

Annual Drinking Water Quality Report

Madera County Service Area 1

Indian Lakes - 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, 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, 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 their 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 deep wells, drawing from water-bearing fractures approximately 300 feet below the surface. The water produced by these wells has had somewhat high levels of Iron and Manganese. You may have noticed an improvement in water quality over the past few months due to completion of the treatment and distribution project. The test results we are now seeing, which will be presented to you in 2001, reflect quite an improvement over the results of testing for 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 result of our monitoring for the period of January 1st through December 31st, 2000.

Results of Water Testing

The following tables present results of some of the approximately 420 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 tables 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.

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 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
Radioactive Contaminants							
Gross Alpha (pCi/L)	N	2.08	1-3	15	N/A	2/00 12/99 5/99 9/98	Erosion of natural deposits
Inorganic Contaminants							
Arsenic (ppb)	N	2	<2-2	50	N/A	5/99	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	N	.11	<.10 -.17	2	1	5/99	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead and Copper							
	Violation	90 th Percentile	# Sites Above AL	AL	90 th Percentile Goal	Total # Sites Sampled	
Lead (ppb)	N	6	0	15	2	20	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers, erosion of natural deposits
Copper (ppm)	N	.23	0	1.3	.17	20	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

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	11.07	10-12	500	N/A	5/99	Runoff/leaching from natural deposits; seawater influence
Color	Yes*	17.69	<5-25	15	N/A	5/99	Naturally occurring organic materials
Corrosivity	N/A**	-0.49 Moderately aggressive	-0.42 to -0.58	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
Iron (ppb)	Yes*	370	<50-690	300	N/A	5/99	Leaching from natural deposits; industrial wastes
Manganese (ppb)	Yes*	107.45	<5-186	50	N/A	5/99	Leaching from natural deposits
Specific Conductance (µMHO/cm)	N	369.90	340-380	1600	N/A	5/99	Substances that form ions when in water; seawater influence
Sulfate (ppm)	N	31.59	25-35	500	N/A	5/99	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	N	274.18	260-280	1000	N/A	5/99	Runoff/leaching from natural deposits
Turbidity (TU)	N	3.6	.05-5.8	TT	5	5/99	Soil runoff
Zinc (ppm)	N	.06	<.05-.09	5	N/A	5/99	Runoff/leaching from natural deposits; industrial wastes

****About our violations...***

Iron and Manganese, due to leaching from naturally occurring geological deposits, were found at levels that exceeded the MCLs for secondary standards. Color was also an issue, probably as a result of the levels of iron and manganese. Violation of these MCLs did not pose a risk to public health and are now being corrected by the new treatment facility. Recent test results have shown significant improvement.

**Corrosivity is somewhat tied to Lead and Copper in that, if the 90th 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.

Other Unregulated Contaminants			
Contaminant	Test Date	Range	Results
Alkalinity - ppm	All tests were performed on 5/6/99.	152-160	156.47
Bicarbonate - ppm		137-144	141.59
Calcium -ppm		26-28	27.31
Magnesium – ppm		12-14	12.51
pH		7.4 – 7.5	7.45
Potassium – ppm		7-8	7.09
Sodium – ppm		20-21	20.21
Total Hardness (as CaCO ₃) - ppm		158-168	163.93

As you can see by the tables, our 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 and testing 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.

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.