

2006 Consumer Confidence Report

Water System Name: MD-73A Quartz Mountain

Report Date: 4/13/07

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, 2006.

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: Three wells drawing from fractured rock

Name & location of source(s): Pond Wells #1 & 2 are located within MD-73A, as is Ridge Well #1.

Drinking Water Source Assessment information: An assessment was conducted in May 2001. No contaminants were found, other than those occurring naturally. Identified as having the potential for outside contamination were: septic systems in the area and/or surface water influence from a nearby pond. A copy of the complete assessment may be viewed at the State's website, www.dhs.ca.gov/ps/ddwem/technical/dwp/sourceinfo/sourceindex.htm, or by visiting the Madera County Environmental Health Department. You may also contact Linda Alexander of the Resource Management Agency, Engineering and General Services, if you have any questions.

Time and place of regularly scheduled board meetings for public participation: Meetings are held at 9:00 a.m. each Tuesday, except the fifth Tuesday of any month, at the Board of Supervisors Chambers: 200 W. 4th Street, Madera. Visit the County's website, www.madera-county.com/supervisors/agenda.html for a copy of the agenda.

For more information, contact: Linda Alexander Phone: (559) 675-7817

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 level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

Primary Drinking Water Standards (PDWS): MCLs or 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 which a water system must follow.

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

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

ppb: parts per billion or micrograms per liter ($\mu\text{g/L}$)

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

ND: not detectable at testing limit

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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which 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, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, which 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, USEPA and the state Department of Health Services (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 must provide the same protection for public health.

Tables 1, 2, 3, 4 and 5 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	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>	0	0	A routine sample and a repeat sample detect total coliform and either sample also detect 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 (to be completed only if there was a detection of lead or copper in the last sample set)	No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) – 2003	10	<5	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) – 2003	10	.85	0	1.3	0.17	Internal corrosion of household water 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)	12/05	18.7	18 - 19	None	None	Generally found in ground & surface water
Hardness (ppm)	12/05	147.3	143-154	None	None	Generally found in ground & surface water

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
Fluoride (ppm)	5/05	.13	<.1-.2	2	.1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Halocetic Acids (ppb)	8/05	5.3	5.3	60	N/A	By-product of drinking water chlorination
Gross Alpha (pCi/L)	2, 5 & 8/06	4.9	2 - 10	15	(0)	Erosion of natural deposits
Radium 226 (pCi/L)	5/06	1.9	1.54 – 2.31	5	(0)	Erosion of natural deposits
Uranium (pCi/L)	2, 5 & 8/06	2.08	<1 – 4.1	20	0.43	Erosion of natural deposits

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)	12/05	7.0	5.2 – 8.3	500	N/A	Runoff/leaching from natural deposits; seawater influence
Color (Units)	12/05	<20*	10 - <25	15	N/A	Naturally occurring organic materials
Iron (ppb)	12/05	2790*	1020 - 6050	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	12/05	225*	180 - 285	50	N/A	Leaching from natural deposits
SEC (µMHO/cm)	12/05	321	298 - 328	1600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	12/05	26.83	23.2 – 33.5	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids or TDS (ppm)	12/05	256	240 – 270	1000	N/A	Runoff/leaching from natural deposits
Turbidity (units)	12/05	16.07*	7.2 - 30	5	N/A	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).

Summary Information

Our testing in 2006 again showed secondary violations in Iron, Manganese, Color and Turbidity. Secondary violations do not pose a risk to public health. The high levels of Iron and Manganese are due to leaching of natural deposits. These, in turn, through the process of oxidation, impact the Color and Turbidity. We will continue to treat the water by adding a suspension (or sequestering) agent to block the oxidation process; however, it does not remove Iron or Manganese. More extensive treatment for the removal of Iron and Manganese would result in an increase in the cost of your water.

As shown by the tables, the Quartz Mountain water system had no primary violations. We're proud that your drinking water meets or exceeds all Federal and State requirements for primary contaminants. Though we've learned through our monitoring that some contaminants have been detected, the EPA has determined that your water IS SAFE at these levels.

We hope you find this report informative and helpful. Please call our office if you have questions. The County of Madera works continually to provide the best available water to every tap. We ask that you, our customers, help us protect our water sources. Water is the heart of our community, our way of life, and our future.