



2024

WATER QUALITY REPORT

BAKERSFIELD DISTRICT

City of Bakersfield's
Domestic Water System

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

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California Water Service (Cal Water) and the City of Bakersfield's Water Resources Department are committed to providing safe, clean, reliable water to our customers and communities, 24 hours per day, 7 days per week, 365 days per year. We treat the water to make it safe to use and drink, test it to confirm it meets all standards, and stay on top of emerging water quality regulations, focusing on your water so you don't have to. As regulations become more stringent, we prepare early and will add or adjust treatment as needed to confirm that the water we deliver continues to meet or surpass all standards—because protecting our customers' health and safety is our highest priority.

IN THIS SYSTEM IN 2024, WE CONDUCTED 57,645 TESTS ON 9,948 WATER SAMPLES FOR 245 CONSTITUENTS. WE ARE PLEASED TO CONFIRM THAT WE MET EVERY PRIMARY AND SECONDARY FEDERAL AND STATE WATER QUALITY STANDARD LAST YEAR.

But, our promise to provide quality, service, and value means more than just treating and testing water. It means maintaining and upgrading the water system infrastructure needed to transport water from its source through a vast network of pumps, tanks, and pipes to your tap. It means having expert professionals available both to assist with routine services safely and efficiently, and to handle emergencies that could arise in the middle of the night. It also means that, even as costs keep increasing nationwide, we do everything we can to operate as efficiently as possible to keep your water service affordable.

I encourage you to read this year's local water quality report, formally called your Consumer Confidence Report. It details any constituents detected in your water supply in 2024 and shows how your water compares to federal and state standards. It also provides information on current hot topics and steps we take to protect your health and safety.

If you have any questions, we are here to help. You can contact your local office by phone or by using the Contact Us form at www.calwater.com. You can also get water service news on our web site, in your monthly bill, and via our Facebook, X, and Instagram pages. Please also keep your contact information up to date by visiting ccu.calwater.com or myaccount.calwater.com so you can receive emergency and other important information.

Sincerely,
Rafael Molina, District Manager, Bakersfield District
Kris Budak, Water Resources Director, City of Bakersfield

Bakersfield District
3725 South H Street
Bakersfield, CA 93304
(661) 837.7200

ACTION ITEMS

There were no significant issues in your water system in 2024, and we have no recommended action items for our customers in this area.



YOUR WATER SYSTEM

YOUR WATER

Cal Water began providing high-quality water utility services for the City of Bakersfield's Domestic Water System in 1976. In partnership with the City of Bakersfield, we meet customers' needs using a combination of local groundwater produced by 57 active wells (treated where necessary to improve taste and odor), surface water from the Kern River (treated with highly advanced membrane filtration), and treated water purchased from the Kern County Water Agency.

Our company-wide water quality assurance program includes vigilant monitoring throughout our systems and testing at our state-of-the-art laboratory. Additionally, we proactively maintain and upgrade facilities to provide a reliable, high-quality supply. Together, we are evaluating treatment technologies to bring wells back online, and we have plans to construct three new wells.

CHLORINATION

Chlorination is the addition of chlorine to drinking water systems. It is the most common type of drinking water disinfection, killing bacteria, viruses, and other microorganisms that cause disease or immediate illness. Chlorine is effective and continues to keep water safe as it travels through pipes to consumers.

USING WATER WISELY

Whether in wet or dry years, it's important that we make saving water every day a way of life. Using water wisely will ensure that we have enough water in periods of drought and for generations to come.

Cal Water has a robust water conservation program to support our customers' efforts to save water every day. Visit www.calwater.com/conservation for details.

If you have any questions or concerns, please contact our local office by phone at (661) 837-7200 or through the Contact Us link at www.calwater.com.

THE WATER QUALITY LAB

Water professionals collect samples from throughout the water system for testing at our recently upgraded, state-of-the-art water quality laboratory, which is certified each year through the stringent Environmental Laboratory Accreditation Program (ELAP).

Our laboratory team tests the water for 326 constituents with equipment so sensitive it can detect levels as low as one part per trillion. In order to maintain the ELAP certification, all of our scientists must pass blind-study proficiency tests for every water quality test performed. Water quality test results are entered into our Laboratory Information Management System (LIMS), a sophisticated software program that enables us to react quickly to changes in water quality and analyze water quality trends in order to plan effectively for future needs.

CROSS-CONNECTION CONTROL

Cal Water has a robust cross-connection control program that protects the high-quality water we deliver. Cross-connection control is critical to making sure that activities on customers' properties do not affect the public water system. Our certified cross-connection control specialists confirm that all the existing backflow prevention assemblies are tested annually, identify the risk posed by service connections, and enforce and manage the installation of new commercial and residential assemblies.

Backflow is the undesired or unintended reversal of flow of water and/or other liquids, gases, or other substances into the public water supply. Backflow can occur when certain pressure conditions exist within the public water system or a customer's plumbing, so our customers are our first line of defense to prevent it. A minor home improvement project—without the proper protections—can create a potentially hazardous situation, so careful adherence to plumbing codes and standards will ensure the community's water supply remains safe. Please be sure to utilize the advice or services of a qualified plumbing professional.

Many water-use activities involve substances that, if allowed to enter the distribution system, would be aesthetically displeasing or could even present health concerns.

Some common cross-connections are:

- Garden hoses connected to a hose bib without a simple hose-type vacuum breaker (available at a home improvement store).
- Improperly installed toilet tank fill valves that do not have the required air gap between the valve or refill tube.
- Landscape irrigation systems that do not have the proper backflow prevention assembly installed on the supply line.

The list of materials that could potentially contaminate the water system is vast. According to the United States Environmental Protection Agency (EPA), a wide variety of substances have contaminated drinking water systems throughout the country because of poor cross-connection control. Examples include:

- Antifreeze from a heating system.
- Lawn chemicals from a garden hose or sprinkler head.
- Blue water from a toilet tank.
- Carbonated water from a soda dispenser.

Customers must check that all plumbing is in conformance with local plumbing codes. Additionally, state law requires certain types of facilities to install and maintain backflow prevention assemblies at the water meter. Cal Water's cross-connection control staff will determine whether you need to install a backflow prevention assembly based on water use at your location.

By the end of 2002, Cal Water had submitted to the Division of Drinking Water (DDW) a Drinking Water Source Assessment and Protection Program (DWSAPP) report for each water source in the water system. The DWSAPP report identifies possible sources of contamination to aid in prioritizing cleanup and pollution prevention efforts. All reports are available for viewing or copying at our office.

We encourage customers to join us in our efforts to prevent water pollution and protect our most precious natural resource.

The water sources in the City of Bakersfield system are considered most vulnerable to:

- Agriculture
- Stormwater
- Wastewater
- Surface water (streams, lakes, rivers)
- Lumbering industries/retailers
- Wood treatment
- Paper production
- Metal plating/fabrication
- Photo processing
- Electrical/electronic manufacturing
- Large equipment storage yards
- Above- and underground storage tanks
- Drinking water treatment plants
- Parking lots/malls
- Research laboratories
- High-density housing
- Wells (water supply, agricultural, oil, gas, geothermal)
- Known contaminant plumes
- Parks
- Utility stations (maintenance areas)
- Chemical/petroleum industries
- Chemical/pesticide/fertilizer/petroleum storage
- Existing and historic gas stations
- Dry cleaners
- Dredging
- Automobile repair shops
- Artificial recharge projects (spreading basins)
- Sewer collection systems
- Storm drain discharge points
- High-density septic systems

YOUR 2024 RESULTS

FLUORIDE

State law requires Cal Water to add fluoride to drinking water if public funding is available to pay for it, and it is a practice endorsed by the American Medical Association and the American Dental Association to prevent tooth decay. In this area, low levels of fluoride occur naturally, and Cal Water doesn't add any to the water supply. Show the table in this report to your dentist to see if he or she recommends giving your children fluoride supplements.

WATER HARDNESS

Hardness is a measure of the magnesium, calcium, and carbonate minerals in the water. Water is considered soft if its hardness is less than 75 parts per million (ppm), moderately hard at 75 to 150 ppm, hard between 150 and 300 ppm, and very hard at 300 ppm or higher.

Hard water is generally not a health concern, but it can have an impact on how well soap lathers and is significant for some industrial and manufacturing processes. Hard water may also lead to mineral buildup in pipes or water heaters.

Some people with hard water opt to buy a water softener for aesthetic reasons; however, some water softeners add salt to the water, which can cause problems at wastewater treatment plants. Additionally, people on low-sodium diets should be aware that some water softeners increase the sodium content of the water.

For more information on water hardness, visit www.calwater.com/video/hardness.

More information about fluoridation, oral health, and related issues can be found on the [DDW web site](http://www.calwater.com).

For general information on water fluoridation, visit us online at www.calwater.com.



POSSIBLE CONTAMINANTS

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 at (800) 426-4791.

The sources of drinking water (both tap and bottled) include rivers, lake, 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 human activities. Prior to entering the distribution system, source water with constituents over maximum contaminant levels is treated to reduce levels to meet standards set by public health experts.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which 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, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic compounds, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems.
- Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

In order to keep tap water safe to drink, the EPA and DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, and those with HIV/AIDS or other immune system disorders; some elderly people; and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water contaminants. EPA and Centers for Disease Control and Prevention (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.

As the issue of lead in water continues to be top of mind for many Americans, Cal Water wants to assure you about the quality of your water. We are compliant with health and safety codes mandating use of lead-free materials in water system replacements, repairs, and new installations. We have no known lead service lines in our systems. We test and treat (if necessary) water sources to confirm that the water delivered to customer meters meets all water quality standards and is not corrosive toward plumbing materials.

The water we deliver to your home meets lead standards. However, 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 (for example, lead solder used to join copper plumbing, and brass and other lead-containing fixtures).

Cal Water is responsible for providing high-quality drinking water to our customers' meters, but cannot control the variety of materials used in properties' plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested by a certified lab. More information about lead in drinking water can be found through the Safe Drinking Water Hotline (1-800-426-4791) or at www.epa.gov/safewater/lead.

TESTING FOR LEAD IN SCHOOLS

The State of California required that all public schools built before 2010 test for lead in their drinking water. We are committed to supporting our school districts' efforts to protect students and confirm that the drinking water at their school sites are below regulatory limits. We completed those tests, working with all school districts in our service area that serve kindergarten through 12th grade to develop sampling plans, test samples, and conduct follow-up monitoring, if needed, for corrective actions. The state will require us to retest most schools beginning in 2027.

Please see our [Testing for Lead in Schools](#) web page for more information. For specific information regarding local school data, see the [state web portal lead sampling in schools page](#).

LEAD AND COPPER RULE

The Lead and Copper Rule requires us to test water inside a representative number of homes that have plumbing most likely to contain lead and/or lead solder to determine the presence of lead and copper or any action

level exceedance. An action level is the concentration of a contaminant which, when exceeded, triggers corrective actions before it becomes a health concern. If action levels are exceeded, either at a customer's home or system-wide, we work with the customer to investigate the issue and/or implement corrosion control treatment to reduce lead levels.

LEAD SERVICE LINE INVENTORY (LSLI)

Protecting our customers' health and safety is our highest priority. As part of this commitment, we have been working to identify any old water service lines and fittings that may contain lead so that customers can make necessary replacements. This effort complies with EPA's 2021 Lead and Copper Rule Revisions, which require that public water systems comply with the regulations starting on October 16, 2024. These requirements include an initial service line inventory. You can find a list of maps that provide details of our ongoing service line inventory at www.calwater.com/lsl.

In your system, results from our lead monitoring program, conducted in accordance with the Lead and Copper Rule, were below the action level for the presence of lead.

In April 2024, the EPA finalized a National Primary Drinking Water Regulation (NPDWR) for six PFAS in drinking water):

- MCL of 4 ppt for PFOS and PFOA.
- MCL of 10 ppt for PFHxS, PFNA, and GenX.
- Hazard Index of 1.0 combined for PFHxS, PFNA, PFBS, and GenX.

Water systems must begin monitoring for these PFAS within three years (2027), and must comply with the regulation within five years (2029).

At Cal Water, protecting our customers' health and safety is our highest priority, and we are committed to complying with all requirements set by the public health experts. We had prepared for the EPA regulation and its potential impact on—and any treatment needed in—our systems, and had already evaluated the impact of the proposed regulation so that we were prepared to comply with the final MCLs.

We also have protocols to test our water sources for compliance with the new MCLs. We have long followed recommendations from DDW, and even went beyond by testing every active source in our California systems years ago. Although not required at the time, we believed it was the right thing to do. In any cases across our service areas where detections were above the levels at which state public health experts have recommended water suppliers take action (the previous response level), we took the affected sources out of service until treatment was/could be installed.

Our active water sources are in compliance with current California response levels, based on the running annual average at each site. The response level, which is the level at which a water system should make operational changes to reduce the concentration of a compound, is set with a margin of protection for all people (including sensitive populations) over a lifetime of exposure.

Additionally, we believe a comprehensive approach is needed to properly address the situation. We urged the EPA to establish a consistent, science-based standard as quickly as feasible, and strongly supported state legislation that will prohibit the sale and use of certain products that contain PFAS, require the certification of accurate testing methods for PFAS, and establish a publicly accessible database that houses the sources of PFAS entering water supplies. We have also filed lawsuits to hold PFAS manufacturers responsible—and ultimately prevent our customers from bearing the costs of treatment, to the extent possible—and are pursuing grants where available to further offset customer cost impacts.

As background, PFAS are manmade compounds that have been used to make carpets, clothing, fabrics for furniture, paper packaging for food, and other materials (e.g., cookware) that are resistant to water, grease, or stains. These compounds are also used for firefighting at airfields, which is one way they have found their way into groundwater in certain areas.

Studies indicate that long-term exposure to PFAS over certain levels could have adverse health effects, including developmental effects to fetuses during pregnancy or infants; cancer; or impacts on liver, immunity, thyroid, and other functions. Potential health effects related to PFAS are still being studied, and research is still evolving on this issue.

**More information on
PFAS is available
on the DDW web site.**

IN COMPLIANCE: Does not exceed any applicable MCL, SMCL, or action level, as determined by DDW. For some compounds, compliance is determined by averaging the results for one source over a one-year period.

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 the 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 the system on multiple occasions.

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 (SMCLs) 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.

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.

NOTIFICATION LEVEL (NL) AND RESPONSE LEVEL (RL): Health-based advisory levels for unregulated contaminants in drinking water. They are used by DDW to provide guidance to drinking water systems.

PRIMARY DRINKING WATER STANDARDS (PDWS): MCLs, MRDLs, and TTs for contaminants that affect health along with their monitoring, reporting, 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 without regard to technological or economic feasibility.

REGULATORY ACTION LEVEL (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

TREATMENT TECHNIQUE (TT): A required process intended to reduce the level of a contaminant in drinking water.

VARIANCES AND EXEMPTIONS: Permissions from the State Board to exceed an MCL or not comply with a TT under certain conditions.

STANDARD ABBREVIATIONS

AL	Action level
Max	Maximum
MFL	Million fibers per liter
Min	Minimum
N/A	Not applicable
ND	Contaminant not detected
NL	Notification level
NTU	Nephelometric turbidity unit
pCi/L	Picocuries per liter (a measure of radiation)
ppb	Parts per billion or micrograms per liter (µg/L)
ppm	Parts per million or milligrams per liter (mg/L)
ppq	Parts per quadrillion or picogram per liter (pg/L)
ppt	Parts per trillion or nanograms per liter (ng/L)
RAA	running annual average
µS/cm	Microsiemens/centimeter

Every year, Cal Water performs hundreds of thousands of tests to monitor the quality of our water. If any contaminants are detected, they are included in this annual water quality report. However, most of the contaminants we test for are not detected, so they are not listed.

See the [Potential Contaminants web page](#) for a complete list of contaminants we test for.

In the table, water quality test results are divided into four major sections: “Primary Drinking Water Standards,” “Secondary Drinking Water Standards,” “State-Monitored Contaminants with Notification Levels,” and “Unregulated Compounds.” Primary standards protect public health by limiting the levels of certain constituents in drinking water. Secondary standards are set for substances that don’t impact health but could affect the water’s taste, odor, or appearance. Some unregulated substances (hardness and sodium, for example) are included for your information. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

SUBSTANCE SOURCES

BB	Major biodegradation byproduct of TCE and PCE groundwater contamination	IA	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent; byproduct of production of other compounds and pesticides
BN	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit	IC	Internal corrosion of household plumbing systems
CF	Discharge from industrial chemical factories	IM	Discharge from industrial manufacturers
DI	Byproduct of drinking water disinfection	IO	Substances that form ions when in water
DS	Drinking water disinfectant added for treatment	IW	Industrial waste
EN	Naturally present in the environment	MD	Discharge from metal-degreasing sites and other factories
ER	Erosion of natural deposits	MF	Discharge from metal factories
EX	Extraction and degreasing solvent; used in manufacture of pharmaceuticals and stone, clay, and glass products; fumigant	OC	Runoff from orchards; glass and electronics production waste
FD	Discharge from factories, dry cleaners, and auto shops (metal degreaser)	OD	Discharges of oil-drilling waste and from metal refineries
FE	Human and animal waste	OM	Naturally occurring organic materials
FL	Water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	RU	Runoff/leaching from natural deposits
FR	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage	RS	Residue from some surface water treatment processes
		SO	Soil runoff
		SW	Seawater influence
		VA	Various natural and manmade sources
		WD	Leaching from wood preservatives
		UR	Unregulated constituents with no source listed and that do not have standardized “source of substance” language

Our testing equipment is so sensitive, it can detect constituents as small as 1 part per trillion. That is equivalent to 1 inch over 15 million miles.

2024 WATER QUALITY

PRIMARY DRINKING WATER STANDARDS

Microbiological	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Distribution System-Wide						Source
						Highest Monthly						
Fecal coliform and E. coli ¹	2024	Positive Samples	0	(0)	Yes	0						FE
Radiological	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		Surface Water		KCWA ²		Source
						Range	Average	Range	Average	Range	Average	
Gross alpha particle activity	2017–2024	pCi/L	15	(0)	Yes	ND–11	ND	ND	ND	1.33–1.33	1.33	ER
Radium 228	2017–2024	pCi/L	N/A	0.019	Yes	ND–1.1	ND	ND	ND	ND	ND	ER
Uranium	2017–2024	pCi/L	20	0.43 (0)	Yes	ND–7.8	1.7	4.4–4.4	4.4	ND	ND	ER
Inorganic Chemicals	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		Surface Water		KCWA		Source
						Range	Average	Range	Average	Range	Average	
Aluminum	2021–2024	ppb	200	600	Yes	ND–120	2.5	ND	ND	ND–140	91	ER, RS
Arsenic	2021–2024	ppb	10	0.004 (0)	Yes	ND–7.27	ND	ND	ND	ND	ND	ER, OC
Barium	2021–2024	ppm	1	2 (2)	Yes	ND–0.10	ND	ND	ND	ND	ND	ER, OD
Hexavalent chromium ³	2017–2024	ppb	10	0.02	Yes	ND–2.0	0.94	ND	ND	ND	ND	ER, IM
Fluoride	2016–2024	ppm	2	1 (4.0)	Yes	ND–0.56	ND	0.20	0.20	ND–0.20	0.13	ER, FL
Nickel	2021–2024	ppb	100	12	Yes	ND–21	ND	ND	ND	ND	ND	ER, MF
Nitrite as N	2016–2024	ppm	1	1 (1)	Yes	ND–0.45	ND	ND	ND	ND	ND	ER, FR
Nitrate as N	2016–2024	ppm	10	10 (10)	Yes	ND–3.8	1.4	ND	ND	ND–0.63	0.18	ER, FR
Perchlorate	2018–2024	ppm	6	1	Yes	ND	ND	ND	ND	2	2	IM

¹ Exceeds if routine sample and a repeat sample are both total coliform-positive, and one of these is also E. coli-positive; 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.

² Parts of the system's water supply is purchased from the Kern County Water Agency (KCWA) and Cal Water's North Garden (BKNG) system. The water provided by KCWA may have ND for some contaminants. For these instances, we put "N/A" as the data was not provided. A comprehensive report for BKNG is completed separately and available for review.

³ While your drinking water meets the federal total chromium and state hexavalent chromium standards, it does contain low levels. Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.

Contaminants not detected (ND) are not listed.

2024 WATER QUALITY

						Distribution System-Wide						
Lead and Copper	Year Tested	Unit	AL	PHG (MCLG)	In Compliance	90 th Percentile		Samples > AL			Source	
Copper	2022	ppm	1.3	0.3	Yes	0.002		0 of 50			IC, ER, WD	
Lead	2022	ppb	15	0.2	Yes	0.14		0 of 50			IC, IM, ER	
Synthetic Organic Contaminants (SOCs) Including Pesticides and Herbicides	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		Surface Water		KCWA		Source
						Range	Average	Range	Average	Range	Average	
1,2,3-Trichloropropane (TCP) ¹	2019–2024	ppt	5	0.07	Yes	ND–10	ND	ND	ND	ND	ND	IA
Dibromochloropropane	2017–2024	ppt	200	1.7 (0)	Yes	ND–57	ND	ND	ND	ND	ND	BN
Volatile Organic Compounds	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		Surface Water		KCWA		Source
						Range	Average	Range	Average	Range	Average	
1,1-Dichloroethane	2016–2024	ppb	5	3	Yes	ND–0.74	ND	ND	ND	ND	ND	EX
1,1-Dichloroethylene	2016–2024	ppb	6	10 (7)	Yes	ND–1.2	ND	ND	ND	ND	ND	CF
cis-1,2-Dichloroethylene	2016–2024	ppb	6	13 (70)	Yes	ND–0.70	ND	ND	ND	ND	ND	CF, BB
Tetrachloroethylene (PCE)	2016–2024	ppb	5	0.06 (0)	Yes	ND–1.6	ND	ND	ND	ND	ND	FD
Trichloroethylene (TCE)	2016–2024	ppb	5	1.7 (0)	Yes	ND–0.51	ND	ND	ND	ND	ND	MD
Disinfection Byproducts	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Distribution System-Wide						Source
						Range		Highest Annual Average				
Total haloacetic acids (THAA)	2024	ppb	60	N/A	Yes	ND–44		28			DI	
Total trihalomethane (TTHM)	2024	ppb	80	N/A	Yes	ND–57		49			DI	
Disinfectants	Year Tested	Unit	MRDL	MRDLG	In Compliance	Distribution System-Wide						Source
						Range		Average				
Free chlorine	2024	ppm	4	4	Yes	0.50–2.7		1.3			DS	

¹ A groundwater sample point at a treated site was over the MCL for TCP, and follow-up action was taken to optimize treatment. However, compliance is based on a four-quarter average. The annual average for TCP is less than the MCL and meets the standard. Some people who drink water containing TCP in excess of the MCL over many years may have an increased risk of getting cancer.

Contaminants not detected (ND) are not listed.

2024 WATER QUALITY

Surface Water—Turbidity and TOC	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Surface Water		KCWA		Source
						Highest Level	Lowest Monthly Percent/Removal Ratio	Highest Level	Lowest Monthly Percent/Removal Ratio	
Turbidity ¹	2024	NTU	TT	N/A	Yes	0.057	100%	0.07	100%	SO
Total organic carbon (TOC) ²	2024	ppm	TT	N/A	Yes	1.6	1.16	2.2	1.7	VA

¹ For surface water systems, the TT dictates that the turbidity level of the filtered water be less than or equal to 0.1 NTU in 95% of measurements taken each month and not exceed 1 NTU at any time. Turbidity is a measurement of cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

² TOC has no health effects; however, TOC provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes and haloacetic acids. The TT dictates that a removal ratio of 1 or higher must be achieved. Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects such as liver, kidney, or nervous system problems, and may lead to an increased risk of cancer. Concerns regarding disinfection byproducts are based upon exposure over many years.

Contaminants not detected (ND) are not listed.

2024 WATER QUALITY

SECONDARY DRINKING WATER STANDARDS

Contaminants	Year Tested	Unit	SMCL	PHG (MCLG)	In Compliance	Groundwater		Surface Water		KCWA		Source
						Range	Average	Range	Average	Range	Average	
Aluminum	2021–2024	ppb	200	600	Yes	ND–120	2.5	ND	ND	ND–140	91	ER, RS
Chloride	2016–2024	ppm	500	N/A	Yes	8.2–370	28	7.4–7.4	7.4	6.51–116	34.4	RU, SW
Color, apparent	2016–2024	CU	15	N/A	Yes	ND–5	1.8	ND	ND	N/A	N/A	OM
Specific conductance ¹	2016–2024	µS/cm	1600	N/A	Yes	180–2400	346	160–160	160	145–684	303	SW, IO
Copper	2021–2024	ppm	1	0.3	Yes	ND–0.69	ND	ND	ND	N/A	N/A	IC, ER, WD
Iron	2016–2024	ppb	300	N/A	Yes	ND–45	ND	ND–270	170	ND–0.22	0.08	RU, IW
Manganese ²	2021–2024	ppb	50	N/A	Yes	ND–29	ND	ND–95	43	N/A	N/A	RU
Sulfate ³	2016–2024	ppm	500	N/A	Yes	11–690	38	9.8–9.8	9.8	17.9–60.6	32.4	RU, IW
Total dissolved solids ⁴	2016–2024	ppm	1000	N/A	Yes	32–1500	211	110–110	110	81–365	169	RU
Turbidity (groundwater)	2016–2024	NTU	5	N/A	Yes	ND–4.7	0.78	0.20–0.20	0.20	ND–0.25	0.17	SO
Zinc	2021–2024	ppm	5	N/A	Yes	ND–0.08	ND	0.15–0.19	0.17	ND–0.07	0.02	RU, IW

¹ A sample in the City of Bakersfield system exceeded the SMCL for specific conductance (1600 US). Compliance with the SMCL is based on an RAA, and the current RAA remains below the SMCL. We are actively monitoring the levels to confirm continued compliance. The SMCL was set to protect you against unpleasant aesthetic effects, such as color, taste, odor, and the staining of plumbing fixtures and clothing when washed. Exceeding the SMCL does not pose a health risk.

² A surface water sample in the City of Bakersfield exceeded the SMCL for manganese (50 ppb); however, the finished water sample from the surface water treatment plant tested ND. Compliance with the SMCL is based on an RAA, and the current RAA remains below the SMCL. We are actively monitoring the levels to confirm continued compliance. The SMCL was set to protect you against unpleasant aesthetic effects, such as color, taste, odor, and the staining of plumbing fixtures and clothing when washed. Exceeding the SMCL does not pose a health risk.

³ A sample in the City of Bakersfield system exceeded the SMCL for sulfate (500 ppm). Compliance with the SMCL is based on an RAA, and the current RAA remains below the SMCL. We are actively monitoring the levels to confirm continued compliance. The SMCL was set to protect you against unpleasant aesthetic effects, such as color, taste, odor, and the staining of plumbing fixtures and clothing when washed. Exceeding the SMCL does not pose a health risk.

⁴ A sample in the City of Bakersfield system exceeded the SMCL for total dissolved solids (1000 ppm). Compliance with the SMCL is based on an RAA, and the current RAA remains below the SMCL. We are actively monitoring the levels to confirm continued compliance. The SMCL was set to protect you against unpleasant aesthetic effects, such as color, taste, odor, and the staining of plumbing fixtures and clothing when washed. Exceeding the SMCL does not pose a health risk.

Contaminants not detected (ND) are not listed.

STATE-REGULATED CONTAMINANTS WITH NOTIFICATION LEVELS

Contaminants	Year Tested	Unit	NL	PHG (MCLG)	In Compliance	Groundwater		Surface Water		KCWA		Source
						Range	Average	Range	Average	Range	Average	
Boron	2016–2024	ppm	1	N/A	Yes	ND–0.31	0.14	ND–0.14	ND	0.11–0.11	0.11	UR
Perfluorobutanesulfonic acid (PFBS)	2020–2024	ppt	500	N/A	Yes	ND–2.3	0.03	ND	ND	N/A	N/A	UR
Perfluorhexanesulfonic acid (PFHxS) ¹	2020–2024	ppt	3	N/A	Yes	ND–7.3	0.16	ND	ND	N/A	N/A	UR
Perfluorooctanesulfonic acid (PFOS) ¹	2020–2024	ppt	6.5	N/A	Yes	ND–8.9	ND	ND	ND	N/A	N/A	UR
Vanadium	2016–2024	ppb	50	N/A	Yes	ND–21	5.8	ND	ND	N/A	N/A	UR

¹ Per- and polyfluoroalkyl substances (PFAS) are a broad class of chemicals, which includes perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), perfluorobutanesulfonic acid (PFBS), and perfluorohexanesulfonic acid (PFHxS). NLs have been established for these four compounds. NLs are non-regulatory, health-based advisory levels established for constituents that may be candidates for regulation in the future. Studies indicate that long-term exposure to PFOS/PFOA/PFHxS over certain levels could have adverse health effects, including developmental effects to fetuses during pregnancy or breastfed infants; cancer; or liver, immunity, thyroid, and other effects. Cal Water is working closely with DDW and EPA to conduct extensive monitoring and identify the best available treatment technology for treatment of PFAS.

Contaminants not detected (ND) are not listed.

2024 WATER QUALITY

UNREGULATED COMPOUNDS AND UNREGULATED CONTAMINANT MONITORING RULE (UCMR)

Constituents	Year Tested	Unit	MCL	PHG (MCLG)	In Compliance	Groundwater		Surface Water		KCWA		Source
						Range	Average	Range	Average	Range	Average	
Alkalinity (total)	2016–2024	ppm	N/A	N/A	N/A	15–160	81	40–78	59	40–66	53	UR
Bromochloroacetic acid	2020	ppb	N/A	N/A	N/A	ND–2.4	1.0	ND	ND	N/A	N/A	UR
Bromodichloroacetic acid	2020	ppb	N/A	N/A	N/A	ND–3.6	1.3	ND	ND	N/A	N/A	UR
Calcium	2016–2024	ppm	N/A	N/A	N/A	2.9–250	34	12–19	14	10.4–22.1	15.6	UR
Chlorodibromoacetic acid	2020	ppb	N/A	N/A	N/A	ND–0.56	0.17	ND	ND	N/A	N/A	UR
Germanium	2020	ppb	N/A	N/A	N/A	ND–3.8	ND	ND	ND	N/A	N/A	UR
Haloacetic acids five	2020	ppb	N/A	N/A	N/A	ND–2.6	ND	ND	ND	N/A	N/A	UR
Haloacetic acids six brominated	2020	ppb	N/A	N/A	N/A	ND–6.2	2.6	ND	ND	N/A	N/A	UR
Haloacetic acids nine	2020	ppb	N/A	N/A	N/A	ND–33	15	ND	ND	N/A	N/A	UR
Hardness (total)	2016–2024	ppm	N/A	N/A	N/A	7.5–620	92	38–59	45	35.5–117	61.9	UR
Potassium	2016–2024	ppm	N/A	N/A	N/A	ND–2.4	0.76	ND–2.2	1.3	1.61–4.43	2.59	UR
Lithium	2023–2024	ppb	N/A	N/A	N/A	ND	ND	14–15	15	N/A	N/A	UR
Magnesium	2016–2024	ppm	N/A	N/A	N/A	ND–8.0	2.2	2.0–3.3	2.5	1.80–14.9	5.54	UR
Sodium	2016–2024	ppm	N/A	N/A	N/A	ND–274	38	11–18	14	13.4–80.4	32.4	UR
Perfluorodecanoic acid (PFDA)	2020–2024	ppt	N/A	N/A	N/A	ND–3.6	0.04	ND	ND	N/A	N/A	UR
Perfluorononanoic acid (PFNA)	2020–2024	ppt	N/A	N/A	N/A	ND–4.8	0.04	ND	ND	N/A	N/A	UR
Perfluoropentanoic acid	2023–2024	ppt	N/A	N/A	N/A	ND–3.1	0.02	ND	ND	N/A	N/A	UR
Perfluoropentanesulfonic acid	2023–2024	ppt	N/A	N/A	N/A	ND–2.4	0.03	ND	ND	N/A	N/A	UR
pH	2016–2024	Units	N/A	N/A	N/A	6.3–9.5	8.0	7.8–8.3	8.0	7.18–7.40	7.30	UR

Contaminants not detected (ND) are not listed.

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