

2018 Consumer Confidence Report

The Landale Mutual Water Company

June 1, 2019

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2017 and may include earlier monitoring data. We are pleased to report to you that our water meets and exceeds all federal and state requirements.

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

During 2018, 99.4 percent of the water delivered in the Landale area consisted of groundwater pumped from the Landale Mutual Water Company well located at 507 East Ave L-8, Lancaster, CA. The remaining 0.6 percent was supplied by treated surface water purchased from the Antelope Valley-East Kern Water Agency (AVEK). AVEK imports State Water Project water from the Sacramento River/San Joaquin Delta. This water supply is treated by AVEK at their Quartz Hill Treatment Plant. AVEK treats its source water by using conventional treatment methods, which include coagulation, flocculation, sedimentation and filtration. AVEK uses chlorine for disinfection because of its ability to kill microorganisms, such as bacteria, in the water and reduce the potential for their regrowth in the distribution pipes. AVEK provides a back-up source of water for Landale Mutual Water Company periodically as required by maintenance or repair of Landale's facilities. The amount of water provided by AVEK varies from year to year.

If you have any questions about this report or concerning your mutual water company, please leave a message for Nickie Purcell with the Landale Mutual Water Company answering service at (661) 949-0286. The regularly scheduled meetings of the Board of Directors are on the second Tuesday of each month at 6:00 p.m. at the well site at 507 East Ave L-8, Lancaster, CA.

An assessment of the drinking water source for the Landale Mutual Water Company's water system was completed in 2002. A copy may be requested by leaving a message for Nickie Purcell with the Landale Mutual Water Company answering service at (661) 949-0286. There is NO vulnerability to chemicals and NO chemicals were detected that will affect the quality of the drinking water. However, the source is considered most vulnerable to the following: high density septic tank installations.

In order to ensure that tap water is safe to drink, the US 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 & Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

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 plant, 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, which 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.
 - Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

ADDITIONAL GENERAL INFORMATION ON DRINKING WATER.

Not all portions of these messages necessarily apply to Landale Mutual Water Company's groundwater.

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 US EPA's Safe Drinking Water Hotline at (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. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language for Community Water Systems: 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. Landale Mutual Water 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, (1-80-426-4791) or at <http://www.epa.gov/safewater/lead>.

TERMS AND ABBREVIATIONS 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 (USEPA).

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 Standard (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 which a water system must follow.

Variances and Exemptions: State Board permission 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 (ug/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)

Tables 1, 2, 3, 4, 5, & 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 (to be completed only if there was a detection of bacteria)	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste
<i>E. Coli</i> (federal revised Total Coliform Rule)	(In the year) 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 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	90 th percentile level detected	No. Sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	03-22-16	20	0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	03-22-16	20	0.008	0	1.3	0.3	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

No schools have requested that our system conduct lead sampling

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)	05-16-17	56.95	41.9-72.0	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	05-16-17	62.0	24-100	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

-*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided on the next page.

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 (AL) [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Gross Alpha (pCi/l)	11-02-11	0.5		15	(0)	Erosion of natural deposits
Combined Radium 226 & 228 (pCi/L)	05-16-11	0.107		5	(0)	Erosion of natural deposits

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL (AL) [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Uranium (pCi/l)	11-02-11	0.78		20	0.43	Erosion of natural deposits
Aluminum (ppm)	5-16-11	0.004	0-0.007	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	05-16-17	2.10	0-4.19	10.0	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	05-16-17	0.005	0-0.01	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	05-16-17	5.55	0-11.1	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Copper (ppm)	05-16-17	0.005	0-0.011	(AL=1.3)	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits, leaching from wood preservatives
Fluoride (ppm)	05-16-17	0.227	0-0.454	2.0	1.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm) (as nitrogen, N)	12-29-17	0.165	0-0.33	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs (Total Trihalomethanes) (ppb)	09-03-14	22.27	2.54-42	80	(N/A)	By-product of drinking water chlorination
Haloacetic Acids (ppb)	09-03-14	12.665	8.33-17	60	(N/A)	Byproduct of drinking water disinfection
Chlorine (ppm)	10-29-13	0.08	0.08-1.04	[MRDL = 4.0 (as Cl ₂)]	[MRDLG = 4 (as Cl ₂)]	Drinking water disinfectant added for treatment
Control of DBP precursors (TOC)	10-29-13	1.35	1.2-1.5	TT	(N/A)	Various natural and man made sources

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Color (units)	05-16-17	4.5	4.0-5.0	15	N/A	Naturally-occurring organic materials
Copper (ppm)	05-16-17	0.055	0-0.011	1	N/A	Internal corrosion of household plumbing systems; erosion of natural deposits, leaching from wood preservatives
Iron (ppb)	05-16-17	17.8	0-35.6	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	05-16-17	1.94	0-3.88	50	N/A	Leaching from natural deposits
Odor – threshold (units)	05-16-17	0.50	0-1.0	3	N/A	Naturally occurring organic materials
Turbidity (units)	05-16-17	0.242	0.01-0.434	5.0	N/A	Soil runoff
Zinc (ppm)	05-16-17	0.22	0-0.44	5.0	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	05-16-17	153	126-180	1000	N/A	Runoff/leaching from natural deposits
Specific Conductance (uS/cm)	05-16-17	251	121-630	1600	N/A	Substances that form ions when in water; seawater influence
Chloride (ppm)	05-16-17	22.94	2.88-43	500.0	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	05-16-17	25.55	14.1-1.37	500.0	N/A	Runoff/leaching from natural deposits; industrial wastes

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Notification Level	Health Effects Language
Vanadium (ppb)	10-16-17	28.6	50 ppb	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals
Hexavalent Chromium (ppb)	05-16-17	7.20		Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.

*Any violation of an MCL, MRDL or TT is asterisked. Additional information regarding the violation is provided below. There is currently no MCL for hexavalent chromium, the previous MCL of 0.01 mg/l was withdrawn on Sept 11, 2017.

For Systems Providing Ground Water as a Source of Drinking Water

(Refer to page 1, "Type of water source in use" to see if your source of water is surface water or groundwater)

**SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE
GROUND WATER 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>	(In the year) 0	Monthly	0	(0)	Human and animal fecal waste
Enterococci	(In the year) 0	Monthly	TT	n/a	Human and animal fecal waste
Coliphage	(In the year) 0	Monthly	TT	n/a	Human and animal fecal waste

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

Treatment Technique ^(a) (Type of approved filtration technology used)	Conventional
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 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	0.19
Number of violations of any surface water treatment requirements	none

(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.