Annual Water Quality Report

Board of Public Utilities Meeting

June 5, 2025

Tony Llamas, Water Quality Manager

Santa Rosa WATER

OUR FUTURE IN EVERY DROP

Compliance with the Safe Drinking Water Act (SDWA)

Federal Rules – Public drinking water quality:

- Total Coliform Rule
- Disinfectants/Disinfection By-Products Rule
- Lead and Copper Rule
- Groundwater Rule

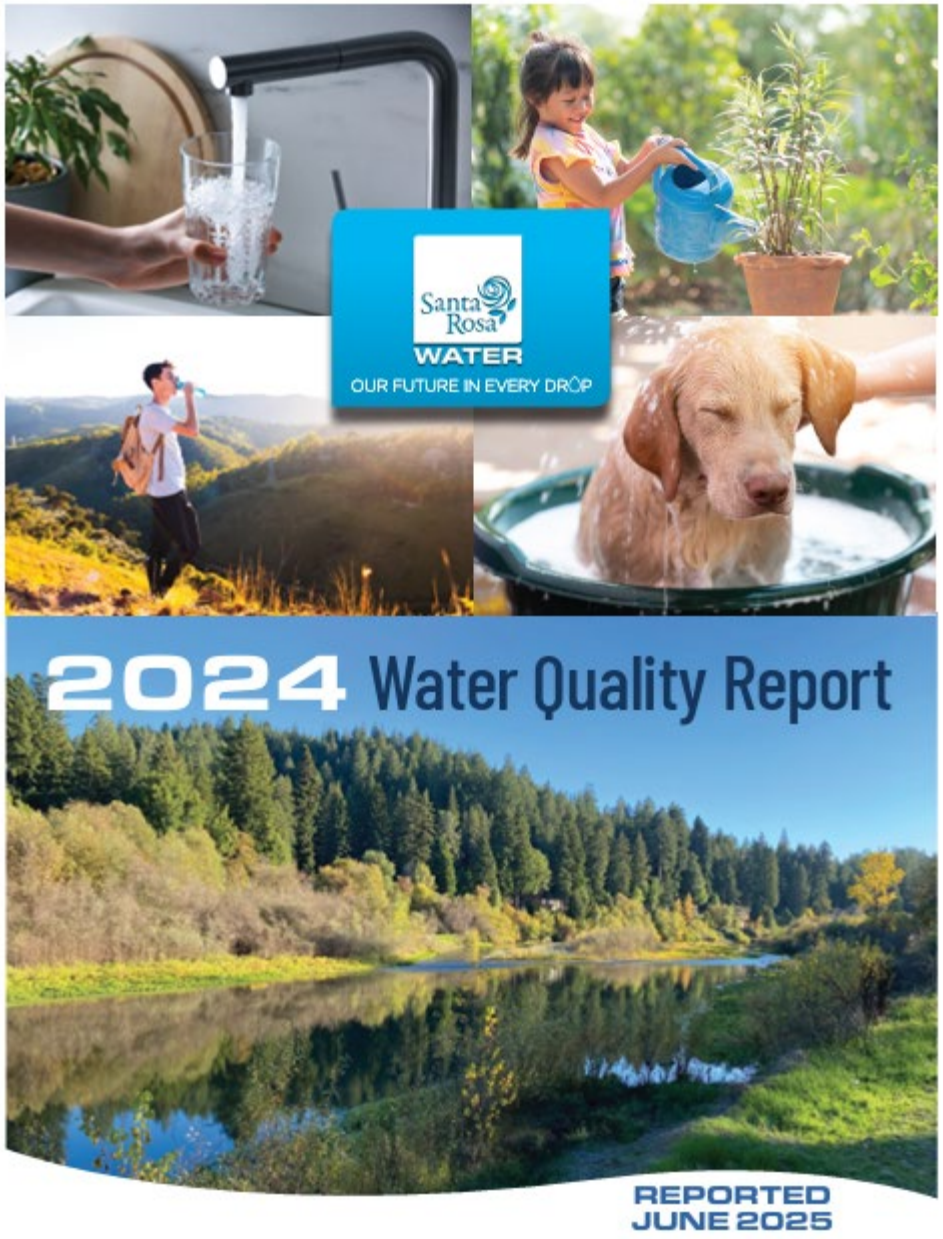
State Regulations - Cross Connection Control

Santa Rosa WATER

OUR FUTURE IN EVERY DROP

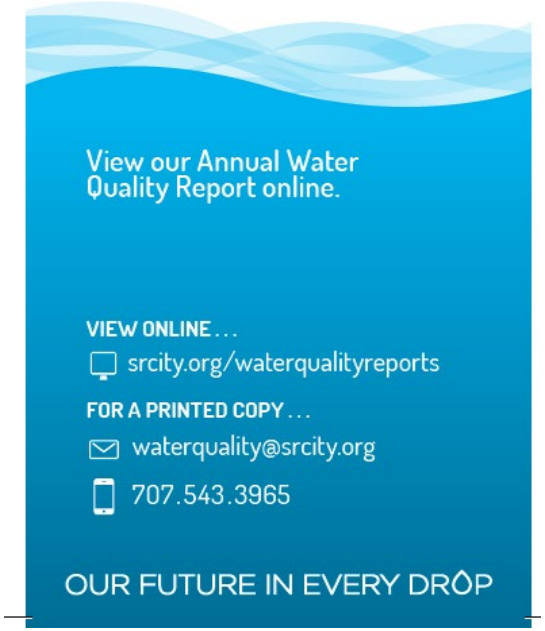
Annual Water Quality Report provides:

- Water system information
- Testing Information
- Definitions
- How to read Section
- Water Quality Results
- Water Saving Tips
- Required information on health and quality



Water Quality Report Distribution

- Press Democrat Ads
- Bill Insert
- Email and E-newsletter
- Social Media
- Mailings
- Printed copies



Santa Rosa WATER

OUR FUTURE IN EVERY DROP

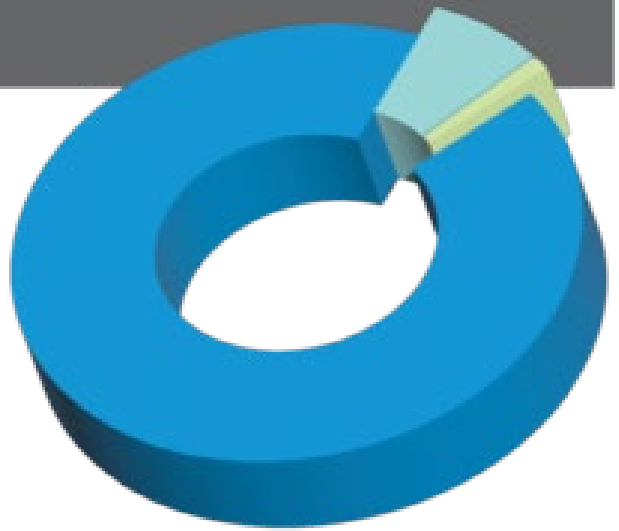
Water Supply Portfolio

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.

93% Sonoma Water (Russian River)

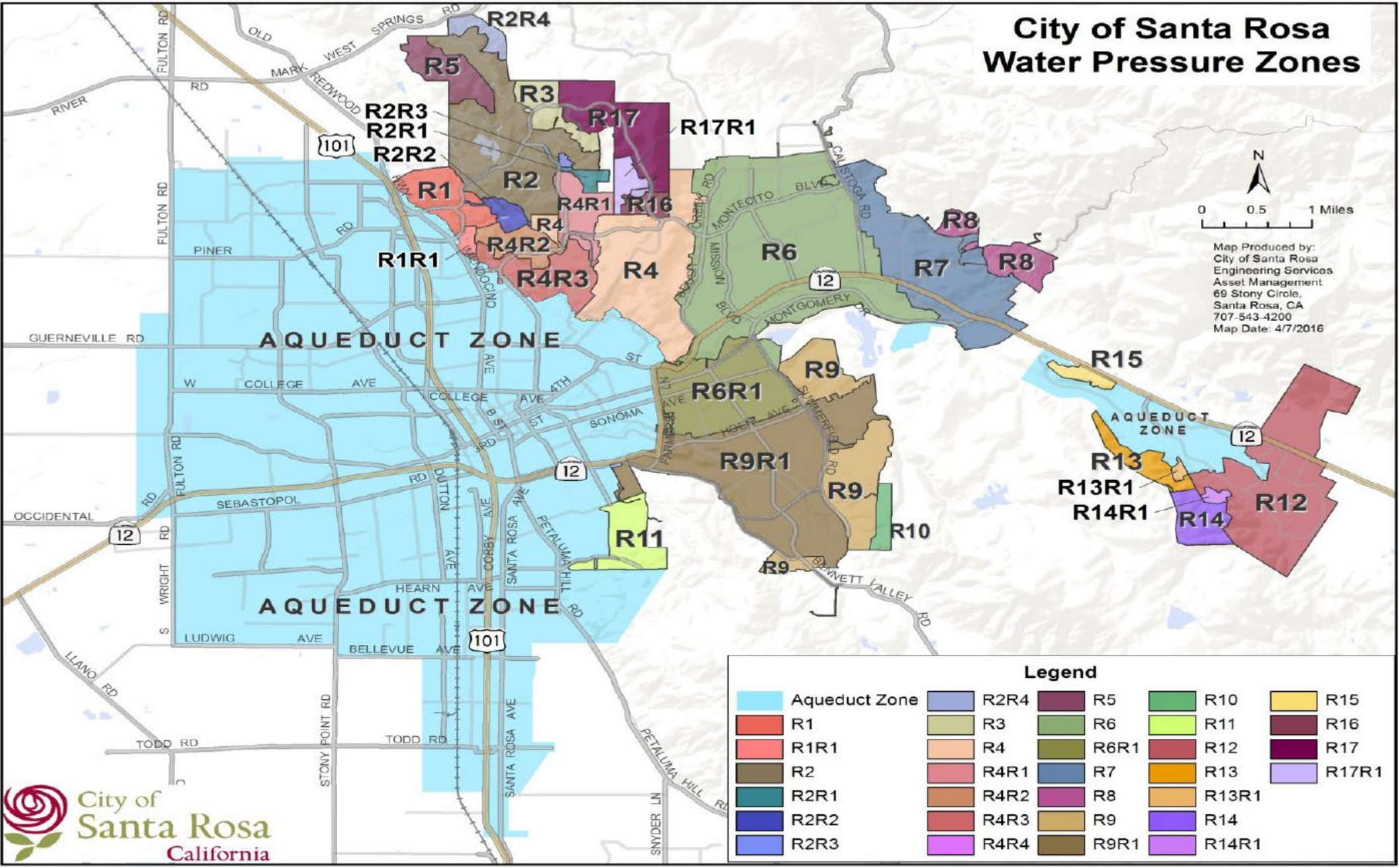
7% Groundwater

<1% Recycled



Santa Rosa WATER

OUR FUTURE IN EVERY DROP


City of Santa Rosa
Water Pressure Zones
R2R4
R5
R3
R17
R17R1
R2R3
R2R1
R2R2
R1
R2
R4R1
R16
R4
R4R2
R1R1
R4R3
R4
R6
R8
R7
R8
R15
R9
R6R1
AQUEDUCT ZONE
R9R1
R9
R13
R13R1
R14R1
R14
R12
R11
R10
R9
AQUEDUCT ZONE
N
0 0.5 1 Miles
Map Produced by:
City of Santa Rosa
Engineering Services
Asset Management
69 Stony Circle,
Santa Rosa, CA
707-543-4200
Map Date: 4/7/2016
GUERNEVILLE RD
W COLLEGE AVE
COLLEGE AVE
SONOMA
OCCIDENTAL
SEBASTOPOL
HEARN AVE
LUDWIG AVE
BELLEVUE AVE
TODD RD
TODD RD
LLANO RD
STONY POINT RD
SANTA ROSA AVE
PETALUMA HILL RD
SNYDER LN
FULTON RD
PINER
MONTGOMERY DR
CALISTOGA RD
MONTECITO BLVD
MISSION BLVD
BENNETT VALLEY RD
SUMMERFIELD RD
Legend
Aqueduct Zone
R1
R1R1
R2
R2R1
R2R2
R2R3
R2R4
R3
R4
R4R1
R4R2
R4R3
R4R4
R5
R6
R6R1
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R9
R9R1
R10
R11
R12
R13
R13R1
R14
R14R1
R15
R16
R17
R17R1
City of
Santa Rosa
California

Field Sampling covers all areas of our water system

Santa Rosa WATER

OUR FUTURE IN EVERY DROP

Farmers Lane Water Treatment Plant

Santa Rosa WATER

OUR FUTURE IN EVERY DROP

Sonoma County Water Agency - Caissons 1 thru 6 - 2024 Water Quality Report

CLARITY OF WATER FROM GROUNDWATER SOURCES	MCL	Units	Sample Frequency	Caisson 1	Caisson 2	Caisson 3	Caisson 4	Caisson 5	Caisson 6
				average	average	average	average	average	average
				0.039	0.030	0.050	0.039	0.045	0.041
Turbidity [1]	5 [3]	NTU	continuous	range	range	range	range	range	range
			(1st - 99th Percentile)	(0.025 - 0.053)	(0.013 - 0.072)	(0.031 - 0.175)	(0.033 - 0.044)	(0.027 - 0.114)	(0.024 - 0.070)

	MCL	Units	# Samples	Distribution System Monitoring for 2024
MICROBIOLOGICAL - Coliform Bacteria	< 2 positive samples per month	coliforms/100ml	547	2 positive samples
DISINFECTANT - Total Chlorine Residual	> 95% per month	detectable residual	247	Detectable residual in 100% of samples taken
Total Trihalomethanes [2] - Tank Samples	0.080	mg/L	72	average = mg/L 0.0123 range = (0.0050 mg/L - 0.0288 mg/L)

VOLATILE ORGANIC COMPOUNDS	Units	STATE	DLR	PHG	Caisson 1	Caisson 2	Caisson 3	Caisson 4	Caisson 5	Caisson 6
Section 64444 - Table A		MCL		{ MCLG }	12-Aug-24	12-Aug-24	13-Aug-24	13-Aug-24	13-Aug-24	12-Aug-24
Benzene	mg/L	0.001	0.0005	0.00015	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	mg/L	0.0005	0.0005	0.0001	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-DCB)	mg/L	0.6	0.0005	0.6	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-DCB)	mg/L	0.005	0.0005	0.006	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane (1,1-DCA)	mg/L	0.005	0.0005	0.003	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (1,2-DCA)	mg/L	0.0005	0.0005	0.0004	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene (1,1-DCE)	mg/L	0.006	0.0005	0.01	ND	ND	ND	ND	ND	ND
cis-1,2-Dichlorethylene (c-1,2-DCE)	mg/L	0.006	0.0005	0.013	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene (t-1,2-DCE)	mg/L	0.01	0.0005	0.05	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene Chloride)	mg/L	0.005	0.0005	0.004	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	mg/L	0.005	0.0005	0.0005	ND	ND	ND	ND	ND	ND
1,3-Dichloropropene (Cis & Trans)	mg/L	0.0005	0.0005	0.0002	ND	ND	ND	ND	ND	ND
Ethylbenzene	mg/L	0.3	0.0005	0.3	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE) [4]	mg/L	0.013	0.003	0.013	ND	ND	ND	ND	ND	ND
Monochlorobenzene (Chlorobenzene)	mg/L	0.07	0.0005	0.07	ND	ND	ND	ND	ND	ND
Styrene	mg/L	0.1	0.0005	0.0005	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	mg/L	0.001	0.0005	0.0001	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	mg/L	0.005	0.0005	0.00006	ND	ND	ND	ND	ND	ND
Toluene	mg/L	0.15	0.0005	0.15	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	mg/L	0.005	0.0005	0.005	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane (1,1,1-TCA)	mg/L	0.2	0.0005	1.0	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane (1,1,2-TCA)	mg/L	0.005	0.0005	0.0003	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	mg/L	0.005	0.0005	0.0017	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane (Freon 11)	mg/L	0.15	0.005	1.3	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	mg/L	1.2	0.01	4	ND	ND	ND	ND	ND	ND
Vinyl Chloride (VC)	mg/L	0.0005	0.0005	0.00005	ND	ND	ND	ND	ND	ND
Xylenes (m,p, & o)	mg/L	1.75	0.0005	1.8	ND	ND	ND	ND	ND	ND

PHG, DLR, and MCL are terms used in drinking water quality

PHG

- Public Health Goal is the level of a chemical contaminant in drinking water that doesn't pose a significant health risk. PHGs are not regulatory standards.

DLR

- Detection Limit for Reporting is the minimum level at or above which a contaminant in drinking water must be reported to the State Water Board. DLRs represent the level at which laboratories are confident about the accuracy of the contaminant quantity being reported.

MCL

- Maximum Contaminant Level is the maximum allowable amount of a contaminant in drinking water that is delivered to the consumer. MCLs are adopted as regulations and are health protective drinking water standards that public water systems must meet

2024 Water Quality Sampling Results

TABLE OF DETECTED CHEMICALS OR CONSTITUENTS IN 2024

Substance (Parameter)	Public Health Goal (MCLG)	DLR	Maximum Contaminant	SONOMA WATER[1] Range Detected	SONOMA WATER[1] Reporting Value	SANTA ROSA[2] Range Detected	SANTA ROSA[2] Reporting Value	Major Source in Drinking Water
PRIMARY STANDARDS Detected Regulated Contaminants with Primary MCLs or MRDLs 2024								
INORGANIC CONTAMINANTS								
Fluoride (ppm)[3]	1	0.1	2.0	<0.1	<0.1	0.16-0.18	0.17	Erosion of natural deposits
Nitrate (as N ppm)	10	0.4	10	<0.4	<0.4	<0.2	<0.2	Runoff/leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Chromium, Hexavalent (CrVI) (ppb)	0.02	0.1	10	0.29-0.47	0.35	< 0.1	< 0.1	Erosion of natural deposits, industrial waste discharge
DISTRIBUTION SYSTEM DETECTIONS 2024								
MICROBIOLOGICAL CONTAMINANTS								
Total Coliform Bacteria from SR Distribution Sys	0		5% of monthly samples	NA	NA	0%	0%	Naturally present in the environment
Fecal Coliform and E. coli	0		0	NA	NA	0	0	Human and animal fecal waste
Total Trihalomethanes (ppb)	NS		80	10.5-17.7	12.5	22.1-32.9	28.4	By-product of drinking water chlorination
Haloacetic Acids (ppb)	NS		60	3.7-25.9	8.8	5.6-11.9	8.7	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	0.18-1.74	1.1	Disinfectant to control microbes
pH (units) Prior to pH Adjustment	NS		NS	7.1-7.4	7.3	7.5-8.6	8.1	Sodium hydroxide addition
LEAD/COPPER RULE 2022 DATA	Monitored at customer's tap. # of sites exceeding action level=0 # of samples collected=50 # of schools sampled=0							
Copper (ppm)	0.3	0.05	1.3 (AL)	<0.05	<0.05	0.02-0.22	0.086*	Internal corrosion of household plumbing; erosion of natural deposits
Lead (ppb)	0.2	5	15 (AL)	<5.0	<5.0	ND-11.6	1.63*	
LEAD SAMPLING IN SCHOOLS 2019 DATA	# of sites exceeding action level=0 # of samples collected=333 # of schools sampled=31							

2024 Water Quality Sampling Results

Substance (Parameter)	Public Health Goal (MCLG)	DLR	Maximum Contaminant	SONOMA WATER[1] Range Detected	SONOMA WATER[1] Reporting Value	SANTA ROSA[2] Range Detected	SANTA ROSA[2] Reporting Value	Major Source in Drinking Water
SECONDARY STANDARDS Aesthetic Standards Established by the State Water Resources Control Board's Division of Drinking Water								
REGULATED CONTAMINANTS WITH SECONDARY MCLs	There are no adverse health effects from exceeding the secondary (aesthetic) standards.							
Threshold Odor Number (TON) at 60°C	NS	1	3	<1.0	<1.0	<1.0	<1.0	Naturally occurring organic materials
Chloride (ppm)	NS		500	4.6-5.3	5.2	16.4-21.7	19	Runoff/leaching from natural deposits
Sulfate (ppm)	NS	0.5	500	13-15	13.5	<1.0	<1.0	Runoff/leaching from natural deposits
Specific Conductance (umhas/cm)	NS		1600	230-260	238.3	450-490	470	Substances that form ions when in water
Total Dissolved Solids (ppm)	NS		1000	140-150	146.6	340-360	350	Runoff/leaching from natural deposits
Color (units)	NS		15	<5.0-6.0	5.5	<5.0	<5.0	Naturally occurring organic materials
Manganese (ppb)	NS	20	50	<20	<20	ND-8.3	3.47	Runoff/leaching from natural deposits
ADDITIONAL CONSTITUENTS								
Sodium (ppm)	NS		NS	7.7-8.8	8.25	47-50.2	48.6	Refers to the naturally occurring salt present in water
Total Hardness $CaCO_3$ (ppm)	NS		NS	104-123	109.2	137-142	139.5	Erosion of natural deposits
Total Alkalinity $CaCO_3$ (ppm)	NS		NS	100-110	106.7	230-240	235	Erosion of natural deposits
Calcium (ppm)	NS		NS	20-24	21.5	26.7-27.9	27.3	Erosion of natural deposits
Total Radon 222 (pCi/L)[4]	NS	100	NS	96.1-177	132.8	445-455	450	Found in the soil throughout the U.S.
Temperature °C	NS		NS	NA	NA	10.6-28.8	18.5	Water temp. in Distribution System

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

In April 2024, the EPA established the first-ever national, legally enforceable drinking water standards for PFOA and PFOS, aiming to protect communities from exposure to these harmful chemicals.

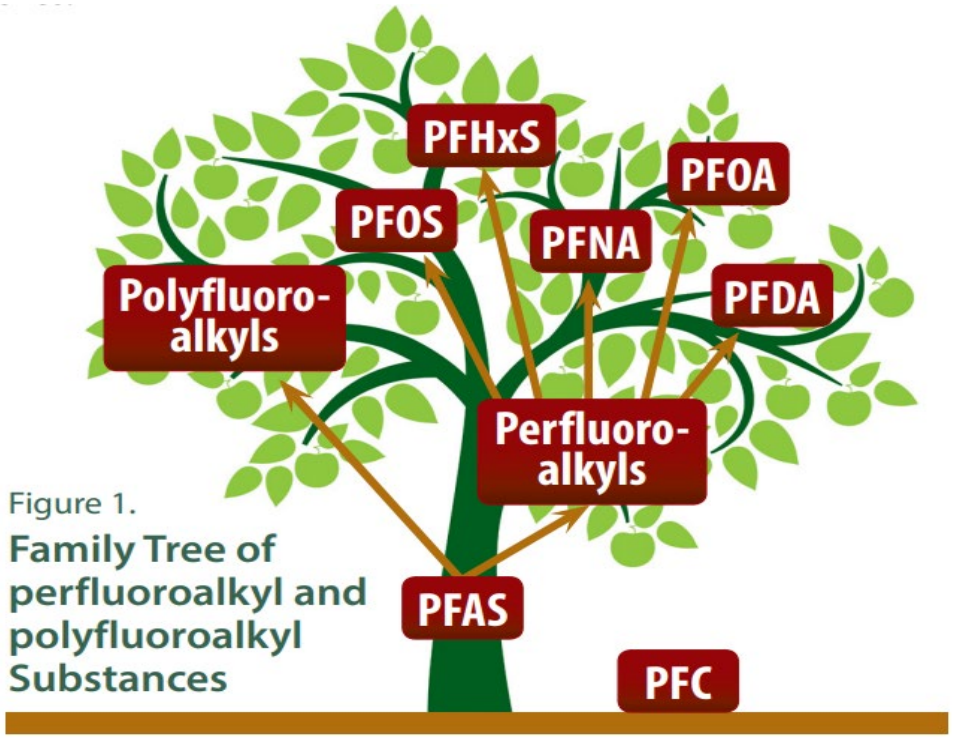

Figure 1.
Family Tree of perfluoroalkyl and polyfluoroalkyl Substances

Public Health Goal Report

- Under the Calderon-Sher Safe Drinking Water Act of 1996 (the Act), public water systems with more than 10,000 service connections are required to prepare a report every three years for contaminants that exceed their respective PHGs
- No exceedances of PHGs were reported for Santa Rosa Water (2022-2024)

Questions?

https://www.srcity.org/993/Water-Quality

Santa Rosa WATER

OUR FUTURE IN EVERY DROP