



SAN PASQUAL BAND OF MISSION INDIANS DOMESTIC WATER AUTHORITY

2023 CONSUMER CONFIDENCE REPORT

PREPARED FOR:

SAN PASQUAL DOMESTIC WATER AUTHORITY SUBSCRIBERS

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Reporting Period:
Jan 1, 2023
Dec 31, 2023

www.sanpasqualbandofmissionindians.org



A MESSAGE FROM THE **SAN PASQUAL BAND OF MISSION INDIANS** DOMESTIC WATER AUTHORITY

We are pleased to share that the San Pasqual Water Department and Domestic Water Authority continues to provide high quality and affordable drinking water to you each and every day.

While we are extremely confident about the quality of water delivered to your homes, as a community we must rethink how we use this quality water. Because of the potential for severe drought we have been monitoring the states Drought Status, see page 5 for current drought status and maps. We have to challenge ourselves to adapt to this new water reality: it is a limited resource and it is becoming more so. Rethinking water use outdoors is by far the area with the most potential for savings. However there are other ways to conserve so that we all can do our part to reduce water use.

Water is integral to maintaining San Pasqual's way of life. Together, we must value water, consume it wisely and never waste it. We are confident this report will shed some light on just how valuable water is and how much effort is involved to deliver this precious resource.

Sincerely,

SAN PASQUAL DOMESTIC WATER AUTHORITY



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01 — INTRODUCTION — OUR WATER SUPPLY

The San Pasqual Domestic Water Authority is pleased to present you with the Annual Drinking Water Quality Report for 2023, also known as the Consumer Confidence Report. The U.S. Environmental Protection Agency and the California Division of Drinking Water require that all water agencies produce an annual report on the previous year informing customers about the quality of their drinking water. This report is a snap shot of your water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies.

02 — TRIBAL DRINKING WATER

There are two primary sources for our Tribal drinking water on the San Pasqual Reservation, ground water and out sourced water from the neighbouring municipality. Ground water supply begins as rainwater that is naturally filtered through the soil. This water percolates through the soil and settles, usually several hundred feet below the Earth's surface, to form aquifers. Well #3 on District A and Well #1 on District C pumps from such an aquifer for domestic use. The Reservation also uses chlorinated and fluoridated water purchased that comes from Public Water System #CA3710026 for the Water Systems in District A, B and C.





SPBMI PUBLIC WATER SYSTEMS

PWS ID 0605017

PWS ID 0605080

PWS ID 090605168

03 DO YOU NEED TO TAKE ANY SPECIAL PRECAUTIONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised individuals such as a person with cancer undergoing chemotherapy, individuals who have undergone organ transplant, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These individuals should seek advice about drinking water from their health care providers. The Environmental Protection Agency (EPA) and Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA Safe drinking Hotline (800-426-4791) or at <https://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-hotline>

— WATER SOURCES

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OUR IMPORTED WATER SUPPLY AND THE IMPACT ON WATER QUALITY



In 2023 the San Pasqual Domestic Water Authority purchased and imported some of our water supply from the Indian Water Authority which is provided by way of Valley Center Municipal Water District, the San Diego County Water Authority and from the Metropolitan Water District of Southern California. Ultimately, the water was a blend from three different sources from Colorado River water, California State Water Project water and ground water from the San Pasqual Reservation. Throughout the year, the blend changes.

Several forces negatively impact the quality of water from the Colorado River and California State Water Project. The Colorado River winds through thousands of miles of unprotected watershed containing towns, farms, old mining sites and industrial sites. Water from the California State Water Project is also subject to potential contaminants such as pesticides and herbicides. This water source also has a higher organic carbon and bromide level than the Colorado River water. As organic carbon and bromide levels increase, the potential for creating higher levels of disinfection by-products exists.

Colorado River and California State Water Project water is treated by the San Diego County Water Authority and Valley Center Municipal Water District. San Pasqual Water Department regularly monitors the quality of all water to ensure all drinking water quality standards are met.



Valley Center Municipal Water District

<http://www.vcmwd.org/Services/Water-and-Customer-Service/Water-Quality-Reports>

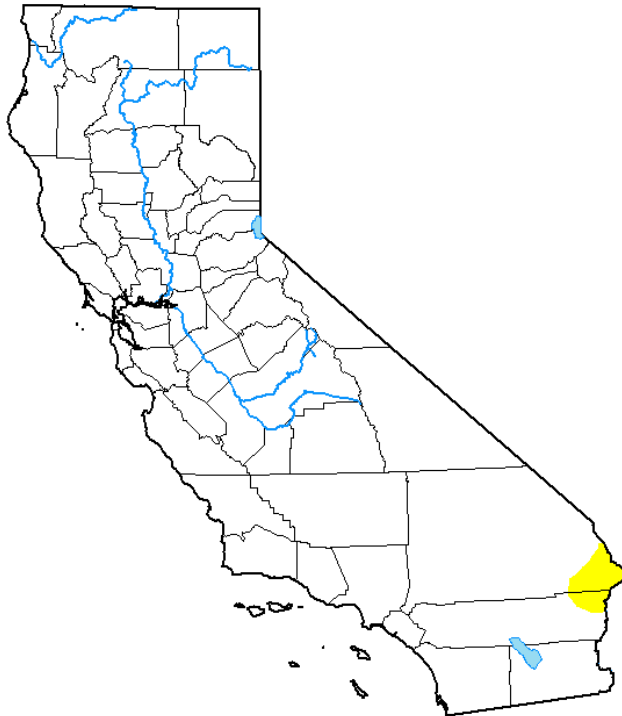
San Diego County Water Authority

<https://www.sdcwa.org/water-quality>

Metropolitan Water District of Southern California

https://www.mwdh2o.com/media/acbgotgd/wq_final.pdf

U.S. Drought Monitor USDA California Climate Hub



June 11, 2024
(Released Thursday, Jun. 13, 2024)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	98.79	1.21	0.00	0.00	0.00	0.00
Last Week 06-04-2024	98.78	1.22	0.00	0.00	0.00	0.00
3 Months Ago 03-12-2024	95.46	4.54	0.00	0.00	0.00	0.00
Start of Calendar Year 01-02-2024	96.65	3.35	0.00	0.00	0.00	0.00
Start of Water Year 09-26-2023	94.01	5.99	0.07	0.00	0.00	0.00
One Year Ago 06-13-2023	72.32	27.68	4.63	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

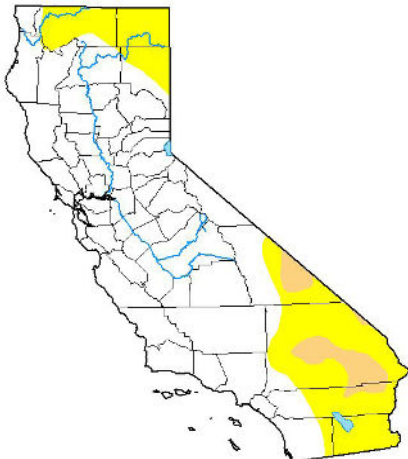
Author:
Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

U.S. Drought Monitor California

June 6, 2023
(Released Thursday, Jun. 8, 2023)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	70.86	29.12	4.63	0.00	0.00	0.00
Last Week 05-29-2023	70.86	29.12	4.63	0.00	0.00	0.00
3 Months Ago 03-07-2023	26.84	73.16	43.95	19.00	0.00	0.00
Start of Calendar Year 01-02-2023	0.00	100.00	97.93	71.14	27.10	0.00
Start of Water Year 09-26-2022	0.00	100.00	99.75	84.31	40.81	16.57
One Year Ago 06-07-2022	0.00	100.00	99.79	97.49	56.81	11.59

- Intensity:
- None
 - D0 Abnormally Dry
 - D1 Moderate Drought
 - D2 Severe Drought
 - D3 Extreme Drought
 - D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

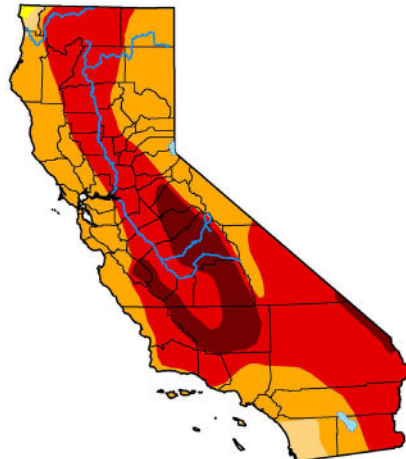
Author:
Lindsay Johnson
National Drought Mitigation Center



droughtmonitor.unl.edu

U.S. Drought Monitor California

June 7, 2022
(Released Thursday, Jun. 9, 2022)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.79	97.48	59.81	11.59
Last Week 05-31-2022	0.00	100.00	99.86	97.56	59.81	11.59
3 Months Ago 03-09-2022	0.00	100.00	100.00	86.98	12.82	0.00
Start of Calendar Year 01-04-2022	0.00	100.00	98.30	67.62	16.00	0.04
Start of Water Year 09-26-2021	0.00	100.00	100.00	93.93	87.88	45.66
One Year Ago 06-09-2021	0.00	100.00	100.00	94.75	85.20	33.32

- Intensity:
- None
 - D0 Abnormally Dry
 - D1 Moderate Drought
 - D2 Severe Drought
 - D3 Extreme Drought
 - D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:
Brad Plugh
CPC/NOAA



droughtmonitor.unl.edu

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WHY IS THERE ANYTHING IN MY WATER?

Drinking Water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. 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 Environmental Protection Agency's Safe drinking Hotline (800-46-4791).

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 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, that 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.
- Radioactive contaminants, that 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 prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

07

OUR WATER TREATMENT PROCESS

The San Pasqual Water Department provides high-quality drinking water by utilizing proven technology, updated facilities, and state-certified operators. Water is treated at the Tribes water treatment plant using several processes, with each process providing additional water quality improvements. Using several treatment processes provides multiple barriers for added safety. Our treatment plant employs a combination of time-tested conventional water treatment processes.

WATER QUALITY TABLES

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The following series of tables lists all of the drinking water contaminants detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report.

The EPA or the State requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

PUBLIC WATER SYSTEM #090605017, 1 GROUND WATER SOURCE AND 1 SURFACE WATER SOURCE

DISTRICT A (CANAL ROAD, OOS ROAD, PARADISE MTN ROAD, IPAII, ASHAA, EAGLE WAY)

Contaminants	MRDLG	MRDL	Your Water	Range Low	Range High	Sample Date	MRDL Exceeded	Typical Source
Disinfectants								
Chlorine Units: ppm	4	4	0.2988	0.2	0.8	2023	No	Drinking water additive used for disinfection
Contaminants	MCLG	MCL	Your water	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfection By-Products								
Five Haloacetic Acids (HAA5) Units: ppb	N/A	60	7.8	ND	7.8	2022	No	By-Product of Drinking Water Chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	16.3	14.7	16.3	2022	No	By-Product of Drinking Water Chlorination
Inorganic Contaminants								
Arsenic Units: ppb	0	10	5.6	N/A	N/A	2023	No	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Sodium Units: ppm	N/A	N/A	93	N/A	N/A	2022	No	Erosions of Natural Deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead and Copper Rule								
Copper Units: ppm - 90th percentile	1.3	1.3	0.065	0 sites over Action Level		2022	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

PUBLIC WATER SYSTEM #090605017 CONT...

DISTRICT A (CANAL ROAD, OOS ROAD, PARADISE MTN ROAD, IPAIL, ASHAA, EAGLE WAY)

Contaminants	MCLG	Action Level	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Radiological Contaminants								
Adjusted Alpha (Excl. Radium & U) Units: pCi/L	0	15	8.0728	ND	15.8	2023	No	Erosion of Natural Deposits
Combined Radium 226/228 Units: pCi/L	0	5	1.826	ND	1.826	2023	No	Erosion of Natural Deposits
Uranium (combined) Units: ppb	0	0.03	0	N/A	0	2023	No	Erosion of Natural Deposits



PUBLIC WATER SYSTEM #090605080, 1 SURFACE WATER SOURCE

DISTRICT B (KUMEYAAY WAY, NYEMII PASS, KUNYAAW PATH, MORNING STAR, KUNYAAW COURT, SOUTH SAN PASQUAL)

Contaminants	MRDLG	MRDL	Your Water	Range Low	Range High	Sample Date	MRDL Exceeded	Typical Source
Disinfectants								
Chlorine Units: ppm	4	4	0.3833	0.02	1.1	2023	No	Drinking water additive used for disinfection
Contaminants	MCLG	MCL	Your water	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfection By-Products								
Five Haloacetic Acids (HAA5) Units: ppb	N/A	60	11.8	N/A	N/A	2023	No	By-Product of Drinking Water Chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	63.8	N/A	N/A	2023	No	By-Product of Drinking Water Chlorination
Contaminants	MCLG	Action Level	Your water	Range	Sample Date	A.L. Exceeded	Typical Source	Contaminants
Lead and Copper Rule								
Copper Units: ppm - 90th percentile	1.3	1.3	0.065	0 sites over Action Level	2022	No		Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives



PUBLIC WATER SYSTEM #090605168

DISTRICT C (DURO ROAD), 1 GROUND WATER SOURCE

Contaminants	MRDLG	MRDL	Your Water	Range Low	Range High	Sample Date	MRDL Exceeded	Typical Source
Disinfectants								
Chlorine Units: ppm	4	4	0.225	0.2	0.3	2023	No	Drinking water additive used for disinfection
Contaminants	MCLG	MCL	Your water	Range Low	Range High	Sample Date	Violation	Typical Source
Inorganic Contaminants								
Barium Units: ppm	2	2	0.011	N/A	N/A	2022	No	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride Units: ppm	4	4	0.26	N/A	N/A	2023	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sodium Units: ppm	N/A	N/A	100	N/A	N/A	2021	No	Erosion of Natural Deposits; saltwater intrusion
Contaminants	MCLG	Action Level	Your Water	Range Low	Range High	Sample Date	Violation	Contaminants
Radiological Contaminants								
Adjusted Alpha (Excl. Radom & U) Units: pCi/L	0	15	4	2.505	4	2020	No	Erosion of Natural Deposits
Uranium (combined) Units: ppb	0	30	6	ND	6	2020	No	Erosion of Natural Deposits

ADDITIONAL INFORMATION

09

Additional Information for Lead:

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. PWS system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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 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 at 1-800-426-4791 or at <http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water>.

Additional Information for Arsenic:

While your drinking water meets the EPA standard for arsenic, it does contain low levels of arsenic. The EPA standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The 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.

MICROBIOLOGICAL TESTING

10

We are required to test your water regularly for signs of microbial contamination. Positive test results could lead to follow-up investigations called assessments and potentially the issuance of public health advisories. Assessments could lead to required corrective actions. The information below summarizes the results of tests.

Public Water System	Sampling Requirements	Sampling Conducted	Total E. Coli Positive	Assessment Triggers	Assessment Conducted
090605017 District A	2 sample due monthly	12 out of 12	0	0	0
090605080 District B	1 sample due monthly	12 out of 12	0	0	0
090605168 District C	1 Sample Due monthly	12 out of 12	0	0	0

SIGNIFICANT DEFICIENCIES

11

Sanitary deficiencies are defects in a water system's infrastructure, design, operation, maintenance, or management that cause, or may cause interruptions to the "multiple barrier" protection system and adversely affect the system's ability to produce safe and reliable drinking water in adequate quantities.

The SPBMI Domestic Water Authority had no deficiencies identified in 2023.

HEALTH BASED VIOLATIONS

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The table below list the health based violations the water system incurred during the last calendar year. While you should have received notification of the violation at an earlier date, we are required to list them in this report.

System Tested	Contamination Name	Type of violation	Begin/End Date	Steps Taken to Correct Violation	Return to Compliance	Return Date	Action Comment
090605017	Combined Radium 226/228	Major Monitoring/reporting violation for routine chemical monitoring.	7/1/2023-9/30/2023	Reporting monitoring results as required.	Yes	10/18/2023	N/A

What should I do as a consumer?

There is nothing you need to do at this time.

What is being done by the utility?

We will work with our regulatory official to conduct all required contaminant monitoring as directed.

DEFINITIONS

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Unit Definitions:

ppm= Parts per million, or milligrams per liter (mg/L)

ppb = parts per billion

N/A =Not Applicable

ND = not detectable at testing limit

NR = monitoring not required, but recommended

MCGL = Maximum Contaminant Level Goal: The highest level of contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

MCL = Maximum Contaminant Level. Highest level allowed in drinking water by EPA. MCL's are set as close to the MCLG's as feasible using the best available treatment technology

TT = Total Technique: A required process intended to reduce the level of a contaminant in drinking water.

AL = Action Level: The concentration of a contaminant which, if exceeded, trigger treatment or other requirements which a water system must follow.

HOW DO I GET INVOLVED?

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Please feel free to contact the number provided below for more information or for a translated copy of the report if you need it in another language.
For more information please contact:

John Flores,
Domestic Water Manager
johnf@sanpasqualtribe.org
(760) 651-5141





2023 CONSUMER CONFIDENCE REPORT



16400 Kumeyaay Way
Valley Center, CA, 92082



SAN PASQUAL BAND OF MISSION INDIANS
DOMESTIC WATER AUTHORITY

2023 Water Quality Data - Valley Center Municipal Water District

Our water quality information for 2023 is listed in the tables on this page. Contained in the table are the test results for clarity and microbiological safety. Also included are results for 10 inorganic and secondary standards (aesthetic). Finally, the table includes results for 4 “other parameters” for which there are no current state or federal standards.

What do all the abbreviations mean?

A number of abbreviations are contained on the Water Quality tables which are important to your understanding of the data, and those are:

Maximum Contaminant Level or 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 or 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 Disinfection Level or MRDL.

Maximum Residual Disinfection Level Goal or MRDLG.

Public Health Goal or 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.

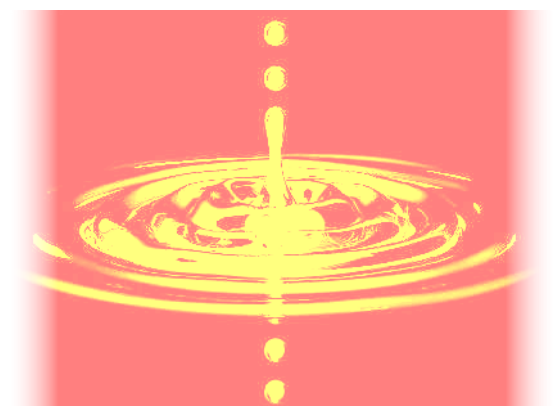
Primary Drinking Water Standard or PDWS: MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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

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

2023 ABBREVIATIONS

A	=	Absence
AI	=	Aggressive Index
AL	=	Action Level: the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow
CFU/mL	=	Colony-forming units per milliliter
DBP	=	Disinfection Byproducts
DLR	=	Detection Limits for purposes of Reporting
HPC	=	Heterotrophic Plate Count
LRAA	=	Locational Running Annual Average
MCL	=	Maximum Contaminant Level
MCLG	=	Maximum Contaminant Level Goal
MRDL	=	Maximum Residual Disinfectant Level
MRDLG	=	Maximum Residual Disinfectant Level Goal
MRL	=	Method Reporting Limit
N	=	Nitrogen
NA	=	Not Applicable
ND	=	Non Detectable
NL	=	Notification Level
NTU	=	Nephelometric Turbidity Units is a measure of the suspended material in water
P	=	Presence
pCi/L	=	Pico Curies per liter (a measure of radiation)
PHG	=	Public Health Goal
ppb	=	Parts per Billion
ppm	=	Parts per Million
ppt	=	Parts per Trillion
SI	=	Saturation Index
TOC	=	Total Organic Carbon
TON	=	Threshold Odor Number
TT	=	Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water
µS/cm	=	Micromhos per centimeter



PARAMETER (a)	Units	MCL [MRDL]	PHG (MCLG) [MRDLG]	Skinner Treatment Plant Test Results		Twin Oaks Treatment Plant Test Results		Carlsbad Desalination Plant Test Results		Major Sources in Drinking Water
				Range	Average	Range	Average	Range	Average	
PRIMARY STANDARDS – MANDATORY HEALTH RELATED STANDARDS										
CLARITY										
Combined Filter Effluent Turbidity	NTU %	TT = 1 TT(b)	NA	Highest % <0.3	0.07 100%	0.013-0.081 % <0.1	0.019 100%	Highest % <0.1	0.08 100%	Soil runoff
INORGANIC CHEMICALS										
Arsenic	ppb	10	0.004	ND	ND	2.1	2.1	ND	ND	Natural deposits erosion, glass and electronics production wastes
Nitrate (as N) (i)	ppm	10	10	ND	ND	ND-.04	ND	ND	ND	Runoff and leaching from fertilizer use; sewage; natural deposit erosion
Fluoride Treatment-related (l)	ppm	2.0	1	0.6-0.8	0.7	0.6 - 0.63	0.6	0.6 - 0.799	0.696	Water additive for dental health
RADIOLOGICAL										
Uranium	pCi/L	20	0.43	ND-3	2	ND	ND	ND	ND	Erosion of natural deposits
DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCTS PRECURSORS										
VCMWD Total Trihalomethanes (e)	ppb	80	NA	VCMWD Distribution System		Highest LRAA		By-product of drinking water chlorination		
				Range	Average	Range	Average			
				5.5-62.0			39			
VCMWD Haloacetic Acid (d)	ppb	60	NA	VCMWD Distribution System		Highest LRAA		By-product of drinking water chlorination		
				Range	Average	Range	Average			
				0.0-26.0			12			
VCMWD Total Chlorine Residual (Chloramines)	ppm	[4.0]	[4.0]	VCMWD Distribution System		Average		Drinking water disinfectant added for treatment		
				Range	Average	Range	Average			
				1.4-2.4			1.78			
CONTAMINANTS MONITORED BUT NOT DETECTED										
VCMWD Total Coliform Bacteria (c) (m)	%	5.0	0	VCMWD Distribution System		Average		Naturally present in the environment		
				Range	Average	Range	Average			
				ND			ND			
VCMWD Fecal Coliform Bacteria and E. Coli (c) (m)	CFU /mL	0	0	VCMWD Distribution System		Average		Human and animal fecal waste		
				Range	Average	Range	Average			
				ND			ND			
INORGANIC CHEMICALS										
VCMWD Copper (f) Triennial 2022	ppm	AL = 1.3	0.3	VCMWD Distribution System		90 th Percentile		Internal corrosion of household plumbing; natural deposit erosion		
				Range	Average	Range	Average			
							0.255			
VCMWD Lead (f) Triennial 2022	ppb	AL = 15	0.2	VCMWD Distribution System		90 th Percentile		Internal corrosion of household plumbing; natural deposit erosion		
				Range	Average	Range	Average			
							4.0			
SECONDARY STANDARDS – AESTHETIC STANDARDS										
Chloride	ppm	500	NA	72-110	91	100	100	35-98	75	Runoff/leaching from natural deposits; seawater influence
Specific Conductance	µs/cm	1600	NA	664-1040	852	NA	NA	225.5-506.4	405.4	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	113-236	174	122-210	166	13.0-15.0	13.5	Runoff/leaching from natural deposits; industrial waste
Total Dissolved Solids(TDS)	ppm	1000	NA	401-670	536	570	570	122-318	216	Runoff/leaching from natural deposits; seawater influence
OTHER PARAMETERS										
Alkalinity (as CaCO ₃)	ppm	NA	NA	92-125	108	NA	NA	46-87	63	
Boron	ppb [ppm]	NL= 1000	NA	130	130	140	140	0.39-0.90	0.62	Runoff/leaching from natural deposits; industrial waste
Calcium	ppm	NA	NA	39-72	56	61	61	17.48-55.2	22.55	
Corrosivity (k) (as Aggressive Index)	AI	NA	NA	12.50	12.5	NA	NA	10.3-11.2	10.58	Elemental balance in water; affected by temperature, other factors
Corrosivity (g) (as Saturation Index)	SI	NA	NA	0.62-0.75	0.68	NA	NA	0.04-0.62	0.28	Elemental balance in water; affected by temperature, other factors
Hardness (CaCO ₃)	ppm	NA	NA	165-291	228	NA	NA	43.7-79.6	56.12	Runoff/leaching from natural deposits; sum of polyvalent cations, generally magnesium & calcium present in water
Magnesium	ppm	NA	NA	15-27	21	24	24	0.9-1.1	1.1	Runoff/leaching from natural deposits
Ph	Units	NA	NA	8.2 - 8.5	8.4	7.8-8.7	8.3	8.34-8.71	8.53	
Potassium	ppm	NA	NA	3.6 - 4.8	4.2	4.8	4.8	NA	NA	Salt present in the water, naturally occurring
Sodium	ppm	NA	NA	69-103	86	99	99	40.1-61	55.35	Various natural and man-made sources
Total Organic Carbon (TOC)	ppm	TT	NA	2.3-3.0	2.6	2.0-2.5	2.2	NA	NA	Various natural and man-made sources
VCMWD Color	Units	15	NA	VCMWD Distribution System		Average		Naturally occurring organic materials		
				Range	Average	Range	Average			
				ND - 10			0.096			
VCMWD Odor Threshold (h)	TON	3	NA	VCMWD Distribution System		Average		Naturally occurring organic materials		
				Range	Average	Range	Average			
				ND			ND			
VCMWD Turbidity (b)	NTU	5	NA	VCMWD Distribution System		Average		Soil runoff		
				Range	Average	Range	Average			
				ND - 0.99			0.054			
UCMR 5(j) (Unregulated Contaminant Monitoring Rule)										
PARAMETER	Units	MCL	[DLR] MRL	Test Results						
				Range	Average					
Lithium	ug/l	NA	9	23	23					

2023 FOOTNOTES

- (a) Data shown are annual averages and ranges.
- (b) As Primary Standards, the turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU for more than one hour. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance.
- (c) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform positive. When collecting <40 samples, if two or more are total coliform positive, the MCL is violated. The MCL was not violated. E. coli MCLs: The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform/E. coli, constitutes an acute violation. Standards and results are based on distribution system monthly sampling averages. Compliance is based on distribution system sampling from all pressure zones. 416 samples were analyzed in 2023. The MCL was not violated.
- (d) Calculated from the average of quarterly samples. Compliance is based on a running annual average of 16 distribution system samples. VCMWD was in compliance with the Stage 2 Disinfection By-Products (D/DBP) Rule.
- (e) Calculated from the average quarterly samples. Compliance is based on a running annual average of 16 distribution system samples. VCMWD was in compliance with the Stage 2 Disinfection By-Products (D/DBP) Rule.
- (f) Lead and copper are regulated in a Treatment Technique under the Lead and Copper Rule. The lead and copper results for 2022 are from 30 water samples collected from the consumers' tap throughout the VCMWD distribution system. The federal action level, which triggers water systems into taking treatment steps if exceeded in more than 10% of the tap water samples, is 1.3 ppm for copper and 15 ppb for lead. There were zero samples that exceeded the action level.
- (g) Positive SI index = non-corrosive; tendency to precipitate and/or deposit scale on pipes
Negative SI index = corrosive; tendency to dissolve calcium carbonate.
- (h) Results are from VCMWD's laboratory's flavor-profile analysis that detects odor occurrences more accurately.
- (i) State MCL is 45 ppm as nitrate, which equals 10 ppm as (N).
- (j) In 2023, the USEPA required VCMWD to test for a specific list of compounds. VCMWD is required to report the results on this CCR in order to comply with State of California reporting requirements.
- (k) AI <10.0 = highly aggressive and very corrosive water
AI >12.0 = non-aggressive water
AI (10.0 – 11.9) = moderately non-aggressive water

- (l) Metropolitan Water District was in compliance with all provisions of the State's Fluoridation System Requirements. For additional information, visit the Health Department's fluoridation website: www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html
- (m) VCMWD had no total coliform present samples in 2023. As a result, the MCL was not violated. Samples are collected every Monday, and the number collected per month is either 32 or 40.
- (n) Constituent categories identified as **VCMWD** indicate that water quality testing was conducted by VCMWD. Other constituent sampling was conducted by the District's wholesale suppliers, the MWD and the SDCWA.