

2015 Water Quality Report

For more than 60 years, the Vallecitos Water District (Vallecitos) has taken pride in the water it delivers to its now more than 97,000 residents. As a result of its commitment to excellence, Vallecitos is proud to provide the 2015 water quality test results for drinking water delivered to its customers.

After more than 150 types of tests conducted by its wholesalers – Metropolitan Water District of Southern California (MWD) and San Diego County Water Authority (SDCWA) – and additional tests performed by the City of Oceanside and Vallecitos, it has been concluded that your water either met or exceeded all state and federal potable drinking water standards.

Along with these tests, your drinking water went through a treatment process that included filtering and disinfecting to ensure acceptable quality. Results of our own testing, along with the City of Oceanside's and our wholesalers' monitoring are found in the tables of this report.

This publication is a summary of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards.

Origins of Your Drinking Water

As of 2014, Vallecitos customers received 100 percent imported water from SDCWA, which purchased the water from MWD from Northern California and the Colorado River. In November of 2015, to reduce dependence on imported water and provide customers an increased level of reliability despite drought and other regulatory issues, Vallecitos customers began receiving ocean water from the Western Hemisphere's largest desalination treatment plant. The Carlsbad Claude "Bud" Lewis Desalination Plant provides superior quality water free of salt and

virtually any mineral, biological or organic compounds by taking water from Carlsbad's Agua Hedionda Lagoon, processing it, and then distributing it through a 54-inch pipeline 10 miles eastward before being delivered to your faucet. In 2015, Vallecitos began receiving a blend of desalinated and imported water from SDCWA. However, in 2016, Vallecitos will be receiving water directly from the plant.

Whether imported or local, your water remains safe during its journey due to increased security at key facilities, increased water sampling, and aerial and ground patrols. Protecting your water doesn't end with the thousands of tests performed throughout the year. Vallecitos also supports regulatory changes in public policy to improve water quality.



Sacramento-San Joaquin Delta via the 444-mile CA Aqueduct



Colorado River via the 242-mile Colorado River Aqueduct



Claude
"Bud" Lewis
Desalination Plant
in Carlsbad

The end result is more than 5 billion gallons of an exceptional product delivered annually through 19 operational storage reservoirs and 350 miles of pipeline to a 45-square-mile area that includes San Marcos; Lake San Marcos; portions of Escondido, Carlsbad, and Vista; and unincorporated areas in San Diego County.

The Water We Drink

The U.S. Congress has directed the U.S. Environmental Protection Agency (USEPA) to require water systems to report the quality of the drinking water they serve annually. Vallecitos supports this regulation and has provided Water Quality Reports and other water quality data to all of its customers for many years.

The Reason for Contaminants

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by

public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Vallecitos and its water wholesalers treat the water according to these regulations.

The sources of drinking water (both bottled and tap water) include rivers, lakes, streams, reservoirs, ponds, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants possibly present in source water before treatment include:

- <u>Microbial contaminants</u>, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- <u>Inorganic contaminants</u>, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- <u>Pesticides and herbicides</u>, which may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic compounds that are by-products of industrial processes and petroleum production and can come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- Radioactive contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.



Health Advisories Regarding Your Water

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Center for Disease Control guidelines on the appropriate means to lessen the risk of infection by Cryptosporidium or other microbial contaminants are available from the **Safe Drinking Water Hotline (800) 426-4791.**

The tables below list all the drinking water contaminants tested for during the 2015 calendar year. Thousands of water quality tests were performed on your drinking water last year. Many more parameters were tested for and not found. The results in this report show that your water met, and in most cases exceeded, all of the stringent state (State Water Resources Control Board) and federal (U.S. Environmental Protection Agency) water quality standards relating to public health and aesthetics, such as taste, odor and color. Unless otherwise noted, the data in the following tables reflect testing from January 1, 2015, through December 31, 2015. The monitoring of certain contaminants is not required annually since they are not expected to vary significantly from year to year. Therefore, though representative of the water quality, some of the data may be more than one year old.

Summary of Vallecitos Water District's 2015 Water Quality Analysis

	State or				Treat				
	Federal	PHG		Twin Oaks	Skinner	Weese	Carlsbad	Olivenhain	
	MCL	(MCLG)	Range	Treatment	Treatment	Treatment	Desalination	Treatment	Major Sources in
Units	[MRDL]	[MRDLG]	Average	Plant	Plant	Plant	Plant	Plant	Drinking Water
0/	NIA	NΙΔ	Range	NR	0-6	NR	NA	0-6	NA
70	INA	INA	Average	NR	3	NR	NA	3	NA NA
- Mandato	ry Health-F	Related Sta	ndards - Data	provided by t	he San Diego	County Wate	Authority (Twi	n Oaks Treati	ment Plant), the Metropolitan Water
ent Plant),	the City of	Oceanside	(Weese Trea	tment Plant), S	San Diego Coເ	ınty Water Au	thority (Claude	"Bud" Lewis	Carlsbad Desalination Plant), and the
Vater Distr	ict (David	C. McCollo	m Water Treat	ment Plant).					
NTU	0.3	ΝΔ	Average	0.01	.10	0.15	0.04	0.09	Soil runoff
%	95 (a)	INA	% ≤ 0.3	100%	100%	100%	100%	100%	30111411011
0/_	5.0	(0)	Range	ND	ND - 0.2	ND	ND	ND	Naturally present in the environment
/0	5.0	(0)	Average	ND	ND	ND	ND	ND	ivaturally present in the environment
(0)	(c)	(0)	Range	ND	ND	NR	ND		Human and animal fecal waste
(C)	(6)	(0)	Average	ND	ND	NR	ND	ND	Human and animal recal waste
CELI/ml	TT	NΙΔ	Range	ND	TT	NR	NA	TT	Naturally present in the environment
CFU/IIIL	- ''	IVA	Average	ND	TT	NR	NA	TT	
ALS									
	10	0.004	Range	Single Sample	ND	NA	ND	NRA	Natural deposits erosion; runoff from orchards;
Arsenic ppb	10	0.004	Average	3.0	ND	ND	ND	3.0	glass and electronics production wastes
Barium ppb	4.000	2,000	Range	Single Sample	124	NA	ND	NRA	Oil and metal refineries discharges; natural
	1,000		Average	120	124	130	ND	120	deposits erosion
	Optimal F	luoride Con	trol Range	0.7	0.6 - 1.2	NA	0.6 - 1.2	NA	Erosion of natural deposits; water additive for
	2.0	4	Range	0.6 - 0.7	0.5 - 0.9	Not Added	0.5 - 1.0	0.52 - 0.94	dental health; discharge from fertilizer and
ppm	2.0	'	Average	0.6	0.7	Not Added	0.8	0.75	aluminum factories
	10	40	Range	ND - 0.3	ND	ND - ND	0.7 - 0.9	NRA	Runoff and leaching from fertilizer use; sewag- natural deposits erosion
ppm	10	10	Average	ND	ND	ND	0.8	ND	
O:#	45	(0)	Range	ND	ND - 5	NA	ND	NRA	
pCI/L	15	(0)	Average	ND	ND	2.3	ND	4.8	Erosion of natural deposits
O:#	50	(0)	Range	ND	5	NA	ND	NRA	Decree of a street and assessment decree its
pCI/L	50	(0)	Average	ND	5	NA	ND	ND	Decay of natural and man-made deposits
0://	00	0.40	Range	1.7 - 2.3	1 - 2	NA	ND	NRA	Facility of a town I do not it.
pCI/L	20	0.43	Average	2.0	2	3.6	ND	2.3	Erosion of natural deposits
ODUCTS	DISINFE	CTANT RE	SIDUALS, A	ND DISINFE	CTION BY-PI	RODUCTS P	RECURSORS		
n m la	00	NIA	Range	15 - 28	12 - 17	20 - 38	ND	26 - 45	Dy product of dripking water shlaringsi
ppo	80	INA	Highest LRAA	22	15	37	ND	33	By-product of drinking water chlorination
	60	NIA	Range	ND - 2	4.3 - 8.0	1 - 23	ND	6.2 - 9.3	By product of dripking water phloringston
ppo	60	NA	Highest LRAA	ND	6.2	17	ND	8	By-product of drinking water chlorination
			Range	NR	1.1 - 3.0	0.1 - 3.3	2.08 - 3.44	1.93 - 3.93	Drinking water disinfectant added for treatme
	F4 O1	[4 0]				2.2	2.95	3.09	
ppm	[4.0]	[4.0]	Highest RAA	NR	2.4	2.2	2.95	3.09	
			Highest RAA Range	NR 1.8 - 10	2.4 1.1 - 9.9	NR	2.95 NA	ND	Du and dust of deighin acceptance and of
ppm ppb	[4.0] 10	0.1							By-product of drinking water ozonation
			Range	1.8 - 10	1.1 - 9.9	NR	NA	ND	By-product of drinking water ozonation Various natural and man-made sources
	% - Mandato ent Plant), Vater Distr NTU % (c) CFU/mL ALS ppb ppm ppm pci/L pCi/L pCi/L	Federal MCL [MRDL]	Federal MCL (MCLG) (MRDLG) (MRDLG)	Federal MCL (MCLG) Range Average	Federal MCL (MCLG) Range Average NR	Federal MCL (MCLG) Range Average NR NR NR NR NR NR NR N	Federal MCL (MCLG) Range Average NR NA NA Average NR NR NR NR NR NR NR N	Pederal MCL MCLG Range Average NR 3	Twin Oaks Carlsbad Olivenhain Treatment Plant Plan

This analysis report lists only the detected parameters which are required by law to be published. However, more than 150 parameters were monitored. If you would like a copy of the full reports, including the non-detected contaminants, call the District's Public Information Office at (760) 744-0460 or the reports can be viewed on our website at www.vwd.org.

Summary of Vallecitos Water District's 2015 Water Quality Analysis - Continued

		,		70 11410						- Oontinaea
		State or	State or Treatment Plant Effluents							
		Federal	PHG		Twin Oaks	Skinner	Weese	Carlsbad	Olivenhain	Major Courses in Drinking
		MCL	(MCLG)	Range	Treatment	Treatment	Treatment	Desalination	Treatment	Major Sources in Drinking
Parameter	Units	[MRDL]	[MRDLG]	Average	Plant	Plant	Plant	Plant	Plant	
SECONDARY STANDAR	DS - Aesth	etic Standa	ards - Data	provided by t	he San Diego	County Water	Authority, Me	etropolitan Wate	er District, Oliv	venhain Munciapl
Water District, and the Ci	ty of Ocea	nside.								
	200	NIA	Range	ND	ND	ND - 220	ND	NR	Residue from water treatment process; natural	
Aluminum (I)	ppb	200	NA	Highest RAA	ND	ND	125	ND	NR	deposits erosion
Chloride	nnm	500	NA	Range	Single Sample	102 - 105	85 - 95	40 - 54	NRA	Runoff/leaching from natural deposits; seawater
Chloride	ppm	500	INA	Average	110	104	91	44	100	influence
Color	Units	15	NA	Range	ND	1	ND	ND	ND	Naturally occurring organic materials
Coloi	Ullits	15	INA	Average	ND	1	ND	ND	ND	
Manganese ppb	nnh	50	NL = 500	Range	ND	ND	NR	ND	NR	Leaching from natural deposits
	ppu			Average	ND	ND	NR	ND	NR	
Odor Threshold (m)	TON	3	NA	Range	Single Sample	2	ND	ND	NRA	Naturally occurring organic materials
Odor Threshold (III)	1014	3	INA	Average	2	2	ND	ND	2	
Silver	ppb	100	NA	Range	Single Sample	ND	NR	ND	NR	Industrial discharges
Silver	ррь	100	INA	Average	ND	ND	NR	ND	NR	industrial discharges
Specific Conductance	μS/cm	1.600	NA	Range	Single Sample	1000 - 1050	NR	281 - 318	NRA	Substances that form ions in water; seawater
opecine conductance	μο/σπ	1,000	INA	Average	1000	1020	NR	296	1000	influence
Sulfate ppm	nnm	opm 500	NA	Range	Single Sample	237 - 249	191 - 275	15.3 - 17.9	NRA	Runoff/leaching from natural deposits; industria wastes
	ррііі			Average	250	243	249	16.7	240	
Total Dissolved Solids	ppm	1,000	NA	Range	Single Sample	639 - 655	NA	120 - 218	NRA	Runoff/leaching from natural deposits
(TDS)	ppiii	1,000	IVA	Average	690	647	640	194	680	ranonneading nom natural deposits
Turbidity (a)	NTU	5	NA	Range	NR	ND	0.05 - 0.40	ND - 0.97	ND - 10	Soil runoff
raibiaity (a)	1410		INA	Average	NR	ND	0.10	ND	0.09	Containon

ABBREVIATIONS AND DEFINITIONS

A - Absent

CFU/mL - Colony-Forming Units per milliliter

DBP - Disinfection By-Products

LRAA - Locational Running Annual Average; highest LRAA is the highest of all Locational Runnung Annual Averages calculated as average of all samples collected within a 12-month period

MCL - Maximum Contaminant Level - 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

MCLG - Maximum Contaminant Level Goal - 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.

MPN - Most Probable Number

MRDL - Maximum Residual Disinfectant Level - 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.

MRDLG - Maximum Residual Disinfectant Level Goal - 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.

N - Nitrogen

NA - Not Applicable

NRA - No Running Average - Single Sample Collected

NR - Not Reported

ND - Not Detected

NTU - Nephelometric Turbidity Units

NL - Notification Level - The level at which notification of the public water system's governing body is required.

pCi/L - picoCuries per liter

PHG - Public Health Goal - The level of a contaminant in drinking water below which there is no known or drinking water below which expected risk to health. PHGs are set by the California Evironmental Protection Agency.

ppb - parts per billion or micrograms per liter (μg/L)

ppm - parts per million or milligrams per liter (mg/L)

RAA - Running Annual Average SI - Saturation Index (Langelier)

TOC - Total Organic Carbon

TT - Treatment Technique - A required process intended to reduce the level of

a contaminant in drinking water.

 $\mu \text{S/cm}$ - microSiemen per centimeter; also equivalent to $\mu \text{mho/cm}$ (micromho

<u>Primary Standards</u> - (Primary Drinking Water Standards) - MCLs and MRDLs are set to provide the

maxiumum feasable protection to public health. They regulate contaminant levels based on toxicity and adverse health affects

<u>Secondary Standards</u> - (Secondary Drinking Water Standards) - Requirments that ensure appearance, taste and smell of drinking water are acceptable.

FOOTNOTES

- (a) The turbidity level of the filtered water shall be less than or equal to 0.3 NTU (0.1 NTU at Twin Oaks Treatment Plant) in 95% of the measurements taken each month and shall not exceed 1 NTU at anytime. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance. The monthly averages and ranges of turbidity shown in the Secondary Standards section were based on the treatment plant effluents
- (b) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform-positive. Compliance is based on the combined distribution system sampling from all the treatment plants. The MCL was not violated
- (c) E. coli MCLs: The occurrence of 2 consecutive total coliform-positive samples, one of which contains fecal coliform/E coli, constitutes an acute MCL violation. The MCL was not violated.
- (d) All distribution samples collected had detectable total chlorine residuals and no HPC was required. HPC reporting level is 1 CFU/mL.
- (e) MWD and SDCWA were in compliance with all provisions of the State's Fluoridation System Requirements.
- (f) State MCL is 45 mg/L as nitrate, which equals 10 mg/L as N.
- (g) SWRCB considers 50 pCi/L to be the level of concern for beta particles; the gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ.
- (h) Reporting level is 0.5 ppb for each of the following: bromodichloromethane, bromoform, chloroform, and dibromochloromethane.
- Reporting level is 1.0 ppb for each of the following: dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid; and 2.0 ppb for monochloroacetic acid.
- (j) Total chlorine is the sum of free and combined chlorine. Free chlorine is defined as the concentration of residual chlorine in water present as dissolved gas (Cl2), hypochlorous acid (HOCI), and/or hypochlorite ion (OCI-). Combined chlorine is defined as the residual chlorine existing in water in chemical combination with a or organic amines which can be found in natural or polluted waters. Ammonia is sometimes deliberately added to chlorinated public water supplies to provide inorganic chloramines. This process is generally referred to as "chloramination". The water provided to you has had inorganic chloramines added as a disinfectant.
- (k) Reporting level is 3.0 ppb for Bromate.
- (I) Aluminum, copper, MTBE and thiobencarb have both primary and secondary standards.
- (m) Metropolitan utilizes a flavor-profile analysis method that can detect odor occurrences more accurately. Call MWD at (213) 217-6850 for more information.

Summary of Vallecitos Water District's 2015 Water Quality Analysis - Continued

Other Detected Constituents That May be of Interest to Consumers

			lifer Dete			Treat				
		State or Federal MCL	PHG (MCLG) [MRDLG]	Range	Twin Oaks	Skinner	Weese	Carlsbad	Olivenhain	1
						Treatment		Treatment	Treatment	
Parameter	Units			Average	Plant	Plant	Plant	Plant	Plant	Major Sources in Drinking Water
Faranietei	Units				Single Sample	125 - 130	98 - 133	46 - 56	NRA	I Major Sources in Drinking Water
Alkalinity	ppm	NA	NA	Range	120	125 - 130	115	50.3	120	-
Boron				Average Range	Single Sample	130	NA	0.3 - 0.74	NRA	
BOIOII	ppb	NL = 1,000	NA	Average	140	130	NA NA	0.3 - 0.74	150	Runoff/leaching from natural deposits; industrial wastes
				Range	Single Sample	75 - 78	48 - 82	15.3 - 23.3	NRA	
Calcium	ppm	NA	NA	Average	77	77	70	19.8	73	
				Range	130 - 320	97	NR	NA.	NA NA	By-product of drinking water chlorination; industrial processes
Chlorate	ppb	NL = 800	NA	Average	220	91 - 147	NR	NA	NA	
				Range	ND	ND	NR	ND	ND	Industrial waste discharge; could be naturally present as well
Chromium VI (a)	ppb	10	0.02	Average	ND	ND	NR	ND	ND	
Corrosivity (b)	Α.	NIA	NA	Range	Single Sample	12.5	NR	1.29 - 12.0	NRA	Elemental balance in water; affected by temperature, other factors
(Agressiveness Index)	Al	AI NA		Average	13	12.5	NR	11.83	13	
Corrosivity (c) (Saturation	SI	NA	NA	Range	Single Sample	0.63 - 0.74	NR	(-0.4) - 2.05	NA	Elemental balance in water; affected by temperature, other factors The sum of naturally occurring poly-valent
Index)	31			Average	0.91	0.69	NR	0.74	NA	
Hardness	ppm	NA	NA	Range	Single Sample	290 - 307	200 - 320	39.5 - 60.3	NRA	
i laidiless	ррііі	INA	IVA	Average	310	299	283	50.3	300	cations present in the water
Magnesium	ppm	NA	NA	Range	Single Sample	25 - 27	19 - 30	0.29 - 0.57	NRA	
Magnesiam	рріп	107	10.4	Average	28	26	26	0.4	29	
N-Nitrosodimethylamine	ppt	NL = 10	3	Range	Single Sample	ND	NR	ND	NR	By-product of drinking water chloramination;
(NDMA)	PP.		Ů	Average	ND	ND - 6.0	NR	ND	NR	industrial processes
pH Units	nits NA	NA	Range	7.7 - 8.3	8.1 - 8.2	7.2 - 8.0	7.99 - 8.74	NRA		
pH	p		.47	Average	8.1	8.1	7.8	8.52	8.4	
Potassium	ppm	NA	NA	Range	Single Sample	4.7 - 5.1	NR	1.0 - 1.6	NRA	
	1.75			Average	4.9	4.9	NR	1.4	5.3	
Sodium	ppm	NA	NA	Range	Single Sample	96 - 103	NA	32.1 - 94.1	NRA	The salt present in the water, generally naturally
Socialii		14/1	101	Average	120	100	100	39.9	110	occurring

ABBREVIATIONS, DEFINITIONS AND FOOTNOTES

Abbreviations and Definitions- (Please refer to main table for other abbreviations and definitions)

NR - Not Reported

NL - Notification Level - The level at which notification of the public water system's governing body is required.

ppt - parts per trillion or nanograms per liter (ng/L).

NRA - No Running Average - Single Sample Collected

Footnotes:

(a) - Reporting level is 0.03 ppb for Chromium VI.

(b) - AI <10.0 = Highly aggressive and very corrosive water $\label{eq:AI} \text{AI} \ge 12.0 = \text{Non-aggressive water}$

Al (10.0 - 11.9) = Moderately aggressive water

(c) - Positive SI index = non-corrosive; tendency to precipitate and/or deposit scale on pipes

Negative SI index = corrosive; tendency to dissolve calcium carbonate

Summary of Vallecitos Water District's 2015 Water Quality Analysis - Continued

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	•	Within VWD's System	Major Sources in Drinking Water led by Vallecitos Water District			
Summary of Water Quality 1	GSIS WILII	III VWD 3 D		Range	ND - Present	led by vallectios water district			
Total Coliform Bacteria (a)	%	5.0 (a)	(0)	Average	0.07%	Naturally present in the environment			
Total Como. Ductoria (a)				Range	ND				
Fecal Coliform & E. coli (b)	(b)	(b)	(0)	Average	ND	Human and animal fecal waste			
, ,	nnh	80	NA	Range	14 - 33	By-product of drinking water chlorination			
Total Trihalomethanes (TTHM) (c)	ppb	80	INA	Highest RAA	31	By-product of diffixing water chlorifiation			
	ppb	60	NA	Range	5.6 - 18	By-product of drinking water chlorination			
Haloacetic Acids (five) (HAA5) (d)	ррь		10.0	Highest RAA	14	by product of drinking water ornermation			
General Physical Sampling (e)	(e)	(e)	(e)	Secondary Star	ndards (aesthetic	ds (aesthetics) testing required by SWRCB within VWD's Distribution System			
Unregulated Contaminants	(UCMR3)	(j)							
	ppb	NA	NA	Range	3.8 - 4.6	Naturally present in the environment			
Molybdenum	ррь	IV/	IV/A	Average	4.18	ivaturally present in the environment			
	ppb	NA	NA	Range	910 - 1100	Naturally present in the environment			
Strontium				Average	1027.5	//			
	ppb	NA	NL = 50	Range	<0.2 <0.2	Naturally present in the environment			
Vanadium				Average	<0.2 0.05 - 0.06				
Chromium, Hexavalent	ppb	NA	0.02	Range Average	0.05 - 0.06	By-product of industrial process			
Chroman, riexavalent				Range	46 - 88				
Chlorate	ppb	NA	NL = 800	Average	72.3	By-product of drinking water chlorination			
MONITORED AT CUSTOMERS	S' TAP								
Copper (f)	ppb	AL = 1,300	300	90th Percentile	410	House pipes internal corrosion; erosion of natural deposits; leaching from wood preservatives			
Lead* (f)	ppb	AL = 15	0.2	90th Percentile	2.8	House pipes internal corrosion; erosion of natural deposits; discharges from industrial manufacturers			

ABBREVIATIONS AND DEFINITIONS

AL - Action Level

HAA5 - Haloacetic Acids (five)

MCL - Maximum Contaminant Level - 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.

MCLG - Maximum Contaminant Level Goal - 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.

MRDL - Maximum Residual Disinfectant Level - 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. MRDLG - Maximum Residual Disinfectant Level Goal - 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.

NL - Notification Level

PHG - Public Health Goal - 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.

ppb - parts per billion or micrograms per liter (μg/L) **ppm -** parts per million or milligrams per liter (mg/L)

TTHM - Total Trihalomethanes **RAA** - Running Annual Average

FOOTNOTES

- (a) The District tested more samples than required by the SWRCB. 1,355 samples were analyzed in 2015 and all samples tested negative for Total Coliform bacteria. The District was in compliance with the Total Coliform MCL for 2015.
- (b) The District tested more samples than required by the SWRCB. 1,355 samples were analyzed in 2014 and all samples tested negative for Fecal/E. coli bacteria. The District was in compliance with the Fecal/E. coli MCL for 2015.
- (c) The MCL for Total Trihalomethanes (TTHM) is determined by using a running annual average of the last four quarterly tests. The District was in compliance with the regulations concerning Total Trihalomethanes (TTHM) for 2015.
- (d) The MCL for Haloacetic Acids (HAA5) is determined by using a running annual average of the last four quarterly tests. The District was in compliance with the regulations concerning Haloacetic Acids (HAA5) for 2015.
- (e) These samples were tested for turbidity, odor, and color. The District was in compliance with the Secondary Standards for these tests in 2015.
- (f) The federal and state standards for Lead and Copper are treatment techniques requiring agencies to optimize corrosion control treatment. The District is required to take 30 samples every three years. The data shown is from 31 samples taken during the 2018 period. Our next sample period is scheduled for June, 2018. The District was in compliance with the "Lead and Copper Rule" in 2015.
- (j) UCMR3 = Unregulated Contaminants Monitoring Rule 3. The EPA requires monitoring in order to determine if there is a need to regulate these compounds.

*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. Vallecitos 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 mintutes before using water for drinking or cooking. If you are concerned about lead in your drinking 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



201 Vallecitos de Oro San Marcos, CA 92069 (760) 744-0460 www.vwd.org

Board of Directors

Division 1: Betty Evans Division 2: Jim Hernandez Division 3: Craig Elitharp Division 4: Mike Sannella Division 5: Hal Martin

- Special Edition -2015 Water Quality Report



Management Staff

Dennis O. Lamb, General Manager Tom Scaglione, Assistant General Manager Rhondi Emmanuel, Administrative Services Manager John Fusco, Finance Manager James Gumpel, District Engineer Ed Pedrazzi, Operations and Maintenance Manager

All are welcome to attend the Vallecitos Board Meetings the first and third Wednesday of each month at 5:00 pm in the Administration building—201 Vallecitos de Oro in San Marcos.

Meetings are also aired on San Marcos TV on Cox Communications Channel 19, Time Warner Channel 24 or AT&T U-verse Channel 99, which air on the Monday following the Wednesday meeting at 6:30 pm. Visit www.san-marcos.net/smtv for programming schedule.



Parts per million (ppm) = One drop in a 10-gallon aquarium



Parts per billion (ppb) =
One drop in a residential
swimming pool

FOR MORE INFORMATION: This report is only a summary of the water quality activities during the past year. If you have any questions about your water quality or Vallecitos Water District, please visit our web site at www.vwd.org or call (760) 744-0460 during business hours (Monday through Friday, 8 a.m. to 5 p.m.). The District's headquarters is located at 201 Vallecitos de Oro, San Marcos, CA 92069. Questions specific to water quality can be directed to Shawn Askine, Water Systems Supervisor, at (760) 744-0460, ext. 268. Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para más información llame al (760) 744-0460. For additional information, contact:

- * U.S. Environmental Protection Agency (USEPA) (800) 426-4791 http://water.epa.gov/drink/index.cfm
- * National Center for Disease Control (404) 639-3311 www.cdc.gov
- * State Water Resources Control Board Division of Drinking Water (916) 449-5577 http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/CCR.shtml
- * Metropolitan Water District of Southern California (213) 217-6000 www.mwdh2o.com