

# *Annual Drinking Water Quality Report*

## **Madera County Maintenance District 43**

### **Miami Creek Knolls - 2000**

We're pleased to present to you this year's *Annual Drinking Water Quality Report*. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

**The sources of drinking water** (both tap 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 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 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, 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, the U. S. Environmental Protection Agency (EPA) and the California 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.

Maximum Contamination Limits (MCLs) are set at very stringent levels. To understand the risk of possible health effects for regulated contaminants, you should know that a person would have to drink two (2) liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having an effect on your health.

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 Environmental Protection Agency's Safe Drinking Water Hotline at 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. EPA/CDC (Centers for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline.

**Our water is supplied by** four wells, drawing from an aquifer approximately 200 to 400 feet below the surface. This is supplemented by water from Dillon Estates, which provides about 16 percent of our water supply. We are pleased to report that our drinking water meets all federal and state requirements in 2000.

**If you have any questions** about this report or concerning your water utility, please contact Linda Alexander at (559) 675-7817. We want our customers to be informed about their water utility.

If you want to learn more, please attend any regularly scheduled meeting of the Board of Supervisors. They are held on Tuesdays (except the fifth Tuesday of a month) in the Board Chambers, 209 W. Yosemite Avenue, Madera, CA 93637.

Madera County Engineering Department routinely monitors for contaminants in your drinking water according to Federal and State laws. Our tables show the results of our monitoring for the period of January 1<sup>st</sup> through December 31<sup>st</sup>, 2000.

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## Results of Water Testing

The following tables present results of some of the approximately 120 tests made. Not all testing is reported here. We test for many chemicals that were not detected at a level high enough to be reported. Additionally, the State 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. The results shown are from the most recent testing and test dates are noted. If you have a specific question about a contaminant you do not see listed, we invite you to call our office.

In the table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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

**Maximum Contaminant Level** – the “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal** – the “Goal” (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Micromhos ( $\mu\text{MHO}/\text{cm}$ )** – a measure of the electrical conductivity of water.

**Parts per billion (ppb) or Micrograms per liter** – one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts per million (ppm) or Milligrams per liter (mg/l)** – one part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per trillion (ppt) or Nanograms per liter (nanograms/l)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

**Picocuries per liter (pCi/L)** – picocuries per liter is a measure of the radioactivity in water.

**Public Health Goal or 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.

**Treatment Technique (TT)** – a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**Turbidity Unit (TU)** – a turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 TU is just noticeable to the average person.

## TEST RESULTS FOR PRIMARY CONTAMINANTS

Contaminant	Violation Y/N	Level Detected	Range	MCL	PHG (MCLG)	Test Date	Likely Source of Contamination
<b>Radioactive Contaminants</b>							
Gross Alpha (pCi/l)	N	3.03	<1-11	15	N/A	11/00 2/00 5/99 9/98	Erosion of natural deposits
<b>Inorganic Contaminants</b>							
Fluoride (ppm)	N	.12	<. 1-.21	1	2	5/99 9/98	Discharge from oil drilling wastes and from metal refineries; erosion of natural deposits
Nitrate (ppm)	N	26.77	8.8-50	45	45	10/00 7/00 4/00 1/00	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>Lead and Copper</b>							
		90 <sup>th</sup> Percentile	# Sites Above AL	AL	90 <sup>th</sup> Percentile Goal	Total # Sites Sampled	
Lead (ppb) - 1994	N	<5	0	15	2	5	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) – 1994	N	.81	1	1.3	.17	5	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

### **More about Nitrate...**

Nitrate in drinking water at levels above 45 ppm 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 the skin. Nitrate levels above 45 ppm 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.

**Secondary standards** were set to protect you against unpleasant aesthetic effects such as color, taste, odor and the staining of plumbing fixtures (e.g., tubs and sinks) and clothing while washing. These do not pose a risk to public health and communities may decide whether or not to treat for them.

### **Secondary Standard Contaminants**

Contaminant	Violation	Level Detected	Range	MCL	PHG (MCLG)	Test Date	Likely Source of Contamination
Chloride (ppm)	N	24	24	500	N/A	5/99	Runoff/leaching from natural deposits; seawater influence
Corrosivity	N/A*	-1.75 Moderately aggressive	-1.75	Non-corrosive	N/A	5/99	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water, affected by temperature and other factors
Color	N	<5	<5	15	N/A	5/99	Naturally occurring organic materials
Specific Conductance (µMHO/cm)	N	280	280	1600	N/A	5/99	Substances that form ions when in water; seawater influence
Sulfate (ppm)	N	10	10	500	N/A	5/99	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	N	230	230	1000	N/A	5/99	Runoff/leaching from natural deposits
Turbidity (TU)	N	.05	.05	TT	5	5/99	Soil runoff
Zinc (ppm)	N	.08	.08	5	N/A	5/99	Runoff/leaching from natural deposits; industrial wastes

\*Corrosivity is somewhat tied to Lead and Copper in that, if the 90<sup>th</sup> percentile of our lead and copper levels exceeded the AL, it would indicate that the corrosivity of the water was causing leaching of the copper, lead, or lead-soldered joints of plumbing systems. While our corrosivity does fall into the moderately aggressive category, we do not have elevated levels of lead or copper; therefore no treatment is necessary at this time.

You may also be interested in these Unregulated Contaminants. No MCLs, PHGs or MCLGs have been established.

<b>Other Unregulated Contaminants</b>			
Contaminant	Test Date	Range	Results
Alkalinity - ppm	All tests were completed on 5/18/99 & 9/1/98.	61	61
Bicarbonate - ppm		45	45
Calcium - ppm		17	17
Magnesium - ppm		7	7
pH		6.8	6.8
Potassium - ppm		5	5
Sodium - ppm		15	15
Total Hardness (as CaCO <sub>3</sub> ) - ppm		104	104

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

**Other Information**

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements in your water system. The costs may be reflected in the rate structure, because rate adjustments may be necessary in order to make these improvements.

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.

**Noticia a Los Clientes Que Solo Hablan Español**

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