



WHITE FENCE FARMS MUTUAL WATER CO., INC.

41901 – 20th Street West ♦ Palmdale, CA 93551

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Consumer Confidence Report (CCR)

Annual Water Quality Report For The Year Of 2021

We are very pleased to provide you with this year's Consumer Confidence Report. We want to keep you informed about the excellent water we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Our water source is ground water and AVEK.

As the Board of Directors of White Fence Farms Mutual Water Company, we are proud to report that our drinking water is safe and meets all federal and state requirements.

Our objective is to continue to provide you with quality water service. Please feel free to give our office a call should you have any questions or concerns.

Roy Kellogg, President
Michael Barosh, Vice President
Jonathan Beck, Secretary/Treasurer
Barbara Kellogg, Director

2021 Consumer Confidence Report

Water System Information

Water System Name: White Fence Farms Mutual Water Co.

Report Date: June 2022

Type of Water Source(s) in Use: Ground Water and treated Surface Water

Name and General Location of Source(s): Well 2B- Lancaster

Well 3B- Palmdale

Drinking Water Source Assessment Information: Well 2B- December 2001- Well 2B is considered most vulnerable to activities not associated with contaminants detected in water supply. Metal, plating/finishing/fabricating, hardware/lumber/parts stores, and fertilizer/pesticide application. The source is also considered most vulnerable to the following activities: Automobile, gas stations, septic systems (high density<1 acre) and transportation corridors.

Drinking Water Source Assessment Information: Well 3B- February 2008- Well 3B is considered most vulnerable to the following activities not associated with any detected contaminants: Septic systems (high density<1 acre) and transportation corridors.

Time and Place of Regularly Scheduled Board Meetings for Public Participation: First Tuesday of each month at 6:30pm.

For More Information, Contact: Brindi Hall at 661-943-3316

About This Report

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, 2021 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse White Fence Farms Mutual Water Co. a 41901 20th St. West Palmdale, CA 93551 para asistirlo en español.

Terms Used in This Report

Term	Definition
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 <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Term	Definition
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).
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.
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.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
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.
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.
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)

Sources of Drinking Water and Contaminants that May Be Present in Source Water

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 stormwater 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.

Regulation of Drinking Water and Bottled Water Quality

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.

About Your Drinking Water Quality

Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, 6, and 8 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	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
<i>E. coli</i>	0	0	(a)	0	Human and animal fecal waste

(a) 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 1.A. Compliance with Total Coliform MCL between January 1, 2021 and June 30, 2021 (inclusive)

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0	0	1 positive monthly sample (a)	0	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	0		0	None	Human and animal fecal waste

(a) For systems collecting fewer than 40 samples per month: two or more positively monthly samples is a violation of the total coliform MCL

Table 2. Sampling Results Showing the Detection of Lead and Copper

Complete if lead or copper is detected in the last sample set.

Lead and Copper	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)	9/10/21	10	0	0	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	9/10/21	10	.60	0	1.3	0.3	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)						
Well 2B	9/10/19	140	110-150	None	None	Salt present in the water and is generally naturally occurring
Well 3B	6/4/19	84	81-94			
Hardness (ppm)						
Well 2B	9/10/19	300	260-320	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
Well 3B	6/4/19	330	310-350			

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
Nitrates (ppm) Well 2B Well 3B	12/14/21 Jan-Dec 2021	4.5 7.0	4.5 6.6 - 7.7	10 10	2.0 2.0	Run off and leaching from fertilizer use; leaching from septic tanks and sewage, erosion of natural deposits
Arsenic(ppb) Well 2B	Jan-Dec	8.1	6.9 – 9.3	10	.004	Erosion of natural deposits: run off from orchards, glass & electronics production wastes
Uranium (pCi/L) Well 2B Well 3B	12/14/21 6/4/19	6.3 1.2	6.3 1.2	20 20	10 10	Erosion of natural deposits
Gross Alpha Well 2B Well 3B	12/14/21 12/8/20	ND 4.5	ND 4.5	15 15	15 15	Erosion of natural deposits
TTHM (ppb)	Jan-Dec 2021	11.74	6.1-28.1	80	1.0	Byproduct of drinking water disinfection
HAA5 (ppb)	Jan-Dec 2021	3.75	1.5-6.8	60	1.0	Byproduct of drinking water disinfection

Hexavalent Chromium (ug/L)						Discharge from electroplating, factories, leather tanneries, chemical synthesis, refractory production and textile manufacturing facilities, erosion of natural deposits
Well 2B	9/10/19	2.7	2.7	No MCL	No PHG	
Well 3B	3/28/17	4.2	3.3-5.1	No MCL	NO PHG	
Fluoride						Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Well 2B	9/10/19	.34	.34	2.0	0.1	
Well 3B	6/4/19	.22	.22	2.0	0.1	
Perchlorate						Perchlorate is an inorganic chemical used in solid rock propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historical aerospace or other industrial operations that use, store, or
Well 2B	9/10/19	ND	ND	6	4.0	
Well 3B	6/15/20	ND	ND	6	4.0	

						dispose of perchlorate and its salts
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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
Chloride (ppm)						
Well 2B	9/10/19	87	87	500	1.0	Run off/leaching from natural deposits; seawater influence
Well 3B	6/4/19	74	74	500	1.0	
Sulfate (ppm)						
Well 2B	9/10/19	250	250	500	.05	Run off from natural deposits; seawater influence
Well 3B	6/4/19	160	160	500	.05	
TDS						
Well 2B	Jan-Dec 2021	752.5	730-770	1000	1000	Naturally occurring organic materials
Well 3B	Jan-Dec 2021	647.5	590-680	1000	1000	
Specific Conductance(E.C)						
Well 2B	Jan- Dec 2021	1200	1100-1200	1600	1600	Substances that form ions when in water; seawater influence
Well 3B	Jan-Dec 2021	1000	1000	1600	1600	

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
Vanadium (ppb)					
Well 2B	9/10/19	14	14	50	Vanadium exposures have resulted in developmental and reproductive effects in rats
Well 3B	6/4/19	5	5	50	

Boron (ppm) Well 2B	9/10/19	0.17	0.17	1.0	Boron exposures have resulted in decreased fetal weight (developmental effects) in newborn rats
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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. White Fence Farms 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. [Optional: 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>.

Additional Special Language for Nitrate: Nitrate in drinking water at levels above 10mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10mg/L may also affect the ability of blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Additional Special Language for Arsenic: While your drinking water meets the federal and state standards 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.

Additional Special Language for State Revised Total Coliform Rule (RTCR). This Consumer Confidence Report reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal RTCR, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The State RTCR became effective July 1, 2021.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
Arsenic Violation Well 2B	Due to a water main break in the Ave. M freeway overpass in Dec. 2018, Well 2B shut down, decreasing the volume of pumping. This resulted in the arsenic concentration level to rise higher than the required MCL. This violation affected only the customers east of the freeway.	March 2019-June 2020	Notifications were sent to the affected customers every quarter the arsenic was above the MCL. Well 2B has been pumping normal volumes of water since September 2019 while White Fence Farms has been exploring different corrective actions. Arsenic levels have been below the MCL since June 2020 to current.	Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.

For Water Systems Providing Groundwater as a Source of Drinking Water

Table 8. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples

Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	0		0	(0)	Human and animal fecal waste
Enterococci	0		TT	N/A	Human and animal fecal waste
Coliphage	0		TT	N/A	Human and animal fecal waste

Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT

Special Notice of Fecal Indicator-Positive Groundwater Source Sample: NONE

Special Notice for Uncorrected Significant Deficiencies: NONE

Table 9. Violation of Groundwater TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
Not Applicable				

For Systems Providing Surface Water as a Source of Drinking Water

Table 10. Sampling Results Showing Treatment of Surface Water Sources

Treatment Technique ^(a) (Type of approved filtration technology used)	[Enter Treatment Technique]
Turbidity Performance Standards ^(b) (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to ___ NTU in 95% of measurements in a month. 2 – Not exceed ___ NTU for more than eight consecutive hours. 3 – Not exceed Be Exceeded ___ NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	
Highest single turbidity measurement during the year	

Number of violations of any surface water treatment requirements	
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(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

Summary Information for Violation of a Surface Water TT

Table 11. Violation of Surface Water TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
Not Applicable				

Summary Information for Operating Under a Variance or Exemption

NONE

Summary Information for Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements

Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the last year, White Fence Farms was not required to conduct any Level 1 assessments.

During the last year, 0 level 2 assessments were required to be completed for White Fence Farms.

Level 2 Assessment Requirement Due to an *E. coli* MCL Violation

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) identify problems and to correct any problems that were found during these assessments.

White Fence Farms was not required to complete a Level 2 assessment because no *E. coli* was found in our water.

Antelope Valley-East Kern Water Agency **2021 Annual Water Quality Report - Los Angeles County System**

The Antelope Valley-East Kern Water Agency provides treated surface water as a source of drinking water.

Treatment technique: Conventional

EPA Turbidity Performance Standards: Turbidity of the filtered water must:

1. Be less than or equal to 0.30 NTU in 95% of measurements in a month.
2. Not exceed 1 NTU at any time.

Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1: **100%**

Highest single turbidity measurement during the year: **0.18 NTU**

Percentage of samples < 0.30 NTU: **100%**

The number of violations of any surface water treatment requirements: **NONE**

Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

The Antelope Valley-East Kern Water Agency also provides groundwater as a source of drinking water.

Treatment technique: Chlorination

EPA Groundwater Rule: AVEK meets the requirements of the Groundwater Rule by providing a minimum of 4-log reduction of viruses by continuously providing a minimum free chlorine residual of 0.5 mg/L leaving the clearwell.

Lowest single free chlorine residual measurement during the year: **0.5**

Number of violations of the Groundwater Rule: **NONE**

MICROBIOLOGICAL CONTAMINANTS																
Type of Sample(s)	Parameter	Sampling Frequency	MCL	No. of Months in Violation		System Results										
				Range	Average	Range	Average									
Distribution	Total Coliform Bacteria	120 - 150 / mo	5% positive	None		0% - 0.8%										
Distribution	Fecal Coliform/E. coli	120 - 150 / mo	1 pos. with 2 TC pos.	None		0%										
INORGANIC CONTAMINANTS																
RESULTS																
Parameter	Units	MCL	DLR	PHG or (MCLG)	Acton Plant		Eastside Plant		Quartz Hill Plant		Raw Influent (State Water Project)		Water Bank		Wells	
					Effluent (CWR) Range	Average	Effluent (CWR) Range	Average	Effluent (CWR) Range	Average	Effluent (CWR) Range	Average	Effluent (CWR) Range	Average	Effluent (CWR) Range	Average
Aluminum	µg/L	1000	50	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Antimony	µg/L	6	6	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Arsenic	µg/L	10	2	0.004	ND	ND	ND	ND	ND	ND	ND	2.7-5.6	4.6	3.4-7.0	5.2	
Barium	µg/L	1000	100	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Beryllium	µg/L	4	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Cadmium	µg/L	5	1	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chromium (Total)	µg/L	50	10		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chromium (Hexavalent)	µg/L	*	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND-5.2	3.1	
Cyanide	µg/L	150	100	150	ND	ND	ND	ND	ND	ND	ND	ND	0.16	ND	ND	
Fluoride	mg/L	2	0.1	1	ND	ND	ND	0.11	ND	ND	ND	ND	0.12-0.34	0.18	0.18	
Lead	µg/L	15	5.0	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Mercury	µg/L	2	1	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Nickel	µg/L	100	10	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Nitrate (as N)	mg/L	10	0.4	10	ND	ND	ND	2.4	ND	0.85	0.65	0.54-0.77	0.72-7.8	4.2	4.2	
Nitrite (as N)	mg/L	1	0.4	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Nitrate+Nitrite (as N)	mg/L	10		10	ND	ND	ND	2.4	ND	0.85	0.77	0.72-7.8	4.6	ND	ND	
Perchlorate	µg/L	6	4	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Selenium	µg/L	50	5	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND-7.0	0.58	
Thallium	µg/L	2	1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Asbestos	MFL	7	0.2	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
*There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 mg/L was withdrawn on September 11, 2017.																

*There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 mg/L was withdrawn on September 11, 2017.

GENERAL PHYSICAL AND SECONDARY STANDARDS									
RESULTS									
Parameter	Units	MCL	DLR	Acton Plant Effluent (CWR) Range	Eastside Plant Effluent (CWR) Range	Quartz Hill Plant Effluent (CWR) Range	Raw Influent (State Water Project) Range	Water Bank Effluent (CWR) Range	Wells Average
Parameter	Units	MCL	DLR	Average	Average	Average	Average	Average	Average
Aluminum	µg/L	1000	50	ND	ND	ND	ND	ND	ND
Calcium	mg/L	no standard		29	48	26	27	63-93	76
Chloride	mg/L	250		96	37	59	57	54-92	72

Antelope Valley-East Kern Water Agency

2021 Annual Water Quality Report - Los Angeles County System

Parameter	Units	MCL	DLR	Action Plant Effluent (CWR) Range Average	Eastside Plant Effluent (CWR) Range Average	Quartz Hill Plant Effluent (CWR) Range Average	Raw Influent (State Water Project) Range Average	Water Bank Wells Range Average
Color	Units	15		<5	<5	<5	10	<5
Copper	µg/L	1000	50	ND	ND	ND	ND	ND
Foaming Agents (MBAS)	mg/L	0.5		ND	ND	ND	ND	ND
Hardness (Total) as CaCO3	mg/L	no standard		99	130	74	76	230
Iron	µg/L	300	100	ND	ND	ND	ND	180-280
Magnesium	mg/L	no standard		6.4	3.0	2.3	2.1	ND
Manganese	µg/L	50	20	ND	ND	ND	ND	5.0-15
Odor @ 60 C	Units	3	1	<1	<1	<1	1	ND
pH	Units	no standard		6.8-7.5	7.2-8.6	7.0-7.5	8.8	<1
Silver	µg/L	100	10	ND	ND	ND	7.9-9.5	7.6
Sodium	mg/L	no standard		73	40	60	ND	ND
Specific Conductance	µmhos	1600		560	460	480	59	45
Sulfate	mg/L	250	0.5	52	62	74	340-660	660
Thiobencarb (Boloro)	µg/L	1	1	ND	ND	ND	54	56
Methyl tert-Butyl Ether (MTBE)	µg/L	5	3	ND	ND	ND	ND	ND
Total Dissolved Solids	mg/L	500		300	280	260	ND	ND
Turbidity	Units	5		0.05	0.02-0.10	0.05	0.20-12	0.05
Zinc	µg/L	5000	50	420	ND	650	ND	ND
Total Alkalinity (as CaCO3)	mg/L	no standard		63	96	47	76	160
Bicarbonate Alkalinity(as HCO3)	mg/L	no standard		76	120	58	80	190
Carbonate (as CO3)	mg/L	no standard		ND	ND	ND	ND	ND
Hydroxide (as OH)	mg/L	no standard		ND	ND	ND	ND	ND

RADIOLOGICAL CONTAMINANTS

Parameter	Units	MCL	DLR	PHG	Raw Influent (State Water Project) Range Average	Water Bank Wells Range Average
Gross Alpha	pCi/L	15	3		3.4	5.3
Gross Beta	pCi/L	50	4		ND	ND
Strontium 90	pCi/L	8	2	0.35	ND	ND
Tritium	pCi/L	20,000	1,000	400	ND	ND
Uranium	pCi/L	20	1	0.43	ND	ND
Radium 228	pCi/L		1	0.019		
Radium 226	pCi/L		1	0.05		

VOLATILE ORGANIC CONTAMINANTS

Parameter	Units	MCL	DLR	PHG	State Water Project Range Average	Water Bank Wells Range Average
1,1,1-Trichloroethane (1,1,1-TCA)	µg/L	200	0.5	1000	ND	ND
1,1,2,2-Tetrachloroethane	µg/L	1	0.5	0.1	ND	ND
1,1,2-Trichloroethane (1,1,2-TCA)	µg/L	5	0.5	0.3	ND	ND
1,1-Dichloroethane (1,1-DCA)	µg/L	5	0.5	3	ND	ND
1,1-Dichloroethylene (1,1-DCE)	µg/L	6	0.5	10	ND	ND
1,2,4-Trichlorobenzene	µg/L	5	0.5	5	ND	ND
1,2-Dichlorobenzene (o-DCB)	µg/L	600	0.5	600	ND	ND
1,2-Dichloroethane (1,2-DCA)	µg/L	0.5	0.5	0.4	ND	ND
1,2-Dichloropropane	µg/L	5	0.5	0.5	ND	ND
1,3-Dichloropropene (Total)	µg/L	0.5	0.5	0.2	ND	ND
1,4-Dichlorobenzene (p-DCB)	µg/L	5	0.5	6	ND	ND
Benzene	µg/L	1	0.5	0.15	ND	ND
Carbon tetrachloride	µg/L	0.5	0.5	0.1	ND	ND
cis-1,2-Dichloroethylene (c-1,2-DCE)	µg/L	6	0.5	100	ND	ND
cis-1,3-Dichloropropene	µg/L				ND	ND
Dichloromethane (Methylene Chloride)	µg/L	5	0.5	4	ND	ND
Ethylbenzene	µg/L	300	0.5	300	ND	ND
Methyl-tert-butyl ether (MTBE)	µg/L	13	3	13	ND	ND
Monochlorobenzene (Chlorobenzene)	µg/L	70	0.5	70	ND	ND
Styrene	µg/L	100	0.5	0.5	ND	ND

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Parameter	Units	MCL	DLR	PHG	State Water Project Range Average	Water Bank Wells Range Average
Tetrachloroethylene (PCE)	µg/L	5	0.5	0.06	ND	ND
Toluene	µg/L	150	0.5	150	ND	ND
trans-1,2-Dichloroethylene (t-1,2-DCE)	µg/L	10	0.5	60	ND	ND
trans-1,3-Dichloropropene	µg/L				ND	ND
Trichloroethylene (TCE)	µg/L	5	0.5	1.7	ND	ND
Trichlorofluoromethane (Freon11)	µg/L	150	5	1300	ND	ND
Trichlorotrifluoroethane (Freon 113)	µg/L	1200	10	4000	ND	ND
Vinyl Chloride (VC)	µg/L	0.5	0.5	0.05	ND	ND
Xylenes (Total)	µg/L	1750	0.5	1800	ND	ND

SYNTHETIC ORGANIC CHEMICALS

RESULTS						
Parameter	Units	MCL	DLR (DL)	PHG	State Water Project Range Average	Water Bank Wells Range Average
Alachlor	µg/L	2	1	4	ND	ND
Atrazine	µg/L	1	0.5	0.15	ND	ND
Bentazon	µg/L	18	2	200	ND	ND
Benzo(a)pyrene	µg/L	0.2	0.1	0.007	ND	ND
Carbofuran	µg/L	18	5	0.7	ND	ND
Chlordane	µg/L	0.1	0.1	0.03	ND	ND
2,4-D	µg/L	70	10	20	ND	ND
Dalapon	µg/L	200	10	790	ND	ND
Dibromochloropropane (DBCP)	µg/L	0.2	0.01	0.0017	ND	ND
Di(2-ethylhexyl)adipate	µg/L	400	5	200	ND	ND
Di(2-ethylhexyl)phthalate	µg/L	4	3	12	ND	ND
Dinoseb	µg/L	7	2	14	ND	ND
Diquat	µg/L	20	4	6	ND	ND
Endosulf	µg/L	100	45	94	ND	ND
Endrin	µg/L	2	0.1	0.3	ND	ND
Ethylene Dibromide (EDB)	µg/L	0.05	0.02	0.01	ND	ND
Glyphosate	µg/L	700	25	900	ND	ND
Heptachlor	µg/L	0.01	0.01	0.008	ND	ND
Heptachlor Epoxide	µg/L	0.01	0.01	0.006	ND	ND
Hexachlorobenzene	µg/L	1	0.5	0.03	ND	ND
Hexachlorocyclopentadiene	µg/L	50	1	2	ND	ND
Lindane	µg/L	0.2	0.2	0.032	ND	ND
Methoxychlor	µg/L	30	10	0.09	ND	ND
Molinate	µg/L	20	2	1	ND	ND
Oxamyl	µg/L	50	20	26	ND	ND
Pentachlorophenol	µg/L	1	0.2	0.3	ND	ND
Picloram	µg/L	500	1	166	ND	ND
Polychlorinated Biphenyls	µg/L	0.5	0.5	0.09	ND	ND
Simazine	µg/L	4	1	4	ND	ND
Thiobencarb (Bolero)	µg/L	70	1	42	ND	ND
Toxaphene	µg/L	3	1	0.03	ND	ND
2,3,7,8-TCDD (Dioxin)	pg/L	30	5	0.05	ND	ND
2,4,5-TP (Silvex)	µg/L	50	1	3	ND	ND
1,2,3-Trichloropropane	µg/L	0.005	0.005	0.0007	ND	ND

DISINFECTION RESIDUAL, PRECURSORS, and BYPRODUCTS						
Type of Sample(s)	Parameter	Units	MCL/MRDL	DLR	MRDLG	RESULTS Range Average
Distribution	Chlorine (as total Cl ₂)	mg/L	4.0		4	0.30 - 1.68 1.12
Treated Water	Total Organic Carbon (TOC)	mg/L	Treatment Requirement	0.3		0.52 - 1.9 1.2
State Water Project	Total Organic Carbon (TOC)	mg/L	Treatment Requirement	0.3		0.72 - 3.2 1.9
Distribution	Stage 2 D/DBP Rule Total Trihalomethanes	µg/L	80**			3.2 - 54 4.1 #
Distribution	Stage 2 D/DBP Rule Total Haloacetic Acids	µg/L	60**			ND - 8.5 4.9 #
Treated Water	Bromate	µg/L	10 ⁺	1.0		ND - 4.5 0.82

** Stage 2 D/DBP Rule THMs and Total HAAs compliance is based upon Locational Running Annual Averages.
Location with the highest TTHM average

* Compliance is based on the running annual average computed quarterly, of monthly samples, collected at the entrance to the distribution system.

DEFINITIONS and FOOTNOTES:

Plant Effluent, CWR, is finished, treated drinking water.

Raw Water is the Source Water, the California Aqueduct or wells, prior to treatment.

Units: mg/L = milligrams per liter, parts per million (ppm)

µg/L = micrograms per liter, parts per billion (ppb)

µg/L = picograms per liter, parts per quadrillion (ppq)

µmhos = micromhos, a measure of specific conductance

pCi/L = pico Curies per liter

< = less than

> = greater than

ND = none detected above the DLR

NTU = nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

MCL: Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set by the US Environmental Protection Agency or the State Water Resources Control Board as close to the PHGs and MCLGs as is economically or technologically feasible.

MRDL: Maximum Residual Disinfectant Level. The level of a disinfectant added for water treatment that may not exceed at the consumer's tap.

DLR: Detection Limit for purposes of Reporting.

(DL): Detection limit determined by the Laboratory when no DLR has been established.

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.

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

PHG: Public Health Goal. 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 Office of Environmental Health Hazard

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. Assessment.

Secondary Standards: Aesthetic standards established by the State Water Resources Control Board.

All analyses performed by ELAP certified laboratories: AVEK Water Agency, Eurofins Eaton Analytical Laboratories, or Eurofins subcontract lab.

Water System Name: Antelope Valley-East Kern Water Agency

[illegible]

Note: If your OEL is higher than the HAA5 MCL at any location in the distribution system, you must conduct an operational evaluation by examining the system treatment and distribution operational practices, including: storage tank operations; excess storage capacity; distribution system flushing; changes in sources or source water quality; treatment changes; and any problems that may contribute to HAA5 formation. From this evaluation you must identify what steps could be taken to minimize future OEL exceedances. Please submit your operational evaluation report to the State for review within 90 days.

Date 1/5/2022

MP1=3 Qtrs Ago, MP2=2 Qtrs Ago, MP3= Last Qtr, MP4=Current Qtr
 .RAA = Locational Running Annual Avg = (MP1+MP2+MP3+MP4)/4
 JEL = Operational Evaluation Levels = (MP2 + MP3 + 2MP4)/4
 IAA5 MCL = 0.060 mg/L

Quarterly Bromate Report for Disinfection Byproducts Compliance (in µg/L or ppb)

System Name: Antelope Valley-East Kern Water Agency System No.: 1910045 Year: 2021 Quarter: 4TH

Sample Date (month/date):	2020				1st Qtr.			2nd Qtr.			3rd Qtr.			4th Qtr.		
	1st Q	2nd Q	3rd Q	4th Q	1/13	2/10	3/10	Quarterly Average	4/14	5/12	6/9	Quarterly Average	7/14	8/11	9/8	Quarterly Average
Site 1 - QHWP	1.6	1.3	5.4	3.9	OFF	OFF	OFF	0.0	ND	3.9	3.0	2.3	3.6	4.5	ND	2.7
Site 2 - EWTP	1.3	1.0	3.0	3.3	OFF	OFF	ND	0.0	ND	ND	ND	0.0	1.0	2.0	1.6	1.5
Site 3 - AWTP	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
System Quarterly Average	1.5	1.2	4.2	3.6				0.0				1.2				2.1

Running Annual Average				2.6				2.2				2.2				1.7	0.8
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Meets Standard?*								Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
(check box)																	

Identify the sample locations in the table below.

Site	Sample Location
1	Quartz Hill Clear Well Reservoir
2	Eastside Clear Well Reservoir
3	Action Clear Well Reservoir

Comments: Samples collected at the entry point to the distribution system for each treatment plant using ozone. "OFF" denotes treatment plant shutdown or ozone system shutdown.

Signature  Date 1/5/2022

*If, during the first year of monitoring, any individual quarter's average will cause the running annual average of that system to exceed the standard, then the system is out of compliance at the end of that quarter.

**Quarterly Report for Disinfectant Residuals Compliance
For Systems Using Chlorine or Chloramines**

System Name: Antelope Valley-East Kern Water Agency System No.: 1910045

Calendar Year: 2021

Quarter: 4TH

1st Quarter		
Month	Number of Samples Taken	Monthly Ave. Chlorine Level (mg/L)
Previous Year	April	1.10
	May	1.04
	June	1.10
	July	1.16
	August	1.17
	September	1.11
	October	1.08
	November	1.06
	December	1.08
Current Year	January	120
	February	120
	March	150
Running Annual Average (RAA):		1.09
Meets standard? (i.e. RAA < MRDL of 4.0 mg/L as Cl ₂)		YES

2nd Quarter		
Month	Number of Samples Taken	Monthly Ave. Chlorine Level (mg/L)
Previous Year	July	1.16
	August	1.17
	September	1.11
	October	1.08
	November	1.06
	December	1.08
Current Year	January	1.09
	February	1.05
	March	1.08
	April	120
	May	120
	June	150
Running Annual Average (RAA):		1.10
Meets standard? (i.e. RAA < MRDL of 4.0 mg/L as Cl ₂)		YES

3rd Quarter		
Month	Number of Samples Taken	Monthly Ave. Chlorine Level (mg/L)
Previous Yr	October	1.08
	November	1.06
	December	1.08
Current Year	January	1.09
	February	1.05
	March	1.08
	April	1.10
	May	1.11
	June	1.14
	July	120
	August	150
	September	120
		1.17
Running Annual Average (RAA):		1.11
Meets standard? (i.e. RAA < MRDL of 4.0 mg/L as Cl ₂)		YES

4th Quarter		
Month	Number of Samples Taken	Monthly Ave. Chlorine Level (mg/L)
Current Year	January	1.09
	February	1.05
	March	1.08
	April	1.10
	May	1.11
	June	1.14
	July	1.15
	August	1.18
	September	1.17
	October	120
	November	150
	December	123
Running Annual Average (RAA):		1.12
Meets standard? (i.e. RAA < MRDL of 4.0 mg/L as Cl ₂)		YES

Comments:

Signature: _____

Date: 1/5/2022

Antelope Valley-East Kern Water Agency
LA System No. 1910045
TOC Removal Running Annual Average

Sample Date	Plant	Alkalinity mgCaCO ₃ /L	Raw TOC mg/L	Treated TOC mg/L	Actual % TOC reduction	Required % TOC reduction	"TOC Removal Ratio" actual % /required %
1/13/2021	QHWTP	80.6	2.09	1.27	39.2	25	1.6
"	EWTP	plant off					
"	AWTP	plant off					
2/10/2021	QHWTP	89.3	2.05	1.32	35.6	25	1.4
"	EWTP	86.6	2.09	1.39	33.5	25	1.3
"	AWTP	plant off					
3/10/2021	QHWTP	96.2	2.07	1.35	34.8	25	1.4
"	EWTP	97.4	2.10	1.42	32.4	25	1.3
"	AWTP	plant off					
4/14/2021	QHWTP	82.3	2.01	1.35	32.8	25	1.3
"	EWTP	81.0	2.28	1.45	36.4	25	1.5
"	AWTP	plant off					
5/12/2021	QHWTP	81.7	1.42	1.03	27.5	25	1.1
"	EWTP	81.5	2.17	1.47	32.3	25	1.3
"	AWTP	plant off					
6/9/2021	QHWTP	75.6	1.52	1.06	30.3	25	1.2
"	EWTP	75.0	2.07	1.57	24.2	25	1.0
"	AWTP	plant off					
7/14/2021	QHWTP	69.3	1.82	1.15	36.8	25	1.5
"	EWTP	70.3	2.16	1.39	35.6	25	1.4
"	AWTP	plant off					
8/11/2021	QHWTP	67.0	2.28	1.46	36.0	25	1.4
"	EWTP	65.0	3.24	1.92	40.7	25	1.6
"	AWTP	plant off					
9/8/2021	QHWTP	73.5	1.31	0.91	30.5	25	1.2
"	EWTP	59.4	1.78	1.09	38.8	35	1.1
"	AWTP	plant off					
10/13/2021	QHWTP	69.9	1.72	1.15	33.1	25	1.3
"	EWTP	plant off					
"	AWTP	plant off					
11/10/2021	QHWTP	62.7	1.04	0.69	33.7	25	1.3
"	EWTP	plant off					
"	AWTP	plant off					
12/8/2021	QHWTP	61.5	0.72	0.52	27.8	25	1.1
"	EWTP	plant off					
"	AWTP	plant off					
Minimum		59.4	0.7	0.5	24.2		
Maximum		97.4	3.2	1.9	40.7		
RAA		76.3	1.9	1.2	33.6		

Running Annual Average (RAA) 1.3

Title 22 California Code of Regulations, Chapter 15.5, Article 5:

Required percent TOC reduction**

Raw TOC	Source Water Alkalinity		
	0-60	<60 - 120	>120
>2.0 - 4.0	35.0 %	25.0 %	15.0 %
>4.0 - 8.0	45.0 %	35.0 %	25.0 %
>8.0	50.0 %	40.0 %	30.0 %

**If one or more of the section 64636.4(b) 1-6 conditions are met, the system may assign a monthly value of 1 for the TOC removal ratio in lieu of the calculated value.
List condition when used:

1. The system's source water TOC level, prior to any treatment is less than or equal to 2.0 mg/L
2. The system's treated water TOC level is less than or equal to 2.0 mg/L
3. The system's source water SUVA, prior to any treatment, is less than or equal to 2.0 L/mg-m
4. The system's finished water SUVA is less than or equal to 2.0 L/mg-m
5. A system practicing softening removes at least 10 mg/L of magnesium hardness (as CaCO₃)
6. A system practicing enhanced softening lowers alkalinity below 60 mg/L (as CaCO₃)