

SACRAMENTO COUNTY WATER AGENCY

2015 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)		GROUNDWATER	
						RANGE (LO-HI)	WEIGHTED AVERAGE	RANGE (LO-HI)	WEIGHTED AVERAGE
INORGANIC CONTAMINANTS									
Arsenic	2007 - 2015	PPB	0.004	10	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.	ND - 3.3	ND	ND - 6.3	ND
Barium	2007 - 2015	PPM	2	1	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.	ND	ND	ND - 0.39	ND
Chromium (Total Cr)	2014 - 2015	PPB	(100)	50	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.	ND	ND	ND - 11	ND
3 Hexavalent Chromium	2006 - 2015	PPB	0.02	10	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.	ND	ND	ND - 8.9	1.4
Fluoride (Natural Source)	2014 - 2015	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	ND	ND	ND - 0.4	0.1
Nitrate (as NO3)	2014 - 2015	PPM	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.	ND	ND	ND - 15	ND
Nitrate + Nitrite as Nitrogen (N)	2006 - 2015	PPB	10000	10000	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.	ND	ND	ND - 3400	431

REGULATED ORGANIC CHEMICALS

4 Total Trihalomethanes	2006 - 2015	PPB	n/a	80	Byproduct of drinking water disinfection.	ND	ND	ND - 52	0.35
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RADIOACTIVE CONTAMINANTS

CONSTITUENT	SAMPLE DATE	UNITS	PHG or (MCLG) or [MRDLG]	MCL OR [MRDL]	MAJOR SOURCES IN DRINKING WATER	RANGE (LO-HI)	WEIGHTED AVERAGE	RANGE (LO-HI)	WEIGHTED AVERAGE
Gross Alpha Activity	2005 - 2015	pCi/l	(0)	15	Erosion of natural deposits.	ND	ND	ND - 6.1	ND
5 Uranium	2005 - 2015	pCi/l	0.43	20	Erosion of natural deposits.	ND	ND	ND - 6.7	ND
Radium 226	2005 - 2009	pCi/l	0.05	n/a	Erosion of natural deposits.	ND	ND	ND - 2.42	ND
Radium 228	2005 - 2009	pCi/l	0.019	n/a	Erosion of natural deposits.	ND	ND	ND - 3.18	ND

DISTRIBUTION SYSTEM

CONSTITUENT	SAMPLE DATE	UNITS	PHG or (MCLG) or [MRDLG]	MCL OR [MRDL]	MAJOR SOURCES IN DRINKING WATER	RANGE (LO-HI)	WEIGHTED AVERAGE	RANGE (LO-HI)	WEIGHTED AVERAGE
Chlorine Residuals	2015	PPM	[4]	[4.0]	Drinking water disinfectant added for treatment.	0.87 - 1.3			1.12
Total Trihalomethanes	2015	PPB	n/a	80	Byproduct of drinking water disinfection.	ND - 41			20.6
6 Haloacetic Acids	2015	PPB	n/a	60	Byproduct of drinking water disinfection.	ND - 26			11.3
7 Fluoride (Treated - Distribution)	2015	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	0.64 - 0.79			0.72
8 Control of DBP Precursors (TOC)	2015	PPM	n/a	TT	Various natural and manmade sources	0.89 - 1.5			1.1

MICROBIOLOGICAL CONTAMINANTS

CONSTITUENT	SAMPLE DATE	UNITS	PHG or (MCLG) or [MRDLG]	MCL OR [MRDL]	MAJOR SOURCES IN DRINKING WATER	RANGE (LO-HI)	WEIGHTED AVERAGE	RANGE (LO-HI)	WEIGHTED AVERAGE
9 Total Coliform Bacteria	2015	% of Positive Samples	(0)	> 5% of Monthly Samples are Positive	Naturally present in the environment.			0.81%	
			n/a	TT = 1 NTU				0.171 NTU	
10 Turbidity	2015	NTU	n/a	TT = 95% of Samples ≤ 0.3 NTU	Soil Runoff			100%	

SECONDARY STANDARDS - Aesthetic Standards

CONSTITUENT	SAMPLE DATE	UNITS	PHG or (MCLG) or [MRDLG]	MCL OR [MRDL]	MAJOR SOURCES IN DRINKING WATER	SURFACE WATER RANGE	WTD. AVG.	GROUNDWATER RANGE	WTD. AVG.
Color	2007 - 2015	Units	n/a	15	Naturally-occurring organic materials.	ND	ND	ND - 5	2.9
11 Iron	2007 - 2015	PPB	n/a	300	Leaching from natural deposits; industrial wastes.	ND	ND	ND - 400	ND
12 Manganese	2007 - 2015	PPB	n/a	50	Leaching from natural deposits.	ND	ND	ND - 300	ND
Odor-Threshold	2007 - 2015	Units	n/a	3	Naturally-occurring organic materials.	ND	ND	ND - 3	1
Turbidity	2007 - 2015	Units	n/a	5	Soil runoff.	ND - 0.171	ND	ND - 0.54	0.1
Zinc	2007 - 2015	PPM	n/a	5	Runoff/leaching from natural deposits; industrial wastes.	ND	ND	ND - 0.08	ND
Total Dissolved Solids	2007 - 2015	PPM	n/a	1000	Runoff/leaching from natural deposits.	97 - 120	109	160 - 330	211
Specific Conductance (E.C.)	2007 - 2015	umhos/cm	n/a	1600	Substances that form ions when in water; seawater influence.	150 - 200	175	200 - 520	279
Chloride	2007 - 2015	PPM	n/a	500	Runoff/leaching from natural deposits; seawater influence.	6.4 - 7.8	7.1	3 - 200	13
Sulfate	2007 - 2015	PPM	n/a	500	Runoff/leaching from natural deposits; industrial wastes.	5 - 7.1	6.1	ND - 11	2
Aggressive Index	2005 - 2009	AI	n/a	non-corrosive		11 - 12	11.5	11 - 12.2	12
Corrosivity (Langelier Index at 60° C)	2005 - 2009	LI	n/a	non-corrosive	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors.	-0.7 / -0.21	-0.46	-0.09 / 0.7	-0.2

OTHER CONSTITUENTS ANALYZED

CONSTITUENT	SAMPLE DATE	UNITS	PHG or (MCLG) or [MRDLG]	MCL OR [MRDL]	MAJOR SOURCES IN DRINKING WATER	SURFACE WATER RANGE	WTD. AVG.	GROUNDWATER RANGE	WTD. AVG.
pH	2007 - 2015	Units	n/a	MO		7.9 - 8.2	8.0	7.9 - 8.2	8.1
Total Hardness (as CaCO3)	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	59 - 74	67	13 - 420	71
13 Total Hardness (as CaCO3)	2007 - 2015	Grains	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	3.5 - 4.3	3.9	0.8 - 24.6	4.2
Total Alkalinity (as CaCO3)	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	51 - 81	69	88 - 230	118
Bicarbonate (as HCO3)	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	63 - 99	85	100 - 280	136
Sodium	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	10 - 15	13	15 - 63	30
Calcium	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	12 - 15	14	3.3 - 97	14
Magnesium	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	7.1 - 8.7	7.9	ND - 42	8

LEAD & COPPER (See Note 14)

CONTAMINANT	SAMPLE DATE	UNITS	PHG or (MCLG)	ACTION LEVEL	MAJOR SOURCES IN DRINKING WATER	NUMBER OF SAMPLES	90TH % LEVEL DETECTED	NUMBER EXCEEDING AL
Lead	2013	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	51	ND	0
Copper	2013	PPM	(0.3)	1.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	51	0.17	0

UNREGULATED CONTAMINANT MONITORING RULE (UCMR 3) - Established by USEPA (See Note 15)

CHEMICAL	SAMPLE DATE	UNITS	PHG or (MCLG) or [MRDLG]	Notification Level	HEALTH EFFECTS LANGUAGE	DISTRIBUTION SYSTEM RANGE	AVERAGE	SURFACE WATER RANGE	WTD. AVG.	GROUNDWATER RANGE	WTD. AVG.
Molybdenum	2013 - 2014	PPB	n/a	n/a		ND	ND	ND	ND	ND - 2	0.3
Strontium	2013 - 2014	PPB	n/a	n/a		68 - 140	107	68 - 140	101	40 - 500	218
Vanadium	2013 - 2014	PPB	50	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
16 Chlorate	2013 - 2014	PPB	800	800		100 - 300	157	100 - 300	163	31 - 1200	179
Bromomethane	2013 - 2014	PPB	n/a	n/a		NA	NA	ND	ND	ND - 2.1	ND
Chloromethane	2013 - 2014	PPB	n/a	n/a		NA	NA	ND	ND	ND - 1	ND

EXCEEDENCE:

Last year, we conducted more than 40 test to analyze over 40 contaminants per test. The following contaminants exceeded the secondary standards maximum contaminant level.

CONTAMINANT:	SAMPLE DATE:	UNITS	PHG	MCL	QUALITY EFFECTS / SOURCE OF CONTAMINANT:	RESULT:	LOCATION:
Iron	7/27/2015	PPB	n/a	300	Leaching from natural deposits; industrial wastes	400	Wildhawk WTP (WT-03)
Manganese	11/23/2015	PPB	n/a	50	Leaching from natural deposits.	300	East Park WTP (WF-03)

LEGEND

AI.....Aggressive Index	MPN.....Most Probable Number	NR.....Not Required	PPT.....Parts per trillion, or Nanograms per liter
AL.....Regulatory Action Level	NA.....Not Analyzed	NTU.....Nephelometric Turbidity Units	TOC.....Total Organic Carbon
LI.....Langelier Index	n/a.....Not Applicable	pCi/l.....Pico Curies per liter	TT.....Treatment Technique
MFL.....Million Fibers Per Liter	ND.....Non Detected	PPB.....Parts per billion (ug/l)	WTP.....Water Treatment Plant
MO.....Monitored Only	NL.....Notification Level	PPM.....Parts per million (mg/l)	

DEFINITIONS

- Average:** The annual average of all tests for a particular substance.
- Detection Limit for Reporting:** The limit at or above which a contaminant is detected.
- Maximum Contaminant Level (MCL):** The highest level of a 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.
- Maximum Contaminant Level Goal (MCLG):** 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. Environmental Protection Agency.
- Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Maximum Residual Disinfectant Level Goal (MRDLG):** 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.
- Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements
- Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
- Range (Lo - Hi):** The range between the lowest and highest values of a specific substance measured throughout the course of the year.
- Regulatory Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- Weighted Average (WTD AVG):** An average of water quality samples in which each sample is assigned a weight. Each sample's contribution (or weight) is based on the amount of water the corresponding water source produces for the whole system. Instead of each of the sample results contributing equally to the final average, some of the results contribute more than others.

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 came online in September 2011 and provided 27.23% of the water distributed to customers in the Laguna, Vineyard, CCE & Grantline-99 area in 2015. 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) 808-5371 or (916) 808-5426.
 3. The State of California has set 10 PPB as the MCL for chromium-6, beginning July 1, 2014. 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. The Optimal Fluoride Level and Control Range for the system is based on an annual average of maximum daily air temperatures in the Laguna-Vineyard area. In accordance with Title 22, Section 64433.2 of the State Water Resources Control Board (State Board) regulations, the Optimal Fluoride Level is 0.7 mg/L and the Fluoride Control Range is from 0.6 mg/L - 1.2 mg/L. Information about fluoridation, oral health, and current issues is available from www.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 2015, all samples taken per the GWR returned negative (absent) for E. coli.
 10. Turbidity is a measure of the cloudiness of the water. 0.171 NTU is the highest individual measurement in 2015. 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. Iron exceeded the MCL of 300 PPB; however the weighted average for iron in the Laguna/ Vineyard/ CCE/ Grantline99 water system is Non-Detect. Small quantities of iron are naturally found in some water sources. The presence of iron in drinking water may produce an undesirable taste, stain laundry and plumbing fixtures, and promote microbial growth in water distribution systems.
 12. Manganese exceeded the MCL of 50 PPB; however, the re-sample taken a week later returned Non-detect. The weighted average for manganese in the Laguna/ Vineyard/ CCE/ Grantline99 water system is Non-Detect. Water naturally contains small amounts of manganese, which present few adverse effects in food or drinking water; however, elevated concentrations of manganese in water may stain laundry, produce an undesirable odor and taste, contribute to microbial growth and turbidity, or form a coating inside pipes which can peel off as solid precipitates.
 13. Hardness units are PPM. Most commercial companies use "grain" units. Conversion: 17.1 PPM = 1 grain
 14. The levels for Lead and Copper concentrations were obtained from the 90th percentile of fifty-one (51) 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.
 15. 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.
 16. SCWA completed its UCMR3 Monitoring Program between 2013-2014, within that time, one well exceeded the Notification Level (NL) for chlorate: Equine Well (W-63). 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 has since been taken off-line due to its chlorate exceedance and for repairs. When all repairs were completed for this well source, a confirmation sample was taken May 16, 2016 and returned Non-Detect.
- In 2015, SCWA received surface water from its Vineyard Surface Water Treatment Plant (<28 %).**
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 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 (1-800-426-4791) 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 Oocysts/ 10 liters. The average analysis result was 0.2 Oocysts/ 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.