# ANNUAL WATER QUALITY REPORT

Reporting Year 2021

***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**

## We've Come a Long Way

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. 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 all hours—to deliver the highest quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

## 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 (SWRCB), 50 D Street, Suite 200, Santa Rosa, California, 95404, or at the SWRCB Web site: https://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 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, Sonoma, or at the SWRCB Web site: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/DWSAP.html.

## 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.

## Water Conservation Tips

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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.

**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.

## 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 water sources: from the Sonoma County Water Agency (Water Agency) and from local groundwater wells.

The Water Agency produces water from six Ranney Collectors (or caissons) in the Russian River, and, to a lesser extent, from three groundwater wells in the Santa Rosa plain.

The Russian River originates in central Mendocino County, about fifteen 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 stream bed 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 the 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 with water from four District-owned wells and one leased groundwater well. In 2021, the District purchased 1,879 acre-feet of water from the Water Agency and produced 502 acre-feet from our local wells.

## Community Participation

The Valley of the Moon Water District encourages and invites members of 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 at 6:30 p.m., at the District's office located at 19039 Bay St in Sonoma. The meetings are also currently accessible remotely over Zoom. Agenda postings with Board meeting information and Zoom links can be found at the District's office and the District's Web site: https://www.vomwd.org/boardmeetings.

## 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 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.

## Test Results

Our water is monitored on a strict sampling schedule and meets or exceeds all Federal and State standards for drinking water. Here, we show only a selection of detected substances in the 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 constituents 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.

Although *E. coli* was detected in one sample, the water system did not violate the *E. coli* MCL because all follow-up samples did not detect *E. coli*.

### 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) | 2021 | 10 | 0.004 | ND | ND | 3.48[1] | 2.5–4.7[1] | No | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes |
| **Fluoride** (ppm) | 2021 | 2.0 | 1 | 0.03 | ND–0.10 | 0.204[1] | 0.14–0.25[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) | 0.4112 | ND–1.36 | 0.362[2] | ND–1.81[2] | No | Erosion of natural deposits |
| **HAA5 [Sum of 5 Haloacetic Acids]–Stage 1** (ppb) | 2021 | 60 | NA | 8.27 | ND–18.88 | 5.4 | 3.4–7.4 | No | By-product of drinking water disinfection |
| **Hexavalent Chromium** (ppb) | 2021 | NS | 0.02 | ND | ND | NA | 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) | 2021 | 45 | 45 | ND | ND | 0.596 | ND–2.5 | No | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |
| **TTHMs [Total Trihalomethanes]–Stage 1** (ppb) | 2021 | 80 | NA | 0.0104 | 0.0032–0.0213 | 15.5 | 12–19 | 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) | 2020 | 1.3 | 0.3 | 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 | 0 | 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) | 2021 | 500 | NS | 6.67 | 5.5–11 | 8.84[1] | 5.2–20[1] | No | Runoff/leaching from natural deposits; seawater influence |
| **Specific Conductance** (µS/cm) | 2021 | 1,600 | NS | 228.33 | 210–260 | 204[1] | 150–360[1] | No | Substances that form ions when in water; seawater influence |
| **Sulfate** (ppm) | 2021 | 500 | NS | 12.67 | 11–17 | 4.28[1] | 1–12[1] | No | Runoff/leaching from natural deposits; industrial wastes |
| **Total Dissolved Solids** (ppm) | 2021 | 1,000 | NS | 148.33 | 130–160 | 200[1] | 180–250[1] | No | Runoff/leaching from natural deposits |
| **Turbidity** (Units) | 2021 | 5 | NS | 0.03 | 0.019–0.044 | 0.258[1] | ND–0.94[1] | No | Soil runoff |

## UNREGULATED AND OTHER SUBSTANCES [3]

| | | 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 |
| **1,4-Dioxane** (ppb) | 2021 | NA | ND–4.2 | NA | NA | Solvent or solvent stabilizer used in manufacture and processing |
| **Bromide** (ppb) | 2018 | NA | NA | 40 | ND–110 | Erosion of natural deposits |
| **Calcium** (ppm) | 2021 | 22.17 | 19–25 | 12.6[1] | 8.4–26[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) | 2021 | 14.67 | 13–17 | 7.72[1] | 4.7–16[1] | Erosion of natural deposits |
| **Manganese** (ppb) | 2018 | NA | NA | 0.191 | ND–1 | Erosion of natural deposits |
| **pH** (Units) | 2021 | 7.38 | 7.03–7.54 | 7.52[1] | 7.4–7.7[1] | Runoff/leaching from natural deposits; industrial wastes |
| **Sodium** (ppm) | 2021 | 9.55 | 9.30–10 | 16.6[1] | 13–21[1] | Erosion of natural deposits |
| **Total Hardness** (ppm) | 2021 | 115.67 | 100–126 | 63.2[1] | 40–130[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 sampled in 2020.
[3] Unregulated contaminant monitoring helps the 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 that, 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

**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.