



2008 Consumer Confidence Report

Fallbrook Public Utility District

Test results from calendar year 2007

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, 2007.

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

Type of water sources in use: While FPUD is a water retailer, 99% of 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). Virtually all tap water delivered by FPUD is treated at MWD’s Lake Skinner Filtration Plant in Riverside County.

Name & location of source(s): FPUD receives virtually all 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.

Drinking Water Source Assessment information: 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 well is considered most vulnerable to low-density septic systems, agricultural/irrigation wells, and historic mining operations. 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 groves in the general area surrounding the well.

Time and place of regularly scheduled board meetings: Every fourth Monday of the month at 4 p.m. in the district boardroom, located at 990 E. Mission Road. They are open to the public.

For more information, contact: Jason Cavender, Chief Systems Operator

Phone: (760) 728-1125

TERMS USED IN THIS REPORT:

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.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to one’s 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 one’s health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer’s tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. These are set by the U.S. Environmental Protection Agency.

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

Primary Drinking Water Standards (PDWS): MCLs or 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

SI: Saturation Index

uS/cm: Measure of electrical conductance

pCi/L: Picocuries per liter (a measure of radiation)

ppm or mg/L: Parts per million or milligrams per liter

ppb or ug/L: Parts per billion or micrograms per liter

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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which 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* – 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, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application & 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 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 must provide the same protection for public health.

The tables below list the drinking water contaminants that were detected during the most recent sampling. 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 (to be completed only if there was a detection of bacteria)	Highest No. of detections	No. of months in violation	State or Federal MCL (Maximum Contaminant Level)	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	1	0	More than 2 samples in a given month with detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	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 (Tested every 3 years. Data is from 2007.)	No. of samples collected	90 th percentile level detected	No. of sites exceeding Action Level	Action Level	PHG	Typical Source of Contaminant
Lead (ppb)	37	<5	0	15	2	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	37	0.37	0	1.3	0.17	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 - DETECTION OF CONTAMINANTS WITH A PRIMARY (health related) DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Level Detected (average)	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Inorganic Chemicals					
Aluminum (ppm)	ND	ND – 0.06	1.0	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride - naturally occurring (ppm)	0.20	0.2 – 0.3	2.0	1.0	Erosion of natural deposits

Fluoride – treatment related (ppm)	NA	0.5 – 0.9	2.0	1.0	Data for naturally occurring fluoride were taken before the fluoridation treatment began. Fluoridation treatment of water supplies at all five Metropolitan treatment plants started sequentially from October 29, 2007 to December 3, 2007. Metropolitan was in compliance with all provisions of the State’s Fluoridation System Requirements.
Nitrate (ppm)	ND	ND – 2.6	45	45	Runoff and leaching from fertilizer use; sewage; natural erosion
Perchlorate (ppb)	ND	ND – 4.6	6	6	An inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches and a variety of industries. Environmental contaminant from historic aerospace or other industrial operations

Radiological

Gross Alpha (pCi/L)	ND	ND – 5.5	15.0	0	Erosion of natural deposits
Uranium (pCi/L)	2.3	1.5 – 3.2	20.0	0.43	Erosion of natural deposits

Disinfection By-products, Disinfectant Residuals and Disinfection By-products precursors (Federal Rule)

Haloacetic Acids (five) (ppb)	23.7	12.7 – 39.7	60	NA	By-product of drinking water chlorination
Total Trihalomethanes (ppb)	51.0	32.0 – 67.6	80	NA	By-product of drinking water chlorination
Total Chlorine Residual (ppm)	1.7	0.3 – 3.5	4.0	4.0	Drinking water disinfectant added for treatment

TABLE 4 - DETECTION OF CONTAMINANTS WITH A SECONDARY (aesthetic) DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Level Detected (average)	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Aluminum (ug/L)	ND	ND - 57	200	NA	Erosion of natural deposits; residue from water treatment process
Chloride (mg/L)	92	84 - 96	500	NA	Runoff/leaching from natural deposits; seawater influence
Color (units)	2	1 – 2	15	NA	Naturally occurring organic materials
Copper (mg/L)	0.2	ND – 0.3	1.0	NA	Internal corrosion of household pipes; natural deposits erosion; wood preservatives leaching
Corrosivity (SI)	0.38	0.15 – 0.52	Non-corrosive	NA	Elemental balance in water; affected by temperature, other factors
Odor Threshold (TON)	2	1 - 2	3	NA	Naturally occurring organic materials
Specific Conductance (uS/cm)	841	755 - 927	1600	NA	Substances that form ions when in water
Sulfate (mg/L)	169	134 - 202	500	NA	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)	495	420 – 551	1000	NA	Runoff/leaching from natural deposits
Turbidity (NTU)	0.16	0.05 – 1.15	5	NA	Soil runoff

TABLE 5 - DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Level Detected (average)	Range of detections	Notification Level	Major sources in drinking water
Boron (ug/L)	140	130 - 160	1,000	
Chromium (ug/L)	0.12	0.07 - 0.18	NA	Industrial waste discharge; could be naturally present as well

TABLE 6 – ADDITIONAL PARAMETERS

Chemical or Constituent (and reporting units)	Level Detected (average)	Range of detections	Notification Level	Major sources in drinking water
Alkalinity (mg/L)	98	91 - 106	NA	Naturally present in the environment
Calcium (mg/L)	53	44 - 60	NA	Naturally present in the environment
Chlorate (ug/L)	ND	ND – 23	800	By-product of drinking water chlorination; industrial processes
Hardness (mg/L)	226	194-254	NA	Consists of Magnesium and Calcium and is usually naturally occurring
Magnesium (mg/L)	22	19 - 25	NA	
pH (pH units)	8.1	7.7 – 8.1	NA	
Potassium (mg/L)	4.2	3.8 – 4.5	NA	
Sodium (mg/L)	83	73-89	NA	Generally naturally occurring
TOC (mg/L)	2.3	1.9 – 2.7	TT	Various natural and manmade sources

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 those with cancer undergoing chemotherapy, those 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 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).

We have never had a water quality violation at Red Mountain

The District's Red Mountain Reservoir is an open reservoir with a capacity of 440 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 and we have never received a water-quality violation at Red Mountain. Upcoming regulatory standards will require FPUD to install additional treatment processes by the year 2012. Ultraviolet Technology (UV Technology) will be the treatment method used. Additionally, when the reservoir was expanded and lined in 1985, a chain-link fence was installed around the facility. This was done to minimize and prevent potential contamination from windblown materials and vandalism, and to provide access control. FPUD also 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 and State Project Water that receives complete conventional treatment, along with ozone treatment – a cutting-edge, high-quality disinfection process. This water is treated at Metropolitan Water District's Skinner Filtration Plant. The water delivered to Red Mountain has a chloramine (mixture of chlorine and ammonia) disinfectant residual. Additional chlorine is added to the water leaving Red Mountain to enhance the chlorine residual.

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 California Department of Public Health.