66–132	65.8	39–150	Calcium and magnesium concentration	

UNREGULATED CONTAMINANT MONITORING RULE PART 3 (UCMR3) - VALLEY OF THE MOON WATER DISTRICT ⁶

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Chlorate (ppb)	2015	27.1	ND–83
Molybdenum (ppb)	2015	0.14	ND–1.4
Strontium (ppb)	2015	142	29–240
Vanadium (ppb)	2015	11.92	1.0–26

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 2014.

⁵ Sampled in 2015.

⁶ Unregulated contaminant monitoring helps the U.S. EPA and State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

Definitions

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).