



Soquel Creek Water District

2015 Consumer Confidence/Water Quality Report

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

Where your water comes from

In 2015, DISTRICT CUSTOMERS received water from 14 wells pumping from underground aquifers in two geologic formations, the Purisima and the Aromas Red Sands. The Purisima Formation is naturally high in iron and manganese and the Aromas Red Sands contains naturally occurring hexavalent chromium (Chromium 6). However, the water supplied from these aquifers is treated to reduce these elements.

Delivered water from both sources meets all current drinking water standards.

For approximately one hour in March 2015, the District received a small volume of treated drinking water from the City of Santa Cruz (City) in order to test the operational capabilities of a newly installed intertie – a connection that will allow for water to be transferred between the District and the City. The intertie is located at the top of 41st Avenue and Soquel Drive, within the confines of our newly constructed O'Neill Ranch treatment plant. The water transferred from the City supplied District customers in the Capitola and Soquel neighborhoods nearest Soquel Drive. The City's water sources are a mix of surface and groundwater, depending on the availability of source water in the City's portfolio of supply options. Specific water quality information for the City can be found at <http://www.cityofsantacruz.com/departments/water/online-reports/consumer-confidence-report>

Important Information Regarding YOUR WATER

DRINKING WATER STANDARDS are established by the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board). In order to be considered safe, water supplies must stay within USEPA and State Board maximums when measured for certain constituents. This Water Quality Report communicates whether there is a detectable presence and the levels of each of the detected constituents in our water supply. This year's report covers calendar year 2015 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 is proud to report that in 2015 the District's water met all established drinking water health standards set by the USEPA and the State Board.



In 2014, the State of California adopted a new drinking water standard of 10 parts per billion (ppb) for Chromium 6. In 2015, the District met this new water quality standard through the operation of a demonstration-scale Chromium 6 treatment facility. Construction of a full-scale Chromium 6 treatment plant is scheduled to begin in 2016, and is expected to be fully operational in the latter half of 2017. Until that time, the demonstration-scale facility will continue to treat for Chromium 6.

BOARD OF DIRECTORS: Dr. Bruce Daniels, President, Dr. Thomas LaHue, Vice President, Dr. Bruce Jaffe, Carla Christensen, Rachél Lather

GENERAL MANAGER: Ron Duncan

Water Quality Testing

During the past year, the District tested for over 120 constituents 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 the State Board. These test results reflect all of our groundwater. Only those regulated constituents that had detected levels are shown.

What are Water Quality Standards?

Drinking Water Standards established by USEPA and the State Board set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The table 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.

What are Water Quality Goals?

IN ADDITION TO MANDATORY water quality standards, US and California EPA 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 table (page 3) 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).

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. Additional guidance is available from the Centers for Disease Control (CDC) at <http://www.cdc.gov/healthywater/drinking/>

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 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. 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>.

NITRATE

Nitrate in drinking water at levels above 45 milligrams per liter (mg/L) (as NO³) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of skin. Nitrate levels above 45 mg/L (as NO³) may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Get involved in decisions that affect your drinking water

The District encourages public participation in its decision-making processes. 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 6:00 pm.

Check the District's website www.soquelcreekwater.org for meeting locations.

For More Information

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 the 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 (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 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. Owners and operators of multi-residential units such as apartments and condominium complexes should ensure that tenants receive this important information.

The District maintains a Water Quality page on its website for additional information at <http://www.soquelcreekwater.org/water-quality>. 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 (USEPA) - <http://water.epa.gov/drink/index.ccfm>



PRIMARY HEALTH STANDARDS	MCL or [MRDL]	PHG, (MCLG) or [MRDLG]	Year Tested	Range of Detections	Average Amount	Typical Sources of Constituent
DISINFECTION BYPRODUCTS¹						
Total Trihalomethanes (ppb)	80	N/A	2015	1.7 - 50	45	By-product of drinking water disinfection
Haloacetic Acids (ppb)	60	N/A	2015	ND - 6.9	5.0	By-product of drinking water disinfection
DISINFECTANT RESIDUAL¹						
Chlorine Residual (ppm)	[4.0]	[4.0]	2015	0.04 - 1.5	0.60	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	2014 - 2015 ³	ND - 2.2	ND	Erosion of natural deposits
Chromium, hexavalent ² (Cr6) (ppb)	10	0.02	2013 - 2015	ND - 8.4	ND	Naturally occurring chromium-bearing minerals
Fluoride (ppm)	2.0	1	2014 - 2015 ³	ND - 0.37	0.18	Erosion of natural deposits
Nitrate (as NO3) (ppm)	45	45	2014 - 2015 ³	ND - 23	2.0	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
ORGANIC CONSTITUENTS						
Toluene (ppb)	150	150	2014 - 2015 ³	ND - 2.1	ND	Discharge from petroleum and chemical factories; underground gas tank leaks
RADIOACTIVE CONSTITUENTS						
Radium 226 (pCi/L)	*	0.05	2006 - 2007 ³	ND	ND	Erosion of natural deposits
Radium 228 (pCi/L)	*	0.019	2006 - 2015 ³	ND - 1.2	ND	Erosion of natural deposits
Combined Radium (Radium 226 & 228) (pCi/L)	5	**	2007 - 2010 ³	ND - 1.2	ND	Erosion of natural deposits
SECONDARY AESTHETIC STANDARDS	MCL	PHG or (MCLG)	Year Tested	Range of Detections	Average Amount	Typical Sources of Constituent
Chloride (ppm)	500	N/A	2014 - 2015 ³	18 - 76	39	Runoff/leaching from natural deposits; seawater influence
Color ² (units)	15	N/A	2013 - 2015 ³	ND - 3.0	ND	Naturally occurring materials
Iron ² (ppb)	300	N/A	2015	ND - 120	ND	Leaching from natural deposits
Manganese ² (ppb)	50	NL = 500; HA = 300	2015	ND - 28	ND	Leaching from natural deposits
pH (unitless)	6.5 - 8.5 (USEPA)	N/A	2014 - 2015 ³	7.0 - 7.9	7.5	A measure of the acidity or alkalinity
Specific Conductance (microsiemens/centimeter)	1,600	N/A	2013 - 2015 ³	355 - 717	556	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	HA = 500	2014 - 2015 ³	15 - 180	71	Runoff/leaching from natural deposits
Total Dissolved Solids (TDS) (ppm)	1,000	N/A	2014 - 2015 ³	223 - 638	397	Runoff/leaching from natural deposits
Turbidity ² [Nephelometric Turbidity Units (NTUs)]	5	N/A	2013 - 2015 ³	ND - 0.39	0.11	Runoff/leaching from natural deposits
UNREGULATED CONSTITUENT MONITORING ⁴	MCL	PHG or (MCLG)	Year Tested	Range of Detections	Average Amount	Typical Sources of Constituent
Chlorate (ppb) ^{5,6}	N/A	NL = 800	2013	ND - 1400	176	By-product of drinking water disinfection
1,1-Dichloroethane (ppb) ⁷	5	3	2013	ND - 0.097	ND	Extraction and degreasing solvent; fumigant
1,4-Dioxane (ppb) ⁷	N/A	NL = 1	2013	ND - 0.11	ND	Extraction and degreasing solvent stabilizer
Molybdenum (ppb) ⁵	N/A	HA = 40	2013	ND - 3.1	1.5	Leaching from natural deposits
Strontium (ppb) ⁵	N/A	HA = 4,000	2013	86 - 550	259	Leaching from natural deposits
1,2,3-Trichloropropane (ppt) ^{7,8}	N/A	0.7; NL = 5	2011 - 2013	ND - 15	ND	Leaching of obsolete agricultural fumigants
Vanadium (ppb) ⁵	N/A	NL = 50	2013	ND - 12	2.8	Leaching from natural deposits
OTHER MONITORING RESULTS	MCL	PHG or (MCLG)	Year Tested	Range of Detections	Average Amount	Typical Sources of Constituent
Hardness (as CaCO3) (ppm)	N/A	N/A	2014 - 2015 ³	139 - 378	230	Sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
Sodium ⁹ (ppm)	N/A	HA = 20	2014 - 2015 ³	18 - 91	43	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

(Footnotes for table on previous page)

- 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 Unregulated contaminant monitoring helps the USEPA and DDW to determine where certain contaminants occur and whether the contaminants need to be regulated. This section includes the Unregulated Contaminant Monitoring Rule 3 assessment monitoring results.
- 5 Sampled at all entry points to the distribution system and points within the distribution system.
- 6 Chlorate is an "unregulated" compound. The sole detection above the NL was determined by DDW not to be an NL exceedence based upon followup testing.
- 7 Sampled at all entry points to the distribution system.
- 8 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.
- 9 The 20 ppm USEPA Health Advisory is for individuals on a 500 mg/day restricted sodium diet.
* 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.

N/A Not Applicable

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

HA USEPA Drinking Water Health Advisory

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

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

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, transportation 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.org/documents/reports?field_report_type_value=Water+Quality&keys=source+water&=Search and the full reports are available by contacting the District's office.

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.



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 or gas production and mining activities.

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

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) – equivalent to 1 drop in 14 gallons

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

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

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.



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Other ways to connect with us!

