



2019 Water Quality Report



REPORTED JUNE 2020

A Message from the Director:

Santa Rosa Water is committed to providing safe, high-quality drinking water. Our team of highly skilled operators, engineers, technical experts, and administrative staff monitor and maintain our water system 24/7 and take great pride in ensuring that the approximately 53,000 homes, businesses, schools and hospitals in Santa Rosa receive drinking water that meets or exceeds the U.S. Environmental Protection Agency's (EPA) safe drinking water standards.

The last few months have presented unprecedented challenges to our community as we have responded to the COVID-19 emergency. To support our customers, and to protect their health and safety, we suspended water shut-offs for nonpayment, restored service to customers whose service was disconnected prior to the emergency and offered payment arrangements.

Additionally, we have continued to stand by our commitment to support customers through the rebuilding and recovery process following the October 2017 wildfires. We have reconnected water service to over 1,700 customers and have completed a detailed water quality sampling plan in the fire damaged portion of our water system in Fountaingrove to confirm that the system was restored.

Although the region's water supply remains at an adequate level despite having below-average rainfall this year, collective actions are necessary to sustain and protect our vital water resources. If you have not done so already, I encourage you to take advantage of our WaterSmart incentives and rebates to learn how to reduce water use.

As always, Santa Rosa Water's top priority is to provide our community with safe, reliable drinking water. Thank you for taking the time to read our 2019 Annual Water Quality Report. This report documents our ongoing commitment to quality and customer service.

Sincerely,



Jennifer Burke

DIRECTOR OF SANTA ROSA WATER

Our Drinking Water from

SOURCE to TAP

The Russian River Watershed serves approximately 600,000 people in Sonoma, Mendocino and Marin Counties. It is also home to approximately 30 species of fish, three of which are listed as threatened or endangered—Chinook salmon, coho salmon and steelhead trout.

Three reservoirs supply water to the Russian River Watershed: Lake Mendocino on the East Fork of the Russian River, Lake Sonoma on Dry Creek, and Lake Pillsbury on the Eel River which flows into Lake Mendocino through PG&E's Potter Valley Hydroelectric Project. These reservoirs and regional groundwater wells provide water for drinking, fire protection, agriculture, industry, as well as habitat for fish and wildlife.

The Russian River, which defines the watershed, originates in Mendocino County, approximately 15 miles north of Ukiah and reaches the Pacific Ocean at Jenner, just 20 miles west of Santa Rosa. Water typically enters the watershed as rain and is either conveyed to streams, rivers, and reservoirs or seeps into the ground to recharge groundwater.

To collect water from the Russian River for most of the southern part of the watershed, Sonoma Water utilizes six collector wells that extend approximately 80 feet below the natural riverbed of the Russian River. As the water is collected, it is naturally filtered through layers of sand, gravel and rock.

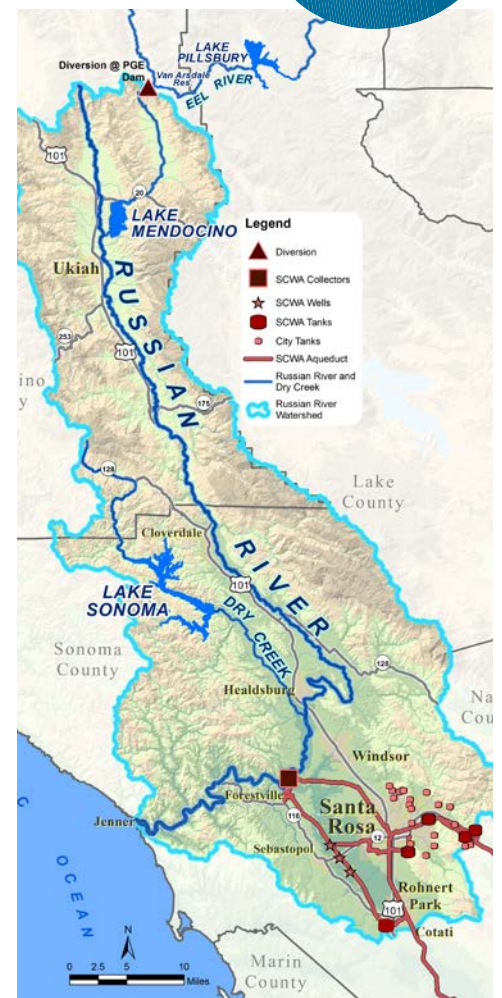
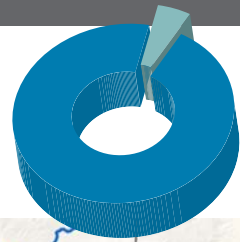
Water collected from the Russian River through deep collector wells requires no additional treatment with the exception of chlorine which is added for disinfection, and sodium hydroxide which is added to adjust the pH of the water to reduce corrosion of lead and copper plumbing fixtures.

Water from the Russian River and our local groundwater wells are supplied to you through a complex water distribution system, the largest of which is the Sonoma Water aqueduct system. Drinking water is required by state law to be tested frequently to ensure that it meets or exceeds drinking water standards at your tap.

Water Supply Portfolio

Water supplied from Santa Rosa's Public Water system to homes and businesses is a combination of surface water from the Russian River and local groundwater.

95% Sonoma Water
(Russian river)
5% Groundwater



Testing & Monitoring Water Quality

The United States Environmental Protection Agency (U.S. EPA) and State Water Resources Control Board (State Board), Division of Drinking Water require water providers to routinely monitor their water supplies and report test results annually. In addition to Sonoma Water's sampling of over 100 different contaminants, Santa Rosa Water conducts its own contaminant testing on our local supply and weekly routine water samples are collected throughout the water distribution system.

Sampling frequency is based on our population and the number of services connected to the water system. Santa Rosa Water takes over 200 water system samples per month. These samples are tested for coliform bacteria (an indicator of contamination) and chlorine residuals (level of disinfection). Santa Rosa Water also takes pH samples. The results of the samples are sent to the State Water Board at the end of each month. Certain water sampling is required less often due to U.S. EPA regulations. Quarterly, we take trihalomethane and haloacetic acid samples based on the disinfection by-products rule, and every three years, we sample 50 residences for compliance with the lead and copper rule.

This Water Quality Report shows your water supply is carefully managed and your tap water meets or exceeds all health-based standards established by the U.S. EPA and State Board for safe drinking water.



Water Quality in Fountaingrove

Water quality in the Fountaingrove neighborhood that was impacted by the 2017 wildfires continues to meet all state and federal safe drinking water standards. Following the successful restoration of water quality in this area and the lifting of the drinking water advisory on October 11, 2018, Santa Rosa Water, in consultation with the California Division of Drinking Water and the U.S. Environmental Protection Agency, completed an extensive, one-year sampling plan to confirm repairs to the portion of the system were effective.

Under this plan, Santa Rosa Water has taken over 500 post-fire water quality samples inside the impacted area. Data continues to confirm that repairs were effective in removing the contamination and water quality meets all standards for safe drinking water. Upon completion of the robust sampling plan in October 2019, Santa Rosa water continues to ensure the safety of our community's drinking water through routine water quality sampling and system flushing.

For more information, please visit srcity.org/WQAdvisory

Your Water's Characteristics

FLUORIDE: Santa Rosa does not add fluoride to the water supply. Fluoride naturally occurs in the water supply, however, it is below the detection level and does not provide a dental benefit.

HARDNESS: Santa Rosa Water is moderately hard at an average level detected of 112 ppm. Water that is too soft (below 30 ppm) can be corrosive to plumbing pipes, and water that is too hard (above 300 ppm) causes scale to form on plumbing fixtures and cooking utensils.

WATER HARDNESS SCALE

Grains Per Gallon	Parts Per Million (ppm)	Classification
Less than 1.0	Less than 17.1	Soft
1.0 – 3.5	17.1 – 60	Slightly Hard
3.5 – 7.0	60 – 120	Moderately Hard
7.0 – 10.5	120 – 180	Hard
Over 10.5	Over 180	Very Hard

WATER CLOUDINESS: One of the many properties of water is its ability to dissolve gases, including air. Sometimes the air comes back out of the water in the form of many tiny bubbles, giving the water a temporary milky white appearance. To determine if the white color in the water is due to air, fill a clear glass with water and let it sit for a few minutes. If the white color is due to air, the water will gradually clear from bottom to top. This is completely normal; the water is safe to use.



Air bubbles dissipate from the bottom of the glass to the top in just a minute or two.

How to Read This Table in Your Water Quality Report

The Water Quality Report, also called the Consumer Confidence Report, lets you know what constituents, if any, are in your drinking water and how these constituents may affect your health. It lists all the regulated constituents that were detected.

Below this level, a constituent has no known or expected health risk.

Detection Limit for purposes of Reporting.

Highest amount of a contaminant EPA allows in drinking water.

Santa Rosa purchased between 90-95% of the drinking water from Sonoma Water and we produce the remainder from our own groundwater wells. The two sets of columns identify the detected constituents of each source.

Year tests were conducted.

Santa Rosa provides drinking water from groundwater. Chlorine is added for disinfection and sodium hydroxide for pH adjustment.

TABLE OF DETECTED CHEMICALS OR CONSTITUENTS IN 2019

Substance (Parameter)	Public Health Goal (MCLG)	DLR	Maximum Contaminant Level	SONOMA WATER ¹		SANTA ROSA ²		Major Source in Drinking Water
				Range Detected	Reporting Value	Range Detected	Reporting Value	
PRIMARY STANDARDS Detected Regulated Contaminants with Primary MCLs or MRDLs								
INORGANIC CONTAMINANTS								
Substance A (ppm)	1	0.1	4.0	ND	ND	0.19-0.22	0.2	Erosion of natural deposits Runoff/leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Substance B (ppb)	1	0.4	1	ND	ND	ND	ND	

Parts per million – One ppm is equal to 1 teaspoon in 1,300 gallons.

Parts per billion – One ppb is equal to 1 teaspoon in 1.3 million gallons.

The concentration of a constituent, which, if exceeded, triggers treatment or other requirements.

The amount from lowest to highest of a detected constituent in the drinking water.

The average amount of a constituent detected in the drinking water.

This describes the most likely ways a constituent enters the drinking water. Wording is provided by the EPA.

DEFINITIONS

These terms are used throughout this report and in the Table on the following page.

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

DLR: Detection Limit for purposes of Reporting. Detections above this level must be reported.

MCL: Maximum Contaminant Level. The highest level of 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 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 the 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. Constituent was not detected at the reporting level.

NS: No standard. Officials have not developed a Public Health Goal or MCLG standard.

NTU: Nephelometric Turbidity Units. A measure of the clarity of water. Turbidity of 5 NTU is just noticeable to the average person.

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 contaminant in drinking water below which there is no known or expected risk to health. PHG's are set by the California EPA.

MFL: million fibers per liter

pCi/L: picocuries per liter

ppm: parts per million (or milligrams per liter)

ppb: parts per billion (or micrograms per liter)

ppt: parts per trillion (or nanograms per liter)

Note: Listed in the table opposite are substances detected in the City's drinking water. A full listing of sample results is on our website.

¹ Sonoma Water has 13 different groundwater sources that can be blended together. The range detected and the reporting value are the high, low, average and weighted average of the 6 sources that supplied water to the Santa Rosa area in 2019.

² Santa Rosa water data includes sampling taken in the distribution system and from source water wells. Our two drinking water wells are sampled separately. The Manganese reporting value is after treatment.

³ Fluoridation to fight tooth decay has not been implemented in Santa Rosa. The optimal dose of fluoride in water to fight tooth decay is 0.7 ppm.

⁴ Radon is a radioactive gas that can get into indoor air when released from tap water from showering or running a faucet. Radon entering the home through tap water is a very small source of radon in indoor air. 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 EPA website: epa.gov/radon. The State allows us to monitor for some contaminants less than once per year. Our radon data for Santa Rosa's source, though representative, was sampled in 2009.

TABLE OF DETECTED CHEMICALS OR CONSTITUENTS IN 2019

Substance (Parameter)	Public Health Goal {MCLG}	DLR	Maximum Contaminant Level	SONOMA WATER ¹		SANTA ROSA ²		Major Source in Drinking Water
				Range Detected	Reporting Value	Range Detected	Reporting Value	
PRIMARY STANDARDS Detected Regulated Contaminants with Primary MCLs or MRDLs								
INORGANIC CONTAMINANTS								
Fluoride (ppm) ³	1	0.1	4.0	ND	ND	0.19-0.22	0.2	Erosion of natural deposits
Nitrate (as N ppm)	1	0.4	1	ND	ND	ND	ND	Runoff/leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
DISTRIBUTION SYSTEM DETECTIONS 2019								
MICROBIOLOGICAL CONTAMINANTS								
Total Coliform Bacteria from Santa Rosa Distribution System	0		5% of monthly samples	NA	NA	0%-0.61%	0%	Naturally present in the environment
Total Trihalomethanes (ppb)	NS		80	NA	NA	19.2-35.4	28.6	By-product of drinking water chlorination
Haloacetic Acids (ppb)	NS		60	NA	NA	6.8-15.0	9.5	By-product of drinking water chlorination
Disinfectant-Free Chlorine (Cl ₂) Residual (ppm)	MRDLG as Cl ₂ 4.0		MRDLG as Cl ₂ 4.0	NA	NA	0.25-1.86	1.06	Disinfectant to control microbes
pH (units) prior to pH adjustment	NS		NS	7.35-7.61	7.4	7.69-8.5	8.2	Sodium Hydroxide addition
Benzene (ppb)	0.15	.5	1	ND	ND	ND	ND	Discharge from plastics, dyes and nylon factories; leaching from gas storage tanks and landfills
LEAD/COPPER RULE 2019 DATA								
	<i>Monitored at customer's tap.</i>		<i># of sites exceeding action level=0</i>	<i># of samples collected=50</i>	<i># of schools sampled=0</i>			
Copper (ppm)	0.3	0.05	1.3 (AL)	ND	ND	0.011-0.171	0.105*	Internal corrosion of household plumbing; erosion of natural deposits
Lead (ppb)	0.2	5	15 (AL)	ND	ND	0.2-5.3	1.8*	
LEAD SAMPLING IN SCHOOLS								
	<i># of sites exceeding action level=0</i>		<i># of samples collected=333</i>	<i># of schools sampled=31</i>				
SECONDARY STANDARDS Aesthetic Standards Established by the State Water Resources Control Board's Division of Drinking Water								
REGULATED CONTAMINANTS WITH SECONDARY MCLS								
	<i>There are no adverse health effects from exceeding the secondary (aesthetic) standards.</i>							
Threshold Odor Number (TON) at 60°C	NS	1	3	ND	ND	ND	ND	Naturally occurring organic materials
Chloride (ppm)	NS		500	4.7-5.6	5.0	17.6-23.8	20.7	Run-off/leaching from natural deposits
Sulfate (ppm)	NS	0.5	500	12-14	12.5	ND-1.3	0.65	Run-off/leaching from natural deposits
Specific Conductance (umhas/cm)	NS		1600	210-250	227	440-520	480	Substances that form ions when in water
Total Dissolved Solids (ppm)	NS		1000	140-160	145	340-360	350	Run-off/leaching from natural deposits
Color (units)	NS		15	ND-4.0	0.67	ND	ND	Naturally occurring organic materials
Manganese (ppb)	NS	20	50	ND	ND	1.3-16.8	3.6	Run-off/leaching from natural deposits
ADDITIONAL CONSTITUENTS								
Sodium (ppm)	NS		NS	7.8-9.3	8.5	51.1-53.5	52.3	Sodium refers to the salt present in water. It is naturally occurring.
Total Hardness CaCO ₃ (ppm)	NS		NS	106-123	112	140-143	141.5	Erosion of natural deposits
Total Alkalinity CaCO ₃ (ppm)	NS		NS	100-120	110	220-230	225	Erosion of natural deposits
Calcium (ppm)	NS		NS	21-23	22	26.9-28.2	27.5	Erosion of natural deposits
Total Radon 222 (pCi/L) ⁴	NS	100	NS	60.1-147	94	445-455	450	Found in the soil throughout the U.S.
Temperature °C (°F)	NS		NS	NA	NA	9(48)-28(82)	18(64)	Water temp. in Distribution System
UNREGULATED SUBSTANCES (UCMR 4)								
	<i>Unregulated substance monitoring helps EPA and the Division of Drinking Water determine where contaminants occur and if regulation is required.</i>							
Brominated Haloacetic Acids	NS	NS				ND-2.85	1.3	By-product of drinking water chlorination
Haloacetic Acids (ppb)	NS	NS				ND-3.6	1.75	By-product of drinking water chlorination

Santa Rosa's drinking water meets or exceeds all State and Federal drinking water health standards. Your water is tested weekly and the water system is carefully managed to be dependable and safe.

* 90th percentile detected

Drinking Water at all Public K-12 Schools is Safe to Drink



To protect children from the possible exposure of lead from older plumbing fixtures, California passed a law in 2017 requiring all community water providers, including Santa Rosa Water, to test for lead in drinking water by July 2019 at all public K-12 schools that were built prior to 2010. If water samples showed more than 15 parts per billion (ppb), the Environmental Protection Agency's (EPA) action level for lead, schools were required to shutoff all fountains and faucets until replaced. Santa Rosa Water took 333 water quality samples from 31 public schools in Santa Rosa. All 333 samples came back well-below 15 ppb, confirming that drinking water in Santa Rosa public schools is safe to drink.

Lead does not naturally occur in Santa Rosa's drinking water supply and has very low risk of lead contamination. Lead service lines are not common, and all new construction fixtures are required to be lead free. However, there is concern for lead contamination when water passes through older plumbing fixtures (i.e. in structures built before 1986, if the plumbing system has not been replaced). Santa Rosa Water routinely monitors our drinking water supply to ensure lead is not present.

In addition to monitoring drinking water, Santa Rosa Water offers Take it From the TAP! classroom presentations on where our water comes from, water quality and the health, environmental,

and economic benefits of choosing tap water. During the 2018-19 school year, approximately 9,000 students were engaged and provided stainless-steel reusable water bottles to empower them to Take it From the TAP! at school, home, and on-the-go. Recently, Santa Rosa Water partnered with Santa Rosa Parks to make taking it from the tap easier by installing bottle filling stations at Howarth Park, Courthouse Square and A place to Play.

For more information on lead testing in schools and the Take it From the TAP! program visit srcity.org/tap

NOTICE FROM THE EPA

Lead & Copper

The "lead and copper rule," or LCR, was introduced by the U.S. Environmental Protection Agency (U.S. EPA) in 1991 to limit the concentration of lead and copper allowed in public drinking water at the consumer's tap as well as to limit the corrosivity due to the water itself. Our water supplier, Sonoma Water, implemented the addition of sodium hydroxide to the drinking water in 1995 to increase the pH slightly as a corrosion control treatment. Higher pH levels reduce

the corrosivity of the water thereby reducing significantly the copper and lead levels. Lead originates from the solder used to connect plumbing fittings inside the home, and copper is used widely in small diameter plumbing pipe. Lead and copper levels are consistently below the action level in Santa Rosa.

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. The Santa Rosa Water Department is 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 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 U.S. EPA's Safe Drinking Water Hotline or website: **800-426-4791** or epa.gov/lead

A source water assessment of the drinking water for Sonoma Water and Santa Rosa was completed in January 2001. Specifically, the water source is considered most vulnerable to mining operations, recreational areas (surface water), septic systems, agricultural operations, and wastewater treatment and disposal. Proper filtration and treatment of the raw water is performed prior to delivery to customers. A copy of the complete assessment is available at the State Water Resources Control Board Division of Drinking Water office: 50 D Street, Suite 200, Santa Rosa, CA 95404.

HEALTH and QUALITY

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. Contaminants that may be present in source water include the following:

- Microbial contaminants such as viruses and bacteria that may come from wastewater treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants such as salts and metals that can be naturally occurring or result from urban storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.
- Radioactive contaminants that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, 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. State Board regulations 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. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline: **800-426-4791**.

Drinking water standards are established by both the State Board and by the U.S. EPA. Primary standards are set to protect public health from substances in water that may be immediately harmful to humans or affect their health if consumed for long periods of time. The primary drinking water standards are defined by maximum contaminant levels (MCLs) for contaminants that affect health along with their monitoring and reporting requirements and surface water treatment requirements.

Secondary standards govern aesthetic qualities of water such as taste, mineral content, odor, or clarity. These standards specify limits for substances that may influence consumer acceptance of the water and are not harmful to public health.

HEALTH-RELATED NOTICE

Precautions for Vulnerable Populations

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons that have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the U. S. EPA's Safe Drinking Water Hotline: **800-426-4791**.



PHOTO: CC BY 2.0

You can participate in decisions about your water . . .

For more information regarding Santa Rosa Water, you may attend the Santa Rosa Water Board of Public Utilities meetings, which are held every first and third Thursdays of the month at 1:30PM:

Santa Rosa Water, Board of Public Utilities
Santa Rosa City Hall Council Chambers
100 Santa Rosa Avenue, Santa Rosa, CA 95404
(707) 543-4200 | (707) 543-3031 TDD
For meeting dates and agenda: (707) 543-3397 or srcity.org/bpu

For more information regarding Sonoma Water, you may attend their Board meetings, which are held every Tuesday at 8:30 AM in conjunction with the Sonoma County Board of Supervisors:

Special Districts Supervisors' Chambers
Sonoma County Administration Building
575 Administration Drive, Room #102A, Santa Rosa, CA 95403-2887
(707) 565-2241
Web access with meeting dates and agenda:
sonomacounty.ca.gov/board-of-supervisors

For questions regarding water quality, please call our Water Quality Hotline at (707) 543-3965 (TDD Public Works (707) 543-3827) or fax (707) 543-3937.

Or email: waterquality@srcity.org

If you would like additional copies of this report, please contact us. We encourage business owners to provide this information to their employees.

En Español

Este folleto contiene información importante acerca de la calidad de su agua de beber. Si usted apreciaría hablar con alguien en español llame al (707) 543-3965.

CONTACT INFORMATION



Santa Rosa Water

35 Stony Point Road, Santa Rosa, CA 95401-4446

TEL 707.543.4200

FAX 707.543.3937

TDD 707.543.3827 - Public Works

Evenings, weekends and alternate Fridays, please call 707.543.3805 or 707.528.5276 (TDD Police Department)

Web access: srcity.org/water



Free weekly water recommendations

It's that time of year, and it's more important than ever to be water smart. Start saving today with these simple tips:

- Check your irrigation system for leaks.
- Irrigate during pre-dawn hours.
- Utilize free weekly watering recommendations.
- Prioritize watering of shade trees.
- Upgrade to a drip irrigation system (REBATE AVAILABLE).
- Transform your lawn into a low water-use landscape (REBATE AVAILABLE).
- Mulch to reduce evaporation and discourage weeds.
- Install a graywater or rainwater harvesting system (REBATE AVAILABLE).

707.543.3466
srcity.org/watersmart

Get social with us...

Find us at **Santa Rosa Water:**

