



SAN PASQUAL BAND OF MISSION INDIANS
DOMESTIC WATER AUTHORITY



2021 CONSUMER CONFIDENCE REPORT

PREPARED FOR:

SAN PASQUAL DOMESTIC WATER AUTHORITY SUBSCRIBERS

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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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— INTRODUCTION

01 OUR WATER SUPPLY

The San Pasqual Domestic Water Authority is pleased to present you with the Annual Drinking Water Quality Report for 2021, 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, 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 from the Indian Water Authority for both Water Systems A & B. In an effort to supply you with the safest possible product, the Tribe also chlorinates the water at Well #3 to help control viruses and bacteria. The level of chlorine is monitored to ensure proper dosages.





PWS ID 0605017,
PWS ID 0605080 and
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

04

OUR IMPORTED WATER SUPPLY AND THE IMPACT ON WATER QUALITY



The San Pasqual Reservation imported some of our water supply in 2021. This imported water was purchased from the Indian Water Authority but 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, our water was a blend from two different sources from Colorado River water and California State Water Project water. 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.



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LINKS TO OUT SOURCED WATER SOURCE CCR'S

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

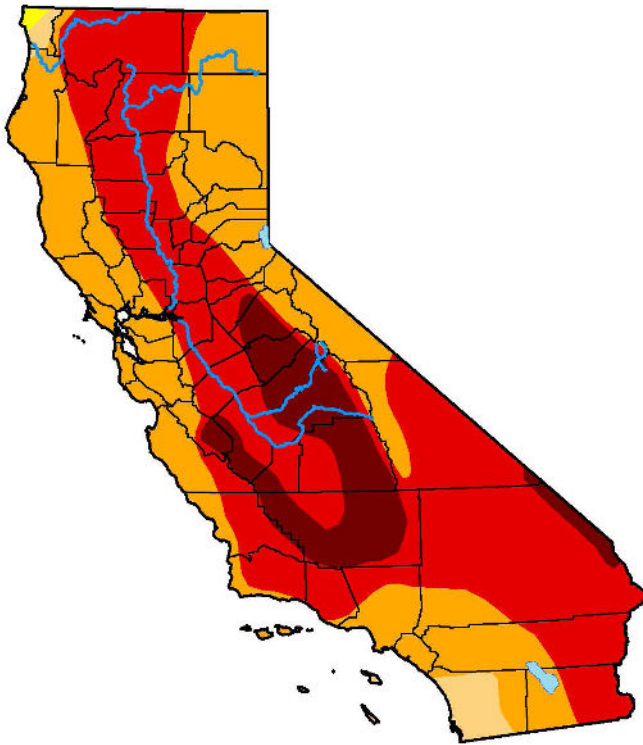
http://www.mwdh2o.com/pdf_about_your_water/2.3.1_annual_water_quality_report.pdf

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 03-08-2022	0.00	100.00	100.00	86.98	12.82	0.00
Start of Calendar Year 01-04-2022	0.00	100.00	99.30	67.62	16.60	0.84
Start of Water Year 09-28-2021	0.00	100.00	100.00	63.93	87.88	45.66
One Year Ago 06-08-2021	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 Pugh
CPC/NOAA



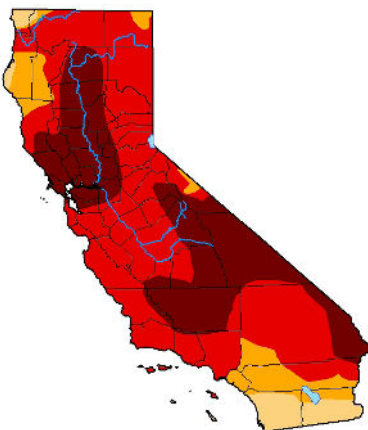
droughtmonitor.unl.edu

U.S. Drought Monitor California

June 8, 2021

(Released Thursday, Jun. 10, 2021)

Valid 8 a.m. EDT



	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	94.75	85.20	33.32
Last Week 06-01-2021	0.00	100.00	100.00	91.51	74.65	26.04
3 Months Ago 03-09-2021	0.75	20.25	90.89	50.29	25.24	3.75
Start of Calendar Year 01-04-2021	0.00	100.00	85.17	74.34	33.75	1.19
Start of Water Year 09-28-2020	15.75	64.65	67.85	26.62	12.74	0.00
One Year Ago 06-09-2020	41.79	58.21	45.74	20.84	2.45	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>

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Brad Pugh
National Drought Mitigation Center



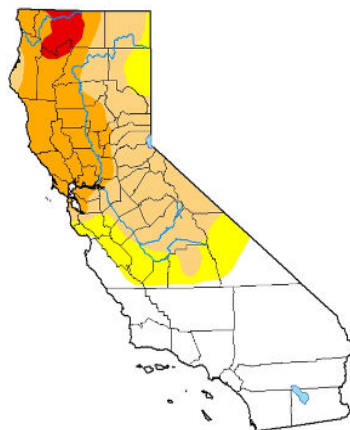
droughtmonitor.unl.edu

U.S. Drought Monitor California

June 9, 2020

(Released Thursday, Jun. 11, 2020)

Valid 8 a.m. EDT



	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	41.79	58.21	45.74	20.84	2.45	0.00
Last Week 06-02-2020	41.80	58.20	46.57	20.84	2.97	0.00
3 Months Ago 03-09-2020	21.50	78.50	48.09	0.00	0.00	0.00
Start of Calendar Year 01-04-2020	36.43	3.57	0.00	0.00	0.00	0.00
Start of Water Year 09-28-2019	65.28	4.71	2.66	0.00	0.00	0.00
One Year Ago 06-11-2019	65.68	4.32	0.00	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:
Brad Pugh
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droughtmonitor.unl.edu

06 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. Conventional water treatment consists of potassium permanganate treatment for iron and manganese, sedimentation for sand removal, and sand/multi-media filtration; this cost-effective, proven method of treatment is used throughout the modern world.

WATER QUALITY TABLES

08

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	MCLG	Action Level	Your water	Range		Sample Date	A.L. Exceeded	Typical Source
Lead and Copper Rule								
Copper Units: ppm - 90th percentile	1.3	1.3	0.085	0 sites over Action Level		2020	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Contaminants	MCLG	Action Level	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Radiological Contaminants								
Adjusted Alpha (Excl. Radom & U) Units: pCi/L	0	15	2.2	N/A	N/A	2019	No	Erosion of Natural Deposits
Uranium (combined) Units: ppb	0	30	16.4	N/A	N/A	2019	No	Erosion of Natural Deposits

PUBLIC WATER SYSTEM #090605017 CONT...

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	29	0.02	1.4	2021	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 Halo acetic Acids (HAA5) Units: ppb	N/A	60	13.2	ND	13.2	2021	No	By-Product of Drinking Water Chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	22.9	10.89	22.86	2021	No	By-Product of Drinking Water Chlorination
Inorganic Contaminants								
Arsenic Units: ppb	0	10	6.2	2.8	9.1	2021	No	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Barium Units: ppm	2	2	0	N/A	0	2019	No	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Sodium Units: ppm	N/A	N/A	59	N/A	N/A	2019	No	Erosions of Natural Deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

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	0.6642	0.1	1.9	2021	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 Halo acetic Acids (HAA5) Units: ppb	N/A	60	11.9	N/A	N/A	2021	No	By-Product of Drinking Water Chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	17.7	N/A	N/A	2021	No	By-Product of Drinking Water Chlorination

Contaminants	MCLG	Action Level	Your water	Range	Sample Date	A.L. Exceeded	Typical Source
Lead and Copper Rule							
Copper Units: ppm - 90th percentile	1.3	1.3	0.145	0 sites over Action Level	2020	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	0.1792	0.1	0.3	2021	No	Drinking water additive used for disinfection
Contaminants	MCLG	MCL	Your water	Range Low	Range High	Sample Date	Violation	Typical Source
Inorganic Contaminants								
Fluoride Units: ppm	4	4	0.24	N/A	N/A	2019	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	Sample Date	A.L. Exceeded	Typical Source
Lead and Copper Rule							
Copper Units: ppm - 90th percentile	1.3	1.3	0.0615	0 sites over Action Level	2021	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Contaminants	MCLG	Action Level	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
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	5.96	2020	No	Erosion of Natural Deposits

SPECIAL EDUCATION STATEMENTS

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 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

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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.

System Tested	Calendar Year	Sampling Requirements	Sampling Conducted	Total E. coli Positive	Assessment Triggers	Assessments Conducted
090605017	2021	2 Samples Due Monthly	12 out of 12	0	0	0
090605080	2021	1 Samples Due Monthly	12 out of 12	0	0	0
090605168	2021	1 Samples Due Monthly	12 out of 12	0	0	0

During the year 2020 we were required to conduct Level 1 Assessment. One Level 1 Assessment was completed.

Definitions

A Level 1 Assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

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 following is a listing of significant deficiencies that have yet to be corrected. Your public water system is still working to correct these deficiencies and interim milestones are shown, as applicable.

Deficiency Title: Well Casing

Date Identified: 11/26/2019 Overall Due Date: 3/31/2020

Deficiency Description: The well casing is only about one inch above the ground which makes it susceptible to inundation during heaving rains.

Corrective Action Plan: The well casing should be raise to 18 inches above the concrete floor.

Deficiency Title: Well Vent

Date Identified: 11/26/2019 Overall Due Date: 3/31/2020

Deficiency Description: The well is not equipped with a vent.

Corrective Action Plan: Proper engineering practices require that a well casing be vented to atmosphere to allow equalization of pressure with the atmosphere and to prevent accumulations of hazardous gases such as hydrogen sulfide or methane. If such gases are present, the vent should terminate outside of any well house or confined space. The well vent should be faced downward and covered with a corrosion resistant insect screen to prevent entry of contaminants or vermin.

Deficiency Title: Well House

Date Identified: 11/26/2019 Overall Due Date: 3/31/2020

Deficiency Description: The well house is downslope from a nearby hill and could be inundated with water in heavy rains. The well house is also not secured against vandalism.

Corrective Action Plan: We understand that funding is available to rebuild the wellhouse. When it is rebuilt, proper drainage should be installed to divert rain water runoff from entering the structure and the well house should be hardened against vandalism, including fencing.

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	Revised total Coliform Rule (RTCR)	Failure to conduct routine monitoring	7/1/2021-7/31/2021	Following Month Reporting of all required results			

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

13

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.

Test Result Updates:

Public Water Systems A and B are monitored monthly for bacteriological contaminants. None of the samples tested positive for Total Coliform or Fecal Coliform. The tables provided list all the drinking water contaminants that were detected in the domestic water supply in 2017. No chemical contaminants exceeded EPA health-based criteria (MCLs).

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



SAN PASQUAL BAND OF MISSION INDIANS

2021 SPDWA CCR



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2021 Water Quality Data - Valley Center Municipal Water District

Our water quality information for 2021 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 11 "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.

2021 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	0.09 100%	0.02-0.05 % <0.1	0.03 100%	Highest % <0.1	0.09 100%	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 0.5	ND	ND	ND	Runoff and leaching from fertilizer use; sewage; natural deposit erosion
Fluoride Treatment-related (l)	ppm	2.0	1	0.6-0.9	0.7	0.6-0.7	0.6	ND-0.799	0.649	Water additive for dental health
RADIOLOGICAL										
Uranium	pCi/L	20	0.43	ND-2	2	2.3-3.0	2.6	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			
				5.5-33.3		22				
VCMWD Haloacetic Acid (d)	ppb	60	NA	VCMWD Distribution System		Highest LRAA				By-product of drinking water chlorination
				Range	Average	Range	Average			
				3.6-17.0		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			
				1.5-2.2		1.94				
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-1		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 2019	ppm	AL = 1.3	0.3	VCMWD Distribution System		Average				Internal corrosion of household plumbing; natural deposit erosion
				Range	Average	Range	Average			
				90 th Percentile		0.318				
VCMWD Lead (f) Triennial 2019	ppb	AL = 15	0.2	VCMWD Distribution System		Average				Internal corrosion of household plumbing; natural deposit erosion
				Range	Average	Range	Average			
				90 th Percentile		ND				
SECONDARY STANDARDS – AESTHETIC STANDARDS										
Chloride	ppm	500	NA	92-97	94	99	99	54-96	73	Runoff/leaching from natural deposits; seawater influence
Specific Conductance	µS/cm	1600	NA	918-956	937	940	940	301.4-494.9	406.4	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	197-221	209	220	220	10.0-14.0	12.3	Runoff/leaching from natural deposits; industrial waste
Total Dissolved Solids(TDS)	ppm	1000	NA	557-604	610	610	300	140-278	209	Runoff/leaching from natural deposits; seawater influence
OTHER PARAMETERS										
Alkalinity (as CaCO ₃)	ppm	NA	NA	121-123	122	120	120	46-92	63	
Boron	ppb [ppm]	NL= 1000	NA	NA	140	120	120	[0.40 - 0.81]	[0.59]	Runoff/leaching from natural deposits; industrial waste
Calcium	ppm	NA	NA	62-64	63	67	67	16.72-34.92	20.63	
Corrosivity (k) (as Aggressive Index)	AI	NA	NA	NA	12.4	13	13	10.3 - 10.89	10.54	Elemental balance in water; affected by temperature, other factors
Corrosivity (g) (as Saturation Index)	SI	NA	NA	.061 - 0.62	0.62	0.74	0.74	0.04 - 0.49	0.24	Elemental balance in water; affected by temperature, other factors
Hardness (CaCO ₃)	ppm	NA	NA	264-273	268	270	270	41.8 - 87.3	51.56	Runoff/leaching from natural deposits; sum of polyvalent cations, generally magnesium & calcium present in water
Magnesium	ppm	NA	NA	23-25	24	24	24	0.86 - 1.2	1.06	Runoff/leaching from natural deposits
Ph	Units	NA	NA	8.1 - 8.2	8.1	8.1-8.2	8.2	8.10 - 8.70	8.51	
Potassium	ppm	NA	NA	4.3 - 4.7	4.5	4.6	4.6	0.000 - 61.441	10.95	Salt present in the water, naturally occurring
Sodium	ppm	NA	NA	92-95	94	93	93	53-67	59	Various natural and man-made sources
Total Organic Carbon (TOC)	ppm	TT	NA	2.2-2.7	2.5	2.3-2.7	2.5	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			
				<1-2		<1				
VCMWD Odor Threshold (h)	TON	3	NA	VCMWD Distribution System		Average				Naturally occurring organic materials
				Range	Average	Range	Average			
				<1		<1				
VCMWD Turbidity (b)	NTU	5	NA	VCMWD Distribution System		Average				Soil runoff
				Range	Average	Range	Average			
				<0.10-0.22		0.10				
UCMR 4(j) (Unregulated Contaminant Monitoring Rule)										
PARAMETER	Units	MCL	[DLR] MRL	Test Results						
				Range	Average	Range	Average	Range	Average	
Manganese Total ICAP/MS	ug/l	NA	0.4	ND - 8.5	3.7					
Total HAA5	ug/l	NA	0.2	3.5 - 14	7.1					
Total HAA6Br	ug/l	NA	0.2	2.9 - 17	7.9					
Total HAA9	ug/l	NA	0.2	5.5 - 26	13.2					

2021 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 2021. 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 2019 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 2019, 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: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html
- (m) VCMWD had one total coliform present sample in 2021. 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.



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Ways to Save Water

WHY CONSERVE WATER?

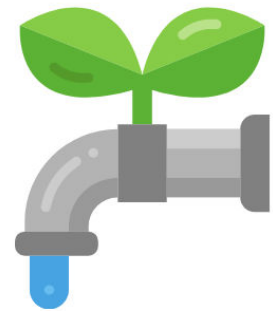
Fresh water is a scarce resource and is heavily effected by the way we choose to use it. Our future sustainability depends on each of us committing to using water smartly now.

California is currently experiencing severe drought conditions so we should do our best as a community to reduce our overall water usage!



Tips

- Take shorter showers
- Turn off water while brushing your teeth
- Hand wash dishes once a day using the least amount of detergent as possible
- Rinse vegetables and fruits in a sink or pan filled with water instead of running water
- Use Native Landscaping and drought- tolerant planting techniques
- Adjust sprinklers and watering times to only water what is necessary



IF YOU HAVE ANY QUESTIONS, PLEASE
CONTACT US AT 760-651-5151