2020 Consumer Confidence Report

Water System Name: **Chiriaco Summit Water District** Report Date: **06/22/2021**

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2020 and may include earlier monitoring data.

ESTE INFORME CONTIENE INFORMACIÓN MUY IMPORTANTE SOBRE SU AGUA PARA BEBER. FAVOR DE COMUNICARSE AL DISTRITO DE AGUA DE CHIRIACO SUMMIT PARA ASISTIRLO EN ESPAÑOL SI TIENE ALGUNA DUDA.

Type of water source(s) in use: Surface Water **Name & location of source(s):** Colorado River Aqueduct

Drinking Water Source Assessment information: As per MWD, and based on a Source Water Assessment (SWA) completed in December of 2002 at the Whitsett Intake Pumping Plant, this source (Colorado River supplies upstream of the plant) is considered to be most vulnerable to treated wastewater discharges, urbanization in the watershed, and recreation. Treated wastewater discharges and urbanization may contribute sources of nutrients, pathogens, metals, and other chemicals of concern. (For more information about the SWA, please call (213) 217-6850).

Time and place of regularly scheduled board meetings for public participation: 4:00pm the second Tuesday of every other month in Jan., March, May, July, Sept., and November, at the Chiriaco Summit Community Center. Schedule available at www.cswaterdistrict.org

For more information, contact: Hector Sanchez, Chief Plant Operator **Phone:** (760) 899-3118

TERMS USED IN THIS REPORT

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 (U.S. EPA).

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.

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.

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

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

ND: not detectable at testing limit
ppm: parts per million or milligrams per liter (mg/L)
ppb: parts per billion or micrograms per liter (µg/L)
ppt: parts per trillion or nanograms per liter (ng/L)
ppq: parts per quadrillion or picogram per liter (pg/L)
pCi/L: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the 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.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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 U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1A, 1B, 2, 3, 4, 5, 6A, 6B, 7 and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 1A – CHIRIACO SUMMIT WATER DISTRICT DISTRIBUTION SYSTEM SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	0 (In a month)	0	1 positive monthly sample (a)	0	Naturally present in the environment
Fecal Coliform or *E. coli* (state Total Coliform Rule)	0 (In the year)	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or *E. coli* positive		Human and animal fecal waste
E. coli (federal Revised Total Coliform Rule)	0 (In the year)	0	(b)	0	Human and animal fecal waste

(a) Two or more positive monthly samples is a violation of the MCL
(b) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

TABLE 1B – CHIRIACO SUMMIT WATER DISTRICT RAW WATER SUPPLY SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Sample Date (Frequency)	Range Average	Typical Source of Bacteria
Total Coliform Bacteria (CFU/100 mL)	1/20–12/20 (Monthly)	ND -> 2,400 1,126	Naturally present in the environment
E. coli (CFU/100 mL)	1/20–12/20 (Monthly)	ND–22 3.94	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	08/2020	5	ND	0	15	0.2	Not applicable	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	08/2020	5	0.031	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Lead-Specific Language: 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 Chiriaco Summit Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] 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 (1-800-426-4791) or at http://www.epa.gov/lead.

TABLE 3 – SOURCE WATER MONITORING RESULTS FOR SODIUM AND HARDNESS [5]						
Chemical or Constituent (and reporting units)	**Sample Date**	**Range of Detections**		**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	Apr. 2020; Oct. 2020	Range	87-90	None	None	Salt present in the water and is generally naturally occurring.
		Average	88			
Hardness (as $CaCo_3$) (ppm)	Apr. 2020; Oct. 2020	Range	264-277	None	None	Generally, magnesium and calcium cations, and are usually naturally occurring.
		Average	270			

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD [5]						
Chemical or Constituent (and reporting units)	**Sample Date**	**Range of Detections**	**Level Detected**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Arsenic (ppb)	Apr. 2020	Range	2.3	10	0.004	Erosions of natural deposits; runoff from orchards; glass and electronics production wastes
		Average				
Fluoride (ppm) (naturally occurring)	Apr. 2020; Oct. 2020	Range	0.3	2.0	1	Erosion of natural deposits; discharge from fertilizer and aluminum factories
		Average				
Barium (ppb)	Apr. 2020	Range	106	1,000	2000	Oil and metal refineries discharge; natural deposits erosion
		Average				
Gross Alpha Particle Activity (pCi/L) [1]	Apr. 2020; Oct. 2020	Range	ND – 3.6	15	0	Erosion of natural deposits.
		Average	ND			
Gross Beta Particle Activity (pCi/L) [2,4]	2020 (Quarterly)	Range	4.7 – 6.7	50	0	Decay of natural and man-made deposits
		Average	5.5			
Uranium (pCi/L) [4]	2020 (Quarterly)	Range	2.5 – 2.8	20	0.43	Erosion of natural deposits.
		Average	2.7			

TABLE 5 – DISTRIBUTION SYSTEM MONITORING RESULTS FOR DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS [3]						
Chemical or Constituent (and reporting units)	**Sample Date**	**Range Average**	**Levels of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Total Trihalomethanes (TTHM) **(ppb)**	08/2020	Range	72	80	NONE	Byproduct of drinking water chlorination
		Average				
Haloacetic Acids (Five) (HAA5) **(ppb)**	08/2020	Range	20	60	NONE	Byproduct of drinking water chlorination
		Average				
Chlorine (free) Residual **(ppm)**	01/2020 ~ 12/2020	Range	1.80 – 3.40	4.0	4.0	Drinking water disinfectant added for treatment
		Average	2.60			

TABLE 6A – DISTRIBUTION SYSTEM MONITORING RESULTS FOR CONSTITUENTS WITH A SECONDARY DRINKING WATER STANDARD [4]					
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Levels of Detection**	**MCL**	**Typical Source**
Turbidity (NTU)	01/2020 ~ 12/2020	Range	0.017 - 0.032	5	Soil Runoff.
		Average	0.025		

[1] Data are from samples collected (triennially) during four consecutive quarters of monitoring in 2020 and reported for three years until the next samples are collected.
[2] The gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ. The screening level is 50 pCi/L.
[3] Chiriaco Summit Water District sampling.
[4] Samples were taken from the facility domestic tank effluent
[5] Samples were taken from the Colorado River at Lake Havasu, Wittset Intake Pumping Plant

TABLE 6B - SOURCE WATER MONITORING RESULTS FOR CONSTITUENTS WITH A SECONDARY DRINKING WATER STANDARD [5]						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	Apr. 2020; Oct. 2020	Range	86	500	NA	Runoff/leaching from natural deposits
		Average				
Color (units)	Apr. 2020; Oct. 2020	Range	3 – 5	15	NA	Naturally occurring organic minerals
		Average	4			
Specific Conductance (µS/cm)	Apr. 2020; Oct. 2020	Range	928 – 944	1,600	NA	Substances that form ions in water; seawater influence
		Average	936			
Sulfate (ppm)	Apr. 2020; Oct. 2020	Range	206 - 2120	500	NA	Runoff/leaching from natural deposits; industrial waste
		Average	209			
Total Dissolved Solids (ppm)	Apr. 2020; Oct. 2020	Range	596 – 601	1,000	NA	Runoff/leaching from natural deposits
		Average	598			

TABLE 7 - MONITORING RESULTS FOR UNREGULATED CONTAMINANTS [5]					
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Levels of Detection	Notification Level	Health Effects Language
Boron (ppb)	Apr. 2020	Range	130	1,000	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			
Chlorate (ppb)	Aug. 2020	Range	74	800	High doses of chlorate can interfere with thyroid function and can cause oxidative damage to red blood cells.
		Average			

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique [(a)] (Type of approved filtration technology used)	Evoqua (Siemens) Memcor Microfiltration System
Turbidity Performance Standards [(b)] (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.1 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU for more than eight consecutive hours. 3 – Not exceed 1.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.032NTU
Number of violations of any surface water treatment requirements	0

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

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791). 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 from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/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).

[5] Samples were taken from the Colorado River at Lake Havasu, Wittset Intake Pumping Plant