

# 2011 WATER QUALITY REPORT



**Golden State  
Water Company**

A Subsidiary of American States Water Company

*An Ongoing Commitment to the Communities We Serve*



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## Protecting and Preserving Your Drinking Water

We are pleased to present the following 2011 Water Quality Report, which contains information about testing completed in your water system through December 2010.

For more than 80 years, Golden State Water Company (GSWC) has taken seriously its job as the guardian of drinking water quality for its customers. GSWC is regulated by county, state and federal governments, and we are proud to say the quality of your water regularly meets all drinking water standards.

We must sample for more than 230 regulated and unregulated elements in our water systems. Each week, GSWC's industry professionals take water samples to monitor quality at approved sites at the water source and throughout the distribution system. We spend more than \$650,000 per year on laboratory tests to make sure the water in all of our water systems is of high quality and meets standards.

If there is an exceedance of a drinking water standard, we are required to notify you quickly and take action to restore normal service.

We pride ourselves on our strong customer service culture that comes from industry knowledge and relationships built over 80 years in the California water industry. Our around-the-clock Customer Service Center has representatives to answer questions and address any water concerns day or night. Our website, [www.gswater.com](http://www.gswater.com), contains a wide range of topics, including information about water quality, your local customer service area, and water-use efficiency.

Speaking of water-use efficiency, everyone must play a role to preserve our limited water resources. While the recent rainy season in California produced above average precipitation, the state will continue to experience cyclical droughts and other pressures on our limited resources. Water-use efficiency remains one of the best and least-cost ways to maintain a reliable source of high quality water now and for future generations. Thank you for any steps you may have taken to date and please continue your efforts.

On behalf of all of us at Golden State Water Company, thank you for providing us the opportunity to serve you. If you have any questions about this report, please call our Customer Service Center 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

Every day, well over a million people in the United States depend on the American States Water Company family of companies for the water, wastewater, and electric services that enable their quality of life. American States Water Company is the holding company for Golden State Water Company and American States Utility Services, Inc.

Golden State Water Company is a public utility company regulated by the California Public Utilities Commission (CPUC). Golden State Water engages principally in the reliable delivery of water. We operate 38 separate water systems within 75 communities in 10 counties in the State of California and provide water service to over 1 million people, or 1 out of every 36 Californians. In addition, we provide electric service to over 23,000 customers in the Big Bear recreational area of California.

American States Utility Services, Inc. is our contracted services business. Through its wholly-owned subsidiaries—Fort Bliss Water Services Company, Terrapin Utility Services, Inc., Old Dominion Utility Services, Inc., Old North Utility Services, Inc., and Palmetto State Utility Services, Inc.—American States Utility Services provides full-service contracts to operate and maintain water and wastewater systems on U.S. Army and U.S. Air Force installations in Texas, New Mexico, Maryland, Virginia, North Carolina, and South Carolina.

## 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 U.S. 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).

### **Regulatory Action Level (AL)**

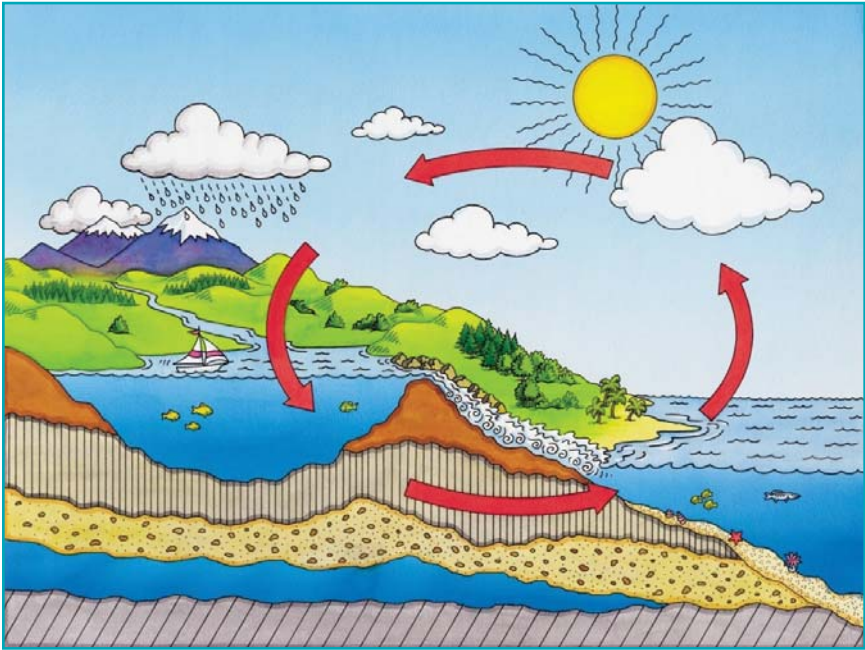
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

### **Treatment Technique (TT)**

A required process intended to reduce the level of a contaminant in drinking water.

## Where Does My Water Come From?

Water delivered to customers in the Lucerne system is groundwater pumped from the Mojave River Basin-Este Sub-basin which is located in the Lucerne Valley area east of the Mojave River.



### **The Water Cycle:**

*A continuous process by which water circulates throughout the earth and atmosphere.*

## For People with Sensitive Immune Systems...

Some people may be more vulnerable to contaminants in the water than the general population. Immunocompromised persons such as persons undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons, and infants can be particularly at risk of infections. These people should seek advice from their healthcare provider about their drinking water.

USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available by calling the Safe Drinking Water Hotline at 1-800-426-4791.

## Risk to Tap and Bottled 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 mean water may be 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, and can pick up substances resulting from the presence of animal or human activity.

In order to be certain that tap water is safe to drink, the USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. United States Food and Drug Administration (USFDA) and CDPH regulations also establish limits for contaminants in bottled water that must 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 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 by-products 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.

## Lucerne Water System - Source Water Quality

Primary Standards - Health Based (units)	PRIMARY MCL	PHG (MCLG)	Range of Detection	Average Level	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
<b>Inorganic Constituents</b>							
Aluminum (mg/L)	1	0.6	ND - 0.14	0.1	No	2008	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride (mg/L)	2.0	1	0.1 - 0.5	0.3	No	2008	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [as NO <sub>3</sub> ] (mg/L)	45	45	2.7 - 3.9	3.2	No	2010	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>Radioactive Constituents</b>							
Gross Alpha Activity (pCi/L)	15	(0)	0.7 - 3.6	2.8	No	2009	Erosion of natural deposits
Uranium (pCi/L)	20	0.43	1.1 - 2.4	1.5	No	2009	Erosion of natural deposits
Secondary Standards - Aesthetic (units)	SECONDARY MCL	PHG (MCLG)	Range of Detection	Average Level	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Aluminum (ug/L)	200	n/a	ND - 140	100	No	2008	Erosion of natural deposits; residue from some surface water treatment processes
Chloride (mg/L)	500	n/a	5 - 13	9	No	2008	Runoff/leaching from natural deposits; seawater influence
Iron (ug/L)	300	n/a	ND - 330	ND	No	2008	Leaching from natural deposits; industrial wastes
Specific Conductance (uS/cm)	1600	n/a	510 - 520	517	No	2008	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	500	n/a	29 - 60	47	No	2008	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)	1000	n/a	260 - 280	270	No	2008	Runoff/leaching from natural deposits
Other Parameters (units)	Notification Level	PHG (MCLG)	Range of Detection	Average Level	MCL Violation?	Most Recent Sampling Date	
Alkalinity (mg/L)	n/a	n/a	120 - 180	147	n/a	2008	
Calcium (mg/L)	n/a	n/a	37 - 46	41	n/a	2008	
Hardness [as CaCO <sub>3</sub> ] (mg/L)	n/a	n/a	120 - 180	150	n/a	2008	The sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally-occurring.
Hardness [as CaCO <sub>3</sub> ] (grains/gal)	n/a	n/a	7 - 11	9	n/a	2008	
Magnesium (mg/L)	n/a	n/a	7 - 19	10	n/a	2008	
pH (pH units)	n/a	n/a	7.2 - 8.2	7.9	n/a	2008	
Potassium (mg/L)	n/a	n/a	2.0 - 2.1	2.1	n/a	2008	
Sodium (mg/L)	n/a	n/a	19 - 38	31	n/a	2008	Refers to the salt present in the water and is generally naturally occurring.

## Lucerne Water System - Distribution Water Quality

Disinfection Byproducts and Disinfectant Residuals (units)	PRIMARY MCL (MRDL)	PHG (MRDLG)	Range of Detection	Highest 4-Quarterly Average	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Chlorine [as Cl <sub>2</sub> ] (mg/L)	(4.0)	(4)	0.4 - 1.0	0.8	No	2010	Drinking water disinfectant added for treatment
Inorganic Constituents (units)	ACTION LEVEL	PHG (MCLG)	Sample Data	90th % Level	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Copper (mg/L)	1.3	0.3	None of the 10 samples collected exceeded the action level.	0.25	No	2010	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ug/L)	15	0.2	None of the 10 samples collected exceeded the action level.	1.6	No	2010	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

ND = Not Detected

## Laboratory Analyses

Over the years we have taken thousands of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants in your drinking water. The enclosed table shows only those contaminants that were detected in the water.

Although 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 the water. Compliance (unless otherwise noted) is based on the average level of concentration being 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, though 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 2 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 on 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>.

## Iron

The secondary MCL for iron is set for aesthetic reasons and there is no health concern associated with the iron levels detected in the Lucerne System.

## Measurements

To ensure the best possible quality, water is sampled and tested consistently throughout the year.

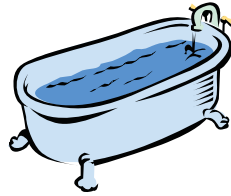
### Contaminants are measured in:

- Parts per million (ppm) or milligrams per liter (mg/L).
- Parts per billion (ppb) or micrograms per liter ( $\mu\text{g/L}$ ).
- 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 ( $\mu\text{S/cm}$ ) – 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:*

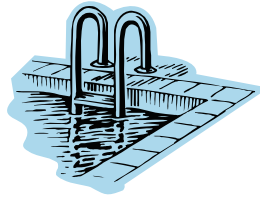
#### Parts per **million**:

1 drop in 14 gallons  
1 second in 12 days  
1 inch in 16 miles



#### Parts per **billion**:

1 drop in 14,000 gallons  
1 second in 32 years  
1 inch in 16,000 miles



#### 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



## Source Water Assessment

A source water assessment was conducted for each of the groundwater wells serving the customers of GSWC's Lucerne System in September 2000.

Three of the groundwater wells are considered most vulnerable to the following activities, which have been associated with contaminants that have been detected in the water supply:

- Septic systems – high density, Septic systems – low density, Housing – high density

A copy of the assessment may be viewed at:

CDPH San Bernardino District Office	or	Golden State Water Company
Governmental Center 4th Floor		13608 Hitt Rd.
464 West 4th St. Suite 437		Apple Valley, CA 92308
San Bernardino, CA 92401		

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

CDPH San Bernardino District Office at (909) 383-4320

For more details or information contact:

Jeffrey Long at 1-800-999-4033

## Cross Connection Control Program

GSWC'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 the water quality page at [www.gswater.com](http://www.gswater.com).

## 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 call center at 1-800-999-4033. Visit us online at [www.gswater.com](http://www.gswater.com) or e-mail us at [customerservice@gswater.com](mailto:customerservice@gswater.com).

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





# Golden State Water Company

A Subsidiary of American States Water Company

13608 Hitt Road  
Apple Valley, CA 92308

PRESORTED  
STANDARD  
U.S. POSTAGE  
**PAID**  
PERMIT NO. 41  
SAN DIMAS, CA

## Golden Rules for Water Conservation

- 1** End Wasteful Outdoor Water Activities
- 2** Fix Water Leaks
- 3** Replace Older Toilets with High-Efficiency Models
- 4** Be Water-Wise with your Clothes and Dish Washers
- 5** Make your Showerheads and Faucets Water-Efficient

Visit our website, [www.gswater.com](http://www.gswater.com), to see videos of each Golden Rule.



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