

SACRAMENTO COUNTY WATER AGENCY

2013 WATER QUALITY REPORT - LAGUNA / VINEYARD / CCE / GRANTLINE 99 (See Note #1)

DETECTED PRIMARY STANDARDS - Mandatory Health-Related Standards Established by California Department of Public Health Services

CONSTITUENT	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	PPB	0.004	10	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.	ND	ND	ND - 5.8	ND
Barium	PPM	2	1	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.	ND	ND	ND - 0.71	ND
Chromium (Total Cr)	PPB	(100)	50	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.	ND	ND	ND - 21	ND
Nitrate (as NO3)	PPM	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.	ND	ND	ND - 14	2.5
Nitrate + Nitrite as Nitrogen (N)	PPB	10000	10000	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.	ND	ND	ND - 3100	552
REGULATED ORGANIC CHEMICALS								
3 Total Trihalomethanes (Total THM's)	PPB	n/a	80	Byproduct of drinking water disinfection.	ND	ND	ND - 52	0.32
RADIOACTIVE CONTAMINANTS								
Gross Alpha Activity	pCi/l	(0)	15	Erosion of natural deposits.	ND	ND	ND - 6.1	ND
4 Uranium	pCi/l	0.43	20	Erosion of natural deposits.	ND	ND	ND - 6.7	ND
Radium 226	pCi/l	0.05	n/a	Erosion of natural deposits.	ND	ND	ND - 2.42	ND
Radium 228	pCi/l	0.019	n/a	Erosion of natural deposits	ND	ND	ND - 3.18	ND
DISTRIBUTION SYSTEM								
Chlorine Residuals	PPM	[4]	[4.0]	Drinking water disinfectant added for treatment.	RANGE 0.83 - 1.21		AVERAGE 1.02	
Total Trihalomethanes	PPB	n/a	80	Byproduct of drinking water disinfection.	RANGE 3.3 - 33		AVERAGE 20.3	
5 Haloacetic Acids	PPB	n/a	60	Byproduct of drinking water disinfection.	RANGE 2.3 - 22		AVERAGE 14.6	
6 Fluoride	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	RANGE ND - 0.84		AVERAGE 0.6	
7 Control of DBP Precursors	TOC	n/a	Treatment Requirement of Average TOC > 2	Various natural and manmade sources	RANGE 0.67 - 1.5		AVERAGE 1.06	
MICROBIOLOGICAL CONTAMINANTS								
					LEVEL FOUND			
8 Total Coliform Bacteria	% of Positive Samples	(0)	> 5% of Monthly Samples are Positive	Naturally present in the environment.	1.59%			
		n/a	TT = 1 NTU		0.212 NTU			
9 Turbidity	NTU	n/a	TT = 95% of Samples ≤ 0.3 NTU	Soil Runoff	100%			

SECONDARY STANDARDS - Aesthetic Standards Established by California Department of Public Health Services

CONSTITUENT	UNITS	PHG or (MCLG) or (MRDLG)	MCL OR (MRDL)	MAJOR SOURCES IN DRINKING WATER	SURFACE WATER		GROUNDWATER	
					RANGE	WTD. AVG.	RANGE	WTD. AVG.
Aggressive Index	AI	n/a	non-corrosive		11	11	11 - 12	11.8
Corrosivity (Langelier Index at 60° C)	LI	n/a	non-corrosive	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors.	-0.67 - (-0.41)	-0.5	-0.09 - 0.7	-0.2
Color	Units	n/a	15	Naturally-occurring organic materials.	15 - 20	18	ND - 10	0.4
Turbidity	Units	n/a	5	Soil runoff.	NA	NA	ND - 3.6	ND
Odor-Threshold	Units	n/a	3	Naturally-occurring organic materials.	ND - 4	2	ND - 3	ND
Chloride	PPM	n/a	500	Runoff/leaching from natural deposits; seawater influence.	6.4 - 7	6.7	2.6 - 370	14.3
Foaming Agents [MBAS]	PPB	n/a	500	Municipal and industrial waste discharges.	ND	ND	ND - 50	ND
Iron	PPB	n/a	300	Leaching from natural deposits; industrial wastes.	ND	ND	ND - 160	ND
10 Manganese	PPB	n/a	50	Leaching from natural deposits.	ND	ND	ND - 110	ND
Sulfate	PPM	n/a	500	Runoff/leaching from natural deposits; industrial wastes.	5.2 - 6.3	5.8	ND - 11	2
Zinc	PPM	n/a	5	Runoff/leaching from natural deposits; industrial wastes.	ND	ND	ND - 0.07	ND
Specific Conductance (E.C.)	umhos/cm	n/a	1600	Substances that form ions when in water; seawater influence.	160	160	180 - 1600	284
Total Dissolved Solids	PPM	n/a	1000	Runoff/leaching from natural deposits.	88 - 110	99	150 - 940	208

OTHER CONSTITUENTS ANALYZED

pH	Units	n/a	MO		8 - 8.1	8.1	6.8 - 8.3	8.1
Total Hardness (as CaCO3)	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	54 - 64	60	14 - 380	78
11 Total Hardness (as CaCO3)	Grains	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	3 - 4	3.5	1 - 22	5
Total Alkalinity (as CaCO3)	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	50 - 81	66	78 - 210	115
Bicarbonate (as HCO3)	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	60 - 99	80	95 - 260	140
Carbonate (as CO3)	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	ND	ND	ND - 2.9	0.1
Sodium	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	11	11	12 - 170	29
Calcium	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	11 - 13	13	3.2 - 87	16
Magnesium	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	6.1 - 7.6	6.9	1.5 - 39	9.5
12 Chromium Hexavalent	PPB	0.02	MO	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.	ND	ND	ND - 9.6	1.8

LEAD & COPPER (See Note 13)	UNITS	PHG or (MCLG) or (MRDLG)	AL	MAJOR SOURCES IN DRINKING WATER	SAMPLE DATE	NUMBER OF SAMPLES	90TH % LEVEL DETECTED	NUMBER EXCEEDING AL
Lead	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	2013	51	ND	0
Copper	PPM	(0.3)	1.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	2013	51	0.17	0

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:	MCL:	RESULT:	SAMPLE DATE:	LOCATION:	QUALITY EFFECTS / SOURCE OF CONTAMINANT:
Manganese	50 PPB	58 PPB	7/23/2013	Calvine Meadows WTP (WF-01)	Leaching from natural deposits.
Manganese	50 PPB	110 PPB	9/23/2013	East Park WTP (WF-03)	Leaching from natural deposits.

LEGEND

Al.....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 Detectable	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. The 2013 Water Quality Data is based on data years 2005 thru 2013.

2.....Surface Water is from SCWA's Vineyard Surface Water Treatment Plant (VSWTP). VSWTP came online in September 2011 and provided more than 43% of the water distributed to customers in the Laguna, Vineyard, CCE & Grantline-99 area in 2013. SCWA received less than 0.001% surface 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.....Total Trihalomethanes = sum of results for Chloroform, Bromoform, Dibromochloromethane, & Bromodichloromethane.

4.....California Department of Public Health Services allows the measurement of gross alpha radiation as a surrogate for Uranium.

5.....Haloacetic Acids = sum of results for Bromochloroacetic acid, Dibromoacetic acid, Dichloroacetic acid, Monochloroacetic acid, & Trichloroacetic acid

6.....The Laguna-Vineyard water system's facilities are all fluoridated and the system is currently at non-optimal levels. 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 California Department of Public Health (CDPH) regulations, the Optimal Fluoride Level is 0.8 mg/L and the Fluoride Control Range is from 0.7 mg/L - 1.3 mg/L. Information about fluoridation, oral health, and current issues is available from www.cdph.ca.gov/certific/drinkingwater/Pages/Fluoridation.aspx.

7.....Treatment Technique required if average TOC > 2. Only Surface water sources must monitor for Disinfection By-Product precursors in raw water.

8.....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 2013, all samples taken per the GWR returned negative (absent) for E. coli.

9.....Turbidity is a measure of the cloudiness of the water. 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.

10.....One Manganese sample returned 58 PPB at Calvine Meadows WTP (WF-01) on July 23, 2013 and one returned 110 PPB at East Park WTP (WF-03) on September 23, 2013. Both samples exceeded the MCL of 50 PPB.

The weighted average for Manganese is non-detect. Water naturally contains small amounts of manganese. Manganese in food or drinking water presents few adverse effects; 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.

11.....Hardness units are PPM. Most commercial companies use "grain" units. Conversion: 17.1 PPM = 1 grain

12.....Although a federal MCL for hexavalent chromium (chromium-6) has not been established, the State of California has set 10 PPB as the MCL for chromium-6, beginning July 1, 2014. SCWA voluntarily conducted enhanced monitoring of chromium-6 in our water systems. 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 CDPH's website: www.cdph.ca.gov/certific/drinkingwater/pages/chromium6.

13.....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 attached educational information on Lead in drinking water.

SCWA receives surface water from its Vineyard Surface Water Treatment Plant (>42%). Virtually no surface water comes from the City of Sacramento via the Franklin Booster Station (< 0.001%).

For more detailed water quality information, call (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/safewater/lead>.