Soquel Creek Water District

2014 CONSUMER CONFIDENCE / WATER QUALITY REPORT

Important information regarding your water

DRINKING WATER STANDARDS are established by the U.S. Environmental Protection Agency (USEPA) and the California Division of Drinking Water (DDW). In order to be considered safe, water supplies must stay within USEPA and DDW maximums when measured for certain constituents. This Water Quality Report communicates whether there is a detectable presence and the levels of each of the tested constituents in our water supply. This year's report covers calendar year 2014 testing and presents the results of test data from all of our groundwater wells that pump water from the Purisima and Aromas Red Sands Geologic Formations.

Soquel Creek Water District (SqCWD) receives only groundwater from wells, but other 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 include:

- Microbial contaminants, such as viruses and bacteria, that 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.

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Información muy importante: este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien, o llamenos a 831-475-8500.

water quality testing

DURING THE PAST YEAR, the District tested for over 140 constituents in order to ensure your water meets State and Federal drinking water standards.

All test samples are collected and reported in accordance with standards and requirements established by the USEPA and DDW. These test results reflect all of our groundwater. Only those regulated constituents that had detected levels are shown.

The Soquel Creek Water District is proud to report that in 2014 the District's water met all established drinking water health standards set by the U. S. Environmental Protection Agency (USEPA) and the California Division of Drinking Water (DDW).

- Pesticides and herbicides, that 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, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Division of Drinking Water (Division) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Division regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

What are water quality goals?

IN ADDITION TO MANDATORY water quality standards, USEPA and DDW have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The chart includes three types of water quality goals:

- **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 USEPA.
- **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 Office of Environmental Health Hazard Assessment (OEHHA).

What are water quality standards?

DRINKING WATER STANDARDS established by USEPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report shows the following types of water quality standards:

- **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 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.
- **Secondary MCLs:** Are set to protect the odor, taste and appearance of drinking water.
- **Primary Drinking Water Standards:** MCLs and MRDLs (see definitions above) for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- **Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

2014 Soquel Creek Water District Water Quality Analysis Table

PRIMARY HEALTH STANDARDS	MCL or [MRDL]	PHG, (MCLG) or [MRDLG]	Year Tested	Range of Detections	Average Amount	Typical Sources of Constituent
Disinfection Byproducts[1]						
Total Trihalomethanes (TTHMs) (ppb)	80	N/A	2014	6.2 - 53	45	By-product of drinking water disinfection
5 Haloacetic Acids (HAA5) (ppb)	60	N/A	2014	ND - 34	12	By-product of drinking water disinfection
Disinfectant Residual[1]						
Chlorine Residual (ppm)	[4.0]	[4.0]	2014	0.05 - 1.1	0.55	Drinking water disinfectant added for treatment
PRIMARY HEALTH STANDARDS	**MCL**	**PHG or (MCLG)**	**Year Tested**	**Range of Detections**	**Average Amount**	**Typical Sources of Constituent**
Inorganic Constituents						
Arsenic[2] (ppb)	10	0.004	2013 or 2014[3]	ND - 3.3	ND	Erosion of natural deposits
Chromium, total (ppb)	50	(100)	2013 or 2014[3]	ND - 24	5.0	Erosion of natural deposits
Chromium, hexavalent [2,4] (Cr6) (ppb)	10	0.02	2013 or 2014[3]	ND - 22	3.6	Naturally occurring chromium-bearing minerals
Fluoride (ppm)	2.0	1	2013 or 2014[3]	ND - 0.42	0.17	Erosion of natural deposits
Nickel (ppb)	100	12	2013 or 2014[3]	ND - 13	ND	Erosion of natural deposits; discharge from metal factories
Nitrate (as NO_3) (ppm)	45	45	2013 or 2014[3]	ND - 23	3.0	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radioactive Constituents						
Gross Alpha (pCi/L)	15	(0)	2006 or 2010[3]	ND - 4.0	ND	Erosion of natural deposits
Radium 226 (pCi/L)	*	0.05	2007[3]	ND	ND	Erosion of natural deposits
Radium 228 (pCi/L)	*	0.019	2010[3]	ND - 1.2	ND	Erosion of natural deposits
Combined Radium (Radium 226 & 228) (pCi/L)	5	**	2007 or 2010[3]	ND - 1.2	ND	Erosion of natural deposits
SECONDARY AESTHETIC STANDARDS						
Chloride (ppm)	500	N/A	2013 or 2014[3]	18 - 79	37	Runoff/leaching from natural deposits; seawater influence
Color[2] (units)	15	N/A	2013 or 2014[3]	ND - 8.0	2.4	Naturally occurring materials
Iron[2] (ppb)	300	N/A	2013 or 2014[3]	ND - 220	ND	Leaching from natural deposits
Manganese[2] (ppb)	50	NL = 500 HA = 300	2013 or 2014[3]	ND - 21	ND	Leaching from natural deposits
pH (unitless)	6.5 - 8.5 (USEPA)	N/A	2013 or 2014[3]	7.0 - 8.0	7.5	A measure of the acidity or alkalinity
Specific Conductance (microsiemens/ centimeter)	1,600	N/A	2013 or 2014[3]	207 - 534	327	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	HA = 500	2013 or 2014[3]	15 - 170	58	Runoff/leaching from natural deposits
Total Dissolved Solids (TDS) (ppm)	1,000	N/A	2013 or 2014[3]	191 - 621	362	Runoff/leaching from natural deposits
Turbidity[2] [Nephelometric Turbidity Units (NTUs)]	5	N/A	2013 or 2014[3]	ND - 0.62	0.17	Runoff/leaching from natural deposits
UNREGULATED CONSTITUENT MONITORING[5]	**MCL**	**PHG or (MCLG)**	**Year Tested**	**Range of Detections**	**Average Amount**	**Typical Sources of Constituent**
Chlorate (ppb)[6,7]	N/A	NL = 800	2013	ND - 1400	176	By-product of drinking water disinfection
1,1-Dichloroethane (ppb)[8]	5	3	2013	ND - 0.097	ND	Extraction and degreasing solvent; fumigant
1,4-Dioxane (ppb)[8]	N/A	NL = 1	2013	ND - 0.11	ND	Extraction and degreasing solvent stabilizer
Molybdenum (ppb)[6]	N/A	HA = 40	2013	ND - 3.1	1.5	Leaching from natural deposits
Strontium (ppb)[6]	N/A	HA = 4,000	2013	86 - 550	259	Leaching from natural deposits
1,2,3-Trichloropropane (ppt)[8,9]	N/A	0.7; NL=5	2011 & 2013	ND - 15	ND	Leaching of obsolete agricultural fumigants
Vanadium (ppb)[6]	N/A	NL = 50	2013	ND - 12	2.8	Leaching from natural deposits

N/A = Not Applicable

ND = Not Detected at or above the DDW Detection Limit for Purposes of Reporting

NL = Notification Level; a health-based advisory level established by DDW for constituents in drinking water that lack maximum contaminant levels (MCLs).

HA = USEPA Drinking Water Health Advisory

pCi/L = Picocuries per liter (a measure of radioactivity)

ppm = Parts per million or milligrams per liter (mg/L) ● ppb = Parts per billion or micrograms per liter (ug/L) ● ppt = Parts per trillion or nanograms per liter (ng/L)

[1] Sampled within the distribution system.

[2] Sampled immediately after treatment where treated.

[3] DDW allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, although representative, are more than one year old.

[4] The reported Chromium 6 value above 10 ppb is not an MCL violation. Compliance with the Chromium 6 MCL is calculated from the running annual average of four consecutive quarters.

[5] Unregulated contaminant monitoring helps the USEPA and DDW to determine where certain contaminants occur and whether the contaminants need to be regulated. This also includes the Unregulated Contaminant Monitoring Rule 3 assessment monitoring results.

[6] Sampled at all entry points to the distribution system and points within the distribution system.

[7] Chlorate is an "unregulated" compound. The sole detection above the NL was determined by DDW not to be an NL exceedence based upon follow-up testing.

[8] Sampled at all entry points to the distribution system.

[9] 1,2,3-Trichloropropane (TCP) is currently listed as an "unregulated" compound. TCP is found only in the District's Country Club Well. Some people who use water containing TCP in excess of the notification level over many years may have an increased risk of getting cancer, based on studies in laboratory animals.

* Radium 226 and Radium 228 do not have individual MCLs; MCL is for Combined Radium (Radium 226 and Radium 228).

** Combined Radium (Radium 226 and Radium 228) does not have its own PHG. PHGs are listed for individual constituents.

*** Radium 226 testing has been waived by DDW for all wells. Two wells were voluntarily tested in 2007 or 2010.

2014 Soquel Creek Water District Water Quality Analysis Table Con't

OTHER MONITORING RESULTS	MCL	PHG or (MCLG)	Year Tested	Range of Detections	Average Amount	Typical Sources of Constituent
Hardness (as $CaCO_3$) (ppm)	N/A	N/A	2013 or 2014[3]	127 - 355	207	Sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
Sodium[10] (ppm)	N/A	HA = 20	2013 or 2014[3]	14 - 90	46	Salt present in water; generally naturally occurring
RESIDENTIAL TAP MONITORING FOR LEAD AND COPPER	**Action Level (AL)**	**PHG or (MCLG)**	**Year Tested**	**90th Percentile Value**	**Sites Exceeding AL/ Number of Sites**	**Typical Sources of Constituent**
Lead (ppb)	15	0.2	2013[3]	ND	0/32	Internal corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	1.3	0.3	2013[3]	0.34	0/32	Internal corrosion of household plumbing systems; erosion of natural deposits

N/A = Not Applicable

ND = Not Detected at or above the DDW Detection Limit for Purposes of Reporting

NL = Notification Level; a health-based advisory level established by DDW for constituents in drinking water that lack maximum contaminant levels (MCLs).

HA = USEPA Drinking Water Health Advisory

ppm = Parts per million or milligrams per liter (mg/L) • ppb = Parts per billion or micrograms per liter (ug/L) • ppt = Parts per trillion or nanograms per liter (ng/L)

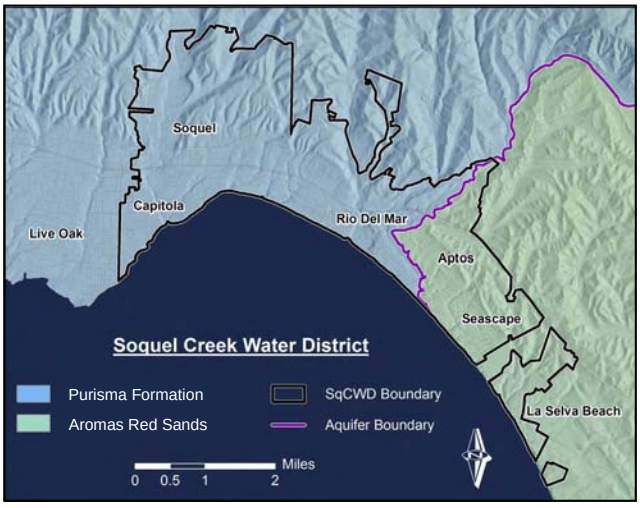
[10] The 20 ppm USEPA Health Advisory is for individuals on a 500 mg/day restricted sodium diet.

Where your water comes from

IN 2014, DISTRICT CUSTOMERS received water from 16 wells pumping from underground aquifers in two geologic formations, the Purisima and the Aromas Red Sands. Delivered water from both sources meet all current drinking water health standards. For one day in 2014, the District purchased water from Central Water District to assist during repair of a main break. This limited volume of water was provided to the Aptos neighborhoods of Huntington Drive and Wallace and Monroe Avenues. Central Water District's sources are also in the Purisima and Aromas Formations.

The Purisima Formation is naturally high in iron and manganese, and the water supplied from these aquifers is treated to reduce these elements. The Aromas Red Sands aquifer water contains naturally occurring hexavalent chromium (Chromium 6).

In July 2014, the State of California adopted a new drinking water standard (MCL) of 10 ppb for Chromium 6. The District continues to be very proactive in meeting this new water quality standard. In 2014, the District installed a demonstration-scale Chromium 6 ion exchange facility and began treating water from two of the District's supply wells. Read more about the District's efforts and success with Chromium 6 treatment on our website: http://www.soquelcreekwater.org/water-quality/chromium-6



how are contaminants measured?

WATER IS SAMPLED AND TESTED throughout the year. Detected constituents are measured in:

Parts per million (ppm) or milligrams per liter (mg/L)
1 drop in 14 gallons

Parts per billion (ppb) or micrograms per liter (ug/L)
1 drop in 14,000 gallons

Parts per trillion (ppt) or nanograms per liter (ng/L)
1 drop in 14,000,000 gallons

Important Health Information

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, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

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 (1-800-426-4791).

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 District 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 or at http://www.epa.gov/safewater/lead. Year-round water conservation is an important way to help protect our local water supply. Please consider capturing the water used to flush your plumbing and re-use it for non-potable purposes such as watering plants or household cleaning.

source water assessments

IN 2015, THE DISTRICT UPDATED its 2002 source water assessments of thirteen of its wells. Initial source water assessments for two additional wells were completed in 2011. These assessments identify activities that could potentially contaminate a drinking water well. Aromas Red Sands Aquifer supplies are considered to be the most vulnerable to on-site residential septic systems and potential leakage from sewer lines. Some of these wells are also vulnerable to contamination from nearby parks, a nearby golf course, irrigated crops, fertilizer/pesticide/herbicide applications, high density housing, tranportation corridors, other supply wells, and/or chemicals used at the drinking water treatment plants. Purisima Formation supplies are considered to be the most vulnerable to contamination from dry cleaners, historic and active automobile gas stations and repair shops, sewer collection systems, photo processing/printing establishments, high density housing, transportation corridors, parking lots, other supply wells, and utility stations/maintenance areas.

Copies of the Vulnerability Summaries are available on the District's website at http://www.soquelcreekwater.orgdocumentsreportsfield_report_type_value=Water+Quality&keys=DWSAP&=Search and the full reports are available by contacting the District's office.

For more information

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 1-800-426-4791.

The presence and level of constituents varies throughout the District. If you have questions, suggestions, or comments regarding this report or questions regarding the specific water quality for your neighborhood, please contact Carla James, the District's Water Quality Program Coordinator, at 831-475-8501 ext. 138.

The District's annual Water Quality Report is electronically delivered. If you wish to obtain a print copy, please call the District office at 831-475-8500.

Please order as many additional copies of the report as you need to ensure your tenants receive this important information.

SOQUEL CREEK WATER DISTRICT

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other ways to connect with us!

get involved in decisions that affect your drinking water

THE DISTRICT ENCOURAGES public participation in its decision-making process. The District is governed by a five-person, publicly elected Board of Directors. The Board meets the first and third Tuesday of each month at 7:00 pm. Check the District's website for meeting locations.

There is also a wealth of information on the internet about drinking water quality and water issues in general. Two good sites include:

California State Water Resources Control Board, Division of Drinking Water (DDW)
http://www.waterboards.ca.gov/drinking_water/programs/index.shtml

U.S. Environmental Protection Agency
http://water.epa.gov/drink/index.cfm