

## 2016 Consumer Confidence Report



mount**hermon**

**Mount Hermon Association, Inc.**

### 2016 Consumer Confidence Report

**Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.**

#### **What is this report?**

This is an annual water quality report prepared by the Association to inform the Mount Hermon community about the quality of their drinking water. This report provides a summary of last year's water quality monitoring. Included are details about where your water comes from, what it contains, and how it measures up to state and federal drinking water standards.

#### **Where does your water come from?**

Three deep ground water wells (two active and one on standby), reaching into the Lompico Aquifer, work together to provide Mount Hermon with the water it needs.

#### **How does drinking water get contaminated?**

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, which 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 storm water 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 storm water 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 storm water 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 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.

#### **Are the Mount Hermon wells vulnerable to contamination?**

Water suppliers are required to conduct vulnerability assessments of their water sources. The assessment is designed to identify nearby activities which could potentially release contaminants that may reach our water supply sources. Examples of potential contaminant sources are: automobile service stations, construction activities, confined animal facilities, commercial and industrial operations, and septic systems, just to name a few.

The only potential source of contaminant for the Mount Hermon water system was identified as the septic system located at the County of Santa Cruz Juvenile Probation Center, and was ranked very low.

### 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.

**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 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.

**Variations 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 (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 California 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.

**Tables 1, 2, 3, 4, 5, 7, and 8 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 Contaminant	Health Effects Language
Total Coliform Bacteria	(In a mo.) 1	1	More than 1 sample in a month with a detection	0	Naturally present in the environment	Coliforms are bacteria that are usually present in the environment and are used as an indicator that other; potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Fecal Coliform or <i>E. coli</i>	(In the year)	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	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in the se wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

**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 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant	Health Effects Language
Lead (ppb)	10	0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level may experience delays their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.
Copper (ppm)	10	0	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor.

**TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MC LG)	Typical Source of Contaminant	Health Effects Language
Sodium (ppm)	2/3/16	130		none	none	Salt present in the water and is generally naturally occurring	
Hardness (ppm)	1/25/16	46		none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring	

\*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	Health Effects Language
Aluminum (ppm)	8/9/06	0.0067		1	0.6	Erosion of natural deposits; residue from some surface water treatment processes	Some people who drink water containing aluminum in excess of the MCL over many years may experience short-term gastrointestinal tract effects.
Arsenic (ppb)	1/25/16	3.5		10	none	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	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.
Asbestos (MFL)	8/4/06	0.19		7.0	7.0	Internal corrosion of asbestos cement water mains; erosion of natural deposits	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing intestinal polyps.
Barium (ppm)	8/4/06	0.0058		1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure.
Boron(ppm)	2/3/16	740				Glass manufacturing, soaps and detergents, flame retardants, antiseptics, cosmetics, fertilizers, pharmaceuticals, pesticides	Some people who drink water containing Boron in excess of the MCL over many years may have their stomach, intestines, liver, kidney and brain affected.
Chromium (ppb)	1/13/10	2.1		50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits	Some people who use water containing chromium in excess of the MCL over many years may experience allergic dermatitis.
Fluoride (ppm)	2/3/16	0.64		2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.
Gross Alpha Particle Activity (pCi/L)	2/13/08 6/4/08 12/10/08	2.23	1.4-2.8	15	(0)	Erosion of natural deposits.	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Haloacetic Acids (ppb)	8/10/16	2.5		60	N/A	Byproduct of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Lead (ppb)	8/4/06	8		(AL=15)	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level may experience delays their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.
Nickel (ppb)	8/4/06	13	0-26	100	12	Erosion of natural deposits; discharge from metal factories	Some people who drink water containing nickel in excess of the MCL over many years may

							experience liver and heart effects.
Nitrate (ppm)	1/25/16	0.22		45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.
Radium 226 (pCi/L)	10/15/13	1.0	0-0.227	5	0	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Radium 228 (pCi/L)	2/13/08 6/4/08 12/10/08	0.8	0.6-1.23	5	0	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Total Trihalomethanes TTHMs (ppb)	8/10/16	13.5	11 – 16	80	N/A	By-product of drinking water disinfection	Liver, kidney or central nervous system problems; increased risk of cancer.
Uranium (pCi/L)	6/2/04	0.29	0.05-0.52	20		Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

**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	Health Effects Language
Aluminum (ppm)	1/13/10	0.13		1		Erosion of natural deposits; residue from some surface water treatment processes	Some people who drink water containing aluminum in excess of the MCL over many years may experience short-term gastrointestinal tract effects.
Chloride	2/3/16	71		500		Produced water from gas and oil wells, wastewater from water softening, industries and municipalities	Water with excess amounts of Chloride can erode plumbing causing toxic metals to leach into the water
Color (units)	9/9/09	8		15		Naturally-occurring organic materials	
Copper (ppm)	7/28/14	0.8		1.0	1.0	Internal corrosion of household plumbing system; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Iron (ppb)	2/3/16	55		300		Leaching from natural deposits; industrial wastes	

Manganese (ppb)	1/25/16	1.9		50	NA	Leaching from natural deposits	The notification level for manganese is used to protect consumers from neurological effects. High levels of manganese in people have been shown to result in effects of the nervous system.
pH (pH units)	2/3/16	9.2	6.8 - 9.2	6.5-8.5		<i>low pH</i> : bitter metallic taste; corrosion <i>high pH</i> : slippery feel; soda taste; deposits	
Potassium	2/3/16	1.1				Commonly occurring but is sometimes used in water softening treatments	Some people who drink water with excess amounts of Potassium can experience problems with hyperkalemia.
Specific Conductance (uS/cm)	2/3/16	620	170-620	1600		Substances that form ions when in water; seawater influence	
Sulfate (ppm)	2/3/16	19	12-19	500		Runoff/leaching from natural deposits; seawater influence	
Odor--Threshold (units)	6/13/08	2	0-4	3		Naturally-occurring organic materials	
Total Dissolved solids (TDS) (ppm)	2/3/16	350	110-350	1000		Runoff/leaching from natural deposits	
Turbidity (units)	1/25/16	.99	.20 - .99	5		Soil runoff	
Zinc (ppm)	7/29/14	0.16	0.12-1	5.0		Runoff/leaching from natural deposits; industrial wastes	

**TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language

\*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).

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. All water systems are responsible for providing high quality drinking water, but cannot control the variety of materials used in 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>.

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

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language

**For Water Systems Providing Ground Water as a Source of Drinking Water**

TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES					
Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	0		0	(0)	Human and animal fecal waste
Enterococci	0		TT	N/A	Human and animal fecal waste
Coliphage	0		TT	N/A	Human and animal fecal waste

**Summary Information for Fecal Indicator-Positive Ground Water Source Samples,  
Uncorrected Significant Deficiencies, or Ground Water TT**

SPECIAL NOTICE OF FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLE

  

SPECIAL NOTICE FOR UNCORRECTED SIGNIFICANT DEFICIENCIES

VIOLATION OF GROUND WATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language

**For Systems Providing Surface Water as a Source of Drinking Water**

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

(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 Violation of a Surface Water TT**

VIOLATION OF A SURFACE WATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language

**Summary Information for Operating Under a Variance or Exemption**

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