



PALMDALE WATER DISTRICT

A CENTURY OF SERVICE

Annual Consumer Confidence Report

2024 Results

Our mission is to provide high-quality water to our current and future customers at a reasonable cost.

Questions or comments on the contents of this report are encouraged. Please contact Operations Manager Joe Marcinko at 661-947-4111 x1185 or Water Quality & Regulatory Affairs Supervisor Amanda Thompson at 661-947-4111 x1178, Monday through Thursday, 8 a.m. to 5 p.m.

ATTENCION RESIDENTES!

Esta publicación está disponible en español en nuestro sitio web en palmdalewater.org. Para obtener una copia impresa en español, visite nuestra oficina o llame al 661-947-4111.



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THE WATER QUALITY DATA CHART LISTS ALL DRINKING WATER CONTAMINANTS DETECTED DURING THE 2024 CALENDAR YEAR.

The presence of these contaminants in the water does not necessarily indicate the water poses a health risk. PWD tests for many contaminants in addition to those listed in the chart. Test results for these additional contaminants were all "Non-Detected" (ND) and are not required to be included in the chart. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. As a result, some of the data, though representative of the water quality, is more than one year old. Unless otherwise noted, the data presented in this chart is from testing performed January 1 to December 31, 2024.

Parameter	Regulation	Meets Standard?	MRL	Sample Frequency	Water Treatment Plant		PHG (MCLG)	Typical Source of Contaminant		
Filter Turbidity					Maximum Result					
Turbidity	TT = 1 NTU	Y	0.1	Continuous	0.1		NA	Soil Runoff		
	TT = 95% of monthly samples ≤ 0.3 NTU	Y	NA		100% ≤ 0.3 NTU					
Turbidity is a measure of the cloudiness of the water. We measure it because it is a good indicator of the effectiveness of our filtration system.										
Disinfection Byproduct Precursors										
Control of DBP Precursor (TOC)	TT = ratio of actual TOC removal to required TOC removal shall be ≥ 1	Y	NA	Monthly	2.0 - 3.3	2.7	NA	Various natural and man-made sources		
Parameter	Regulation or MCL	Meets Standard?	MRL	Sample Frequency	Distribution System		PHG (MCLG) [MRDLG]	Typical Source of Contaminant		
Microbiological					Highest Monthly Percentage					
Total Coliform Bacteria	TT = No more than 5.0% of monthly samples are positive	Y	NA	Weekly	0.8%		0	Naturally present in the environment		
Disinfectant Residual					Range	RAA				
Chlorine (as Cl ₂)	MRDL = 4.0 mg/L	Y	0.1	Weekly	0.4 - 1.9	1.2	[4]	Drinking water disinfectant added for treatment		
Disinfection Byproducts (DBPs)					Range	Highest LRAA				
TTHMs (Total Trihalomethanes)	80 µg/L	Y	1	Quarterly	ND - 75	59	NA	Byproduct of drinking water disinfection		
HAA5 (Sum of 5 Haloacetic Acids)	60 µg/L	Y	2	Quarterly	ND - 13	9				
Parameter	Regulation	Meets Standard?	DLR	Sample Frequency		Customer Taps		PHG	Typical Source of Contaminant	
Lead and Copper Rule				No. Samples		90th Percentile				
Lead	AL = 15 µg/L	Y	5	Triennially		50; none over AL		ND	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper	AL = 1.3 mg/L	Y	0.05	Triennially		50; none over AL		0.4	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Parameter	MCL	Meets Standard?	DLR	Sample Frequency Surface Water / Groundwater	Treated Surface Water Sampled in 2024		Groundwater Sampled in 2022-2024		PHG (MCLG)	Typical Source of Contaminant
					Range	Average	Range	Average		
Inorganic Chemicals										
Arsenic	10 µg/L	Y	2	Annually / Triennially	NA	ND	ND - 3	ND	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chromium (Total)	50 µg/L	Y	10	Annually / Triennially	NA	ND	ND - 20	ND	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Chromium (Hexavalent)	10 µg/L	Y	0.1	Annually / Triennially	NA	ND	0.5 - 9	4	0.02	Erosion of natural deposits; transformation of naturally occurring trivalent chromium to hexavalent chromium by natural processes and human activities such as discharges from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities
Fluoride (naturally occurring)	2.0 mg/L	Y	0.1	Quarterly/Quarterly	0.1 - 0.2	0.1	ND - 0.5	0.2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	10 mg/L	Y	0.4	Quarterly/Quarterly	NA	ND	ND - 7	2	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate	6 µg/L	Y	2	Annually/Annually	NA	ND	ND - 1	ND	1	Used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
Radioactivity										
Gross Alpha Particle Activity	15 pCi/L	Y	3	Varied ¹	NA	13	ND - 5	ND	0	Erosion of natural deposits
Uranium	20 pCi/L	Y	1	Varied ²	NA	ND	ND - 4	ND	0.43	Erosion of natural deposits

Parameter	MCL	Meets Standard?	DLR	Sample Frequency Surface Water / Groundwater	Treated Surface Water Sampled in 2024		Groundwater Sampled in 2022-2024		PHG (MCLG)	Typical Source of Contaminant
					Range	Average	Range	Average		
Inorganic Chemicals										
Chloride	500 mg/L	Y	5	Quarterly/ Quarterly	60 - 79	68	ND - 64	25	NA	Runoff; leaching from natural deposits; seawater influence
Odor-Threshold	3 units	Y	1	Weekly / Triennially	1 - 2	1	ND - 2	ND	NA	Naturally occurring organic materials
Specific Conductance	1600 µS/cm	Y	2	Annually / Triennially	NA	440	240 - 820	419	NA	Substances that form ions when in water; seawater influence
Sulfate	500 mg/L	Y	5	Quarterly/ Quarterly	19 - 30	26	10 - 101	38	NA	Runoff; leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	1000 mg/L	Y	10	Annually / Triennially	NA	250	150 - 470	251	NA	Runoff/leaching of natural deposits
Turbidity	5 units	Y	0.1	Annually / Triennially	NA	0.2	ND - 0.4	ND	NA	Soil Runoff
Additional Constituents Analyzed										
Vanadium	NL = 50 µg/L	Y	3	Annually / Triennially	NA	ND	8 - 48	18	NA	Erosion of natural deposits
Alkalinity	(NA) mg/L	NA	20	Weekly / Triennially	64 - 78	70	76 - 180	115	NA	Dissolved as water passes through deposits which contain carbonate, bicarbonate, and hydroxide compounds
Calcium	(NA) mg/L	NA	1	Annually / Triennially	NA	30	11 - 72	37	NA	Dissolved as water passes through limestone deposits
Hardness	(NA) gpg	NA	0.1	Weekly / Triennially	5.0 - 6.6	5.9	1.7 - 13	6.9	NA	Sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
Magnesium	(NA) mg/L	NA	0.1	Annually / Triennially	NA	9.1	0.4 - 13	6.1	NA	Dissolved as water passes through magnesium-bearing minerals
pH	(NA) units	NA	0.1	Continuous / Triennially	6.8 - 7.8	7.2	8.0 - 8.4	8.2	NA	Generally natural changes due to interactions with the environment
Potassium	(NA) mg/L	NA	1	Annually / Triennially	NA	3	ND - 3	ND	NA	Leaching from natural deposits
Sodium	(NA) mg/L	NA	1	Annually / Triennially	NA	44	19 - 79	40	NA	Generally naturally occurring salt present in water
UCMR 5	Regulation	Meets Standard?	MRL	Sample Frequency Surface Water / Groundwater	Treated Surface Water Sampled in 2024 - 2025		Groundwater Sampled in 2024		PHG (MCLG)	Typical Source of Contaminant
					Range	Average	Range	Average		
PFBS [Perfluorobutanesulfonic acid]	NL = 500 ng/L	NA	3	Special	NA	ND	ND - 5	ND	NA	PFAS are a group of synthetic chemicals used in a wide range of consumer products and industrial applications including: non-stick cookware, water-repellent clothing, stain-resistant fabrics and carpets, cosmetics, firefighting foams, electroplating, and products that resist grease, water, and oil.
PFHxA [Perfluorohexanoic acid]	(NA) ng/L	NA	3	Special	NA	ND	ND - 6	ND	NA	
PFPeA [Perfluoropentanoic acid]	(NA) ng/L	NA	3	Special	NA	ND	ND - 5	ND	NA	

¹ Sampled between 2016 and 2024. Individual sites are sampled every 3, 6, or 9 years. Range is from individual sample results.

² Sampled at least once every 9 years and when Gross Alpha Activity exceeds 5 pCi/L.

EDUCATIONAL INFORMATION AND POSSIBLE DRINKING WATER CONTAMINANTS:

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 USEPA'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. 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).

NITRATE: In the Primary Standards Inorganic Chemicals section of the chart for Nitrate (as Nitrogen), treated surface water is ND. In the groundwater column, the range is ND to 7 mg/L, and the average is 2 mg/L. The State Water Board requires annual sampling if results are less than 50% of the MCL. If the result from any one source is greater than 50% of the MCL, then sampling must be done quarterly at that source. PWD samples all its wells on a quarterly basis (four times per year) even when they test below 50% of the MCL. The numbers expressed on the chart are derived from quarterly sampling of all PWD wells, except those that are out of service.

Health Effects of Nitrate: Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

DEFINITIONS:

The following definitions of key terms are provided to help you understand the data used in this report.

Detection Limit for purposes of Reporting (DLR): The smallest concentration of a contaminant that can be measured and reported. DLRs are set by State Water Board (same as MRL, Minimum Reporting Level, set by USEPA).

Locational Running Annual Average (LRAA): The running annual arithmetic average, computed quarterly, of quarterly arithmetic averages of samples taken at a particular monitoring location.

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 USEPA.

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.

Minimum Reporting Level (MRL): A set concentration that is acceptable to the data user and the laboratory as long as reliable measurement is achieved.

Notification Level (NL): State guidelines developed by State Water Board that addresses the concentration of a contaminant which, if exceeded, triggers public notification.

Primary Drinking Water Standard (PDWS): MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting 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 EPA.

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

Running Annual Average (RAA): The running annual arithmetic average, computed quarterly, of quarterly arithmetic averages of all samples collected.

Secondary Drinking Water Standard (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 level.

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

Unregulated Contaminant Monitoring (UCMR): Unregulated contaminant monitoring helps USEPA and the State Water Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

Lead and Copper: Palmdale Water District is required to draw new sample sets of tap samples for lead and copper every three years. The last samples were taken in 2024 (50 samples). The 90th percentile results of ND for lead and 0.4 ppm for copper are well within the AL of 15 ppb for lead and the AL of 1.3 ppm for copper. Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. Palmdale Water District is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period.

If you are concerned about lead in your water and wish to have your water tested, contact Palmdale Water District (661-947-4111). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

PWD has prepared a Lead Service Line Inventory and information can be found on our website: <https://www.palmdalewater.org/water-quality/lsli/>

ADDITIONAL ABBREVIATIONS USED IN WATER QUALITY DATA CHART:

≤ Less Than or Equal To

≥ Greater Than or Equal To

NA: Not Applicable

ND: Not detectable or Non-Detected at testing limit (DLR or MRL)

TOC: Total Organic Carbon

gpg: grains per gallon (a unit of water hardness)

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

NTU: Nephelometric Turbidity Units

pCi/L: picocuries per liter (a measure of radiation)

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

µS/cm: microsiemens per centimeter (a measure for conductivity)



STATE OF OUR WATER

Once again, Palmdale Water District (PWD) is proud to share with the 127,000-plus people it serves that they received clean, high-quality water in 2024. Based on numerous tests throughout the year, our water met all federal and state safe drinking water regulations. This positive news is what our team strives for every day while ensuring water flows uninterrupted to each of you in our District.

As government regulations increase, PWD is committed to doing its part to meet guidelines. We have staff collecting and testing water throughout our 187-square-mile boundaries nearly every day. These consistent samplings ensure that there is always a watchful eye on the quality of the water you are receiving.

The charts in this Consumer Confidence Report (CCR) may not be the easiest to understand due to their scientific nature. If you need clarification or assistance, please know that PWD's laboratory staff are available to answer your questions. Our hope is that more of our customers take an interest in understanding their water quality and the origins of the water supply.

This CCR also serves as a platform for us to inform you of PWD's sources of water. As of spring, the allocation from the State Water Project is 50%. Although we did not have a wet winter locally, the northern Sierra Nevada had a snowy season, and heavy rain in Northern California filled many reservoirs. With the state's allocation, pumping rights, Littlerock Reservoir's supply and carryover water from last year, PWD will not be restricting water use this year.

The last time drought restrictions were enforced was in 2022, following three straight years of dry weather. But the unpredictable climate has become the norm and planning for our water future is critical. We are currently constructing the Pure Water Antelope Valley (AV) Demonstration Facility, which will purify recycled water for potable use.

We look forward to introducing you to Pure Water AV and showing you the technology that will make it possible for us to use a new source of water to continue serving you the clean water you need and expect.

Kathy Mac Laren-Gomez (PWD Board President)

Dennis D. LaMoreaux (PWD General Manager)



The Palmdale Water District is pleased to announce 100% regulatory compliance in 2024 and is confident its drinking water is of the highest quality.

This Consumer Confidence Report is a snapshot of PWD's 2024 water quality and will provide you with a better understanding of the excellent quality of your drinking water. This report includes details about where your water comes from, what it contains, and how it compares to drinking water standards as set by the state of California. We are committed to providing you with this information because informed customers are our best allies. Stringent water-quality testing is performed before the water is delivered to consumers. Last year, PWD completed more than 15,000 tests for over 80 regulated contaminants. Only 12 primary standard contaminants were detected in 2024, and all were at levels below the Maximum Contaminant Level allowed by the state.

Last year, PWD completed more than **15,000** tests for over 80 regulated contaminants.

Please take the time to review this Consumer Confidence Report and Water Quality Data Chart to become an informed consumer. The Water Quality Data Chart is divided into two standards - Primary and Secondary. Primary standards are set to protect public health from contaminants in water that may be immediately harmful to humans or affect their health if consumed for long periods of time. Secondary standards govern aesthetic qualities of water, such as taste, mineral content, odor, color, and turbidity.



How to contact PWD:

- Attend Board of Directors meetings the second and fourth Mondays of each month. Board meetings start at 6 p.m. and are held at the PWD office, 2029 East Avenue Q, Palmdale.
- Call 661-947-4111 with questions about PWD or to file a water quality complaint.
- Call 661-947-4111 x5002 for information on water-use efficiency, including conservation and water education.

For more information, visit our website at palmdalewater.org.



OUR WATER SUPPLY

PWD acquires its water from one of three sources or a combination of these sources.

1. Surface water from the State Water Project (SWP/CA Aqueduct)

This water source begins in northern California, flows into the Delta near Sacramento, and is pumped south to Lake Palmdale. PWD is entitled to take a maximum of 21,300 acre-feet, or 6.9 billion gallons of water, per year. Based on the amount of rain & snowfall in the Sierra Nevada mountains and the amount of water stored in northern California reservoirs, PWD is granted a percentage of the annual entitlement. In 2024, PWD received 7,196 acre-feet from the SWP/CA Aqueduct. The water is drawn from the SWP/CA Aqueduct and stored in Lake Palmdale prior to treatment.

2. Surface water from Littlerock Reservoir

Littlerock Dam was built in 1924 and renovated in 1994 to strengthen the dam and increase the reservoir capacity to 3,500 acre-feet, or 1.1 billion gallons of water. In water year 2024 (October 2023 - September 2024), PWD diverted 5,326 acre-feet from this source. Littlerock Reservoir is fed by natural runoff from snowpacks in the local San Gabriel Mountains and from rainfall. The water is then transferred from Littlerock Reservoir to Lake Palmdale through a ditch connecting the two bodies of water for storage prior to treatment.

3. Groundwater

Groundwater is pumped from the Antelope Valley groundwater basin through 22 wells. In 2024, PWD pumped 5,362 acre-feet. This water is treated with chlorine before being pumped directly into the distribution system.

All three sources are constantly tested and treated in compliance with all applicable regulations to ensure high-quality water and dependability of the water system. The Palmdale Water District delivered approximately 71% surface water and 29% groundwater to its consumers in 2024.

SOURCES OF DRINKING WATER

The sources of drinking water, both tap and bottled, 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, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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.

DRINKING WATER SOURCE ASSESSMENT AND PROTECTION PROGRAM

Palmdale Water District's Sanitary Survey, including a Source Water Assessment of surface waters, was updated in 2023 in compliance with state of California regulations. The assessment of surface water sources included Littlerock Reservoir and Lake Palmdale. A Groundwater Assessment and Protection Program was completed in January of 1999, and a Wellhead Protection Plan was completed in November 2000.

PWD's drinking water sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: illegal activities, such as unauthorized dumping; recreation;

highways; railroads; and sewer collection systems. A comprehensive source water protection program can prevent contaminants from entering the public water supply, reduce treatment costs, and increase public confidence in the quality, reliability and safety of drinking water.

You can help prevent water contamination and pollution by properly disposing of trash and waste materials.

Remember, many common household products can contaminate surface and groundwater supplies. Anything you throw in the trash, dump on the ground, pour down the drain, or wash down the driveway can eventually reach water sources and cause contamination.

The Sanitary Survey, Source Water Assessment, Groundwater Assessment, and Wellhead Protection Plan are available for review on PWD's website at palmdalewater.org or at PWD's office by calling Assistant General Manager Scott Rogers at 661-947-4111 x1020.