Cathedral Hills Mutual Water Company

Consumer Confidence Report – 2020

Santa Cruz County Water System I.D. No. 4400652

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

June 30, 2021

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, 2020 and may include earlier monitoring data.

The Cathedral Hills Mutual Water Company 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 2020, water from the system was tested and compared to the EPA and State drinking water health standards.

This brochure reviews 2020's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

Drinking 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 two water production wells. The primary well is located at the top of Newell Drive and is drilled approximately 1,000-feet underground into a deep source of groundwater. The water is pumped to a nearby 22,000-gallon storage tank. The second well is located on Redwood Drive and acts as a back-up source for the 22,000-gallon storage tank. The back-up well had been out of service since 2015 but was brought back online in November of 2019. The back-up well provides support for the primary well during high usage periods when more water is used than the primary well can supply. The height of the storage tank provides gravity pressure throughout the water system, though some residents utilize private pressure pumps. Please see the notes below regarding drinking water quality.

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, 2, and 3 list all the drinking water compounds (analytes) that the source wells 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.

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

- On 11/4/19, iron and manganese concentrations exceeded the secondary Maximum Contaminant Level (MCL) in the backup well (Redwood Well). Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that level. Water with elevated iron and manganese concentrations can result in reddish-brown and dark brown stains on fixtures and washed clothing. The primary Newell Well supplies most of the potable water, which has low iron and manganese concentrations. The Redwood Well only turns on during periods of higher demand, when the Newell Well is unable to produce enough water. Due to this water blending process, the potable water delivered to end users is significantly lower in iron and manganese than the Redwood Well results would suggest.

The laboratory analytical results are summarized in the attached Tables 1, 2, and 3.

Please direct any questions about the potable water system to:

Peter Goetz – President of Cathedral Hills Mutual Water Company (831-251-1158)

OR

Craig Drizin (Certified Water 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 *E. coli* 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 Newell Well (-003) Analytical Results

Cathedral Hills MWC, Aptos, CA - Water System I.D. No. 4400652 (-003)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
PRIMARY INORGANICS			
Aluminum (Al)	2/12/21	ND	1 | 0.2 [2]
Antimony (Sb)	2/12/21	ND	0.006
Arsenic (As)	2/12/21	ND	0.01
Barium (Ba)	2/12/21	ND	1.0
Beryllium (Be)	2/12/21	ND	0.004
Boron (B)	2/12/21	ND	*CA-AL: 1
Cadmium (Cd)	2/12/21	ND	0.005
Chromium (Cr)	2/12/21	ND	0.05
Copper (Cu)	2/12/21	ND	(AL: 1.3) 1.0 [2]
Cyanide (CN)	2/12/21	ND	0.15
Fluoride (F)	2/12/21	ND	2.0
Lead (Pb)	2/12/21	ND	*AL: 0.015
Mercury (Hg)	2/12/21	ND	0.002
Nickel (Ni)	2/12/21	ND	0.1
Nitrate (as N)	2/12/21	ND	10
	2/3/20	ND	
Nitrite (as N)	2/12/21	ND	1
Nitrate-N + Nitrite-N	2/12/21	ND	10
Selenium (Se)	2/12/21	ND	0.05
Silver (Ag)	2/12/21	ND	0.1 [2]
Thallium (Tl)	2/12/21	ND	0.002
GENERAL MINERAL			
pH value (pH units)	2/12/21	8	6.5 - 8.5
Specific Conductance (µS/cm)	2/12/21	700	1,600 µS/cm [2]
Bicarbonate Alkalinity (as HCO_3)	2/12/21	210	--
Carbonate Alkalinity (as CO_3)	2/12/21	ND	--
Calcium (Ca)	2/12/21	48	--
Chloride (Cl)	2/12/21	32	500 [2]
MBAS (Surfactants)	2/12/21	ND	0.5 [2]
Magnesium (Mg)	2/12/21	41	--
Manganese (Mn) [†]	2/12/21	ND	0.05 [2]
Potassium (K)	2/12/21	4.1	--

Table 1: Summary of Newell Well (-003) Analytical Results

Cathedral Hills MWC, Aptos, CA - Water System I.D. No. 4400652 (-003)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
Sodium (Na)	2/12/21	41	--
Sulfate (SO_4)	2/12/21	160	500 [2]
Iron (Fe); total	2/12/21	0.1	0.3 [2]
Total Hardness (as $CaCO_3$)	2/12/21	290	--
Total Alkalinity (as $CaCO_3$)	2/12/21	170	--
Total Dissolved Solids	2/12/21	450	1,000 [2]
Zinc	2/12/21	0.058	5 [2]
GENERAL MINERAL			
Color (Co/Pt) (Units)	2/12/21	ND	15
Odor T.O.N. (Threshold Number)	2/12/21	ND	3 [2]
Turbidity (NTU)	2/12/21	1.1	5 [2]
OTHER			
Hexavalent Chromium (Cr^{+6})	2/7/18	ND	0.01
Perchlorate	4/17/18	ND	0.006
	4/13/21	ND	
Synthetic Organic Compounds	7/7/20	All ND	varies
Volatile Organic Compounds	2/4/19	All ND	varies
1,2,3 TCP	11/5/18	ND	0.000005
Gross Alpha	8/5/19	1.23	15 pCi/L

All Data & MCLs QC'd on 6/14/21 by: S. Mixan (WHA)

NOTES:

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

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

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

pCi/L = picocuries per liter

Table 2: Summary of Redwood Well (-002) Analytical Results

Cathedral Hills MWC, Aptos, CA - Water System I.D. No. 4400652 (-002)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
PRIMARY INORGANICS			
Aluminum (Al)	11/4/19	ND	0.2 [2] | 1
Antimony (Sb)	11/4/19	ND	0.006
Arsenic (As)	11/4/19	ND	0.01
Barium (Ba)	11/4/19	ND	1
Beryllium (Be)	11/4/19	ND	0.004
Boron (B)	11/4/19	ND	*CA-AL: 1
Cadmium (Cd)	11/4/19	ND	0.005
Chromium (Cr)	11/4/19	ND	0.05
Copper (Cu)	11/4/19	ND	*AL: 1.3 | 1.0 [2]
Cyanide (CN)	11/4/19	ND	0.15
Fluoride (F)	11/4/19	ND	2.0
Lead (Pb)	11/4/19	ND	*AL: 0.015
Mercury (Hg)	11/4/19	ND	0.002
Nickel (Ni)	11/4/19	ND	0.1
Nitrate (as N)	11/19/20	ND	1
Nitrite (as N)	11/4/19	ND	10
Nitrate (as N) + Nitrite (as N)	11/4/19	ND	10
Selenium (Se)	11/4/19	ND	0.05
Silver (Ag)	11/4/19	ND	0.1 [2]
Thallium (Tl)	11/4/19	ND	0.002
GENERAL MINERAL			
pH value (pH units)	11/4/19	8	6.5 - 8.5
Specific Conductance (uS/cm)	11/4/19	600	1,600 µS/cm [2]
Bicarbonate Alkalinity (as HCO3)	11/4/19	240	--
Carbonate Alkalinity (as CO3)	11/4/19	ND	--
Calcium (Ca)	11/4/19	33	--
Chloride (Cl)	11/4/19	34	500 [2]
MBAS (Surfactants)	11/4/19	ND	0.5 [2]
Magnesium (Mg)	11/4/19	48	--
Manganese (Mn)	11/4/19	0.57 **	0.05 [2]
Potassium (K)	11/4/19	3.3	--
Sodium (Na)	11/4/19	25	--
Sulfate (SO4)	11/4/19	95	500 [2]
Iron (Fe), total	11/4/19	0.32 **	0.3 [2]

Table 2: Summary of Redwood Well (-002) Analytical Results

Cathedral Hills MWC, Aptos, CA - Water System I.D. No. 4400652 (-002)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
Total Hardness (as CaCO3)	11/4/19	280	--
Total Alkalinity (as CaCO3)	11/4/19	200	--
Total Dissolved Solids	11/4/19	360	1,000 [2]
Zinc (Zn)	11/4/19	0.076	5 [2]
GENERAL MINERAL			
Color (Co/Pt) (Units)	11/4/19	ND	15
Odor T.O.N. (Threshold Number)	11/4/19	ND	3 [2]
Turbidity (NTU)	11/4/19	1.5	5 [2]
OTHER			
Perchlorate	11/4/19	ND	0.006
Synthetic Organic Compounds	11/4/19	All ND	varies
Volatile Organic Compounds	11/4/19	All ND	varies
1,2,3 TCP	11/4/19	ND	0.000005
Gross Alpha	11/4/19	1.66	15 pCi/L

All Data & MCLs QC'd on 6/14/21 by: S. Mixan (WHA)

NOTES:

Not all analytes are sampled every year. Most recent data is shown.

ppm = parts per million; which is eqivalent 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

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

** Indicates a secondary MCL exceedence. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that level. See CCR report text for more details.

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

pCi/L = picocuries per liter

Table 3: Summary of Distribution System Analytical Results

Cathedral Hills MWC, Aptos, CA - Water System I.D. No. 4400652

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
Bacteria			
Coliform	Jan - Dec 2020	Absent	---
E Coli	Jan - Dec 2020	Absent	---
Lead & Copper			
Lead	7/15/19	ND	AL: 0.015
Lead	7/15/19	ND	AL: 0.015
Lead	7/15/19	ND	AL: 0.015
Lead	7/15/19	ND	AL: 0.015
Copper	7/15/19	0.12	AL: 1.3 | 1.0 [2]
Copper	7/15/19	0.33	AL: 1.3 | 1.0 [2]
Copper	7/15/19	ND	AL: 1.3 | 1.0 [2]
Copper	7/15/19	ND	AL: 1.3 | 1.0 [2]

All Data & MCLs QC'd on 6/14/21 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

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

APPENDIX F: Certification Form (Suggested Format)

Consumer Confidence Report
Certification Form
(to be submitted with a copy of the CCR)

(To certify electronic delivery of the CCR, use the certification form on the State Water Board's website at http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/CCR.shtml)

Water System Name:	Cathedral Hills Mutual Water System
Water System Number:	4400652

The water system named above hereby certifies that its Consumer Confidence Report was distributed on _____ (*date*) to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the State Water Resources Control Board, Division of Drinking Water.

Certified by:	Name:	Peter Groetz	
	Signature:	Peter Groetz	
	Title:	President / CHMWC	
	Phone Number:	(831) 251-1158	Date: 6/28/2021

To summarize report delivery used and good-faith efforts taken, please complete the below by checking all items that apply and fill-in where appropriate:

☒ CCR was distributed by mail or other direct delivery methods. Specify other direct delivery methods used: Email attachment

☐ "Good faith" efforts were used to reach non-bill paying consumers. Those efforts included the following methods: N/A

- ☐ Posting the CCR on the Internet at www.
- ☐ Mailing the CCR to postal patrons within the service area (attach zip codes used)
- ☐ Advertising the availability of the CCR in news media (attach copy of press release)
- ☐ Publication of the CCR in a local newspaper of general circulation (attach a copy of the published notice, including name of newspaper and date published)
- ☐ Posted the CCR in public places (attach a list of locations)

- ☐ Delivery of multiple copies of CCR to single-billed addresses serving several persons, such as apartments, businesses, and schools
- ☐ Delivery to community organizations (attach a list of organizations)
- ☐ Other (attach a list of other methods used)

☐ *For systems serving at least 100,000 persons*: Posted CCR on a publicly-accessible internet site at the following address: www.

_____

☐ *For investor-owned utilities*: Delivered the CCR to the California Public Utilities Commission

This form is provided as a convenience for use to meet the certification requirement of the California Code of Regulations, section 64483(c).