

2019 Consumer Confidence Report

Water System Name: MWD of Southern California – Gene Pumping Plant Report Date: May 21, 2020

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, 2019 and may include earlier monitoring data. All primary drinking water standards were met during this period.

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: River
Name & location of source(s): Colorado River at Lake Havasu, Whitsett Intake Pumping Plant
Drinking Water Source Assessment information: Metropolitan completed a Source Water Assessment of its Colorado River supplies upstream of the Whitsett Intake Pumping Plant in December 2002 and submitted the Colorado River Watershed Sanitary Survey 2015 Update in December 2016. This source is considered to be most vulnerable to treated wastewater discharges, urbanization in the watershed, and recreation, which may contribute sources of nutrients, pathogens, metals, and other chemicals of concern.
Time and place of regularly scheduled board meetings for public participation: 12:00 PM, 2nd Tuesday of every month, 700 N. Alameda St., Los Angeles, California 90012
For more information, contact: Maria T. Lopez, P.E. Phone: (909) 392-5447

TERMS AND DEFINITIONS USED IN THIS REPORT

Average: Result based on arithmetic mean

CaCO₃ Calcium Carbonate

CFU: Colony-forming Units

DLR: Detection Limit for Purposes of Reporting

DWS: Drinking Water Standards

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect public 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 SDWS do not affect public health at the MCL levels.

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 the 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 the water system on multiple occasions.

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 aesthetics (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 United States Environmental Protection Agency (USEPA).

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. 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. EPA sets MRDLG based on the best available science to prevent potential health problems.

Median: The number in the middle of a set of numbers.

MPN: Most Probable Number

NA: Not Applicable

ND: Not Detected at Testing Limit or Reporting Level

Notification Level (NL): The level of unregulated chemicals in drinking water that lack MCLs, advisory in nature, and not enforceable standards. If the chemical is present over its NL, notification of the water system's governing body is required.

NTU: Nephelometric turbidity unit

pCi/L: picocuries per liter (a measure of radioactivity)

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

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

Public Health Goal (PHG): The level of a contaminant in drinking water that does not pose a significant risk to public health. PHGs are not enforceable drinking water standards. California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) sets the PHGs.

RAA: Running annual average; **highest RAA** is the highest of all RAA calculated as average of all the samples collected within a 12-month period; the calculated RAA for the first three quarters (quarters 1–3) are based on results from previous quarters of the past calendar year.

LRAA- Locational Running Annual Average is calculated for selected site locations.

Range: Results based on minimum and maximum values; range and average values are the same for samples collected once or twice annually.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements set by the State Water Resources Control Board (State Water Board), Division of Drinking Water, which a water system must follow.

TON: threshold odor number

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

µS/cm: microSiemen per centimeter

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, protozoa, 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*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, motorized watercraft, urban storm water runoff, agricultural applications, and septic systems.
- *Radioactive contaminants*, which 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. Environmental Protection Agency (EPA) and the State Water Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration (FDA) and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1 through 8 show results for constituents detected during the current reporting period. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Water 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.

There were no violations of an action level, maximum contaminant level, maximum residual disinfectant level, or treatment technique in the current reporting period.

TABLE 1A – GENE PUMPING PLANT DISTRIBUTION SYSTEM SAMPLING RESULTS FOR COLIFORM BACTERIA

Microbiological Contaminant	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (State Total Coliform Rule)	0 <i>(In a month)</i>	0	No more than 1 positive monthly sample.	0	Naturally present in the environment
<i>E. coli</i> (State Total Coliform Rule)	0 <i>(In the year)</i>	0	A routine sample and a repeat sample are total coliform positive, and one of these is also <i>E. coli</i> positive.	0	Human and animal fecal waste
<i>E. coli</i> (Federal Revised Total Coliform Rule)	0 <i>(In the year)</i>	0	MCL is based on any of the following conditions: Coliform-positive routine and repeat samples with either of them positive for <i>E. coli</i> ; failure to analyze a repeat sample following an <i>E. coli</i> -positive routine sample; or a coliform-positive repeat sample is not tested for the presence of <i>E. coli</i> .	0	Human and animal fecal waste

TABLE 1B – GENE PUMPING PLANT RAW WATER SUPPLY SAMPLING RESULTS FOR COLIFORM BACTERIA ⁽¹⁾

Microbiological Contaminant	Sample Date (Frequency)	Range Average	Results	Typical Source of Bacteria
Total Coliform Bacteria (CFU or MPN per 100 mL)	1/19 - 12/19 (Monthly)	<i>Range</i>	12 - 13,000	Naturally present in the environment
		<i>Median</i>	730	
<i>E. coli</i> (CFU or MPN per 100 mL)	1/19 - 12/19 (Monthly)	<i>Range</i>	ND - 22	Human and animal fecal waste
		<i>Median</i>	ND	

(1) Samples were taken from the Colorado River Aqueduct at Gene Wash Reservoir Outlet. Reporting level for total coliform and *E. coli* results is 1 CFU or MPN per 100 mL of sample.

TABLE 2 – GENE PUMPING PLANT DISTRIBUTION SYSTEM MONITORING RESULTS FOR LEAD AND COPPER ⁽²⁾

Lead and Copper	Reporting Unit	Sample Date	No. of Samples Collected	90 th Percentile ⁽³⁾ Level Detected	No. Sites Exceeding AL	AL	PHG	Typical Source
Lead	ppb	July 2017	7	3	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper	ppm	July 2017	7	0.286	0	1.3	0.3	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – GENE PUMPING PLANT SOURCE WATER MONITORING RESULTS FOR SODIUM AND HARDNESS ⁽⁴⁾

Chemical or Constituent	Reporting Unit	Sample Date	Range Average	Result	MCL	PHG (MCLG)	Typical Source
Sodium	ppm	April 2019; October 2019	Range	86 - 88	None	None	Salt present in the water and is generally naturally-occurring
			Average	87			
Hardness (as CaCO ₃)	ppm	April 2019; October 2019	Range	271 - 277	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally-occurring
			Average	274			

TABLE 4 – GENE PUMPING PLANT SOURCE WATER MONITORING RESULTS FOR CONSTITUENTS WITH A PRIMARY DRINKING WATER STANDARD ⁽⁴⁾

Chemical or Constituent	Reporting Unit	Sample Date (Frequency)	Range Average	Result	MCL	PHG (MCLG)	Typical Source of Contaminant
Arsenic	ppb	April 2019	Range	2.3	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
			Average				
Fluoride	ppm	April 2019; October 2019	Range	0.3	2.0	1	Erosion of natural deposits; discharge from fertilizer and aluminum factories
			Average				
Gross Alpha Particle Activity ⁽²⁾	pCi/L	2017 (Quarterly)	Range	3.3 - 6.3	15	(0)	Erosion of natural deposits
			Average	4.3			
Gross Beta Particle Activity ⁽²⁾	pCi/L	2017 (Quarterly)	Range	5.1 - 5.3	50	(0)	Decay of natural and man-made deposits
			Average	5.2			
Uranium ⁽²⁾	pCi/L	2017 (Quarterly)	Range	2.5 - 3.0	20	0.43	Erosion of natural deposits
			Average	2.7			

- (2) Annual monitoring is required every three years except when sampling frequency (e.g., quarterly) is noted. The next samples will be collected in 2020.
- (3) Compliance for lead and copper is based on the 90th percentile of all samples collected in 2017 for the required triennial monitoring (2017 - 2019).
- (4) Samples were taken from the Colorado River at Lake Havasu, Whitsett Intake Pumping Plant.

**TABLE 5 – GENE PUMPING PLANT DISTRIBUTION SYSTEM MONITORING RESULTS
FOR DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS ⁽⁵⁾**

Chemical or Constituent	Reporting Unit	Sample Date (Frequency)	Range Average	Result	MCL	PHG	Typical Source
Total Trihalomethanes (TTHM)	ppb	1/19 - 12/19 (Quarterly)	Range	12 - 58	80	None	Byproduct of drinking water chlorination
			Highest LRAA	35			
Haloacetic Acids (HAA5)	ppb	1/19 - 12/19 (Quarterly)	Range	2.7 - 9.1	60	None	Byproduct of drinking water chlorination
			Highest LRAA	5.6			
Chlorine Residual (as Free Chlorine)	ppm	1/19 - 12/19 (Quarterly)	Range	0.72 - 0.90	MRDL = 4.0	MRDLG = 4.0	Drinking water disinfectant added for treatment
			Highest RAA	0.81			

**TABLE 6A – GENE PUMPING PLANT DISTRIBUTION SYSTEM MONITORING RESULTS
FOR CONSTITUENTS WITH A SECONDARY DRINKING WATER STANDARD ⁽⁶⁾**

Chemical or Constituent	Reporting Unit	Sample Date	Range Average	Result	MCL	Typical Source
Turbidity ⁽⁷⁾	NTU	1/19 - 12/19	Range	ND - 0.11	5	Soil runoff
			Average	ND		

**TABLE 6B – GENE PUMPING PLANT SOURCE WATER MONITORING RESULTS
FOR CONSTITUENTS WITH A SECONDARY DRINKING WATER STANDARD ⁽⁴⁾**

Chemical or Constituent	Reporting Unit	Sample Date	Range Average	Result	MCL	Typical Source
Chloride	ppm	April 2019; October 2019	Range	84 - 85	500	Runoff/leaching from natural deposits
			Average	84		
Color	units	April 2019; October 2019	Range	5	15	Naturally-occurring organic materials
			Average			
Specific Conductance	µS/cm	April 2019; October 2019	Range	926 - 939	1,600	Substances that form ions in water; seawater influence
			Average	932		
Sulfate	ppm	April 2019; October 2019	Range	213 - 215	500	Runoff/leaching from natural deposits; industrial waste
			Average	214		
Total Dissolved Solids	ppm	April 2019; October 2019	Range	591 - 592	1,000	Runoff/leaching from natural deposits
			Average	592		

TABLE 7 – GENE PUMPING PLANT MONITORING RESULTS FOR UNREGULATED CONSTITUENTS

Chemical or Constituent	Reporting Unit	Sample Date	Range Average	Result	NL	Health Effects Language
Boron ⁽⁴⁾	ppb	April 2019	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			
Chlorate ⁽⁶⁾	ppb	August 2019	Range	161	800	High doses of chlorate can interfere with thyroid function and can cause oxidative damage to red blood cells.
			Average			

(5) Compliance with the state and federal MCLs is based on the highest LRAA or RAA, as appropriate.

(6) Samples were taken from the facility domestic tank effluent.

(7) The turbidity levels for grab samples at this location were in compliance with the Secondary Standard. Turbidity results below the State DLR of 0.1 NTU are reported as ND in this report.

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 from their health care providers about drinking water. U.S. EPA and 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).

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 **Gene Pumping Plant** is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. If the water in your household plumbing has been stagnant for six hours or more, you should flush your taps 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. Please contact Metropolitan’s Water Quality Hotline (1-800-354-4420) and leave a message for questions regarding water testing. 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>.

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 – GENE PUMPING PLANT SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

Treatment Technique ⁽⁸⁾ (Type of approved filtration technology used)	Microfiltration
Turbidity Performance Standards ⁽⁹⁾ (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 ___ NTU for more than eight consecutive hours. NA ⁽¹⁰⁾ 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	0.09 NTU
The number of violations of any surface water treatment requirements	0

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

(9) 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.

(10) Not applicable for Gene Pumping Plant since it is not included in the water permit provisions for microfiltration.

Summary Information for Federal Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements

Level 1 or Level 2 Assessment Requirement Not Due to an *E. coli* MCL Violation

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system.

No coliforms were found in the water treatment system or distribution system. No Level 1 assessment(s), or violations occurred.

Level 2 Assessment Requirement Due to an *E. coli* MCL Violation

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems.

No *E. coli* bacteria were found in the water treatment system or distribution system. No MCL violations and no Level 2 assessment(s) occurred.

