ANNUAL WATER QUALITY REPORT

Reporting Year 2022

Presented By

City of Sonoma

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

PWS ID#: 4910012

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

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and linked to other health effects such as skin damage and circulatory problems.

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 My Water Come From?

The city's primary source is purchased water from the Sonoma County Water Agency, which is supplied by five Ranney collectors (or caissons) located in the gravels adjacent to the Russian River, seven production wells, and - to a minor degree - three wells in the Santa Rosa plain. The Russian River originates in central Mendocino County, approximately 15 miles north of the City of Ukiah. The main channel of the Russian River is approximately 110 miles long and flows southward from its headwaters near Potter Valley to the Pacific Ocean near Jenner, about 20 miles west of the City of Santa Rosa.

Our secondary water source consists of six city groundwater wells, which are capable of producing a combined total of approximately 1.5 million gallons of water a day. The City of Sonoma uses these wells as a supplementary supply. Once the water has been purchased or produced, it enters the city's distribution system, which includes more than 58 miles of water main, 4,500 service connections, five storage tanks, and two pumping stations. We thank our community for its continued efforts to minimize water use. This year we will be asking our community to use water wisely, especially during hot summer months, and utilize the conservation resources available to our residents.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The city council normally meets on the first and third Wednesday of each month at 6:00 p.m. in Council Chambers, 177 First Street West. For more information: www.sonomacity.org, or call City Hall at (707) 938-3681.

> "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 any questions relating to your drinking water, please call Tim Tillery, Water Operations Supervisor, at (707) 933-2231 or email ttillery@sonomacity.org.

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.

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 www.epa.gov/safewater/lead.

Source Water Assessment

In 2018 the city conducted a thorough source water assessment of its municipal groundwater wells. According to the assessment, all sites are in compliance with federal safe drinking water guidelines. A complete copy of the source water assessment may be viewed at City Hall, #1 The Plaza, Sonoma.

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.

REGULATED SUBSTANCES

				City of Sonoma		Sonoma County Water Agency			
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	7.6	6.9–8.5	ND	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	2022	2.0	1	0.37[1]	0.37–0.37[1]	ND	NA	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2022	15	(0)	ND[2]	NA	NA	NA	No	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2022	60	NA	7.6	7.3–7.9	11.21	5.96–22.29	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2022	45	45	0.606	0.35–0.87	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2022	80	NA	26.0	24.0–28.0	0.01530	0.01448–0.01611	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community[3]

				City of Sonoma		Sonoma County Water Agency			
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	0.11	0/30	NA	NA	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2020	15	0.2	ND	0/30	NA	NA	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

				City of Sonoma		Sonoma County Water Agency			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Iron (ppb)	2022	300	NS	61[1]	61–61[1]	ND	NA	No	Leaching from natural deposits; industrial wastes
Specific Conductance (µS/cm)	2022	1,600	NS	226[1]	226–226[1]	264	250–290	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2022	500	NS	6.1[1]	6.1–6.1[1]	13	3–16	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2022	1,000	NS	206[1]	206–206[1]	156	140–200	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2022	5	NS	ND[1]	NA	0.13	0.02–0.73	No	Soil runoff
Zinc (ppm)	2021	5.0	NS	ND[1]	NA	ND[4]	NA	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES [5]

		City of Sonoma		Sonoma County Water Agency		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bicarbonate (ppm)	2022	93[1]	93–93[1]	140	120–150	NA
Bromide (ppb)	2018	27.6[6]	20–38[6]	NA	NA	NA
Calcium (ppm)	2022	11.7[1]	11.7–11.7[1]	23	15–27	NA
Chromium (ppb)	2022	ND[1]	NA	ND	NA	NA
Germanium (ppb)	2018	0.84[6]	0.43–2.1[6]	NA	NA	NA
Magnesium (ppm)	2022	7.23[1]	7.23–7.23[1]	13.84286	4.9–18	NA
Manganese (ppb)	2022	ND[1]	NA	28	28–28	NA
pH (units)	2022	6.6[1]	6.6–6.6[1]	7.39	7.27–7.58	NA
Sodium (ppm)	2022	22[1]	22–22[1]	13.91429	9.6–37	NA
Total Hardness (ppm)	2022	59[1]	59–59[1]	114.7143	56–141	NA
Total Organic Carbon [TOC] (ppm)	2018	0.15	ND–0.78	NA	NA	NA

[1] Representative of a groundwater source (Well 2) that was available but not used to produce drinking water in 2022.
[2] Well 2 was sampled in 2022. Wells 1, 3, 4, 5, 6, and 8 were sampled in 2016 and will be sampled again in 2025.
[3] City of Sonoma tests for copper and lead in tap water every three years. Our next sampling event will be in 2023.
[4] Sampled in 2022.
[5] Unregulated contaminant monitoring helps U.S. EPA and the State Board determine where certain contaminants occur and whether the contaminants need to be regulated.
[6] Unregulated Contaminant Monitoring Rule 4 sample.

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 Units): 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.