

# 2005 Consumer Confidence Report

Redwood Valley County Water District

Report Date: June 22, 2006

*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, 2005.*

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

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

Your water comes from Lake Mendocino. The District has an intake structure and pump station on the west side of Lake Mendocino at Winery Point. The water flows by gravity to our reservoir above the District office. A separate pipeline delivers raw lake water to the District's treatment plant where we treat it to remove several contaminants and also add disinfectant to protect you against microbial contaminants.

Drinking Water Source Assessment information: An assessment of our source water was completed in April 2001 and is available for review in the District Office during normal working hours, 8AM-5PM, Monday - Friday.

Our Board of Directors meets on the Third Thursday of every month at 7:00 pm in the District Office at 2370 Webb Ranch Road, Redwood Valley, California. The District welcomes public involvement at these meetings.

For more information contact: Darin McCosker

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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.

**Primary Drinking Water Standards (PDWS):** MCLs 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.

**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)

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

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

**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 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).

**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.

**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.

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

**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*, 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 that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, 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 requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. 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 (to be completed only if there was a detection of bacteria )	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 (to be completed only if there was a detection of lead or copper in the last sample set)	No. of samples collected	90 <sup>th</sup> percentile level detected	No. Sites exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead (ppb) Collected 9/8/04	23	<ND	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm) Collected 9/8/04	23	.45	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)	3/30/05	4.9	n/a	none	none	Generally found in ground and surface water
Hardness (ppm)	3/30/05	70	n/a	none	none	Generally found in ground and surface water

\*Any violation of an MCL or AL is denoted by an asterisk. Additional information regarding the violation is provided on the next page.

**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	PHG (MCLG)	Typical Source of Contaminant
Aluminum (ppb)	monthly	40	10-40	1000	600	Erosion of natural deposits, residue from surface water treatment process
Asbestos (MFL)	3/16/04	ND	n/a	7	(7)	Internal corrosion of asbestos cement water mains, erosion of natural deposits
Barium (ppb)	3/30/05	53	n/a	1000	2	Discharges of oil drilling wastes and from metal refineries; 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	Secondary MCL	PHG/ (MCLG)	Typical Source of Contaminant
Aluminum (ppb)	Monthly	40	10-40	200	n/a	Erosion of natural deposits, residue from surface water treatment processes.
Chloride (ppm)	3/30/05	2.8	-----	500	n/a	Runoff/leaching from natural deposits; seawater influence
Manganese	6/11/05	*110*	12-110	50	n/a	Runoff/leaching from natural deposits
Color	monthly	*5*	0-20	15	n/a	Naturally-occurring organic materials

Iron (ppb)	6/11/05	N/D	-----	300	n/a	Leaching from natural deposits; industrial wastes
Odor - Threshold	monthly	*10.5*	0-50	3	n/a	Naturally occurring organic materials
Specific Conductance (uMho)	3/30/05	160	-----	1600	n/a	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	3/30/05	93	-----	1000	n/a	Runoff/leaching from natural deposits
Sulfate (ppm)	3/30/05	7.3	-----	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU)	Cont.	.30	0.02-0.3	0.50	n/a	Soil runoff
Flouride (ppm) (naturally occurring)	3/30/05	<0.1	-----	2	1	Erosion of natural deposits
MBAS (ppb) foaming agents	3/30/05	<0.05	-----	500	n/a	Municipal & Industrial waste discharge

#### Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors

Federal Rule, currently being implemented in California per USEPA. Results are as of Dec.31, 2005 end of 4<sup>th</sup> quarter period.

TTHMs-(Total Trihalomethanes)	RAA	*56*	MCL 80 ppb	Byproduct of Drinking Water chlorination
HAAs-(Halocetic Acids)	RAA	*39*	MCL 60 ppb	Byproduct of Drinking Water disinfection

\*Any violation of an MCL or AL is denoted by an asterisk. Additional information regarding the violation is provided below.  
RAA- Results are based on a running annual average and may not reflect current compliance with MCLs.

#### Additional General Information on Drinking Water

All 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 for Contaminants Exceeding an MCL or AL, or a Violation of any Treatment or Monitoring and Reporting Requirements

**About our color, odor and manganese secondary MCL violations:** Secondary MCLs are based on aesthetic qualities such as water taste, odor and appearance. Exceeding a secondary MCL standard does NOT indicate a health based violation. Some changes to treatment technique have already been implemented to help reduce odor, color and manganese concentrations. We will continue to work to ensure that these levels meet the secondary MCLs in the near future. If we find that the current treatment technology does not allow for sufficient removal of any of these compounds, you will be contacted to discuss possible alternatives. If you are concerned about any violation of a secondary MCL, you should discuss it with your elected representatives, the General Manager, or the California Department of Health Services.

**About our [TTHMs] Total Trihalomethanes and [HAAs] Halocetic Acids Violation-** The regulation for these chemicals was adopted by the Department January 2005. These same levels of chemicals in your drinking water in 2004 were not exceeding the MCL. As we have previously reported to you, we are working diligently, and in cooperation with the Department to keep the levels of these chemicals, as well as other contaminants, as low as possible. The water we are treating at this time, and since August 2005 is below the MCL. We are reporting the violations due to the levels present for **the first (2) two quarters of 2005. In addition we have not exceeded MCL levels and are far below MCL levels for 2006.** Some people who use 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. Some people who drink water containing halocetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

\*A required process intended to reduce the level of a contaminant in drinking water.

\*\* 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.

**TABLE 7 - SAMPLING RESULTS SHOWING TREATMENT OF  
SURFACE WATER SOURCES**

<i>Treatment Technique *</i> (Type of approved filtration technology used)	<b>Conventional Filtration</b>
<i>Turbidity Performance Standards **</i> (must be met through the water treatment process)	<u>Turbidity of the filtered water must:</u> 1 - Be less than or equal to 0.5 NTU in 95% of measurements in a month. 2 - Not exceed 1.0 NTU for more than eight consecutive hours. 3 - Not exceed 2.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	<b>100%</b>
Highest single turbidity measurement during the year	<b>0.30</b>
The number of violations of any surface water treatment requirements	<b>0</b>

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