Consumer Confidence Report

2024
For the year 2023

CITY of CORONA
Utilities Department

"Protecting Public Health"

Message from the Director of Utilities

In this report you will find important details about the standards we uphold from the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB).

The Utilities Department (UD) performs rigorous monitoring and testing of the water we serve as a top priority. Highly skilled Water Operations staff carefully draw samples every day which are sent to independent laboratories to be tested. We are committed to our valued customers to provide safe, reliable drinking water by performing thousands of these tests throughout the year and ensuring the best blend of water is delivered to your tap.

We are excited to share a completed project that will support our community:

Conversion of the City Park Ion Exchange Treatment Plant to a Granular Activated Carbon (GAC) Treatment Plant. By making this change our Operations staff is able to improve the overall water quality and reliability.

This Consumer Confidence Report provides information with respect to the water produced and distributed in 2023. This summary provides water quality data, outlines where the water comes from, and how it compares to state standards. I am pleased to report that your tap water met all USEPA and State drinking water health standards. The UD staff helped ensure that our system did not exceed any of the primary Maximum Contaminant Levels (MCLs).

Tom Moody
Director of Utilities
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Corona's Water Sources

In 2023, Corona residents and businesses used approximately 9.1 billion gallons of drinking water. Corona's water supply comes from different sources: groundwater wells owned and operated by the City of Corona provided 45.8%, 49.7% came through Lake Mathews from the Colorado River, and 4.5% was from the State Water Project's California Aqueduct.

Water Treatment Processes

The surface water from the Colorado River requires treatment to become drinking water. The treatment process is accomplished in the City of Corona's two surface water treatment facilities: Sierra Del Oro and Lester. These facilities incorporate the use of coagulants, which bind small particles together to form larger particles that can be easily removed through multimedia filtration. After filtration, the water is treated with sodium hypochlorite to kill or inactivate harmful organisms. This part of the process is called disinfection.

Through independent laboratory testing, 100% of the samples taken in 2023 were free of harmful organisms.

Most of the groundwater pumped in Corona was sent through a state-of-the-art reverse osmosis membrane treatment facility, the Temescal Desalter. This facility provides removal of nitrates, per-fluorinated compounds, 1,2,3-Trichloropropane (1,2,3-TCP), perchlorates, and suspended and dissolved solids. The UD adds an ammonium hydroxide solution to the disinfected water, which in conjunction with sodium hypochlorite forms a compound called chloramines. This chemical acts as a disinfectant in the distribution system and remains active for a longer period of time than sodium hypochlorite alone. It also helps reduce the formation of disinfection byproducts that could be harmful to our health. Disinfection byproducts are formed when some disinfectants like chlorine react with naturally occurring organic matter in the water.

Blending

The UD has five blending facilities that blend treated groundwater sources with raw groundwater sources and treated surface water to deliver safe, reliable drinking water to your tap. You will notice in the tables of detected contaminants that the groundwater exceeded the primary standard for fluoride, nitrate and perchlorate. The UD is required by law to report the range of all raw groundwater samples monitored, as well as the average concentration delivered to your tap. The averages of what you receive at your tap are much lower because the UD treats and blends water from several sources to improve water quality. The blending stations are continuously monitored and routinely sampled to ensure that the water delivered to your tap meets all health standards with a safety margin of no less than 10%. Please refer to the "Treated Average System Water" column in the tables at the end of the report for a more accurate representation of system water quality.

Mangular Blending Facility

For more information about fluoridation, oral health, and current issues visit: **https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html.**

Reclaimed Water

To improve water supply reliability for the City, the UD developed and began building our reclaimed water system in 2006. Utilizing reclaimed water to help meet water demands for the City reduces the impact of imported water supply shortages and costs. The reclaimed water system uses highly treated wastewater from our sewer treatment facilities and distributes it throughout the City. The reclaimed water system is separate from the drinking water system. Reclaimed water pipes, sprinkler caps, and signage are painted purple to easily identify them as part of the reclaimed water system. Reclaimed water is used primarily on landscaping at parks, schools, parkway areas, and a few commercial buildings. By re-using water we save potable water for our homes and businesses. A rebate incentive is offered for businesses that convert their landscape irrigation and/or process operation water use to reclaimed water. Save water and get funding assistance to cover the conversion. Contact the Water Resources Team at (951) 736-2234 or by e-mail at **StopTheDrop@CoronaCA.gov** to see if your business is eligible.

The City of Corona's reclaimed water system infrastructure consists of approximately 62 miles of pipeline, three storage tanks, and six pump stations.

Of the reclaimed water produced, 1.144 billion gallons went into the reclaimed water distribution system for customer use. We currently have 429 connections and are continually adding new sites.

Water Conservation

Our changing climate requires Californians to move beyond temporary emergency drought measures and adopt permanent changes to use water more wisely and prepare for more frequent and persistent periods of limited water supply. Conservation and efficiency also reduce the energy needed to pump, transport, treat and deliver water. Your small changes make a big impact. We ask that everyone be efficient in their water usage, by requiring all residents and businesses in the UD's service area to follow the water use guidelines on the next page.

Using drought-resistant plants and trees can save 30–60 gallons per 1000 sq. ft. each time.

Source: **saveourwater.com**

Water Use Guidelines – Stage 2

- No watering between 10 a.m. and 8 p.m.
- Odd-numbered addresses can water on Saturday, Monday, and Wednesday only.
- Even-numbered addresses can water on Sunday, Tuesday, and Thursday only.
- Watering on Fridays is prohibited. Since government institutions are not open on weekends, they may water three days per week of the agency's choosing.
- Limit sprinkler times to help conserve water.
- Leaks and broken sprinklers must be fixed in a timely manner.
- Watering during and within 48 hours after rainfall measuring ½" or more is prohibited.
- Drip irrigation, which waters in gallons per hour, can water for a maximum of 90 minutes per day, provided there is no runoff.
- Water cannot be allowed to run off the property.
- All swimming pools, spas, ponds, and fountains shall be equipped with re-circulating pumps.
- Washing hard surfaces is prohibited.
- Vehicles can only be washed using a bucket and a hose with an automatic shut-off nozzle.
- In Corona, food establishments are prohibited from providing drinking water to patrons unless requested.
- Street trees must be kept alive.

Rebates for Water Saving Appliances and Devices

Improve the water use efficiency at your home or business by upgrading your appliances and fixtures to water efficient models. The UD offers rebates for the following water saving appliances, devices, and fixtures:

- High Efficiency Clothes Washer
- Premium High Efficiency Toilets
- Weather Based Irrigation Controllers
- Soil Moisture Sensors
- Rotating Nozzles
- Rain Barrels
- Turf Replacement

The UD also offers other residential rebates for a pool cover and a recirculating hot water device. For more information on these and other water efficiency rebates available to Corona residents, please contact the Water Resources Team at (951) 736-2234 or e-mail **StopTheDrop@CoronaCA.gov**.

Water Efficiency Rebates for Businesses

The UD offers numerous rebates just for businesses to help them improve water efficiency. Available rebates for devices and fixtures include:

- Premium High Efficiency Toilets
- Ultra-Low and Zero Water Urinals
- Plumbing Flow Control Valves
- Air Cooled Ice Machines
- Connectionless Food Steamers
- Dry Vacuum Pump
- Laminar Flow Restrictions
- Conductivity and pH Controllers for Cooling Towers
- Weather-Based Irrigation Controllers (WBICs)
- Soil Moisture Sensor Systems
- Rotating Nozzles for Pop-Up Spray Heads
- Large Rotary Nozzles
- In-Stem Flow Regulators
- Turf Replacement
- Reclaimed Water Conversion Program (where available)

For more information on these and other water efficiency rebates available to Corona businesses, contact the Water Resources Team at (951) 736-2234 or e-mail **StopTheDrop@CoronaCA.gov**.

Corona Recycles Team In Action!

The Corona Recycles team has been hard at work over the past few years! In 2023, the Corona Recycles team continued implementing Senate Bill (SB) 1383, the State's most ambitious recycling law, and met the following milestones towards compliance:

- Achieved compliance with 2023 SB 1383 Procurement Goal by acquiring 2,367 tons of compost through a direct-service provider
- Implemented required SB 1383 services to all residents and businesses
- Assisted all Tier 1 Edible Food Generators with getting in compliance with Edible Food Recovery Requirements
- Conducted education & outreach activities to provide residents and businesses with information on SB 1383 compliance

Additionally, the Corona Recycles team provided residents with countertop kitchen caddies that can be utilized for separating food scraps from everyday trash in the kitchen. Reusable grocery totes were also offered to residents to aid in the reduction of the use of plastic bags that end up in landfills.

In 2024, the Corona Recycles team will continue their education and outreach efforts for SB 1383 and expand their Edible Food Recovery Program, aimed at reaching the State's goal of recovering at least 20% of edible food that is currently being disposed of and donating it to those in need. The team will also be hosting additional events for residents, including a Community Clean-Up event where residents can dispose of any bulky items they may have at home as well as bring old documents and paper for shredding and disposal. We will continue to strive to make the City of Corona a more environmentally sustainable community.

Questions about any of our programs? Visit our webpage at **www.CoronaCA.gov/Recycle** where you will find educational resources on **SB 1383**, as well as other information on our various programs, including instructions on how to request a countertop kitchen caddy or reusable grocery totes on the Residential Waste & Recycling Guidelines tab. You can also reach out to us by email at **CoronaRecycles@CoronaCA.gov**.

From Your Drain to the Environment – Keep It Clean

While water reclamation treatment removes most pollutants, even trace amounts of some substances may be harmful to the environment. The best solution is to prevent pollution from going down the drain in the first place.

Dispose of unwanted medicine properly… No Drugs Down the Drain!

For years, unwanted medicine was flushed down the drain to protect children and pets from accessing it, and to ensure against illegal recovery of controlled substances. Today, there are better options. Please visit the U.S. Food and Drug Administration website for more information on how to dispose of unused medicine: **https://www.fda.gov/forconsumers/consumerupdates/ucm101653.htm**.

Keep drains free of FOG – Fats, Oils, and Grease

When washed down the drain, cooking fats, oils, and grease, aka "FOG," can block sewer lines, causing raw sewage to back up into your home or onto neighborhood streets and storm drains. Overflows can be costly and pose health and environmental hazards. Keep your sewer lines FOG-free by scraping cooking fats into the garbage or into your food scrap recycling bin, where available – not down the drain.

Sanitary wipes are another item that often causes blockages in the sewer lines. They should be kept away from drains and should not be flushed down the toilet, even if they are labeled as "flushable".

General Water Quality Information

Drinking water sources (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

GAC Treatment Facility

- Organic chemical contaminants, including synthetic and volatile that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.
- Radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

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 indicate that water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk. These people should seek advice from their health care providers about 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 from the **Safe Drinking Water Hotline (1-800-426-4791)**.

Nitrate

Nitrate in drinking water at levels above 10 mg/L as nitrogen is a health risk especially for infants of less than six months of age because it 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 advice from your health care provider.

Arsenic

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Source Water Assessment

In accordance with the Federal Safe Drinking Water Act (SDWA), the SWRCB Division of Drinking Water and Environmental Management developed a program, called the Drinking Water Source Assessment and Protection (DWSAP) Program, to assess the vulnerability of drinking water sources to contamination. Assessments of the drinking water sources for the City of Corona were completed in February 2012. The assessment concluded that the City of Corona's sources are considered most vulnerable to the following activities not associated with any detected contaminants in the water supply: automobile – gas stations, chemical/ petroleum pipelines, chemical/ petroleum processing/storage, dry cleaners, historic gas stations, machine shops, metal plating/finishing/ fabricating, mining sand/gravel, NPDES/WDR permitted discharges, plastics/synthetics producers, septic systems – low density [<1/acre], sewer collection systems, underground storage tanks – confirmed leaking tanks, utility stations – maintenance areas, and wastewater treatment plants. A copy of the completed assessments are available through the City of Corona's City Clerk's office at 400 S. Vicentia, Corona, CA 92882, or by using the online Public Records Request form at **https://www.CoronaCA.gov/services/public-records-request**.

Lead and Copper Rule Monitoring

The Lead and Copper Rule (LCR) was developed to protect public health by minimizing lead and copper levels in drinking water. The LCR established an action level of 15 parts per billion (ppb) for lead and 1.3 parts per million (ppm) for copper based on the 90th percentile level of tap water samples collected. Lead and copper are sampled on a mandated three-year testing cycle with sampling conducted at the customer's tap.

Parameter	Units	State MCL	PHG	State DLR	Date Sampled	90th Percentile	No. Sites Sampled	No. Sites Exceeding AL
Lead	ppb	AL=15	0.2	5	2023	5	53	3
Copper	ppm	AL=1.3	0.3	0.05	2023	0.17	53	0

AL Allowable Levels
DLR Detection Limits for purposes of Reporting
MCL Maximum Contaminant Level
PHG Public Health Goal
ppb Parts per billion or micrograms per liter (µg/L)
ppm Parts per million or milligrams per liter (mg/L)

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. The City of Corona 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 to 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 or at **http://www.epa.gov/lead**.

Garretson Blend Facility

Primary Standards – Mandatory Health-Related Standards

CLARITY

Please see pages 20-22 for key to abbreviations and footnotes

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE		WATER SOURCE	MAJOR SOURCES IN DRINKING WATER
Combined Filter Effluent Turbidity	%	95(a)	NA	–	% < 0.3	100%	Metropolitan Water District Henry J. Mills Water Treatment Plant	Soil runoff
	NTU	TT 0.3			Highest	0.05		
Combined Filter Effluent Turbidity	%	95(a)	NA	–	% < 0.3	100%	City of Corona, Lester & Sierra Del Oro Water Treatment Facilities	Soil runoff
	NTU	TT 0.3			Highest	0.07		

MICROBIOLOGICAL CONTAMINANTS

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	REGULATED IN DISTRIBUTION SYSTEM	MAJOR SOURCES IN DRINKING WATER
Total Coliform Bacteria (State Total Coliform Rule)	%	5.0 (b)	(0)	–	–	Highest % of positive samples collected in any one month = 1%	Naturally present in the environment
Fecal Coliform and E. Coli (State Total Coliform Rule)	(c)	(c)	(0)	–	–	Total number of positive samples collected in 2023 = 0	Human and animal fecal waste
Total Coliform Bacteria (Federal Total Coliform Rule)	%	TT (d)	–	–	–	Highest % of positive samples collected in any one month = 1%	Naturally present in the environment
Fecal Coliform and E. Coli (Federal Total Coliform Rule)	(e)	(e)	(0)	–	–	Total number of positive samples collected in 2023 = 0	Human and animal fecal waste
Heterotrophic Plate Count (HPC)	CFU/mL	TT	NA	NA	Range	Distribution System Wide: ND-884	Naturally present in the environment
					Average	Distribution System Wide: 5	

RADIOACTIVE CONTAMINANTS (f)

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	MAJOR SOURCES IN DRINKING WATER
Gross Alpha Particle Activity	pCi/L	15	(0)	3	Range	ND	ND - 3.2	ND - 15	–	Erosion of natural deposits
					Average		ND	4.7		
Uranium (k)	pCi/L	20	0.43	1	Range	ND	2.8 - 3.1	ND - **23**	–	Erosion of natural deposits
					Average		2.9	6.53		

Primary Standards – (continued)

INORGANIC CONTAMINANTS

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	MAJOR SOURCES IN DRINKING WATER
Arsenic	µg/L	10	0.004	2	Range	ND	ND	ND - 5.4	ND	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
					Average			ND		
Barium	mg/L	1	2	0.1	Range	ND	0.12	ND - 0.12	ND - 0.13	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
					Average			ND	ND	
Fluoride (e, h)	mg/L	2.0	1	0.1	Range	0.6 - 0.8	0.3 - 0.4	0.1 - 1.7	ND - 0.72	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
					Average	0.7	0.4	0.4	0.2	
Nitrate (as Nitrogen) (k, t)	mg/L	10 (as N)	10 (as N)	0.4	Range	0.8	ND	ND - **20**	ND - 6.2	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
					Average			8.9	2.1	
Perchlorate (k, s, t)	µg/L	6	1	2	Range	ND	ND	ND - **9.4**	ND - 3.3	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
					Average			2.8	ND	

SYNTHETIC ORGANIC CONTAMINANTS including Pesticides/PCBs

1,2,3-Trichloropropane (1,2,3-TCP)(k, t, u)	µg/L	0.005	0.0007	0.005	Range	ND	ND	ND - **0.019**	ND	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent; byproduct during the production of other compounds and pesticides.
					Average			ND		

Primary Standards – (continued)

VOLATILE ORGANIC CONTAMINANTS

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	MAJOR SOURCES IN DRINKING WATER
Dichloromethane (methylene chloride)	µg/L	5	4	0.5	Range	ND	ND	ND - 1.1	ND	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
					Average			ND		
Tetrachloroethylene (PCE)	µg/L	5	0.06	0.5	Range	ND	ND	ND - 0.63	ND	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
					Average			ND		
Trichloroethylene (TCE)	µg/L	5	1.7	0.5	Range	ND	ND	ND - 1.4	ND	Discharge from metal degreasing sites and other factories
					Average			ND		

Secondary Standards – Aesthetic Standards

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	MAJOR SOURCES IN DRINKING WATER
Aluminum (i)	µg/L	200	600	50	Range	ND - 68	ND	ND	ND - **280**	Erosion of natural deposits; residual from some surface water treatment processes
					Max RAA	60			115	
Chloride	mg/L	500	NA	NA	Range	38 - 44	102 - 116	110 - 210	16 - 120	Runoff/leaching from natural deposits; seawater influence
					Average	41	109	166	64	
Corrosivity (as Aggressiveness Index)	AI	NA	NA	NA	Range	11.9 - 12.1	–	12 - 13	9.6 - 13	Elemental balance in water; affected by temperature, other factors
					Average	12.0		13	11	
Foaming Agents – Methylene Blue Active Substances (MBAS)	µg/L	500	NA	(50)	Range	ND	ND	ND - 120	ND	Municipal and industrial waste discharges
					Average			15		
Manganese (f, k)	µg/L	50	NL=500	20	Range	ND	ND	ND - **500**	ND	Leaching from natural deposits
					Average			38		
Odor Threshold (k)	Units	3	NA	1	Range	2	**8**	ND - 2	ND - 1	Naturally-occurring organic materials
					Average			ND	ND	
Specific Conductance (k)	µS/cm	1,600	NA	NA	Range	357 - 359	995 - 1,030	980 - **1,800**	85 - 1,177	Substances that form ions when in water; seawater influence
					Average	358	1,010	1,339	573	
Sulfate	mg/L	500	NA	0.5	Range	32 - 50	219 - 253	120 - 240	3.6 - 240	Runoff/leaching from natural deposits; industrial wastes
					Average	41	236	189	109	

Secondary Standards – Aesthetic Standards – (continued)

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	MAJOR SOURCES IN DRINKING WATER
Total Dissolved Solids (j, k, t)	mg/L	1,000	NA	NA	Range	200 - 207	623 - 671	490 - **1,100**	68 - 680	Runoff/leaching from natural deposits
					Average	204	647	832	351	
Turbidity	NTU	5	NA	0.1	Range	ND	0.4 - 0.5	ND - 0.4	ND	Soil runoff
					Average		0.4	0.13		

Unregulated Contaminants with No MCLs (g)

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	HEALTH EFFECTS
Boron (p)	mg/L	NL=1	NA	0.1	Range	0.13	0.14	0.33 - 3.4	0.13 - 0.37	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
					Average			1.4	0.24	
Hexavalent Chromium	µg/L	NA	0.02	1	Range	ND	ND	ND - 3.1	ND	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
					Average			ND		
Vanadium	µg/L	NL=50	NA	3	Range	3.3	ND	ND - 19	ND - 3.4	Vanadium exposures resulted in developmental and reproductive effects in rats.
					Average			6.2	ND	

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) with Notification Levels, Analyzed by EPA Methods 533 and 537.1 (s, t)

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	HEALTH EFFECTS
Perfluorobutane Sulfonic (PFBS)	ng/L	NL=500	NA	NA	Range	ND	ND	2.7 - 5.1	ND - 2.2	Perfluorobutane sulfonic acid exposures resulted in decreased thyroid hormone in pregnant female mice.
					Average			19	ND	

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) with Notification Levels – (continued)

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	HEALTH EFFECTS
Perfluorohexane Sulfonic Acid (PFHxS)	ng/L	NL=3	NA	NA	Range	ND	ND	ND - 58	ND	Perfluorohexane sulfonic acid exposures resulted in decreased total thyroid hormone in male rats.
					Average			20		
Perfluorooctanoic Acid (PFOA)	ng/L	NL=5.1	NA	NA	Range	ND	ND	ND - 240	ND - 3.3	Perfluorooctanoic acid exposures resulted in increased liver weight in laboratory animals.
					Average			71	ND	
Perfluorooctanesulfonate Acid (PFOS)	ng/L	NL=6.5	NA	NA	Range	ND	ND	ND - 240	ND - 3.5	Perfluorooctanesulfonic acid exposures resulted in immune suppression, specifically, a decrease in antibody response to an exogenous antigen challenge.
					Average			89	ND	

Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors Federal Rule (m)

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE/ LRAA/RAA	DISTRIBUTION SYSTEM WIDE	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
Total Trihalomethanes (TTHMs) (n)	µg/L	80	NA	1	Range	ND - 57	Byproduct of drinking water disinfection	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
					LRAA	48.5		
Haloacetic Acids (HAA5) (o)	µg/L	60	NA	1	Range	ND - 11	Byproduct of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
					LRAA	10.3		
Bromate (Mills - WR-24 Conn.) (l)	µg/L	10	0.1	1	Range	ND - **20**	Byproduct of drinking water disinfection	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
					Max RAA	6.7		
Chloramines	mg/L	[4 as Cl2]	[4 as Cl2]	NA	Range	1.25 – 2.92	Drinking water disinfectant added for treatment	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
					Max RAA	2.00		
Control of DBP precursors (TOC)	mg/L	TT	NA	0.3	Range	ND - 2.7	Various natural and manmade sources	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer.
					Average	2.2		

Other Parameters

CHEMICAL	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER
Alkalinity	mg/L	NA	NA	NA	Range	57 - 64	122 - 131	110 - 380	17 - 140
					Average	60	126	227	70
Bicarbonate	mg/L	NA	NA	NA	Range	–	–	110 - 380	17 - 140
					Average			227	70
Calcium	mg/L	NA	NA	NA	Range	17 -20	70-71	48 - 150	2.3 - 84
					Average	18	70	115	38
Hardness (q)	mg/L	NA	NA	NA	Range	79 - 80	290	180 - 530	7.9 - 310
					Average	80		409	157
Magnesium	mg/L	NA	NA	NA	Range	7.8 - 8.9	27	14 - 44	0.52 - 30
					Average	8.4		30	14
pH	pH Units	NA	NA	NA	Range	8.5 - 8.7	8.1 - 8.2	7.6 - 8.0	7.3 - 9.5
					Average	8.6	8.2	7.8	7.5
Potassium	mg/L	NA	NA	NA	Range	2.5	4.7 - 5.1	2.3 - 12	ND - 6
					Average		4.9	5.2	3.7
Sodium (r)	mg/L	NA	NA	NA	Range	39 - 40	95 - 108	56 - 160	18 - 100
					Average	40	102	122	58

Water-saving Tip: *Using a drip-irrigation system or hand-watering your garden could cut your water use in half.*

Federal Unregulated Contaminants Monitoring Rule (UCMR 4) (v)

HALOACTIC ACID (HAA) GROUP

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	DISTRIBUTION SYSTEM
HAA5 (o)	µg/L	NA	NA	NA	Range	ND-15.8
					Average	5.9
HAA6Br (x)	µg/L	NA	NA	NA	Range	ND-17.3
					Average	6.1
HAA9 (y)	µg/L	NA	NA	NA	Range	ND-28
					Average	10.2
Total Organic Carbon	µg/L	NA	NA	NA	Range	ND-2,600
					Average	1,925
Bromide	µg/L	NA	NA	NA	Range	ND-32
					Average	15.3

METALS AND METALLOIDS GROUP

Manganese	µg/L	NA	NA	NA	Range	ND-62
					Average	2

Federal Unregulated Contaminants Monitoring Rule (UCMR 5) (w)

LITHIUM BY ICP

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	DISTRIBUTION SYSTEM
Lithium	µg/L	NA	NA	9	Range	ND-55.1
					Average	20

EPA 533

PFBA	µg/L	NA	NA	0.005	Range	ND-0.0076
					Average	ND
PFHxA	µg/L	NA	NA	0.003	Range	ND-0.0038
					Average	ND
PFHxS	µg/L	NA	NA	0.003	Range	ND-0.0033
					Average	ND
PFPeA	µg/L	NA	NA	0.003	Range	ND-0.0061
					Average	ND

Water-saving Tip: *Don't let the faucet run while washing dishes by hand. Fill one side of a double-basin sink with soapy water and the other side with rinse water.*

Key to Abbreviations

CFU/mL	Colony-Forming Units per Milliliter	**MBAS**	Methylene Blue Active Substances	**NTU**	Nephelometric Turbidity Units	**ng/L**	Nanograms per liter or parts per trillion (ng/L)
DBP	Disinfection Byproducts	**N**	Nitrogen	**pCi/L**	PicoCuries per liter	**RAA**	Running Annual Average
DLR	Detection Limits for purposes of Reporting	**NA**	Not Applicable	**µg/L**	Micrograms per liter or parts per billion (ppb)	**TOC**	Total Organic Carbon
LRAA	Locational Running Annual Average	**ND**	Not Detected	**mg/L**	Milligrams per liter or parts per million (ppm)	**µS/cm**	microSiemen per centimeter; or micromho per centimeter (µmho/cm)
		NL	Notification Level				

Extended Abbreviations

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that 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.

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.

Water-saving Tip: *Wash your car with a bucket and sponge.*

Footnotes

(a) The turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time. Turbidity, a measure of the cloudiness of the water, is an indicator of treatment performance. The averages and ranges of turbidity shown in the Secondary Standards were based on the treatment plant effluent.

(b) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform-positive. Compliance is based on the combined distribution system sampling from all the treatment plants. In 2023, 1540 samples were analyzed and there were three positive detections for total coliform. The MCL was not violated.

(c) *E. coli* MCL: The occurrence of two consecutive total coliform-positive samples, one of which contains E. coli, constitutes an acute MCL violation. The MCL was not violated.

(d) Total coliform TT trigger, Level 1 assessments, and total coliform TT violations: More than 5.0% total coliform-positive samples in a month trigger Level 1 assessments. Failure to conduct assessments and correct findings within 30 days is a total coliform violation. No triggers, Level 1 assessments, or violations occurred.

Lester Facility Chemical Tank Farm

(e) *E. coli* MCL and Level 2 TT triggers for assessments: Routine and repeat samples are total coliform-positive and either sample is E. coli-positive or system fails to collect all repeat samples following an E. coli-positive sample, or fails to test for E. coli when the repeat sample is total coliform-positive. No samples were E. coli-positive. No MCLs violations or no assessments occurred.

(f) Results included in this section range from 2015-2023.

(g) Unregulated contaminant monitoring helps the USEPA and the State Board determine where certain contaminants occur and whether the contaminants need to be regulated.

(h) City of Corona was in compliance with all provisions of the State's Fluoridation System Requirements. This is part of the City of Corona's blending plan to reduce the levels of fluoride being delivered to the consumer's tap. Refer to the "Treated Average System Water" column for a more accurate representation of system water quality. system water quality.

(i) Aluminum has a secondary standard limit. In 2023 the secondary standard limit was exceeded at our Treatment Facility effluent with a Maximum Running Annual Average (Max RAA) of 115 ug/L. No consumer action is necessary since secondary standards for aluminum are established only for aesthetic effects (water color). We are continually calibrating our aluminum base coagulant to achieve the non-mandatory secondary standard limit of 200 ug/L.

(j) Total Dissolved Solids (TDS) is a measure of the total amount of all the materials that are dissolved in water. These minerals, both natural and anthropogenic (made by humans), are mainly inorganic solids, with a minor amount of organic material.

(k) This constituent was detected at levels exceeding the MCL, results shown in bold. Please note that this water is blended with water from other sources to provide customers with the highest quality drinking water.

(l) Reported from Mills Filtration Plant Metropolitan Water District (MWD). Mills MWD water is blended with other Corona water sources. Please note that this water is blended with water from other sources to provide customers with the highest quality drinking water.

(m) The City of Corona was in compliance with all provisions of the Stage 2 Disinfectants and Disinfection Byproducts Rules (D/DBP). Compliance was based on the locational running annual average (LRAA). The average reported reflects the highest TTHM and HAA5 LRAAs for the year.

(n) Total Trihalomethanes is the sum of bromodichloromethane, bromoform, chloroform, and dibromochloromethane.

(o) HAA5 is the sum of dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, dibromoacetic acid, and monochloroacetic acid.

(p) The sources that were detected for Boron are all directed to the Temescal Desalter for reverse osmosis treatment. The treated water is monitored at the effluent of the facility which is represented in the "Treated Average System Water" column.

(q) Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.

(r) Sodium refers to the salt present in the water and is generally naturally occurring.

(s) Data are the average of the results from two analytical methods.

(t) Fluoride, nitrate, perchlorate, TDS, 1,2,3-TCP, PFOA, PFOS, PFBS and PFHxS are a part of Corona's blending remediation plan to reduce the levels being delivered to the consumer's tap. Refer to the "Treated Average System Water" column for a more accurate representation of system water quality.

(u) 1,2,3-Trichloropropane (1,2,3-TCP) had a notification level (NL) of 0.005 ug/L until December 14, 2017, when the MCL of 0.005 ug/L became effective. 1,2,3-TCP was monitored quarterly in Corona's source and treated waters for the State's initial monitoring requirement and continues to be monitored per our Blending Plan requirements.

(v) UCMR 4 sampling took place from 2018-2019. Minimum reporting levels are as stipulated in the Federal UCMR 4. Detected parameter results are included in the CCR.

(w) UCMR 5 sampling began in September 2023 and is scheduled to be completed by September 2024. Minimum reporting levels are as stipulated in the Federal UCMR 5. Detected parameter results are included in the CCR.

(x) HAA6Br: Bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, and tribromoacetic acid.

(y) HAA9: Bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, and trichloroacetic acid.

Frequently Asked Questions

How hard is my water?

Hardness is dissolved minerals, including calcium and magnesium. This may cause a deposit or water spots on fixtures and dishes. Our average hardness in the system is 157 ppm or 9.2 grains per gallon, which is classified as hard. Our water hardness can change depending on the water demand and the season.

When I turn on my kitchen or bathroom faucet, the water comes out white. What is wrong?

Dissolved air in the water causes a milky appearance. When you turn on your faucet, the pressure is relieved and this allows the air to form bubbles that rise to the top of the glass. It will clear within a minute, beginning at the bottom of the glass. The water is safe to drink.

How do I flush my water heater?

We have general instructions for flushing your water heater; for specific instructions consult your user's manual or look on the manufacturer's website.

1. Turn the gas valve to "pilot."
2. Hook up a garden hose to the water heater and find a proper location to drain the water; use caution – water will be hot when it comes out.
3. Open the valve until all of the hot water has drained from the water heater.
4. Close the valve where the garden hose is hooked up.
5. Allow the heater to fill up, and then close the cold water supply on top of the water heater.
6. Open up the hose bib again and let it drain.
7. Repeat the cycle a couple of times.
8. Disconnect the garden hose, turn the water supply back on and turn the gas valve to the "on" position.

My water pressure has been very high recently, what's wrong?

The City has six separate water pressure zones. Your pressure should be constant throughout the day but may decrease 3 - 5 pounds when system demands go up, such as during the night when a lot of water is used for irrigation. If your pressure has suddenly increased, it may mean that your pressure regulator needs to be adjusted or replaced. Call us at (951) 736-2234 and we will be happy to help troubleshoot the issue for you.

There is an odor coming from my water, what's wrong? Is the water safe to drink?

We sometimes receive phone calls from customers stating that their water smells. However, the source of the odor is usually not the water, but from something else in the home. To test this, simply fill a glass with water and smell it. If the water itself does not smell, but you still smell the odor, there could be another issue such as a sink that needs to have the garbage disposal cleaned or run. A front-loading washing machine can also develop an odor from mold if the lid remains closed.

Did you know?

- There are 748 gallons of water in one unit of water.
- One acre-foot of water equals 325,829 gallons or 435.6 billing units.
- One acre-foot of water can supply two typical families with water for a whole year.
- A leaky toilet can waste between 30 to 500 gallons of water per day.
- Most hot water heater manufacturers recommend annual flushing of the hot water tank to remove sediment and stagnant water, which can lead to odors and clogged aerators.

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If you are interested in participating in decisions that affect the quality and supply of the water in the City of Corona, or for general information about this report and questions related to water quality, please call (951) 736-2234.

Regular City Council meetings are held on the first and third Wednesday of every month.

City of Corona
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