

Apple Valley Ranchos Water Co.



Annual Water Quality Report

Important New Information About The Quality of Your Drinking Water

When the US Congress passed amendments to the 1996 Safe Drinking Water Act, the US Environmental Protection Agency (USEPA) was given a mandate. The mandate requires each community water system to provide its customers with a report on the quality of the drinking water that it supplies.

As usual, California leads the way. Since 1990, California community water systems have provided to their customers The Annual Water Quality Report. In it, water systems report on the exhaustive steps that they take to insure high quality drinking water.

What you will notice as a result of the amendments is a friendlier report. It will not only document the quality of your drinking water, but it will also provide valuable information on other important topics such as emergency preparedness and capital improvements in your area.

The information that follows represents only a fraction of the activity Apple Valley Ranchos Water Company engages in to provide you, the consumer, a high level of confidence in the water that you drink. We, along with our state certified laboratories, routinely scrutinize our water supplies for the entire range of elements that have the potential to degrade the quality of your water. If a potential problem is detected, Apple Valley Ranchos Water Company moves into action to avoid any need for public concern.

Some people, however, 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline 1-800-426-4791.

If you have any questions or wish to provide comments about this report, please contact Marc Mullen at 760-247-6484.

Este informe contiene informacion muy importante. Traduscalo o hable con alguien que lo entienda bien.



APPLE VALLEY RANCHOS WATER COMPANY 1998 WATER QUALITY REPORT



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Definitions

PUBLIC HEALTH GOAL (PHGs)

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 allow for a margin of safety.

MAXIMUM CONTAMINANT LEVEL (MCL)

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

ACTION LEVEL

The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

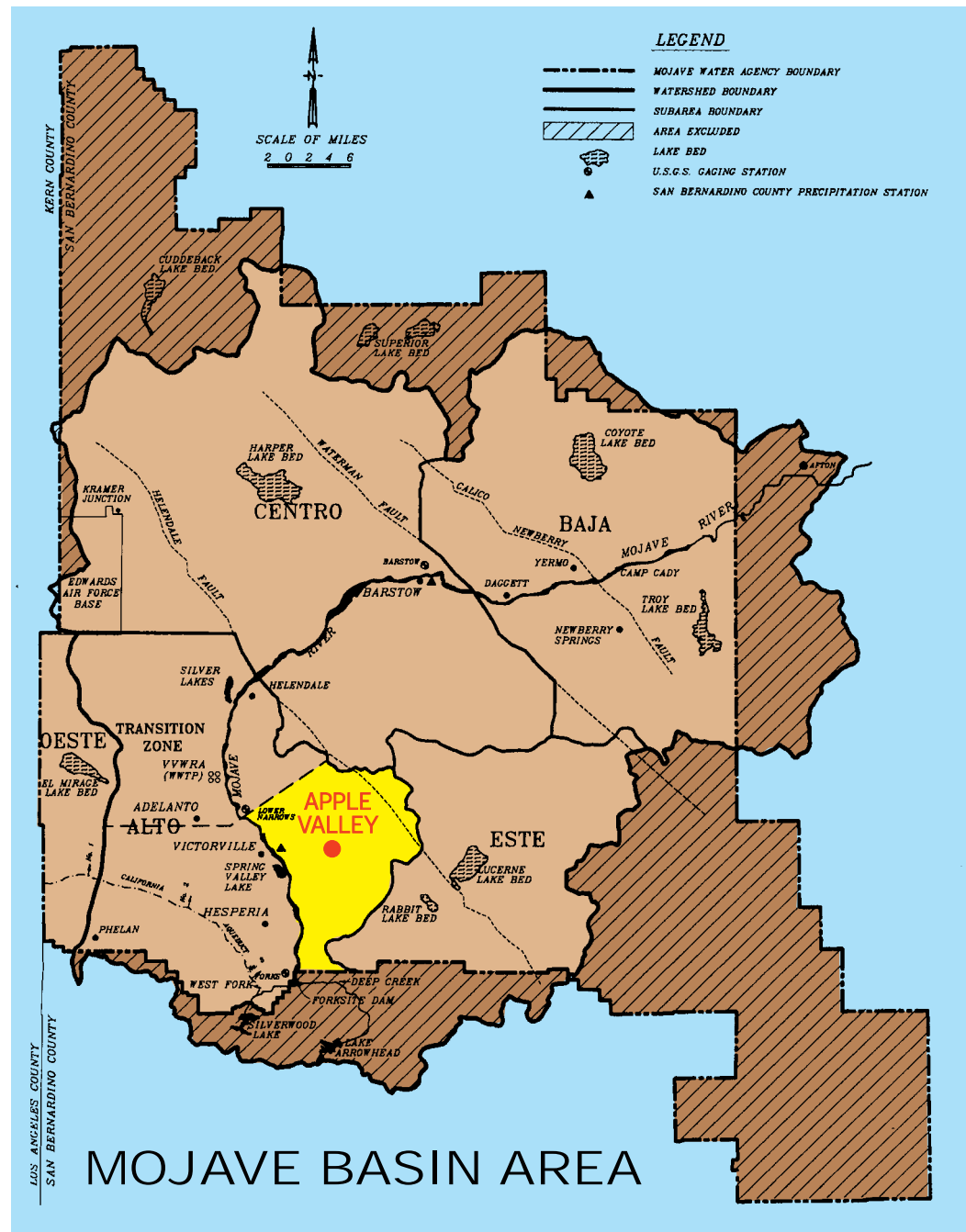
PRIMARY DRINKING WATER STANDARD

Primary MCLs, specific treatment techniques adopted in lieu of primary MCLs, and monitoring and reporting requirements for MCLs that are specified in regulations.

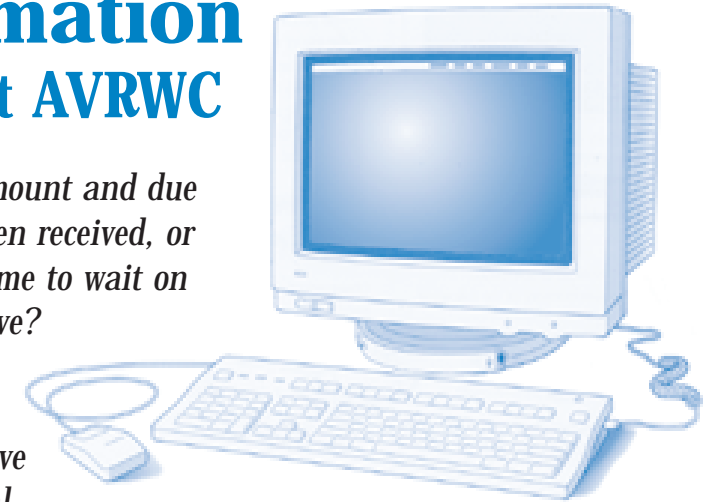
Where Does Your Water Come From?

Apple Valley Ranchos Water Company pumps 100% of our source water from 21 active deep wells located throughout the community. These wells draw water from the deep Mojave aquifer. This plentiful and high quality aquifer is recharged from snowmelt from the San Bernardino Mountains to the south and the Mojave River to the west. Also, the Mojave Water Agency imports water from the California State Water Project to spread in the Mojave River to help recharge the ground water.

Some of the water we pump has been age dated close to 10,000 years old by the United States Geologic Survey. That means it has been protected and naturally filtered for a long time. Because the water is in the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can potentially pick up substances resulting from the presence of animals or human activity. 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).



Automated Information Service Now Available at AVRWC



Misplaced your bill, and need to know the amount and due date? Want to check if your payment has been received, or what your account balance is? Don't have time to wait on hold to talk to the next available representative?

Access your account 24 hours a day, 7 days a week using the new automated information service now available at AVRWC. Simply have your 10 digit account number handy and dial

247-3162, or 800-481-9190, and choose from the available options to find the answers to these and other questions. And don't worry; if you get lost you can press zero during regular business hours to talk to one of our friendly customer service representatives. Use it today!

AVRWC Now on The World Wide Web

This report along with other useful consumer and resource information can now be obtained from the Internet. Find us at www.avrwater.com. And as usual, your comments are welcomed.

Apple Valley Ranchos Water Company is pleased to offer you this "Buy 1, Get 1 Free" coupon to attend the 16th annual High Desert Home and Garden Show April 9, 10 & 11, 1999.

The High Desert Communities Water Awareness Expo is a group made up of the various water purveyors in the High Desert, and this will be our 8th year as a group promoting water education in the High Desert. Please come see us in our booth at the Home and Garden Show where we can discuss water issues, spin for prizes, and see our demonstration garden.

ADMIT ONE FREE
Home & Garden Show
 Fairgrounds in Victorville
 April 9, 10, & 11, 1999
**Desert Communities
 Water Awareness Expo**

Coupon provided by Apple Valley Ranchos Water Company

Y2K / Emergency Preparedness

Like all companies, Y2K issues affect AVRWC hardware, databases, software, information systems, technical infrastructure, vendors, suppliers and contractors. Likewise, the Y2K preparedness of vendors and third parties may directly impact AVRWC.

In an effort to address the Year 2000 issue head-on, AVRWC is engaged in an ongoing process of analyzing its products and suppliers, acting to ensure effective operation through the change of the century and well into the future. The primary goal of AVRWC's Year 2000 Project is to ensure that AVRWC's vital business processes will operate in the next millennium by being Y2K compliant. This project has been in active operation for over a year.

In order to provide additional assurances, AVRWC engaged an independent consulting firm to provide a general evaluation of its Year 2000 conversion plan. AVRWC is proud to report that it received a Figure of Merit of 100%, which is the best score possible. This grade reflects the completeness, reasonableness and prioritization components of the plan, and measures how well AVRWC's risk has been addressed by the plan.

In addition to our Y2K efforts, AVRWC is contributing time, effort, and resources to general emergency preparedness. As with Y2K, events beyond AVRWC's control can affect water service to our customers. In the event that water service is interrupted or is adversely affected for any reason, you can be assured that AVRWC will do its best to minimize the impact on its customers.

Capital Improvements

One of the most important aspects of operating a public water system is reinvestment in infrastructure. Infrastructure replacement is an often overlooked necessity to assuring continued superior service to a community. In addition, many neighboring water utilities rely on Apple Valley Ranchos Water Company for an emergency source of water supply. Maintaining a strong infrastructure benefits everyone in the community. Since AVRWC has become part of Park Water Company, it has a history of reinvesting profits back into the company. Over the last six years, AVRWC has invested approximately \$7.8 million in the water system. This figure includes AVRWC's purchase of the Town of Apple Valley's water system in 1998 which added 2, one million gallon storage tanks and a 900 gallon per minute well. The table below summarizes these improvements.

Apple Valley Ranchos Water Company System Improvements • 1992-1998 •

Water Main and Hydrant Improvement	Length of Water Main Installed (feet)*	Number of New Fire Hydrants	Water Source of Supply Improvements	Total Dollars Reinvested
\$6,788,910	177,318*	75	\$1,056,759	\$7,845,669

*does not include distribution main acquired from Town of Apple Valley

In 1999, AVRWC has budgeted \$1,971,450 in water system improvements.

What Kinds of Contaminants Might be Found in Drinking Water

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. 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 storm 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, which 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 be the result of oil and gas productions and mining activities.

AVRWC is proud to tell you that there have been no contaminants detected that exceed any federal or state drinking water standards. All primary (health related) and secondary (aesthetic) drinking water standards are being met.

This report is intended to provide information for all water users. If received by an absentee landlord, a business, or a school, please share the information with tenants, employees or students. We will be happy to make additional copies of this report available. Complete records of water quality analyses are open for inspection by the public upon request.

If you would like more information about water quality, please call: Marc Mullen at (760) 247-6484.

Radon

Regulations for Radon are currently under development by the United States Environmental Protection Agency (USEPA). Radon is a naturally occurring gas formed from the normal radioactive decay of uranium. It is colorless, odorless, tasteless, chemically inert, and radioactive. Radon can be found virtually everywhere on Earth.

In anticipation of this new regulation, AVRWC has been monitoring its wells for radon for years. The range of radon found in Ranchos' wells is 220 pCi/L to 1920 pCi/L (picocuries per liter of water). The average radon level is 476 pCi/L. The National Academy of Sciences (NAS) has determined that 476 pCi/L radon in water can transfer to approximately 0.0476 picocuries in indoor air. The USEPA recommends that homeowners take remedial action if the indoor air radon level in their home exceeds 4.0 picocuries. The average outdoor radon level is 0.4 picocuries.

In 1991, Ranchos monitored indoor air levels in employee homes in Apple Valley to get a feel for local indoor levels. The range of indoor levels found was not detected (< 0.5 picocurie) to 2.4 picocuries, and averaged 0.74 picocuries. It appears that there is not a serious indoor air radon problem in Apple Valley, but all home owners should perform monitoring of their own homes to make sure. The contribution of radon from Ranchos' drinking water appears to be negligible (approximately 1% of the recommended indoor standard).

To obtain information on radon in your home, call the State of California, Department of Health Services Radon Information line at 1-800-745-7236.

Water Results

PRIMARY STANDARDS Mandatory health-related

	Federal MCL	Public Health Goal or (MCLG)	State MCL	Range for Apple Valley Wells	Average for Apple Valley Wells (a)	Potential Sources of Contamination
INORGANIC CHEMICALS (mg/L)						
Aluminum	0.05-0.2 #	none	1.0(0.2#)	< 0.01-0.01	ND	Erosion of natural deposits
Arsenic	0.05	none	0.05	< 0.002-0.008	0.0021	Erosion of natural deposits; runoff from orchards
Barium	2.0	(2)	1.0	0.01-0.046	0.02	Erosion of natural deposits; discharge from metal refineries
Chromium (total)	0.1	0.0025	0.05	< 0.001-0.009	0.003	Erosion of natural deposits; discharge from steel mills
Fluoride	4.0 (2.0#)	1.0	2.0	0.2-1.4	0.62	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (as NO3)	45.0	45	45.0	< 2.0-12	4.6	Erosion of natural deposits; leaching from septic tanks, sewage; runoff from fertilizer use
Nitrite/Nitrate (as N)	10.0	10.0	10.0	< 0.4-2.7	1.0	Erosion of natural deposits; leaching from septic tanks, sewage; runoff from fertilizer use
RADIONUCLIDES (pCi/L)						
Gross Alpha (b)	15	none	15	(-1.8)-14.6	3.1	Erosion of natural deposits
Radium 226/Radium 228 (b)	5	none	5	NA* or (-0.8)-1.6	NA* or < 1	Erosion of natural deposits
Uranium	NS	none	20	NA** or < 2-9	NA** or < 2	Erosion of natural deposits
VOLATILE ORGANIC CHEMICALS (VOC's) (mg/L)						
Total Trihalomethanes (TTHMs) (c)	0.1 mg/L	none	0.1 mg/L	0-0.0176	0.0066	By-product of drinking water chlorination
MICROBIOLOGICAL						
Microbiological (f) (h)	5% positive	0	5% positive	0%	0%	The environment (this is a non-pathogenic indicator)
E. coli/Fecal coliform	0	0	0	0	0	Human and animal waste

DISTRIBUTION SYSTEM

	Federal MCL	State MCL	AVR Range	AVR Average
Asbestos (f)(g)	7 MF/L	7 MF/L	ND	ND
Chlorine residual (mg/L)	NS	NS	0.01-0.63	0.25
Microbiological (f) (h)	5% positive	5% positive	0.00%	0.00%
E. coli/Fecal coliform	0	0	0	0
Color (units)	15	15	< 3	< 3
Odor-Threshold (units)	3	3	1	1
Turbidity (ntu)	5	5	0.1-0.8	0.17
Total Trihalomethanes (TTHMs)(f)	0.1 mg/L	0.1 mg/L	0-0.0176	0.0066

SECONDARY STANDARDS Aesthetic standards non-health related

	Federal MCL	Public Health Goal or (MCLG)	State MCL	Range for Apple Valley Wells	Average for Apple Valley Wells (a)
CHEMICAL PARAMETERS (mg/L)					
Chloride	500	none	500	4-280	37
Copper	1.3##	none	1.0(1.3##)	< 0.05	ND
Corrosivity (Langlier Index) (d)	Non-corrosive	none	Non-corrosive	(-0.5)-(+ 0.2)	-0.1
Foaming Agents (MBAS)	0.5	none	0.5	< 0.05	ND
Iron	0.3	none	0.3	< 0.05-0.1	ND
Manganese	0.05	none	0.05	< 0.03	ND
Methyl tert-butyl-ether (MTBE)	NS	none	0.005	< 0.005	ND
Silver	0.1	none	0.1	< 0.001	ND
Specific Conductance (umho/cm)	NS	none	1,600	170-1400	469
Sulfate	500	none	500	7-250	93
Thiobencarb	NS	none	0.001	ND	ND
Total Dissolved Solids (TDS)	1,000	none	1,000	90-960	315
Zinc	5.0	none	5.0	< 0.05	ND
PHYSICAL PARAMETERS					
Color (units)	15	none	15	< 3-8	3.8
Odor Threshold (units)	3	none	3	< 1.1	ND
pH (units)	6.5-8.5	none	6.5-8.5	7.6-8.8	8.0
Turbidity / clarity (NTU)	5.0	none	5.0	< 0.2-0.5	0.2

ADDITIONAL PARAMETERS (mg/L)- unregulated

	Federal MCL	Public Health Goal or (MCLG)	State MCL	Range for Apple Valley Wells	Average for Apple Valley Wells (a)
Aggressiveness Index (e)	NS	none	NS	11.3-12.1	11.8
Alkalinity (as Ca CO3)	NS	none	NS	53-120	86
Boron	NS	none	NS	< 0.1-1.2	0.37
Calcium	NS	none	NS	8-110	32
Hardness (Ca CO3)	NS	none	NS	23-370	106
Hardness (grains)	NS	none	NS	1.3-21.6	6.2
Magnesium	NS	none	NS	< 1-27	7
Molybdenum	NS	none	NS	0.001-0.05	0.011
Perchlorate	NS	none	NS	< 0.005	ND
Phosphate	NS	none	NS	< 0.3-9.1	ND
Potassium	NS	none	NS	< 1-5	2
Sodium	NS	none	NS	12-170	58

KEY TO ABBREVIATIONS AND FOOTNOTES

NS = No Standard

ND = Not Detected

NA = Not Applicable at this time or not required to analyze for.

NTU = Nephelometric Turbidity Units.

This is a measure of the suspended material in water.

mg/L = milligrams per liter or parts per million.

pCi/L = picocuries per liter.

umho/cm = micromhos per centimeter

= A secondary (aesthetic) standard.

= Action level measured at the consumers tap, a primary standard.

< = less than, essentially equivalent to ND.

* = required only if Uranium exceeds 5 pCi/L.

** = required only if Alpha readings exceed 5 pCi/L.

(a) = The average is weighted according to the individual contribution in pumping by each well to the total.

(b) = Negative values occur when the background count, as part of the analytical method, exceeds the count in the actual sample.

(c) = Measured in the distribution system.

(d) = A positive Langlier Index indicates that the water is noncorrosive.

(e) = An aggressiveness index of 12 or greater indicates that the water is not aggressive (noncorrosive).

(f) = Primary drinking water standard. The other standards for distribution system are secondary standards.

(g) = One sample taken in 1998 at the end of the longest run of asbestos-cement pipe in the distribution system. Asbestos measured as million fibers per liter; MCL for fibers exceeding 10 microns in length.

(h) = Total Coliform MCLs: No more than 5.0% of monthly samples may be total coliform-positive.

Federal Coliform/E. coli MCL: The occurrence of two consecutive total coliform-positive samples, one of which contains fecal coliform/E. coli constitutes an acute MCL violation (none occurred in 1998).