

# 2013 Consumer Confidence Report

Water System Name: County Service Area No. 7 Report Date: June 30, 2014

*We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2013 and may include earlier monitoring data.*

**Este informe contiene información muy importante sobre su agua potable. Si necesita una explicación del contenido de este reporte llame al número (650) 599-1473.**

Type of water source(s) in use: Surface Water

Name & general location of source(s): Alpine Creek, La Honda

Drinking Water Source Assessment information: Prepared by County Environmental Health Services in November 2002. Assessment summary included at the end of this Report.

Time and place of regularly scheduled board meetings for public participation: 9:00 am, Tuesday Mornings, Board of Supervisors Chambers, 400 County Center, Redwood City, CA 94063

For more information, contact: Mark Chow, Principal Civil Engineer Phone: (650) 599-1489

## TERMS USED IN THIS REPORT

**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 (USEPA).

**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.

**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.

**Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

**Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Variations and Exemptions:** Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND:** not detectable at testing limit

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

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

**ppt:** parts per trillion or nanograms per liter (ng/L)

**ppq:** parts per quadrillion or picogram per liter (pg/L)

**pCi/L:** picocuries per liter (a measure of radiation)

**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 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 and gas production and mining activities.

**In order to ensure that tap water is safe to drink**, the USEPA and the California Department of Public Health (Department) 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 provide the same protection for public health.

**Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent.** The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER							
Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	2012	5	0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	2012	5	0.088	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	7/24/2013	47		none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	7/24/2013	284		none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

\*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.

**TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<b>INORGANIC CHEMICALS</b>						
Fluoride (ppm)	7/24/2013	0.46		2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BYPRODUCT PRECURSORS</b>						
HAA5 [Haloacetic Acids] (ppb)	2013 (various)	44	27-82.8	60	n/a	Byproduct of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2013 (various)	<b>85*</b>	<b>14-116.45*</b>	80	n/a	By-product of drinking water chlorination
<b>RADIOACTIVE CONTAMINANTS</b>						
Gross Alpha Activity [composite result] (pCi/L)	11/15/07	2.71		15	(0)	Erosion of natural deposits
Uranium [composite result] (pCi/L)	11/15/07	1.18		20	0.43	Erosion of natural deposits
Radium 228 (pCi/L)	1/12/09 4/9/09	0.845	0.842-0.848	5	0.019	Erosion of natural deposits
<b>VOLATILE ORGANIC CHEMICALS (Monitored in September 20013 with Results = ND)</b>						

**TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	7/24/2013	34		500	none	Runoff/leaching from natural deposits; seawater influence
Color	7/24/2013	13		15	none	Naturally-occurring organic materials
Specific Conductance (µmhos/cm)	7/24/2013	850		1,600	none	Substances that form ions when in water; seawater influence
Sulfate (ppm)	7/24/2013	170		500	none	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS] (ppm)	7/24/2013	580		1,000	none	Runoff/leaching from natural deposits
Turbidity (NTU)	7/24/2013	0.30		5	none	Soil runoff

\*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

### Additional General Information on Drinking Water

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).

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).

**Lead-Specific Language for Community Water Systems:** 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. County Service Area No. 7 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>.

### Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

**TTHM:** Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

CSA 7 failed to comply with the Total Trihalomethanes (TTHM) maximum contaminant level (MCL) based on the running annual average of quarterly samples collected in 2013. Section 64533(a) of the California Code of Regulations specifies that the primary MCL for TTHM of 80 ppb shall not be exceeded in the drinking water supplied to the public based on the running annual arithmetic average (RAA) of four consecutive quarterly results. The RAA computed for four quarters collected in 2013 was 85 ppb. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

TTHM samples were collected from the treatment plant, storage tank and distribution system pipes to determine the source of high TTHMs. Results indicated that the longer the plant was operated, the lower the TTHMs. Minor adjustments were made in February 2014 to the treatment plant to allow more flexibility in the operation of the plant. Unfortunately, not all TTHM levels of samples collected after the modifications were below the MCL.

An engineering study to lower TTHM levels is being developed and will be presented to CDPH for their approval. We will provide you with updates in this issue through quarterly notifications as required by CDPH.

### For Systems Providing Surface Water as a Source of Drinking Water

TABLE 6 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique <sup>(a)</sup> (Type of approved filtration technology used)	Conventional filtration
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to <u>0.5</u> NTU in 95% of measurements in a month. 2 – Not exceed <u>1.0</u> NTU for more than eight consecutive hours. 3 – Not exceed <u>5.0</u> NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.27
Number of violations of any surface water treatment requirements	None

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

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

\* Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided below.

### **Summary Information for Violation of a Surface Water TT**

No violations were reported in 2013.

### **Summary Information for Operating Under a Variance or Exemption**

CSA7 did not operate under a variance of exemption in 2013.

## Drinking Water Source Assessment and Protection (DWSAP) Program

A source water assessment was conducted for the ALPINE CREEK INTAKE of the County Service Area 7 water system in November 2002. The source is considered most vulnerable to the following activities not associated with any detected contaminants:

Septic Systems – Low Density (<1/acre)  
Other Animal Operations  
Agricultural Drainage  
Wells – Agricultural/Irrigation

### Discussion of Vulnerability

There have been no contaminants detected in the water supply, however the source is still considered vulnerable to activities located in the watershed. The source is most vulnerable to the following activities that were identified within the watershed:

1. Low Density Septic Systems (<1/acre)
2. Animal operations (Horse Camp)
3. Agricultural drainage
4. Wells – Agricultural/Irrigation
5. Drinking Water Treatment Plant (for CSA 7)
6. Irrigated and Non-irrigated crops
7. Fertilizer, pesticide/herbicide application
8. Wells – Water supply
9. Transportation Corridors – Road right-of-ways (herbicide use) and Roads and Streets
10. Injection wells/dry wells/sumps (unknown if these exist in the watershed)
11. Campgrounds/Recreational areas
12. Surface water – streams and lakes

A copy of the complete assessment can be obtained at:

California Department of Public Health Drinking Water Field Operations Branch  
850 Marina Bay Parkway  
Building P, 2<sup>nd</sup> Floor  
Richmond, CA 94804-6403

## Summary Information for Surface Water Treatment

County Service Area No. 7 operates in compliance with the Surface Water Treatment Regulations.