

Madera County Special Districts 2015 Consumer Confidence Report

Water System Name: SA-16, Sumner Hill 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.

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: Surface water from the San Joaquin River
 Name & location of source(s): Your water is received through an underwater intake structure in the river within the Sumner Hill Service Area

Drinking Water Source Assessment information: *A source assessment was conducted for Sumner Hill in April 2003. While no contaminants exceeding current MCLs were found, the assessment identified recreational activities and low-density septic systems as having the potential for outside contamination. A copy of the complete assessment may be viewed by visiting the State's website, www.dhs.ca.gov/ps/ddwem/technical/dwp/source_info/source_index.htm or the Madera County Environmental Health Department, 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 normally held twice per month on Tuesday at 9:00 a.m. at the Board of Supervisors' Chambers on 200 W 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

<p>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.</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>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.</p>	<p>Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.</p> <p>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.</p> <p>Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.</p> <p>Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.</p> <p>Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.</p> <p>ND: not detectable at testing limit</p> <p>ppm: parts per million or milligrams per liter (mg/L)</p> <p>ppb: parts per billion or micrograms per liter (ug/L)</p> <p>ppt: parts per trillion or nanograms per liter (ng/L)</p> <p>ppq: parts per quadrillion or picogram per liter (pg/L)</p> <p>pCi/L: picocuries per liter (a measure of radiation)</p>
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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 Department of Public Health (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 provide the same protection for public health.

The following tables 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 (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.) 1	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

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)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) – 2014	5	2.45	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) – 2014	5	.525	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	5.4	5.4	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2015	16	16	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
Arsenic (ppb)	12/2015	16*	16*	10	.0004	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Barium (ppm)	12/2015	.020	.020	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Copper (ppm)	12/2015	.012	.012	AL=1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Hexavalent Chromium (ppb)	10/14	<0.2	<0.2	10	.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate (ppm)	2015	.02	ND-.11	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Trihalomethanes (ppb)	2015	83.0*	73-130*	80	N/A	By-product of drinking water chlorination
Total Haloacetic Acids (ppb)	2015	87.0*	74-120*	60	N/A	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2015	1.53	1.0– 2.4	TT	N/A	Various natural and manmade sources

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
Aluminum (ppb)	12/2015	2200*	2200*	1000	4.0	Erosion of natural deposits; residual from some surface water treatment processes
Bicarbonate Alkalinity as HC03 (ppm)	2015	15.5	14-29	N/A	N/A	
Chloride (ppm)	12/2015	4.9	4.9	500	N/A	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	12/2015	1200*	1200*	300	20	Leaching from natural deposits; industrial wastes
Specific Conductance (micromhos)	12/2015	61	61	1600	N/A	Substances that form ions when in water; seawater influence
Manganese (ppb)	12/2015	220*	220*	50	N/A	Leaching from natural deposits
Sulfate (ppm)	12/2015	ND	ND	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Alkalinity as CaC03 (ppm)	2015	16.8	13-23	N/A	N/A	

Threshold Odor Numbe(T.O.N.)	12/2015	4*	4*	3.0	1.0	Naturally occurring organic materials
Total Dissolved Solids (ppm)	12/2015	47	47	1000	N/A	Runoff/leaching from natural deposits
Turbidity (Units)	12/2015	9.6*	9.6*	5	N/A	Runoff/leaching from natural deposits

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

As shown in Table 4, there were three MCL violations of primary drinking water standards. There were also five MCL violations of secondary standards as noted in Table 5.

The primary MCL violations were for **Total Haloacetic Acids, Total Trihalomethanes, and Arsenic**. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Haloacetic Acids are a byproduct of chlorination and its interaction with organic compounds. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may also have an increased risk of getting cancer. We are currently looking into other disinfection processes that do not contribute to the formation of these compounds.

The secondary MCL violations shown in Table 5 were for **Iron, Manganese, Turbidity, Aluminum, and Threshold Odor Number**. Secondary standards have been set to protect against unpleasant aesthetic effects such as color, taste, odor, and the staining of plumbing fixtures (i.e. tubs and sinks) and clothing while washing, etc. The high levels of manganese affect both color and clarity (turbidity) of the water through the process of oxidation. Violations of these standards usually do **not pose a risk to public health** and communities may decide whether or not to treat for them.

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Arsenic	Erosion of natural deposits; runoff from orchards; glass and electronics production waste.	N/A	N/A	Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.
HAA5	Reaction between organic carbon and chlorine	2nd through 4 th Quarters	Quarterly Notification	Some people drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
TTHM	Reaction between organic carbon and chlorine	2 nd and 3rd Quarters	Quarterly Notification	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
DBP Precursors (TOC'S)	Various natural and man-made sources	2 nd Quarter	Monthly Monitoring	Total organic carbon (TOC) has no health effect however provides a medium for THMs & HAAs

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique ^(a) (Type of approved filtration technology used)	Package Conventional Surface Treatment Plant – Rescue Engineers
Turbidity Performance Standards ^(b) (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to <u>0.3</u> NTU in 95% of measurements in a month. 2 – Not exceed <u>0.3</u> NTU for more than eight consecutive hours. 3 – Not exceed <u>1.0</u> NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	97.9%
Highest single turbidity measurement during the year	0.299
Number of violations of any surface water treatment requirements	0

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

* Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided below.

Summary Information for Surface Water Treatment

The Sumner Hill water system surface water treatment plants were able to meet all performance standards. The **Total Haloacetic Acids and Total Trihalomethanes** MCL violations are associated with the use of chlorine as a disinfectant. We are looking into other methods of treatment and disinfection to eliminate this problem. We will be moving forward to correct this violation and the process of getting community input and support for the much needed improvements for your water system.

Filtered Backwash Recycling Rule (FBRR)

During the year of 2015, Sumner Hill Water Treatment Facility failed to return recycle flows through the processes of the existing filtration system or to an alternate state-approved location.

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 SA-16, Sumner Hills 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 it 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. Visit www.epa.gov/watersense for more information.