

Forest Lakes Mutual Water Company

June 2020 – FLMWC Consumer Confidence Report

Hello Forest Lakes Water Customers:

Attached you will find the annual Consumer Confidence Report (CCR) for the Forest Lakes Mutual Water Company (FLMWC). This report is required by the Environmental Protection Agency (EPA) to be delivered annually to our water customers to keep them informed about the quality of water being served by FLMWC. The report includes water quality sampling data from the previous year, 2019. This report also provides FLMWC staff an opportunity to communicate issues concerning the water system and to convey general information about the water system as a whole. Let's start with the basics.

What is FLMWC?

FLMWC was incorporated in December 1925 for the purpose of serving the water resource needs of the Forest Lakes vacation community. Over time, FLMWC has grown and changed to serve 326 existing connections, most now year-round residential homes. FLMWC is a non-profit Mutual Water Company, owned by the served homeowners (or shareholders), and run by a volunteer Board of Directors. Our mission is to supply a safe and reliable supply of high quality water to meet present and future needs in an economically responsible way.

Water Sources:

There are two main types of water sources that supply drinking water to water systems throughout the country; surface water and groundwater. Surface water sources are typically streams, lake and rivers and in some circumstances springs may also be considered surface water. Groundwater sources include water that comes from underground and is pumped to the surface. The drinking water supplied to you from FLMWC is groundwater sourced from several local wells.

Source Water Treatment:

Water supplied from surface water sources is considered more vulnerable to contamination than groundwater and is required by the EPA to be treated through a specific treatment processes to remove any microbial contamination such as bacteria, protozoa etc. Groundwater is generally considered to be less vulnerable to microbial contamination and therefore is not required to be treated in the same manner as surface water. However, groundwater can still contain contaminants that enter the aquifer from the surface and may be vulnerable to pollutants from industrial and agricultural activities that apply or discharge certain chemicals on the land surface.

Groundwater may also contain minerals from the earth that become dissolved in the water and may need to be removed due to aesthetic reasons. Most of these minerals are not harmful to consumers, but may cause deposits and staining. Iron, manganese, and hardness from calcium carbonate are examples of constituents that may be aesthetically unpleasing and cause brown water or staining and deposits on plumbing fixtures. FLMWC has two iron and manganese removal facilities to filter these constituents from wells containing the highest amounts, ensuring these minerals are kept to minimum levels in the distribution system, and to enhance the overall quality of the drinking water.

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Oversight and Regulation:

All water systems must comply with regulations regarding water quality and water treatment methods, and must sample the drinking water they serve in accordance with specific guidelines set by the EPA. In California, these standards are enforced by the State Water Resources Control Board. Maximum contaminate levels have been established for certain constituents in drinking water that may pose a risk to public health. These chemicals are regulated under Primary Drinking Water Standards. The Secondary Drinking Water Standards regulate constituents that do not pose a general health risk to consumers; however, their presence may be considered undesirable in drinking water at certain levels and are likely to affect the aesthetic qualities of the water, such as taste and odor.

Compliance with the water quality and water treatment regulations is mandatory for public water systems. Water systems that do not meet these standards are required to notify customers of the nature of the violation and any possible health effects.

Lead and Copper:

Lead and copper can enter drinking water primarily as a result of the corrosion of materials containing lead or copper in the water distribution system and household plumbing. Lead is an unusual water contaminant due to the fact that it seldom occurs naturally in source water supplies like rivers, wells and lakes. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. These materials include lead-based solder used to join copper pipe. Solder containing greater than 0.2% lead was banned by Congress in 1986. Since 2005 all plumbing parts and fixtures used in water systems in the State of California must be Lead free.

FLMWC is responsible for providing high quality drinking water, but cannot control the materials used in household plumbing components. Water utilities are required by the EPA's Lead and Copper Rule to sample customer taps every 3 years for lead and copper. These results in past rounds of sampling have consistently been below the action levels set by the EPA. In 2019 another triennial round of sampling was required and certain homes that may be at higher risk due to plumbing materials were targeted for sampling. Once again lead and copper results for FLMWC customers were well below the action levels set by EPA. When due again, FLMWC will send out letters to customers who have previously participated in this important Lead and Copper Sampling Program to request their continued cooperation.

About the Consumer Confidence Report (CCR)

The attached CCR is written in a format that, like the water system, is also regulated. This is not always conducive to a user-friendly document and it can be a bit confusing for the consumer. The constituents listed in the CCR are only the ones whose levels are regulated by the State or EPA and that are detected in the water supply. There is much more sampling of the water supply that is not listed in this document and yet is still required to be conducted. This letter and the CCR gives only a brief overview of some of the requirements and activities that are necessary to provide safe and potable water for the Forest Lakes neighborhood.

Please feel free to contact Joel Busa, Operations Supervisor, if you have any questions or concerns at 831-335-5774 or email forestlakes@cruzio.com.

2019 Consumer Confidence Report

Water System Name: Forest Lakes Mutual Water Co

Report Date: 6/8/2020

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, 2019 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Forest Lakes Mutual Water Co. a 910 Fern Ave., Felton, para asistirlo en español.

Type of water source(s) in use: Your Drinking water comes from Groundwater wells drawing water from fractured aquifers recharged by rainfall percolating into soils beneath and in the vicinity of Forest Lakes tract.

Name & general location of source(s): All drinking water sources are located within Forest Lakes subdivision.

Drinking Water Source Assessment information: The Drinking water source assessment is on file with the State Water Resources Control Board 831-655-6939

Time and place of regularly scheduled board meetings for public participation: Board of Directors meetings are held at 7:00 pm on the second Tuesday of Each month at 910 Fern Ave.

For more information, contact: Dawana Cortez, General Manager Phone: (831) 355-5774

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 (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 storm water 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, 5, and 6 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 (complete if bacteria detected)	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	0	0	1 positive monthly sample ^(a)	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule)	0	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive		Human and animal fecal waste
<i>E. coli</i> (federal Revised Total Coliform Rule)	0	0	(b)	0	Human and animal fecal waste

(a) Two or more positive monthly samples is a violation of the MCL

(b) 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 (complete if lead or copper detected in the last sample set)	Sample Date	No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	2019	10	N.D.	0	15	0.2	N/A	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppb)	2019	10	140	0	1300	300	Not applicable	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)	2017	53	11-140	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2017	160	17-460	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)	2019	6.2	4.0-8.1	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (as Cl ₂) (ppm)	2019	0.80	0.60-1.0	[4.0]	[4]	Drinking water disinfectant added for treatment
Fluoride (naturally occurring) (ppm)	2017	0.29	ND-0.70	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N (ppm)	2019	.08	ND-0.43	10	10	Runoff and leaching from fertilizer, Leaching from septic tanks and sewage; erosion of natural deposits
Gross Alpha particle activity (pCi/L)	2017	2.28	0.506-6.60	15	(0)	Erosion of natural deposits
Aluminum (ppm)	2017	0.023	ND-0.21	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
TTHMs [Total Trihalomethanes] (ppb)	2019	13	13	80	n/a	Byproduct of drinking water disinfection
HAA5 [Haloacetic Acids] (ppb)	2019	2.8	2.8	60	n/a	Byproduct of drinking water disinfection

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Iron (ppb)	2019	122	N.D-430	300	n/a	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2019	21	N.D-76	50	n/a	Leaching from natural deposits
Sulfate (ppm)	2017	64	303-290	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Zinc (ppm)	2017	0.086	N.D.-0.58	5.0	n/a	Runoff/leaching from natural deposits; industrial waste

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Boron (ppb)	2017	60	ND-170	1,000	
Hexavalent Chromium (ppb)	2017	0.10	ND-0.23	n/a ⁽¹⁾	

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. Forest Lakes Mutual Water Co. 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 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>.

Arsenic-specific Language: 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.

Forest Lakes has one well, Well 8C, that periodically exceeds the MCL of 10 ppb for arsenic. The arsenic levels for well 8C ranged from 17 to 20 ppb in 2019. To ensure that FLMWC customers do not receive drinking water with arsenic levels higher than the MCL of 10 ppb, the water from Well 8C is blended with water from other wells prior to distribution, thereby lowering the arsenic levels to safe limits. The blended source water that consumers receive is monitored and reported monthly to State regulators to ensure continued compliance.

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	Well serving Ferrari Drive routinely exceeds the secondary MCL of 300-ppb.	Ongoing	A filtration system to remove iron has been constructed and went on line in February of 2020	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	Well serving Ferrari Drive routinely exceeds the secondary MCL of 50 ug/L.	Ongoing	A filtration system to remove manganese has been constructed and went on line in February of 2020	