Consumer Confidence Report

2021 for the year 2020

CITY of CORONA

Department of Water and Power

"Protecting Public Health"

Message from the General Manager

Over the course of the past year the City of Corona Department of Water & Power (DWP) has remained committed to advancing the water system, ensuring the community is provided the highest quality drinking water. We are excited to share a few completed and upcoming projects:

- **The Keith Water Storage Tank** is currently under construction with an expected completion date of mid 2021. This 2.5-million-gallon pre-stressed concrete tank will provide additional operational, emergency, and fire flow storage in the City's water distribution system.
- **The Mangular Blend Station** is currently under construction with an expected completion date of mid 2022. This project will allow the blending of surface and groundwater sources, and the ability to boost water into higher pressure zones, adding redundancy and reliability to the water distribution system.

This Consumer Confidence Report provides information with respect to the water produced and distributed in 2020. 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 United States Environmental Protection Agency (USEPA) and State drinking water health standards. The Department of Water & Power's staff helped ensure that our system did not exceed any of the primary Maximum Contaminant Levels (MCLs).

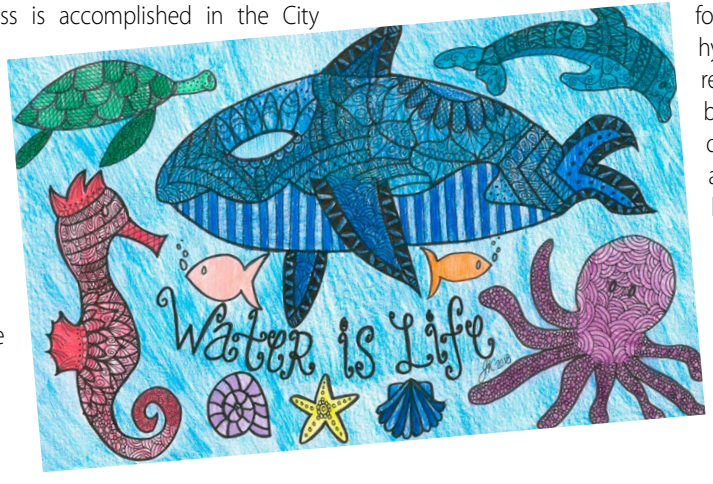
Tom Moody
General Manager
951-736-2477
www.CoronaCA.gov/DWP

Corona's Water Sources

In 2020, Corona residents and businesses used approximately 10.7 billion gallons of drinking water. Corona's water supply comes from different sources: groundwater wells owned and operated by the City of Corona provided 45.1%, 51.1% came through Lake Mathews from the Colorado River, 3.7% was from the State Water Project's California Aqueduct and the final 0.1% was purchased from Western Municipal Water District's Arlington Desalter treatment facility.

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 2020 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. Department of Water and Power (DWP) 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.


Sierra Del Oro Water Treatment Plant

Blending

DWP has five blending facilities that blend water with low nitrate, fluoride, perchlorate and Total Dissolved Solids (TDS) with the remaining groundwater sources 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. DWP 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 DWP 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.

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

Assembly Bill 1668 and Senate Bill 606

AB 1668 and SB 606 build on Governor Brown's ongoing efforts to make water conservation a way of life in California and create a new foundation for long-term improvements in water conservation and drought planning. AB 1668 and SB 606 establish guidelines for efficient water use and a framework for the implementation and oversight of the new standards, which must be in place by 2022. The primary goals of the legislation are to use water more wisely, eliminate water waste, strengthen local drought resilience, and improve agricultural water use efficiency and drought planning.

The two bills strengthen the state's water resiliency in the face of future droughts with provisions that include:

- Establishing water use objectives and long-term standards for efficient water use that apply to urban retail water suppliers; comprised of indoor residential water use, outdoor residential water use, commercial,

industrial and institutional (CII) irrigation with dedicated meters, water loss, and other unique local uses.

- Providing incentives for water suppliers to recycle water.
- Requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought.

Effective water conservation and efficiency practices can help extend the water supply and meet the water demand expectations well into the future. We ask that everyone be efficient in their water usage, by requiring all residents and businesses in DWP's service area to follow the water use guidelines below:

Water Use Guidelines

- 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.
- 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 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.

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. DWP offers rebates for a variety of water saving appliances, devices, and fixtures. By upgrading your clothes washer to a high efficiency model you can save an average of 14 gallons of water per day, as well as save on energy. Using less water and energy with a high efficiency clothes washer (HECW) reduces your monthly bills and can save you over $400 over the lifetime of the HECW. On average, nearly 30% of water usage in the home goes toward flushing the toilet. Rebates are available for residents who replace toilets that use 1.6 gallons per flush (gpf) or more with new 1.1 gpf premium high efficiency toilets. The premium high efficiency toilets that qualify for the rebate have been certified through maximum performance (MaP) testing to ensure performance quality.

DWP offers a $50 rebate for newly-installed recirculating hot water systems. A recirculating hot water system uses a by-pass valve that connects the cold and hot water supply lines at the fixture that is farthest away from the water heater. The by-pass valve uses the cold water line as the return loop back to the water heater, continuously recirculating hot water. We also offer free water saving showerheads and faucet aerators for the bathroom and kitchen sinks. You can pick up your free devices at the Utility Billing counter at City Hall or contact the Water Resources Team at (951) 736-2234 or e-mail **StopTheDrop@CoronaCA.gov**.

To help you improve water efficiency outdoors, DWP offers rebates on a variety of devices. Ensure your sprinklers are delivering a uniform and effective spray stream by upgrading your sprinkler nozzles to high efficiency multi-projectory nozzles and get a rebate! Once you have your irrigation system operating efficiently, it's time to upgrade your irrigation timer to a weather-based model that automatically adjusts the watering schedule based on the weather conditions. Never get caught watering during the rain again with a weather-based irrigation controller (WBIC).

To learn more about the rebates available, visit **www.CoronaCA.gov/Rebates**.

Water Efficiency Rebates for Businesses

DWP offers numerous rebates just for businesses to help them improve water efficiency and keep the water bill low. 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

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**.

Water: An Undervalued Resource

Earth is called the blue planet because 71% of its surface is covered with water. Yet only 3% of the earth's water is fresh water that can be used for drinking, with two thirds stored in ice caps and glaciers. That's a small amount of water for everyone on the planet to share. Yet many of us don't think twice about the water that we use every day. All too often, water that has been pumped in from afar and treated for human consumption can be seen running down the storm drains – wasted.

At a cost of less than a penny per gallon, the true value of water is not represented in the price. Water is a precious resource; we all need water to live. The drought California experienced for over seven years has proven that the water supply can be highly variable, with many factors that affect it, including drought, legislative restrictions, water quality issues, and environmental needs. We must always use our resources efficiently, and focus on sustainable water supplies. Make every drop count – use water efficiently always.

Reclaimed Water

To improve water supply reliability for the City, DWP developed and built 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 state-of-the-art water reclamation 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 cost of the conversion. Contact the Water Resources Team at (951) 736-2234 or by e-mail at **StopTheDrop@CoronaCA.gov** to see if your business qualifies.

The City of Corona's reclaimed water system infrastructure consists of approximately 55 miles of pipeline, three storage tanks, and six pump stations. Of the reclaimed water produced, 1.23 billion gallons went into the reclaimed water distribution system for customer use. We currently have 388 connections, and are continually adding new sites.

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 into 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.

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.

City Park Ion Exchange Treatment Plant

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.
- 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.


Garretson Water Booster Station

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 45 ppm 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.

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	2020	3.2	53	3
Copper	ppm	AL=1.3	0.3	0.05	2020	0.16	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**.

Primary Standards – Mandatory Health-Related Standards

CLARITY

Please see pages 19-21 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	0.09		
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 = 0%	Naturally present in the environment
Fecal Coliform and E. Coli (State Total Coliform Rule)	(c)	(c)	(0)	–	–	Total number of positive samples collected in 2020 = 0	Human and animal fecal waste
Total Coliform Bacteria (Federal Total Coliform Rule)	%	TT (d)	–	–	–	Highest % of positive samples collected in any one month = 0%	Naturally present in the environment
Fecal Coliform and E. Coli (Federal Total Coliform Rule)	(e)	(e)	(0)	–	–	Total number of positive samples collected in 2020 = 0	Human and animal fecal waste
Heterotrophic Plate Count (HPC)	CFU/mL	TT	NA	NA	Range	Distribution System Wide: ND-170	Naturally present in the environment
					Average	Distribution System Wide: 1	

RADIOACTIVE CONTAMINANTS (w)

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	ARLINGTON WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	MAJOR SOURCES IN DRINKING WATER
Gross Alpha Particle Activity (k)	pCi/L	15	(0)	3	Range	ND - 4	ND - 3.6	3.23	ND - **19**	–	Erosion of natural deposits
					Average	ND	ND		6.79		
Uranium	pCi/L	20	0.43	1	Range	ND - 2	2.8 - 3.4	1.2	ND - **21**	–	Erosion of natural deposits
					Average	ND	3		6.47		

Primary Standards – (continued)

INORGANIC CONTAMINANTS

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	ARLINGTON WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	MAJOR SOURCES IN DRINKING WATER
Arsenic	µg/L	10	0.004	2	Range	ND	2.1	ND	ND - 4.3	ND - 2.5	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
					Average				ND	ND	
Barium	mg/L	1	2	0.1	Range	ND	0.11	ND - 0.011	ND - 0.16	ND - 0.12	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
					Average			0.028	ND	ND	
Fluoride (h, t)	mg/L	2.0	1	0.1	Range	0.1 - 0.9	0.3	ND - 0.086	0.24 - 1.1	ND - 0.76	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
					Average	0.8		ND	0.38	0.25	
Nitrate (as Nitrogen) (k, t)	mg/L	10 (as N)	10 (as N)	0.4	Range	0.6	ND	3.3 - 4.9	ND - **22**	ND - 10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
					Average			4.1	**11**	3.4	
Perchlorate (k, t)	µg/L	6	1	4	Range	ND	ND	ND	ND - **10**	ND - 4.1	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				3.9	ND	

SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES/PCBs

Dibromochloropropane (DBCP)	ng/L	200	1.7	10	Range	ND	ND	ND	ND - 34	ND	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
					Average				ND		
1,2,3-Trichloropropane (1,2,3-TCP)(k, t, u)	µg/L	0.005	0.0007	0.005	Range	ND	ND	–	ND - **0.025**	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	ARLINGTON WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	MAJOR SOURCES IN DRINKING WATER
Tetrachloroethylene (PCE)	µg/L	5	0.06	0.5	Range	ND	ND	–	ND - 0.59	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	ND - 1.4	ND	Discharge from metal degreasing sites and other factories
					Average				0.63		

Secondary Standards – Aesthetic Standards

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	ARLINGTON WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	MAJOR SOURCES IN DRINKING WATER
Aluminum (i)	µg/L	200	600	50	Range	ND - 93	72	ND	ND	ND - **310**	Erosion of natural deposits; residual from some surface water treatment processes
					Max RAA	ND				171	
Chloride	mg/L	500	NA	NA	Range	60 -62	91	42 - 46	82 - 260	16 - 120	Runoff/leaching from natural deposits; seawater influence
					Average	61		43.8	169	73	
Corrosivity (as Aggressiveness Index)	AI	NA	NA	NA	Range	11.9 - 12.1	–	–	12 - 13	11 - 12	Elemental balance in water; affected by temperature, other factors
					Average	12			13	12	
Iron	µg/L	300	NA	100	Range	ND	106	ND	ND - 240	ND	Leaching from natural deposits; industrial wastes
					Average				ND		
Manganese (f, k)	µg/L	50	NL=500	20	Range	ND	ND	ND	ND - **140**	ND	Leaching from natural deposits
					Average				ND		
Odor Threshold	Units	3	NA	NA	Range	2	**10**	ND	ND - **4**	ND - 2	Naturally-occurring organic materials
					Average				0.63	1	
Specific Conductance (k)	µS/cm	1600	NA	NA	Range	439 - 455	923 - 945	–	1,100 - **1,900**	87 - 1,540	Substances that form ions when in water; seawater influence
					Average	447	934		1,431	644	
Sulfate	mg/L	500	NA	0.5	Range	41 - 43	214-215	41 - 50	130 - 400	3.1 - 230	Runoff/leaching from natural deposits; industrial wastes
					Average	42	214	45.3	222	113	

Secondary Standards – Aesthetic Standards – (continued)

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	ARLINGTON WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	MAJOR SOURCES IN DRINKING WATER
Total Dissolved Solids (j, k, t)	mg/L	1000	NA	NA	Range	240 - 255	593 - 604	200 - 260	670 - **1,300**	70 - 750	Runoff/leaching from natural deposits
					Average	248	598	230	907	395	
Turbidity	NTU	5	NA	0.1	Range	ND	0.7 - 2.2	ND - 0.12	ND - 1.2	ND - 0.14	Soil runoff
					Average		1.4	ND	0.23	ND	

Unregulated Contaminants with No MCLs (g)

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	ARLINGTON WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER	HEALTH EFFECTS
Boron (p)	mg/L	NA	NL=1	0.1	Range	0.14	0.12	–	0.37 - 3.4	0.13 - 0.3	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
					Average				1.9	0.21	
Hexavalent Chromium (v)	µg/L	NA	0.02	1	Range	ND	ND	–	ND - 3.4	ND	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
					Average				ND		
Perfluorooctanoic acid (PFOA)	ng/L	NA	NL=5.1	NA	Range	ND	ND	–	ND - 270	ND - 9.6	Perfluorooctanoic acid exposures resulted in increased liver weight in laboratory animals.
					Average				62	2.5	
Perfluorooctanesulfonate acid (PFOS)	ng/L	NA	NL=6.5	NA	Range	ND	ND	–	ND - 250	ND - 8.3	Perfluorooctanesulfonic acid exposures resulted in immune suppression, specifically, a decrease in antibody response to an exogenous antigen challenge.
					Average				59	2.1	
Vanadium	µg/L	NA	NL=50	3	Range	ND	ND	4.2 - 5.4	ND - 16	ND - 3.6	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
					Average			4.9	4.61	ND	

Federal Unregulated Contaminants Monitoring Rule (UCMR 3) (s)

LIST 1 – ASSESSMENT MONITORING

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	DISTRIBUTION SYSTEM
1,4-Dioxane	µg/L	NA	NA	0.07	Range	ND-0.14
					Average	ND
Chlorate	µg/L	NA	NA	20	Range	75-360
					Average	155
Chromium	µg/L	NA	NA	0.2	Range	ND-0.52
					Average	ND
Hexavalent Chromium (Dissolved)	µg/L	NA	NA	0.03	Range	ND-0.43
					Average	0.134
Molybdenum	µg/L	NA	NA	1	Range	ND-17
					Average	3.6
Strontium	µg/L	NA	NA	0.3	Range	25-1,100
					Average	591
Vanadium	µg/L	NA	NA	0.2	Range	ND-6.4
					Average	2.4
Perfluoro octanesulfonic acid - PFOS	µg/L	NA	NA	0.04	Range	ND-0.046
					Average	ND
Perfluorooctanoic acid - PFOA	µg/L	NA	NA	0.02	Range	ND-0.042
					Average	ND
Perfluoroheptanoic acid - PFHpA	µg/L	NA	NA	0.01	Range	ND-0.013
					Average	ND

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

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 (y)	µg/L	NA	NA	NA	Range	ND-17.3
					Average	6.1
HAA9 (z)	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

If your dishwasher is new, cut back on rinsing. Newer models clean more thoroughly than older ones.

Other Parameters

CHEMICAL	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	STATE DLR	RANGE AVERAGE	STATE PROJECT WATER	COLORADO RIVER WATER	ARLINGTON WATER	GROUND WATER	TREATED AVERAGE SYSTEM WATER
Alkalinity	mg/L	NA	NA	NA	Range	75 - 76	122	77 - 94	160 - 380	21 - 160
					Average	76		85.7	256	80
Bicarbonate	mg/L	NA	NA	NA	Range	–	–	77 - 94	200 - 460	25 - 200
					Average			85.7	312	98
Calcium	mg/L	NA	NA	NA	Range	21 - 22	64	27 - 30	86 - 190	2.8 - 110
					Average	22		28.5	131	44
Hardness (q)	mg/L	NA	NA	NA	Range	84 - 94	254 - 255	110 - 120	300 - 710	9.6 - 430
					Average	89	254	115	479	172
Magnesium	mg/L	NA	NA	NA	Range	9.7 - 10	25	10-11	21 - 75	0.64 - 30
					Average	9.8		10.8	37	15
pH	pH Units	NA	NA	NA	Range	8.3 - 8.5	8.2	7.64 - 8.6	6.5 - 7.4	7.0 - 9.2
					Average	8.4		8.1	6.9	7.9
Potassium	mg/L	NA	NA	NA	Range	2.5	4.5	ND - 1.1	1.8 - 11	ND - 5
					Average			0.8	4	2.7
Sodium (r)	mg/L	NA	NA	NA	Range	51 - 55	89	38 - 42	49 - 170	20 - 91
					Average	53		39.5	119	63

Turning off the water while washing your hair can save up to 150 gallons a month.

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-32	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	28.5		
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	9.8		
Bromate (Mills - WR-24 Conn.) (l)	µg/L	10	0.1	1	Range	ND-**12**	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	4.3		
Chloramines	mg/L	[4 as Cl2]	[4 as Cl2]	NA	Range	0.71-3.0	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	1.95		
Control of DBP precursors (TOC)	mg/L	TT	NA	0.3	Range	2.2-2.7	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	2.5		

Reminder: *Even wipes labeled "flushable" will clog pipes and interfere with sewage collection and treatment. Please discard in trash, NOT the toilet.*

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: *When washing your hands, turn the water off while you lather.*

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 2020, 1560 samples were analyzed and there were no 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 Plant 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) The high concentration of Manganese is from one groundwater well; refer to the "Treated Average System Water" column for a more accurate representation of system water quality.

(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.

(i) Aluminum has a secondary standard limit. In 2020, the secondary standard limit was exceeded but the maximum running annual average (Max RAA) was in compliance. Our current Max RAA for 2021 is 79 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 (TTHM) is the sum of bromodichloromethane, bromoform, chloroform, and dibromochloromethane.

(o) Haloacetic Acids (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 was collected in 2014 and reported per UCMR 3 guidance. Minimum reporting levels are as stipulated in the Federal UCMR 3. List 1 - Assessment Monitoring consists of 21 chemical contaminants for which standard analytical methods were available. All analyses conducted by contract laboratories. Values listed in state DLR column are federal minimum reporting levels.

(t) Fluoride, nitrate, perchlorate, TDS, and 1,2,3-TCP 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) There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 mg/L (10 ug/L) was withdrawn on September 11, 2017. However, any hexavalent chromium results above the detection limit of 0.0001 mg/L (1 ug/L) have been reported.

(w) Results included in this section range from 2011-2019.

(x) UCMR 4 sampling began in 2018. Minimum reporting levels are as stipulated in the Federal UCMR 4. Monitoring under UCMR 4 continued through 2019 and detected results are included in the CCR.

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

(z) 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 172 ppm or 10 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. Below are general instructions; for more information, please call (714) 736-2234.

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 (714) 736-2234 and we will be happy to help troubleshoot the issue for you.

There is 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 odor and clogged aerators.

To change the language of this report, please select the language under "Translate" in the upper menu features found at **https://www.coronaca.gov/government/departments-divisions/department-of-water-and-power/about-dwp/consumer-confidence-report**.

Español: Para cambiar el idioma de este reporte, seleccione el idioma en "Translate" en las funciones del menú que se encuentra en: **https://www.coronaca.gov/government/departments-divisions/department-of-water-and-power/about-dwp/consumer-confidence-report**.

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 (714) 736-2234.

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

Corona Cares About Climate Change!

The City of Corona acknowledges that we play an important role in reducing the impacts of climate change and are committed to doing what we can to reduce greenhouse gas (GHG) emissions. To meet California's ambitious climate goals, **Assembly Bill (AB) 341 – Mandatory Commercial Recycling** requires businesses and multi-family complexes who produce a certain amount of solid waste per week to arrange for recycling services. **AB 1826 – Mandatory Commercial Organics Recycling** requires businesses and multi-family complexes to arrange for organic waste recycling services. More recently, California's **Senate Bill (SB) 1383 – Short Lived Climate Pollutants** expands recycling mandates to residents and sets out to achieve a 75% reduction in the level of statewide organic waste disposal to landfills by 2025.

Our Corona Recycles team is excited to work with our City's residents and businesses to ensure that everyone implements proper recycling and organic waste recycling practices. Adopting new recycling behavior can be challenging, but our team is here to serve you! If you are a business or a multi-family complex who needs assistance in getting in compliance with the recycling and organic waste recycling requirements, please complete the **Recycling Compliance Self-Reporting Form** found on our website www.CoronaCA.gov/Recycle, if you haven't done so already. This allows us to assess your facility for the needed services and to determine eligibility for possible exemptions.

The cities website offers solid waste and recycling educational material related to SB 1383 which will go into effect on January 1, 2022. Learn the importance of diverting organic waste from landfills, the impact methane emissions have on our environment, and the simple practices and steps you can take to make a change! We walk you through the importance of the 3 R's of recycling (Reduce, Reuse, and Recycle) and provide guidance on simple practices you can implement at home and at the workplace. Each R is an integral part the recycling cycle, but we recognize that a reduction in our daily consumption can have a significant impact and may contribute to the realization of a more sustainable Corona. As such, we encourage you to visit our website to learn how you can reduce first and then reuse and recycle!

Remember, our team is here to help you. To request additional information or assistance, contact CoronaRecycles@CoronaCA.gov.

We thank you for your continuous cooperation and look forward to working with you to contribute to California's statewide vision for a sustainable future!

City of Corona
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