

2022 Consumer Confidence Report

Water System Name: MWD of So. California - Gene Pumping Plant Report Date: June 26, 2023
 Water System Number: 3600383

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, 2022 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 2020 Update in April 2022. 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 constituents 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
 Board Meetings website: <https://mwdh2o.legistar.com/Calendar.aspx>
 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

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 the 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 a disinfectant allowed in drinking water. The addition of a disinfectant is necessary for the 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 lacks MCLs, are 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; the average of all sample results taken during the previous four calendar quarters.

LRAA: Locational Running Annual Average; the average of results for samples taken at a particular monitoring location during the previous four calendar quarters.

Range: Results are based on the 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: micro siemens 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* 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 stormwater 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 constituents 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.

This report does not include other contaminants that were monitored but not detected as required by state and federal regulations.

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
<i>E. coli</i>	0 (In the year)	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 Median	Results (MPN/100 mL)	Typical Source of Bacteria
Total Coliform Bacteria	2022 (Monthly)	Range	21 – 24,000	Naturally present in the environment
		Median	570	
<i>E. coli</i>	2022 (Monthly)	Range	ND - 1	Human and animal fecal waste
		Median	ND	

(1) Samples were collected from the Colorado River Aqueduct at Gene Wash Reservoir Outlet.

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 ⁽²⁾ Level Detected	No. Sites Exceeding AL	AL	PHG	Typical Source
Lead	ppb	August 2020	7	4	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper	ppm	August 2020	7	0.2	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 ⁽³⁾

Chemical or Constituent	Reporting Unit	Sample Date	Range Average	Result	MCL	PHG (MCLG)	Typical Source
Sodium	ppm	April 2022; October 2022	Range	90 - 96	None	None	Salt present in the water and is generally naturally occurring
			Average	93			
Hardness (as CaCO ₃)	ppm	April 2022; October 2022	Range	284 - 289	None	None	The sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
			Average	286			

TABLE 4 – GENE PUMPING PLANT SOURCE WATER MONITORING RESULTS FOR CONSTITUENTS WITH A PRIMARY DRINKING WATER STANDARD ⁽³⁾

Chemical or Constituent	Reporting Unit	Sample Date (Frequency)	Range Average	Result	MCL	PHG (MCLG)	Typical Source of Contaminant
Arsenic	ppb	April 2022	Range	2.0	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
			Average				
Barium	ppb	April 2022	Range	105	1,000	2,000	Oil and metal refineries discharge; natural deposits erosion
			Average				
Fluoride	ppm	April 2022; October 2022	Range	0.3	2.0	1	Erosion of natural deposits; discharge from fertilizer and aluminum factories
			Average				
Gross Alpha Particle Activity ⁽⁴⁾	pCi/L	2020 (Quarterly)	Range	ND - 3.6	15	(0)	Erosion of natural deposits
			Average	ND			
Gross Beta Particle Activity ⁽⁴⁾	pCi/L	2022 (Quarterly)	Range	5.0 - 8.7	50	(0)	Decay of natural and man-made deposits
			Average	6.8			
Uranium ⁽⁴⁾	pCi/L	2020 (Quarterly)	Range	2.5 - 2.8	20	0.43	Erosion of natural deposits
			Average	2.7			

(2) Lead and copper monitoring is required every three years. Compliance for lead and copper is based on the 90th percentile of all samples collected in 2020 for the required triennial monitoring (2020 - 2022). The next samples will be collected in 2023.

(3) Samples were collected from the Colorado River at Lake Havasu, Whitsett Intake Pumping Plant. Lake Havasu is the source of water for all of Metropolitan's small water systems pumping plants at Whitsett Intake, Gene, Hinds, Iron Mountain, and Eagle Mountain, and one of the two sources of water for Metropolitan's large system (CA1910081).

(4) Starting in 2021, samples are collected quarterly for gross beta particle activity. Gross alpha particle activity and uranium data are from samples collected in 2020 for the required triennial monitoring (2020 - 2022). The next gross alpha and uranium samples will be collected in 2023.

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	2022 (Quarterly)	Range	ND - 80	80	None	Byproduct of drinking water chlorination
			Highest LRAA	36			
Haloacetic Acids (HAA5)	ppb	2022 (Quarterly)	Range	1.3 - 14	60	None	Byproduct of drinking water chlorination
			Highest LRAA	6.4			
Chlorine Residual (as Free Chlorine)	ppm	2022 (Quarterly)	Range	0.50 – 1.3	MRDL = 4.0	MRDLG = 4.0	Drinking water disinfectant added for treatment
			Highest RAA	0.92			

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

Chemical or Constituent	Reporting Unit	Sample Date	Range Average	Result	MCL	Typical Source
Odor Threshold	TON	September 2022	Range	2	3	Naturally occurring organic materials
			Average			
Turbidity ⁽⁷⁾	NTU	2022 (Daily)	Range	ND	5	Soil runoff
			Average			

TABLE 6B – GENE PUMPING PLANT SOURCE WATER MONITORING RESULTS FOR CONSTITUENTS WITH A SECONDARY DRINKING WATER STANDARD ⁽³⁾

Chemical or Constituent	Reporting Unit	Sample Date	Range Average	Result	MCL	Typical Source
Aluminum	ppb	April 2022	Range	66	200	Runoff/leaching from natural deposits
			Average			
Chloride	ppm	April 2022; October 2022	Range	91 - 100	500	Runoff/leaching from natural deposits
			Average	96		
Color	units	April 2022; October 2022	Range	3	15	Naturally occurring organic materials
			Average			
Specific Conductance	µS/cm	April 2022; October 2022	Range	943 - 990	1,600	Substances that form ions in water; seawater influence
			Average	966		
Sulfate	ppm	April 2022; October 2022	Range	202 - 222	500	Runoff/leaching from natural deposits; industrial waste
			Average	212		
Total Dissolved Solids	ppm	April 2022; October 2022	Range	607 - 632	1,000	Runoff/leaching from natural deposits
			Average	620		

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 ⁽³⁾	ppb	April 2022	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 ⁽⁶⁾	ppb	August 2022	Range	154	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 collected from the facility's domestic tank effluent.

(7) The turbidity levels for the 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 healthcare 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. 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 several 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 with 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)	<u>Turbidity of the filtered water must:</u> 1 - Be less than or equal to 0.1 NTU in 95% of measurements in a month. 2 - Not exceed NA NTU for more than eight consecutive hours. ⁽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 that 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 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 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 occurred.

Consumer Confidence Report Certification Form

(To be submitted with a copy of the CCR)


(to certify electronic delivery of the CCR, use the certification form on the State Water Board's website at
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/CCR.shtml)

Water System Name: Metropolitan Water District of Southern California – Gene Pumping Plant

Water System Number: 3600383

The water system named above hereby certifies that its Consumer Confidence Report was distributed on June 26, 2023, to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the State Water Resources Control Board, Division of Drinking Water.

Certified by: Name: Maria T. Lopez, P. E.

Signature: 

Title: Water Purification Unit Manager

Phone Number: (909) 392-5447 Date: June 26, 2023

To summarize report delivery used and good-faith efforts are taken, please complete this page by checking all items that apply and fill in where appropriate:

- CCR was distributed by mail or other direct delivery methods (attach a description of other direct delivery methods used). **The water system emailed the CCR as an electronic file email attachment.**
- "Good faith" efforts were used to reach non-bill paying consumers. Those efforts included the following methods:
- Posting the CCR on the Internet at www._____
 - Mailing the CCR to postal patrons within the service area (attach zip codes used)
 - Advertising the availability of the CCR in news media (attach copy of press release)
 - Publication of the CCR in a local newspaper of general circulation (attach a copy of the published notice, including the name of the newspaper and date published)
 - Posted the CCR in public places (**Gene Pumping Plant bulletin board**)
 - Delivery of multiple copies of CCR to single-billed addresses serving several persons, such as apartments, businesses, and schools
 - Delivery to community organizations (attach a list of organizations)
 - Other (attach a list of other methods used)
- For systems serving at least 100,000 persons: Posted CCR on a publicly accessible internet site at the following URL: www._____
- For privately-owned utilities: Delivered the CCR to the California Public Utilities Commission

This form is provided as a convenience and may be used to meet the certification requirement of section 64483(c), California Code of Regulations.