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Coastside County Water District Water Quality Report **2020**

Coastside County Water District (District) is pleased to present the 2020 Annual Water Quality Report in accordance with state and federal regulations. The data presented are from sampling and testing done in accordance with Safe Drinking Water Act regulations.

The treated drinking water delivered to your home or business met all drinking water quality standards set by the state and federal governments.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua para beber. Tradúzcalo o hable con alguien que lo entienda bien. Si le gustaría recibir una copia de este reporte en Español, favor de llamar al Coastside County Water District, y le enviaremos una copia por correo.

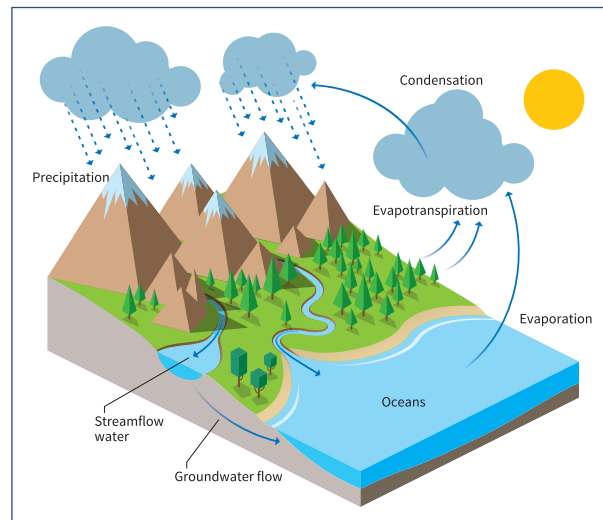
Where Your Water Comes From

The District receives water originating from pristine and highly protected watersheds in California's Sierra Nevada Mountain Range and San Mateo County's Coastal Mountain Range.

The District owns and operates the Denniston Project (surface and groundwater) and the Pilarcitos Creek Infiltration Well Field, both of which receive water originating from the local coastal range.

The District purchases raw water from the San Francisco Public Utilities Commission (SFPUC). Raw water from SFPUC originates from Pilarcitos Reservoir, which is supplied by local runoff from the coastal range, and from Upper Crystal Springs Reservoir, which is supplied by imported water from SFPUC's Regional Water System, including the Hetch-Hetchy watershed.

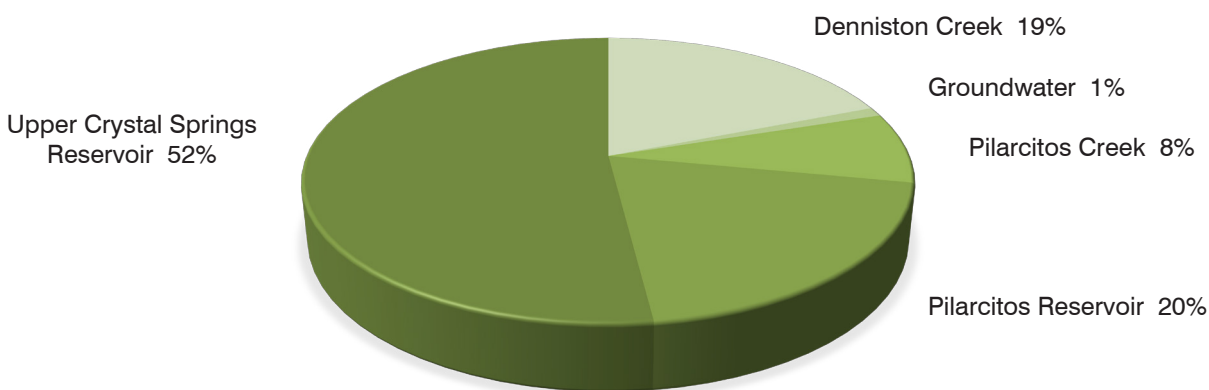
Water delivered to District customers receives full treatment at our two water treatment facilities in accordance with federal and state standards. The Nunes Water Treatment Plant is capable of treating up to 4.5 million gallons per day (mgd) of water from Pilarcitos Reservoir, infiltration wells in Pilarcitos Creek Canyon and Upper Crystal Springs Reservoir. The Denniston Water Treatment Plant treats up to 1.4 mgd of water from Denniston Creek and Denniston Well Field.



Coastside County Water District does not fluoridate its drinking water.

For information about fluoridation, go to waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html

District Water Sources for Calendar Year 2020



Source Water Assessment – Watershed Sanitary Survey

The District completed a source water assessment in 2016 for the San Vicente Creek and the Denniston Creek watersheds. The Upper Pilarcitos Creek watershed and Upper Crystal Springs Reservoir watershed source water assessments were completed by SFPUC. The assessments are available for review at the Division of Drinking Water (DDW) – San Francisco District Office.

DDW–San Francisco District ► (510) 620-3474

Health and Education Information

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

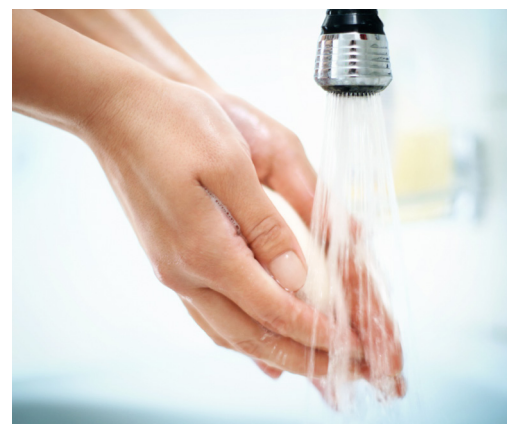
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick 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 stormwater 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 stormwater 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 stormwater 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.

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 Safe Drinking Water Hotline.

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; persons 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 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 USEPA Safe Drinking Water Hotline.



USEPA Safe Drinking Water Hotline ► (800) 426-4791

Conserving Water Around the House and Yard



Wash Full Loads of Clothes & Dishes

Washer: saves 15–45 gallons per load
Dishwasher: saves 5–15 gallons per load



Install a High-Efficiency Toilet

Saves 19 gallons per person/day



Fix Leaks

Even a small leak can waste up to 6,300 gallons of water per month!



Adjust Sprinkler Heads

Saves 12–15 gallons each time you water



Use Mulch

Saves 20–30 gallons per 1000 sq. ft. each time



Drought Resistant Trees & Plants

Saves 30–60 gallons per 1000 sq. ft. each time

Important Information about your Water Quality

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. The District 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 two minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. 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 or at: www.epa.gov/safewater/lead

Total Coliform Bacteria (Federal Revised Total Coliform Rule)

All water systems are required to comply with the state Total Coliform Rule. Effective April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule. The new federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and *E. coli* bacteria). The U.S. EPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.

While *E. coli* was detected in a single sample in 2020, repeat samples at the same location and in the vicinity were analyzed at two independent certified laboratories. All repeat samples were found to be free from total coliform and *E. coli*.

After this single event, a detailed internal review was conducted and it is believed this *E. coli* detection was due to sampling or laboratory error. The District has reviewed and refined its sampling procedures in order to improve the reliability and accuracy of its water quality data. The District continues to provide high quality drinking water that meets or exceeds state and federal drinking water standards.

Hardness

Water hardness is determined mainly by the presence of calcium and magnesium salts. Although hard water does not pose a health risk, it may be considered undesirable for other reasons. Some benefits of water softening are reductions in soap usage, longer life for water heaters and a decrease in encrustation of pipes. Some disadvantages of water softening are an increase in sodium intake (depending on type of water softener used), an increase in maintenance and servicing requirements and potential adverse effects on salt-sensitive plants and landscaping. To convert hardness from ppm to grains per gallon, divide by 17.1. A hardness scale is provided for your reference.

Hardness Classification	Grains per Gallon	mg/L or ppm
Soft	less than 1.0	less than 17.1
Slightly hard	1.0–3.5	17.1–60
Moderately hard	3.5–7.0	60–120
Hard	7.0–10.5	120–180
Very hard	over 10.5	over 180

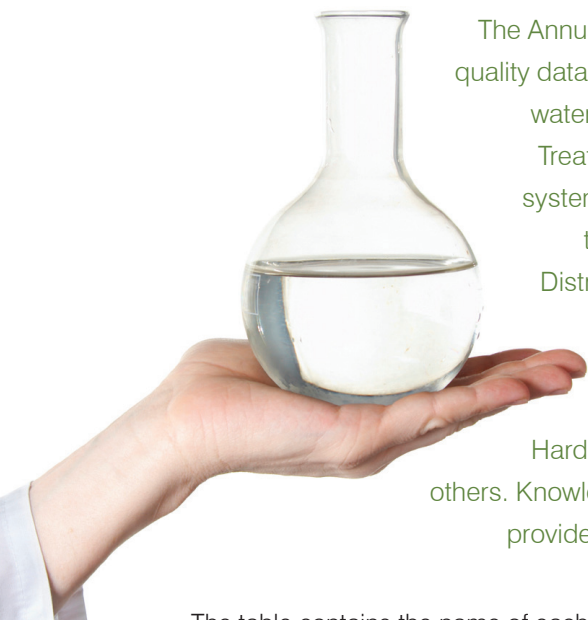
Service Area Map

District service areas (designated in green) include the City of Half Moon Bay and unincorporated areas of San Mateo County including: El Granada, Miramar and Princeton by the Sea.



2020

WATER QUALITY TEST RESULTS



The Annual Water Quality Report contains water quality data tables that show the results of treated water from the Nunes and Denniston Water Treatment Plants as well as the distribution system. In addition, the District monitors the treatment process 24 hours a day. The District's water quality monitoring program includes many compounds or water quality parameters that are not regulated or harmful, such as Hardness, Alkalinity, Magnesium and many others. Knowledge of these parameters allows us to provide you with the best treatment available.

The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG/PHG), the range of samples detected from lowest to highest, and the usual sources of the constituent. To help you understand these tables, we have included definitions and notes on the following page.

Some data—although representative—were collected prior to 2020, as the State Water Board requires monitoring for some constituents less than once per year since the concentrations of these constituents do not vary frequently or significantly.

More information ►

For more information about this report or the District's water quality monitoring program contact: James Derbin, Superintendent, at (650) 726-4405.



PRIMARY DRINKING WATER STANDARDS (PUBLIC HEALTH RELATED STANDARDS)									
PARAMETER	Unit	MCL, (AL), or [MRDL]	PHG, (MCLG), or [MRDLG]	Nunes WTP		Denniston WTP		Typical Sources*	
				Average	Range	Average	Range		
SOURCE WATER SAMPLING									
INORGANIC CHEMICALS									
Aluminum	ppm	1	0.6	ND	ND–0.139	ND	ND–0.064	3, 4	
Fluoride	ppm	2	1	0.2	ND–0.38	0.21	0.16–0.28	3, 5, 6	
Turbidity	NTU	TT _a	NA	0.02	0.02–0.09	0.04	0.01–0.19	2	
Nitrate (NO ₃) as Nitrogen (N)	ppm	10	10	0.4	0.4	ND	ND	3, 18, 19	
DISINFECTION BYPRODUCT PRECURSOR									
Total Organic Carbon	ppm	TT	NA	1.2	0.8–1.7	1.9	1.0–3.6	8	
DISTRIBUTION SYSTEM SAMPLING									
MICROBIOLOGICAL				Average		Range		Typical Sources*	
Total Coliform	#pos/month	>1	(0)	0.17		ND–1		20	
<i>Escherichia coli</i> (<i>E. coli</i>)	#pos/month	(0) _b	(0)	0.08		ND–1		21	
DISINFECTION RESIDUAL				Average		Range			
Disinfectant Residual as Chlorine (Cl ₂)	ppm	[4]	[4]	0.94		0.15–1.51		1	
DISINFECTION BYPRODUCTS				Highest LRAA		Range			
Total Trihalomethanes (THMs)	ppb	80	NA	71		19–76		7	
Total Haloacetic Acids (HAAs)	ppb	60	NA	23		9.2–24		7	
LEAD AND COPPER (2018 AT-THE-TAP SAMPLING)				90th percentile		Samples above AL			
Lead (47 Sample Sites) _{c,d}	ppb	(15)	0.2	1.4		0		3, 15, 17	
Copper (47 Sample Sites) _c	ppm	(1.3)	0.3	0.06		0		3, 15, 16	
SECONDARY DRINKING WATER STANDARDS (AESTHETIC STANDARDS)									
PARAMETER	Unit	MCL		Average	Range	Average	Range	Typical Sources*	
Aluminum	ppb	200		ND	ND–139	ND	ND–64	3, 4	
Chloride	ppm	500		19	10–30	41	35–47	9, 10, 12	
Manganese	ppb	50		2	ND–21	ND	ND	10	
Odor - Threshold	T.O.N.	3		1	1	1	1	11	
Specific Conductance	μS/cm	1600		235	112–363	336	315–376	12, 14	
Sulfate	ppm	500		19	19	9	9	9, 10, 13	
Total Dissolved Solids	ppm	1000		136	65–210	202	180–230	9, 10	
UNREGULATED PARAMETERS									
PARAMETER	Unit	NL	Nunes WTP		Denniston WTP		Distribution System		
			Average	Range	Average	Range	Average	Range	
Boron	ppb	1000	ND	ND	ND	ND	NA	NA	
Chlorate _c	ppb	800	213	180–230	380	380	387	290–660	
Molybdenum _c	ppb	NS	NA	NA	2	2	0.3	ND–1.1	
Strontium _c	ppb	NS	43	30–50	57	57	49	37–71	
OTHER WATER QUALITY PARAMETERS									
PARAMETER	Unit	MCL		Average	Range	Average	Range	Average	Range
Alkalinity	ppm	NS		58	16–113	99	87–112	NA	NA
Calcium	ppm	NS		17	5–35	24	22–26	NA	NA
Hardness (as Calcium Carbonate)	ppm	NS		61	17–127	92	85–98	NA	NA
Magnesium	ppm	NS		5	1–10	7.6	7.0–8.7	NA	NA
pH	no unit	NS		8.0	7.5–8.6	8.0	7.5–8.6	8.5	7.8–9.6
Potassium	ppm	NS		0.1	ND–0.7	0.1	ND–0.7	NA	NA
Sodium	ppm	NS		22	15–25	34	30–42	NA	NA

Reading the Water Quality Test Results Chart

DEFINITIONS OF KEY TERMS

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. MCLs are established by USEPA and the State Water Board.

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 USEPA.

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.

Notification Level (NL). Notification levels are health-based advisory levels established by the State Water Board for chemicals in drinking water that lack MCLs. When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

Primary Drinking Water Standard (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.

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

Total Organic Carbon (TOC). TOC has no health effects. However, TOC provides a medium for the formation of disinfection byproducts including trihalomethanes and haloacetic acids. Drinking water containing disinfection byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer.

Turbidity. Turbidity has no health effects. It is a measure of the clarity of the water and is monitored because it is a good indicator of water quality and the effectiveness of a filtration system. The MCL for turbidity is based on the TT. For unfiltered water, the MCL is 5.0 NTU. For filtered water, the MCL is ≤ 0.3 NTU 95% of the time.

Waiver. State permission to decrease the monitoring frequency for a particular contaminant.

ABBREVIATIONS

#pos	Number of positive results
DDW	Division of Drinking Water
NA	Not applicable
ND	Not detected
NS	No standard established
NTU	Nephelometric turbidity unit
ppb	Parts per billion (micrograms per liter)
ppm	Parts per million (milligrams per liter)
$\mu\text{S/cm}$	MicroSiemens per centimeter
LRAA	Locational running annual average
rTCR	Revised total coliform rule
SFPUC	San Francisco Public Utilities Commission
TON	Threshold odor number
USEPA	United States Environmental Protection Agency

* TYPICAL SOURCES IN DRINKING WATER

- 1 Drinking water disinfectant added for treatment
- 2 Soil runoff
- 3 Erosion of natural deposits
- 4 Residue from some surface water treatment processes
- 5 Water additive that promotes strong teeth
- 6 Discharge from fertilizer and aluminum factories
- 7 By-product of drinking water disinfection
- 8 Various natural and man-made sources
- 9 Runoff from natural deposits
- 10 Leaching from natural deposits
- 11 Naturally-occurring organic materials
- 12 Seawater influence
- 13 Industrial wastes
- 14 Substances that form ions when in water
- 15 Internal corrosion of household plumbing systems
- 16 Leaching from wood preservatives
- 17 Discharges from industrial manufacturers
- 18 Runoff and leaching from fertilizer use
- 19 Leaching from septic tanks and sewage
- 20 Naturally present in the environment
- 21 Human and animal fecal waste

TABLE NOTES

- a For filtered water, the MCL is < 0.3 NTU 95% of the time. This standard was met 100% of the time.
- b MCL is based on 6 trigger levels determined by the federal rTCR. There was no MCL exceedance in 2020.
- c Data collected prior to 2020.
- d In 2020, there were no requests for lead testing in schools.



A Message to Customers Regarding COVID-19

Until the local population has built up immunity, this virus is expected to continue to impact public health.

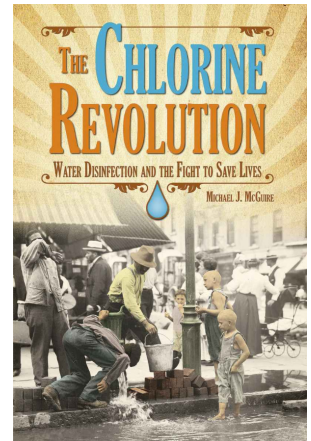
According to the CDC, the COVID-19 virus has not been detected in drinking water anywhere in the U.S. Coastside County Water District's water is safe for drinking, cooking, and maintaining personal hygiene during the COVID-19 pandemic.

The District's water treatment processes at its two treatment plants include filtration and disinfection. These treatment processes are effective in removing and inactivating viruses. According to the U.S. EPA, there is no evidence that COVID-19 survives the disinfection process.

For disinfection, the District uses chlorine in the form of liquid sodium hypochlorite (NaOCl). Chlorine is a well understood and established disinfectant used for treating drinking water. It is used for the inactivation of pathogens and has made a significant contribution toward advancing public health by preventing the spread of waterborne disease.

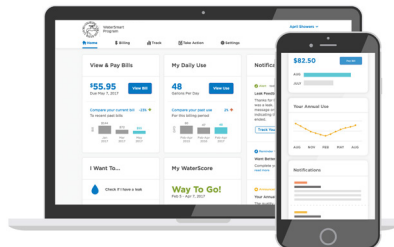
The District is committed to delivering safe and reliable water service for all our customers to support the public health of the Coastside community.

To learn more about the use of chlorine in drinking water treatment, District staff recommend a book titled *The Chlorine Revolution: Water Disinfection and the Fight to Save Lives* by Michael J. McGuire. The book was published by the American Water Works Association (AWWA) on October 16, 2013.



WaterSmart

Coastside County Water District recently partnered with WaterSmart Software to offer customers access to a free web portal.



- View hourly and daily water usage.
- Set up high usage alerts.
- Compare your water usage with similar homes in your neighborhood.

To register for the free web portal, go to the WaterSmart sign up page. Make sure you have your water account, email, and zip code.

<https://coastsidewater.watersmart.com>

Questions? email watersmart@coastsidewater.org or call (650) 726-4405.

Connect With Us!

The District encourages participation in the decisions affecting the community's drinking water. Regular Board meetings occur at 7:00 p.m. on the second Tuesday of each month in the District's Board Room at 766 Main Street, Half Moon Bay, CA 94019. Videos of past Board meetings are available at <https://www.coastsidewater.org/board-activities/board-meeting-videos.html>, and are also broadcast on Pacific Coast Television. See link for more information.



If you have any questions or desire additional information about this report or water quality, contact James Derbin, Superintendent, at (650) 276-0129.

To receive communications from the District about current events and news, sign up for our E-newsletter at www.coastsidewater.org

To communicate with Customer Service and Utility Billing (650) 726-4405 | customerservice@coastsidewater.org