

Jardines del Valle Water System: Consumer Confidence Report – 2021

Santa Cruz County Water System I.D. No. 4400664

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien.

May 26, 2022

About This Report

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2021 and may include earlier monitoring data.

The Jardines del Valle housing complex has its' own water system. The water system is classified as a "community water system." As such, we are required to provide this *Water Quality / Consumer Confidence Report* to you, the water user. In 2021, water from the system was tested and compared to the EPA and State drinking water health standards.

This brochure reviews 2021's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

Dinking water, including bottled water, may reasonably be expected to contain at least small amounts of some 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 USEPA's Safe Drinking Water Hotline (800-426-4791).

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, person 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. USEPA / Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Your water comes from an on-site water production well sunk approximately 430-feet into underground sources of water called the Aromas Sands and/or the Paso Robles Formation. The water is pumped to a 7,500-gallon raw water storage tank where chlorine is added. The water is



then filtered to remove manganese, a naturally-occurring mineral, which can turn the water brown. The treated water is sent to two 5,000-gallon storage tanks that supply potable water for domestic (drinking and washing) use at the housing complex. A booster pump and pressure tanks provide pressure throughout the water system. The well, storage tanks, and treatment system are located on the east side of the property, west of Murphy Road, in a chain link fenced area. Please see the notes below regarding drinking water.

Sources of drinking water (both tap water and bottled water) include river, 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 before it is treated include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic system, 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.
- Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.
- 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, agriculture application, and septic systems.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

WATER QUALITY DATA

The attached Tables 1 and 2 list all the drinking water compounds (analytes) that the source well and water distribution system were tested for, the date of the tests, the results of the tests, and the Maximum Contaminant Level (MCL) for that analyte established by the US EPA or the state of California in parts per million (ppm). For comparison, 1 ppm is the equivalent of 1 second in 11.5 days. The presence of any compound in the water does not necessarily indicate that the water poses a health risk. The State requires monitoring for certain compounds less than once per year because the concentrations of these compounds are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

About Manganese: In the spring to summer 2013, Weber, Hayes and Associates installed an oxidation and filtration system between the raw and finished water storage tanks to filter out the Manganese. This filtration system began full time operation in June 2013 and continues to operate. Water in the distribution system has contained less than the Secondary MCL of Manganese (less than 50 ppb) since the filtration system began operating. Manganese is a naturally occurring mineral and is present in groundwater due to leaching from natural deposits. It is a required nutrient in every person's diet and a healthful diet provides adequate manganese for good nutrition (US EPA, 2003). Manganese is regulated by a 50 ppb Secondary MCL (see drinking water regulations), a standard established to address issues of aesthetics (discoloration), not health concerns. At concentration greater than 50 ppb manganese may make the water appear brown. However, there are potential health concerns of high levels of manganese in drinking water.

The following references provide more information on manganese:

- ATSDR, 2008, Toxicological Profile for Manganese, Agency for Toxic Substances and Disease Registry, September 2008.
- US EPA, 1996, Manganese, Integrated Risk Information System, US Environmental Protection Agency, Reference Dose last updated May 1, 1996.
- US EPA, 2003 (PDF), Health Effects Support Document for Manganese, February 2003.
- US EPA, 2004 (PDF), Drinking Water Health Advisory for Manganese, January 2004.
- WHO, 2004 (PDF), Manganese in Drinking-water, Background document for development of WHO Guidelines for Drinking-water Quality, World Health Organization, 2004. See also: WHO, Chemical Hazards in Drinking Water - Manganese.



About Chlorine Injection into Your Water: A chlorine injection system was installed as a pre-treatment process for your manganese treatment/filtering system. Due to the required dose of chlorine needed for optimal manganese removal, there was and continues to be, a small residual amount of chlorine in your water. The residual low concentration of chlorine in your water inhibits bacteria in the water system. The chlorine injection system provides a chlorine residual of approximately 0.5 ppm in the water distribution system. The MCL for chlorine is 4 ppm.

Source water supplied to and distributed in the system met all EPA and State drinking water standards, except for the following instances:

- On 8/13/21, the Total Trihalomethanes concentration was over the Maximum Contaminant Level (MCL). A 12/28/21 test for this compound was below the MCL. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. We plan to test the water quarterly for Total Trihalomethanes in 2022 and are currently planning to clean the inside of the water storage tank, which should help ensure that future test results are below the MCL.
- As discussed above, the source Well-1 has ongoing manganese concentrations above the secondary MCL. However, there is a treatment system in place to lower these manganese concentrations below the secondary MCL. So, this is not an issue.

The laboratory analytical results are summarized in the attached Tables 1 and 2.

Please direct any questions about the potable water system (including public meetings) to:

Jose Reyes [Jardines del Valle Community Manager] at 831-747-4026

or Craig Drizin (Certified Water Distribution Operator - Weber, Hayes and Associates) at 831.722.3580

Term	Definition
Level 1 Assessment	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.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
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 (U.S. EPA).
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 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.
Primary Drinking Water Standards (PDWS)	MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment 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 (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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.
Variances and Exemptions	Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.
ND	Not detectable at testing limit.
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter (µg/L)
ppt	parts per trillion or nanograms per liter (ng/L)
ppq	parts per quadrillion or picogram per liter (pg/L)
pCi/L	picocuries per liter (a measure of radiation)





Table 1: Summary of Well-1 (-001) Analytical Results
Jardines del Valle, Watsonville, CA - Water System I.D. No. 4400664 (-001)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
PRIMARY INORGANICS			
Aluminum (Al)	1/7/22	ND	0.2 ² 1
	1/17/19		
Antimony (Sb)	1/7/22	ND	0.006
	1/17/19		
Arsenic (As)	1/7/22	ND	0.01
	1/17/19		
Barium (Ba)	1/7/22	0.17	1
	1/17/19	0.22	
Beryllium (Be)	1/7/22	ND	0.004
	1/17/19		
Boron (B)	1/17/18	0.46	*CA-AL: 1
Cadmium (Cd)	1/7/22	ND	0.005
	1/17/19		
Chromium (Cr)	1/7/22	ND	0.05
	1/17/19		
Copper (Cu)	4/16/21	ND	*AL: 1.3 1.0 ²
Cyanide (CN)	1/17/19	ND	0.15
Fluoride (F)	1/7/22	0.26	2.0
	4/16/21	0.24	
Lead (Pb)	1/17/19	ND	*AL: 0.015
Mercury (Hg)	1/7/22	ND	0.002
	1/17/19		
Nickel (Ni)	1/7/22	ND	0.1
	1/17/19		
Nitrate (as N)	11/22/21	ND	10
	4/5/21	ND	
Nitrite (as N)	11/22/21	ND	1
	1/17/19	ND	
Nitrate (as N) + Nitrite (as N)	11/22/21	ND	10
	1/17/19	ND	
Selenium (Se)	1/7/22	ND	0.05
	1/17/19		
Silver (Ag)	1/17/19	ND	0.1 ²
Thallium (Tl)	1/7/22	ND	0.002
	1/17/19		

Table 1: Summary of Well-1 (-001) Analytical Results
Jardines del Valle, Watsonville, CA - Water System I.D. No. 4400664 (-001)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
GENERAL MINERAL			
pH value	4/5/21	7.6	6.5 - 8.5
Conductivity (micromhos/cm)	4/5/21	1,400	1,600 $\mu\text{S}/\text{cm}^2$
Bicarbonate Alkalinity (as HCO ₃)	4/5/21	380	--
Carbonate Alkalinity (as CO ₃)	4/5/21	ND	--
Calcium (Ca)	4/5/21	98	--
Chloride (Cl)	4/5/21	110	500 ²
MBAS (Surfactants)	1/17/19	< 0.025	0.5 ²
Magnesium (Mg)	4/5/21	56	--
Manganese (Mn)	6/23/21 4/5/21	2.2 ** 2.3 **	0.05 ²
Potassium (K)	4/5/21	2.6	--
Sodium (Na)	4/5/21	100	--
Sulfate (SO ₄)	4/5/21	220	500 ²
Iron (Fe), total	4/5/21	ND	0.3 ²
Total Hardness (as CaCO ₃)	4/5/21	480	--
Total Alkalinity (as CaCO ₃)	4/5/21	320	--
Total Dissolved Solids	4/5/21	780	1,000 ²
Zinc (Zn)	4/5/21	ND	5 ²
GENERAL MINERAL			
Color (Co/Pt)	4/5/21	ND	15
Odor T.O.N. (Threshold Number)	4/5/21	ND	3 ²
Turbidity (NTU)	4/5/21	0.15	5 ²
OTHER			
Hexavalent Chromium (Cr ⁺⁶)	11/4/14	ND	0.01 ^a
Perchlorate	4/24/19	ND	0.006
Synthetic Organic Compounds	4/20/21	All ND	varies
Volatile Organic Compounds	12/12/18	All ND	varies
1,2,3 TCP	4/20/21	ND	0.000005
Gross Alpha (pCi/L)	2/4/14	2.09	15 pCi/L

All Data & MCLs QC'd on 5/26/22 by: S. Mixan (WHA)

NOTES:



Table 1: Summary of Well-1 (-001) Analytical Results
Jardines del Valle, Watsonville, CA - Water System I.D. No. 4400664 (-001)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
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Not all analytes are sampled every year. Most recent data is shown.

ppm = parts per million; which is equivalent to milligrams per liter (mg/L)

MCL = Maximum Contaminant Level. Primarily based on US Environmental Protection Agency (EPA) & California drinking water regulations

ND = Not Detected at or above the laboratory's Reporting Limit

2 = Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that level

a = MCL is no longer in effect

*California (CA-NL) and/or EPA Action Levels (AL) are shown for analytes which do not have an MCL

** Indicates a secondary MCL exceedance. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that level. A treatment system is also in place to filter manganese from the well water.

1,2,3-TCP = 1,2,3-Trichloropropane

pCi/L = picocuries per liter

NTU = Nephelometric Turbidity Units

Table 2: Summary of **Distribution System** Analytical Results
Jardines del Valle, Watsonville, CA - Water System I.D. No. 4400664

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
Bacteria			
Coliform	Jan - Dec 2021	Absent	if present
E Coli	Jan - Dec 2021	Absent	if present
Disinfection By-Products			
Total Trihalomethanes	8/13/21	0.1 **	0.80
Total Trihalomethanes	12/28/21	0.55	0.80
Total HAA	8/13/21	0.0096	0.60
Total HAA	12/28/21	0.0094	0.60
Manganese (after treatment)			
Manganese (after treatment)	Feb, May, Aug, Nov 2021	ND	0.05 ²
Lead & Copper			
Lead	7/11/19	ND	AL: 0.015
Lead	7/11/19	ND	AL: 0.015
Lead	7/11/19	ND	AL: 0.015
Lead	7/11/19	ND	AL: 0.015
Lead	7/11/19	ND	AL: 0.015
Lead	7/11/19	ND	AL: 0.015
Copper	7/11/19	0.33	AL: 1.3 1.0 ²
Copper	7/11/19	0.1	AL: 1.3 1.0 ²
Copper	7/11/19	0.093	AL: 1.3 1.0 ²
Copper	7/11/19	0.2	AL: 1.3 1.0 ²
Copper	7/11/19	0.5	AL: 1.3 1.0 ²
Copper	7/11/19	0.12	AL: 1.3 1.0 ²

All Data & MCLs QC'd on 5/26/22 by: S. Mixan (WHA)

NOTES:

ppm = parts per million; which is equivalent to milligrams per liter (mg/L)

MCL = Maximum Contaminant Level. Primarily based on US Environmental Protection Agency (EPA) & California drinking water regulations

* 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. Coliforms are not considered a health hazard. In this case, the coliform detection may have been a laboratory false-positive - because the retest did not detect coliforms.

** There was an exceedance of the MCL for the disinfection by-product Trihalomethanes. The follow-up retest for this compound was just below the MCL. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. We are working on solutions to help ensure that the Trihalomethanes level continues to stay below the MCL.

ND = Not Detected at or above the laboratory's Reporting Limit

2 = Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that level

AL = California (CA-NL) and/or EPA Action Levels (AL) are shown for analytes which do not have an MCL