

ANNUAL WATER QUALITY REPORT

Reporting Year 2023



Presented By





Introduction

We are pleased to share this year's Annual Water Quality Report, also called the Consumer Confidence Report (CCR). This report has to be published every year by July 1, and it includes water information from the last calendar year. It shows a snapshot of last year's water quality, including all tests done between January 1 and December 31.

In the report, you'll find out where your water comes from, what is in it, and how it matches up with standards set by regulatory agencies. Our goal is to provide safe and reliable drinking water. We work hard to ensure and protect water quality. We want you to know about these efforts because informed customers are the best partners.



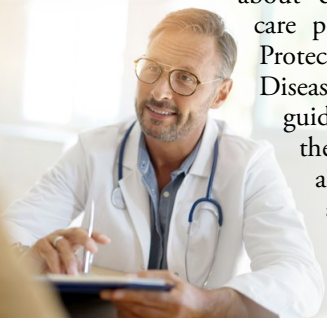
Where Does My Water Come From?

Our water comes from wells we own within the district. These wells draw water from two underground sources called aquifers. The two aquifers that supply our water include the Joshua Tree and Copper Mountain groundwater basins. The district actively replenishes aquifers when water is available from the State Water Project supplied through Mojave Water Agency. This helps to ensure sustainability.

Important Health Information

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. Environmental Protection Agency (U.S. EPA)/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 at (800) 426-4791 or water.epa.gov/drink/hotline.



Count on Us

Delivery of high-quality drinking water to our customers is a complex and time-consuming process. Tap water is highly regulated by state and federal laws. Therefore, our system operators must be certified and maintain a basic understanding of a wide range of subjects; regulatory changes, mathematics, biology, chemistry, and physics. Some of the tasks they complete routinely include:

- Operate and maintain equipment to extract and deliver high-quality water.
- Monitor and inspect machinery, meters, gauges, and operating conditions.
- Conduct tests and inspections on water and evaluate the results.
- Maintain optimal water quality.
- Apply data to formulas that determine treatment requirements, flow levels, and concentration levels.
- Document and report test results and system operations to regulatory agencies.
- Serve our community through customer support, education, and outreach.

How Long Can I Store Drinking Water?



The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe

that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

QUESTIONS? For more information about this report, or for any questions relating to your drinking water, contact customer service, at (760)366-8438.



Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or epa.gov/safewater/lead.

Substances That Could Be in 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.

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

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 can 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, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

A source water assessment has been completed for our system. The purpose of the assessment is to determine the susceptibility of each drinking water source to potential contamination sources. The report includes background information and a relative susceptibility rating of higher, moderate, or lower. It is important to understand that a susceptibility rating of higher does not imply poor water quality, only the system's potential to become contaminated within the assessment area. The assessment findings are summarized below.

- The State Board completed two drinking water assessments for Joshua Basin Water District on August 24, 2001. The assessments examined the district Wells 10, and 14 and determined these sources are most vulnerable to high-density residential septic systems.
- The district completed a drinking water assessment for Well 15 in August 2007. This assessment determined that it is most vulnerable to low-density septic systems.
- A drinking assessment for Well 17 was completed in August 2007 determined that it is most vulnerable to National Pollutant Discharge Elimination System/Water Discharge Elimination System/Water Discharge Regulation-permitted discharges.
- A drinking water assessment for Well 16 was completed in September 2010 determined that it is most vulnerable to both high- and low-density septic systems and airport maintenance/fueling areas.

A copy of this report is available by contacting the Water Production Supervisor, at (760) 366-8438. A summary of the assessment may be requested by contacting the districts sanitary engineer from the State Board at (909) 383-5184 or (909) 383-4745 (fax). A copy of each source's complete assessment may be viewed at the Joshua Basin Water District office or the State Board San Bernadino office, Government Center, Fourth Floor, 464 West Fourth Street, Suite 437.

Community Participation

You are invited to attend our board of directors, committee, or citizens' advisory council meetings. You can attend these meetings at 61750 Chollita Road, Joshua Tree, or online. To learn more about these meetings or our district, please visit jbwd.com.

Test Results

We carefully monitor our water for many different substances on a strict schedule. The water we provide has to meet certain standards. This report publishes substances within the timeframe required by those standards. Detecting a substance in the water does not mean it is unsafe to drink. Our goal is to keep all detected substances within the allowable levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2023	10	0.004	2.2	ND–4.9	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2023	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.88	0.54–1.10	No	Drinking water disinfectant added for treatment
Chromium, Total (ppb)	2023	50	(100)	24	12–37	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	2023	2.0	1	0.66	0.46–0.83	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2021	15	(0)	1.74	NA	No	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]–Stage 1 (ppb)	2023	60	NA	ND	ND–2.2	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2023	NS ¹	0.02	30	25–35	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrate] (ppm)	2023	45	45	0.00356	0.0021–0.0061	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 1 (ppb)	2023	80	NA	16.75	6.5–27	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2022	1.3	0.3	0.061	0/20	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2022	15	0.2	ND	0/20	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits



SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2023	500	NS	13	7–17	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2023	15	NS	ND	NA	No	Naturally occurring organic materials
Manganese (ppb)	2023	50	NS	ND	NA	No	Leaching from natural deposits
Specific Conductance (µmho/cm)	2023	1,600	NS	335	240–490	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2023	500	NS	40.8	9.2–120	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2023	1,000	NS	162	130–180	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2023	5	NS	0.30	ND–3.2	No	Soil runoff
Zinc (ppm)	2023	5.0	NS	ND	NA	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES ²

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2023	1.07	ND–3.1	NA
Bromoform (ppb)	2023	4.1	ND–14	NA
Chloroform (ppb)	2023	0.4	ND–1.0	NA
Dibromochloromethane (ppb)	2023	2.7	ND–8.5	NA
Sodium (ppm)	2023	45.25	37–60	NA

¹There is currently no MCL for hexavalent chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.

²Unregulated contaminant monitoring helps U.S. EPA and the SWRCB determine where certain contaminants occur and whether the contaminants need to be regulated.



Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

MCL (Maximum Contaminant Level): 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.

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 U.S. EPA.

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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

µmho/cm (micromhos per centimeter): A unit expressing the amount of electrical conductivity of a solution.