

Annual Drinking Water Quality Report July 2023

Greg A. Hammett
message from the General Manager

Record rainfall and snowpack in 2023 prompted Governor Newsom to issue Executive Order N-5-23 terminating, among other things, requirements of urban water suppliers, like West Kern, to implement water shortage response actions. At the regular meeting on April 25, 2023, the West Kern Board, resolved to end Level 2 and portions of Level 3 water shortage response actions and implement voluntary (Level 1) water conservation measures. Level 1 measures include:

- Increased public education and outreach efforts to emphasize public awareness of the need to implement voluntary water conservation practices.

Regardless of the conservation Level in effect, the following conservation measures should be considered permanent actions:

- All hoses shall be equipped with a shut-off nozzle.
- Hosing down driveways, streets, parking lots, sidewalks or buildings is prohibited unless required for health and safety.
- Excessive watering or over-saturation causing water to run off onto sidewalks, streets, or gutters is prohibited.
- Residential and commercial landscape irrigation shall not take place between the hours of 10am and 6pm. (Consider adjusting the landscape irrigation run time)
- Washing of motor vehicles, trailers, boats and other types of equipment shall only be done using a bucket and/or a hand-held hose that has a shut-off nozzle, a high pressure/low volume wash system, or be conducted at a commercial site that recirculates water on-site. Washing during hot weather conditions shall be avoided as additional water then becomes required due to evaporation.
- Eating or drinking establishments, including but not limited to: Restaurants, cafes, cafeterias, bars or other public places where food or drink are served and/or purchased, shall serve water only upon request.



Finally, in 2022, West Kern began an ambitious plan to replace all metered connections with Automatic Meter Reading (AMR) devices. To date approximately 89% of the AMR devices have been installed. The project should be complete by the end of 2023. AMR allows West Kern to collect usage information more accurately and efficiently. In addition, AMR allows customers an opportunity to monitor their usage real-time at home by enrolling in an Eye on Water account. More information about Eye on Water can be found on the West Kern website.

- Repair all leaks (including evaporative coolers) within twenty-four (24) hours of notification by the District unless other arrangements are made with the General Manager.
- Stop use of potable water for compaction or dust control where non-potable or recycled water is available.
- Users of construction meters and fire hydrant meters will be monitored for efficient water use.

Conserving water should be considered the new normal no matter the amount of precipitation we receive. Thank you all for your conservation efforts during the record drought period.

Drinking Water Source Assessment

Drinking Water Source Assessment

An assessment of West Kern's drinking water sources was completed in May 2001, 2010, & 2012. The sources are considered the most vulnerable during artificial recharge activities in spreading basins, but these activities have not been associated with any detected contaminants. For more information contact Wendy Adams-Rosenberger at 661-763-3151.

This Annual Water Quality Report describes in detail the quality of your water during 2021. As in previous years, your water met all U.S. Environmental Protection Agency (USEPA) and State drinking water health standards. You will find further explanation of the requirements and test results in the accompanying pages.

Public Participation



Where our water comes from...

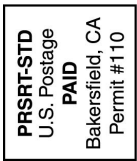
West Kern's water supply comes from a contract with the Kern County Water Agency for State Water Project water. The water is transported through the California aqueduct, where it is recharged into the ground through spreading ponds. Your water is extracted from the Tulare Lake aquifer from 13 groundwater wells located in the northeast corner of the District, in the underflow of the Kern River Sub-basin and from an area north and adjacent to the State of California's Tulare Elk Reserve. The water is then transported through a 36" transmission pipeline to our Station A facility located at the corner of Highway 119 and Golf Course Road where it is treated with chlorine before being disseminated to 318 miles of pipeline, 26 above ground water storage reservoirs and 15 booster pump stations. The District has one of the most complex systems in California and our employees are dedicated to ensuring you have a reliable and high quality water service at a reasonable cost.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs & wells. As water travels over the surface of the land or through the ground, it can dissolve naturally-occurring minerals and, in some cases, radioactive materials, 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, can be naturally occurring or come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants- Such as salts & metals, can be naturally occurring or result from urban storm water run-off, industrial or domestic wastewater discharge, oil and gas production, mining, or farming.
- Pesticides & herbicides-May come from a variety of sources such as agriculture, urban stormwater run-off, and residential uses.
- Organic chemical contaminants- Are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater run-off and septic systems.
- Radioactive contaminants-Can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure tap water is safe to drink, U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations which limit the amount of certain contaminants in the water provided by public water systems. Department Regulations also establish limits for contaminants in bottled water that provide the same protection for public health.



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, 2022



Este informe contiene informacion muy importante sobre su agua para beber. Favor de comunicarse West Kern Water District a 661-763-3151 para asistirlo en espanol.

(This report contains important information about your drinking water. Please contact West Kern Water District at 661-763-3151 for assistance in Spanish.)

The State Water Resources Control Board Division of Drinking Water (DDW) requires community water systems to publish and make available an annual Consumer Confidence Report to provide background on the quality of your water and to show compliance with federal and state drinking water standards.

If you have any suggestions, questions/concerns, or require further information regarding this report please contact Wendy Adams-Rosenberger at 661-763-3151 or through the District's webpage at www.wkwd.org

Drinking Water Test Results for the year 2022

Tables 1, 2, 3, 4, & 5 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.

TABLE 1. Compliance with Total Coliform MCL between January 1, 2022 and December 31, 2022					
Microbiological Contaminants	Sample Date	MCL	PHG (MCLG)	Highest # of Detections in a Month	Typical Source of Bacteria
Total Coliform Bacteria	2022	5% of monthly samples are positive	(0)	1*	Naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present
Fecal Coliform and E. Coli	2022	0 positive	(0)	0	E. Coli are bacteria whose presence indicates that the water may be contaminated with human or animal fecal waste

TABLE 1A. Sampling Results showing the detection of Coliform Bacteria					
Microbiological Contaminants	Highest # of Detections	No of Months in Violation	MCL	MCLG	Typical Source of Bacteria
E-Coli	0	0	(a)	0	Human and Animal Fecal Waste
*Although Total Coliform was detected in the initial sample, repeat samples were conducted, and all results were negative. Water system remains in compliance. (a) Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .					

TABLE 2 – Sampling Results showing the detection of Lead and Copper						
Lead & Copper	No of Samples Collected	90 th Percentile Level Detected	No Sites exceeding AL	AL	PHG	Typical Source of Contaminant
Copper (mg/L) 2021	30	.100	0	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ug/L) - 2021	30	3	1	15	2	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits;

TABLE 3 – Sampling Results showing Sodium and Hardness						
Chemical or Constituent (units)	Sample Date	MCL	PHG (MCLG)	Range of Detections	WKWD Average	Typical Source of Contaminant
Sodium (mg/L)	2021-2022	None	None	37-99	65	Salt present in the water and is generally naturally occurring
Hardness (mg/L)	2021-2022	None	None	49 - 160	115	"Hardness" is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.

TABLE 4 – Detection of Contaminants with a Primary Drinking Water Standard						
Chemical or Constituent (units)	Sample Date	MCL	PHG (MCLG)	Range of Detections	WKWD Average	Typical Source of Contaminant
Aluminum (mg/L)	2021-2022	1	0.6	ND-0.06	ND	Erosion of natural deposits; residual from some surface water treatment processes
Arsenic (ug/L)	2022	10	4	ND-4.11	1.27	Erosion of natural deposits
Barium (mg/L)	2021-2022	1	2	ND-.051	ND	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (mg/L)	2021-2022	2	1	ND-0.14	0.04	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (mg/L)	2022	10	10	ND-4.30	1.06	Runoff and leaching from fertilizer use
Gross Alpha (pCi/L) ¹	2019-2022	15	(0)	.44 – 29.2	8.5	Erosion of natural deposits
Uranium (pCi/L)	2019-2022	20	0.43	0 to 23.5	10.40	Erosion of natural deposits
TThms (Total) Trihalomethanes (ug/L)	2022	80	None	21-29	25	By-product of drinking water disinfection
Total Haloacetic Acids (HAA) (ug/L)	2022	60	None	3.6-3.9	3.75	By-product of drinking water disinfection
Chlorine (mg/L)	2022	4	4	0.16-0.27	0.22	Drinking water disinfectant added for treatment

¹While your drinking water meets the federal and state standards for Gross Alpha & Uranium, 2 wells exceeded the MCL. West Kern remains in compliance based on the source wells running annual average of 4 consecutive quarters. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer and some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

TABLE 5 – Detection of Contaminants with a Secondary Drinking Water Standard					
Chemical or Constituent (units)	Sample Date	MCL	Range of Detections	WKWD Average	Typical Source of Contaminant
Aluminum (ug/L)	2021-2022	200	ND-60	8.5	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (mg/L)	2021-2022	500	32 – 88	49.84	Erosion of natural deposits; seawater influence
Color	2021-2022	15	ND-5	5	Naturally-occurring organic materials
Iron (ug/L)	2021-2022	300	ND – 180	23.85	Leaching from natural deposits; industrial wastes
Specific Conductance (µS/cm)	2021-2022	1600	340 - 830	690	Substance that forms ions when in water; seawater influence
Sulfate (mg/L)	2021-2022	500	20- 190	168	Runoff/leaching from natural deposits; industrial waste
Total dissolved solids (mg/L)	2021-2022	1000	210-494	320	Runoff/leaching from natural deposits
Turbidity (NTU)	2021-2022	5	.10– 2.8	0.46	Soil runoff

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).

TERMS USED IN REPORT:

MCL: [Maximum Contaminant Level](#): The highest level of a contaminant that is allowed in drinking water. Primary MCL’s protect public health and are set as close to the PHGs or MCLGs as are economically and technologically feasible. Secondary MCLs relate to the odor, taste, and appearance of drinking water

MCLG: [Maximum Contaminant Level Goal](#): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the United States Environmental Protection Agency (EPA) and allow a margin of safety.

MRDL: [Maximum Residual Disinfectant Level](#): 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.

MRDLG: [Maximum Residual Disinfectant Level Goal](#): 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.

PDWS: [Primary Drinking Water Standards](#): MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring, reporting, and water treatment requirements.

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 EPA without regard to cost or available detection and treatment technologies.

SDWS: [Secondary Drinking Water Standards](#): MCLs for contaminants that may adversely affect the taste, odor, or appearance of drinking water. These are aesthetic considerations that *don’t impact health*.

TT: [Treatment Technique](#): A required process intended to reduce the level of a contaminant in drinking water.

AL: [Regulatory Action Level](#): The concentration of a contaminant which, if exceeded, triggers treatment or other required action by the water provider.

ND: Not Detectable at testing limit

NTU: Nephelometric Turbidity Unit

mg/L: milligrams per liter or parts per million (ppm)

pCi/L: picocuries per liter (measurement of radioactivity)

ug/L: micrograms per liter or parts per billion (ppb)

µS/cm: measure of electrical conductivity

Additional General Information on Drinking Water

All 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 EPA Safe Drinking Water Hotline 800-426-4791

About Arsenic: While your drinking water meets the federal & state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA 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.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. [Lead in drinking water comes primarily from materials and components associated with service lines and home plumbing.](#) West Kern is responsible for providing high quality water but cannot control the variety of materials used in customer plumbing systems. [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 the water for drinking or cooking.](#) If you are concerned about lead in your water, you may wish to have your water tested by a private lab. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from US EPA Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Unregulated contaminant monitoring helps EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2022. These revisions add the requirements of the federal Revised Total Coliform Rule, 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 microbes (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 Revised Total Coliform Rule became effective July 1, 2021.