Golden State
Water Company
A Subsidiary of American States Water Company

2013

Consumer Confidence Report on Water Quality for 2012

Barstow Water System

Providing Quality Drinking Water in California Since 1929

Golden State Water Company is pleased to present our Annual Water Quality Report. As your water provider, we are proud to report that your drinking water met all federal and state standards for calendar year 2012.

Bringing you clean drinking water is serious business. We strictly adhere to federal and state drinking water quality guidelines required by the United States Environmental Protection Agency (USEPA), the California Department of Public Health (CDPH) and the California Public Utilities Commission. To ensure the quality of your drinking water, Golden State Water tests for more than 230 regulated and unregulated elements in our water systems. Golden State Water's industry professionals periodically take samples to monitor water quality throughout the distribution system. We spent more than half a million dollars in 2012 on laboratory tests to meet regulatory standards and provide you with high quality drinking water.

If any drinking water standard is ever compromised, Golden State Water is required to take immediate action, notify you quickly and restore normal service.

We pride ourselves on getting the job done right. Over the last 80 years, we've successfully built relationships with the industry's best. Our team of experts is equipped to provide customers with the most efficient and effective service possible. Golden State Water strives to constantly improve our water production and delivery systems, and adequately maintain wells, pumps and pipelines. Our philosophy is to invest in comprehensive preventive maintenance programs so that our water infrastructure reliably provides you with high quality drinking water, 24 hours per day, 7 days per week.

You, our customer, are our number one priority. Our Customer Service Center Representatives are available to answer your water questions and address your concerns day or night, 24 hours a day, 7 days a week. Visit www.gswater.com to learn more about your customer service area, water quality, rebates and water-use efficiency.

As your water provider, we'd like to remind you that efficient water use remains one of the best and least-costly ways to maintain a reliable source of high quality drinking water now and for future generations.

On behalf of the men and women of Golden State Water Company who serve you, thank you for providing us the opportunity to be your water provider. Please call our 24-hour Customer Service Center with any questions or feedback about this report at 1-800-999-4033.

Sincerely,

Robert Sprowls
President and Chief Executive Officer
Golden State Water Company

Perry Dahlstrom
Mountain Desert District Manager
Golden State Water Company

About the Company

Golden State Water Company, a subsidiary of American States Water Company (AWR), provides water service to approximately 1 out of every 36 Californians located within 75 communities throughout 10 counties in Northern, Coastal and Southern California (approximately 256,000 customers). The Company also distributes electricity to more than 23,000 customers in the Big Bear recreational area of California. AWR's contracted services subsidiary, American States Utility Services, Inc., provides operations, maintenance and construction management services for water and wastewater systems located on military bases throughout the country.

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.

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 California Department of Public Health (CDPH) for contaminants in drinking water for which an MCL has not been established.

Maximum Contaminant Level Goal (MCLG)
The level of 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 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. Public health goals are set by the California Environmental Protection Agency (CalEPA).

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 commercial or industrial customers' premises. For additional information, visit www.gswater.com/protecting-our-drinking-water.

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.

Measurements

Water is sampled and tested consistently throughout the year to ensure the best possible quality.

Contaminants are measured in:

- Parts per million (ppm) or milligrams per liter (mg/L).
- Parts per billion (ppb) or micrograms per liter (µg/L).
- Parts per trillion (ppt) or nanograms per liter (ng/L).
- Grains per gallon (grains/gal) – A measurement of water hardness often used for sizing household water softeners. One grain per gallon is equal to 17.1 mg/L of hardness.
- MicroSiemens per centimeter (µS/cm) – A measurement of a solution's ability to conduct electricity.
- Nephelometric Turbidity Units (NTU) – A measurement of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.
- PicoCuries per liter (pCi/L) – A measurement of radioactivity in water.

If this is difficult to imagine, think about these comparisons:

Parts per million:
1 second in 12 days
1 inch in 16 miles
1 drop in 14 gallons

Parts per billion:
1 second in 32 years
1 inch in 16,000 miles
1 drop in 14,000 gallons

Parts per trillion:
1 second in 32,000 years
1 inch in 16 million miles
10 drops in enough water to fill the Rose Bowl

Golden State Water's top priority is to protect the quality of your water supply. 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

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 - 3.7	2.4	2011	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Chromium, Total (µg/L)	50	(100)	ND - 13	ND	2011	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (mg/L)	2.0	1	0.36 - 0.65	0.46	2011	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [as NO3] (mg/L)	45	45	7 - 31	14	2012	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radioactive Constituents						
Gross Alpha Activity (pCi/L)	15	(0)	0.91 - 6.92	3.6	2011	Erosion of natural deposits
Uranium (pCi/L)	20	0.43	1.2 - 5.6	2.6	2011	Erosion of natural deposits
Secondary Standards - Aesthetic (units)	**Secondary MCL**	**PHG (MCLG)**	**Range of Detection**	**Average Level**	**Most Recent Sampling Date**	**Typical Source of Constituent**
Color (units)	15	n/a	ND - 2.5	1.1	2011	Naturally-occurring organic materials
Chloride (mg/L)	500	n/a	40 - 120	63	2011	Runoff/leaching from natural deposits; seawater influence
Iron (µg/L)	300	n/a	ND - 110	ND	2011	Leaching from natural deposits; industrial wastes
Specific Conductance (uS/cm)	1600	n/a	430 - 1100	622	2011	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	500	n/a	43 - 240	92	2011	Runoff/leaching from natural deposits; industrial wastes
Turbidity (units)	5	n/a	ND - 1.2	0.4	2011	Soil runoff
Total Dissolved Solids (mg/L)	1000	n/a	220 - 740	366	2011	Runoff/leaching from natural deposits
Other Parameters (units)	**Notification Level**	**PHG (MCLG)**	**Range of Detection**	**Average Level**	**Most Recent Sampling Date**	**Typical Source of Constituent**
Alkalinity (mg/L)	n/a	n/a	96 - 160	122	2011	
Calcium (mg/L)	n/a	n/a	35 - 97	49	2011	
Hardness [as CaCO3] (mg/L)	n/a	n/a	110-310	159	2011	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	6.4 - 18	9.2	2011	
Magnesium (mg/L)	n/a	n/a	6.5-12	9	2011	
pH (pH units)	n/a	n/a	7.2 - 7.8	7.6	2011	
Potassium (mg/L)	n/a	n/a	2.0 - 3.5	2.5	2011	
Sodium (mg/L)	n/a	n/a	40-150	64	2011	Refers to the salt present in the water and is generally naturally occurring

Barstow Water System — Distribution Water Quality

Microbiological Constituents (units)	Primary MCL	PHG (MCLG)	Value		Most Recent Sampling Date	Typical Source of Constituent
Total Coliform Bacteria ≥40 Samples/Month (Present / Absent)	More than 5% of monthly samples are positive	(0)	Highest percent of monthly samples positive was 1.5%		2012	Naturally present in the environment
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 Cl2] (mg/L)	(4.0)	(4)	0.44 - 2.20	1.77	2012	Drinking water disinfectant added for treatment
HAA5 [Total of Five Haloacetic Acids] (µg/L)	60	n/a	ND - 5	2	2012	Byproduct of drinking water disinfection
TTHMs [Total of Four Trihalomethanes] (µg/L)	80	n/a	1 - 13	7	2012	Byproduct of drinking water disinfection

ND = Not Detected

CaCO3 = Calcium Carbonate

Golden Rules for Water Conservation

- End wasteful outdoor water activities
- Fix water leaks
- Replace older toilets with high-efficiency models
- Be water-wise with your clothes washers and dishwashers
- Make your showerheads and faucets water efficient

To learn more about the five golden rules for water conservation, visit www.gswater.com/golden-rules-for-water-use.

Source Water Assessment

Golden State Water Company conducted a source water assessment in 2000 for each groundwater well serving the customers of its Barstow System.

All of the 23 local water sources are considered most vulnerable to one or more of the following activities, which have not been detected in the water supply:

- Animal operations
- Active and historic gas stations
- Auto body and repair shops
- Chemical/petroleum pipelines
- Farm machinery repair
- Illegal activities/unauthorized dumping
- Landfills/dumps
- Sand and gravel mining
- Railroad yard maintenance and fueling areas

Eighteen of the 23 groundwater wells are also considered most vulnerable to the following activities associated with contaminants detected in the water supply

- High and low density septic systems
- High density housing

A copy of the assessment may be viewed at:

CDPH San Bernardino District Office
464 West 4th St., Suite 437, San Bernardino, CA 92401

or

GSWC Apple Valley Office
13608 Hitt Rd., Apple Valley, CA 92308

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

CDPH San Bernardino District Office at 1-909-383-4328

For more details, contact Stacey Roberts at 1-800-999-4033.

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 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. Golden State Water 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 www.epa.gov/safewater/lead.

Nitrate — Nitrate in drinking water at levels above 45 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 45 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..

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.

To be certain that tap water is safe to drink, the USEPA and the CDPH prescribe regulations limiting the amount of contaminants in water provided by public water systems. United States Food and Drug Administration (USFDA) and CDPH regulations also provide the same public health protection by establishing limits for contaminants in bottled water.

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 storm water 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 storm water 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 storm water 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.

Connect with us to learn more!

Visit **www.gswater.com** to learn how to:

- Become a water conservation expert
- Learn more about available conservation rebates and programs
- Get the latest Water Quality Report for your area
- Understand your water bill and learn about payment options.

For additional information, please contact our 24-hour Customer Service Center at **1-800-999-4033** or email us at customerservice@gswater.com.