

2018 Drinking Water Quality Report Update

July 18, 2019
BPU Meeting



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

Annual Water Quality Report provides:

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



Water Quality Report Distribution

- Press Democrat Ads
- Bill Insert
- Email and E-newsletter
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OUR FUTURE IN EVERY DRÖP



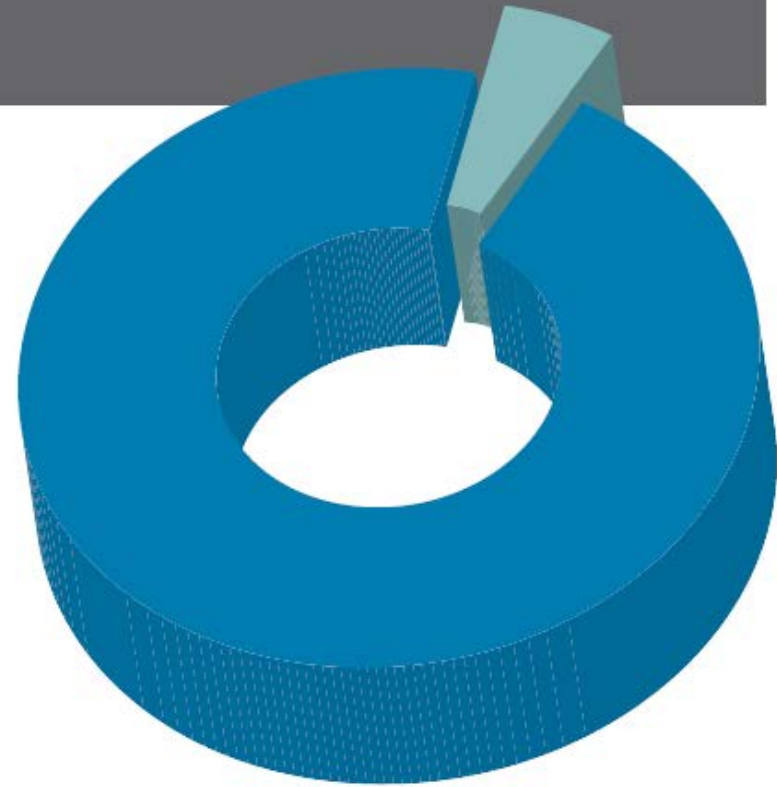
OUR FUTURE IN EVERY DRÖP

Water Supply Portfolio

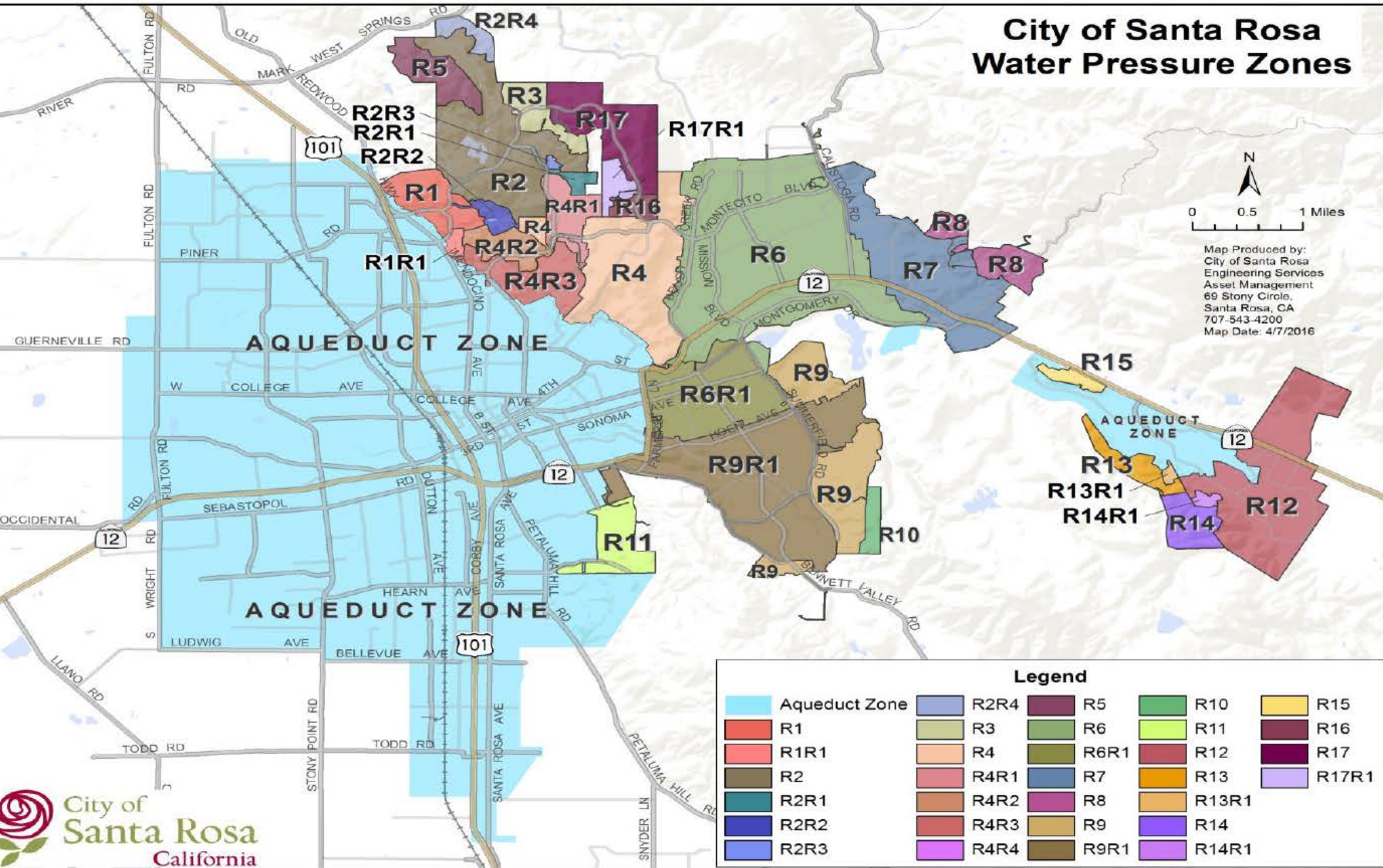
As a Santa Rosa Water customer you are connected to Santa Rosa's public water system. The water supplied to homes and businesses is a combination of surface water from the Russian River and local groundwater.

95% Water Agency
(Russian river)

5% Groundwater



City of Santa Rosa Water Pressure Zones



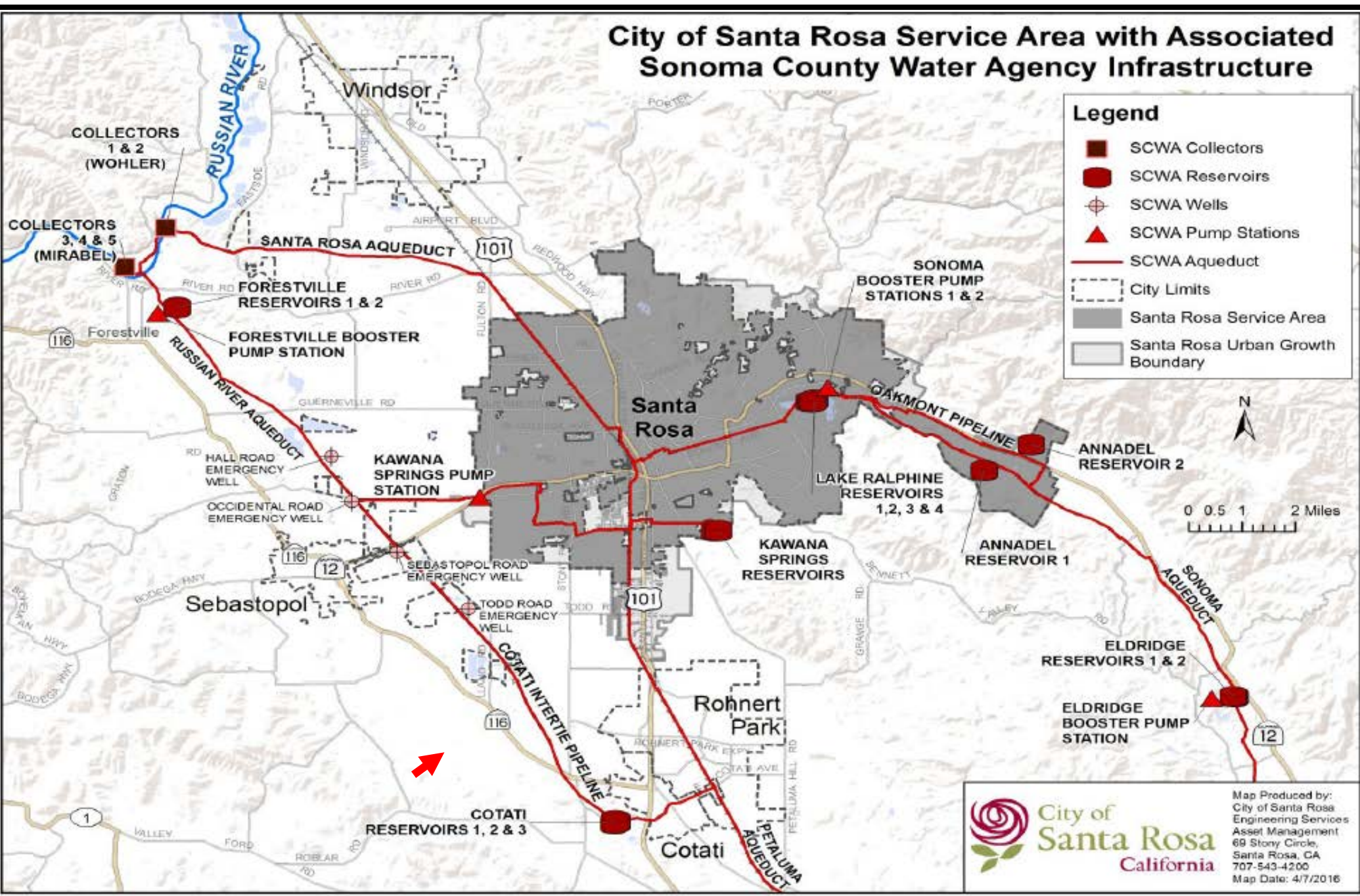
City of Santa Rosa Service Area with Associated Sonoma County Water Agency Infrastructure

Legend

- SCWA Collectors
- SCWA Reservoirs
- ⊕ SCWA Wells
- ▲ SCWA Pump Stations
- SCWA Aqueduct
- City Limits
- Santa Rosa Service Area
- Santa Rosa Urban Growth Boundary



0 0.5 1 2 Miles



City of Santa Rosa
California

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

Sample Stations



Farmers Lane Well - Water Treatment Plant Samples



Sonoma County Water Agency - Caissons 1 thru 6 - 2018 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
Turbidity ⁽¹⁾	5 ⁽²⁾	NTU	continuous	average 0.043 range (0.035 - 2.0)	average 0.035 range (0.022 - 2.0)	average 0.031 range (0.026 - 0.091)	average 0.042 range (0.021 - 2.0)	average 0.033 range (0.026 - 2.0)	average 0.033 range (0.024 - 2.0)

	MCL	Units	# Samples	Distribution System Monitoring for 2018
MICROBIOLOGICAL - Coliform Bacteria	< 2 positive samples per month	coliforms/100ml	540	1 positive samples
DISINFECTANT - Total Chlorine Residual	> 95% per month	detectable residual	541	Detectable residual in 100% of samples taken
Total Trihalomethanes ⁽³⁾ - Tank Samples	0.080	mg/L	72	average = 0.0123 mg/L range = (0.0047 mg/L - 0.0211 mg/L)

VOLATILE ORGANIC COMPOUNDS Section 64444 - Table A	Units	STATE MCL	DLR	PHG (MCLG)	Caisson 1 27-Aug-18	Caisson 2 27-Aug-18	Caisson 3 11-Sep-18	Caisson 4 4-Sep-18	Caisson 5 4-Sep-18	Caisson 6 27-Aug-18
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	0.5	0.0005	0.5	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

⁽¹⁾ Turbidity: **Annual average** is the mean of the monthly average values, weighted by hours of pump operation each month.

Range refers to the minimum and maximum Turbidity readings recorded by the online Turbidimeters at each site.

⁽²⁾ Total Trihalomethanes: 40 CFR Section 141.12 - is the sum of the concentrations of Bromodichloromethane, Dibromochloromethane, Bromoform, and Chloroform.

⁽³⁾ MCL: Secondary Standard.

⁽⁴⁾ Methyl tert-butyl ether (MTBE) is listed in both the Primary (Organic Chemicals - VOCs) and Secondary Standards.

2018 Water Quality Sampling Results

TABLE OF DETECTED CHEMICALS OR CONSTITUENTS IN 2018

				SONOMA WATER ¹		SANTA ROSA ²			
Substance (Parameter)	Public Health Goal (MCLG)	DLR	Maximum Contaminant Level	Range Detected	Reporting Value	Range Detected	Reporting Value	Major Source in Drinking Water	
PRIMARY STANDARDS Detected Regulated Contaminants with Primary MCLs or MROs									
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 2018									
MICROBIOLOGICAL CONTAMINANTS									
Total Coliform Bacteria from Santa Rosa Distribution System	0		5% of monthly samples	NA	NA	0%-0.35%	0%	Naturally present in the environment	
Total Trihalomethanes (ppb)	NS		80	NA	NA	14.7-47.2	29.2	By-product of drinking water chlorination	
Halooacetic Acids (ppb)	NS		60	NA	NA	5.4-12.8	7.45	By-product of drinking water chlorination	
Disinfectant-Free Chlorine (CL ₂) Residual (ppm)	MROs as CL ₂		MROs as CL ₂	NA	NA	0.09-1.63	0.93	Disinfectant to control microbes	
pH (units) prior to pH adjustment	NS		NS	NA	NA	7.72-8.42	8.07	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 2018 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)	ND	ND	ND-0.114	0.0679*	Internal corrosion of household plumbing; erosion of natural deposits	
Lead (ppb)	0.2	5	15 (AL)	ND	ND	ND	ND		
LEAD SAMPLING IN SCHOOLS									
	# of sites exceeding action level=0 # of samples collected=222 # of schools sampled=30								
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	ND	ND	ND	ND	Naturally occurring organic materials	
Chloride (ppm)	NS		500	5.2-7.0	5.0	17.6-23.8	20.7	Run-off/leaching from natural deposits	
Sulfate (ppm)	NS	0.5	500	11-29	14.9	ND-1.3	0.65	Run-off/leaching from natural deposits	
Specific Conductance (umhos/cm)	NS		1600	220-270	243.3	480-520	500	Substances that form ions when in water	
Total Dissolved Solids (ppm)	NS		1000	130-150	135	340-360	350	Run-off/leaching from natural deposits	
Color (units)	NS		15	ND	ND	ND	ND	Naturally occurring organic materials	
Manganese (ppb)	NS	20	50	ND	ND	NA	NA	Run-off/leaching from natural deposits	
ADDITIONAL CONSTITUENTS									
Sodium (ppm)	NS		NS	7.7-8.8	8.3	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	97-112	103.6	140-143	141.5	Erosion of natural deposits	
Total Alkalinity CaCO ₃ (ppm)	NS		NS	96-110	101.5	220-230	225	Erosion of natural deposits	
Calcium (ppm)	NS		NS	19-23	20.6	26.9-28.2	27.5	Erosion of natural deposits	
Total Radon 222 (pCi/L) ⁴	NS	100	NS	86-201	155.2	445-455	450	Found in the soil throughout the U.S.	
Temperature °C (°F)	NS		NS	NA	NA	11(52)-28(84)	20(68)	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.								* Data parenthesis detected	

Note: Listed in the table above are substances detected in the City's drinking water. A full listing of sample results is on our website.
1 Sonoma Water has 5 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 5 sources.

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. Source water wells were undergoing upgrades in 2018. Water from the wells was not distributed, however, water quality was continually monitored.
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 enters the home through tap water. It 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: www.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, through representative, was sampled in 2009.

Questions?

