2012 Consumer Confidence Report

Water System Name: **Chiriaco Summit Water District** Report Date: March 21, 2014

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 - December 31, 2012.

Este informe contiene información muy importante sobre su agua potable- tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Colorado River Aqueduct

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: 10:00 am the second Tuesday of every other month (Jan, March, May, July, September, November) at the CSWD Main office located at 62450A Chiriaco Road, Suite C, Chiriaco Summit, CA 92201. Meeting info can be obtained online at www.cswaterdistrict.org

For more information, contact: Margit Chiriaco Rusche *Phone:* (760) 227-3227, Ext. 207

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 (USEPA).

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 level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

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: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, 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 USEPA and the state Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Tables 1, 2, 3, 4, and 5 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 Department 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, is more than one year old.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (to be completed only if there was a detection of bacteria)	**Highest No. of detections**	**No. of months in violation**	**MCL**	**MCLG**	**Typical Source of Bacteria**
Total Coliform Bacteria	0 (In a mo.)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	0 (In the year)	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	0	Human and animal fecal waste

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

Lead and Copper (to be completed only if there was a detection of lead or copper in the last sample set)	**No. of samples collected**	**90th percentile level detected**	**No. sites exceeding AL**	**AL**	**PHG**	**Typical Source of Contaminant**
Lead (ppb)	5	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	5	0.330	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS [1]

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	04/2012 ~ 10/2012	82	81-84	None	None	Generally found in ground & surface water
Hardness (ppm)	04/2012 ~ 10/2012	280	280	None	None	Generally found in ground & surface water

***Any violation of an MCL or AL is marked with an asterisk. Additional information regarding the violation is provided later in this report.*

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD[1]

Chemical or Constituent (and reporting units)	**Sample Date**	**Range Average**	**Levels of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Arsenic (ppb)	April 2012	Range	2.4	10	0.004	Erosions of natural deposits; runoff from orchards; glass and electronics production wastes
		Average	2.4			
Barium (ppb)	April 2012	Range	110	1,000	2,000	Discharge from oil drilling wastes and from metal refineries; erosion of natural deposits
		Average	110			
Fluoride (ppm) (naturally occurring)	April 2012	Range	0.3	2.0	1	Erosion of natural deposits; discharge from fertilizer and aluminum factories
		Average	0.3			
Nitrate as Nitrogen (ppm)[2]	April 2012	Range	0.4	10	10	Runoff and leaching from fertilizer use; septic tank and sewage; natural deposits erosion.
		Average	0.4			
Perchlorate (ppb) [3]	April 2012	Range	ND	6	6	Industrial waste discharges
		Average	ND			
Gross Alpha Particle Activity (pCi/L) [4]	01/2011~ 12/2011	Range	3-6	15	(0)	Erosion of natural deposits.
		Average	4			
Gross Beta Particle Activity (pCi/L) [(5,4)]	01/2011~ 12/2011	Range	ND-5	50	(0)	Decay of natural and man-made deposits
		Average	ND			
Uranium (pCi/L) [(4)]	01/2011~ 12/2011	Range	2-3	20	0.43	Erosion of natural deposits.
		Average	2			

TABLE 5 – DISTRIBUTION SYSTEM DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD [6]

Chemical or Constituent (and reporting units)	**Sample Date**	**Range Average**	**Levels of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Total Trihalomethanes (TTHM)(ppb)	October 2012	Range	37 – 44	80	None	Byproduct of drinking water chlorination
		Average	40.5			
Haloacetic Acids (Five) (HAA5)(ppb)	October 2012	Range	18	60	None	Byproduct of drinking water chlorination
		Average	18			
Chlorine (free) Residual (ppm)	01/2012~ 12/2012	Range	1.6 – 3.0	4.0	4.0	Drinking water disinfectant added for treatment
		Average	2.4			

[1] Samples were taken from the Colorado River at Lake Havasu, Wittset Intake Pumping Plant.
[2] State MCL is 45ppm as nitrate, which equals 10ppm as Nitrogen
[3] Lake Havasu had a Perchlorate level of 1ppb based on Metropolitan's reporting level of 0.1ppb, which is below the state DLR of 4ppb.
[4] Data are from samples collected (triennially) during four consecutive quarters of monitoring in 2011 and reported for three years until the next samples are collected.
[5] 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.
[6] Chiriaco Summit Water District sampling.

TABLE 6 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD [7]

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Chloride (ppm)	04/2012; 10/2012	Range	76 – 82	500	NA	Runoff/leaching from natural deposits
		Average	79			
Color (units)	04/2012; 10/2012	Range	3 – 6	15	NA	Naturally occurring organic minerals
		Average	4			
Specific Conductance (µS/cm)	04/2012; 10/2012	Range	910 – 930	1,600	NA	Substances that form ions in water; seawater influence
		Average	920			
Sulfate (ppm)	04/2012; 10/2012	Range	220	500	NA	Runoff/leaching from natural deposits; industrial waste
		Average	220			
Total Dissolved Solids (ppm)	04/2012; 10/2012	Range	570 – 600	1,000	NA	Runoff/leaching from natural deposits
		Average	580			

TABLE 7 - DETECTION OF UNREGULATED CONTAMINANTS [7]

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Levels of Detection**	**Notification/ [PHG] Level**	**Health Effects Language**
Boron (ppb)	April 2012	Range	120	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	120		

***Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.*

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

For Systems Providing Surface Water as a Source Of Drinking Water:

(Refer to page 1, "Type of water source in use" to see if your source of water is surface water or groundwater)

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique [(a)] (Type of approved filtration technology used)	Siemens Memcor Microfiltration
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	0.03
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 USEPA'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. 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).

Additional Special Language for 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 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 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/safewater/lead.