



Golden State
Water Company
A Subsidiary of American States Water Company

2024

Barstow Water System

Consumer Confidence Report on Water Quality for 2023



About the Company

Golden State Water Company (Golden State Water) is a wholly-owned subsidiary of American States Water Company (NYSE:AWR) and provides water service to approximately 1 million customers throughout 11 counties in Northern, Coastal and Southern California. American States Water Company also owns a contracted services subsidiary, American States Utility Services, Inc. (ASUS). ASUS provides operations, maintenance and construction management services for water and wastewater systems located on military bases throughout the country under 50-year privatization contracts with the U.S. government. Bear Valley Electric Service is also a subsidiary and distributes electricity to approximately 24,000 customers in the City of Big Bear Lake and surrounding areas in San Bernardino County.



Robert Sprowls
President and
Chief Executive Officer
Golden State Water Company



Benjamin Lewis
General Manager, Mountain-
Desert District
Golden State Water Company

President's Message

Dear Golden State Water Customer,

Golden State Water Company (GSWC) is pleased to present our 2024 Annual Water Quality Report (Consumer Confidence Report), providing customers with important information regarding local water quality and service during the 2023 calendar year.

GSWC is proud to be the trusted water provider serving local customers and more than a million customers in 80 communities throughout California. We appreciate that customers have peace of mind knowing we never stop working to ensure quality, reliable water is available at their taps when they need it. We take great pride in the service we provide and embrace our role as essential workers in the community.

Our scientists, engineers, and water experts are protecting your water system. By proactively testing for hundreds of potential contaminants in our water systems, GSWC has consistently scored among the top water companies for compliance with water quality regulations.

GSWC proudly reports that the water delivered to your tap meets all federal and state quality standards established to protect the public's health and safety. This document provides information regarding local water supply sources, testing, and the steps GSWC takes to ensure our water complies with the strictest standards set by the United States Environmental Protection Agency (USEPA), State Water Resources Control Board's Division of Drinking Water (DDW), and California Public Utilities Commission (CPUC).

To access the most up-to-date Water Quality Report for your area, sampling results, and frequently asked questions, visit www.gswater.com/water-quality. If you have questions, please contact our 24-hour Customer Service Center at 1.800.999.4033 or email us at customerservice@gswater.com.

Given our proactive approach to maintaining, operating, and improving our water systems, our customers can rest assured that their monthly rates contribute directly to the safety and reliability of their local water system. This upholds the essential right of every Californian to access safe, clean, and affordable water, regardless of their zip code.

We encourage all customers to visit www.gswater.com and follow us on X (formerly Twitter) and Facebook at @GoldenStateH2O. On behalf of everyone at GSWC, thank you for allowing us to serve you and your community.

Sincerely,

Robert Sprowls

Benjamin Lewis

Golden State Water is constantly working toward 100 percent customer satisfaction and we encourage you to visit www.gswater.com and follow us on Twitter and on Facebook at @GoldenStateH2O



Where Does My Water Come From?

Water delivered to customers in the Barstow System is groundwater pumped from the Mojave River Basin-Centro Sub-

Basin, which is the center of the Mojave Basin extending northwesterly and southeasterly from the Mojave River.



Source Water Assessment

Golden State Water Company conducted source water assessments in February and March 2021 for the groundwater wells serving the customers of its Barstow System.

The groundwater sources are considered most vulnerable to one or more of the following activities not associated with contaminants detected in the water supply: animal feeding operations, gas stations, auto body and repair shops, high density housing, septic and sewer collection systems, machine shops, transportation corridors – freeways/highways and railroads, waste transfer/recycling stations, parking lots (>50 spaces), NPDES/WDR permitted discharges, and railroad yard maintenance and fueling areas.

Several of the groundwater wells are also considered most vulnerable to one or more of the following activities associated with contaminants detected in the water supply:

- ◆ High density septic systems
- ◆ Known contaminant plumes

A copy of the assessment may be viewed at:

State Water Board Mojave District Office
464 West 4th St., Suite 437, San Bernardino, CA 92401

You may request a summary of the assessment be sent to you by contacting:

State Water Board Mojave District Office at 1.909.383.4328

For more details, contact Omar Tinoco Gallardo, Associate Water Quality Engineer, at 1.800.999.4033, or email the Customer Service Center at customerservice@gswater.com.

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In every one of our water systems, a team of highly-trained employees monitors water quality on an on-going basis to ensure that our customers are receiving high-quality water. For more information and to access frequently asked questions about your 2024 CCR visit: <https://gswater.com/ccrfaq>





Glossary of Terms

Maximum Contaminant Level (MCL)

The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the public health goals and maximum contaminant level goals as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

California Notification Level (NL)

Non-regulatory, health-based advisory levels established by the State Board for contaminants in drinking water for which an MCL has not been established.

Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected risk to health. Maximum contaminant level goals are set by the United States Environmental Protection Agency (USEPA).

Maximum Residual Disinfectant Level (MRDL)

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the 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 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. Public health goals are set by the California Environmental Protection Agency (CalEPA).

Regulatory Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.



Delivering drinking water is serious business, and our team of scientists, engineers and water experts is dedicated to protecting our water systems and ensuring the water we deliver to local homes and businesses meets stringent standards set by the state and federal governments.

Unit of Measurement	Unit Abbreviation	Also Known as	This can be compared to...
Parts per million (PPM)	mg/L	milligrams per liter	1 second in 12 days
Parts per billion (PPB)	µg/L	micrograms per liter	1 second in 32 years
Parts per trillion (PPT)	ng/L	nanograms per liter	1 second in 32,000 years
Grains per gallon	grains/gallon	a measurement for water hardness often used for sizing household water softeners	1 grain/gal equals 17.1 mg/L of hardness
Nephelometric Turbidity Units	NTU	a measurement of the clarity of water	Turbidity in excess of 5 NTU is noticeable to the average person
Microsiemens per centimeter	µS/cm	a measurement of a solution's ability to conduct electricity	
Picocuries per liter	pCi/L	a measurement of radioactivity in water	

How to Read This Table

The consumer confidence report lets you know which constituents, if any, are in your drinking water and how this may affect your health. The constituents presented in this table were detected above the detection limit set by the State Water Resources Control Board. Below is a guide that explains each column of the table.

The highest level of a constituent allowed in drinking water.

The range of presence for which the constituent was detected in the drinking water.

The average amount of a constituent detected in the drinking water.

The most recent year tests were conducted.

Describes the most likely ways a constituent enters the drinking water. Wording provided by the USEPA.

Primary Standards - Health Based (units)	Primary MCL	PHG (MCLG)	Range of Detection	Average Level	Most Recent Sampling Date	Typical Source of Constituent
Substance A (mg/L)	50	0.6	ND - 40	20	2019	Erosion of natural deposits; residue from some surface water treatment processes
Substance B (µg/L)	6	1	0.1 - 2.8	1.7	2016	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder

The highest level for which the constituent has no known or expected health risks.

YOUR WATER MEETS ALL CURRENT FEDERAL AND STATE REQUIREMENTS

Barstow Water System – Source Water Quality

Primary Standards – Health Based (units)	Primary MCL	PHG (MCLG)	Range of Detection	Average Level	Most Recent Sampling Date	Typical Source of Constituent
Inorganic Constituents						
Arsenic (µg/L)	10	0.004	ND-4.1	2.4	2023	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (mg/L)	1	2	ND-0.14	ND	2023	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (mg/L)	2.0	1	0.32-0.49	0.37	2023	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [as N] (mg/L)	10	10	1.5-8.0	3.8	2023	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radioactive Constituents						
Gross Alpha Activity (pCi/L)	15(a)	(0)	ND-11	5.3	2023	Erosion of natural deposits
Uranium (pCi/L)	20	0.43	1.9-8.3	4.2	2023	Erosion of natural deposits
Secondary Standards – Aesthetic (units)						
Chloride (mg/L)	500	n/a	79-120	97	2023	Runoff/leaching from natural deposits; seawater influence
Iron (ug/L)	300	n/a	ND-680	ND	2023	Leaching from natural deposits; industrial wastes
Specific Conductance (µS/cm)	1600	n/a	760-1000	890	2023	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	500	n/a	110-170	142	2023	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)	1000	n/a	460-630	539	2023	Runoff/leaching from natural deposits
Turbidity (units)	5	n/a	ND-0.66	0.1	2023	Soil runoff
Zinc (mg/L)	5.0	n/a	ND-0.057	ND	2023	Runoff/leaching from natural deposits; industrial wastes
Other Parameters (units)						
Alkalinity (mg/L)	n/a	n/a	130-200	158	2023	
Calcium (mg/L)	n/a	n/a	70-110	87	2023	
Hardness [as CaCO3] (mg/L)	n/a	n/a	230-340	275	2023	The sum of polyvalent cations present in the water, generally magnesium and calcium; the cations are usually naturally occurring
Hardness [as CaCO3] (grains/gal)	n/a	n/a	13-20	16	2023	
Magnesium (mg/L)	n/a	n/a	12-19	15	2023	
pH (pH units)	n/a	n/a	7.5-7.9	7.7	2023	
Potassium (mg/L)	n/a	n/a	2.7-3.9	3.2	2023	
Sodium (mg/L)	n/a	n/a	66-100	79	2023	Refers to the salt present in the water and is generally naturally occurring
Unregulated Drinking Water Constituents (units)						
Perfluorohexanesulfonic Acid (PFHxS) (ng/L)	3	n/a	ND-6	ND	2023	
Perfluorohexanoic Acid (PFHxA) (ng/L)	n/a	n/a	ND-6.5	ND	2023	
Perfluorooctanoic acid (PFOA) (ng/L)	5.1	n/a	ND-5.7	ND	2023	
Perfluoropentanoic acid (PFPeA) (ng/L)			ND-3.8	ND	2023	
Total Organic Carbon (TOC) (mg/L)	n/a	n/a	ND-1.0	0.42	2019	
Bromide (ug/L)	n/a	n/a	60-220	170	2019	
HAA6Br [Total of 6 Brominated Haloacetic Acids] (µg/L)	n/a	n/a	1.5-7.7	3.8	2019	
HAA9 [Total of 9 Haloacetic Acids] (µg/L)	n/a	n/a	1.5-8.3	4	2019	
Lithium (µg/L)	n/a	n/a	ND - 21.9	7.79	2023	

(a) MCL is based on Gross Alpha minus Uranium. ND = Not Detected CaCO3 = Calcium Carbonate

This table includes data only on constituents that were detected.

Laboratory Analyses

Through the years, we have taken thousands of water samples to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants in your drinking water. The table we provide shows only detected contaminants in the water.

Even though all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of these substances were present in your water. Compliance (unless otherwise noted) is based on the average level of concentration below the MCL. The state allows us to monitor for some contaminants less than once per year because the concentrations do not change frequently. Some of our data, while representative, is more than a year old.

Lead — 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. GSWC is responsible for providing high quality drinking water, but 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 are concerned about lead in your water, you may wish to have your water tested. Information about lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1.800.426.4791 or at <http://www.epa.gov/safewater/lead>.

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 for advice from your health care provider.

Iron — The secondary MCL for iron is set for aesthetic reasons and there is no health concern associated with the iron levels detected in this water system.

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

— Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that include Perfluorooctanoic Acid (PFOA),

Perfluorooctane Sulfonate (PFOS), Perfluorobutane Sulfonic Acid (PFBS), Perfluorohexane Sulfonic Acid (PFHxS), Perfluorononanoic Acid (PFNA), and Hexafluoropropylene Oxide-Dimer Acid (HFPO-DA or Gen X).

While consumer products and food are a large source of exposure to these chemicals for most people, drinking water can be an additional source in the communities where these chemicals have infiltrated water supplies. Such contamination is typically localized and associated with a specific facility, including near groundwater recharge facilities where recycled wastewater is used; industrial facilities where these chemicals were produced or used to manufacture other products; an airfield at which they were used for firefighting; or wastewater treatment plants or landfills where products containing the chemicals were disposed of.

Between 2019 and 2023, the California State Water Resources Control Board made several updates to the state guidelines for various PFAS constituents. On April 10, 2024, EPA announced the final National Primary Drinking Water Regulations for six PFAS. Visit <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas> for more information on the regulatory process of PFAS.

In 2023, GSWC sampled all groundwater sources in the Barstow System for PFAS. Some sources had detections above the current notification levels. Notification letters were sent out to all local governing bodies, State Water Resources Control Board's Division of Drinking Water and California Public Utilities Commission. GSWC will continue to closely monitor PFAS for these sources to ensure the health and safety of our customers

Unregulated Contaminant Monitoring — Monitoring for unregulated contaminants helps the USEPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.



Barstow Water System – Distribution Water Quality

Disinfection Byproducts and Disinfectant Residuals (units)	Primary MCL (MRDL)	PHG (MRDLG)	Range of Detection	Average Level	Most Recent Sampling Date	Typical Source of Constituent	
Chlorine [as Cl ₂] (mg/L)	(4.0)	(4)	0.5-2.2	1.6	2023	Drinking water disinfectant added for treatment	
HAA5 [Sum of 5 Haloacetic Acids] (µg/L)	60	n/a	1.1-2.6	2.8	2023	Byproduct of drinking water disinfection	
TTHMs [Total Trihalomethanes] (µg/L)	80	n/a	5.2-19	14	2023	Byproduct of drinking water disinfection	
Inorganic Constituents (units)	Action Level	PHG (MCLG)	Sample Data	90th % Level	Most Recent Sampling Date	Typical Source of Constituent	
Copper (mg/L)	1.3	0.3	None of the 32 samples collected exceeded the action level.	0.25	2022	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
Lead sampling in schools and residential plumbing	Action Level	PHG	Sample Data	90th % Level	Most Recent Sampling Date	Typical Source of Constituent	Number of Schools Tested (b)
Lead (µg/L)	15	0.2	One of the 32 samples collected exceeded the action level.	3.2	2022	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.	10

(b) The State of California made lead sampling in schools mandatory with a compliance window through 2019. ND = Not Detected

This table includes data only on constituents that were detected.



Risk to Tap and Bottled Water

Drinking water, including bottled water, may reasonably be expected to contain 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 at 1.800.426.4791.

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 layers in the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, which can pick up substances resulting from the presence of animal or human activity.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control 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.

Contaminants in Drinking Water Sources May 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, and 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems
- ◆ Radioactive contaminants that can be naturally occurring or be the result of oil and gas production and mining activities

For People with Sensitive Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those individuals with cancer undergoing chemotherapy, those who have undergone organ transplants, those with HIV/AIDS or other immune system disorders, some elderly populations, and infants, can be particularly at risk from infections. These people should seek advice from their health care providers.

The USEPA and Centers for Disease Control issue guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants.

To obtain a copy of these guidelines, please call the USEPA's Safe Drinking Water Hotline at **1.800.426.4791**.

For additional information, please contact our 24-hour Customer Service Center at **1.800.999.4033** or email us at customerservice@gswater.com.

Cross Connection Control Program

Golden State Water Company's Cross Connection Control Program provides a level of certainty that the water in the company's distribution system is protected from possible backflow of contaminated water from customers' premises. For additional information and how to learn how to prevent cross-connections at your home, visit <https://www.gswater.com/protecting-our-drinking-water/>.



Flushing

Hydrant flushing is an essential maintenance procedure that all water providers must perform periodically to ensure the water delivered to customers meets state and federal drinking water standards. GSWC is using NO-DES (Neutral Output-Discharge Elimination System) flushing in several of our service areas to help flush our distribution systems sustainably.

Traditional hydrant flushing discharges hundreds of thousands of gallons of water onto the street. GSWC's NO-DES trucks and trailers offer a new maintenance technology, connecting two hydrants to a complex filtration system which cleans the water and returns it to the distribution system.

For more information about hydrant flushing, visit <http://www.gswater.com/flushing>.

If You Have Questions – Contact Us

For information about your water quality or to find out about upcoming opportunities to participate in public meetings, please contact our 24-hour Customer Service Center at **1.800.999.4033**. Visit us online at www.gswater.com or email us at customerservice@gswater.com.

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



Connect with us to learn more!

Visit www.gswater.com to:

- ◆ Access the latest Water Quality Report for your area
- ◆ Get the latest updates and news regarding the drought and state/local restrictions
- ◆ Learn more about water-use efficiency, including programs and rebates in your area
- ◆ Understand your water bill and learn about payment options
- ◆ Obtain information about programs for low-income customers (Customer Assistance Program or CAP)
- ◆ Sign up to receive email updates about your water service



Infrastructure Investments

At Golden State Water, we believe access to clean and reliable drinking water is a fundamental right for all Californians. Our customers should never think twice about the quality of water coming from their taps. To fulfill this commitment, we continue to invest in water infrastructure essential to treating and delivering sustainable, long-term value for our customers.

Since 2018, GSWC has invested over \$765 million in water infrastructure projects essential to providing quality, reliable water to over 1 million Californians in 80 communities. In 2023, GSWC invested over \$150 million in water treatment facilities, water storage and distribution systems, including installing approximately 137,800 feet of pipeline, 853 service lines, and 154 fire hydrants. These proactive investments in local infrastructure avoid the costly and sometimes dangerous effects of deferring maintenance or delaying the replacement of aged infrastructure.

Customers interested in learning more about current and completed infrastructure projects in their service areas are encouraged to visit their service area's webpage at www.gswater.com.



A drought-tolerant garden.

Conserving for California

After years of severe drought, California's water supply has improved for many parts of the state. Golden State Water customers did a tremendous job reducing water use during the last drought, and most have continued those water-efficient practices and made conservation a way of life.

GSWC is proud to be your conservation partner, introducing water conservation tips and programs that help customers control their water bills. For example, GSWC has transitioned from a single residential water rate to a three-tiered residential rate structure. This rate structure rewards customers who have reduced their water consumption with greater opportunities to control their water bill. To learn more about conservation programs and rebates in your area, please visit www.gswater.com/conservation or call 1.800.999.4033.