2005 Consumer Confidence Report

Water System Name: **Miami Creek Knolls, MD-43** Report Date: 6/30/06

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 potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Five wells drawing from water-bearing rock fractures

Name & location of source(s): Three wells, Well #2, #3 and #4, are located in the Miami Creek Knolls Maintenance District. Supplemental water is purchased from Dillon Estates, MD-60. Their wells, Well #1 & #2, are located in the Dillon Estates Maintenance District.

Drinking Water Source Assessment information: Source water assessments were conducted for the Miami Creek wells in October 2002 and for the Dillon Estates wells in April 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 by visiting the Madera County Environmental Health Department or the State's website, www.dhs.ca.gov/ps/ddwem/technical/dwp/source_info/source_index.htm, or by requesting a summary of the assessment from Environmental Health at (559) 675-7823.

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: 209 W. Yosemite Avenue, 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) 661-6333

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.

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

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)

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, 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, 5 and 6 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 (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 *E. coli*	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	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**	**90th percentile level detected**	**No. sites exceeding AL**	**AL**	**PHG**	**Typical Source of Contaminant**
Lead (ppb)	5	<5	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	5	.24	1	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)	5/12/04 5/19/05	33.11	12-88	none	none	Generally found in ground & surface water

Hardness (ppm)	5/12/04 5/19/05	112.91	79-158	none	none	Generally found in ground & surface water

Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.

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**
Arsenic (ppb)	5/12/04 5/19/05	2.63	<2-7	50	.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	5/12/04 5/19/05	.12	<.10-.16	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorite (ppm)	8/10/04	.18	.18	1.0	(.8)	Byproduct of drinking water disinfection
Chromium (ppb)	5/12/04 5/19/05	1.08	<1-1.3	50	(100)	Discharge from steel & pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	5/12/04 5/19/05	.12	<.1-.2	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2, 5, 8 & 11/02	8.375	6-10	15	(0)	Erosion of natural deposits
Haloacetic Acids (ppb)	8/30/05	1.4	1.4	60	N/A	Byproduct of drinking water disinfection
Nitrate (ppm)	Monthly in 2005	14.7	7.2-**74.8***	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Trihalomethanes (ppb)	8/30/05	3.04	3.04	80	N/A	By-product of drinking water chlorination

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)	5/12/04 5/19/05	49.6	21.5-121	500	N/A	Runoff/leaching from natural deposits; seawater influence
Color (Units)	5/12/04 5/19/05	12.5	<5->25	15	N/A	Naturally- occurring organic materials
Iron (ppb)	5/12/04 5/19/05	**860***	<100-**2000**	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	5/12/04 5/19/05	21.75	<20-24	50	N/A	Leaching from natural deposits
Specific Conductance (micromhos)	5/12/04 5/19/05	378	200-600	1600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	5/12/04 5/19/05	8.95	3.7-18.9	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	5/12/04 5/19/05	283.3	159-392	1000	N/A	Runoff/leaching from natural deposits
Turbidity (Units)	5/12/04 5/19/05	**8.4***	<.05-**23**	5	N/A	Soil runoff
Zinc (ppm)	5/12/04 5/19/05	.15	<.05-.44	5.0	N/A	Runoff/leaching from natural deposits; industrial wastes

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS				
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Notification Level**	**Health Effects Language**
Vanadium (ppb)	6/17/03 6/19/03	.44	50	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals

***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 for Contaminants Exceeding an MCL, MRDL, or AL, or a Violation of Any Treatment Technique or Monitoring and Reporting Requirement

***Nitrates:** Nitrates in drinking water at levels above 45 mg/L 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 serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. While your system did not exceed the MCL due to blending with Dillon Estates water, our test results show that two Miami Creek wells (#2 and #4) do exceed the MCL for Nitrates and are in need of replacement.

Iron was found at a level exceeding the secondary MCL of 300 ppb. High levels of iron also affected both the color and clarity of your water resulting in secondary violations for Color and Turbidity as well. The secondary standard was set to protect you against unpleasant aesthetic effects (e.g., color, taste, odor), the staining of plumbing fixtures (e.g., tubs and sinks), and clothing while washing. The high iron levels are due to leaching of natural deposits. Violation of secondary MCLs do not pose a risk to public health and communities may choose whether or not to treat for them.

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. In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements to the system. Changes to the rate structure may be necessary to make those changes possible.

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.