2025 Consumer Confidence Report

Water System Information

Water System Name: **Castle Airport (CA2410700)**

Report Date: **June 19, 2026**

Type of Water Source(s) in Use: **Groundwater**

Name and General Location of Source(s): **Two wells located at Castle Airport, Well 10 & 12, which have depths of approximately 750 to 800 feet below ground.**

Drinking Water Source Assessment Information: **Drinking water source assessment was completed for Wells 10 and 12 by Merced County in 12/2002. There have been no contaminants detected in the water supply, however, the source is still considered vulnerable to Know Contaminant Plumes and Military Installation activities located near the drinking water source. Copies can be viewed at the State Water Resources Control Board, Merced District Office, 265 West Bullard Avenue, Suite 101, Fresno, CA 93704.**

Time and Place of Regularly Scheduled Board Meetings for Public Participation: **See the Merced County Board of Supervisors schedule: http://www.co.merced.ca.us/bos/index/html**

For More Information, Contact: **Tamra Spade, Deputy Director Economic Development, (209)385-7686**

About This Report

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2024, and may include earlier monitoring data.

Terms Used in This Report

Term	Definition
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water 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 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).

Term	Definition
Maximum Residual Disinfectant Level (MRDL)	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG)	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Primary Drinking Water Standards (PDWS)	MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
Public Health Goal (PHG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Secondary Drinking Water Standards (SDWS)	MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions	Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.
ND	Not detectable at testing limit.
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter (µg/L)
ppt	parts per trillion or nanograms per liter (ng/L)
ppq	parts per quadrillion or picogram per liter (pg/L)
pCi/L	picocuries per liter (a measure of radiation)

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

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

About Your Drinking Water Quality

Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, 6, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Table 1. Sampling Results Showing the Detection of Coliform Bacteria

Complete if bacteria are detected.

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
E. coli	(2025) 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

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

Lead and Copper	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	Range of Results	AL	PHG	Typical Source of Contaminant
Lead (ppb)	**09/14/2023**	**10**	**0.0069**	**0**	**09/14/2023**	15	0.2	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	**09/14/2023**	**10**	**0.14**	**0**	**09/14/2023**	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Table 3. Sampling Results for Sodium and Hardness

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	**9/18/2025**	**Well 10: 22 Well 12: 23**	**22-23**	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	**6/22/2023**	**69**	**67-71**	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 Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Chlorine (mg/L)-Distribution	Monthly	0.89	0.34-1.40	4.0		Byproduct of drinking water disinfection
Aluminum (mg/L)	9/29/2022	0.1	0.1	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Gross Alpha Particle Activity (pCi/L)	10/14/2016	ND	ND	15	(0)	Erosion of natural deposits
Uranium (pCi/L)	3/19/2008	1.04	1.02-1.07	20	0.43	Erosion of natural deposits
Combined Radium 226 & 228 (pCi/L)	3/19/2008	0.844	0.774-0.913	5	(0)	Erosion of natural deposits

Arsenic (ppm) Wells	3/20/2024	4.7	4.7	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)-Wells	3/20/2024	0.17	.17	1	2	Discharge of oil drilling wastes and from metal
Hexavalent Chromium (ppb)- Wells	11/19/2024	4.6	4.6	10	0.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.
Nitrate (ppm)-Wells	4/21/2025	3.7	2.7-4.7	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Copper, Free (mg/L) -	9/18/2025	.0088	.0088	AL=1.3		Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride mg/L	3/20/2024	.12	.12	2		Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Tetrachloroethylene (PCE) (µg/L)-Well 10	4/21/2025 10/21/2025	1.55	1.4-1.7	5	0.06	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
Lead (µg/L)	9/29/2022	0.63		AL = 15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Table 5. Detection of Contaminants with a Secondary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Turbidity (NTU)-Well 10	9/18/2025	2.3	2.3	5		Soil runoff
Total Dissolved Solids (TDS) (ppm)	6/22/2023	230	220-240	1000		Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	9/18/2019	279	274-283	1600		Substances that form ions when in water; seawater influence
Chloride (ppm)-Wells	6/22/2023	8.25	7.1-9.4	500		Runoff/leaching from natural deposits; seawater influence
Color-Wells	3/20/2025	5	5	15 Units	15 Units	Naturally-occurring organic materials
Iron(ug/L) – Well 10	9/18/2025	440*	440*	0.3 mg/L	300 µg/L	Leaching from natural deposits; industrial wastes
Manganese(ug/L) – Well 10	9/18/2025	27	27	0.05 mg/L	50 µg/L	Leaching from natural deposits
Sulfate (ppm)-Wells	6/22/2023	7.05	5.4-8.7	500		Runoff/leaching from natural deposits; industrial wastes
Zinc	9/18/2019	0.0645	ND-0.129	500		Runoff/leaching from natural deposits; industrial wastes
TTHMs (Total Trihalomethanes) (ppb) – Distribution	6/16/2026	3.10	3.10		80	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
Magnesium (mg/L)-Wells	6/22/2023	4.45	4.3-4.6	500 µg/L	Manganese exposures resulted in neurological effects. High levels of manganese in people have been shown to result in adverse effects to the nervous system.
Potassium (mg/L)-Wells	9/29/2022	7.65	6.9-8.4		
Bromoform (ug/L) - Distribution	6/16/2025	2.20	2.20		
Conductivity-Wells	6/22/2023	205	190-220		
Dibromochloromethane (ug/L) - Distribution	6/16/2025	.86	.86		
1,2-Dichlorobenzene-d4 (MPN)	6/22/2023	1.89	1.89		
2,3-Dibromopropionic Acid (MPN)	6/22/2023	34.9	34.9		
2,3-Dibromopropionic Acid (MPN)	6/22/2023	1.86	1.86		
Adsorbable Organic Fluorine (NG/L) – Well 10	8/26/2025	580	580	300	
Perfluorobutane sulfonic acid (PFBS) – Well 10	8/26/2025	29	29	500 ng/L	Perfluorobutane sulfonic acid exposures resulted in decreased thyroid hormone in pregnant female mice.
Perfluorobutanoic acid (PFBA) (ppt) – Well 10	8/26/2025	18	18	5 ng/L	
Perfluoroctane Sulfonic Acid (PFOS) (ppt) – Well 10	8/26/2025	87	87	6.5 ng/L	Perfluorooctanesulfonic acid exposures resulted in immune suppression and cancer in laboratory animals.
Perfluoroctainoic Acid (POFA) (ppt) - Well 10	8/26/2025	75	75	5.1 ng/L	Perfluorooctanoic acid exposures resulted in increased liver weight and cancer in laboratory animals.
Perfluoroheptane sulfonic Acid (PFHPS) (ppt) – Well 10	8/26/2025	4.8	4.8	3 ng/L	
Perfluoroheptanoic Acid (PFHPA) (ppt) – Well 10	8/26/2025	23	23	3 ng/L	
Perfluorohexane Sulfonic Acid (PFHxS) (ppt) – Well 10	8/26/2025	140	140	3 ng/L	Perfluorohexane sulfonic acid exposures resulted in decreased total thyroid hormone in male rats.
Perfluorohexanoic Acid (PFHXA) (ppt) – Well 10	8/26/2025	87	87	3 ng/L	
Perfluoroctane Sulfonic Acid 6:2 FTS (ppt) – Well 10	8/26/2025	31	31	4 ng/L	
Perfluoropentanesulfonic Acid (PFPES) (ppt) – Well 10	8/26/2025	24	24	4 ng/L	
Perfluoropentanoic Acid (PFPEA) (ppt) – Well 10	8/26/2025	61	61	3 ng/L	

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language: 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. [NAME OF UTILITY] is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact [NAME OF UTILITY and CONTACT INFORMATION]. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at *http://www.epa.gov/safewater/lead*.