Madera County Special Districts
2015 Consumer Confidence Report

Water System Name: **MD-10A, Madera Ranchos** Report Date: July 1, 2016

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, 2015 and may include earlier monitoring data.

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: *Four deep wells drawing from an underground aquifer*

Name & general location of source(s): *Charlton, New Fender, Dublin, and Kensington Wells in Madera Ranchos*

Drinking Water Source Assessment information: *The source assessment for the Kensington Well was conducted in July 2009. The assessments for the other wells was conducted in April 2003. Several activities were identified as being associated with detected contaminants including: historic waste dumps/landfills, military installations, irrigated crops, high density housing and local septic systems. Some contaminants identified were: manganese (naturally occurring at the Fender Well, and can be associated with historic dumps, landfills, and junkyards), nitrate (at the Fender, Fernwood, and Sparta Wells; often associated with septic systems, but can also be associated with historic agricultural practices), and gross alpha (naturally occurring at the Fernwood Well, and can be associated with military installations, medical or veterinary offices). The levels of nitrate found at the Fender Wells are below the Maximum Contamination Level (MCL) for drinking water standards, but concentrations have exceeded the MCL at the Sparta Well and Fernwood. Test results for the Sparta and Fernwood well are not included in this annual report since they are both disconnected from the system. Manganese (Fender Well) and gross alpha occurred at levels below the MCL and, in the case of manganese, even fell below the minimum reporting level. The assessments also identified the following activities as having the potential for outside contamination even though no contaminants associated with these activities were found: other wells in the area, gas stations, and streets or roads. A copy of the complete assessment may be viewed at the Madera County Environmental Health Department, or by visiting the State's website, www.dhs.ca.gov/ps/ddwem/technical/dwp/sourceinfo/sourceindex.htm.*

Time and place of regularly scheduled board meetings for public participation: *Meetings are normally held twice per month on Tuesday at 9:00 a.m. at the Board of Supervisors Chambers on 200 West 4th Street in Madera. Since the schedule varies call 675-7700 to confirm the meeting date or visit the county website, www.madera-county.com/supervisors to check the schedule and preview the agenda.*

For more information, contact: *Madera County Special Districts* Phone: *(559) 675-7820*

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 highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and 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 that a water system must follow.

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

ND: not detectable at testing limit

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.	**ppm**: parts per million or milligrams per liter (mg/L) **ppb**: parts per billion or micrograms per liter (µg/L) **ppt**: parts per trillion or nanograms per liter (ng/L) **ppq**: parts per quadrillion or picogram per liter (pg/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*, that 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that 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 USEPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

The following tables list all of the drinking water contaminants that were detected during the most recent samplings. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board 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 (complete if bacteria detected)	**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

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Routine sampling of the water system continues to be conducted on a monthly basis to confirm the absence of coliforms.

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	**Sample Date**	**No. of samples collected**	**90th percentile level detected**	**No. sites exceeding AL**	**AL**	**PHG**	**Typical Source of Contaminant**
Lead (ppb)	2013	10	<5	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	2013	10	0.126	0	1.3	0.3	Internal corrosion of household 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)	2015	29.0	23-28	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2015	107	74-130	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

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**
Gross Alpha (pCi/L)	2015	1.53	2.1-3.2	15	0	Erosion of natural deposits
Combined Radium 226& 228 (pCi/L)	2013	1.01	0.0-1.48	2	0	Erosion of natural deposits
Arsenic (ppb)	2015	2.6	2-3.3	10	.004	Erosion of natural deposits; runoff from orchards; glass &electronic production wastes
Barium (ppm)	2015	0.23	0.220-0.240	10	2	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.
Fluoride (ppm)	2015	0.06	ND-0.17	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.

Calcium (ppm)	2015	24.5	19-25	50	100	Discharge from steel and pulp mills; chrome plating; erosion of natural deposits.
Hexavalent Chromium (ppb)	2015	1.3	1.1-1.8	10	0.02	Discharge from electroplating factories, leather tanneries, wood preservation, erosion of natural deposits.
Nitrate (ppm)	2015	14.2	8.1-18	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; 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**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Chloride (ppm)	2015	51.6	28-61	500	N/A	Runoff/ leaching from natural deposits; seawater influence
Iron (ppb)	2015	87.5	0-230	300	N/A	Naturally occurring organic materials
Sulfate (ppm)	2015	4.5	3.7-5.4	500	N/A	Runoff/ leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2015	295	290-300	1000	N/A	Runoff/ leaching from natural deposits
Turbidity (NTU)	2015	0.57	0.23-.91	5	N/A	Soil Runoff
Manganese (ppb)	2015	2.6	0.0-5.4	50	N/A	Naturally occurring organic material

*Any violation of an MCL or AL would be asterisked in the above table(s). If asterisked, additional information regarding the violation would be provided later in this report.

Additional General Information on Drinking Water

Lead-Specific Language for Community Water Systems: If present, elevated levels of **lead** can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The MD-10A, Ranchos Water System is responsible for providing high quality drinking water, but cannot control the variety of materials used in household plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

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).

We are required by various State and Federal regulations to monitor your drinking water for specific contaminants on a regular basis. The results of regular monitoring are indicators of whether or not your drinking water meets all health standards. For your convenience, we have summarized the annual findings here in this report. We hope you find this both informative and helpful. Please feel free to contact our office should you have any further questions regarding the quality of your water.

The County of Madera works continuously 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.

Water Conservation Tips for Consumers

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers – a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath. Use a water-efficient showerhead. They are inexpensive, easy to install, and can save you up to 750 gallons a month.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Fix leaking toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Water plants only when necessary. Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. For more information, visit www.epa.gov/watersense.