

# 2018 Consumer Confidence Report

## Los Madrones Mutual Water Company

### May 19, 2019

*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 to December 31, 2018 and may include earlier monitoring data.*

**Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Los Madrones MWC a (831) 659-5360 para asistirlo en español.**

Type of water source(s) in use: The water system has two groundwater wells.

Name & general location of source(s): The Los Madrones Mutual Water Company is located on San Juan Canyon Rd.

Drinking Water Source Assessment information: A source water assessment was conducted for the Well 01 of the Los Madrones Mutual Water Company in 2001. Well 01 is considered most vulnerable to low density septic systems.

Time and place of regularly scheduled board meetings for public participation: Annually, announced by mail

For more information, contact: MCSI Water Systems Management Phone: (831) 659-5360 or Tim Shelby, President (831) 623-2344

#### 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 (U.S. EPA).

**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.

**Variances and Exemptions:** Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**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 byproducts 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 U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, and 5 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 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. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

**TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA**

| Microbiological Contaminants<br>(complete if bacteria detected) | Highest No. of<br>Detections | No. of Months<br>in Violation | MCL                                                                                                                                           | MCLG | Typical Source of<br>Bacteria           |
|-----------------------------------------------------------------|------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------------------------|
| Total Coliform Bacteria<br>(state Total Coliform Rule)          | (In a month)<br>0            | 0                             | 1 positive monthly sample                                                                                                                     | 0    | Naturally present in the<br>environment |
| Fecal Coliform or <i>E. coli</i><br>(state Total Coliform Rule) | (In the year)<br>0           | 0                             | A routine sample and a repeat<br>sample are total coliform positive,<br>and one of these is also fecal<br>coliform or <i>E. coli</i> positive |      | Human and animal fecal<br>waste         |
| <i>E. coli</i><br>(federal Revised Total<br>Coliform Rule)      | (In the year)<br>0           | 0                             | (a)                                                                                                                                           | 0    | Human and animal fecal<br>waste         |

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

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

| Lead and Copper<br>(complete if lead or copper<br>detected in the last sample set) | Sample<br>Date | No. of<br>Samples<br>Collected | 90 <sup>th</sup><br>Percentile<br>Level<br>Detected | No. Sites<br>Exceeding<br>AL | AL  | PHG | No. of Schools<br>Requesting<br>Lead Sampling | Typical Source of<br>Contaminant                                                                                                          |
|------------------------------------------------------------------------------------|----------------|--------------------------------|-----------------------------------------------------|------------------------------|-----|-----|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Lead (ppb)                                                                         | 9/2017         | 5                              | 5                                                   | 0                            | 15  | 0.2 | Not applicable                                | Internal corrosion of<br>household water plumbing<br>systems; discharges from<br>industrial manufacturers;<br>erosion of natural deposits |
| Copper (ppm)                                                                       | 9/2017         | 5                              | 0.225                                               | 0                            | 1.3 | 0.3 | Not applicable                                | Internal corrosion of<br>household plumbing<br>systems; erosion of natural<br>deposits; leaching from<br>wood preservatives               |

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

| Chemical or Constituent<br>(and reporting units) | Sample Date   | Average | Range of<br>Detections | MCL  | PHG<br>(MCLG) | Typical Source of Contaminant                                                                                        |
|--------------------------------------------------|---------------|---------|------------------------|------|---------------|----------------------------------------------------------------------------------------------------------------------|
| Sodium (ppm)                                     | 2016,<br>2018 | 63.5    | 60-67                  | None | None          | Salt present in the water and is generally naturally occurring                                                       |
| Hardness (ppm)                                   | 2016,<br>2018 | 562.50  | 496-629                | None | None          | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring |
| pH (units)                                       | 2016,<br>2018 | 7       | 6.9-7.1                | None | None          | A measurement of acidity, 7.0 being neutral                                                                          |

**TABLE 4A – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD-SOURCE**

| Chemical or Constituent<br>(and reporting units) | Sample Date   | Level Detected<br>(AVG) | Range of<br>Detections | MCL<br>[MRDL<br>] | PHG<br>(MCLG)<br>[MRDLG] | Typical Source of Contaminant                                                                                            |
|--------------------------------------------------|---------------|-------------------------|------------------------|-------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Arsenic (ppb)                                    | 2016,<br>2018 | (1.5)                   | 1-2                    | 10                | 0.004                    | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes                               |
| Barium (ppm)                                     | 2016,<br>2018 | (0.065)                 | 0.057-0.073            | 1                 | 2                        | Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits                                 |
| Chromium Total (ppb)                             | 2016,<br>2018 | (19)                    | 4-34                   | 50                | (100)                    | Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.                                     |
| Fluoride (ppm)                                   | 2016,<br>2018 | (0.7)                   | 0.6-0.8                | 2                 | 1                        | Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories |
| Nickel (ppb)                                     | 2018          | 7                       | --                     | 100               | 12                       | Erosion of natural deposits; discharge from met factories                                                                |
| Nitrate (as N) (mg/L)                            | 2018          | 0.1                     | --                     | 10                | 10                       | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits              |
| Nitrite (ppm)                                    | 2016          | 0.3                     | --                     | 1                 | 1                        | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits              |

**DETECTION OF RADIOACTIVE CONTAMINANTS**

|                                       |         |       |    |    |       |                             |
|---------------------------------------|---------|-------|----|----|-------|-----------------------------|
| GA Particle Activity (pCi/L) – Well 1 | 12/2013 | 5.6   | -- | 15 | (0)   | Erosion of natural deposits |
| GA Particle Activity (pCi/L) – Well 2 | 2/2017  | 14.6  | -- | 15 | (0)   | Erosion of natural deposits |
| Radium 226 (pCi/L) – Well 1           | 9/2017  | 0.084 | -- | 5  | 0.05  | Erosion of natural deposits |
| Radium 226 (pCi/L) – Well 2           | 5/2018  | 0.241 | -- | 5  | 0.05  | Erosion of natural deposits |
| Radium 228 (pCi/L) – Well 1           | 12/2014 | 0.750 | -- | 5  | 0.019 | Erosion of natural deposits |
| Radium 228 (pCi/L) – Well 2           | 5/2018  | 0.420 | -- | 5  | 0.019 | Erosion of natural deposits |
| Uranium (pCi/L) – Well 1              | 12/2-13 | 4.6   | -- | 20 | 0.43  | Erosion of natural deposits |
| Uranium (pCi/L) – Well 2              | 2/2017  | 11    | -- | 20 | 0.43  | Erosion of natural deposits |

**TABLE 4B – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD-DISTRIBUTION**

|                                      |      |        |           |                                |                                |                                                 |
|--------------------------------------|------|--------|-----------|--------------------------------|--------------------------------|-------------------------------------------------|
| TTHMs [Total Trihalomethanes] (ppb)  | 2018 | (56)   | 49-65     | 80                             | N/A                            | Byproduct of drinking water disinfection        |
| HAA5 [Sum of Haloacetic Acids] (ppb) | 2018 | (21)   | 18-24     | 60                             | N/A                            | Byproduct of drinking water disinfection        |
| Chlorine (ppm)                       | 2018 | (1.14) | 0.14-1.97 | [MRDL=4 (as Cl <sub>2</sub> )] | [MRDL=4 (as Cl <sub>2</sub> )] | Drinking water disinfectant added for treatment |

**TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

| Chemical or Constituent<br>(and reporting units) | Sample Date   | Level Detected<br>(AVG) | Range of<br>Detections | SMCL | PHG<br>(MCLG) | Typical Source of Contaminant                             |
|--------------------------------------------------|---------------|-------------------------|------------------------|------|---------------|-----------------------------------------------------------|
| Chloride (ppm)                                   | 2016,<br>2018 | (72.5)                  | 71-74                  | 500  | N/A           | Runoff/leaching from natural deposits; seawater influence |
| Color (units)                                    | 2016,<br>2018 | (12)                    | 10-14                  | 15   | N/A           | Naturally-occurring organic materials                     |
| Iron (ppb) -Well 01                              | 2018          | (985)*                  | 279-2840*              | 300  | N/A           | Leaching from natural deposits; industrial wastes         |

|                              |               |            |            |      |     |                                                             |
|------------------------------|---------------|------------|------------|------|-----|-------------------------------------------------------------|
| Iron (ppb) -Well 02          | 2018          | (1742.50)* | 1070-2560* | 300  | N/A | Leaching from natural deposits; industrial wastes           |
| Manganese (ppb)              | 2018          | (197.20)*  | ND-330*    | 50   | N/A | Leaching from natural deposits                              |
| Odor (units)                 | 2016,<br>2018 | (1.5)      | 1-2        | 3    | N/A | Naturally-occurring organic materials                       |
| Specific Conductance (µS/cm) | 2016,<br>2018 | (1235.5)   | 1132-1339  | 1600 | N/A | Substances that form ions when in water; seawater influence |
| Sulfate (ppm)                | 2016,<br>2018 | (268.50)   | 160-377    | 500  | N/A | Runoff/leaching from natural deposits; industrial wastes    |
| Total Dissolved Solids (ppm) | 2016,<br>2018 | (837)      | 734-940    | 1000 | N/A | Runoff/leaching from natural deposits                       |
| Turbidity (NTU)              | 2018          |            | 2.5-10*    | 5    | N/A | Soil runoff                                                 |

### 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 U.S. EPA'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. U.S. EPA/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:** 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. Los Madrones MWC is 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. **[OPTIONAL:** 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 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>.

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

- *Iron* is secondary drinking water standard contaminant and is set to protect you against unpleasant aesthetic effects such as color, taste, odor, and the staining of plumbing fixtures, and clothing while washing. This is not health (Primary) constituent. Los Madrones is working with the Division of Drinking Water to submit a compliance action plan for iron.
- *Manganese* was over the notification level of 50 ug/l. 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. Los Madrones is working with the Division of Drinking Water to submit a compliance action plan for manganese.
- *Turbidity* has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. The water system will continue field turbidity testing quarterly.

**For Water Systems Providing Groundwater as a Source of Drinking Water****TABLE 7 – SAMPLING RESULTS SHOWING  
FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLES**

| Microbiological Contaminants<br>(complete if fecal-indicator detected) | Total No. of<br>Detections | Sample Dates | MCL<br>[MRDL] | PHG<br>(MCLG)<br>[MRDLG] | Typical Source of Contaminant |
|------------------------------------------------------------------------|----------------------------|--------------|---------------|--------------------------|-------------------------------|
| <i>E. coli</i>                                                         | (In the year)<br>0         |              | 0             | (0)                      | Human and animal fecal waste  |

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

- None

**Summary Information for Federal Revised Total Coliform Rule  
Level 1 and Level 2 Assessment Requirements****Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation**

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

- During the past year we were not required to conduct a Level 1 or Level 2 assessment.

**Level 2 Assessment Requirement Due to an *E. coli* MCL Violation**

*E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) identify problems and to correct any problems that were found during these assessments.

- During the past year we were not required to conduct a Level 2 assessment due to an *E. coli* MCL violation.