

MAMMOTH COMMUNITY WATER DISTRICT CONSUMER CONFIDENCE REPORT – 2016

This brochure is intended to provide the consumer information about the sources and quality of their drinking water. The information includes levels of detected contaminants, compliance with drinking water regulations, and health related materials in 2016.

Water System Information

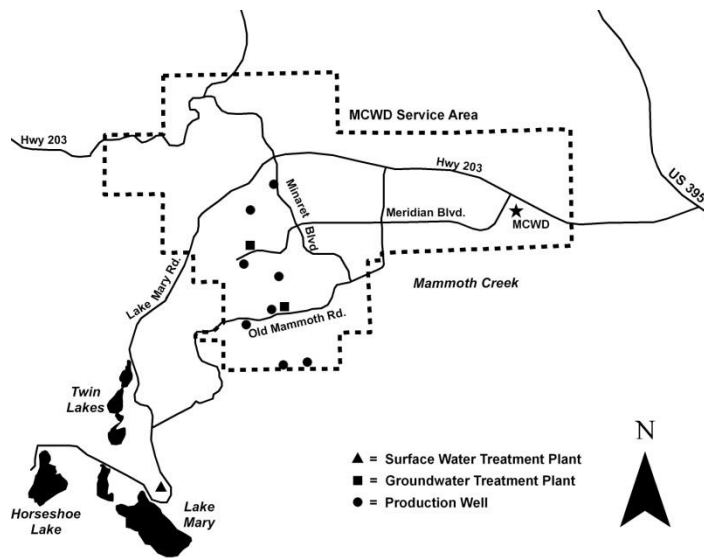
This water quality report contains important information about your drinking water supplied by the Mammoth Community Water District Water System to the Town of Mammoth Lakes. *Este informe contiene información muy importante sobre su agua beber. Tradúzcalo o hable con alguien que lo entienda bien. Si usted necesita ayuda para traducir este reporte en español por favor contacte el Distrito al numero (760) 934-2596.*

Questions about this water quality report may be addressed by mail to the Mammoth Community Water District, attention Pat Hayes, P.O. Box 597, Mammoth Lakes, California 93546; by telephone at (760) 934-2596 x 238; or by e-mail at Phayes@mcwd.dst.ca.us. This report may also be seen on the District's web site at www.mcwd.dst.ca.us.

Members of the public have the opportunity to participate in decisions that affect drinking water quality by attending any of the District's regularly scheduled Board of Directors meetings. These meetings are held at 5:30 p.m. on the third Thursday of each month and are located at the Mammoth Community Water District offices on 1315 Meridian Boulevard across from the Industrial Park.

Sources of Water

Water provided to District customers comes from both surface water and groundwater sources. Surface water from Lake Mary is collected, filtered, disinfected, and treated for corrosion control. Groundwater is pumped from nine wells located within the community in the Mammoth Basin watershed. Water from all but one of the wells is treated with chlorine and ferric chloride and filtered to remove iron, manganese, and arsenic prior to delivery to customers. Water from all wells is treated for corrosion control. Depending on where you live in the community, you may receive all surface water, all well water, or a combination of the two. The source of your water may also change depending on the season. If you are interested in which water source is being supplied to you at any time, please contact the District.



Source Water Assessments were conducted for the wells and surface water supplies of the Mammoth Community Water District Water System between 2001 and 2009. The purpose of the assessments was to identify potential sources of drinking water contamination. The assessment showed that the District's groundwater production wells are considered most vulnerable to contamination from the sewer collection system. In addition, raw surface water supplies are considered most vulnerable to recreation activities and the sewer collection system. A copy of the complete assessment may be viewed at Mammoth Community Water District office or at SWRCB San Bernardino District Office, 464 West 4th Street, Suite 437, San Bernardino, CA 92401. You may request a summary of the assessment be sent to you by contacting the SWRCB District Engineer at (909) 383-4328 or by contacting MCWD, (760) 934-2596 or (760) 934-4080 (fax). In 2016, the District updated its Watershed Sanitary Survey, which identifies potential sources of contamination to the surface water supplies and is available at the District offices.

Definitions

The following are definitions of key terms that consumers will need to understand the data listed in the tables that shows the level of each detected contaminant.

- **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.
- **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.
- **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.
- **Primary Drinking Water Standard (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.
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **pCi/L:** picocuries per liter (a measure of radiation)
- **N/A:** not applicable **ppb:** parts per billion or micrograms per liter **ppm:** parts per million or milligrams per liter **NTU:** Nephelometric Turbidity Units **µS/cm:** microsiemens per centimeter **ND:** below laboratory detection limits

Detected Contaminants

Note: The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Sampling Results Showing Detection of a Contaminant with a Primary Drinking Water Standard

Inorganic Contaminants	MCL	PHG (MCLG)	MCWD Water		Sample Date(s)	Violation?	Typical Source of Contaminant
			Average	Range			
Arsenic (ppb)	10	0.004	2.7	ND – 5.6	2016	No ⁽¹⁾	Erosion of natural deposits
Fluoride (ppm)	2.0	1	0.34	ND – 0.6	2015-2016	No	Erosion of natural deposits
Gross Alpha (pCi/L)	15	(0)	0.53	ND – 2.2	2011-2015	No	Erosion of natural deposits
Disinfection Byproducts	MCL (MRDL)	PHG (MRDLG)	MCWD Water		Sample Date(s)	Violation?	Typical Source Of Contaminant
			Average	Range			
TTHMs [Total trihalomethanes] (ppb)	80	N/A	33	17 – 48	2016	No	Byproduct of drinking water chlorination
Haloacetic Acids (ppb)	60	N/A	23	16 – 29	2016	No	Byproduct of drinking water disinfection
Chlorine Residual (ppm)	(4)	(4)	0.64	0.2 – 1.2	2016	No	Drinking water disinfectant added for treatment

⁽¹⁾While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Turbidity – Results of Direct Filtration Process of Surface Water

	MCL ⁽²⁾	Highest single measurement in 2016	Lowest monthly percentage of samples meeting turbidity limits	Violation?	Typical Source of Contaminant
Turbidity⁽¹⁾ (NTU)	5.0 NTU	0.21	N/A	No	Soil runoff
	95% of samples <0.5 NTU	N/A	100%	No	

⁽¹⁾ Turbidity is a measurement of the cloudiness of water and is a good indicator of the effectiveness of our filtration system.

⁽²⁾ The MCL for turbidity is based upon the effectiveness of the District’s treatment technique or TT, which is direct filtration.

Inorganic Contaminants - Lead and Copper in Residential Taps in 2015

Contaminant	Action Level (AL)	PHG (MCLG)	Number of Samples Collected	90 th Percentile Level Detected	Number of Sites Exceeding AL	Typical Source of Contaminant
Lead (ppb)	(15)	0.2	40	ND	0	Internal corrosion of household water plumbing systems
Copper (ppm)	(1.3)	0.3	40	0.3	0	Internal corrosion of household water plumbing systems

Sampling Results Showing Detection of a Contaminant with a Secondary Drinking Water Standard

Secondary Contaminants	Secondary MCL	MCWD Water		Sample Date(s)	Violation?	Typical Source of Contaminant
		Average	Range			
Iron (ppb)	300	13	ND – 240	2016	No	Leaching from natural deposits
Sulfate (ppm)	500	13.8	2.9 – 38	2015-2016	No	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	1600	396	48 – 680	2015-2016	No	Substances that form ions when in water
Total Dissolved Solids	1000	260	32 – 440	2015-2016	No	Runoff/leaching from natural deposits
Chloride (ppm)	500	1.5	ND – 9.4	2015-2016	No	Runoff/leaching from natural deposits

Sampling Results for Microbiological Analysis (Total Coliform Rule)

Microbiological Contaminants	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	2	0	5% of monthly samples are positive for total coliform	0	Naturally present in the environment
Fecal Coliform or E. coli	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

Sampling Results for Sodium and Hardness

Chemical	Average	Range	Sample Date(s)	MCL	MCLG	Typical Source Contaminant
Sodium (ppm)	34	1.4 – 79	2014 – 2016	none	none	Sodium refers to the salt present in the water and is generally naturally occurring
Hardness (ppm)	126	18 – 210	2014 – 2016	none	none	Hardness is generally the sum of magnesium and calcium cations present in the water, which are usually naturally-occurring

Summary Information for Violation of a Surface Water Treatment Technique (TT)

TT Violation	Explanation	Length	Steps Taken to Correct the Violation	Health Effects Language
Failed to maintain at least 0.2 ppm disinfection residual at the entry point for more than 4 hours	On August 14, 2016, MCWD identified a malfunctioning chlorine pump. As a result, water leaving the treatment plant was inadequately disinfected for 4 hours and 36 minutes.	4 hours and 36 minutes	MCWD took immediate action to resolve this problem by repairing the malfunctioning chlorine pump. Regular testing since the pump was repaired has demonstrated that water leaving the treatment plant is again meeting the state's standards for disinfection.	Inadequately treated or inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.

Although the water leaving treatment facility was not adequately chlorinated for a duration longer than 4 hours, the water flows from the treatment plant into a 2 million gallon tank to allow contact time with chlorine before entering the distributions system. The water in the tank contained chlorinated water prior to the incident and all water leaving the tank was thoroughly mixed with chlorinated water and contained chlorine before being distributed to the community. The water in the tank and at multiple locations downstream of the tank were tested for chlorine, coliform bacteria, and E. Coli immediately following the incident. All samples contained sufficient chlorine and did not contain coliform bacteria or E. Coli. MCWD has since upgraded the chlorine system and is currently implementing reliability features to prevent future incidents of this nature.

Unregulated Contaminant Monitoring Results

The following table contains results for unregulated contaminants sampled in 2014. Unregulated contaminant monitoring helps the US Environmental Protection Agency (USEPA) and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated. These samples are separate from the regularly required monitoring and therefore only sampled during the 2014 year. The USEPA uses the Unregulated Contaminant Monitoring Rule (UCMR) program to collect data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act (SDWA). Information about the UCMR and results can be found the USEPA website: <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/>

Unregulated Contaminant Detections in 2014

Chemical	Average	Range	Notification Level (MCL) [PHG]	Health Affects
Chlorate (ppb)	43.8	ND – 220	800	N/A
Chromium (ppb)	0.05	ND – 0.51	(50)	Some people who use water containing chromium in excess of the MCL over many years may experience allergic dermatitis.
Chromium-6 (ppb)	0.08	ND – 0.49	(10) [0.02]	(1)
Molybdenum (ppb)	3.5	2.3 – 7.5	N/A	N/A
Strontium (ppb)	61.2	16 – 150	N/A	N/A
Vanadium (ppb)	2.5	ND – 12	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.

(1) A drinking water sample with a detection of hexavalent chromium above the PHG of 0.02 ppb does not necessarily represent a public health concern. The PHG represents the level of hexavalent chromium at which no adverse health effects would be anticipated over an entire lifetime of exposure (for example, drinking 2 liters of water with hexavalent chromium at the PHG every day for 70 years). However, a PHG is not a definitive boundary line between a “safe” and “dangerous” level of a chemical, and drinking water is frequently demonstrated as safe to drink even if it contains chemicals at levels exceeding their PHGs. Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.

Additional General Information on Drinking Water

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. MCWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in the customer's plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead and copper exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. If you are concerned about lead or copper 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 (1-800-426-4791) or at <http://www.epa.gov/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 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).

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.

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 minutes shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They are inexpensive, easy to install, and can save you up to 750 gallons a month. Free water-efficient showerheads are available from MCWD.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month. MCWD has a clothes washer-replacement rebate program.
- Water plants only when necessary.
- 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. MCWD has a toilet-replacement rebate program.
- 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. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.