

# *Annual Drinking Water Quality Report*

## **Madera County Maintenance District 42**

### **Still Meadow – 2004**

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 and delivery process and protect your 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.

#### **Possible sources of contamination:**

- *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 tapwater** is safe to drink, the U. S. Environmental Protection Agency (EPA) and the California Department of Health Services (DHS) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS 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 for a lifetime at the MCL level to have a one-in-a-million chance of affecting 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 (800) 426-4791.

**Some people may be more vulnerable** to contaminants in drinking water than the general population. Immuno-compromised persons, such as people with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and/or infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Center 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.

**Your water is supplied by** two deep wells drawing from fractured rock approximately 400 and 430 feet below the earth's surface. We are pleased to report

that your drinking water meets all federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact Linda Alexander at (559) 661-6333. We want our customers to be informed about their water utility.

The Madera County Engineering Department routinely monitors for contaminants in your drinking water according to Federal and State laws. Our tables show the results of monitoring for the period of January 1<sup>st</sup> through December 31<sup>st</sup>, 2004.

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## Results of Water Testing

The following tables present results of some of the testing done in 2004. 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 frequently 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 (MCL)** – the “Maximum Allowed” is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as is 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.

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

**Parts per billion (ppb) or Micrograms per liter ( $\mu\text{g}/\text{l}$ )** – 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 ( $\text{mg}/\text{l}$ )** – one part per million corresponds to one minute in two years or a single penny in \$10,000.

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

**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.

**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 / Unit of Measurement	Violation Y/N	Level Detected	Range	MCL	PHG (MCLG)	Test Date	Likely Source of Contamination
<b>Microbiological Contaminants</b>							
Total Coliform Bacteria	N	0	0	More than 1 positive monthly sample	0	At least 1 test per month	Naturally present in the environment
<b>Radioactive Contaminants</b>							
Gross Alpha (pCi/L)	N	11.2	10-12.3	15	N/A	2, 5, 8 & 11/02	Erosion of natural deposits
<b>Inorganic Contaminants – Tank</b>							
Arsenic (ppb)	N	23.39	19.6-28	50*	N/A	3, 6, 9 & 12/02	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	N	.38	.38	2	1	5/02	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors</b>							
Total Trihalomethanes (ppb)	N	1.98	1.98	80	N/A	8/04	Byproduct of drinking water chlorination
<b>Lead and Copper</b>							
Contaminant	Violation	90 <sup>th</sup> Percentile	# Sites Above AL	AL	90 <sup>th</sup> Percentile Goal	Total # Sites Sampled & Year	Likely Source of Contamination
Lead (ppb)	N	<5	0	15	2	5 2002	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers, erosion of natural deposits
Copper (ppm)	N	.12	0	1.3	.17	5 2002	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

\*Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

You may have heard that the EPA recently reduced the MCL and MCLG for Arsenic. The new MCL (set at 10.0 ppb) and MCLG (set at 0) do not become mandatory until January 23, 2006 to allow for the installation of any needed treatment facilities. A consultant has been hired to assess methods of reducing the Arsenic levels. Once a viable option has been identified, we will need to address how the project can be funded. We will contact you with more information at that time.

**Secondary standards** have been set to protect 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.

<b>Secondary Standard Contaminants</b>							
Contaminant	Violation	Level Detected	Range	MCL	PHG (MCLG)	Test Date	Likely Source of Contamination
Chloride (ppm)	No	11.9	11.9	500	N/A	5/02	Leaching from natural deposits; industrial wastes
Color (Units)	No	<5	<5	15	N/A	5/02	Naturally occurring organic materials
Corrosivity	N/A*	Moderately aggressive	Moderately aggressive	Non-Corrosive	N/A	5/02	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water, affected by temperature and other factors
Specific Conductance (µMHO/cm)	No	280	280	1600	N/A	5/02	Substances that form ions when in water; seawater influence
Sulfate (ppm)	No	24.2	24.2	500	N/A	5/02	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	No	220	220	1000	N/A	5/02	Runoff/leaching from natural deposits
Turbidity (TU)	No	.15	.15	5	N/A	5/02	Soil runoff

\*Corrosivity is somewhat tied to Lead and Copper in that, if the 90<sup>th</sup> percentile of 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 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.

These **Unregulated Contaminants** may also be of interest to you. No MCLs, PHGs or MCLGs have been established.

<b>Other Unregulated Contaminants...</b>			
Contaminant	Test Date	Range	Result
Alkalinity – ppm		147	147
Bicarbonate – ppm		137	137
Boron – ppb	All tests were	380-900	650
Bromodichloromethane – ppb	performed on	.5	.5
Bromoform – ppb	5/9/02,	.65	.65
Calcium – ppm	6/23/03 &	38	38
Dibromochloromethane – ppb	8/18/04.	.83	.83
Magnesium – ppm		6	6
pH		7.5	7.5
Potassium – ppm		2	2
Sodium – ppm		34	34
Total Hardness (as CaCO <sub>3</sub> ) – ppm		105	105

**Summary:**

As shown by the tables, the Still Meadow system had no violations. Although our monitoring and testing has detected the presence some contaminants, we’re proud that your drinking water meets all current Federal and State requirements. The EPA has determined that Arsenic levels above 10.0 ppb will require treatment for its removal and we are looking into ways to accomplish this. The new MCL be enforced in 2006.

**Other Information**

A source assessment was conducted for both Stillmeadow wells in May 2002. While no contaminates exceeding current MCLs were found, the assessment identified septic systems in the area as having the potential for outside contamination. A copy of the complete assessment may be viewed at the State’s website, [www.dhs.ca.gov/ps/ddwem/technical/dwp/source\\_info/source\\_index.htm](http://www.dhs.ca.gov/ps/ddwem/technical/dwp/source_info/source_index.htm), by visiting the Madera County Environmental Health Department, or by requesting a summary of the assessment from Environmental Health, at (559) 661-6333.

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make water system improvements in the next few years to lower the level of Arsenic. 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.**

**Madera County Resource Management Agency**  
**Engineering and General Services**  
**661-6333**

**WATER CONSERVATION ORDINANCE NO. 532**

1. No outdoor water use between 12:00 noon and 5:00 p.m.
2. Even number addresses water Mondays, Wednesdays and Fridays.
3. Odd number addresses water Tuesdays, Thursdays and Saturdays.
4. Any address may water on Sunday during watering hours.
5. Hosing down paved driveway, sidewalks or paved parking lots is prohibited.
6. Restaurants are encouraged to serve water only upon request.
7. These restrictions shall be in effect each year between May 1<sup>st</sup> and October 31<sup>st</sup>.
8. Violations are subject to a \$100.00 fine per violation per day.

**CONSERVACION de AGUA ORDENANSA NO. 532**

1. Nada de uso de agua en las afueras de la casa, Entre las 12 medio día y las 5:00 p.m.
2. Riego de casas con dirrecion con numero parejo son los Lunes, Miercoles y Viernes.
3. Casas con dirreciones nonas podran regar los Martes, Jueves y Sabados.
4. Todos podran regar en Domingo a las horas senaladas para el riego.
5. Se prohíbe lavar con mangeras las entradas de residencia, las banquetas y lugares de estacionamiento.
6. Los Restaurantes se les recomienda de no servir agua, unicamente si es pedida.
7. Estas restricciones estaran en efecto cada año entre el 1o de Mayo y el 31 de Octubre.
8. Todos Violaciones estan sugetas a una multa de \$100.00 por cada violacion.