## 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.**


Golden State Water Company
A Subsidiary of American States Water Company

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Anaheim, CA 90801



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# 2012 Water Quality Report for year 2011

## Placentia Water System

Golden State Water Company
A Subsidiary of American States Water Company

## Source Water Assessment

GSWC conducted a source water assessment from 2002 through 2003 for each groundwater well serving the customers of its Placentia System.

Groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: confirmed leaking underground storage tanks, gas stations and sewer collection systems.

A copy of the assessment may be viewed at:

CDPH Santa Ana District Office
605 W. Santa Ana Blvd., Room 325
Santa Ana, CA 92701

or

GSWC Anaheim Office
1920 W. Corporate Way
Anaheim, CA 90801

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

CDPH Santa Ana District Office at 1-714-558-4410

For more details contact:

Bob Jordan at 1-800-999-4033

In December 2002, Metropolitan Water District of Southern California (MWD) completed a source water assessment of its Colorado River and State Water Project supplies.

Colorado River supplies are considered to be most vulnerable to the following: increasing urbanization in the watershed, recreation, urban/stormwater runoff, and wastewater.

State Water Project supplies are considered to be most vulnerable to the following: agriculture, recreation, urban/stormwater runoff, wastewater, and wildlife.

A copy of the assessment can be obtained by contacting MWD by phone at 1-213-217-6850, option 3.

## 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 www.gswater.com/water_quality.html.

# Providing Quality Drinking Water in California Since 1929

Golden State Water Company (GSWC) is pleased to present this Annual Water Quality Report, which contains important information about the quality of your drinking water for calendar year 2011.

Bringing you clean drinking water is serious business. We strictly follow the guidelines of the U.S. Environmental Protection Agency (USEPA), the California Department of Public Health, and the California Public Utilities Commission, sampling more than 230 regulated and unregulated elements in our water systems. GSWC's industry professionals regularly take samples to monitor quality at the water source and throughout the distribution system. We spent more than $550,000 companywide last year on laboratory tests to ensure that we are meeting regulatory standards and providing high-quality water.

If any drinking water standard is compromised, we are required to take immediate action, notify you quickly, and restore normal service. **Last year, the water we provided you met all USEPA and California drinking water standards.**

We pride ourselves on getting the job done right. For more than 80 years, we have successfully built relationships with the industry's best and our team of experts is equipped to provide customers with the most efficient and effective service possible. We are constantly improving our water production and delivery systems, and maintaining wells, pumps and pipelines. Our philosophy is to invest in robust preventive maintenance programs so that our water infrastructure can provide you with high-quality water, 24 hours per day, 7 days per week.

You, our customer, are our number one priority. Our around-the-clock Customer Service Center has representatives to answer your water questions and address your concerns day or night. Our website, www.gswater.com, contains a wide range of topics that include water quality, conservation rebates and information about your local customer service area, and water-use efficiency.

With regard to water-use efficiency, conservation remains one of the best and least-cost ways to maintain a reliable source of high-quality 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. We invite you to 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

Robert Hanford
Orange County 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 Placentia System is a blend of groundwater pumped from the Orange County Groundwater Basin, and imported water from the Colorado River Aqueduct and the State Water Project (imported and distributed by Metropolitan Water District of Southern California). The Orange County Groundwater Basin stretches 350 square miles from the Orange County line at Seal Beach and Long Beach, along the coast down to the El Toro "Y" and east to Yorba Linda.

## 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, and 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 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 U.S. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

## 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 the 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, though representative, is more than a year old.

**Chloramination** — The water purchased by GSWC from Metropolitan Water District of Southern California (MWD) contains chloramine. Chloramine is added to the water for public health protection. Chloraminated water is safe for people and animals to drink, and for all other general uses. Three special user groups, including kidney dialysis patients, aquarium owners, and businesses or industries that use water in their treatment process, must remove chloramine from the water prior to use.

Hospitals or dialysis centers should be aware of chloramine in the water and should install proper chloramine removal equipment, such as dual carbon adsorption units. Aquarium owners can use readily available products to remove or neutralize chloramine. Businesses and industries that use water in any manufacturing process or for food or beverage preparation should contact their water treatment equipment supplier regarding specific equipment needs.

Should you have any questions or concerns regarding chloramine in your water, please contact MWD at 1-213-217-6850, option 3.

**Fluoridation** — Fluoride has been added to the water that GSWC purchases from Metropolitan Water District of Southern California (MWD). Customers should see no difference in the taste, color or odor of their water as a result of fluoridation. Fluoridation does not change the way you normally use water for fish, pets or cooking. Parents and guardians of children who receive fluoride supplements should consult the child's doctor or dentist. For information regarding fluoridation of your water, please contact MWD at 1-213-217-6850, option 3 or visit the California Department of Public Health's fluoridation website at www.cdph.ca.gov/certlic/drinkingwater/Pages/Fluoridation.aspx.

**Aluminum, Iron, Manganese** — The secondary MCL for these constituents is set for aesthetic reasons and there is no health concern associated with levels in this water system.

**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 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.

**Turbidity** — Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of surface water filtration.

**Uranium** — Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

## 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 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

## Point...Click...Conserve!

**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 get 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**

## 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.

## Placentia 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 |
|---|---|---|---|---|---|---|---|
| Turbidity | | | | | | | |
| Highest single measurement of the treated surface water (NTU) | TT = 1.0 | n/a | n/a | 0.08 | No | 2011 | Soil runoff |
| Lowest percent of all monthly readings less than 0.3 NTU (%) | TT = 95 | n/a | n/a | 100% | No | 2011 | Soil runoff |
| Inorganic Constituents | | | | | | | |
| Aluminum (mg/L) | 1 | 0.6 | ND - 0.24 | 0.06 | No | 2011 | Erosion of natural deposits; residue from some surface water treatment processes |
| Fluoride (mg/L) | 2.0 | 1 | ND - 1.0 | 0.6 | No | 2011 | Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories |
| Nitrate [as NO3] (mg/L) | 45 | 45 | ND - 31 | 5 | No | 2011 | 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) | ND - 11 | ND | No | 2011 | Erosion of natural deposits |
| Gross Beta Activity (pCi/L) | 50(a) | (0) | ND - 4 | ND | No | 2011 | Decay of natural and manmade deposits |
| Uranium (pCi/L) | 20 | 0.43 | 1 - 79 | 8 | No | 2011 | 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 - 240 | 60 | No | 2011 | Erosion of natural deposits; residue from some surface water treatment processes |
| Color (units) | 15 | n/a | ND - 4 | ND | No | 2011 | Naturally occurring organic materials |
| Chloride (mg/L) | 500 | n/a | 43 - 94 | 63 | No | 2011 | Runoff/leaching from natural deposits; seawater influence |
| Iron (ug/L) | 300 | n/a | ND - 800 | ND | No | 2011 | Leaching from natural deposits; industrial wastes |
| Manganese (ug/L) | 50 | n/a | ND - 77 | ND | No | 2011 | Leaching from natural deposits |
| Odor---Threshold (units) | 3 | n/a | ND - 2 | ND | No | 2011 | Naturally occurring organic materials |
| Specific Conductance (uS/cm) | 1600 | n/a | 320 - 973 | 620 | No | 2011 | Substances that form ions when in water; seawater influence |
| Sulfate (mg/L) | 500 | n/a | 67 - 170 | 110 | No | 2011 | Runoff/leaching from natural deposits; industrial wastes |
| Turbidity (units) | 5 | n/a | ND - 0.4 | 0.2 | No | 2011 | Soil runoff |
| Total Dissolved Solids (mg/L) | 1000 | n/a | 274 - 800 | 420 | No | 2011 | Runoff/leaching from natural deposits |
| **Other Parameters (units)** | **Notification Level** | **PHG (MCLG)** | **Range of Detection** | **Average Level** | **MCL Violation?** | **Most Recent Sampling Date** | **Typical Source of Constituent** |
| Alkalinity (mg/L) | n/a | n/a | 48 - 190 | 100 | n/a | 2011 | |
| Calcium (mg/L) | n/a | n/a | 28 - 117 | 53 | n/a | 2011 | |
| Hardness [as CaCO3] (mg/L) | n/a | n/a | 57 - 370 | 190 | n/a | 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 | 3 - 22 | 11 | n/a | 2011 | |
| Magnesium (mg/L) | n/a | n/a | 9 - 35 | 16 | n/a | 2011 | |
| pH (pH units) | n/a | n/a | 7.0 - 8.6 | 7.2 | n/a | 2011 | |
| Potassium (mg/L) | n/a | n/a | 3 - 4 | 3 | n/a | 2011 | |
| Sodium (mg/L) | n/a | n/a | 47 - 77 | 57 | n/a | 2011 | Refers to the salt present in the water and is generally naturally occurring |

## Placentia Water System – Distribution Water Quality

| Microbiological Constituents (units) | Primary MCL | PHG (MCLG) | Value | MCL Violation? | 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 s3% | No | 2011 | Naturally present in the environment |

| 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 $Cl_2$] (mg/L) | (4.0) | (4) | 0.2 - 2.8 | 1.7 | No | 2011 | Drinking water disinfectant added for treatment |
| HAA5 [Total of Five Haloacetic Acids] (ug/L) | 60 | n/a | ND - 33 | 12 | No | 2011 | Byproduct of drinking water disinfection |
| TTHMs [Total of Four Trihalomethanes] (ug/L) | 80 | n/a | ND - 67 | 29 | No | 2011 | Byproduct of drinking water chlorination |

| Inorganic Constituents (units) | Action Level | PHG (MCLG) | Sample Data | 90th % Level | Exceedance? | Most Recent Sampling Date | Typical Source of Constituent |
|---|---|---|---|---|---|---|---|
| Copper (mg/L) | 1.3 | 0.3 | None of the 30 samples collected exceeded the Action Level. | 0.25 | No | 2010 | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |

(a) CDPH considers 50 pCi/L to be the level of concern for beta particles.
ND = Not Detected
CaCO3 = Calcium Carbonate