Golden State
Water Company
A Subsidiary of American States Water Company

2021

Cowan Heights Water System

Consumer Confidence Report on Water Quality for 2020

Providing Quality Drinking Water in California Since 1929

www.gswater.com/CowanHeightsCCR facebook.com/GoldenStateH2O @GoldenStateH2O

About the Company

Golden State Water Company (GSWC) is a wholly owned subsidiary of American States Water Company (NYSE:AWR). GSWC provides water service to more than 1 million people in over 80 communities throughout California. AWR 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.

Robert Sprowls
President and
Chief Executive Officer
Golden State Water Company

Ken Vecchiarelli
General Manager,
Orange County District
Golden State Water Company

President's Message

Dear Golden State Water Customer,

Golden State Water Company (GSWC) is pleased to present our 2021 Annual Water Quality Report (Consumer Confidence Report), providing customers with important information regarding local water quality and service during the 2020 calendar year.

GSWC is proud to be the trusted water provider serving local customers and more than 80 communities throughout California, and 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 recognize the challenges many customers have faced during this pandemic period. During this unprecedented time, our continued dedication to providing the highest levels of service and care to customers has been a driving force for our team of water professionals. We take great pride in the service we provide and embrace our role as essential workers in the community.

The pandemic has impacted the community in many ways, and we will remain with customers each step of the way until normalcy is restored. In 2020, GSWC implemented a temporary moratorium on disconnections for non-payment and activated Emergency Disaster Relief Protections as a resource for customers who have suffered financial hardships directly related to COVID-19. Those protections have been extended until June 30, 2021, and we are working closely with customers who have fallen behind to help get their accounts back in good standing.

For more than 90 years, water quality has always been a top priority for GSWC. Our team of scientists, engineers and water experts is committed to protecting our water systems and ensuring the water we deliver to local homes and businesses meets the stringent standards set by the state and federal governments and is safe to drink. We aggressively monitor and test for hundreds of contaminants in each of our 37 water systems and have consistently scored among the top water companies for compliance with water quality regulations.

GSWC is proud to report that the water delivered to your tap continues to meet all federal and state quality standards established to protect public health and safety. Within this document, you will find information regarding local water supply sources, testing, and the steps GSWC takes to ensure our water is in compliance with 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 to learn more about common contaminants, you can visit **www.gswater.com/water-quality/**. If you have any questions about this report, please contact our 24-hour Customer Service Center at 1.800.999.4033 or email us at **customerservice@gswater.com**.

GSWC is constantly working toward 100 percent customer satisfaction and encourages all customers to visit **www.gswater.com** and follow us on Twitter and on Facebook at @ GoldenStateH2O.

On behalf of everyone at GSWC, thank you for allowing us the opportunity to serve you and your community.

Sincerely,

Robert Sprowls

Ken Vecchiarelli

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 @GoldenStateH20

Where Does My Water Come From?

Water delivered to customers in the Cowan Heights 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 the 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.

Source Water Assessment

Golden State Water Company conducted a source water assessment in 2002, 2003 and 2020 for each of the groundwater wells serving customers of its Cowan Heights System.

The 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:

State Water Board Santa Ana District Office
2 MacArthur Place, Santa Ana, CA 92707

or

Golden State Water Company
2281 East Via Burton, Anaheim, CA 92806

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

State Water Board Santa Ana District Office at 1.714.558.4410

For more details, contact Rocio Flores, Associate Water Quality Engineer, at 1.800.999.4033.

In December 2002, the 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 at 1.213.217.6000.

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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.

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 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.

Treatment Technique (TT)

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

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 and is safe to drink.

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 Your 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.

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

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

YOUR WATER MEETS ALL CURRENT FEDERAL AND STATE REQUIREMENTS

Cowan Heights Water System – Source Water Quality

Primary Standards – Health Based (units)	Primary MCL	PHG (MCLG)	Range of Detection	Average Level	Most Recent Sampling wDate	Typical Source of Constituent
Turbidity						
Highest single measurement of the treated surface water (NTU)	TT = 1.0	n/a	n/a	0.04	2020	Soil runoff
Lowest percent of all monthly readings less than 0.3 NTU (%)	TT = 95	n/a	n/a	100%	2020	Soil runoff
Inorganic Constituents						
Aluminum (mg/L)	1	0.6	ND - 0.26	0.07	2020	Erosion of natural deposits; residue from some surface water treatment processes
Barium (mg/L)	1	2	ND - 0.11	ND	2020	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (mg/L)	2.0	1	0.26 - 0.90	0.48	2020	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [as N] (mg/L)	10	10	ND - 1.4	0.70	2020	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 - 3	ND	2020	Erosion of natural deposits
Gross Beta Activity (pCi/L)	50(b)	(0)	ND - 7	ND	2020	Decay of natural and manmade deposits
Uranium (pCi/L)	20	0.43	1 - 3	2	2020	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**
Aluminum (µg/L)	200	n/a	ND - 260 (c)	68	2020	Erosion of natural deposits; residue from some surface water treatment processes
Color (units)	15	n/a	ND - 1	ND	2020	Naturally-occurring organic materials
Chloride (mg/L)	500	n/a	64 - 94	79	2020	Runoff/leaching from natural deposits; seawater influence
Odor – Threshold (units)	3	n/a	ND - 2	1	2020	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1600	n/a	667 - 975	818	2020	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	500	n/a	84 - 220	150	2020	Runoff/leaching from natural deposits; industrial wastes
Turbidity (units)	5	n/a	ND - 0.10	ND	2020	Soil runoff
Total Dissolved Solids (mg/L)	1000	n/a	432 - 603	512	2020	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	117 - 154	136	2020	
Calcium (mg/L)	n/a	n/a	53 - 67	60	2020	
Hardness [as CaCO3] (mg/L)	n/a	n/a	167 - 603	216	2020	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	9.8 - 35	13	2020	
Magnesium (mg/L)	n/a	n/a	8.3 - 26	17	2020	
pH (pH units)	n/a	n/a	8.1	8.1	2020	
Potassium (mg/L)	n/a	n/a	2.1 - 4.7	3.4	2020	
Sodium (mg/L)	n/a	n/a	77 - 98	86	2020	Refers to the salt present in the water and is generally naturally occurring

(a) MCL is based on Gross Alpha minus Uranium.

(b) DDW considers 50 pCi/L to be the level of concern for beta particles.

(c) Compliance with the state MCL for aluminum is based on Running Annual Average (RAA). No exceedances occurred.

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 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.

Aluminum – The secondary MCL for aluminum is set for aesthetic reasons and there is no health concern associated with the aluminum levels in this water system.

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.

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 visit the Division of Drinking Water's fluoridation website at https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html.

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 Company 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.

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.

Cowan Heights Water System – Distribution Water Quality

Microbiological Constituents (units)	Primary MCL	PHG (MCLG)	Value	Most Recent Sampling Date	Typical Source of Constituentw
Total Coliform Bacteria ≥40 Samples/Month (Present / Absent)	More than 5% of monthly samples are positive	(0)	Highest percent of monthly samples positive was 2.3 %	2020	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
Bromate (µg/L)	10	0.1	ND - 1.3	1.9	2020	Byproduct of drinking water disinfection
Chlorine [as Cl2] (mg/L)	(4.0)	(4)	0.3 - 2.8	1.8	2020	Drinking water disinfectant added for treatment
HAA5 [Sum of 5 Haloacetic Acids] (µg/L)	60	n/a	2.5 - 5	5	2020	Byproduct of drinking water disinfection
TTHMs [Total Trihalomethanes] (µg/L)	80	n/a	21 - 27	24	2020	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 25 samples collected exceeded the action level.	0.23	2019	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 (d)
Lead (µg/L)	AL = 15	0.2	1 of the 25 samples collected exceeded the action level.	ND	2019	Internal corrosion of household water plumbing systems; discharges from industrial manufacturerers; erosion of natural deposits.	1

(d) 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 U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State 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.

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 **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 **https://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 (CARW)
- Sign up to receive email updates about your water service

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

Infrastructure Investments

Water providers have a duty to maintain the local water infrastructure to ensure that the delivery of reliable, quality water is not compromised. At GSWC, we take that responsibility seriously.

In 2020, GSWC installed 103,994 feet of pipeline, 1,623 service lines and 282 fire hydrants throughout the state. Proactive system investments like these are critical to protect the quality of water we serve to the customers and to avoid the costly and sometimes dangerous effects of deferring maintenance.

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

It's important that all Californians continue using water responsibly, as many parts of our state are experiencing various levels of drought. We must all work together to protect available water supplies. As Californians, it is our duty to make conservation a way of life and protect this precious and scarce resource.

GSWC is proud to be your conservation partner. It is important that we all work together to incorporate water-use efficiency into our daily lives.

To learn more about conservation programs and/or water-use restrictions in your area, please visit **www.gswater.com/conservation** or call 1.800.999.4033.