SACRAMENTO COUNTY WATER AGENCY

2017 WATER QUALITY REPORT - LAGUNA / VINEYARD / CCE / GRANTLINE 99 (See Note #1)

DETECTED PRIMARY STANDARDS - Mandatory Health-Related Standards
Established by the State Water Resources Control Board (State Board)

	CONSTITUENT	SAMPLE DATE	UNITS	PHG or (MCLG) or [MRDLG]	MCL OR [MRDL]	MAJOR SOURCES IN DRINKING WATER	SURFACE WATER (see #2) RANGE (LO-HI)	SURFACE WATER (see #2) WEIGHTED AVERAGE	GROUNDWATER RANGE (LO-HI)	GROUNDWATER WEIGHTED AVERAGE
INORGANIC CONTAMINANTS										
	Arsenic	2014 - 2017	PPB	0.004	10	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.	ND	ND	ND - 6.7	ND
	Barium	2015 - 2017	PPM	2	1	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.	ND	ND	ND - 0.33	ND
	Chromium (Total Cr)	2015 - 2017	PPB	(100)	50	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.	ND	ND	ND - 11	ND
3	Hexavalent Chromium	2015 - 2017	PPB	0.02	n/a	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.	ND	ND	ND - 11	1.1
	Fluoride (Natural Source)	2016 - 2017	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	ND	ND	ND - 0.41	0.15
	Nickel	2015 - 2017	PPB	12	100	Erosion of natural deposits; discharge from metal factories.	ND	ND	ND - 14	ND
	Nitrate (as N)	2017	PPM	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.	ND	ND	ND - 3.4	ND
REGULATED ORGANIC CONTAMINANTS										
4	Total Trihalomethanes	2017	PPB	n/a	80	Byproduct of drinking water disinfection.	ND	ND	ND - 2.7	ND
RADIOACTIVE CONTAMINANTS										
	Gross Alpha Activity	2006 - 2017	pCi/l	(0)	15	Erosion of natural deposits.	ND	ND	ND - 8.1	ND
5	Uranium	2006 - 2017	pCi/l	0.43	20	Erosion of natural deposits.	ND	ND	ND - 5	ND
	Radium 226	2006 - 2009	pCi/l	0.05	n/a	Erosion of natural deposits.	ND	ND	ND - 2.42	ND
DISTRIBUTION SYSTEM							**RANGE**		**AVERAGE**	
	Chlorine Residuals	2017	PPM	[4]	[4.0]	Drinking water disinfectant added for treatment.	0.08 - 2.28		1.35	
	Total Trihalomethanes	2017	PPB	n/a	80	Byproduct of drinking water disinfection.	ND - 50		31.7	
6	Haloacetic Acids	2017	PPB	n/a	60	Byproduct of drinking water disinfection.	ND - 34		19.5	
7	Fluoride (Treated - Distribution)	2017	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	0.56 - 0.86		0.73	
8	Control of DBP Precursors (TOC)	2017	PPM	n/a	TT	Various natural and manmade sources	0.88 - 1.2		1.04	
MICROBIOLOGICAL CONTAMINANTS									**LEVEL FOUND**	
9	Total Coliform Bacteria	2017	% of Positive Samples	(0)	> 5% of Monthly Samples are Positive	Naturally present in the envirionment.	0.81%			
				n/a	TT = 1 NTU		0.115 NTU			
10	Turbidity	2017	NTU	n/a	TT = 95% of Samples ≤ 0.3 NTU	Soil Runoff	100%			

SECONDARY STANDARDS - Aesthetic Standards **Established by the State Water Resources Control Board (State Board)**						SURFACE WATER RANGE	SURFACE WATER WTD. AVG.	GROUNDWATER RANGE	GROUNDWATER WTD. AVG.
Color	2015 - 2017	Units	n/a	15	Naturally-occurring organic materials.	ND	ND	ND - 5	2.7
Copper	2015 - 2017	PPM	0.3	1	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	ND	ND	ND - 0.067	ND
Iron	2015 - 2017	PPB	n/a	300	Leaching from natural deposits; industrial wastes.	ND	ND	ND - 170	ND
Manganese	2015 - 2017	PPB	n/a	50	Leaching from natural deposits.	ND	ND	ND - 22	ND
Odor-Threshold	2015 - 2017	Units	n/a	3	Naturally-occurring organic materials.	ND	ND	ND - 3	1.55
Turbidity	2015 - 2017	Units	n/a	5	Soil runoff.	ND - 0.115	ND	ND - 0.8	0.2
Total Dissolved Solids	2015 - 2017	PPM	n/a	1000	Runoff/leaching from natural deposits.	66 - 110	88	160 - 330	203
Specific Conductance (E.C.)	2015 - 2017	umhos/cm	n/a	1600	Substances that form ions when in water; seawater influence.	100 - 150	125	200 - 530	265
Chloride	2015 - 2017	PPM	n/a	500	Runoff/leaching from natural deposits; seawater influence.	2.1 - 5.4	3.75	2.2 - 160	13
Sulfate	2015 - 2017	PPM	n/a	500	Runoff/leaching from natural deposits; industrial wastes.	2.4 - 5.1	3.75	ND - 13	2
OTHER CONSTITUENTS ANALYZED									
pH	2015 - 2017	Units	n/a	MO		7.7 - 8.1	7.95	7.6 - 8.2	8.1
Total Hardness (as CaCO3)	2015 - 2017	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	32 - 59	46	16 - 370	66
11 Total Hardness (as CaCO3)	2015 - 2017	Grains	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	1.9 - 3.4	2.7	0.9 - 21.6	3.9
Total Alkalinity (as CaCO3)	2015 - 2017	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	37 - 62	48	91 - 240	116
Bicarbonate (as HCO3)	2015 - 2017	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	45 - 76	58	110 - 290	141
Sodium	2015 - 2017	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	4.1 - 9.8	7.0	15 - 64	31
Calcium	2015 - 2017	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	6.9 - 12	9	3.4 - 85	13
Magnesium	2015 - 2017	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	3.6 - 7	5	1.6 - 38	8

LEAD & COPPER (See Note 12a & 12b)

CONTAMINANT	SAMPLE DATE	UNITS	PHG or (MCLG)	ACTION LEVEL	MAJOR SOURCES IN DRINKING WATER	NUMBER OF SAMPLES	90TH % LEVEL DETECTED	NUMBER EXCEEDING AL
Lead	2016	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	58	ND	0
Copper	2016	PPM	(0.3)	1.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	58	0.10	0

UNREGULATED CONTAMINANT MONITORING RULE (UCMR 3) - Established by USEPA (See Note 13)

CHEMICAL	SAMPLE DATE	UNITS	Notification Level	HEALTH EFFECTS LANGUAGE	DISTRIBUTION SYSTEM RANGE	DISTRIBUTION SYSTEM AVERAGE	SURFACE WATER RANGE	SURFACE WATER WTD. AVG.	GROUNDWATER RANGE	GROUNDWATER WTD. AVG.
Molybdenum	2013 - 2014	PPB	n/a		ND	ND	ND	ND	ND - 2	0.3
Strontium	2013 - 2014	PPB	n/a		68 - 140	107	68 - 140	101	40 - 500	218
Vanadium	2013 - 2014	PPB	50	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.	ND - 4	ND	ND	ND	ND - 34	15
14 Chlorate	2013 - 2014	PPB	800		100 - 300	157	100 - 300	163	31 - **1200**	179
Bromomethane	2013 - 2014	PPB	n/a		NA	NA	ND	ND	ND - 2.1	ND
Chloromethane	2013 - 2014	PPB	n/a		NA	NA	ND	ND	ND - 1	ND

NOTES:

1. The state allows SCWA to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.
2. Surface Water is from SCWA's Vineyard Surface Water Treatment Plant (VSWTP). VSWTP provided 45% of the water distributed to customers in the Laguna, Vineyard, CCE & Grantline-99 area in 2017. SCWA received no water from the City of Sacramento. For more information regarding the City of Sacramento's water quality data, go online (**http://portal.cityofsacramento.org/Utilities/Education/water-quality**) or call (916) 264-5011.
3. There is currently no MCL for hexavalent chromium. The previous MCL of 10 PPB was withdrawn on September 11, 2017. Chromium-6 is one of the forms of chromium making up total chromium which has a California MCL of 50 PPB. For more information about Chromium-6, please visit the State Water Resources Control Board's website: www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chromium6.shtml.
4. Total Trihalomethanes = sum of results for Chloroform, Bromoform, Dibromochloromethane, & Bromodichloromethane.
5. The State Water Resources Control Board allows the measurement of gross alpha radiation as a surrogate for Uranium.
6. Haloacetic Acids = sum of results for Bromochloroacetic acid, Dibromoacetic acid, Dichloroacetic acid, Monochloroacetic acid, & Trichloroacetic acid
7. The Laguna-Vineyard water system's facilities are all fluoridated to reduce tooth decay in children. Studies show that water fluoridation reduces tooth decay by 20 to 40 percent. The California State Water Resources Control Board advised SCWA to implement the CDC's recommended optimal fluoride content of 0.7 mg/L and control range of 0.6 mg/L – 1.2 mg/L. Information about fluoridation, oral health and current issues is available from **http://waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml.**
8. Only Surface water sources must monitor for Disinfection By-Product precursors. Treatment Technique is not required if the raw or treated water TOC is < 2 mg/L.
9. On Systems that collect more than 40 samples per month, the Total Coliform Bacteria MCL is 5% of the monthly samples return total coliform positive, per the Total Coliform Rule (TCR). A positive TC sample triggers collection of samples for E. coli at the source (i.e., groundwater wells) per the federal Ground Water Rule (GWR). In 2016, all samples taken per the GWR returned negative (absent) for E. coli.
10. Turbidity is a measure of the cloudiness of the water. 0.115 NTU is the highest individual measurement in 2017. 100% is the lowest percentage of monthly samples which were in compliance below the 0.3 NTU range. SCWA monitors turbidity because it is a good indicator of the effectiveness of its filtration systems. Only surface water sources must comply with PDWS for turbidity.
11. Hardness units are PPM. Most commercial companies use "grain" units. Conversion: 17.1 PPM = 1 grain

12a The levels for Lead and Copper concentrations were obtained from the 90th percentile of fifty-eight (58) tap water samples taken throughout the Laguna-Vineyard system. The MCLs for lead and copper are set at "Action Levels." None of the samples in Laguna-Vineyard exceeded the Action Levels for Lead and Copper. Please refer to the educational information on Lead in drinking water.

12b Effective January 18, 2017, The State Water Resources Control Board requires the Sacramento County Water Agency (SCWA) to provide one-time assistance with lead sampling to all public, private and/ or charter schools that submit a written request to SCWA and are served water by SCWA. Twenty-nine (29) schools served by the Laguna/ Vineyard/ CCE/ Grantline 99 water system requested lead sampling at their campuses in 2017.

13. Unregulated Contaminants Monitoring Rule (UCMR 3 / 2013 - 2015 Monitoring) with notification Levels help to determine where certain contaminants occur and whether they need to be regulated.
14. SCWA completed its UCMR3 Monitoring Program between 2013-2014. One well (Equine Well / W-63) exceeded the Notification Level (NL) for chlorate. Chlorate is an anion that can enter drinking water from several potential sources, including from hypochlorite or chlorine dioxide disinfectant use, ozone oxidation of hypochlorite or chlorite and source water contamination from pesticide runoff or papermill discharges. This well was taken off-line due to its chlorate exceedance and for repairs. When all repairs were completed, a confirmation sample was taken May 16, 2016 and returned Non-Detect.

In 2017, SCWA received surface water from its Vineyard Surface Water Treatment Plant (~45%).
For more detailed information regarding SCWA water quality, call Aaron Wyley @ (916) 875-5815.

State Mandated Information for Arsenic & Lead:

Arsenic:

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. Environmental Protection Agency 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 is linked to other health effects such as skin damage and circulatory problems.

Lead:

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 Sacramento County Water Agency 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 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 or at http://www.epa.gov/lead.

Cryptosporidium:

Cryptosporidium is a microbial pathogen found in surface water (e.g., rivers, lakes and streams) throughout the United States. SCWA's raw surface water source is the Sacramento River. Our monitoring of the source water indicates the presence of these organisms. From 2005 to 2007, SCWA took monthly Cryptosporidium samples. Of the 24 samples taken, only four detected the pathogen in the raw water. The results ranged from non-detect (ND) to 0.2 Oocycsts/ 10 liters. The average analysis result was 0.2 Oocycsts/ 10Liters. SCWA's surface water is highly treated with a thorough disinfection and filtration process to remove Cryptosporidium before distribution to the customer; however, the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of Cryptosporidium may cause cryptosporidiosis, and abdominal infection, the symptoms of which include nausea, cramps, diarrhea, and associated headaches. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.