

2019 Drinking Water Quality Report Update

Board of Public Utilities Meeting

June 4, 2020

Tony Llamas, Water Quality Supervisor



OUR FUTURE IN EVERY DRÖP

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



OUR FUTURE IN EVERY DRÖP

Annual Water Quality Report provides:

- Water system information
- Testing Information
- Definitions
- How to Read Section
- Water Quality Results
- Rebuild Update



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Water Quality Report Distribution

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



Quality matters.



We test your tap water more than 200 times per month.

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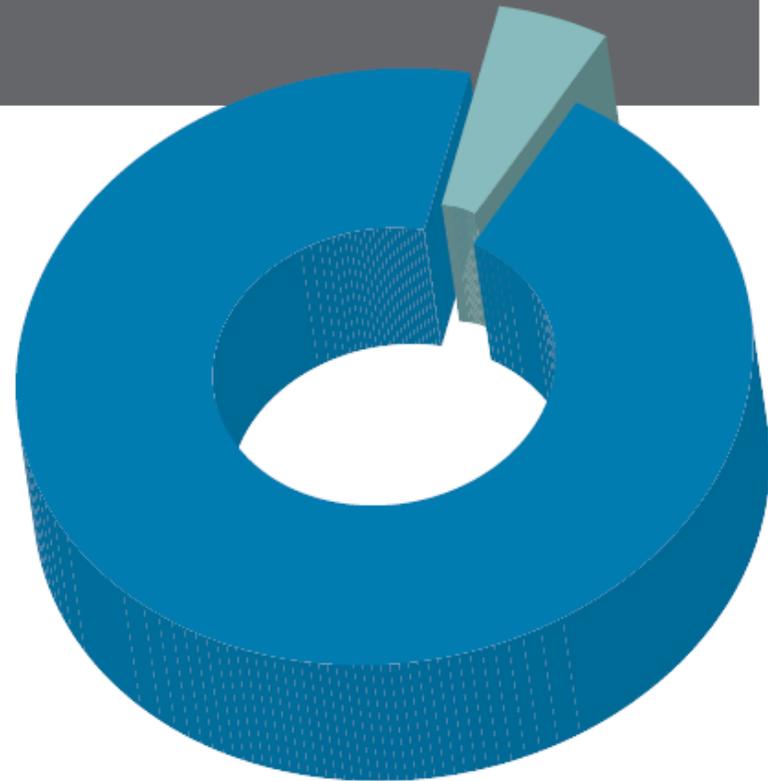
OUR FUTURE IN EVERY DRÖP

Water Supply Portfolio

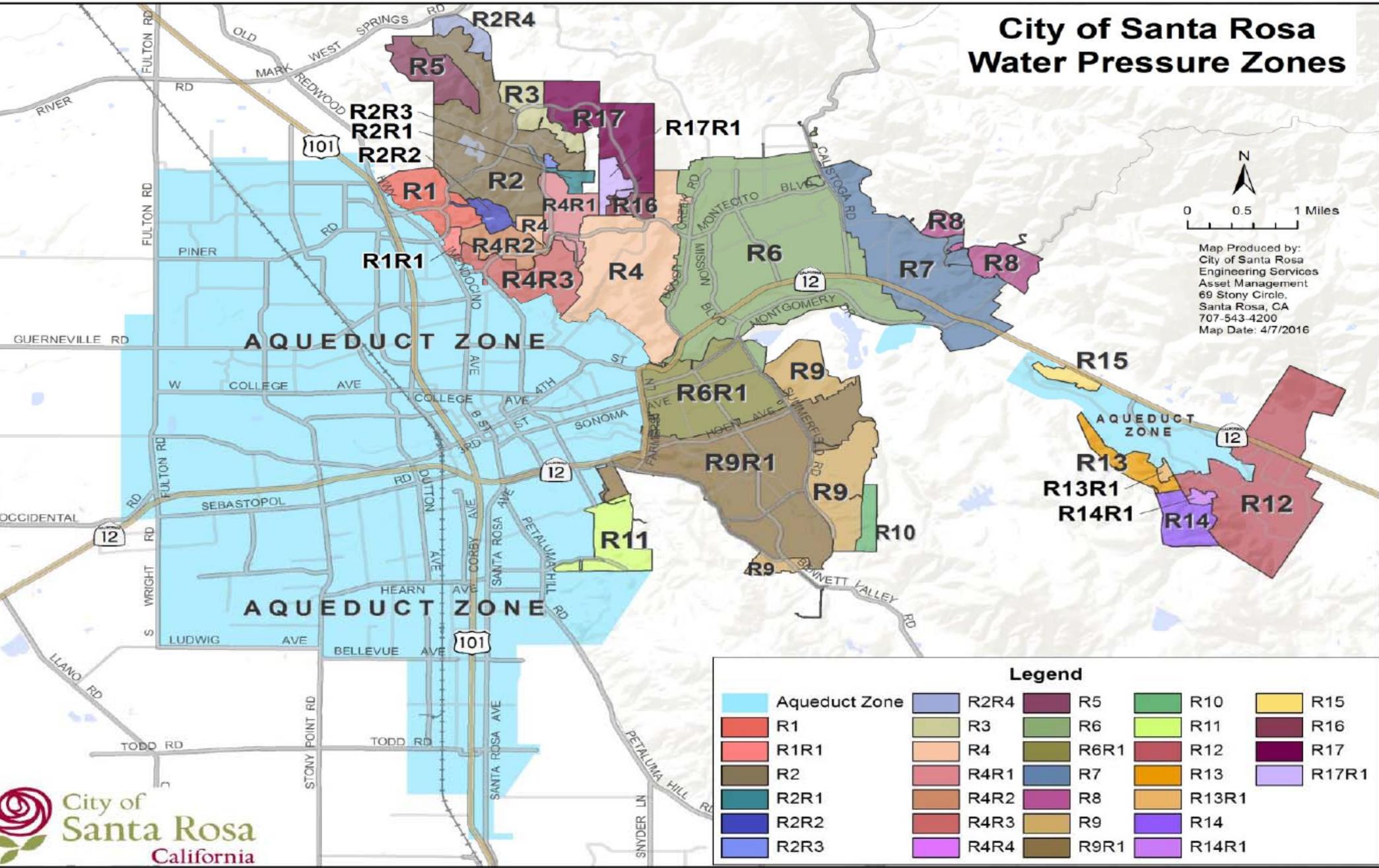
As a Santa Rosa Water customer you are connected to Santa Rosa's public water system. The water supplied to homes and businesses is a combination of surface water from the Russian River and local groundwater.

95% Water Agency
(Russian river)

5% Groundwater

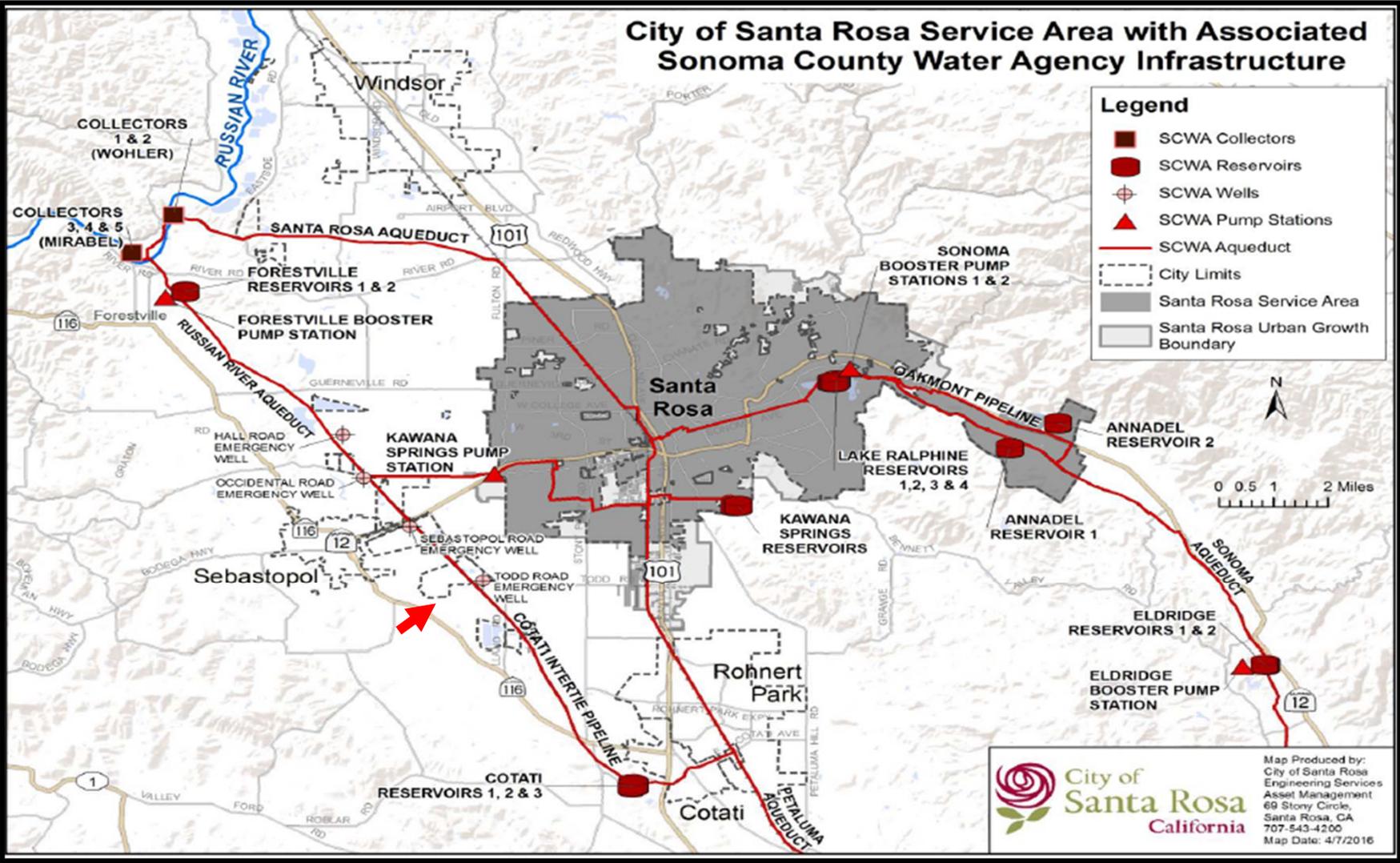


City of Santa Rosa Water Pressure Zones



Sonoma Water Transmission Lines

90 miles of pipelines from 12 to 54 inches



Field Sampling covers all areas of our water system



OUR FUTURE IN EVERY DROP

Rebuild Sampling Update

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.

Farmers Lane Well - Water Treatment Plant Samples



OUR FUTURE IN EVERY DROP

Sonoma County Water Agency - Caissons 1 thru 6 - 2019 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
				0.035	0.044	0.044	0.045	0.044	0.037
Turbidity ⁽¹⁾	5 ⁽³⁾	NTU	continuous	range (0.026 - 1.27)	range (0.028 - 2.0)	range (0.032 - 0.091)	range (0.022 - 2.0)	range (0.039 - 2.0)	range (0.033 - 2.0)

MICROBIOLOGICAL - Coliform Bacteria DISINFECTANT - Total Chlorine Residual Total Trihalomethanes ⁽²⁾ - Tank Samples	MCL	Units	# Samples	Distribution System Monitoring for 2018	
	< 2 positive samples per month	coliforms/100ml	537	2 positive samples	
	> 95% per month	detectable residual	534	Detectable residual in 100% of samples taken	
	0.080	mg/L	72	average = 0.0149 mg/L range = (0.0069 mg/L - 0.0241 mg/L)	

VOLATILE ORGANIC COMPOUNDS <i>Section 64444 - Table A</i>	Units	STATE MCL	DLR	PHG { MCLG }	Caisson 1	Caisson 2	Caisson 3	Caisson 4	Caisson 5	Caisson 6
					9-Sep-19	9-Sep-19	10-Sep-19	10-Sep-19	10-Sep-19	9-Sep-19
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-Dichloroethylene (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-Dichloropropane	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

2019 Water Quality Sampling Results

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 MRLs								
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 (meas 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 HOLE 2019 DATA <i>Monitored at customer's tap. # of sites exceeding action level=0 # of samples collected=30 # 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 # of samples collected=333 # 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 (µmhos/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 (UCPR-0) <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

Questions?

