

2011 Consumer Confidence Report

Water System Name: SIERRA ARMY DEPOT - PWS #1810700 Report Date: 19 JANUARY 2012

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring through December 31, 2011.

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

Type of water source(s) in use: GROUND WATER

Name and location of source(s): WELL 05, WELL 08, WELL 09 - inactive as of July 2011

Drinking Water Source Assessment information: The California Department of Public Health (CDPH) performed water assessments on our sources in September 2002. Our sources are considered most vulnerable to the following activities not associated with any detected contaminants: military installations, historic and active automobile gas stations, chemical/petroleum processing/storage. Our sources are considered most vulnerable to the following activities associated with the detection of nitrate: animal operations, monitoring wells/test holes.

Time and place of regularly scheduled board meetings for public participation: N/A

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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 SDWS do not affect the health at the MCL levels.

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

ND: not detectable at testing limit

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

ppb: parts per billion or micrograms per liter (ug/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.

- *Radioactive contaminants* that can be naturally-occurring or be the result of oil and gas production and mining activities.
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban storm water 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 storm water 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 storm water runoff, agricultural application, and septic systems.

To help ensure that tap water is safe to drink, the USEPA and the state 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 - 7 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	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a month) 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 – GROUND WATER SOURCE SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE					
Microbiological Contaminants	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i> (analyzed monthly)	0	Jan – Dec 2011	0	(0)	Human and animal fecal waste

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2005	65.7	55 - 86	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2006	217	100 - 400	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

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

Chemical or Constituent (reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (ppb)	2004 2008	5	3.0 – 8.0	10	0.004	Erosion of natural deposits, runoff from orchards
Chromium (ppb)	2004 2005	4.7	ND – 14	50	(100)	Erosion of natural deposits,
Fluoride (ppm)	2004 2005	0.37	0.2 - 0.6	2.0	1	Erosion of natural deposits, discharge of fertilizer and aluminum factories
Nitrates (ppm)	2011	8.1	ND – 20	45	45	Leaching from fertilizer use, septic tanks, erosion of natural deposits
Selenium (ppb)	2004 2005	4	ND – 12	50	(50)	Erosion of natural deposits
Gross Alpha (pCi/L)	2009	19.5	6.3 – 41.6*	15	(0)	Erosion of natural deposits
Uranium (pCi/L) Wells 5, 8, & 9 – Raw Well 8 - Treated	2011 2011	8.4 11	ND – 24* 8 - 13	20	0.43	Erosion of natural deposits

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

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

Chemical or Constituent (reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Iron(ppb) Wells 5, 8, & 9 – Raw Wells 5 & 8 - Treated	2009 2011	317 17	60 – 530 ND - 133	300	None	Erosion of natural deposits
Manganese(ppb) Wells 5, 8, & 9 – Raw Wells 5 & 8 - Treated	2009 2011	718 20	84 – 1,900 ND - 88	50	None	Erosion of natural deposits
Chloride (ppm)	2004 2005	28	14 – 47	500	None	Erosion of natural deposits
Sulfate (ppm)	2004 2005	153	48 – 330	500	None	Erosion of natural deposits
Total Dissolved Solids, TDS (ppm)	2004 2005	463	310 – 770	1,000	None	Erosion of natural deposits

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

TABLE 6 – DETECTION OF DISINFECTANTS AND DISINFECTION BYPRODUCTS

Chemical or Constituent (reporting units)	Sample Date	Level Detected	Range of Detections	MCL (MDRL)	PHG (MDRLG)	Typical Source
Trihalomethanes(ppb)	2010	2.3	ND – 7.0	80	None	Disinfection by-products
Haloacetic Acids (ppb)	2010	ND	ND – ND	60	None	Disinfection by-products
Chlorine (ppm)	2011	0.4	0.2 - 0.58	(4)	(4.0)	Treatment to drinking water

TABLE 7 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead & Copper (reporting units) Sample Date	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) 2011	10	2	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 2011	10	0.9	0	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

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).

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. Sierra Army Depot 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 Contaminants Exceeding an MCL

Uranium (January - July 2011): Well 8 supplied water that exceeded the drinking water quality standards for uranium. The standard for uranium is a primary standard based upon health effects. Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

Iron and manganese (January - July 2011): Wells 5 and 9 supplied water that exceeded the drinking water quality standard for iron, and Wells 5, 8, and 9 supplied water that exceeded the drinking water quality standard for manganese. The standards for iron and manganese are secondary standards that are not based upon health effects. Well 8 also exceeded the state's action level for manganese (500 ppb). Action levels are health based advisories and are not enforceable standards. Action levels are established for contaminants that are a potential health concern but lack primary MCLs. To help the unwanted taste and odor effects of iron and manganese, the Depot added a sequestering agent chemical.

Uranium, iron, and manganese (August - December): Well 9 was removed from service. The Well 5 and 8 water treatment facilities were placed on-line. The addition of the sequestering agent chemical was terminated. With the exception of one result at Well 8 for manganese, the sampling results from the Wells 5 and 8 water treatment facilities have been in compliance with the water quality standards for uranium, iron, and manganese. The water treatment facilities have brought the Depot's water into compliance with CDPH's 2007 compliance order.