

Apple Valley Ranchos Water Company

2014 / 2015

Consumer Confidence Report

And

Annual Water Quality Report

Apple Valley Ranchos Water Company is pleased to provide you with a copy of this year's Annual Water Quality Report. We have put together a series of articles that we hope will keep you better informed on water quality issues both in general and specific to what comes from your own tap. Please feel free to contact us should you ever have any questions about service or quality.

Apple Valley Ranchos Water Company (AVRWC) has faithfully served its customers for 68 years. In 2014 we produced 12,233 acre-feet of high quality potable drinking water to over 60,000 residential and business customers. This equates to 4 billion gallons of water served over an area of approximately 50 square miles that encompasses approximately 81% of the Town of Apple Valley and portions of the surrounding area through a network of 465 miles of underground pipeline.

While we are currently experiencing low levels of growth within our system we do not expect this to last. Historically growth has come in rapid bursts followed by periods of calm. We are using this time to perform hydraulic modeling of transmission mains to ensure an adequate supply of water for the next 25 years. We are also working on a study to improve flows to the Northern part of our system allowing the Town of Apple Valley to develop its much anticipated Industrial Park.

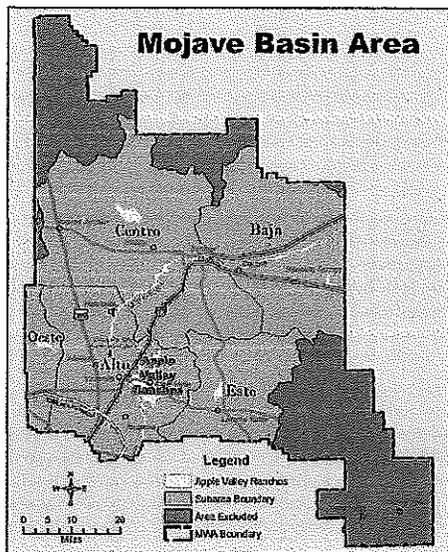
AVRWC is constantly working to improve our service and guarantee that we have water to meet future demands. Several ways in which we are doing this is by following the suggestions of our Water Use Efficiency Plan, our Standard Water Audit Plan, and our Water Pumping Facility Maintenance programs. Look for our section on Capital Improvements to see just how many dollars we are investing to guarantee that we have adequate infrastructure to meet future demands.

As you can see, we are dedicated to maintaining and improving our water system. All this adds up to one thing; a large investment in your future!

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

Apple Valley Ranchos Water Company Sources

Apple Valley Ranchos Water Company (AVRWC) pumps 100% of our source water from 20 deep wells located throughout the community. These wells draw water from the deep Alto subunit of the Mojave ground water basin. This 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 (MWA) 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 very long time.



Sensitive Populations May be More Vulnerable

Some people may be more vulnerable to contaminants in drinking water than the general population. Persons with compromised immune systems such as those 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 provider. The USEPA and the national Centers for Disease Control (CDC) have guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants. These are available by calling the Safe Drinking Water Hotline at 1-800-426-4791.

What EPA Says About the Kinds of Contaminants That Might Be Found In Drinking Water

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. In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (EPA) and the California State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The federal Food and Drug Administration (FDA) and SWRCB regulations also establish limits for contaminants in bottled water, which must provide the same protection for public health.

Contaminants that may be present in untreated 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 storm water 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, that can be naturally occurring or be the result of oil and gas productions and mining activities.

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. The tables in this report indicate which minerals and substances have been detected in the water provided by Ranchos. More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline at 1-800-426-4791. You can also go to the following websites for more information:

USEPA - www.epa.gov/safewater

CA State Water Resources Control Board –

www.waterboards.ca.gov/drinking_water/programs/index.shtml

What are drinking water standards?

Drinking water standards are regulations that the EPA sets to control the level of contaminants in the nation's drinking water. EPA, the SWRCB and the California Public Utilities Commission (CPUC) are the agencies responsible for establishing drinking water quality standards in California. These standards are part of the Safe Drinking Water Act's "multiple barrier" approach to drinking water protection, which includes assessing and protecting drinking water sources; protecting wells and surface water; making sure water is treated as needed by the appropriate treatment technology by qualified operators; ensuring the integrity of distribution systems; and making information available to the public on the quality of their drinking water. With the involvement of

EPA, SWRCB, the CPUC, drinking water utilities, communities and citizens, these multiple barriers ensure that tap water is safe to drink. The water delivered to your home meets standards required by EPA, SWRCB and CPUC. To recover the growing cost of meeting and maintaining EPA, SWRCB and CPUC standards, AVRWC submits a General Rate Case to the CPUC every three years. The CPUC is responsible for establishing water rates for AVRWC.

If you would like more information about water quality, or to find out about upcoming opportunities to participate in public meetings, please call Jeff Kinnard at 760-247-9332, extension 4323.

This report describes those contaminants that have been detected in the analysis of almost 200 different potential contaminants, nearly 100 of which are regulated by EPA and the SWRCB. AVRWC is proud to tell you that there have been no contaminants detected that exceed any federal or state drinking water standards. Hundreds of samples analyzed every month and thousands every year by AVRWC contract certified laboratories assure that all primary (health related) and secondary (aesthetic) drinking water standards are being met. See the tables on the following page to see how your water quality rates.

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. You may also access this report on the AVRWC web site at www.avrwater.com.

Source Water Assessment Completed and Available

The 1996 Safe Drinking Water Act amendments required states to perform an assessment of potentially contaminating activities near drinking water sources of all water utilities. In California, the SWRCB required the utilities to perform the assessments themselves. AVRWC completed the Source Water Assessment in December of 2002. The assessment has been updated since for three new wells. AVRWC wells are considered most vulnerable to the following activities associated with potential contamination of ground water in Apple Valley: high density housing, high and low density septic systems, parks, irrigated crops, golf courses and sewer collection systems. Additional activities that are potentially vulnerable for our wells are: gas stations, roads, streets, railroads, storm water injection wells, storm drain discharge points, storm water detention facilities, agricultural and irrigation water wells, historic grazing, historic waste dumps and landfills, machine shops and leaking underground storage tanks.

A copy of the complete assessment is available at Apple Valley Ranchos Water Company and at the SWRCB San Bernardino office. You may request a summary of the assessment be sent to you by contacting Jeff Kinnard of Ranchos at 760-247-6484 or by calling the SWRCB office at 909-383-4328.

Issues to Know About

Lead and Copper

While there have never been any problems with lead or copper at AVRWC, the USEPA and the SWRCB require the following information be presented in this report. 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. AVRWC 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 www.epa.gov/safewater/lead.

Boron

In 2011, AVRWC detected the naturally occurring mineral Boron in a rarely used well that exceeds the SWRCB Notification Level (NL). The NL for Boron is 1 milligram per liter (mg/L), or part per million (ppm). The level of Boron in this well in 2012 was 1.27 mg/L. Also in 2012, AVRWC detected and confirmed Boron above the NL in one additional well, at an average level of 1.5 mg/L. The health endpoint of concern is described by DPH as follows: "Non-cancer – decreased fetal weight (developmental) in rats". This is based on animal studies reviewed by the EPA. No known human health outcomes have been discovered, thus no drinking water standard currently exists for Boron. The SWRCB **does not** recommend that AVRWC take any corrective action unless the level of Boron in this well reaches ten times the NL, which would be 10 mg/L. AVRWC will continue to perform frequent monitoring of these wells for Boron in order to track any possible increases. The only action required by these findings was notification of the Apple Valley Town Council and AVRWC customers in this Consumer Confidence Report.

Unregulated Contaminant Monitoring

The Safe Drinking Water Act requires EPA to identify unregulated contaminants for potential regulation. Every five years, EPA identifies a list of unregulated contaminants to be monitored for by the nation's water utilities over a three year period. This is again occurring in 2013 - 2015. AVRWC will be monitoring for a total of 29 chemical contaminants from all of our wells spread out over the three years along with a corresponding sampling from the distribution system reflecting water from each well. Once EPA has obtained this occurrence data nationally, they are required to determine if there is a meaningful opportunity for increased health protection of drinking water by regulating these contaminants. The findings from first two years monitoring is reported in this year's Consumer Confidence Report.

Apple Valley Ranchos Water Company -- Bellview Heights System

Water Quality Parameters Detected in Apple Valley Ranchos, Bellview Heights Water System for 2014

PRIMARY STANDARDS --Mandatory health-related INORGANIC CHEMICALS	Public Health Goal (MCLG)	State MCL	Units of Measurement	Water Quality Results Bellview Heights Well 7	(b) Date of Last Measurement	Potential Sources of Contamination
Arsenic	0.004	10.0	ppb	3.4	2012	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Fluoride	1.0	2.0	ppm	0.3	2012	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Hexavalent Chromium (Cr+6)	0.020	10.0	ppb	2.4	2014	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits

DISTRIBUTION SYSTEM

Chlorine Residual	MRDLG = 4	MRDL = 4	ppm	average = 0.9 range = 0.2 - 1.5 average = 3.4 range = <1 - 27	weekly	Added for disinfection purposes
Microbiological Heterotrophic Plate Count Bacteria Total Trihalomethanes (TTHMs)	none	NS	CFU/ml		weekly	Naturally present in the environment
	none	80	ppb		once per year	By-product of drinking water disinfection

2013 LEAD AND COPPER MONITORING

Action Level	PHG or (MCLG)	Units of Measurement	Number of Samples Collected	90th Percentile Level Detected	Potential Sources of Contamination
Copper **	1.3	0.17	ppm	5	Internal corrosion of household water plumbing systems
Lead **	15	2	ppb	5	Internal corrosion of household water plumbing systems

SECONDARY STANDARDS Aesthetic standards - non-health related CHEMICAL PARAMETERS

Chemical Parameter	Public Health Goal (MCLG)	State MCL	Units of Measurement	Water Quality Results Bellview Heights Well 7	(b) Date of Last Measurement	Potential Sources of Contamination
Chloride	none	500	ppm	14	2012	Runoff / leaching from natural deposits; seawater influence
Specific Conductance	none	1,600	micromhos per centimeter	260	2012	Substances that form ions when in water; seawater influence
Sulfate	none	500	ppm	17	2012	Runoff / leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	none	1,000	ppm	140	2012	Runoff / leaching from natural deposits

ADDITIONAL PARAMETERS --unregulated

Parameter	Detected	Unregulated Chemicals That May be of Interest to Consumers	Units	11.7	2012
Aggressiveness Index (d)	none	NS	units	11.7	2012
Alkalinity (as Ca CO3)	none	NS	ppm	93	2012
Calcium	none	NS	ppm	14	2012
Hardness (Ca CO3)	none	NS	ppm	46	2012
Hardness (grains)	none	NS	grains	2.7	2012
Corrosivity (Langlier Index) (c)	none	Non-corrosive	+ / -	+ 0.03	2012
Magnesium	none	NS	ppm	2.4	2012
pH	none	NS	units	8.2	2012
Sodium	none	NS	ppm	39	2012

San Bernardino County Department of Health Services requires this separate notice be sent to you since you are not served by the main Apple Valley Ranchos (AVR) water system.

This page reports to you the water quality of the one well that serves the AVR Bellview Heights water system. This system also has an emergency connection to Victor Valley Water District. The table of results in the original Annual Water Quality Report (attached) depicts the water quality for the entire AVR water system. Please refer to this page for information on the quality of water piped to your home.

For a key to notes and abbreviations on this page, please refer to the Natural or Industrially-Influenced Balance of Hydrogen, Carbon and Oxygen in the Water, affected by temperature and other factors Key on the "Water Results page in the attached report.

If you have any questions about your water quality, please call Jeff Kimhard at 760-240-8323

KEY TO ABBREVIATIONS AND FOOTNOTES

MCL = Maximum Contaminant Level
AL = Action Level
MRDL = Maximum Residual Disinfectant Level
MRDLG = Maximum Residual Disinfectant Level Goal
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.
pc/L = picocuries per liter.
umho/cm = micromhos per centimeter

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

= A secondary (aesthetic) standard.

< = less than, essentially equivalent to ND.

* = revised primary drinking water standard effective January 2006

** = man-made radioactivity, analysis required for surface water sources only.

*** = 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) = Asbestos measured as million fibers per liter. MCL for fibers exceeding 10 microns in length. Apple Valley Ranchos has been granted a vulnerability waiver for asbestos monitoring.
(c) = One sample taken in 1998 at the end of the longest run of asbestos-cement pipe in the distribution system.
(d) = Total Coliform MCL's: No more than 5.0% of monthly samples may be total coliform-positive.
Fecal 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 2002)
(e) = A positive Langelier Index indicates that the water is noncorrosive.
(f) = An aggressive index indicates that the water is noncorrosive.
(a) = The average is weighted according to the individual contribution in pumping by each well to the total (active wells only)
(b) = Asbestos measured as million fibers per liter. MCL for fibers exceeding 10 microns in length. Apple Valley Ranchos Water Company has been granted a vulnerability waiver for asbestos monitoring
(c) = The turbidity level of the MWD filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU at any time. Turbidity is a measure of the cloudiness of the water and is a good indicator of water quality and filtration performance.
(e) = A positive number Langelier Index indicates that the water is noncorrosive
(f) = An aggressiveness index of 10 or greater indicates that the water is not aggressive (noncorrosive)
(g) = Primary drinking water standard. The other standards for distribution system are secondary standards
(1) = Total Coliform MCL's: No more than 5.0% of monthly samples may be total coliform-positive. Fecal coliform/E. coli MCL's: The occurrence of 2 consecutive total coliform-positive samples, one of which contains fecal coliform/E. coli, constitutes an acute MCL violation (none occurred in 2003).