SOLANO VERDE MUTUAL WATER COMPANY

Annual Water Quality Report
June 2019

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Water Quality as a Priority

Water quality is a priority for Solano Verde. Our mission since 1984 has been to provide our service area with a reliable supply of high quality locally produced and imported drinking water. The Staff of Solano Verde works diligently to ensure that Solano's water supply meets all state and federal water quality standards. This report provides information about the sources and quality of water delivered by Solano Verde in 2018. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards.

During the year, multiple tests for over 150 drinking water contaminants were performed on Solano Verde's water supply to determine concentrations of mineral, physical, bacteriological, inorganic, organic, and radioactive constituents. **Once again, we are proud to report that our system met or exceeded all primary water quality standards.** For additional information about the quality of water delivered by Solano Verde, please contact Robert Eranio at (805) 732-0495.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, including mineral and microscopic organic material. 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 (800) 426-4791.

General Information about Source Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, 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 from human activity.

Contaminants that may be present in source water before we treat it include:

- ✓ *Microbial contaminants,* such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- ✓ *Inorganic contaminants*, 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.
- ✓ *Pesticides and herbicides*, 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 chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- ✓ *Radioactive contaminants* which can be naturally-occurring or be the result of oil and gas production and mining activities.

Our Source Water

Solano Verde also received 100% of our water supply during 2018 from the *Metropolitan Municipal Water District of Southern California (MWDSC)* through the *Calleguas Municipal Water District (CMWD).* The MWDSC water supply contains about 2.0 parts per million chloramines as a disinfectant, instead of chlorine. This disinfectant has some advantages as compared to chlorine, such as fewer odors, better taste, and a reduction in the formation of carcinogenic trihalomethanes.

Originating in northern California, Calleguas' drinking water supply is conveyed over five hundred miles through the State Water Project's network of reservoirs, aqueducts, and pump stations. In December 2002, Metropolitan Water District of Southern California completed a source water assessment of its State Water Project supply. This source is considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850. The State Water Project supply is filtered and disinfected at the Metropolitan's Jensen Filtration Facility in Granada Hills. Following treatment, water is conveyed by pipeline through the San Fernando Valley to Calleguas' mile-long tunnel in the Santa Susana Mountains. The water is then distributed by Calleguas and its purveyors to over one-half million Ventura County residents, representing 80% of the County's population. Surplus supplies of this imported water are stored in Lake Bard in Thousand Oaks and the Las Posas Groundwater Storage facility in Moorpark.

Our Treated Water

In order to ensure that tap water is safe to drink, the USEPA and the California Department of Health Services (DHS) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Solano Verde achieves these standards through vigilant watershed protection and the treatment techniques used at our water production facilities and within our water distribution system. A good indicator of the effectiveness of our well design is the measurement of turbidity. Turbidity, or the cloudiness of water, is listed in the tables included in this report.

Information for Customers with Special Water Needs

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, people with HIV/AIDS or other immune system disorders, some elderly persons, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. Environmental Protection Agency (USEPA)/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.

Water Quality Data

The tables below list all the drinking water contaminants that we detected during the 2018 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in these tables is from testing done January 1 through December 31, 2018. The State requires that we monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of water quality, is more than one year old.

More Information on Water Quality

Calleguas Municipal Water District 2100 Olsen Road Thousand Oaks, CA 91360-6800 (805) 526-9323 http://www.calleguas.com	State of California Department of Health Services Office of Drinking Water 601 North 7th Street Sacramento, CA 94234-7320 http://www.dhs.ca.gov/ps/ddwem/
Metropolitan Water District of Southern California Public Affairs P.O. Box 54153 Los Angeles, CA 90054-0153 (800) CALL MWD www.mwdh2o.com/	U.S. Environmental Protection Agency (WH-550) Office of Ground Water & Drinking Water 401 M. Street, S.W. Washington, D.C. 20460 Safe Drinking Water Hotline (800) 426-4791 http://www.epa.gov/ogwdw/

For More Information: for additional information or questions regarding this report, please contact Robert Eranio, Water System Operator, at (805) 732-0495. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled board meetings. They are usually held on the third Tuesday of each month at 6:00 pm at the home of Steve Sharpe at 6909 Solano Verde Drive.

TERMS AND ABBREVIATIONS USED IN THIS REPORT

Non-Detects (ND) -	Laboratory analysis indicates that the constituent is not present.
Not Required (NR)-	The water district is not required to collect these because samples are collected by other districts on our behalf.
Parts per million (ppm) or Milligrams per liter (mg/l)	One part per million corresponds to one minute in two years or a single penny in $10,000.
Parts per billion (ppb) or Micrograms per liter -	One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Parts per trillion (ppt) or Nanograms per liter (nanograms/l) -	One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.
Parts per quadrillion (ppq) or Picograms per liter (picograms/l)	One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.
Picocuries per liter (pCi/L)	Picocuries per liter is a measure of the radioactivity in water.
Millirems per year (mrem/yr)	Measure of radiation absorbed by the body.
Million Fibers per Liter (MFL)	Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
Nephelometric Turbidity Unit (NTU)	Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Regulatory Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
Maximum Contaminant Level (MCL)	The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Public Health Goal or 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.
Treatment Technique (TT) -	A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Constituents Tested For and Not Detected

In addition to the information provided in the Summary of Water Quality Results, Calleguas and / or Solano Verde monitored for, but did not detect, the following contaminants during 2018:

1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloro-1,2,2-trifluoroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
2,4-Dinitrotoluene
2,6-Dinitrotoluene
1,1-Dichloroethylene
1,2,3-Trichloropropane
1,2,4-Trichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichloropropene
2,3,7,8-TCDD (Dioxin)
2,4,5-TP (Silvex)
2,4-D
4,4'-DDE
Acetochlor
Alachlor
Antimony
Arsenic
Asbestos
Atrazine
Bentazon
Benzene
Benzo(a)pyrene
Beryllium
Cadmium
Carbofuran
Carbon Tetrachloride
Chlordane
Chromium
Chromium 6
cis-1,2-Di-chloroethylene
Combined Radium
Cyanide
Dalapon
Diazinon
Di(2-ethylhexyl) adipate
Di(2-ethylhexyl) phthalate
Dibromochloropropane
Dichlorodifluoromethane
Dichloromethane
Dinoseb
Disulfoton
Diquat
Diuron
Endothall
Endrin
EPTC
Ethylbenzene
Ethylene dibromide (EDB)
Ethyl-tert-butyl-ether (ETBE)
Foaming Agents-MBAS
Fonofos
Glyphosate
Gross Beta
Heptachlor
Heptachlor epoxide
Hexachlorobenzene
Hexachlorocyclopentadiene
Lead
Lindane
Methoxychlor
Molinate (Ordram)
Monochlorobenzene
MTBE
Nickel
Nitrobenzene
o-Dichlorobenzene
Oxamyl (Vydate)
p-Dichlorobenzene
Pentachlorophenol
Perchlorate
Picloram
Proeton
Radon
Selenium
Silver
Simazine
Strontium-90
Styrene
Terbacil
Terbufos
tert-Amyl-methyl-ether (TAME)
Tetrachloroethylene (PCE)
Thallium
Thiobencarb
Toxaphene
trans-1,2-Di-chloroethylene
Trichloroethylene (TCE)
Trichlorofluoromethane
Tritium
Uranium
Vanadium
Vinyl chloride
Xylenes

Calleguas Municipal Water District

Summary of Water Quality Results For 2018

			Imported Surface Water Provided by Calleguas Municipal Water		Locally Tested Surface Water Supplied by Calleguas		
	Percent of Supply		*100%*		*100%*		
Parameter	Secondary MCL	Notification Level	Average	Range	Average	8 Range	Major Sources in Drinking Water
SECONDARY DRINKING WATER STANDARDS--Aesthetic Standards							
Aluminum (ppb) *(a)*	200		ND	ND - 75	ND	ND - 75	Erosion of natural deposits, residual from water treatment process
Chloride (ppm)	500		56	54 - 109	56	54 - 109	Runoff and leaching from natural deposits; seawater influence
Color (Units)	15		ND	ND - 1	ND	ND - 1	Naturally-occurring organic materials
Odor Threshold (Units)	3		2	1 - 4	2	1 - 4	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1,600		436	428 - 792	436	428 - 792	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500		44.0	43.0 - 100.0	44.0	43.0 - 100.0	Runoff and leaching from natural deposits
Total Dissolved Solids (ppm)	1,000		243	236 - 440	243	236 - 440	Runoff and leaching from natural deposits
ADDITIONAL PARAMETERS (Unregulated)							
Alkalinity (ppm)	NS	NS	72	68 - 110	72	68 - 110	
Boron (ppm)	NS	1	0.1	0.3	0.1	0.3	
Calcium (ppm)	NS	NS	20	19 - 38	20	19 - 38	
Chlorate (ppb)	NS	800	29	29	29	29	
Corrosivity (AI) *(b)*	NS	NS	12.0	12.3	12.0	12.3	
Hardness (Total Hardness) (ppm)	NS	NS	89	84 - 165	89	84 - 165	
Magnesium (ppm)	NS	NS	9.7	9.5 - 917.0	9.7	9.5 - 917.0	
pH (pH Units)	NS	NS	8.5	8.3 - 8.5	8.5	8.3 - 8.5	
Potassium (ppm)	NS	NS	2.4	2.4 - 4.0	2.4	2.4 - 4.0	
Sodium (ppm)	NS	NS	46	45 - 101	46	45 - 101	
Total Organic Carbon (ppm)	NS	NS	2.6	2.0 - 2.6	2.6	2.0 - 2.6	

ABBREVIATIONS, DEFINITIONS, and NOTES

AI = Aggressive Index
ND = None Detected
NS = No Standard
ppm = parts per million, or milligrams per liter (mg/L)
ppb = parts per billion, or micrograms per liter (µg/L)
µS/cm = microsiemens/centimeter

Secondary Maximum Contaminant Level (MCL) = Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
Notification Level = The level at which notification of the public water system's governing body is required.

(a) Aluminum has both primary and secondary standards.
(b) AI measures the aggressiveness of water transported through pipes. Water with AI <10.0 is highly aggressive and would be very corrosive to almost all materials found in a typical water system. AI ≥12.0 indicates non-aggressive water. AI between 10.0 and 11.9 indicates moderately aggressive water.

Calleguas Municipal Water District

Summary of Water Quality Results For 2018

Parameter	MCL [MRDL]	PHG (MCLG) [MRDLG]	Imported Surface Water Provided by Calleguas Municipal Water (Percent of Supply 100%) Average	Imported Surface Water Range	Locally Tested Surface Water Supplied by Calleguas (100%) Average	Locally Tested Surface Water Range	Major Sources in Drinking Water
PRIMARY DRINKING WATER STANDARDS--Mandatory Health-Related Standards							
CLARITY *(a)*							
Turbidity (NTU) (TT)	Highest Single Value		0.06		0.06		Soil runoff
	% of samples ≤0.3 NTU		100%		100%		
MICROBIOLOGICAL							
Total Coliform Bacteria	2 or 5%	0%	Non-Detect	0%	0%	0% - 6.25%	Monthly; Natural in Environment
Coliform bacteria monitoring in the Solano distribution system is required monthly at one location, and had 1 positive sample out of 16 samples							
DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS							
Bromate (ppb) *(b)*	10	0.1	5.2	ND - 6.4	ND	ND - 6.4	By-product of drinking water disinfection
Haloacetic Acids (ppb) *(c)*	60	n/a	Highest LRAA = 11.3, Range = 5.0 - 22.0				By-product of drinking water disinfection
Total Chlorine Residual (ppm)	[4]	[4]	Highest Running Annual Average = 2.3, Range = 1.5 - 2.5				Drinking water disinfectant added for treatment
Total Trihalomethanes (ppb) *(c)*	80	n/a	Highest LRAA = 27.3, Range = 10.0 - 57.0				By-product of drinking water disinfection
INORGANIC CHEMICALS							
Aluminum (ppb)	1,000	600	ND	ND - 75	ND	ND	Erosion of natural deposits; residual from water treatment process
Arsenic (ppb)	10	0.004	ND	ND	3.5	3.0 - 4.0	Erosion of natural deposits; runoff from orchards
Fluoride - Distribution System (ppm) *(d)*	2.0	1	Highest Running Annual Average = 0.7, Range = 0.6 - 1.0				Water additive that promotes strong teeth
Nitrate (as N) (ppm)	10	10	0.5	0.5	0.5	0.5	Runoff & leaching from fertilizer & sewage
Selenium (ppb)	50	30	11.5	8.0 - 15.0	11.5	8.0 - 15.0	Erosion of natural deposits; discharge from refineries
RADIOLOGICALS *(e)*							
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND - 3	ND	ND - 3	Erosion of natural deposits
Uranium (pCi/L)	20	0.43	ND	ND - 1.4	ND	ND - 1.4	Erosion of natural deposits

ABBREVIATIONS, DEFINITIONS, and NOTES

LRAA = Locational Running Annual Average
n/a = not applicable
ND = None Detected
NTU = Nephelometric Turbidity Units
ppm = parts per million, or milligrams per liter (mg/L)
ppb = parts per billion, or micrograms per liter (µg/L)
pCi/L = PicoCuries per Liter

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.

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 pathogens.

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.

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.

Primary Drinking Water Standard = MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Treatment Technique (TT) = A required process intended to reduce the level of a contaminant in drinking water.

(a) The turbidity level of filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU at any time.

(b) Compliance for treatment plants that use ozone is based on a running annual average of monthly samples.

(c) Compliance is based on the LRAA of data collected at distribution system-wide monitoring locations. The range of all samples collected is included.

(d) The Metropolitan Water District treats their water by adding fluoride to the naturally occurring level in order to help prevent dental caries in consumers. The fluoride levels in the treated water are maintained within a range of 0.6 - 1.2 ppm, as required by State Water Resources Control Board (SWRCB), Division of Drinking Water (DDW).

(e) MWD collects four consecutive quarters of radiological monitoring triennially. MWD data is from 2017. Calleguas conducts radiological monitoring annually.