SACRAMENTO COUNTY WATER AGENCY

2014 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	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	PPB	0.004	10	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.	ND	ND	ND - 7.5	ND
	Barium	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)	PPB	(100)	50	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.	ND	ND	ND - 11	ND
3	Hexavalent Chromium	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 - 10	1.2
	Fluoride (Natural Source)	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	ND - 0.1	ND	ND - 0.48	0.1
	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 - 15	1.6
	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 - 3400	341
REGULATED ORGANIC CHEMICALS									
4	Total Trihalomethanes (Total THM's)	PPB	n/a	80	Byproduct of drinking water disinfection.	ND	ND	ND - 52	0.74
RADIOACTIVE CONTAMINANTS									
	Gross Alpha Activity	pCi/l	(0)	15	Erosion of natural deposits.	ND	ND	ND - 6.1	ND
5	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						**RANGE**		**AVERAGE**	
	Chlorine Residuals	PPM	[4]	[4.0]	Drinking water disinfectant added for treatment.	0.87 - 1.26		1.01	
	Total Trihalomethanes	PPB	n/a	80	Byproduct of drinking water disinfection.	ND - 49		16.4	
6	Haloacetic Acids	PPB	n/a	60	Byproduct of drinking water disinfection.	ND - 31		11.6	
7	Fluoride (Treatment Related - Distribution)	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	0.71 - 0.83		0.76	
8	Control of DBP Precursors (TOC)	PPM	n/a	TT	Various natural and manmade sources	0.67 - 1.5		1.11	
MICROBIOLOGICAL CONTAMINANTS						**LEVEL FOUND**			
9	Total Coliform Bacteria	% of Positive Samples	(0)	> 5% of Monthly Samples are Positive	Naturally present in the envirionment.	0.67%			
			n/a	TT = 1 NTU		0.276 NTU			
10	Turbidity	NTU	n/a	TT = 95% of Samples ≤ 0.3 NTU	Soil Runoff	100%			

					SURFACE WATER RANGE	SURFACE WATER WTD. AVG.	GROUNDWATER RANGE	GROUNDWATER WTD. AVG.
SECONDARY STANDARDS - Aesthetic Standards								
Established by the State Water Resources Control Board (State Board)								
	Color	Units	n/a	15	Naturally-occurring organic materials.	ND	ND	ND - 5	1.4
	Iron	PPB	n/a	300	Leaching from natural deposits; industrial wastes.	ND	ND	ND - 240	ND
	Manganese	PPB	n/a	50	Leaching from natural deposits.	ND	ND	ND - 28	ND
	Odor-Threshold	Units	n/a	3	Naturally-occurring organic materials.	1	1	ND - 3	2
11	Turbidity	Units	n/a	5	Soil runoff.	1.8 - 7.2	4.8	ND - 0.6	0.3
	Zinc	PPM	n/a	5	Runoff/leaching from natural deposits; industrial wastes.	ND	ND	ND - 0.08	ND
	Total Dissolved Solids	PPM	n/a	1000	Runoff/leaching from natural deposits.	88 - 120	103	76 - 530	208
	Specific Conductance (E.C.)	umhos/cm	n/a	1600	Substances that form ions when in water; seawater influence.	160 - 200	173	100 - 815	276
	Chloride	PPM	n/a	500	Runoff/leaching from natural deposits; seawater influence.	6.4 - 7.8	7.1	3 - 200	15
	Sulfate	PPM	n/a	500	Runoff/leaching from natural deposits; industrial wastes.	5.2 - 7.1	6.2	ND - 11	2
	Aggressive Index	AI	n/a	non-corrosive		11 - 12	11.3	11 - 13	12
	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 / -0.21	-0.45	-.09 / 0.7	-0.2
OTHER CONSTITUENTS ANALYZED									
	pH	Units	n/a	MO		8 - 8.2	8.0	6.8 - 8.3	7.8
	Total Hardness (as CaCO3)	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	54 - 74	63	13 - 420	74
12	Total Hardness (as CaCO3)	Grains	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	3 - 4	3.7	0.7 - 25	4.3
	Total Alkalinity (as CaCO3)	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	50 - 83	67	33 - 230	116
	Bicarbonate (as HCO3)	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	60 - 99	82	40 - 280	135
	Sodium	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	11 - 15	12	12 - 63	29
	Calcium	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	11 - 15	13	3 - 97	15
	Magnesium	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	6.1 - 8.7	7.3	ND - 42	8

LEAD & COPPER (See Note 13)

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

UNREGULATED CONTAMINANT MONITORING RULE (UCMR 3) - Established by USEPA (See Note 14)

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

LEGEND

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

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 2014 Water Quality Data is based on data years 2004 thru 2014.

2……Surface Water is from SCWA's Vineyard Surface Water Treatment Plant (VSWTP). VSWTP came online in September 2011 and provided 28.8% of the water distributed to customers in the Laguna, Vineyard, CCE & Grantline-99 area in 2014. SCWA received less than 0.05% 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…..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.

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 and the system is currently at 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 State Water Resources Control Board (State Board) 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.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 2014, all samples taken per the GWR returned negative (absent) for E. coli.

10…..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.

11…..This reading of turbidity is taken at the raw source for surface water (Freeport Regional Water Project) and source water for the groundwater.

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

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 educational information on Lead in drinking water.

14……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.

15……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. A confirmation sample will be taken when all repairs have been completed for this well source.

SCWA receives surface water from its Vineyard Surface Water Treatment Plant (< 29 %). Virtually no surface water comes from the City of Sacramento via the Franklin Booster Station (< 0.05%).

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 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*.

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.