2020 Consumer Confidence Report

Water System Name: **Shadow Acres Mutual Water Company** Report Date: May 5, 2021

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, 2020 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Los Angeles County Public Health Department a (626)430-5386 para asistirlo en español.

This Report Statement can be obtained, translated into Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong) via the Los Angeles County Department of Public Health.

Type of water source(s) in use: Ground-Water and Treated Surface Water as a secondary source of supply

Name & general location of source(s): Community ground-water well and California Aqueduct water purchased from Antelope Valley East Kern Water Agency (AVEK)

Drinking Water Source Assessment information: Ground-water is vulnerable to nitrates from septic tanks and fertilizer use. Water storage tanks may be vulnerable to contamination. A requirement for increased water storage capacity was noted on the Sanitary Survey and Vulnerability Assessment, performed by the County Public Health Department on 1/29/20.

Time and place of regularly scheduled board meetings for public participation: Board Meetings, held at the wellsite or via video-conference on the second Tuesday of each month, are open to Shareholders and Residents with advance notification.

For more information, contact: Jeanne Miller Phone: (661) 947-0200

TERMS USED IN THIS REPORT

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).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum 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.

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.

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.

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

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)

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, 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, storm-water 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.

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.

Tables 1, 2, 3, 4, 5, and 6 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 (complete if bacteria detected)	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	(0)	0	1 positive monthly sample[a]	0	Naturally present in the environment
Fecal Coliform or *E. coli* (state Total Coliform Rule)	(0)	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or *E. coli* positive	0	Human and animal fecal waste
E. coli (federal Revised Total Coliform Rule)	(0)	0	(b)	0	Human and animal fecal waste

(a) Two or more positive monthly samples is a violation of the MCL
(b) 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 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	7-15-19	5	0	0	15	0.2	Not Applicable	Internal corrosion of household water plumbing systems; erosion of natural deposits
Copper (ppm)	7-15-19	5	1.07 mg/l.	0	1.3	0.3	Not Applicable	Internal corrosion of household plumbing systems; erosion of natural deposits.

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Source	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm) Sampled 5-20-20	AVEK Well #2	71 117		None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm) Sampled 5/20/20	AVEK Well #2	100 384		None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Source	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Aluminum ug/L	AVEK	ND	ND	1000	600	Erosion of natural deposits; residue from some surface water treatment
Arsenic ug/L Sampled 5/20/20	Well #2	3		10	.004	Erosion from natural deposits; run-off from agriculture or mining
Barium ug/L Sampled 5/20/20	AVEK Well #2	ND 12.9		1000	2000	Discharge from metal refineries; erosion of natural deposits

Bromate ug/L	AVEK	2.6	ND-7.3	10	0.1	By-product of drinking water disinfection
Chlorine mg/L	AVEK	1.10	0.10-1.88	4.0	4.0	By-product of drinking water disinfection
Chromium ug/L Sampled 5/20/20	AVEK Well #2	ND 2		50	0.02	Discharge from manufacturing; Erosion of natural deposits
Copper ug/L	AVEK	2.0		1000	170	Erosion from natural deposits
Fluoride mg/L Sampled 5/20/20	AVEK Well #2	0.07 0.2		2	1	Erosion of natural deposits; discharge from fertilizer factories
Nickel µg/L Sampled 5/20/20	Well #2	6		100	12	Erosion of natural deposits; discharge from metal factories
Nitrate (as N) mg/L	AVEK Well #2 Well #1	1.3 3.13 4.85	1.3 2.0-4.9 4.6-5.1	10	10	Run off or leaching from fertilizer; leaching from septic tanks; erosion of natural deposits
Selenium µg/L Sampled 5/20/20	Well #2	3		50	30	Erosion of natural deposits; runoff from livestock lots (feed additive)
Total Trihalomethanes ug/L	AVEK System	45 20	3.4-62 ND-40	80	N/A	By-product of drinking water disinfection
Haloacetic Acids ug/L	AVEK System	11 6	ND-13 ND-12	60	N/A	By-product of drinking water disinfection
Gross Alpha pCi/L	AVEK	5.9	4.3-7.5	15	N/A	Erosion of natural deposits

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

There are no PHGs, MCLGs for these constituents because secondary MCLs are set on the basis of aesthetics.

Chemical or Constituent (and reporting units)	Sample Source	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Chloride mg/L Sampled 5/20/20	AVEK Well #2	120 102		500	N/A	Run-off/leaching from natural deposits
Iron µg/L * Sampled 5/20/20	Well #2	845	680-1010	300	N/A	Leaching from natural deposits; industrial wastes
Manganese µg/L * Sampled 5/20/20	Well #2	370	20-720	50	N/A	Leaching from natural deposits; industrial wastes
Color units Sampled 5/20/20	Well #2	5		15	N/A	Naturally-occurring organic materials
Odor TON * Sampled 5/20/20	Well #2	16		3	N/A	Naturally-occurring organic materials
Sulfate mg/L * Sampled 5/20/20	AVEK Well #2	52 357		250	N/A	Run-off/leaching from natural deposits
Total Organic Carbon mg/L	AVEK	1.8	1.3-2.4	N/A	N/A	Water Treatment Technique; natural sources
Specific Conductance umhos	AVEK Well #2	580 1410		1600	N/A	Substances that for ions when in water
Total Dissolved Solids mg/L	AVEK Well #2	320 930		1000	N/A	Run-off/leaching from natural deposits
Turbidity units Sampled 5/20/20	AVEK Well #2	0.05 1.4	0.02-0.11	5	N/A	Soil Run-off
Vanadium µg/L Sampled 5/20/20	Well #2	5		15	N/A	Leaching from natural deposits; industrial wastes
Zinc ug/L Sampled 5/20/20	AVEK Well #2	600 20		5000	N/A	Run-off/leaching from natural deposits; industrial wastes

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Source	Level Detected	Range of Detections	Notification Level	Informational data for Consumers
Calcium mg/L Sampled 5/20/20	AVEK Well #2	20 101		No Standard	Leaching/erosion from natural deposits
Magnesium mg/L Sampled 5/20/20	AVEK Well #2	13 32		No Standard	Leaching/erosion from natural deposits
Potassium mg/L Sampled 5/20/20	Well #2	3		No Standard	Leaching/erosion from natural deposits

pH units Sampled 5/20/20	AVEK Well #2	7.1 6.6	6.9-7.5	No Standard	The acidity or alkalinity of water on a scale on which 7 is neutral, lower = more acid and higher = more alkaline.
Bicarbonate Alkalinity as HCO3 mg/L	AVEK Well #2	70 200		No Standard	Aids in neutralizing the acids in water, therefore helping to balance the pH
Total Alkalinity mg/L Sampled 5/20/20	AVEK Well #2	57 170		No Standard	Indicative of the water's ability to neutralize acid.
Aggressiveness Index Sampled 5/30/20	Well #2	11.2		No Standard	Moderately aggressive on the scale

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). 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.

Although the nitrate levels from our wells tested below 10 mg/L, the water sample from well #1 (used only in emergency situations) tested at 5.1 mg/L therefore we are required to provide the following information to consumers: ***Nitrate in drinking water at levels above 10 mg/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 10 mg/L may also affect the ability of the 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.***

****Iron was detected at levels that exceed the secondary MCL of 300 µg/L. The iron MCL was set to protect you against unpleasant aesthetic effects (e.g., color, taste, and odor) and the staining of plumbing fixtures (e.g., tubs and sinks) and clothing while washing. High iron levels are due to leaching of natural deposits and were likely caused by the well rehabilitation performed in the first quarter of 2020. This process also produced temporary Odor and Manganese levels exceeding the secondary MCL. High levels of manganese in people have been shown to result in adverse effects to the nervous system. The sampling was done on 5/20/20 and the water from well #2 was not reintroduced into the distribution system until July of 2020 therefore the higher levels of these contaminants did not impact your drinking water.****

The water in our distribution system is a blend of AVEK water and ground-water. More information on AVEK's water can be found at www.avek.org. The laboratory results from our water testing are available for review in the SAMWC office. Our ground water is blended with AVEK's treated surface water in the distribution system to ensure that we do not pump over our allotment of ground-water and with the added benefit of reducing the effects of hard water on plumbing fixtures. In 2020 we pumped less than 20% of the water delivered to residents due to the rehabilitation of our primary well. Our goal in 2021 is a 50/50 blend. If you have questions regarding the water quality testing or blending process, contact Tony at Morrison Well Maintenance at 661-466-6031.

Shadow Acres Mutual Water Company delivers water which meets or exceeds public health standards for potable water. Due to the Antelope Valley ground-water adjudication, ground-water management remains a top priority. Consumer contact information must be kept current with the SAMWC office in case of emergency. We do not share personal consumer information with any other Agency. Shadow Acres Mutual Water Company has no internet presence therefore your personal information is not subject to compromise.

All active accounts are required to have a gate valve installed on the property side of the water meter. This gate valve is for the convenience of the home owner when making plumbing repairs or any time you need the water shut off to your property. If you need the water turned off at the water meter, please call Morrison Well Maintenance at 661-466-6031. After hours emergency shut offs will be billed to the property owner. If the water meter valve is broken by anyone other than Maintenance personnel, the cost for repair or replacement will be billed to the property owner.

The State of California has notified all Agencies that the ongoing drought is expected to worsen. We are all being asked to reduce water consumption. PWD has asked their customers to cut back 15%. SAMWC is asking that all consumers exercise conservation measures in order to avoid the imposition of water restrictions and penalties by the State or County Authorities. Check your sprinkler systems and evaporative coolers for leaks on a regular basis and remain aware of your consumption.

PLEASE USE WATER WISELY