

# 2014 Consumer Confidence Report

Water System Name: Forest Lakes Mutual Water Company Report Date: June 27, 2015

*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, 2014 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:** Your drinking water comes from groundwater wells drawing from water in fractured-rock zones recharged by rainfall percolating into soils beneath and in the vicinity of the Forest Lakes tracts.

**Name & general location of source(s):** Groundwater, from seven wells (1A, 1D, 3A, 4A, 5A, 8C, & 8F) located within Forest Lakes tract and two wells (10A & 10D) outside the tract, is pumped to tanks and the distribution system. Three wells (2A, 3B, and 5B) are offline to the distribution system but are monitored periodically for quality purposes.

**Drinking Water Source Assessment information:** On file at State Water Resources Control Board (831) 655-6939

**Time and place of regularly scheduled board meetings for public participation:** Regular Board meetings are held at 7:00 p.m. on the second Tuesday of each month at 910 Fern Avenue in Felton, California.

For more information, contact: Joel Busa, Operations Supervisor Phone: ( 831) 335-5774

## 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 ( $\mu\text{g/L}$ )

**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.

**Tables 1 to 7 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 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<br>(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.)<br>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)<br>1        | 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<br>(complete if lead or copper detected in the last sample set) | Sample Date | No. of samples collected | 90 <sup>th</sup> percentile level detected | No. sites exceeding AL | AL  | PHG | Typical Source of Contaminant   |
|---|-------------|--------------------------|--|------------------------|-----|-----|---|
| Lead (ppb)  | 2013        | 20                       | ND   | 0                      | 15  | 0.2 | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |
| Copper (ppm)  | 2013        | 20                       | 0.36                                       | 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<br>(and reporting units) | Sample Date | Level Detected | Range of Detections | MCL  | PHG (MCLG) | Typical Source of Contaminant  |
|--|-------------|----------------|---------------------|------|------------|--|
| Sodium (ppm)                                     | 2014        | 40             | 19-140              | none | none       | Salt present in the water and is generally naturally occurring   |
| Hardness (ppm)                                   | 2014        | 131            | 6.8-380             | 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<br>(and reporting units) | Sample Date | Level Detected | Range of Detections | MCL [MRDL] | PHG (MCLG) [MRDLG] | Typical Source of Contaminant   |
|--|-------------|----------------|---------------------|------------|--------------------|---|
| Arsenic (ppb)                                    | 2014        | 4.2            | ND-20               | 10         | 0.004              | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes                                |
| Barium (ppm)                                     | 2014        | 0.013          | ND-0.1              | 1          | 2                  | Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits                                   |
| Fluoride (naturally occurring) (ppm)             | 2014        | 0.19           | ND-0.91             | 2.0        | 1                  | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Nickel (ppb)                                     | 2014        | 41             | ND-350              | 100        | 12                 | Erosion of natural deposits; discharge from metal factories   |
| Nitrate as NO <sub>3</sub> (ppm)                 | 2014        | 0.4            | ND-2.7              | 45         | 45                 | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits               |
| TTHMs [Total Trihalomethanes] (ppb)              | 2014        | 0.55-4.3       | 1.87                | 80         | n/a                | Byproduct of drinking water disinfection  |

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

| Chemical or Constituent<br>(and reporting units)                 | Sample Date | Level Detected | Range of Detections | MCL   | PHG (MCLG) | Typical Source of Contaminant   |
|--|-------------|----------------|---------------------|-------|------------|---|
| Aluminum (ppb)   | 2014        | 7              | ND-54               | 200   | none       | Erosion of natural deposits; residual from some surface water treatment processes                               |
| Chloride (ppm)   | 2014        | 21             | 10-32               | 500   | none       | Runoff/leaching from natural deposits; seawater influence   |
| Copper (ppm)   | 2014        | 26             | ND-130              | 1.0   | none       | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Sulfate (ppm)  | 2014        | 49             | 6-220               | 500   | none       | Runoff/leaching from natural deposits; industrial wastes  |
| Total Dissolved Solids (ppm)                                     | 2014        | 288            | 130-590             | 1,000 | none       | Runoff/leaching from natural deposits   |
| Iron (ppb)<br>Post-Treatment System<br>Scenic Wells 1A & 1D      | 2014        | 92             | ND-400              | 300   | none       | Leaching from natural deposits; industrial wastes   |
| Iron (ppb)<br>Ferrari Well 3A                                    | 2014        | 1,317*         | 940-2,500           | 300   | none       | Leaching from natural deposits; industrial wastes   |
| Iron (ppb)<br>Ferrari Well 3B (Offline)                          | 2014        | 19,400*        | 6,600-28,000        | 300   | none       | Leaching from natural deposits; industrial wastes   |
| Manganese (ppb)<br>Post-Treatment System<br>Scenic Wells 1A & 1D | 2014        | 15             | ND-92               | 50    | none       | Leaching from natural deposits  |
| Manganese (ppb)<br>Ferrari Well 3A                               | 2014        | 62*            | 39-79               | 50    | none       | Leaching from natural deposits  |
| Manganese (ppb)<br>Ferrari Well 3B (Offline)                     | 2014        | 465*           | 450-490             | 50    | none       | Leaching from natural deposits  |
| Zinc (ppm)   | 2014        | 0.23           | ND-0.12             | 5.0   | none       | Runoff/leaching from natural deposits; industrial wastes  |

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

| Chemical or Constituent<br>(and reporting units) | Sample Date | Level Detected | Range of<br>Detections | Notification Level | Health Effects Language   |
|--|-------------|----------------|------------------------|--------------------|---|
| Boron (ppm)                                      | 2014        | 28             | ND-220                 | 1                  | The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals. |

### 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. Forest Lakes Mutual Water Company 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. 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>.

Arsenic-specific Language for Community Water Systems: 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.

### 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   |
| Iron  | Iron levels periodically exceeded the secondary MCL of 300-ppb in wells 1A (66-8,700), 1D (1,800-7,200), 3A (510-2,500 ppb), and 10D (1,100-4,800 ppb). They are exceeded also in well 3B (6,600-28,000 ppb), but this well remains offline. | Ongoing  | Well 10D has a treatment system with effluent samples, after iron filtration, averaging ND (<50-ppb) to 260-ppb, all below the secondary MCL of 300-ppb. Wells 1A & 1D have a treatment system with effluent samples, after iron filtration, ranging from ND (<50-ppb) to 400-ppb, with only two samples in 2014 above the secondary MCL of 300-ppb. A filter system for wells 3A/3B is planned. | Iron is found in selected wells at levels exceeding the secondary MCL of 300-ug/L. This MCL is set to protect against unpleasant aesthetic effects (e.g., color, taste, and odor) and staining of plumbing fixtures. Iron levels are due to leaching of natural deposits. |
| Manganese   | Manganese (Mn) levels exceeded the secondary MCL of 50-ppb in wells 1A (ND to 670), 1D (250- 310 ppb) and 3A (39-79 ppb), 10D (370-700 ppb). They are exceeded also in well 3B (450-490 ppb), but this well remains offline.                 | Ongoing  | Well 10D has a treatment system with effluent samples, after Mn filtration, all ND below 20-ppb, the secondary MCL for Mn. Wells 1A & 1D have a treatment system with effluent samples, after Mn filtration, ranging from ND (<20-ppb) to 92-ppb. A filter system for wells 3A/3B is planned.  | The notification level (500-ppb) 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.   |

**TABLE 7 – SAMPLING RESULTS SHOWING  
FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES**

| <b>Microbiological Contaminants</b><br>(complete if fecal-indicator detected) | <b>Total No. of<br/>Detections</b> | <b>Sample<br/>Dates</b> | <b>MCL<br/>[MRDL]</b> | <b>PHG<br/>(MCLG)<br/>[MRDLG]</b> | <b>Typical Source of Contaminant</b> |
|---|------------------------------------|-------------------------|-----------------------|-----------------------------------|--------------------------------------|
| <i>E. coli</i>  | (1)                                | 12/04/2014              | 0                     | (0)                               | 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**

*E. coli* was detected in one sample on 12/04/2014 from Well 1A. The well was resampled on 12/18/2014 after receiving the laboratory report, with no detection of *E. coli*. The detection is suspected to be a field contamination error. As a precaution, the well has been taken offline, with its use re-evaluated in 2015 after consultation with the SWRCB.