

# City of Cerritos 2022 Consumer Confidence Report

The City of Cerritos is committed to providing patrons with high quality drinking water that meets all federal and state standards. The Consumer Confidence Report (CCR) is an annual drinking water quality report that the Safe Drinking Water Act requires community water systems to provide to their consumers. The purpose of the CCR is to educate consumers about the quality of their drinking water, where their drinking water comes from, and the right to know about the water that they are consuming. We take our responsibilities to our community very seriously. To safeguard our continued exceptional water quality provided to nearly 50,000 residents, our skilled staff ensure that the water we serve meets or exceeds federal and state water quality standards.

We are pleased to inform you that the Cerritos tap water met all United States Environmental Protection Agency and State of California primary drinking water standards for 2022. Our water quality staff collected over 2,000 water samples in 2022. These samples were sent to independent laboratories certified by the State Water Resources Control Board and hired by the City to perform all the necessary analyses. We are proud to provide our customers with reliable, affordable, and exceptional quality drinking water.

This report provides information on the water quality testing completed in 2022, and details the results of the City's ongoing testing and reporting efforts. The bottom line is that Cerritos water complies with, and in many cases exceeds, all primary state and federal water quality standards for this reporting period.

The City of Cerritos has provided an annual Consumer Confidence Report to its customers since 1990, in compliance with state regulations adopted in 1989.

## Where Does My Tap Water Come From?

The City of Cerritos receives its water supply from two water sources: surface water from the Metropolitan Water District of Southern California (MWD) and groundwater pumped from the Central Groundwater Basin. MWD water is transported from the Colorado River and the State Water Project in Northern California. In 2022, the City was able to supply most of its drinking water from local groundwater sources, with a small portion, about 41.8 million gallons or 2 percent of the City's total drinking water supply, purchased from MWD.

Every five years, the MWD is required by the California Department of Water Resources to conduct an initial source water assessment to examine possible sources of drinking water contamination and to recommend actions to better protect these source waters. The most recent MWD Watershed Sanitary Surveys were completed in 2016 for the Colorado River and in 2017 for the State Water Project. The Colorado River and State Water Project each have different water quality challenges. Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/storm water runoff, wildlife, agriculture, recreation and wastewater. Each of these elements makes the source waters vulnerable to potential contamination. The MWD and other water agencies take special measures to protect water at the source and invest resources to support improved watershed protection programs. For more information on the Metropolitan Water District of Southern California, visit MWD's website at [mwdh2o.com](http://mwdh2o.com).

The City also receives groundwater from three groundwater wells located at various locations within the city. These wells, drilled to a depth from 640 feet to 1000 feet, supplied 2.42 billion gallons which was 98 percent of the City's total drinking water supply in 2022. The water is pumped at the individual well heads; treated with chlorine to disinfect the water from microbial contaminants; and then distributed to a population of approximately 50,000 people through a large City-owned water distribution system. The water distribution system consists of approximately 181 miles of pipes ranging in size from 30-inch diameter down to 4-inch diameter, and supplies domestic drinking water to some 16,000 services, including residential, commercial and industrial users. The water system includes one 12-million-gallon reservoir with a booster pumping station capable of delivering about 18,000 gallons per minute, and two 6-million gallon reservoirs with a booster station capable of delivering about 17,000 gallons per minute. These reservoirs, with their combined 24-million-gallon capacity, provide more than enough water storage to meet the City's peak demand periods and any potential fire-flow or emergency requirements.

The City of Cerritos groundwater is pumped from the Central Groundwater Basin. The Central Basin is a series of large natural aquifers below the ground that stretch from Los Angeles to Orange County. Water in these aquifers comes from natural inflows of rainfall and snow melt, artificial inflows from imported and recycled water, as well as groundwater underflow from adjacent basins. Spreading grounds located at the major inflows from the Rio Hondo and San Gabriel Rivers of the Montebello Forebay, allow water from various sources to artificially seep down into the Central Basin aquifers. Therefore, as surface water slowly percolates through the ground to the aquifers, the ground acts as a natural filter to clean the water.

In 2013, the State of California Division of Drinking Water (DDW) completed an assessment of City's groundwater supplies. The assessment established that the groundwater supplies are most vulnerable to automobile gas stations, chemical/petroleum processing/storage, known contaminant plumes, contractor or government agency equipment storage yards, parks, freeway/state highways transportation corridors, herbicide use in road rights-of-way, water wells, dry cleaners, metal plating/finishing/fabricating, automobile repair shops, utility station maintenance areas, and wastewater treatment plants. A copy of the approved assessment may be obtained by contacting the Cerritos Water Division at **(562) 407-2674**.

## How Is My Drinking Water Tested?

The State of California DDW allows some constituents to be tested less than once a year because the concentrations of these constituents do not change frequently. City wells are monitored at least once a month for microbiological and physical quality. Additional samples are collected and analyzed for various chemical, radiological and aesthetic quality constituents.

Our water quality professionals collect approximately 20 samples each week in the distribution system to test for microbiological quality, monthly for physical quality and quarterly for total trihalomethane formation, which is a byproduct that results when chlorine is added to water with high levels of natural organics. Independent laboratories certified by the State are hired by the City to perform all the necessary analyses.

## What Are Drinking Water Standards?

With regard to the regulation of water constituents, there are two types of limits, known as standards: Primary standards set limits for substances that may be harmful to humans if consumed in large quantities over certain periods of time. Secondary standards are limits for substances that could affect the water's taste, odor, and appearance. State and federal regulations set a Maximum Contaminant Level (MCL) for each of the primary and secondary standards. The MCL is the highest level of a substance that is allowed in drinking water.

There are over 100 standards set by the California Department of Water Resources for compounds that could be found in drinking water. The City has sampled and tested for every applicable compound. If in the past year, any water samples ever tested positive for any of these contaminants, they are listed in the Water Quality Table. If they were not detected, they are not included in the Water Quality Table.

## How Do I Read the Water Quality Table?

The table in this report lists all of the contaminants for which state or federal standards have been set that the City detected during the current reporting period. The presence of these contaminants does not necessarily mean that the water poses a health risk. The water quality test results are divided into two main sections: those related to Primary Standards, and those related to Secondary Standards. The primary standards section is further divided by sampling locations. "Monitored at the Source" identifies contaminants that are measured at the well or surface water source. "Monitored in the Distribution System" means the samples were taken from water sampling points located throughout our service area. "At the Tap" means samples were taken from customers' faucets.

The first column of the water quality table lists substances that have been detected through testing. The water delivered in Cerritos is a blend of three wells and treated surface water obtained from MWD. Therefore, the next columns list the average concentration and range of concentrations found in the well water and MWD surface water. Following are columns that list the MCL and Public Health Goals (PHG) or Maximum Contaminant Level Goals (MCLG), if appropriate. The last column describes the likely sources of substances in drinking water.

To review the quality of your drinking water, compare the highest concentration and the MCL. Check for substances greater than the MCL. No regulated or unregulated organic compounds were detected in groundwater other than Trichloroethylene (TCE), 1,1-Dichloroethylene (1,1-DCE), and Tetrachloroethylene (PCE) which was found in one well at a concentration below the MCL. Some health issues have been associated with people who drink water containing TCE, PCE and 1,1-DCE in excess of the MCL over the course of many years. The concentration of TCE, PCE and 1,1-DCE in Cerritos, however, is well below the MCL.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Cerritos is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. If lead is present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. 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 or at [www.epa.gov/lead](http://www.epa.gov/lead).

Detected substances that exceed a PHG or MCLG must be reported. PHGs are set by the California Environmental Protection Agency. PHGs provide more information on the quality of drinking water to customers, and are similar to their federal counterparts, MCLGs. Both PHGs and MCLGs are levels that are of an advisory nature only and unenforceable. Both PHGs and MCLGs are concentrations of a substance at which there are no known or expected health risks. The regulations require a listing of the PHG and/or MCLG for each detected chemical contaminant, a definition of terms, information on violations, and a statement about health concerns of chemicals detected above regulatory limits. Some additional substances of interest are listed even though no PHG or MCLG has been established.

## What Affects the Contents of Water?

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. As water travels over the surface of the land or through the ground, it can pick up substances resulting from the presence of animals or from human activity. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. Environmental Protection Agency's (U.S. EPA) Safe Drinking Water Hotline at **(800) 426-4791**.

You can get more information on tap water by logging on to the U.S. EPA's helpful water website at [water.epa.gov/drink](http://water.epa.gov/drink).

## What Does the U.S. EPA Say About Drinking Water Quality?

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. The City of Cerritos conducts regular testing as prescribed by state and federal agencies to ensure that none of the contaminants listed below are detected at levels considered to be harmful by the health agencies.

Contaminants that may be present in source water include:

- Microbial contaminants, including 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 storm water 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 storm water 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 storm water runoff, and septic systems;
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the U.S. EPA and the California Department of Water Resources prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

## Should I Take Additional Precautions?

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. The U.S. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection of Cryptosporidium and other microbial contaminants are available from the U.S. EPA's Safe Drinking Water Hotline at **(800) 426-4791**.

## How Can I Participate in Decisions on Water?

Decisions about your water system are made at Cerritos City Council meetings, which are regularly scheduled at the City Hall Council Chambers at 7 P.M. on the second and fourth Thursday of every month. Council meetings are cablecast live on Cerritos TV3 and meeting videos are archived on the City's website. If you have specific questions about your tap water quality, please contact the Cerritos Water Division at **(562) 407-2674**.

This report contains very important information about the water you drink. Translate the report or speak with someone who understands the content.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Daimntaww tshaj tawm no muaj lus tseemceeb txog koj cov dej haus. Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub txog nws.

此报告包含有关您的饮用水的重要信息。请人帮您翻译出来，或请看懂此报告的人将内容说给您听。

Tài liệu này có tin tức quan trọng về nước uống của quý vị. Hãy nhờ người dịch cho quý vị, hoặc hỏi người nào hiểu tài liệu này.

このレポートには飲料水に関する重要な情報が記載されています。この英文を訳してもらるか、またはどなたか英語が分かる方にたずねてください。

이 보고서에는 귀하의 식수에 대한 중요한 내용이 실려있습니다. 그러므로 이 보고서를 이해할 수 있는 사람한테 번역해 달라고 부탁하시기 바랍니다.



# 2022 Annual Water Quality Report

Results are from the most recent testing performed in accordance with state and federal drinking water regulations

## Primary Standards Monitored At The Source — Mandated For Public Health

ORGANIC CHEMICALS - Results from 2022	GROUNDWATER		MWD'S SURFACE WATER						PRIMARY MCL	(MCLG) or PHG	MAJOR SOURCES IN DRINKING WATER	
	AVERAGE	RANGE	Diemer Plant		Jensen Plant		Weymouth Plant					
			AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE				
1,1-Dichloroethylene (1,1-DCE) (µg/l)	<0.5 (a)	ND - 1.6	ND	ND	ND	ND	ND	ND	ND	6	10	Discharge from metal degreasing sites and other industries
Tetrachloroethylene (PCE) (µg/l)	<0.5	ND - 0.53	ND	ND	ND	ND	ND	ND	ND	5	0.06	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
Trichloroethylene (TCE) (µg/l)	0.63	ND - 1.6	ND	ND	ND	ND	ND	ND	ND	5	1.7	Discharge from metal degreasing sites and other industries
<b>INORGANICS - Results from 2021 and 2022</b>												
Aluminum (mg/l)	ND	ND	0.14	0.085 - 0.21	0.062	ND - 0.081	0.16	0.058 - 0.24	1	0.6	10	Erosion of natural deposits; residue from surface water treatment processes
Arsenic (µg/l) (b)	6.6	4.9 - 8.2	ND	ND	2.4	2.4	ND	ND	10	0.004	10	Erosion of natural deposits; glass/electronics production wastes; runoff
Barium (mg/l)	0.11	ND - 0.17	0.11	0.11	ND	ND	0.11	0.11	1	2	2	Oil drilling waste and metal refinery discharge; erosion of natural deposits
Bromate (µg/l)		NR	ND	ND	7.2	ND - 15	ND	ND - 7.6	10	0.1	10	Byproduct of drinking water ozonation
Fluoride (mg/l) - naturally-occurring	0.28	0.27 - 0.30		NR		NR		NR	2	1	2	Erosion of natural deposits
Fluoride (mg/l) - treatment-related		NR	0.70	0.70 - 0.80	0.70	0.40 - 0.80	0.70	0.60 - 0.80	2	1	2	Water additive for dental health
Nitrate as N (mg/l) (c)	0.90	ND - 5.4	ND	ND	0.90	0.90	ND	ND	10	10	10	Runoff and leaching from fertilizer use/septic tanks/sewage, natural erosion
<b>RADIOLOGICAL - Results from 2015 to 2017 and 2022</b>												
Gross Alpha (pCi/l)	ND	ND	ND	ND - 3.0	ND	ND	ND	ND	15	(0)	15	Erosion of natural deposits
Gross Beta (pCi/l)		NR	6.0	ND - 9.0	ND	ND - 5.0	6.0	4.0 - 7.0	50	(0)	50	Decay of natural and man-made deposits
Combined Radium (pCi/l)	ND	ND	ND	ND	ND	ND	ND	ND - 1.0	5	(0)	5	Erosion of natural deposits
Uranium (pCi/l)	<1	ND - 1.5	2.0	1.0 - 3.0	ND	ND - 3.0	2.0	1.0 - 3.0	20	0.43	20	Erosion of natural deposits

## Primary Standards Monitored In The Distribution System — Mandated For Public Health

Weekly Results from 2022	DISTRIBUTION SYSTEM		PRIMARY MCL	MCLG	MAJOR SOURCES IN DRINKING WATER				
	HIGHEST NUMBER OF DETECTIONS	NO. OF MONTHS IN VIOLATION							
<b>MICROBIALS</b>									
E. coli	0	0	(d)	0	Human and animal fecal waste				
<b>Quarterly Results from 2022</b>									
DISINFECTION BYPRODUCTS	DISTRIBUTION SYSTEM		PRIMARY MCL	Health Goal	MAJOR SOURCES IN DRINKING WATER				
	AVERAGE	RANGE							
	Trihalomethanes-TTHMS (µg/l) (e)	15				ND - 22	80	-	Byproduct of drinking water chlorination
	Haloacetic Acids (µg/l) (e)	1.6				ND - 3.4	60	-	Byproduct of drinking water disinfection
Total Chlorine Residual (mg/l) (e)	0.98	0.32 - 1.5	4.0 (f)	4.0 (g)	Drinking water disinfectant added for treatment				
<b>Triennial Results from 2022</b>									
LEAD AND COPPER AT THE TAP	DISTRIBUTION SYSTEM		PRIMARY MCL	PHG	MAJOR SOURCES IN DRINKING WATER				
	90th PERCENTILE LEVEL	# OF SITES ABOVE THE AL							
	Copper (mg/l)	0.36 (h)				0	1.3 AL	0.3	Internal corrosion of household plumbing, erosion of natural deposits
Lead (µg/l)	ND (h)	0	15 AL	0.2	Internal corrosion of household plumbing, industrial manufacturer discharges				

## Secondary Standards Monitored At The Source — For Aesthetic Purposes

Triennial Results from 2021 and 2022	GROUNDWATER		MWD'S SURFACE WATER						SECONDARY MCL	PHG	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	Diemer Plant		Jensen Plant		Weymouth Plant				
			AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Aluminum (µg/l) (i)	ND	ND	140	85 - 210	62	ND - 81	160	58 - 240	200	600	Erosion of natural deposits; residue from surface water treatment processes
Chloride (mg/l)	37	29 - 51	100	98 - 100	70	67 - 73	100	98 - 110	500	-	Runoff/leaching from natural deposits, seawater influence
Color (color units)	ND	ND	1	1	1	1	1	1	15	-	Naturally-occurring organic materials
Conductivity (µmhos/cm)	580	510 - 660	990	970 - 1,000	560	560 - 570	990	960 - 1,000	1,600	-	Substances that form ions when in water, seawater influence
Manganese (µg/l) (tested monthly)	56 (j)	36 - 57	ND	ND	ND	ND	ND	ND	50	-	Leaching from natural deposits
Odor (threshold odor number)	ND	ND	3	3	3	3	3	3	3	-	Naturally-occurring organic materials
Sulfate (mg/l)	68	45 - 87	220	210 - 230	76	71 - 80	220	210 - 230	500	-	Runoff/leaching from natural deposits, industrial wastes
Total Dissolved Solids (mg/l)	360	310 - 410	630	610 - 650	330	330 - 340	640	630 - 640	1,000	-	Runoff/leaching from natural deposits
Turbidity (NTU)	0.10	0.10	ND	ND	ND	ND	ND	ND	5	-	Soil Runoff

## Secondary Standards Monitored In The Distribution System — For Aesthetic Purposes

Monthly Results from 2022	DISTRIBUTION SYSTEM		SECONDARY MCL	Health Goal	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE			
<b>GENERAL PHYSICAL CONSTITUENTS</b>					
Color (color units)	ND	ND	15	-	Naturally-occurring organic materials
Odor (threshold odor number)	ND	ND	3	-	Naturally-occurring organic materials
Turbidity (NTU)	0.56	0.10 - 1.8	5	-	Soil Runoff

## Unrelated Chemicals Requiring Monitoring

Results from 2019	GROUNDWATER		SURFACE WATER		PHG
	AVERAGE	RANGE	AVERAGE	RANGE	
Manganese (µg/l) (k)	34	25 - 47	1.7	1.3 - 2.3	-
<b>Results from 2019</b>					
DISTRIBUTION SYSTEM					PHG
AVERAGE	RANGE		RANGE		
Haloacetic acids (HAA5) (µg/l)	1.3			0.52 - 3.4	-
Haloacetic acids (HAA6Br) (µg/l)	2.4			0.66 - 5.9	-
Haloacetic acids (HAA9) (µg/l)	2.6			0.66 - 6.8	-

## Chemicals Of Additional Interest

Results from 2021 and 2022	GROUNDWATER		MWD'S SURFACE WATER						PHG
	AVERAGE	RANGE	Diemer Plant		Jensen Plant		Weymouth Plant		
			AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Alkalinity (mg/l as CaCO3)	180	180 - 190	130	130	84	84	130	130	-
Calcium (mg/l)	61	53 - 76	68	66 - 70	33	32 - 34	70	68 - 71	-
Magnesium (mg/l)	9.5	7.8 - 11	25	24 - 26	6.8	6.2 - 7.5	26	25 - 26	-
pH (standard unit)	7.8	7.8	8.1	8.1	8.3	8.2 - 8.3	8.1	8.1	-
Potassium (mg/l)	2.9	2.7 - 3.3	4.6	4.4 - 4.8	2.0	2.0	4.6	4.5 - 4.8	-
Sodium (mg/l)	45	28 - 69	98	95 - 100	72	71 - 72	100	98 - 100	-
Total Hardness (mg/l as CaCO3)	190	160 - 230	280	280	110	110	280	280	-
Total Organic Carbon (mg/l)		NR	2.5	2.3 - 2.6	1.5	1.0 - 1.4	2.4	1.7 - 2.6	-
<b>Turbidity - combined filter effluent Metropolitan Water District</b>	<b>Treatment Technique</b>	<b>Turbidity Measurements</b>						<b>TT Violation?</b>	<b>Contaminant Source</b>
1) Highest single turbidity measurement (NTU)	0.3	0.030		0.050		0.040		No	Soil Runoff
2) Percentage of samples less than or equal to 0.3 NTU	95%	100%		100%		100%		No	Soil Runoff

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT). A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.

## Footnotes

- (a) "<" means the constituent was detected but the average of the test results is less than the reporting limit required by the State Water Resources Control Board, Division of Drinking Water.
- (b) While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.
- (c) Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of an infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of skin. Nitrate levels above 10 mg/l may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain enzyme deficiencies. If you are carrying an infant, or you are pregnant, you should ask advice from your health care provider.
- (d) A public water system is in violation of the E. coli MCL when any of the following occurs: (1.) The system has an E. coli-positive repeat sample following a total coliform-positive routine sample; (2.) The system has a total coliform-positive repeat sample following an E. coli-positive sample; (3.) The system fails to take all required repeat samples following an E. coli-positive routine sample; or (4.) The system fails to test for E. coli when any repeat sample tests positive for total coliform.
- (e) Running annual average used to calculate MCL compliance.
- (f) Maximum Residual Disinfectant Level (MRDL)
- (g) Maximum Residual Disinfectant Level Goal (MRDLG)
- (h) 90th percentile from the most recent sampling at selected customer taps.
- (i) Aluminum has primary and secondary standards.
- (j) Manganese was found at levels that exceeded the secondary MCL of 50 µg/l. The manganese secondary MCL was set to protect you against unpleasant aesthetic effects (e.g., color, taste, and odor) and the staining of plumbing fixtures (e.g., tubs and sinks) and clothing while washing. The high manganese levels are due to leaching of natural deposits. The manganese levels at Wells C-2 and C-4 were at 36 µg/l and 48 µg/l, respectively in 2021, which are below the secondary MCL. In addition, phosphate is used post treatment to sequester the manganese in our water distribution system. The water sources from all of the City's wells are blended in the distribution system in an effort to reduce the concentration of manganese. Additionally, the City has collected select samples in the distribution system in the vicinity of the water source with manganese levels above the secondary MCL; the results show the quarterly running annual averages of the manganese levels at these select locations are below the secondary MCL.
- (k) Manganese was included as part of the unregulated chemicals requiring monitoring.

## Abbreviations

MWD = Metropolitan Water District of Southern California	NTU = nephelometric turbidity units	mg/l = milligrams per liter or parts per million (equivalent to 1 drop in 42 gallons)
pCi/l = picoCuries per liter	µmhos/cm = micromhos per centimeter	µg/l = micrograms per liter or parts per billion (equivalent to 1 drop in 42,000 gallons)
NR = constituent not required to be tested	ND = constituent not detected at the reporting limit	
PHG = Public Health Goal	MCL = Maximum Contaminant Level	

## Definitions

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