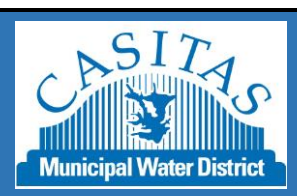


Casitas Municipal Water District, PWS CA5610024
Water Quality Summary, 2021 Data



WATER CLARITY	MCL or [MRDL]	PHG, (MCLG)	LAKE CASITAS TREATED WATER				SAMPLE SOURCE & YEAR TESTED		SOURCE OF CONSTITUENT
			FILTER EFFLUENT	RANGE		Filter Effluent			
Direct Filtration	Treatment Technique (TT)		Highest Value = 0.03		0.01 - 0.03		2021		
Filter Effluent Turbidity ^a (NTU)	TT < 1 NTU	NA	100% of turbidity measurements were < 0.2 NTU				2021		Soil run-off
	95 % < 0.2 NTU	NA	100% = lowest monthly % of samples meeting turbidity limits				2021		
MICROBIOLOGICAL	MCL	(MCLG)	DISTRIBUTION SYSTEM				Distribution System		
			HIGHEST POSITIVE SAMPLES / MONTH	RANGE					
Total Coliform Bacteria ^b	> 1 positive sample/month	(0)	0		ND		2021		Naturally present in the environment
E. Coli Bacteria	> 1 positive sample/month	(0)	0		ND		2021		Human and animal fecal waste
INORGANIC CHEMICALS	MCL	PHG	Lake Casitas Treated Water		Mira Monte Well Treated		Lake Casitas Treated	Mira Monte Well	
			AVERAGE	RANGE	AVERAGE	RANGE			
Arsenic (ppb)	10	0.004	< 2	ND - 2	< 2 ^f	ND - 2	2021	2019 ^d	Erosion of natural deposits; runoff from orchards
Barium (ppm)	1	2	0.11	0.11 - 0.11	0.11 ^f	0.10 - 0.11	2021	2019 ^d	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	2.0	1	0.4	0.3 - 0.4	0.4 ^f	0.3 - 0.5	2021	2019 ^d	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N (ppm)	10	10	ND	ND - ND	0.6 ^c	0.4 - 0.8 ^c	2021	2021	Runoff and leaching from fertilizer use; leaching from tanks and sewerage; erosion from natural products
DISINFECTANT RESIDUALS AND DISINFECTION BY-PRODUCTS	Running Annual Average (RAA) MCL or [MRDL]	PHG or [MRDLG]	DISTRIBUTION SYSTEM				Distribution System		
			HIGHEST [RAA]/LOCATIONAL RAA		INDIVIDUAL SAMPLE RANGE				
Chloramines as Cl ₂ (ppm)	[4.0]	[4.0]	[2.6]		1.0 - 3.6		2021		Drinking water disinfectant added for treatment
Trihalomethanes (ppb)	80	NA	50		33 - 56		2021		By-product of drinking water disinfection
Haloacetic acids (ppb)	60	NA	41		11 - 54		2021		By-product of drinking water disinfection
LEAD AND COPPER	Regulatory Action Level (RAL)	PHG	Number of Samples Collected	Homes above RAL	Level Detected at 90th percentile	Individual Taps ^d			
Lead (ppb) ^e	15	0.2	30	0	ND	2020		Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural products	
Copper (ppm) ^e	1.3	0.3	30	0	1.0	2020		Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
Lead school	15	0.2	Number of schools requesting lead sampling = 4; Sample locations = 19; Locations above RAL = 0			2017		Internal corrosion of end-user plumbing systems; discharges from industrial manufacturers; erosion of natural products	

SECONDARY AESTHETIC STANDARDS

CONSTITUENTS	STATE MCL	PHG	Lake Casitas Treated		Mira Monte Well Treated		Year Tested		SOURCE OF CONSTITUENT
			AVERAGE	RANGE	AVERAGE	RANGE	Lake Treated	Mira Monte Well ^d	
Turbidity (NTU)	5	NA	ND		< 0.1 ^f		2021		Soil run-off
Total Dissolved Solids (ppm)	1000	NA	445		443 ^f		2021		Run-off / leaching from natural deposits
Specific Conductance (µS/cm)	1600	NA	724		722 ^f		2021		Substances that form ions in water; seawater influence
Chloride (ppm)	500	NA	22		23 ^f		2021		Run-off/leaching from natural deposits; seawater influence
Sulfate (ppm)	500	NA	183		178 ^f		2021		Run-off /leaching from natural deposits; industrial wastes

ADDITIONAL CONSTITUENTS

ADDITIONAL CONSTITUENTS (Unregulated)	PHG (NL)	Lake Casitas Treated		Mira Monte Well Treated		Year Tested		SOURCE OF CONSTITUENT
		AVERAGE	RANGE	AVERAGE	RANGE	Lake Treated	Mira Monte Well ^d	
Alkalinity - Total as CaCO ₃ (ppm)	NA	155	150 - 160	155 ^f	150 - 160	2021		A measure of the capacity to neutralize acid
pH (pH standard units)	6.5-8.5 (US EPA)	7.6	7.5 - 7.6	7.5 ^f	7.3 - 7.6	2021		A measure of acidity or alkalinity
Hardness - Total as CaCO ₃ (ppm)	NA	268 (15.7 gpg)	267 - 269 (15.6 - 15.7 gpg)	266 ^f (15.5 gpg)	198 - 269 (11.6-15.7 gpg)	2021		"Hardness" is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring
Corrosivity (Langlier Index) ^e	NA	0.08	0.05 - 0.10	0.07 ^f	-0.20 - 0.10	2021		Indicator of corrosion. A positive Langlier Index indicates the water is non-corrosive
Boron (ppb)	NA	200	200 - 200	195 ^f	ND - 200	2021		A naturally-occurring element
Calcium (ppm)	NA	65	64 - 65	64 ^f	53 - 65	2021		A naturally-occurring element
Magnesium (ppm)	NA	26	26 - 26	26 ^f	16 - 26	2021		A naturally-occurring element
Potassium (ppm)	NA	4	3 - 4	3 ^f	ND - 4	2021		A naturally-occurring element
Bicarbonate (ppm)	NA	185	180 - 190	185 ^f	180 - 190	2021		A measure of the capacity to neutralize acid
Sodium (ppm)	NA	31	30 - 32	32 ^f	30 - 50	2021		"Sodium" refers to the salt present in the water and is generally naturally occurring.

Abbreviations and 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 (US EPA).

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Running Annual Average (RAA): Some MCLs are determined based on the running annual average which is calculated by averaging all sample results within the previous four quarters. Locational running annual average includes results averaged over the previous four quarters for a specific sample site.

Notification Level (NL): Health based advisory levels established by the State Board for chemicals in drinking water that lack MCLs.

Primary Drinking Water Standards (PDWS): MCLs, MRDLs and treatment techniques (TT) for contaminants that affect health, along with their monitoring and reporting requirements.

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.

Regulatory Action Level (RAL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

NA - Not Applicable or Available
 ND - None Detected at or above the limits of detection for reporting purposes
 NL - Notification Level
 NS - No Sample
 NTU - Nephelometric Turbidity Units (a measure of turbidity)
 ppm - Parts per million, or milligrams per liter (mg/L)
 ppb - Parts per billion, or micrograms per liter (µg/L)
 RAA - Running Annual Average
 µS/cm - Micro Siemens per Centimeter (a measure of specific conductance)
 gpg - Grains per gallon, an alternative unit used to measure hardness
 US EPA - United States Environmental Protection Agency

Water Quality Table Footnotes:

- a) Turbidity is a measure of the cloudiness of water and is a good measure of water quality and filtration performance; 100 % of the samples tested for turbidity were below the required TT level of 0.2 NTU and 100% is the lowest monthly percentage of samples meeting the turbidity limits.
- b) During 2021 Casitas collected 156 distribution system samples for total coliform bacteria testing according to the Total Coliform Rule & Revised Total Coliform Rule. Total coliform bacteria were not detected in any of these samples.
- c) Mira Monte Well water receives blending treatment with lake Casitas Treated water and when operated, blended water is sampled weekly for nitrates with the resulting nitrate level averaging 0.6 ppm as nitrogen in 2021.
- d) The State monitoring requirements for some contaminants is less than once per year because the concentrations of these contaminants do not change frequently. These data are from the most recent sampling, and although representative, are more than one year old.
- e) Casitas has implemented a corrosion control plan by adding a small amount of phosphate to the water to lower corrosivity and reduce copper levels.
- f) Mira Monte Well Treated is calculated as a weighted average using Lake Casitas Treated and Mira Monte Well sample results and average 2021 blended water production from each source.