

The Fallbrook Public Utility District is pleased to provide you this year's **Annual Drinking Water Quality Report**. In it you will find details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency and state standards. All water retailers are required by the California Department of Health Services to provide an annual report to their customers showing water quality test results. The test results are compared to the federal and state permitted maximum contaminant levels, or MCLs. Tests are taken at treatment plants on water that has been fully treated and is ready for human consumption. The Federal Safe Drinking Water Act of 1974 and its amendments set strict nationwide standards and monitoring requirements for water purity. California also has its own regulations for water quality.

If you have any questions, please call Bob Maghan, interim Chief Systems Operator, at the District office at 728-1125. To request a summary of the Capra Well assessment, contact Bob Maghan or Keith Lewinger, general manager, at the District office. A complete copy of the assessment may be viewed at the office, 990 East Mission Road, Fallbrook, CA 92088.

Frequently Asked Questions

Where does Fallbrook's water come from?

The Fallbrook Public Utility District receives its water from two sources: a 242-mile-long aqueduct that brings Colorado River water from Lake Havasu to Southern California, and another 444-mile-long aqueduct that carries water from the Feather River in northern California through the Delta to State Water Project contractors throughout the state. One percent of FPUD water comes from our Capra Well.

While FPUD is a water retailer, the district's water is purchased from the San Diego County Water Authority, which purchases the water from the Metropolitan Water District of Southern California (MWD).

All tap water delivered by FPUD is treated at MWD's Lake Skinner Filtration Plant in Riverside County.

Does FPUD test our water for safety?

Yes. Each week the District's system operators take water samples from 11 different sites. These samples are then sent to a registered laboratory where they are put through a battery of tests to make sure there are no bacteria present. The system operators also take daily water tests from four locations to assure the chlorine levels remain adequate.

Is there lead in our water?

Tests performed in 2004 on the District's water supply showed no lead in the water leaving the MWD filtration plants. It is possible for lead to be absorbed into a domestic or commercial building from lead soldering in the interior plumbing pipes.

The public water supply contains several naturally occurring minerals, such as calcium, which coat the inside of pipes, helping to prevent corrosion or leaching of lead into the water. You may recognize calcium as "hard water stains" on your plumbing.

Lead solder was banned from use in domestic interior water pipes and fixtures after 1986 in compliance with Federal law. In 1992, in accordance with the Lead and Copper Rule, FPUD started annual testing of water samples from 60 homes throughout the District that were built prior to 1986 for the presence of lead and copper. Year after year, the results from these tests have shown no lead and copper or, in a few cases, amounts well below the Maximum Contaminant Level.

Is the water safe to drink?

Absolutely! Drinking Water supplied by FPUD is safe and **exceeds** all state and federal standards.

Is bottled or filtered water safer to drink?

Your tap water exceeds all state and federal standards. However, because of taste preferences, some people prefer bottled or filtered water. Some bottled water companies actually use the public water supply, then just filter it more. The choice to use bottled water or a home filtration system should be based on taste, not fear of water safety.

What causes cloudy water or bad odors?

Cloudy or milky-looking water is most often caused by air picked up from an air pocket in the water delivery main. Unusual surges or flows within the aqueduct can also trap air, much like a cascading waterfall. If allowed to sit in a glass for a few minutes, the air will dissipate.

Odors can be caused by algae in the water that may persist even after chlorine has been added. While not harmful to your health, this algae can create a detectable odor. A cross-connection problem inside your home can also cause wastewater or other material to be siphoned back into the freshwater supply, causing odors. If you detect an unpleasant odor in your water, please call the District so we may investigate the source.

Major sources of main listed contaminants in drinking water

Total coliform bacteria is naturally present in the environment.

Total trihalomethanes are a by-product of drinking water chlorination.

Aluminum is a residue from water treatment processing which also occurs from erosion of natural deposits.

Arsenic is present because of erosion of natural deposits and from glass and electronics production wastes.

Fluoride is present because of erosion of natural deposits.

Of special note

Fluoride: Fluoride is not currently added to the water delivered by FPUD. If you are concerned about the use of fluoride to prevent tooth decay, see your dentist about supplemental tablets or treatment.

Fish owners: MWD disinfects our water with chloramines, a combination of chlorine and ammonia. Except for a slight odor or taste, this is not harmful to the general public. However, chloramines must be removed before the water can be used in aquariums. Consult with an aquarium supplier for chloramine removal methods.

Kidney dialysis patients: Chloramines must be removed before tap water can be used by home kidney dialysis patients. Consult with a physician in these cases for the proper chloramine removal method.

Capra Well: One percent of FPUD water comes from our Capra Well. A source-water assessment was conducted on the water system in May 2004. The “range of detection” figures reported on the chart include the well. The well is considered most vulnerable to Septic systems - low density, wells - agricultural/irrigation, and mining operations - historic.

Discussion of vulnerability: The Capra Well is in a rural area close to Red Mountain with few activities that could potentially contaminate the water supply. The only significant possible contaminating activities observed are pesticide and fertilizer use in the citrus groves in the general area surrounding the well.

Attention Property Owners & Managers

This report is mailed to all water customers at the billing address. Certain residents and tenants may not receive a copy of this report if the property owner or manager receives the water bill. While not required by law, property owners and managers, as well as business owners, are encouraged to provide this information. This report may be photocopied and distributed or posted in a prominent place at the facility. More copies are available at the District office, or at www.fpud.com.

How to read this report

In California, drinking water standards (also called Maximum Contaminant Levels or MCLs) are divided into two categories.

Primary standards relate to public health concerns, such as the presence of any harmful compounds. These are set by the California Department of Health Services and the U.S. Environmental Protection Agency.

Secondary Standards relate to aesthetic qualities such as taste, odor and color and are set by the California Department of Health Services. Both types of standards are listed in the tables.

Parameter is the term used to designate what is being tested and measured in this project.

• **Este informe contiene informacion muy importante sobre las calidad de su agua beber. Traduscalo o hable con alguien que lo entienda bien.**

Definitions required by law

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 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.

Maximum Contaminant Level (MCL): The highest level of a contaminant 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.

Primary Drinking Water Standard or PDWs: MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

Measuring the maximum contaminant levels

Precise laboratory equipment can detect minute traces of compounds identified by the U.S. Environmental Protection Agency. Treatment plant laboratories are strictly monitored by the State Department of Health Services for testing accuracy. The federal and state standards are measured in parts per million and parts per billion.

1 part per million is:

1 cent in \$10,000

1 minute in 2 years

1 inch in 16 miles

1 drop in 10 gallons

1 part per billion is:

1 cent in \$10,000,000

1 minute in 2,000 years

1 inch in 16,000 miles

1 drop in 10,000 gallons

Table 1 – SAMPLING RESULTS showing the detection of coliform bacteria

Microbiological Contaminants (to be completed only if there was a detection of bacteria)	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	1	0	More than 1 sample in a month with a detection	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 <i>E. coli</i>	0	Human and animal fecal waste

Table 2 – SAMPLING RESULTS showing the detection of Lead and Copper

Lead and Copper (completed only if detected)	No. of samples collected	90 th percentile level detected	No. Sites exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead (ppb)	38	<5	.01	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppb)	38	510	0	1300	1700	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Table 3 – SAMPLING RESULTS for Sodium and Hardness

Chemical or Constituent (and reporting units)	Level detected (average)	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	78	74-90	none	none	Generally found in ground and surface water
Hardness (ppm)	230	218-269	none	none	Generally found in ground and surface water

Table 4 – DETECTION OF CONTAMINANTS with a Primary (health related) drinking water standard

Chemical or Constituent (and reporting units)	Level detected (average)	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Flouride (ppm)	.24	.21 - .30	2	1	Erosion of natural deposits; water additive for tooth health
Nitrate (ppm) (as N) (h)	ND	ND – 0.54	10	10	Runoff and leaching from fertilizer use; sewage; natural erosion
Nitrate and Nitrite (ppm) (as N)	ND	ND – 0.54	10	10	Runoff and leaching from fertilizer use; sewage; natural erosion
Gross Alpha Particle Activity (pCi/L)	3.4	ND – 4.0	15	NA	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	ND	ND – 4.1	50	NA	Decay of natural and manmade deposits
Uranium (pCi/L)	ND	ND – 2.4	20	0.5	Erosion of natural deposits
Total Trihalomethanes (ppb)	72	48 - 99	80	NA	Byproduct of drinking water chlorination

83 other chemicals, semi-volatile and organic chemicals were tested – no ranges were detected

Table 5 – DETECTION OF CONTAMINANTS with a Secondary (aesthetic) drinking water standard

Chloride (ppm)	85	80 - 92	500	NA	Runoff/leaching from natural deposits; seawater influence
Color (units)	2	1 - 3	15	NA	Naturally occurring organic materials
Corrosivity (SI)	0.26	0.18 – .32	NC	NA	Elemental balance in water; affected by temp., other factors
Odor Thresholds (units)	1	1	3	NA	Naturally occurring organic materials
Specific Conductance (umho/cm)	827	786-947	1600	NA	Substances that form ions in water; seawater influence
Sulfate (ppm)	169	153-212	500	NA	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	492	466-574	1000	NA	Runoff/leaching from natural deposits; seawater influence
Turbidity (monthly) (NTU)	0.06	0.05 - .07	5	NA	Soil runoff

9 other chemicals were tested (Aluminum, Copper, MBAS, Iron, Manganese, MTBE, Silver, Thiobencarb and zinc) - no ranges were detected

Table 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Level detected (average)	Calif. Action level	Health effects language
Boron (ppb)	140	1000	Runoff/leaching from natural deposits; industrial wastes

45 other chemicals requiring monitoring were tested – no ranges were detected

Abbreviations

NA	=	Not applicable
AL	=	California Action Level
ppm	=	parts per million
ND	=	None detected
NC	=	Noncorrosive
pCi/L	=	picoCuries per liter
Umho/cm	=	micromho per centimeter
ppb	=	parts per billion
NTU	=	Nephelometric Turbidity Units
SI	=	Saturation Index (Langelier)

Footnotes:

- ❑ Metropolitan has developed a flavor-profile analysis method that can more accurately detect odor occurrences. For more information, contact MWD at (213) 217-6850.
- ❑ Total Organic Carbons at the filtration plants were taken at the filter effluents.
- ❑ Test results are obtained from tests conducted by the Metropolitan Water District of Southern California, except for coliform bacteria, trihalomethanes, lead and copper.

Open Reservoir Statement

The District's Red Mountain Reservoir is an open reservoir with a capacity of 435 million gallons and is used to store treated water purchased from the San Diego County Water Authority (SDCWA). The open reservoir met the health standards of the day when it was constructed in 1949. Current water works standards, however, would require it to be covered to prevent contamination from birds, windblown materials and vandalism. In order to minimize the potential for these problems, when the reservoir was expanded and lined in 1985, FPUD surrounded the reservoir with a chain-link fence to control access and has installed drainage collection and diversion ditches to prevent local runoff water from entering the reservoir. The reservoir is inspected at least twice daily and chlorine tests are taken at that time. Bacteriological tests are taken once a week.

The water the District purchases from the SDCWA is a blend of fully treated Colorado River Water Project Water that receives complete conventional treatment at the Metropolitan Water District's Skinner Filtration Plant. The water delivered to Red Mountain has a chloramine (mixture of chlorine and ammonia) disinfectant residual and to ensure disinfection, the District adds a small amount of chlorine to the water flowing out of the reservoir.

Every four to five years, the reservoir is emptied and cleaned. Should a water-quality problem arise due to the open reservoir, FPUD is prepared to take remedial and maintenance action as set forth in the District's operational and monitoring plan on file with the Department of Health Services.

The District has never encountered a water quality problem with Red Mountain Reservoir

- Drinking water, including bottled water, may reasonably be expected to contain small amounts of contaminants. The presence of contaminants does not necessarily indicate the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the 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. Immune-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 and bottled) 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 mineral 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, which 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 and septic systems.

- Radioactive contaminants, which can be naturally occurring or 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 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.

How to participate in FPUD's decisions that affect drinking water quality

The District's Board of Directors meet regularly at 4 p.m., every fourth Monday of the month in the District Boardroom located at 990 East Mission Road, Fallbrook. The meetings are open to the public.