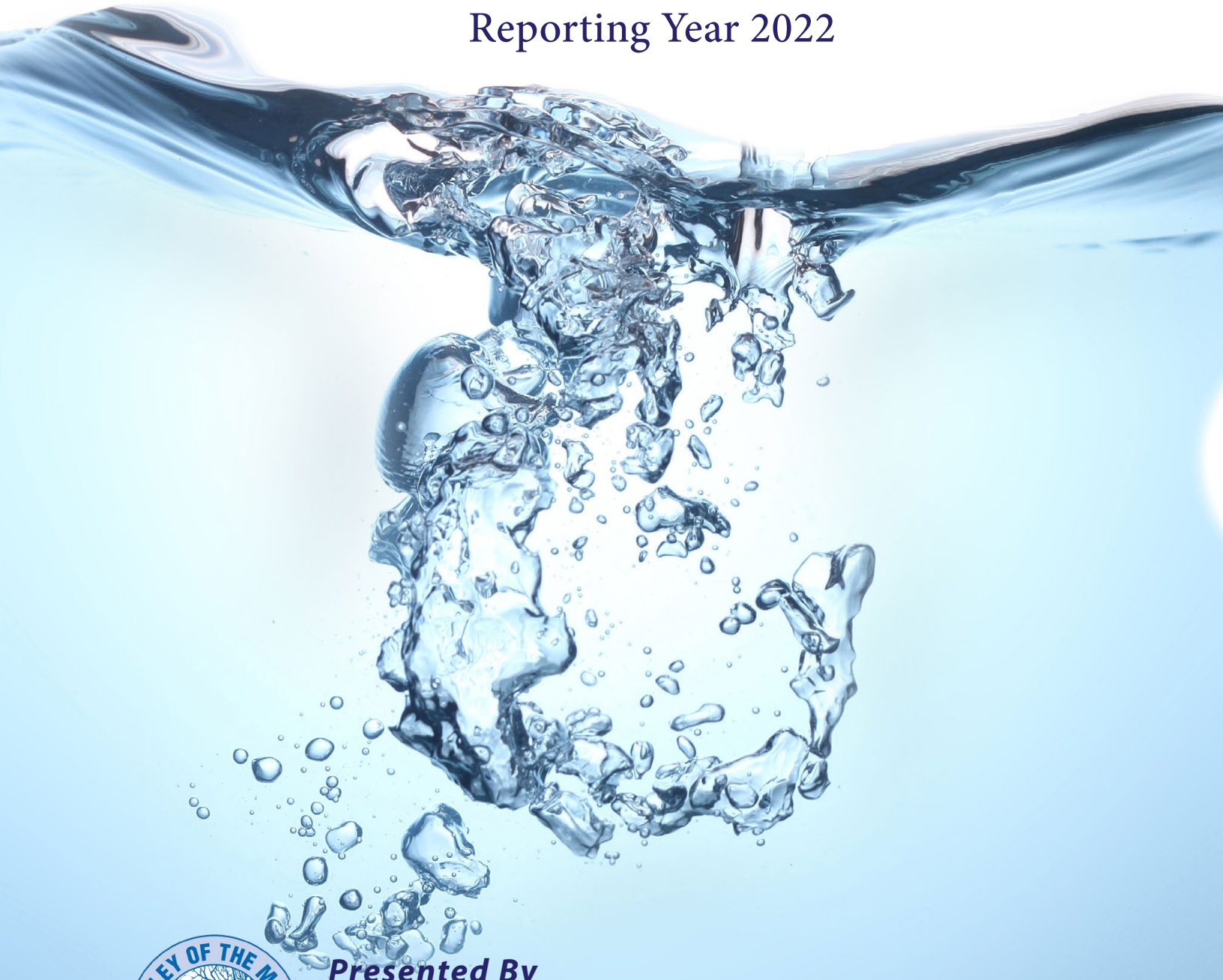
ANNUAL WATER QUALITY REPORT

Reporting Year 2022



Presented By

Valley of the Moon Water District

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: 4910013

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, 2022. 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.

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.

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 two 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.

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 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 hydroxide (also known as caustic soda) to adjust the pH. Slightly higher pH levels reduce corrosivity, thereby reducing the amount of copper and lead that could be dissolved into the water from pipes. The water needs no further treatment when it reaches the district through the Water Agency's transmission system.

The district supplements Water Agency supplies from four district-owned and three leased groundwater wells. In 2022 the district purchased 1,625 acre-feet of water from the Water Agency and produced 488 acre-feet from our local wells.

> "Thousands have lived without love, not one without water."
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> —W.H. Auden

Questions?

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

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.

Testing for Radon

Our system monitored for radon and found levels of 181.43 picocuries per liter (pCi/L). Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source in indoor air. U.S. EPA is proposing to require community water suppliers to provide water with radon levels no higher than 4,000 pCi/L, which contributes about 0.4 pCi/L of radon to the air in your home. More information is available at https://www.epa.gov/radon. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal if the level of radon in your air is 4 pCi/L or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call California's Radon Program (1-800-745-7236), the U.S. EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-767-7236).

Community Participation

The Valley of the Moon Water District encourages and invites the public to voice any concerns about their drinking water. They may write to the district or attend any of the regularly scheduled board meetings. The board of directors meets once a month at 6:30 p.m. at the district office, 19039 Bay Street, Sonoma. The schedule for these meetings can be found at www.vomwd.org. The meetings are also accessible remotely over Zoom. Agenda postings with board meeting information and Zoom links can be found at the district office and www.vomwd.org/boardmeetings.

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. We are pleased to report that your drinking water meets or exceeds all federal and state requirements.

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.

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)	2022	10	0.004	ND	NA	2.79[1]	ND–4.7[1]	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	2022	2.0	1	ND	NA	0.18[1]	0.13–0.25[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)	0.29	ND–1.36	1.01[2]	ND–3.52[2]	No	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]–Stage 1 (ppb)	2022	60	NA	8.44	1.10–23.64	9.75	6.5–13	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2022	45	45	ND	NA	1.25	0.3–3.1	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 1 (ppb)	2022	80	NA	0.01	0.005–0.02	29	24–34	No	By-product of drinking water disinfection

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

				Sonoma County Water Agency		Valley of the Moon Water District			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2020	1.3	0.3	NA	NA	0.099	0/31	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2020	15	0.2	NA	NA	ND	0/31	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)	2022	500	NS	8.6	5.8–23	13.74[1]	5.2–31[1]	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2020	300	NS	NA	NA	24.57	ND–140	No	Leaching from natural deposits; industrial wastes
Specific Conductance (µS/cm)	2022	1,600	NS	264.29	250–290	245.71[3]	150–390[3]	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2022	500	NS	12.9	3.3–16	8.06[1]	1–20[1]	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2022	1,000	NS	155.71	140–200	222.86[1]	180–290[1]	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2022	5	NS	0.13	0.02–0.73	0.25[1]	ND–0.94[1]	No	Soil runoff

UNREGULATED SUBSTANCES[4]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Sonoma County Water Agency AMOUNT DETECTED	Sonoma County Water Agency RANGE LOW-HIGH	Valley of the Moon Water District AMOUNT DETECTED	Valley of the Moon Water District RANGE LOW-HIGH	TYPICAL SOURCE
Bromide (ppb)	2018	NA	NA	40	ND–110	Erosion of natural deposits
Calcium (ppm)	2022	23	15–27	17.3[1]	8.4–29[1]	Erosion of natural deposits
Germanium (ppb)	2018	NA	NA	0.398	ND–0.67	Erosion of natural deposits
HAA5 (ppb)	2018	NA	NA	4.1	1.86–4.78	Disinfection by-product
HAA6Br (ppb)	2018	NA	NA	5.386	3.22–7	Disinfection by-product
HAA9 (ppb)	2018	NA	NA	8.125	4.04–10	Disinfection by-product
Magnesium (ppm)	2022	13.84	4.9–18	10.8[1]	4.7–19[1]	Erosion of natural deposits
Manganese (ppb)	2022	4.0	ND–28	0.191[5]	ND–1[5]	Erosion of natural deposits
pH (units)	2022	7.39	7.27–7.58	7.52[1]	7.4–7.7[1]	Runoff/leaching from natural deposits; industrial wastes
Sodium (ppm)	2022	13.91	9.6–37	18.86[1]	13–28[1]	Erosion of natural deposits
Total Hardness (ppm)	2022	114.71	56–141	86.571[1]	40–150[1]	Calcium and magnesium concentration
Total Organic Carbon [TOC] (ppm)	2018	NA	NA	1.131	ND–8.1	Naturally decaying organic matter

[1] Sampled in 2020.
[2] All sampled in 2016 except Larbre (2020) and Craig & Pedroncelli (2022).
[3] All sampled in 2020 except Pedroncelli (2022).
[4] Unregulated contaminant monitoring helps U.S. EPA and the State Board determine where certain contaminants occur and whether the contaminants need to be regulated.
[5] Sampled in 2018.

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.

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.

NTU (Nephelometric Turbidity Unit): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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).

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

Source Water Assessment

An assessment of the drinking water sources for the 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 Board, Division of Drinking Water, 50 D Street, Suite 200, Santa Rosa, CA 95404 or at www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/DWSAP.html.

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 nearby activities. 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, Sonoma, or at https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/DWSAP.html.