

City of Cerritos 2016 Consumer Confidence Report

The City of Cerritos is committed to providing you with high quality water. This report provides information on the water quality testing completed in 2016. We are pleased to inform you that your water complies with all state and federal water quality standards during this reporting period.

The City of Cerritos has provided an Annual Water Quality Report to its customers since 1990, in compliance with state regulations adopted in 1989.

Where Does My Tap Water Come From?

Cerritos receives its water supply from two sources, the Metropolitan Water District of Southern California (MWD) and local groundwater. In 2016, the City received about 314 million gallons or 4 percent of the total water supply from MWD. MWD water is transported from the Colorado River and the State Water Project in Northern California.

MWD completed an assessment of its Colorado River and State Water Project supplies in 2002. Colorado River supplies are considered most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed, and wastewater. State Water Project supplies are considered most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWD at (213) 217-6850.

The City also receives groundwater from three deep wells. These wells are drilled to a depth of between 640 and 1,000 feet. In 2016, these groundwater sources supplied about 2.45 billion gallons or 96 percent of the City's total water supply.

The City of Cerritos completed an assessment of its groundwater supplies in 2013. Groundwater supplies are considered most vulnerable to automobile gas stations, chemical/petroleum processing/storage, known contaminant plumes, contractor or government agency equipment storage yards, parks, freeway/state highway transportation corridors, herbicide use in road rights-of-way, water supply 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 Water Superintendent Charles Emig at (562) 916-1223.

Every five years, MWD of Southern California is required by the California Department of Water Resources to examine possible "surface water" sources of drinking water contamination in its State Water Project and Colorado River source waters. Metropolitan's most recent Watershed Sanitary Surveys were completed in 2016 (Colorado River) and 2012 (State Water Project). Both source waters are exposed to stormwater runoff, recreational activities, wastewater discharges, wildlife, fires and other watershed-related factors that could affect water quality. Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation and wastewater. A copy of the summary of either Watershed Sanitary Survey can be obtained by calling MWD at (213) 217-6850.

The water system also 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' capacity helps the City meet peak demand periods and fire-flow requirements.

The water is then distributed to a population of approximately 49,041 people through a large City-owned water system ranging in size from 6-inch diameter to 30-inch diameter pipes. Some 4-inch diameter mains are used to circulate water from one residential street to another.

Approximately 181 miles of pipe throughout the City's water distribution system supplies domestic drinking water to some 16,000 services, including residential, commercial and industrial users.

How is My Drinking Water Tested?

The State of California allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. However, in most cases, the City samples more frequently than the State requires. The City of Cerritos' wells are monitored at least monthly 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 results when chlorine is added to water high in natural organics.

Outside laboratories certified by the State are hired by the City to perform all the necessary analyses.

What Are Drinking Water Standards?

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. 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 for most of the compounds and 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 detected in your water. The water delivered in Cerritos is a blend of three wells and treated surface water obtained from the MWD. Therefore, the next columns list the average concentration and range of concentrations found in your well water and MWD surface water, separately. 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 TCE and 1, 1-DCE, which was found in one well at a concentration below the MCL. Some people who drink water containing TCE and 1, 1-DCE in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer. The concentration of TCE and 1, 1-DCE in the Cerritos well, however, is well below the MCL.

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 nonenforceable. 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 (800-426-4791).

You can get more information on tap water by logging on to the U.S. EPA's helpful water website: 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 (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 Charles Emig, Water Superintendent, at (562) 916-1223.

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.

Daimntawv 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.

City of Cerritos 2016 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 2016	GROUNDWATER		MWD'S SURFACE WATER		PRIMARY MCL	(MCLG) or PHG	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	AVERAGE	RANGE			
1,1-Dichloroethylene (1,1-DCE) (µg/l)	<0.5 (a)	ND - 0.92	ND	ND	6	10	Discharge from metal degreasing sites and other industries
Trichloroethylene (TCE) (µg/l)	0.5	ND - 1.7	ND	ND	5	1.7	Discharge from metal degreasing sites and other industries

INORGANICS - Results from 2015 and 2016	GROUNDWATER		MWD'S SURFACE WATER		PRIMARY MCL	(MCLG) or PHG	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	AVERAGE	RANGE			
Aluminum (mg/l)	ND	ND	0.159	0.077 - 0.22	1	0.6	Erosion of natural deposits; residue from surface water treatment processes
Arsenic (µg/l) (b)	6.5	5.5 - 7.6	ND	ND	10	0.004	Erosion of natural deposits; glass/electronics production wastes; runoff
Barium (mg/l)	0.12	ND - 0.18	0.144	0.144	1	2	Oil drilling waste and metal refinery discharge; erosion of natural deposits
Fluoride (mg/l) - naturally-occurring	0.3	0.26 - 0.35	NR		2	1	Erosion of natural deposits
Fluoride (mg/l) - treatment-related	NR	NR	0.7	0.6 - 1	0.6 - 1.2 Optimal Range		Water additive for dental health
Nitrate as N (mg/l)	<0.4	ND - 0.43	ND	ND	10	10	Runoff and leaching from fertilizer use/septic tanks/sewage, natural erosion

RADIOLOGICAL - Results from 2014, 2015 and 2016	GROUNDWATER		MWD'S SURFACE WATER		PRIMARY MCL	(MCLG) or PHG	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	AVERAGE	RANGE			
Gross Alpha (pCi/l)	<3	ND - 1.3	ND	ND - 4	15	(0)	Erosion of natural deposits
Gross Beta (pCi/l)	NR	NR	5	4 - 6	50	(0)	Erosion of natural and man-made deposits
Uranium (pCi/l)	ND	ND	3	2 - 3	20	0.43	Erosion of natural deposits

PRIMARY STANDARDS MONITORED IN THE DISTRIBUTION SYSTEM — MANDATED FOR PUBLIC HEALTH

Weekly Results from 2016	DISTRIBUTION SYSTEM		PRIMARY MCL	MCLG	MAJOR SOURCES IN DRINKING WATER
	HIGHEST MONTHLY % POSITIVES	RANGE % POSITIVE			
MICROBIALS					
Total Coliform Bacteria	3%	ND - 3%	5%	0%	Naturally present in the environment

Quarterly Results from 2016	DISTRIBUTION SYSTEM		PRIMARY MCL	Health Goal	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE			
DISINFECTION BYPRODUCTS					
Trihalomethanes-TTHMS (µg/l) (c)	27	ND - 17	80	-	Byproduct of drinking water chlorination
Haloacetic Acids (µg/l) (c)	3.5	ND - 2.2	60	-	Byproduct of drinking water disinfection
Total Chlorine Residual (mg/l) (c)	1	0.35 - 2.2	4.0 (d)	4.0 (e)	Drinking water disinfectant added for treatment

Triennial Results from 2016	DISTRIBUTION SYSTEM		PRIMARY MCL	PHG	MAJOR SOURCES IN DRINKING WATER
	90th PERCENTILE LEVEL	# OF SITES ABOVE THE AL			
LEAD AND COPPER AT THE TAP					
Copper (mg/l)	0.31 (f)	0	1.3 AL	0.3	Internal corrosion of household plumbing, erosion of natural deposits
Lead (µg/l)	ND<5 (f)	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 2015 and 2016	GROUNDWATER		MWD'S SURFACE WATER		SECONDARY MCL	PHG	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	AVERAGE	RANGE			
Aluminum (µg/l) (g)	ND	ND	159	77 - 220	200	600	Erosion of natural deposits, surface water treatment process residue
Chloride (mg/l)	33	23 - 46	103	103	500	-	Runoff/leaching from natural deposits, seawater influence
Color (color units)	ND	ND	1	1	15	-	Naturally-occurring organic materials
Conductivity (µmhos/cm)	560	520 - 610	1,035	1,020 - 1,050	1,600	-	Substances that form ions when in water, seawater influence
Manganese (µg/l) (tested monthly) (h)	51	35 - 58	ND	ND	50	-	Leaching from natural deposits
Odor (threshold odor number)	ND	ND	2	2	3	-	Naturally-occurring organic materials
Sulfate (mg/l)	54	38 - 72	258	256 - 259	500	-	Runoff/leaching from natural deposits, industrial wastes
Total Dissolved Solids (mg/l)	340	310 - 400	655	650 - 659	1,000	-	Runoff/leaching from natural deposits
Turbidity (NTU)	ND	ND	ND	ND	5	-	Soil runoff

SECONDARY STANDARDS MONITORED IN THE DISTRIBUTION SYSTEM — FOR AESTHETIC PURPOSES

Monthly Results from 2016	DISTRIBUTION SYSTEM		SECONDARY MCL	Health Goal	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE			
GENERAL PHYSICAL CONSTITUENTS					
Color (color units)	ND	ND	15	-	Naturally-occurring organic materials
Odor (threshold odor number)	ND	ND	3	-	Naturally-occurring organic materials
Turbidity (NTU)	0.36	ND - 1.5	5	-	Naturally-occurring organic materials

ADDITIONAL CHEMICALS OF INTEREST

Results from 2014, 2015, and 2016	GROUNDWATER		MWD'S SURFACE WATER		PHG
	AVERAGE	RANGE	AVERAGE	RANGE	
Alkalinity (mg/l as CaCO3)	170	160 - 190	118	113 - 124	-
1,1-Dichloroethane (µg/l) (i)	0.03	ND - 0.04	ND	ND	3
1,4-Dioxane (µg/l)	0.36	0.1 - 0.82	ND	ND	-
Boron (mg/l)	NR		0.15	0.15	-
Calcium (mg/l)	58	49 - 68	77	75 - 79	-
Chlorate (µg/l)	ND	ND	53	41 - 66	-
Chromium, Hexavalent (µg/l) (j)	0.03	ND - 0.09	0.07	0.04 - 0.1	0.02
Magnesium (mg/l)	9.6	8.3 - 11	26	25 - 27	-
Molybdenum, Total (µg/l)	9.5	2.4 - 20	4.5	4.3 - 4.7	-
pH (standard unit)	7.9	7.8 - 8.2	8.1	8.1	-
Potassium (mg/l)	3.1	2.5 - 3.5	5.1	5 - 5.1	-
Sodium (mg/l)	45	28 - 67	105	104 - 106	-
Strontium, Total (µg/l)	560	540 - 590	1,000	930 - 1,100	-
Total Hardness (mg/l as CaCO3)	180	160 - 220	300	293 - 306	-
Total Organic Carbon (mg/l)	NR		2.5	1.7 - 2.8	-
Vanadium, Total (µg/l)	1	0.8 - 1.4	2.6	2.4 - 3	-
Results from 2014	DISTRIBUTION SYSTEM		PHG		
	AVERAGE	RANGE			
Chlorate (µg/l)	<20	ND - 35	-		
Chromium, Hexavalent (µg/l) (j)	0.04	ND - 0.09	0.02		
Molybdenum, Total (µg/l)	12	2.4 - 21	-		
Strontium, Total (µg/l)	610	520 - 820	-		
Vanadium, Total (µg/l)	1.2	0.9 - 2	-		
Turbidity - combined filter effluent	Treatment Technique	Turbidity Measurements	TT Violation?	Contaminant Source	
Metropolitan Water District Weymouth Plant					
1) Highest single turbidity measurement	0.3 NTU	0.03	No	Soil Runoff	
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil Runoff	

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) Running annual average used to calculate MCL compliance.
- (d) Maximum Residual Disinfectant Level (MRDL)
- (e) Maximum Residual Disinfectant Level Goal (MRDLG)
- (f) 90th percentile from the most recent sampling at selected customer taps.
- (g) Aluminum has primary and secondary standards.
- (h) The secondary MCL for manganese was exceeded in 2016. Groundwater is blended with surface water before delivery to the customer, which dilutes the amount against unpleasant effects such as color, taste, odor, and staining of laundry/plumbing fixtures. A manganese secondary MCL exceedance does not pose a health risk.
- (i) 1,1-Dichloroethane is regulated with an MCL of 5 µg/l but was not detected, based on the detection limit for purposes of reporting of 0.5 µg/l. 1,1-Dichloroethane was included as part of the unregulated chemicals requiring monitoring.
- (j) Hexavalent chromium is regulated with an MCL of 10 µg/l but was not detected, based on the detection limit for purposes of reporting of 1 µg/l. Hexavalent chromium was included as part of the unregulated chemicals requiring monitoring.

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.

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	ng/l = nanograms per liter or parts per trillion (equivalent to 1 drop in 42,000,000 gallons)
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.